MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY
MUSKOGEE COUNTY, OKLAHOMA
ODEQ PERMIT NO. 3551020

TIER III PERMIT MODIFICATION
LANDFILL EXPANSION

VOLUME 3 OF 4

Prepared for

Waste Management of Oklahoma, Inc.

October 2023

LICENSED PROFESSIONAL ENGINEER
JONATHAN V. QUEEN
24456
OKLAHOMA

10/13/2023

Prepared by

Weaver Consultants Group, LLC
CA 3804 PE 06/30/2025
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0086-364-11-19

MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY MUSKOGEE COUNTY, OKLAHOMA ODEQ PERMIT NO. 3551020

TIER III PERMIT MODIFICATION LANDFILL EXPANSION

VOLUME 3 OF 4

CONTENTS

MUSKOGEE COMMUNITY
RECYCLING AND DISPOSAL FACILITY
MUSKOGEE COUNTY, OKLAHOMA
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APPENDIX G

LANDFILL GAS MANAGEMENT PLAN

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CONTENTS

LICENSED PROFESSIONAL ENGINEER
MATT K. STUTZ
22011
OKLAHOMA
10/13/2023

Tables

1 INTRODUCTION

This Landfill Gas (LFG) Management Plan has been prepared consistent with Oklahoma Administrative Code (OAC) 252:515-15 requirements pertaining to the control of explosive gases from the Muskogee Community Recycling and Disposal Facility (Muskogee Community RDF). The site currently has an approved LFG monitoring system which includes nine (9) existing LFG monitoring probe locations. The approved LFG monitoring system in this document refers to gas monitoring probes currently installed along the permit boundary of the Muskogee Community RDF. As a result of the proposed landfill expansion, twenty-six (26) new LFG monitoring probes will be installed, and nine (9) existing LFG monitoring probes will remain in-place.

Section 2 of this plan describes the perimeter LFG monitoring system, and general practices and procedures for performing monitoring and maintenance of the landfill's perimeter LFG monitoring system. This section also includes an overview of the monitoring and maintenance procedures for the landfill's onsite structures. Finally, Section 2 includes an overview of the recordkeeping and reporting requirements contained within OAC 252:515-15.

Section 3 describes an action plan for the Muskogee Community RDF if explosive gases are detected above Oklahoma Department of Environmental Quality (ODEQ) compliance levels at either the perimeter LFG monitoring probes or within on-site structures.

Section 4 describes the landfill gas collection and control system (GCCS).

2 METHANE GAS MONITORING

Compliance with OAC 252:515-15 requires landfills to implement a routine methane monitoring program to verify that (1) methane concentrations do not exceed 25 percent of the lower explosive limit (LEL), or 1.25% methane by volume in air, within facility structures (excluding gas control or recovery system components) located inside the permit boundary and (2) the concentration of methane does not exceed the LEL, or 5% methane by volume in air for methane at the facility permit boundary.

The purpose of this section is to provide guidelines for the evaluation of LFG migration at the points of compliance. This will be verified by monitoring LFG concentrations at the facility permit boundary and within the onsite structures.

2.1 Perimeter Monitoring

2.1.1 Perimeter LFG Monitoring Network

The current ODEQ approved LFG monitoring probe network includes a total of nine (9) existing LFG monitoring probes located along the existing permit boundary as shown on Figure G-1-1 in Appendix G-1. These 9 existing LFG monitoring probes will remain in-place as no changes are proposed to the permitted landfill area.

Table 1 summarizes the LFG monitoring probes that will remain in-place, and the probes that will be added as a result of the proposed landfill expansion. The interprobe spacing of the proposed new probes will be approximately 500 feet per regulation 252:515-15-4(b)(1).

The new LFG monitoring probes will be installed prior to the development of the western landfill unit.

Table 1
List of Existing and Proposed LFG Monitoring Probes

Existing Probes to Remain In-Place	Proposed Probe Locations to Be Added
GP-1R	GP-10
GP-2R	GP-11
GP-3	GP-12
GP-4R	GP-13
GP-5R	GP-14
GP-6	GP-15
GP-7	GP-16
GP-8	GP-17
GP-9	GP-18
	GP-19
	GP-20
	GP-21
	GP-22
	GP-23
	GP-24
	GP-25
	GP-26
	GP-27
	GP-28
	GP-29
	GP-30
	GP-31
	GP-32
	GP-33
	GP-34
	GP-35

2.1.2 Existing LFG Monitoring Probes

Locations of the existing LFG monitoring probes are shown on Figure G-1-1 in Appendix G-1. The as-built boring logs for the existing LFG monitoring probes are included in Appendix G-2.

The proposed landfill expansion includes a separate unit to the west of the permitted landfill area. No changes are proposed to the permitted landfill area. Therefore, no change is proposed to the currently approved perimeter LFG monitoring network.

2.1.3 Proposed LFG Monitoring Probes

As part of the proposed landfill expansion, twenty-six (26) LFG monitoring probes designated as GP-10 through GP-35 as listed in Table 1 will be installed around the new permit boundary prior to the development of the western landfill unit. The new LFG monitoring probes will be installed in accordance with applicable rules in OAC 252:515-7-3. After evaluating the site's soil, hydrogeologic, and hydraulic conditions surrounding the facility, the new LFG monitoring probes are designed to be single-completion probes. At a minimum, the new probes will extend from ground surface down to the proposed lowest bottom of waste elevation.

The single-completion probe design was chosen since it assures that all soil layers are monitored, reducing the possibility of undetected gas monitoring through an unsaturated zone. In the event that LFG migration is detected, and knowledge of the specific zone of migration is needed for development of the remediation plan, additional temporary probes may be installed next to the original probe and within the suspected zones of migration.

The new LFG monitoring probes will be installed by an Oklahoma-licensed monitoring well installer. The new boreholes will be logged by a geologist or engineer. Within 90 days of installation, detailed as-built drawings of the probes will be submitted to the ODEQ. Please refer to Figure G-1-3 for the proposed LFG monitoring probe detail.

2.1.4 Monitoring Procedures

Methane concentrations will be measured using a portable gas detection device pre-calibrated against reference methane standard prior to the beginning of each sampling event. The portable gas detection device will be equipped with a suction sampling line. The sampling line will be connected to the top of each probe to enable gas samples to be drawn directly into the monitoring instrument without diluting the sample. The instrument will give a direct reading of the methane concentration in either percent of the LEL or percent methane by volume. A qualified landfill representative or a qualified consultant will conduct compliance monitoring. The monitoring equipment used will be maintained and calibrated in accordance with the manufacturer's recommended procedures prior to use.

Monitoring data will be recorded on the Landfill Gas Monitoring Report (LGMR) form in Appendix G-3, or a similar form, and maintained in the Site Operating Record.

If LFG monitoring determines that methane has been detected in concentrations exceeding the regulatory threshold, notification procedures, as described in Section 3.2, and remediation procedures, as described in Section 3.3, will be implemented and followed.

2.1.5 Maintenance Procedures

During the LFG monitoring events, the sampler will inspect the integrity of the monitoring probes. The sampler will record pertinent information on the LGMR form (Appendix G-3) or similar form.

If damage or excessive wear to the monitoring probe is observed, it will be reported to the landfill manager and the monitoring probe will be repaired. If it is not possible to repair the monitoring probe and the damage could potentially affect the accuracy of future monitoring results, the monitoring probe may need to be abandoned and replaced with a new monitoring probe, with approval from the ODEQ.

2.2 Facility Structure Monitoring

2.2.1 Monitoring Procedures

Onsite enclosed structures used for human occupation will be equipped with a continuous LFG monitor/alarm that provides an audible alarm if methane concentrations exceed, at a minimum, 25 percent of the LEL for methane (or 1.25 percent methane by volume). During each quarterly sampling event, the continuous monitors will be checked per manufacturer recommendations. The verification will be documented on the LGMR form.

If methane concentrations exceeding the regulatory thresholds are detected within a structure, notification procedures, as described in Section 3.2, and remediation procedures, as described in Section 3.3, will be implemented and followed. If existing enclosed structures are removed from the site to allow for the continued development of the landfill, the monitors/alarms installed in these structures will be decommissioned.

2.2.2 Maintenance Procedures

The continuous LFG monitors/alarms will be maintained in accordance with the manufacturer's recommendations and specifications. In addition, on a quarterly basis the monitors/alarms will be inspected to ensure they are properly installed and connected to power.

2.3 Recordkeeping/Reporting

Records of LFG monitoring, whether for routine monitoring, notification, or remediation purposes, will be maintained and placed in the Site Operating Record. The LFG monitoring probes and alarms will be monitored at a minimum of quarterly, and the results will be placed in the Site Operating Record.

3 METHANE GAS EXCEEDANCE ACTION PLAN

3.1 Exceedance Response Measures

This action plan has been prepared consistent with OAC 252:515-15-5 in order to protect human health in the event that concentrations of methane exceed ODEQ compliance thresholds either in facility enclosed structures within the permit boundary or at the LFG monitoring probe. The appropriate emergency response is different for each situation; therefore, the plan will address the situations for buildings and probes separately.

These action plans will be implemented upon the initial exceedance of a perimeter monitoring probe or enclosed structure monitor.

3.1.1 Initial Action

The initial action in the event methane is detected at levels above regulatory threshold is to immediately take necessary steps to protect human health. The specific response depends on the circumstances of the situation.

Building/Structures. If a monitoring device in a facility within the permit boundary is triggered or if continuous LFG monitor/alarm equipment indicates that 25 percent of the LEL (1.25 percent methane by volume) has been exceeded, the building is to be immediately evacuated of all personnel and the Landfill Manager will be notified. Personnel (except for qualified monitoring personnel) will not be allowed to reenter the affected structure until additional measures are taken. Notification procedures will be implemented as described in Section 3.2.

Perimeter Monitoring Probes. If a level above the regulatory threshold of methane is detected at the permit boundary in one of the monitoring probes, the Landfill Manager will be notified immediately. The immediate emergency response measure will be for the Landfill Manager to determine if any nearby buildings (including off site structures) are at risk and if evacuation of the building(s) should be requested. Notification procedures will be implemented as described in Section 3.2.

3.2 Notification Procedures

When methane levels above the regulatory threshold have been accurately detected, notification will be made to ODEQ. The site will also submit a written report to ODEQ describing the methane gas levels detected and the steps taken to protect human health. This report will be submitted to ODEQ within seven days following detection.

3.3 Remediation Plan

Once methane levels above regulatory threshold has been accurately detected in the facility buildings/structures or in one or more LFG monitoring probes, a specific remediation plan will be submitted to the ODEQ within 30 days of detection, describing the nature and extent of the problem and the proposed remedy. The remediation plan will then be implemented within 60 days of detection or as approved by the ODEQ. The ODEQ will be promptly notified in writing that the remediation plan has been implemented and a copy will be placed in the site operating record. However, the ODEQ may establish an alternate schedule.

The initial remediation action will be an investigation of the cause of the methane levels. The remediation plan may include some or all of the following elements, depending on the circumstances:

- Bar-hole probe or hydropunch testing in the vicinity of the impacted monitoring probe
- Sampling and laboratory analysis of gas samples collected from the monitoring probe to determine the source of the gas and the concentration of methane and other compounds
- A gas analysis to determine the source
- Additional LFG monitoring
- Adjustments to nearby LFG extraction wells

Using accumulated data, an assessment will be made to determine an appropriate course of action to mitigate the LFG migration, if needed. Such action may vary with the specific incident, but may include (and are not limited to) increasing the vacuum or re-tuning the existing LFG collection and control system (GCCS) and/or installation of the following:

- Passive vents
- Cut-off trenches
- Expansion to the existing GCCS

4 LFG CONTROL

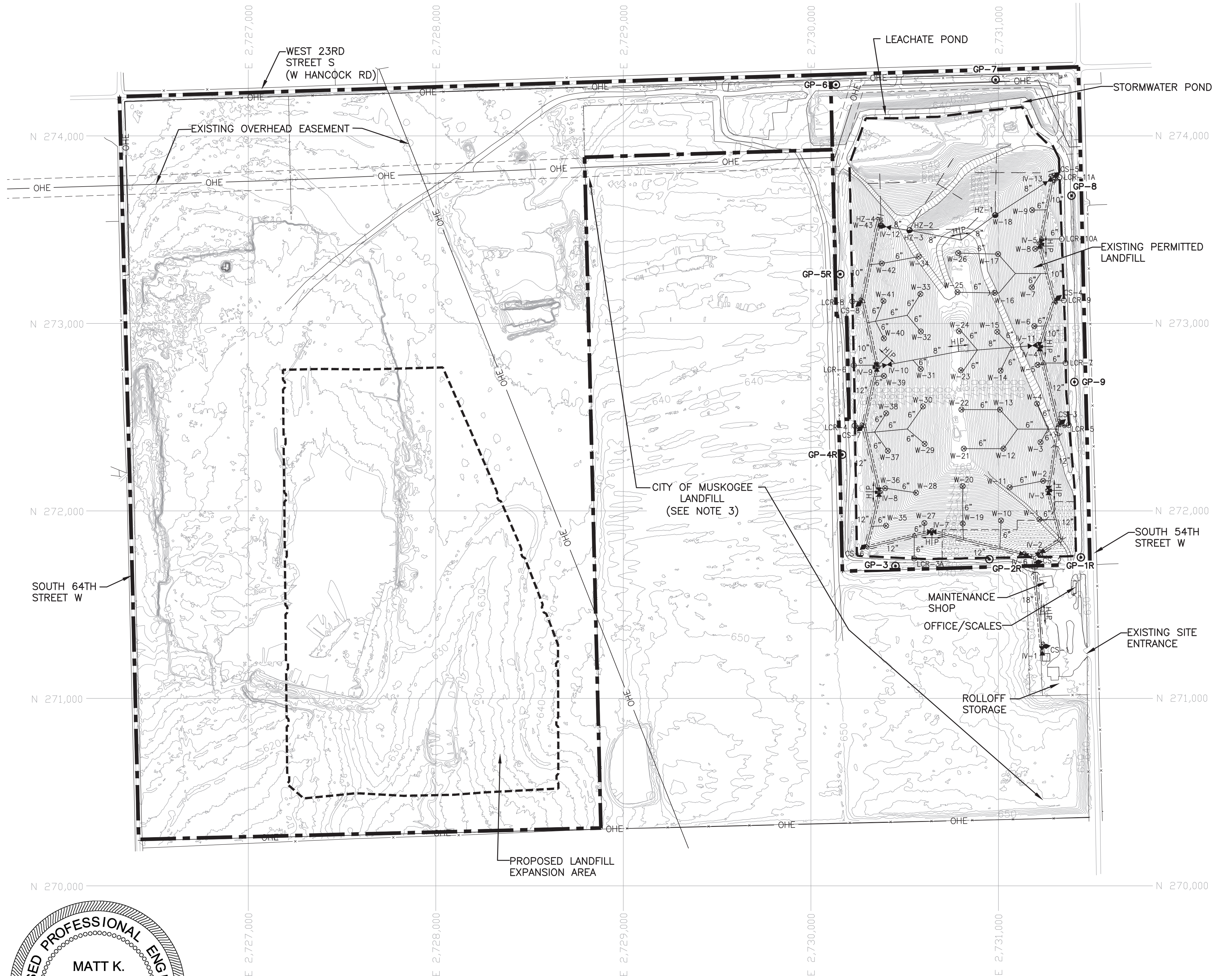
4.1 LFG Collection and Control System

The Muskogee Community RDF is currently installing an initial landfill gas (LFG) collection and control system (GCCS) at the site. The initial GCCS consists of vertical LFG extraction wells, horizontal LFG collectors, a piping network, condensate management system, and LFG control facility as shown in Figure G-1-1 on Appendix G-1. The gas collection piping system conveys the extracted LFG from the collection points (i.e., vertical wells and horizontal LFG collectors) to the flare facility.

The initial GCCS will be expanded as needed to control LFG and in accordance with 40 CFR 60 New Source Performance Standards, Subpart XXX and NESHAP 40 CFR 63 Subpart AAAA for MSW Landfills. The installation of future GCCS components is addressed in the site's NSPS/NESHAP GCCS Design Plan.

APPENDIX G-1

LANDFILL GAS MONITORING PROBE LOCATIONS AND DETAIL



LEGEND

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- N 273,000 STATE PLANE COORDINATE GRID
- 640 EXISTING CONTOUR
- OHE EXISTING OVERHEAD EASEMENT
- IN-PLACE FINAL COVER
- GP-5R EXISTING LANDFILL GAS MONITORING PROBE
- W-1 LFG EXTRACTION WELL
- LFG COLLECTION PIPING
- CS-1 CONDENSATE SUMP
- IV-1 ISOLATION VALVE
- LCR-5 LCR CONNECTION
- REMOTE WELLHEAD
- HZ-1 HORIZONTAL LFG COLLECTOR
- BLIND FLANGE
- HDPE CAP
- ROAD CROSSING
- CONDENSATE FORCEMAIN
- AIR SUPPLY LINE
- CONDENSATE/AIR VALVE
- AIR STUB

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. PERMIT BOUNDARY AND EXISTING OVERHEAD EASEMENTS WERE REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY WEAVER CONSULTANTS GROUP, SIGNED BY MICHAEL D BYTNER, LLS# 1986.
5. GCCS SHOWN REPRESENTS DESIGN LOCATIONS PROVIDED BY BIGGS & MATHEWS ENVIRONMENTAL, INC.

LICENSED PROFESSIONAL ENGINEER
MATT K. STUTZ
22011
OKLAHOMA
10/13/2023

- [ ] DRAFT
- [x] FOR INFORMATIONAL PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 10/2023
FILE: 0086-364-11
CAD: IIIG-1-1 PROBE LAYOUT.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: JVQ

Weaver Consultants Group
CA 3804 PE – 06/30/2025

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

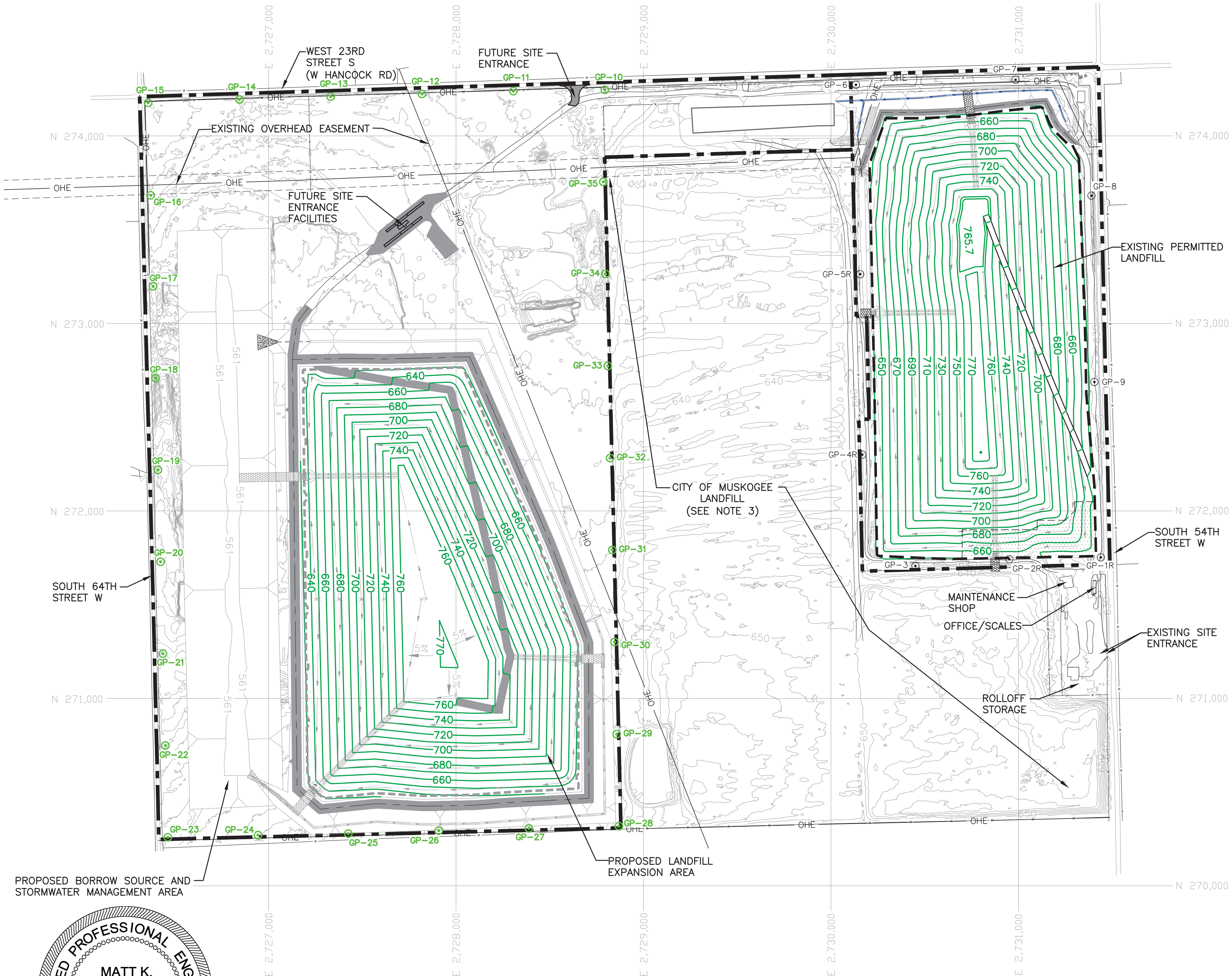
NO.	DATE	DESCRIPTION

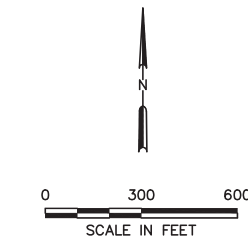
TIER III PERMIT MODIFICATION
EXISTING LFG PROBE LAYOUT

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

WWW.WCGRP.COM

FIGURE G-1-1





LEGEND

	EXISTING PERMIT BOUNDARY
	PROPOSED PERMIT BOUNDARY
	PERMITTED LIMITS OF WASTE
	PROPOSED LIMITS OF WASTE
N 273,000	STATE PLANE COORDINATE GRID
640	EXISTING CONTOUR
	IN-PLACE FINAL COVER
561	BORROW AREA CONTOUR
770	FINAL COVER CONTOUR
	PROPOSED DRAINAGE SWALE
	PROPOSED DRAINAGE CHUTE
	PROPOSED DRAINAGE CHANNEL
	RIPRAP/GABIONS
OHE	EXISTING OVERHEAD EASEMENT
GP-5R	EXISTING LANDFILL GAS MONITORING PROBE
GP-10	PROPOSED LANDFILL GAS MONITORING PROBE

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. PERMIT BOUNDARY AND EXISTING OVERHEAD EASEMENTS WERE REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY WEAVER CONSULTANTS GROUP, SIGNED BY MICHAEL D BYTNER, LLS# 1986.
5. PERMITTED FINAL COVER CONTOURS AND DRAINAGE REPRODUCED FROM THE TIER I PERMIT MODIFICATION PREPARED BY WEAVER CONSULTANTS GROUP, LLC IN NOVEMBER 2021 AND APPROVED BY ODEQ ON JANUARY 24, 2022.
6. LOCATIONS OF PROPOSED LFG MONITORING PROBES ARE APPROXIMATE. ACTUAL LOCATIONS MAY VARY BASED ON FIELD CONDITIONS AT THE TIME OF INSTALLATION.

LICENSED PROFESSIONAL ENGINEER
MATT K. STUTZ
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OKLAHOMA
10/13/2023

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 10/2023
FILE: 0086-364-11
CAD: G-1-2 PROPOSED PROBE.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: JVQ

Weaver Consultants Group
CA 3804 PE – 06/30/2025

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

TIER III PERMIT MODIFICATION
PROPOSED LFG PROBE LAYOUT

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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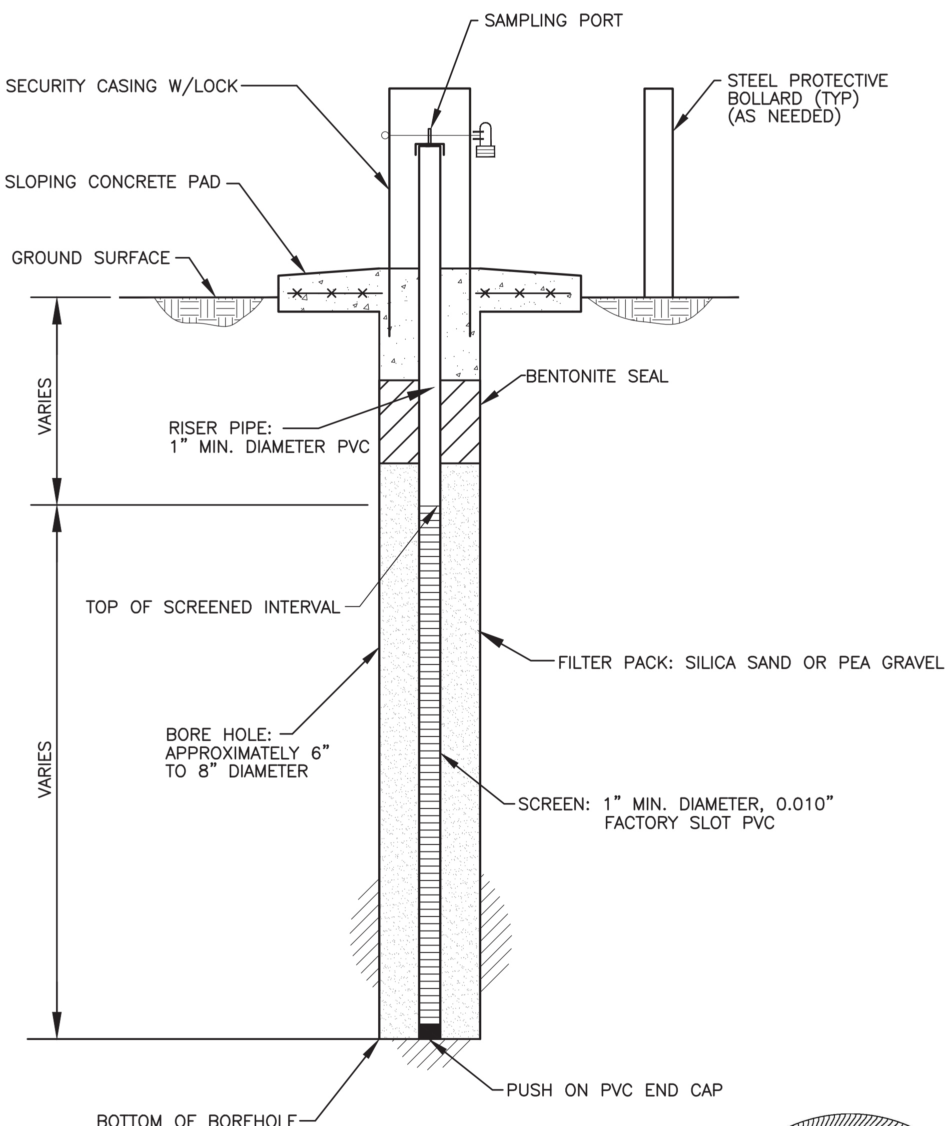
FIGURE G-1-2

O:\0086\364\EXPANSION 2022\APPENDIX G\G-1-2 PROPOSED PROBE LAYOUT.dwg, jpuhr, 1:2



LFG MONITORING PROBE
NTS
LFG1
G-1-2 G-1-3

NOTES:

1. ALL SIZES AND DIMENSIONS ARE APPROXIMATE.
2. ACTUAL LOCATION AND DESIGN OF LFG MONITORING PROBE WILL BE DETERMINED BASED ON FIELD CONDITIONS AT THE TIME OF INSTALLATION.

LICENSED PROFESSIONAL ENGINEER
MATT K. STUTZ
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OKLAHOMA
10/13/2023

TIER III PERMIT MODIFICATION
LFG PROBE DETAIL

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

Weaver Consultants Group
CA 3804 PE – 06/30/2025

DRAWN BY: JDW	DATE: 10/2023	FILE: 0086-364-11
REVIEWED BY: JVQ	CAD: G-1-3 PROBE DET.dwg	FIGURE G-1-3

O:\0086\364\EXPANSION 2022\APPENDIX G\FIG G-1-3_GAS PROBE DETAIL.dwg, jpuhr, 1:2

APPENDIX G-2

PROPOSED AND EXISTING LFG MONITORING PROBE INFORMATION

Table 2-1[1]
Proposed LFG Monitoring Probe Information
Muskogee Community Recycling and Disposal Facility
Muskogee County, Oklahoma

Probe I.D.	Probe Ground Surface Elevation (ft-msl)[2]	Lowest Bottom of Waste Elevation (ft-msl)3	Proposed Probe Bottom Elevation (ft-msl)	Proposed Probe Boring Depth (ft-bsg)[4]
GP-10	626	616	616	10
GP-11	630	616	616	14
GP-12	632	616	616	16
GP-13	636	616	616	20
GP-14	636	616	616	20
GP-15	632	616	616	16
GP-16	636	616	616	20
GP-17	640	616	616	24
GP-18	646	616	616	30
GP-19	656	616	616	40
GP-20	648	616	616	32
GP-21	646	616	616	30
GP-22	630	616	616	14
GP-23	622	616	612	10
GP-24	614	616	604	10
GP-25	622	616	612	10
GP-26	618	616	608	10
GP-27	628	616	616	12
GP-28	642	616	616	26
GP-29	644	616	616	28
GP-30	644	616	616	28
GP-31	640	616	616	24
GP-32	638	616	616	22
GP-33	634	616	616	18
GP-34	632	616	616	16
GP-35	630	616	616	14

1 The information presented on this table is approximate. Actual elevations and dimensions will be determined based on site conditions at the time of installation.
2 Probe ground surface elevations based on January 24, 2022, aerial survey provided by Hydrex Environmental.
3 Lowest bottom of waste elevations based on Drawing 8 – Top of Liner Plan included in Permit Drawings of the proposed Tier III permit modification.
4 Although the bottom of waste is only few feet below the ground surface, a minimum of 10 feet of probe depth will be used and the probe depth is measured in feet below surface grade (ft-bsg).

EXISTING PROBE BORING LOGS

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: Muskogee Community Landfill, Muskogee, Ok., Gas Probe Installation, 101806.200	BORING NUMBER: GP-1R
DRILLING METHOD: Hollow-stem Auger	Sheet 1 of 1
SAMPLING METHOD: 5-foot Continuous Sampler	
DATUM:	ELEVATION: 631.75

	INI			STATIC
WATER LEVEL	dry			
TIME	15:33			
DATE	9/9/97			
CASING DEPTH				

DRILLING	START	FINISH
TIME	14:55	15:33
DATE	9/9/97	9/9/97

DRILL RIG: Truck-mounted CME 75

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

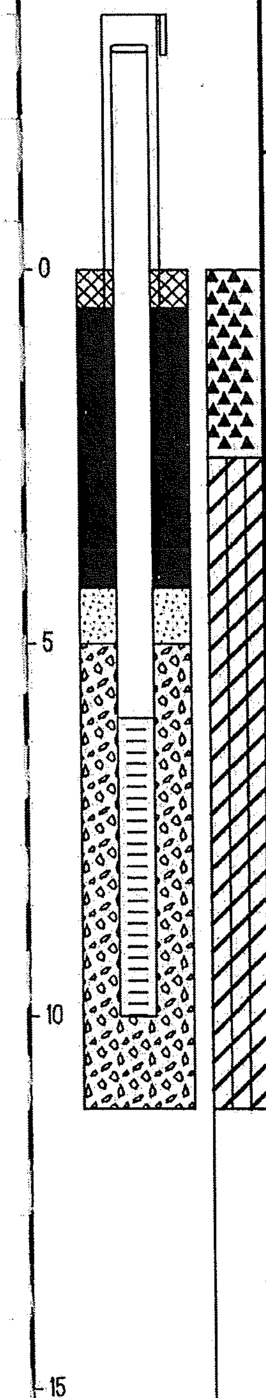
SURFACE CONDITIONS: At the edge of the haul road on east side of landfill. Approx. 2.5 feet of road gravel at surface

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–2.5		12.5		road gravel, asphalt (base of road determined by drilling characteristics, rock caught in base of sampler.)	CS							
2.5–4				CLAY, Silty (CL); moist moderate yellowish brown (10YR 5/4) and pale yellowish brown (10YR 6/2) mottling, massive, medium plasticity, some roots, iron oxide nodules								
4–9		100		: color change to dark yellowish orange (10YR 6/6) mottled with light olive gray (5Y 6/1), moist, crumbly, medium plasticity, iron oxide staining : black staining at 8.3 feet	CS							
9–11.25		100		: as above with blocky structure, black staining	CS							
11.25				TD @ 11.25 ft.								

DRILLING CONTRACTOR *Terracon Consultants, Inc.* *Tulsa, Oklahoma*

LOGGED BY *D. G. Smith* CHECKED BY

DATE *9/9/97* DATE



T.D. = 11.25 ft.

WELL No. GP-01R

Boring No X-Ref. GP-01R

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords N=272,752.00 E=2,731,440.00

Elevation Ground Level 631.75

Pin Elevation 632.11 Top of PVC Casing 634.80

Drilling Summary

Total Depth (ft): 11.25
Borehole Diameter (in): 6.62"
Casing Stickup Height (ft): 3.05
Driller: Terracon Consultants Inc.
Audie Thornburg, Lic. # 0135

Rig: Truck mounted CME 75
Bit (s): Hollowstem auger with Tooth Bit
Drilling Fluid: NONE

Protective Casing: 4-inch diameter anodized aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA: 0 - 11.25 feet	9/9/97	10: 35	9/9/97	11: 00
Casing: C_1 Prot.:	9/11/97		9/11/97	
C_2 1" PVC and S_1 1" PVC:	9/9/97	15: 56	9/9/97	15: 57
Filter Placement:	9/9/97	16: 04	9/9/97	16: 15
Development: N/A				
Bentonite Seal:	9/9/97	16: 15	9/9/97	16: 30
Cementing/pad:	9/11/97		9/11/97	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐
Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.46 - 1.54	C_1	635.21 -630.21
+3.05 - 6.00	C_2	634.80 -625.75
6.00 - 10.00	S_1	625.75 -621.75
-		-
-		-

Casing: C1 5-foot x 4-inch Dia. Anodized Aluminum with locking cap

Casing: C2 1-inch diameter PVC, Sch. 40, Flush Joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint 0.020-inch Slot

Grout Seal: Bentonite pellets to approx 0.5-feet from surface, concrete pad above seal

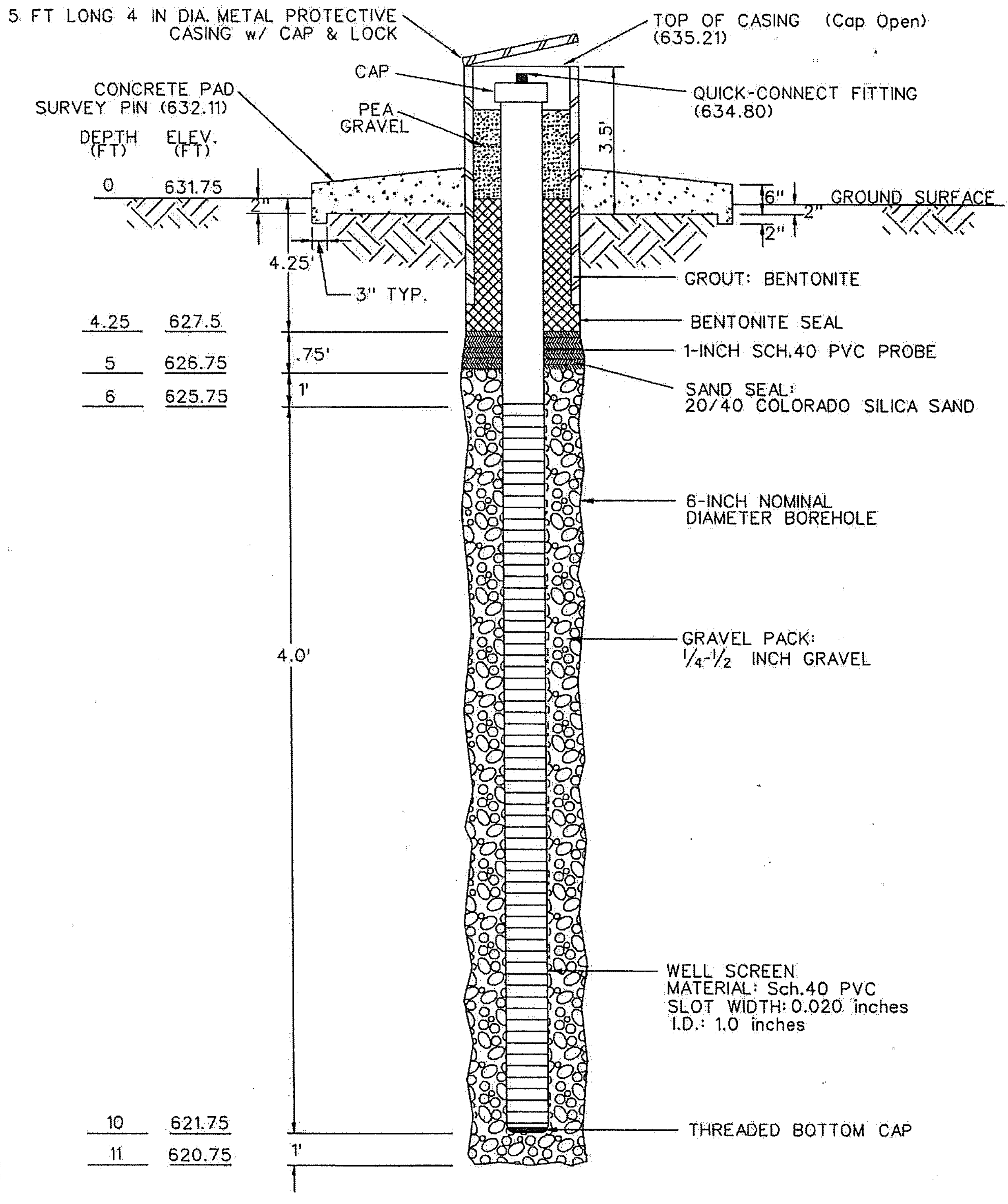
Bentonite Seal: 1/4-inch bentonite pellets, hydrated during placement

Filter Pack: 20/40 Colorado Silica Sand, filter pack immediately beneath bentonite seal 1/4-inch pea gravel, extending 1 foot above and below screened interval

Probe Comments

SITE NAME *Muskogee Community Landfill*
LOCATION *Muskogee, Oklahoma*

SUPERVISED BY *D. Smith* CHECKED BY
DATE *9/9/97*



GAS PROBE DETAIL

NOT TO SCALE

Rust Environment & Infrastructure Inc.

FILE: L:\ CADD\ SOLIDWST\ MUSKOGEE\ 101806\ CADD\ 1806GP02.DGN

TYPICAL CONSTRUCTION
GAS PROBE GP-01R

MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER
MONITORING WELL INSTALLATION SERVICES
MUSKOGEE, MUSKOGEE COUNTY, OKLAHOMA

SEPTEMBER 1997

101806.10300

WELL LOG NO. GP-2R

PROJECT: GP-2 Probe Replacement

CLIENT: Waste Management of Oklahoma

SITE: Waste Management Landfill
Muskogee, Oklahoma

LOCATION:

Latitude: 35.71883° Longitude: -95.43122°
Northing: 271742.07 Easting: 2730951.95

Surface Elev.: 643.8 (Ft.)

GRAPHIC LOG	DEPTH	Material	ELEVATION (Ft.)	INSTALLATION DETAILS	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE
		CLAY, brown		Concrete; Bentonite			
	5.0		639		5		
		CLAY, light brown		Sand 20/40	10		
					15		
	18.0		626	Screen 1" PVC 0.01 Slot			
		CLAY, mottled brown and gray			20		
					25		
	26.0		618	Well Cap			
		WEATHERED SHALE+, yellowish-brown					
	27.0		617				
		Boring Terminated at 27 Feet					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic
+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method:
Power Auger

Abandonment Method:

Notes:

WATER LEVEL OBSERVATIONS
Not Encountered While Drilling
Not Encountered After Boring

Terracon
9522 East 47th Place, Unit D
Tulsa, Oklahoma

Well Started: 5/29/2014	Well Completed: 5/29/2014
Drill Rig: ATV 945	Driller: TJ
Project No.: DD144505	

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-WELL DD144507.GPJ

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: Muskogee Community Landfill, Muskogee, Ok. Gas Probe Installation, 32788.100	DRILLING METHOD: Hollow-stem Auger	BORING NUMBER: GP-3
	SAMPLING METHOD: 5-foot Continuous Sampler	Sheet 1 of 2

	INI			STATIC	DRILLING START	DRILLING FINISH
WATER LEVEL					TIME	TIME
TIME					12:48	13:32
DATE					DATE	DATE
CASING DEPTH					2/24/95	2/24/95

DATUM: ELEVATION: 640.45

DRILL RIG: Truck-mounted CME

SURFACE CONDITIONS: Clay pad built on Silty clay fill on south (west) end of landfill

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–1				Fill (Clay pad)								
1–4		75		CLAY, Silty (fill); Dk. yellowish orange (10YR 6/6)	CS							
4–9		100		: iron oxide nodules	CS							
9–14		70		: moist, soft, color change @ 10.3 ft. from moderate yellowish brown (10YR 5/4) to dark yellwish orange (10YR 6/6) w/ abundant FeO_2 nodules, blocky structure	CS							
14–15				: as above	CS							

DRILLING CONTRACTOR Terracon Consultants, Inc. Tulsa, Oklahoma

LOGGED BY D. G. Smith CHECKED BY

DATE 2/24/95

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: Muskogee Community Landfill, Muskogee, Ok. Gas Probe Installation 32788.100	DRILLING METHOD: Hollow-stem Auger	BORING NUMBER: GP-3
	SAMPLING METHOD: 5-foot Continuous Sampler	Sheet 2 of 2

	INI			STATIC	DRILLING START	DRILLING FINISH
WATER LEVEL					TIME	TIME
TIME					12:48	13:32
DATE					DATE	DATE
CASING DEPTH					2/24/95	2/24/95

DATUM: ELEVATION: 640.45

DRILL RIG: Truck-mounted CME

SURFACE CONDITIONS: Clay pad built on Silty clay fill on south (west) end of landfill

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

DRILLING CONTRACTOR Terracon Consultants, Inc. Tulsa, Oklahoma

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
16												
17				: roots	CS							
18												
19												
20												
21				: wet at 21 ft. - still in fill	CS							
22				SILT, clayey (ML); base of fill (?) dark yellowish orange w/ iron oxide staining, FeO_2 nodules, MnO_2 staining along paleo-surfaces (fractures)								
23												
24				TD = 24 ft.								
25												
26												
27												
28												
29												
30												

LOGGED BY D. G. Smith CHECKED BY

DATE 2/24/95

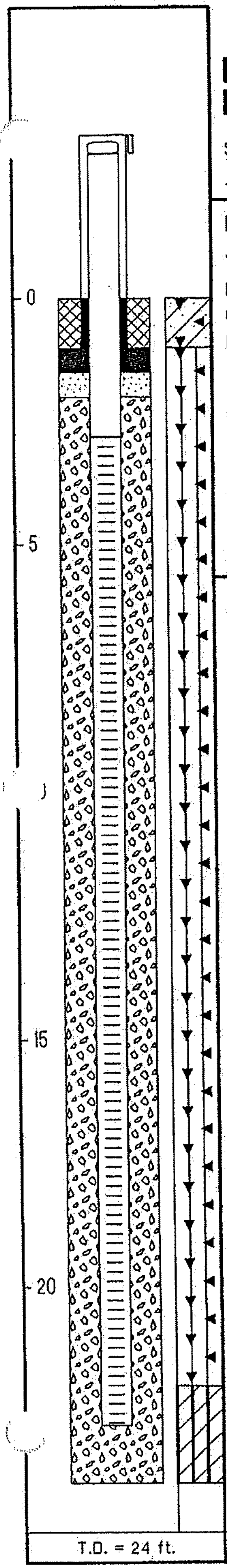
WELL No. GP-3

Boring No X-Ref. GP-3

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords E=2,730,451.54, N=271,705.52 Elevation Ground Level 640.45

Top of Casing 643.64



Drilling Summary

Total Depth (ft): 24
Borehole Diameter (in): 8.00
Casing Stickup Height (ft): 3.19
Driller: Terracon Consultants Inc.

Rig: Truck mounted CME
Bit (s): Hollowstem auger

Drilling Fluid: NONE w/ HSA

Protective Casing: 4-inch diameter Aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA:	2/24/95	12: 48	2/24/95	13: 32
Casing:				
C_1 Prot.:	4/14/95		4/14/95	
C_2 1" PVC:	2/24/95	13: 34	2/24/95	13: 36
S_1 1" PVC:	2/24/95	13: 36	2/24/95	13: 38
Filter Placement:	2/24/95	13: 40	2/24/95	13: 52
Development: N/A				
Bentonite Seal:	2/24/95	13: 52	2/24/95	13: 53
Cementing:	4/14/95		4/14/95	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐
Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.33 - 1.0	C_1	643.78 -639.45
+3.19 - 2.81	C_2	643.64 -637.64
2.81 - 22.81	S_1	637.64 -617.64
-		-
-		-

Casing: C1 4-inch diameter aluminum

Casing: C2 1-inch diameter PVC, Sch. 40, flush joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint
0.020-inch Slot

Filter Pack: 3/8 - 5/8-inch diameter pea gravel
2.0 - 24.0 ft.
20/40 (no. 3) Colorado Silica Sand
1.5 - 2.0 ft.

Sand Seal: Bentonite
concrete pad

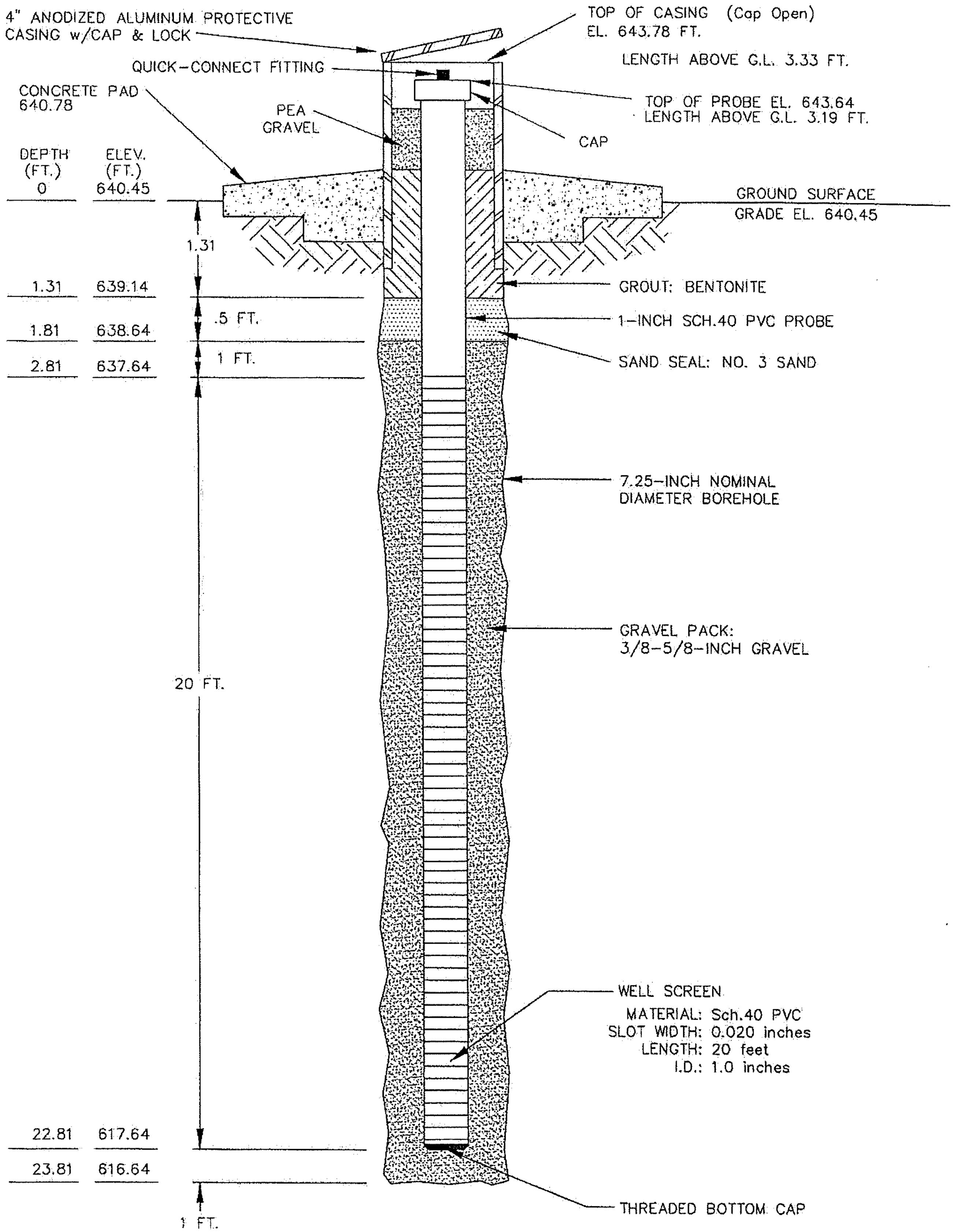
: 1/4-inch bentonite pellets

Probe Comments

SITE NAME *Muskogee Community Landfill*
LOCATION *Muskogee, Oklahoma*

WL 000-1

SUPERVISED BY *D. Smith* CHECKED BY
DATE *2/24/95*



NOT TO SCALE

RUST ENVIRONMENT & INFRASTRUCTURE

MAY 1995

Project: 32788.100

CADD File: 32788\200\GP1.DWG

MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER
Muskogee, Muskogee County, Oklahoma

GAS PROBE – GP-3

SOIL BOREHOLE LOG

SITE NAME AND LOCATION:	DRILLING METHOD: Hollow-stem Auger	BORING NUMBER: GP-4R
Muskogee Community Landfill Muskogee, Ok. Gas Probe Installation 101806.200	SAMPLING METHOD: 5-foot Continuous Sampler	Sheet 1 of 1
DATUM: ELEVATION: 641.98		

	INI			STATIC	DRILLING START	DRILLING FINISH
WATER LEVEL	dry				TIME 12:43	TIME 13:27
TIME	13:27					
DATE	9/9/97				DATE 9/9/97	DATE 9/9/97
CASING DEPTH						

DRILL RIG: Truck-mounted CME 75

SURFACE CONDITIONS: At the western edge of the haul road on west side of landfill, clay with some grass, flat

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–4		12.5		CLAY, Silty (CL); medium to soft Dark yellowish orange (10YR 6/6) to moderate yellowish brown (10YR 5/4) mottling, massive to blocky, roots, rock fragments, dry to damp	CS							
4–9		100		: as above with some yellowish gray mottling, medium to high plasticity : moist, very silty clay zone at 5.1 to 5.3 feet, abundant roots, color moderate yellowish brown (10YR 5/4) to dark yellowish brown (10YR 4/2) : moist at 5.6 to 5.8 : Moist at 7.6 to 7.9 and 8.0 to 8.4 feet, abundant roots, slight organic odor, possibly old slope face	CS							
9–11		100		: as above, slity clay, less moist	CS							
11–22.7				: increase in silt content, structure bcoming blocky, medium plasticity, : iron oxide nodules common, with some manganese staining at 12 feet : silty clay as above, with blocky structure, abundant manganese staining, moist : slickensided cleavage planes, 60° preferential fracturing : as above, medium plasticity, moist : as above with decrease in staining								
22.7				TD @ 22.7 ft.								

DRILLING CONTRACTOR Terracon Consultants, Inc. Tulsa, Oklahoma

LOGGED BY D. G. Smith DATE 9/9/97 CHECKED BY

WELL No. GP-04R

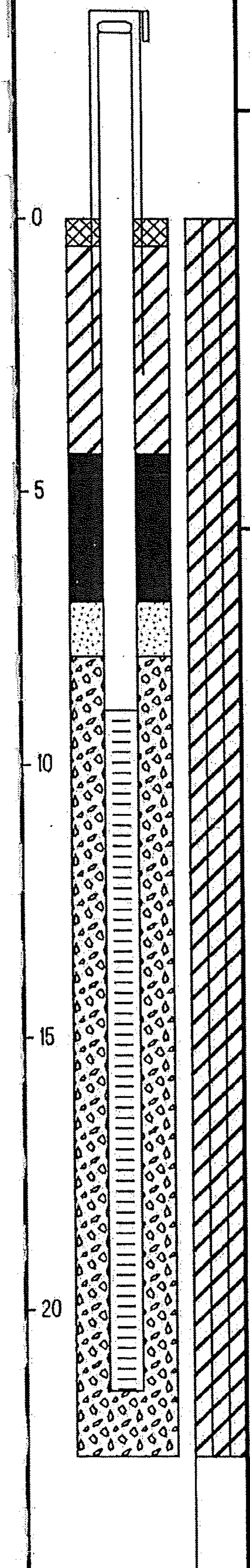
Boring No X-Ref. GP-04R

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords N=272,299.63 E=2,730,167.65

Elevation Ground Level 641.98

Pin Elevation 642.70 Top of PVC Casing 645.60



T.D. = 22.5 ft.

Drilling Summary

Total Depth (ft): 22.5
Borehole Diameter (in): 6.62"
Casing Stickup Height (ft): 3.62
Driller: Terracon Consultants Inc.
Audie Thornburg, Lic # 0135

Rig: Truck mounted CME 75
Bit (s): Hollowstem auger with Tooth Bit
Drilling Fluid: NONE

Protective Casing: 4-inch diameter anodized aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA: 0 - 22.5 feet	9/9/97	10: 35	9/9/97	11: 00
Casing: C_1 Prot.:	9/11/97		9/11/97	
C_2 1" PVC and S_1 1" PVC:	9/9/97	15: 56	9/9/97	15: 57
Filter Placement:	9/9/97	16: 04	9/9/97	16: 15
Development: N/A				
Bentonite Seal:	9/9/97	16: 15	9/9/97	16: 30
Cementing/pad:	9/11/97		9/11/97	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐
Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.82 - 1.18	C_1	645.80 -640.80
+3.62 - 9.00	C_2	645.60 -632.98
9.00 - 21.50	S_1	632.98 -620.48
-		-
-		-

Casing: C1 5-foot x 4-inch Dia. Anodized Aluminum with locking cap
Casing: C2 1-inch diameter PVC, Sch. 40, Flush Joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint 0.020-inch Slot

Grout Seal: Bentonite (5%)/ cement to approx 0.5-feet from surface, concrete pad above seal

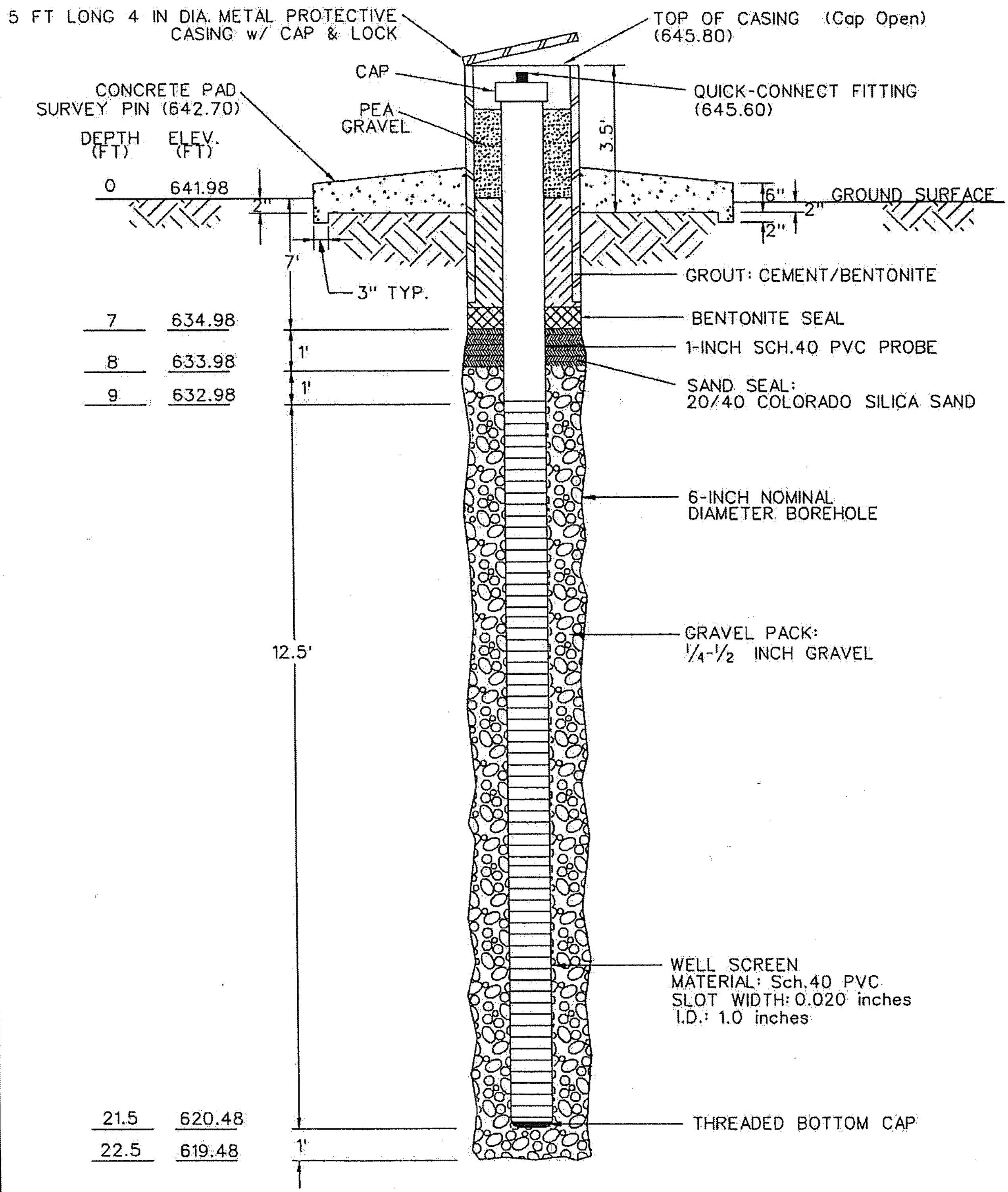
Bentonite Seal: 1/4-inch bentonite pellets, hydrated during placement 4.3 - 7 feet BGS

Filter Pack: 20/40 Colorado Silica Sand, filter pack immediately beneath bentonite seal 1/4-inch pea gravel, extending 1 foot above and below screened interval

Probe Comments

SITE NAME *Muskogee Community Landfill*
LOCATION *Muskogee, Oklahoma*

SUPERVISED BY *D. Smith* CHECKED BY
DATE *9/9/97*



GAS PROBE DETAIL

NOT TO SCALE

RUST

Rust Environment & Infrastructure Inc.

FILE: L:\ CADD\ SOLIDWST\ MUSKOGEE\ 101806\ CADD\ 1806GP02.DGN

TYPICAL CONSTRUCTION
GAS PROBE GP-04R

MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER
MONITORING WELL INSTALLATION SERVICES
MUSKOGEE, MUSKOGEE COUNTY, OKLAHOMA

SEPTEMBER 1997

101806.10300

SOIL BOREHOLE LOG

SITE NAME AND LOCATION:

Muskogee Community Landfill
Muskogee, Ok.
Gas Probe Installation

101806.200

DATUM: ELEVATION: 635.43

DRILLING METHOD: Hollow-stem Auger

SAMPLING METHOD: 5-foot Continuous Sampler

BORING NUMBER: **GP-5R**

Sheet 1 of 1

	INI			STATIC
WATER LEVEL	dry			
TIME	8:29			
DATE	9/9/97			
CASING DEPTH	.			

DRILLING	
START	FINISH
TIME	TIME
8:00	8:29
DATE	DATE
9/9/97	9/9/97

DRILL RIG: Truck-mounted CME 75

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

SURFACE CONDITIONS: At the eastern edge of the haul road on west side of the landfill.

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–1				CLAY, Silty (CL); soft, mottled dark yellowish orange (10YR 6/6) with minor yellowish gray (5Y 7/2), high plasticity, massive, massive, roots, iron oxide nodules (5mm)								
2		12.5		: as above with color change to include some reddish brown	CS							
4				: as above with trace of fine sand, no roots, nodules common, westhered, moist								
6–7		100			CS							
9				: as above								
10		100			CS							
11				: black staining at 10.8 feet								
11.5				: slickensided cleavage planes, blocky structure								
13				: dry to moist								
				TD @ 13.0 ft.								

DRILLING CONTRACTOR *Terracon Consultants, Inc.*
Tulsa, Oklahoma

LOGGED BY *D. G. Smith*   CHECKED BY
DATE *9/9/97*

WELL No. GP-05R

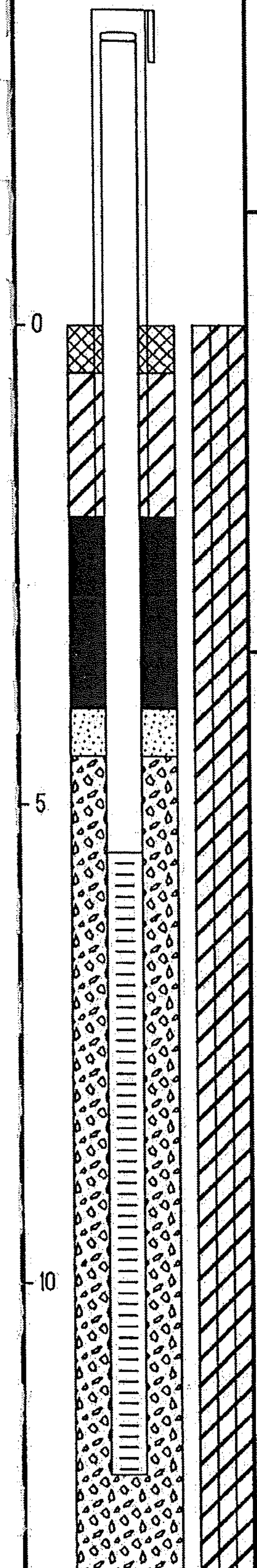
Boring No X-Ref. GP-05R

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords N=273,262.44
E=2,730,156.77

Elevation Ground Level 635.43

Pin Elevation 635.69 Top of PVC Casing 638.50



T.D. = 13.0 ft.

Drilling Summary

Total Depth (ft): 13.0
Borehole Diameter (in): 6.62"
Casing Stickup Height (ft): 3.07
Driller: Terracon Consultants Inc.
Audie Thornburg, Lic. #0135

Rig: Truck mounted CME 75
Bit (s): Hollowstem auger with Tooth Bit
Drilling Fluid: NONE

Protective Casing: 4-inch diameter anodized aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA: 0 - 13 feet	9/9/97	8: 00	9/9/97	8: 29
Casing: C_1 Prot.:	9/11/97		9/11/97	
C_2 1" PVC and S_1 1" PVC:	9/9/97	11: 29	9/9/97	11: 30
Filter Placement:	9/9/97	11: 30	9/9/97	11: 51
Development: N/A				
Bentonite Seal:	9/9/97	11: 51	9/9/97	11: 55
Cementing/pad:	9/11/97		9/11/97	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐
Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.31 - 1.69	C_1	638.74 -633.74
+3.07 - 5.50	C_2	638.50 -629.93
5.50 - 12.00	S_1	629.93 -623.43
-		-
-		-

Casing: C1 5-foot x 4-inch Dia. Anodized Aluminum with locking cap

Casing: C2 1-inch diameter PVC, Sch. 40, Flush Joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint 0.020-inch Slot

Grout Seal: Bentonite (5%)/cement grout to 2 feet from surface, concrete pad above grout

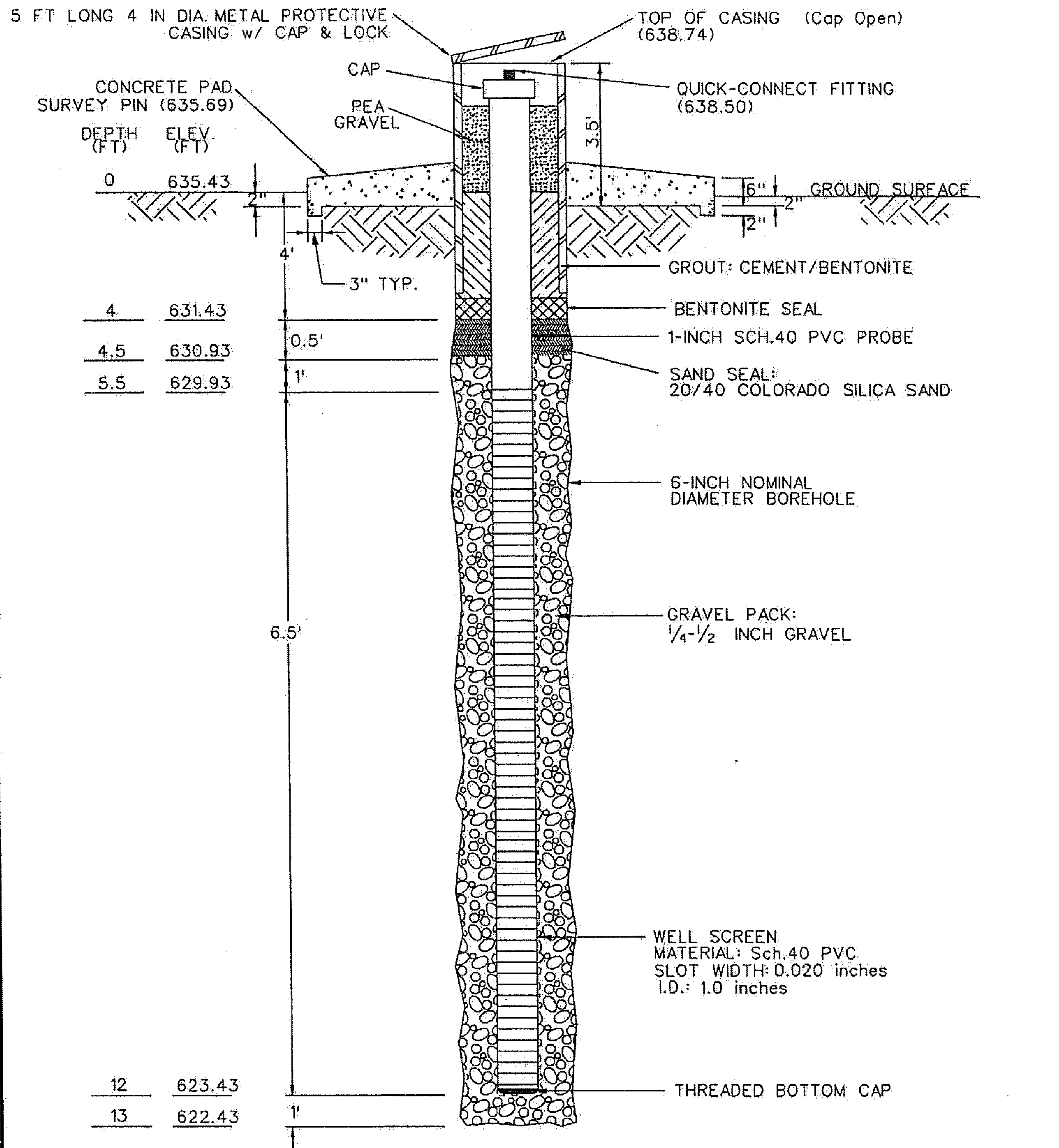
Bentonite Seal: 1/4-inch bentonite pellets, hydrated during placement

Filter Pack: 20/40 Colorado Silica Sand, filter pack immediately beneath bentonite seal 1/4-inch pea gravel, extending 1 foot above and below screened interval

Probe Comments

SITE NAME *Muskogee Community Landfill*
LOCATION *Muskogee, Oklahoma*

SUPERVISED BY *D. Smith* CHECKED BY
DATE *9/9/97*



GAS PROBE DETAIL

NOT TO SCALE

RUST Rust Environment & Infrastructure Inc.	TYPICAL CONSTRUCTION GAS PROBE GP-05R MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER MONITORING WELL INSTALLATION SERVICES MUSKOGEE, MUSKOGEE COUNTY, OKLAHOMA
FILE: L:\ CADD\ SOLIDWST\ MUSKOGEE\ 101806\ CADD\ 1806GP02.DGN	SEPTEMBER 1997 101806.10300

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: Muskogee Community Landfill, Muskogee, Ok. Gas Probe Installation 32788.100	DRILLING METHOD: Hollow-stem Auger	BORING NUMBER: GP-6
	SAMPLING METHOD: 5-foot Continuous Sampler	Sheet 1 of 1
DATUM: ELEVATION: 629.28		

	INI			STATIC
WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING	
START	FINISH
TIME 12:54	TIME 13:10
DATE 4/11/95	DATE 4/11/95

DRILL RIG: Truck-mounted CME

SURFACE CONDITIONS: Clay pad -flat, northwest corner of landfill

ANGLE:

BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

DRILLING CONTRACTOR Terracon Consultants, Inc. Tulsa, Oklahoma

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–2		16		CLAY, Sandy (CL); medium yellowish orange, FeO_2 nodules	CS							
2–7		33		CLAY, silty (CL); med brown, top soil (up on Augers) CLAY, silty; dark yellowish orange (10YR 6/6) w/ FeO_2 nodules, rock fragments, iron oxide staining	CS							
7				TD = 7 ft.								

LOGGED BY D. G. Smith

DATE 4/11/95

CHECKED BY

WELL No. GP-6

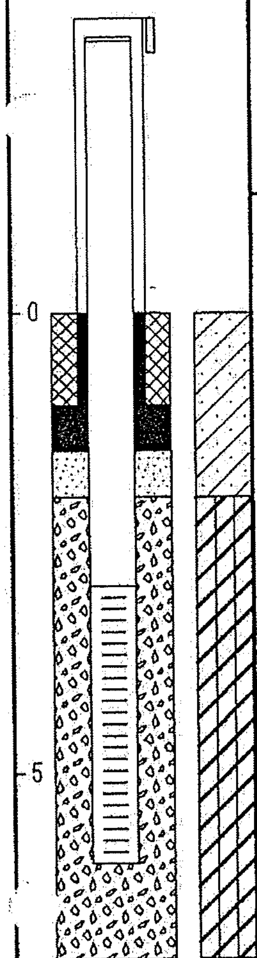
Boring No X-Ref. GP-6

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords N=274,273.00; E=2,730,134.01

Elevation Ground Level 629.28

Top of Casing 632.31



Drilling Summary

Total Depth (ft): 7
Borehole Diameter (in): 8.00
Casing Stickup Height (ft): 3.03
Driller: Terracon Consultants Inc.

Rig: Truck mounted CME
Bit (s):

Drilling Fluid: NONE w/ HSA

Protective Casing: 4-inch diameter aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA:	4/11/95	12:54	4/11/95	13:10
Casing:				
C_1 Prot.:				
C_2 1" PVC and S_1 1" PVC:	4/11/95	13:28	4/11/95	13:33
Filter Placement:	4/11/95	13:33	4/11/95	13:38
Development: N/A				
Bentonite Seal:	4/11/95		4/11/95	
Cementing/pad:	4/14/95		4/14/95	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐
Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.24 - 1.76	C_1	632.52 -627.52
+3.03 - 2.97	C_2	632.31 -626.31
2.97 - 5.97	S_1	626.31 -623.31
-		-
-		-

Casing: C1 4-inch diameter aluminum

Casing: C2 1-inch diameter PVC, Sch. 40, flush joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint
0.020-inch Slot

Filter Pack: 3/8 - 5/8-inch diameter pea gravel
2.0 - 7.0 ft.
20/40 (no. 3) Colorado Silica Sand
1.5 - 2.0 ft.

Grout Seal: Bentonite
concrete pad

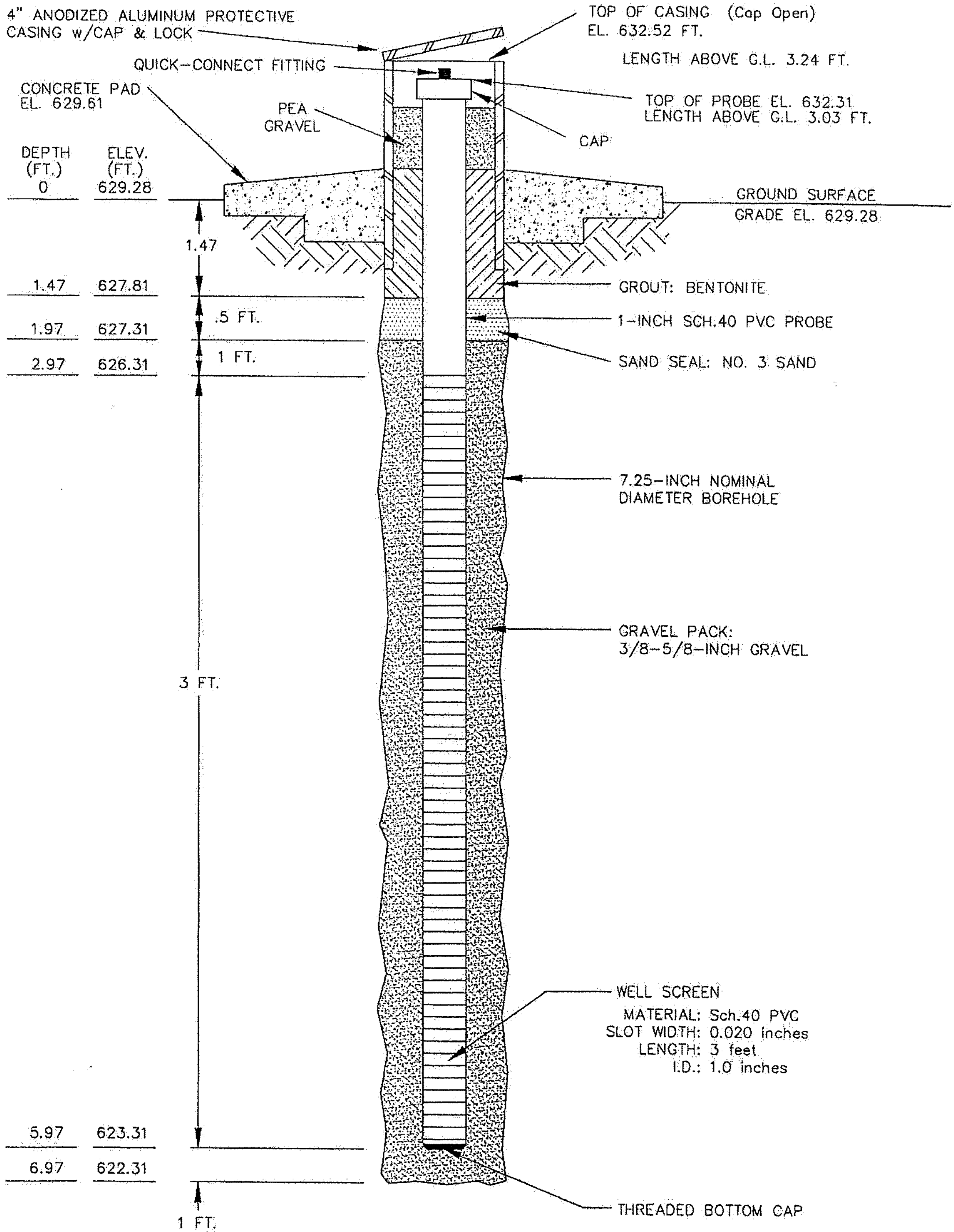
Bentonite Seal: 1/4-inch bentonite pellets

Probe Comments

SITE NAME *Muskogee Community Landfill*
LOCATION *Muskogee, Oklahoma*

WL 000-1

SUPERVISED BY *D. Smith* CHECKED BY
DATE *4/11/95*



NOT TO SCALE

RUST ENVIRONMENT & INFRASTRUCTURE

MAY 1995

Project: 32788.100

CADD File: 32788\200\GP1.DWG

MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER
Muskogee, Muskogee County, Oklahoma

GAS PROBE - GP-6

SOIL BOREHOLE LOG

SITE NAME AND LOCATION:	DRILLING METHOD: Hollow-stem Auger	BORING NUMBER: GP-7
Muskogee Community Landfill Muskogee, Ok. Gas Probe Installation 32788.100	SAMPLING METHOD: 5-foot Continuous Sampler	Sheet 1 of 1

	INI.			STATIC
WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING	
START	FINISH
TIME 12:40	TIME 12:55
DATE 4/13/95	DATE 4/13/95

DATUM: ELEVATION: 624.13

DRILL RIG: Truck-mounted CME

SURFACE CONDITIONS: Clay pad - flat

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–2				CLAY, silty, pad material, fill								
2–5		60		CLAY, silty (CL); med brown, top soil, roots CLAY, silty (CL); dark yellowish orange (10YR 6/6) and yellowish gray mottled w/ a few FeO_2 nodules, cohesive.	CS							
5–9		50		; as above w/ blocky structure, increase in FeO_2 nodules Mno_2 staining	CS							
9				TD = 9 ft.								

Depth scale: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

DRILLING CONTRACTOR *Terracon Consultants, Inc.* *Tulsa, Oklahoma*

LOGGED BY *D. G. Smith* DATE *4/13/95* CHECKED BY

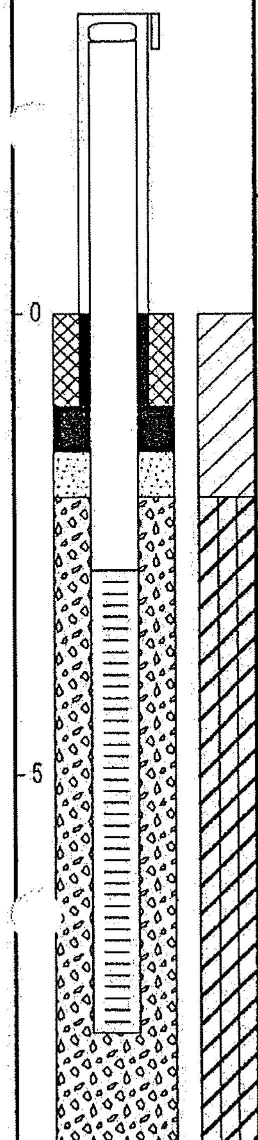
WELL No. GP-7

Boring No X-Ref. GP-7

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords N=274,298.81; E=2,730,985.77 Elevation Ground Level 624.13

Top of Casing 627.33



T.D. = 9 ft.

Drilling Summary

Total Depth (ft): 9
Borehole Diameter (in): 8.00
Casing Stickup Height (ft): 3.2
Driller: Terracon Consultants Inc.

Rig: Truck-mounted CME
Bit (s): Hollowstem auger

Drilling Fluid: NONE w/ HSA

Protective Casing: 4-inch diameter aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA:	4/13/95	12:40	4/11/95	12:55
Casing:				
C_1 Prot.:	4/14/95		4/14/95	
C_2 1" PVC and S_1 1" PVC:	4/13/95	13:02	4/11/95	13:03
Filter Placement:	4/13/95	13:03	4/11/95	13:07
Development: N/A				
Bentonite Seal:	4/14/95		4/14/95	
Cementing/pad:	4/14/95		4/14/95	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐
Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.3 - 1.7	C_1	627.43 - 622.43
+3.2 - 2.8	C_2	627.33 - 621.33
2.8 - 7.8	S_1	621.33 - 616.33
-		-
-		-

Casing: C1 4-inch diameter Aluminum

Casing: C2 1-inch daimeter PVC, Sch. 40, flush joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint
0.020-inch Slot

Filter Pack: 3/8 - 5/8-inch diameter pea gravel
2.0 - 9.0 ft.
20/40 (no.3) Colorado Silica Sand
1.5 - 2.0 ft.

Grout Seal: Bentonite
concrete pad

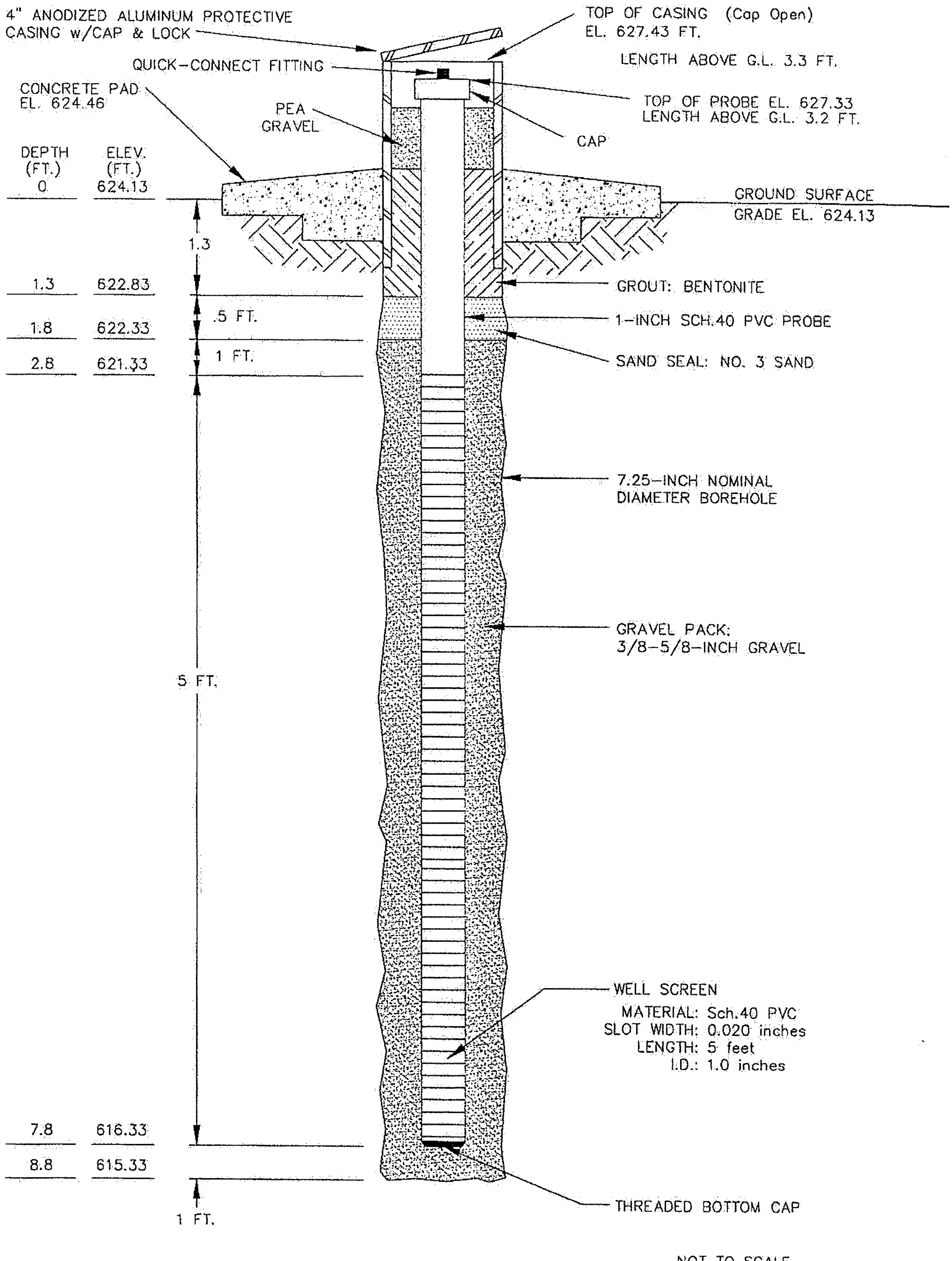
Bentonite Seal: 1/4-inch bentonite pellets

Probe Comments

SITE NAME *Muskogee Community Landfill*
LOCATION *Muskogee, Oklahoma*

WL 000-1

SUPERVISED BY *D. Smith* CHECKED BY
DATE *4/13/95*



RUST ENVIRONMENT & INFRASTRUCTURE

MAY 1995

Project: 32788.100

CADD File: 32788\200\GP1.DWG

MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER
Muskogee, Muskogee County, Oklahoma

GAS PROBE – GP-7

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: Muskogee Community Landfill Muskogee, Ok. Gas Probe Installation 32788.100	DRILLING METHOD: Hollow-stem Auger SAMPLING METHOD: 5-foot Continuous Sampler	BORING NUMBER: GP-8 Sheet 1 of 1
DATUM:	ELEVATION: 628.68	

	INI			STATIC	DRILLING START	DRILLING FINISH
WATER LEVEL					TIME	TIME
TIME					7:40	8:20
DATE					DATE	DATE
CASING DEPTH					4/14/95	4/14/95

DRILL RIG: Truck-mounted CME

SURFACE CONDITIONS: Clay pad -flat, eastern side of Tract A

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–1.5				CLAY, silty. pad material, fill								
1.5		60		CLAY, silty (CL); med brown, w/ minor dark yellowish orange staining, roots, cohesive	CS							
5		100		: as above except color change to dark yellowish orange yellowish gray mottled	CS							
8				: zone of iron oxide staining along relect bedding planes, blocky structure, FeO_2 dules, increase in silt content								
10		100		: as above w/ slickensided cleavage planes, blocky structure, silt content decreases	CS							
14.5				TD = 14.5 ft.								

DRILLING CONTRACTOR *Terracon Consultants, Inc.* *Tulsa, Oklahoma*

LOGGED BY *D. G. Smith* CHECKED BY

DATE *4/14/95*

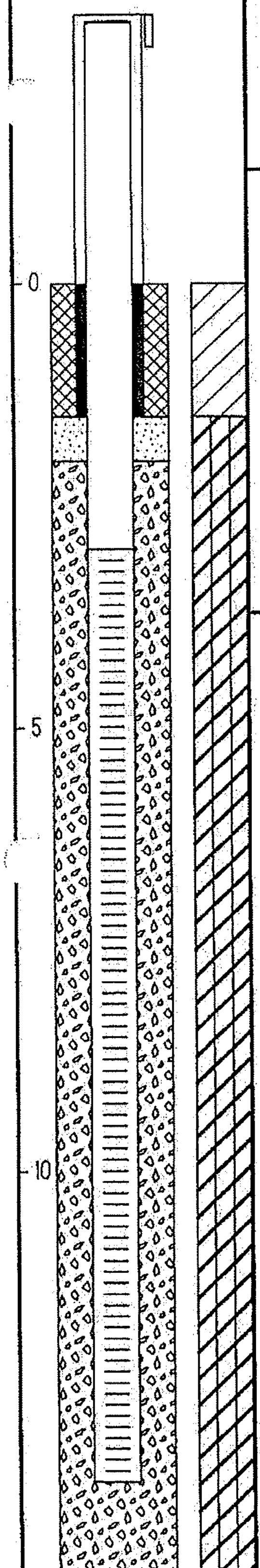
WELL No. GP-8

Boring No X-Ref. GP-8

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords N=273,680.88; E=2,731,390.59   Elevation Ground Level 628.68

Top of Casing 631.69



T.D. = 14.5 ft.

Drilling Summary

Total Depth (ft): 14.5
Borehole Diameter (in): 8.00
Casing Stickup Height (ft): 3.01
Driller: Terracon Consultants Inc.

Rig: Truck mounted CME
Bit (s): hollowstem auger

Drilling Fluid: NONE w/ HSA

Protective Casing: 4-inch diameter aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA:	4/14/95	7: 40	4/14/95	8: 20
Casing:				
C_1 Prot.:	4/14/95		4/14/95	
C_2 1" PVC and S_1 1" PVC:	4/14/95	8: 29	4/14/95	8: 31
Filter Placement:	4/14/95	8: 31	4/14/95	8: 35
Development: N/A				
Bentonite Seal:				
Cementing/pad:	4/14/95		4/14/95	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐
Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.08 - 1.92	C_1	631.76 -626.76
+3.01 - 2.99	C_2	631.69 -625.69
2.99 - 13.49	S_1	625.69 -615.19
-		-
-		-

Casing: C1 4-inch diameter aluminum

Casing: C2 1-inch diameter PVC, Sch. 40, flush joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint
0.020-inch Slot

Filter Pack: 3/8 - 5/8-inch diameter pea gravel
2.0 - 14.5
20/40 (no. 3) Colorado Silica Sand
1.5 - 2.0 ft.

Grout Seal: Bentonite
concrete pad

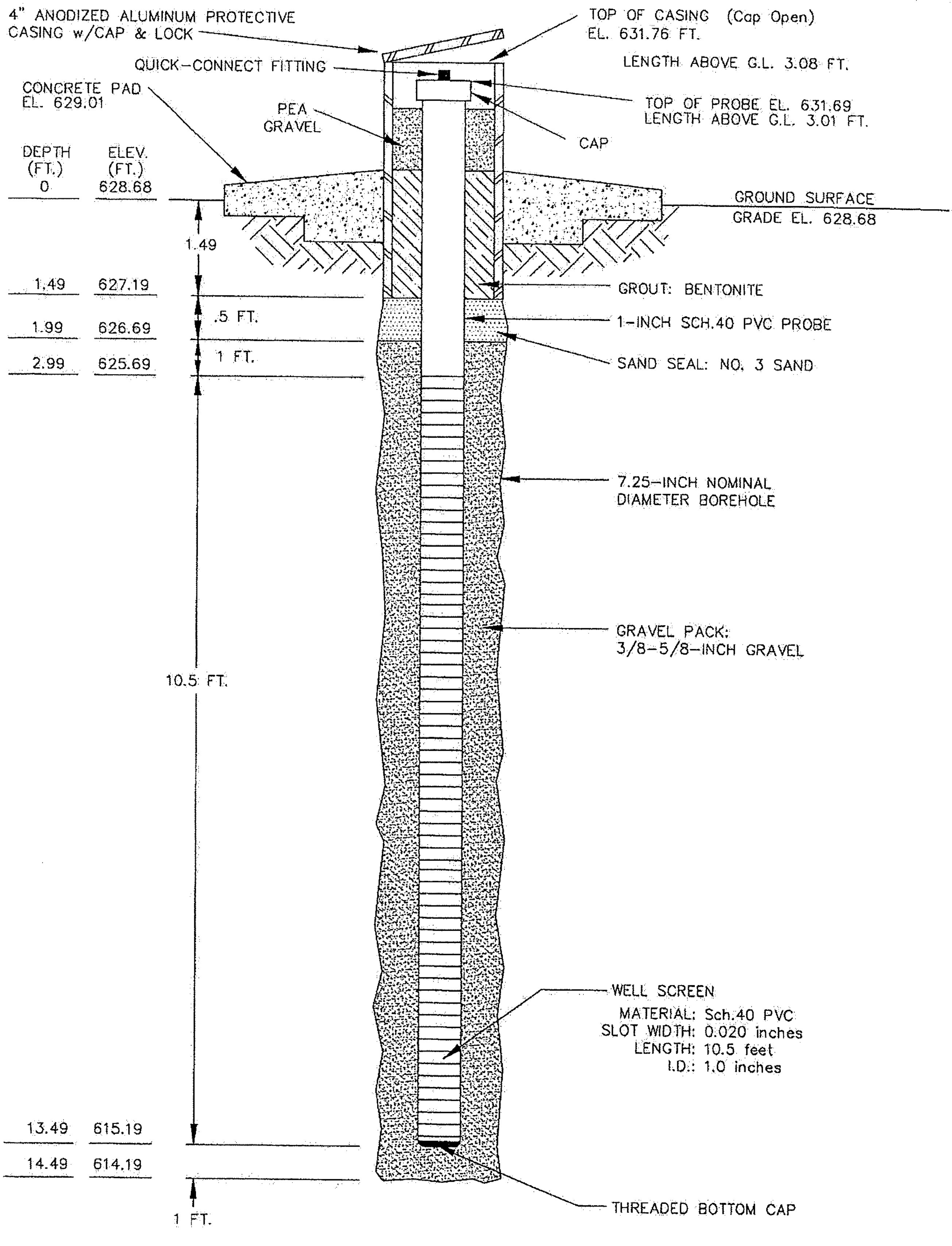
Bentonite Seal: 1/4-inch bentonite pellets

Probe Comments

SITE NAME *Muskogee Community Landfill*
LOCATION *Muskogee, Oklahoma*

WL 000-1

SUPERVISED BY *D. Smith*   CHECKED BY
DATE *4/14/95*



RUST ENVIRONMENT & INFRASTRUCTURE

MAY 1995

Project: 32788.100

CADD File: 32788\200\GP1.DWG

MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER
Muskogee, Muskogee County, Oklahoma

GAS PROBE – GP-8

SOIL BOREHOLE LOG

SITE NAME AND LOCATION:	DRILLING METHOD: Hollow-stem Auger	BORING NUMBER: GP-9
Muskogee Community Landfill Muskogee, Ok. Gas Probe Installation 32788.100	SAMPLING METHOD: 5-foot Continuous Sampler	Sheet 1 of 1
DATUM: ELEVATION: 630.39		

	INI			STATIC	DRILLING START	DRILLING FINISH
WATER LEVEL					TIME	TIME
TIME					9:25	9:49
DATE					DATE	DATE
CASING DEPTH					2/24/95	2/24/95

DRILL RIG: Truck-mounted CME

SURFACE CONDITIONS: Clay/rock road on east part of landfill, (near MW01R)

ANGLE: BEARING:

SAMPLE HAMMER TORQUE: ft.-lbs.

DRILLING CONTRACTOR: *Terracon Consultants, Inc. Tulsa, Oklahoma*

DEPTH IN FEET (ELEVATION)	BLOWS/6" ON SAMPLER	RECOVERY %	SYMBOL	DESCRIPTION OF MATERIAL	SAMPLER AND BIT	SAMPLE TYPE	BLOWS/FT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0–2				CLAY, Sandy (CL); moderate yellowish brown (10YR 5/4) w/ rock fragments	CS							
2				CLAY, Silty to Sandy (CL) dark yellowish orange (10YR 6/6) w/ FeO_2 nodules								
3.5				: as above	CS							
7				: MnO_2 staining, slickensided cleavage planes								
8.5				: as above w/ yellowish gray (5Y 7/2) mottling	CS							
12				: sub horizontal fracture @ 12 ft., wet								
12.5				TD = 12.5 ft.								

Depth scale: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

LOGGED BY *D. G. Smith* CHECKED BY

DATE *2/24/95*

WELL No. GP-9

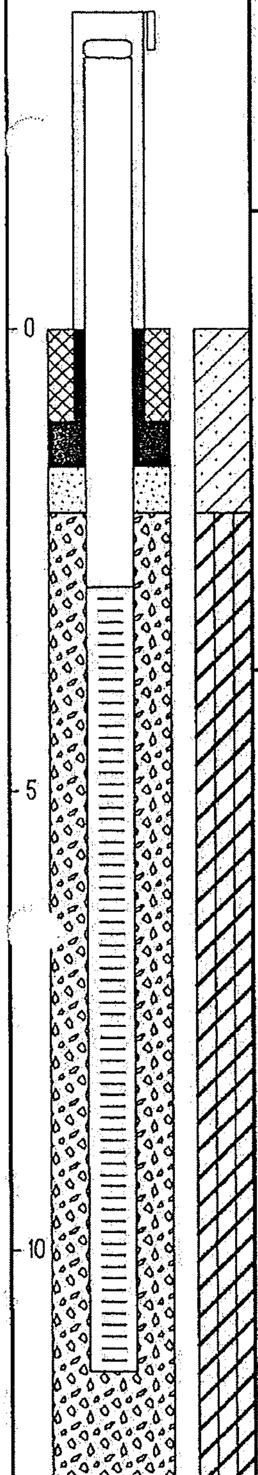
Boring No X-Ref. GP-9

LANDFILL GAS MONITORING PROBE CONSTRUCTION SUMMARY

Survey Coords E=2,731,407.15; N=272,686.88

Elevation Ground Level 630.39

Top of Casing 633.59



T.D. = 12.5 ft.

Drilling Summary

Total Depth (ft): 12.5

Borehole Diameter (in): 8.00

Casing Stickup Height (ft): 3.01

Driller: Terracon Consultants Inc.

Rig: Truck-mounted CME

Bit (s):

Drilling Fluid: NONE w/ HSA

Protective Casing: 4-inch aluminum

Construction Time Log

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling HSA:	2/24/95	9: 25	2/24/95	9: 49
Casing:				
C_1 Prot.:	4/14/95		4/14/95	
C_2 1" PVC and S_1 1" PVC:	2/24/95	9: 56	2/24/95	9: 57
Filter Placement:	2/24/95	9: 57	2/24/95	10: 05
Development: N/A				
Bentonite Seal:	2/24/95	10: 05	2/24/95	10: 06
Cementing/pad:	4/14/95		4/14/95	

Probe Design & Specifications

Basis: Geologic Log ☒ Geophysical Log ☐

Casing String (s): C = Casing S = Screen

Depth	String (s)	Elevation
+3.4 - 1.6	C_1	633.79 -628.79
+3.2 - 2.8	C_2	633.59 -627.59
2.8 - 11.3	S_1	627.59 -619.09
-		-
-		-

Casing: C1 4-inch diameter aluminum

Casing: C2 1-inch diameter PVC, Sch. 40, flush joint

Screen: S1 1-inch diameter PVC, Sch.40, flush joint
0.010-inch Slot

Filter Pack: 3/8 - 5/8-inch diameter pea gravel
2 - 12.5 ft.
20/40 (no. 3) Colorado Silica Sand
1.5 - 2.0 ft.

Grout Seal: Concrete
bentonite pellets

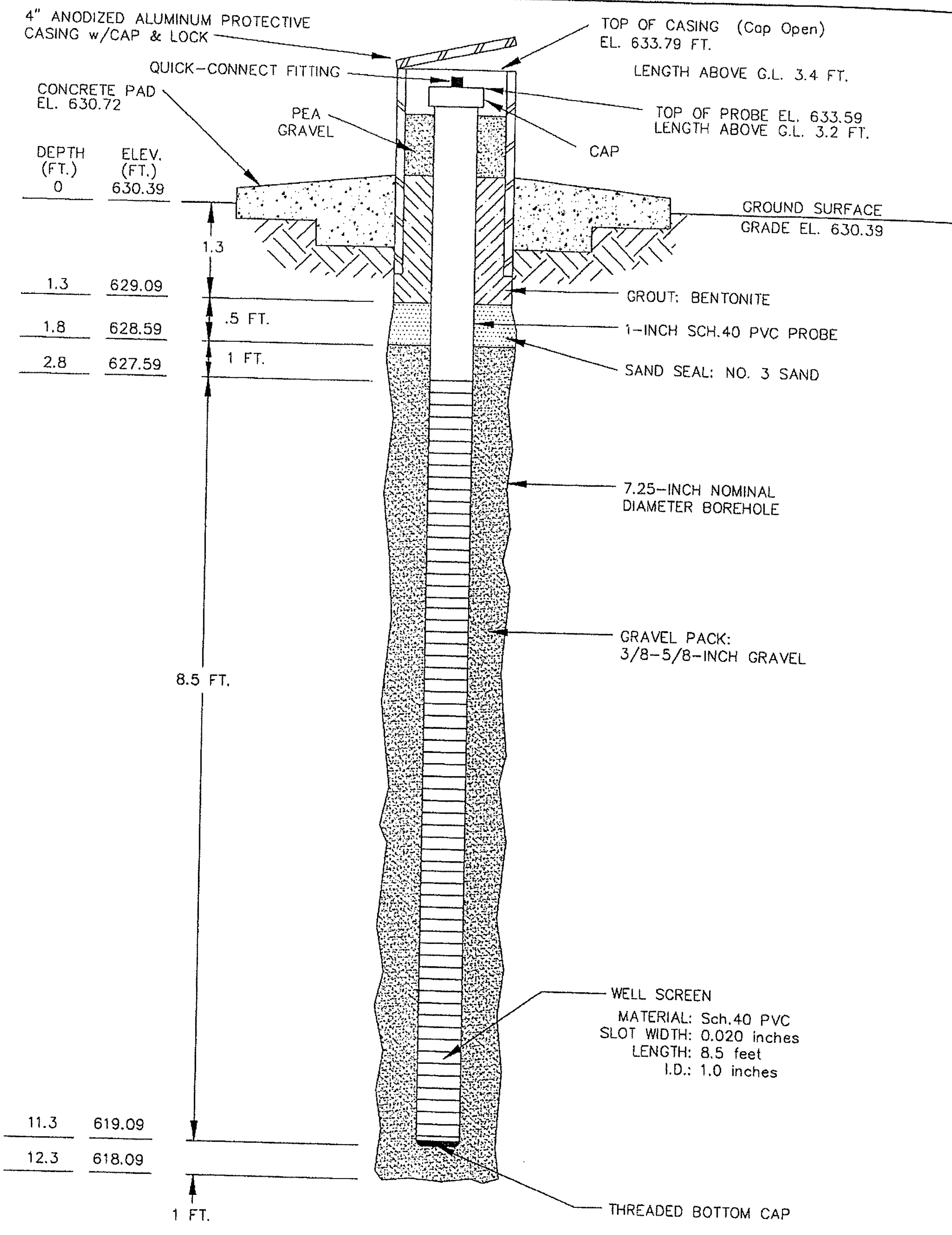
Bentonite Seal: 1/4-inch bentonite pellets

Probe Comments

SITE NAME Muskogee Community Landfill
LOCATION Muskogee, Oklahoma

WL 000-1

SUPERVISED BY D. Smith CHECKED BY
DATE 2/24/95



NOT TO SCALE

RUST ENVIRONMENT & INFRASTRUCTURE

MAY 1995

Project: 32788.100

CADD File: 32788\200\GP1.DWG

MUSKOGEE COMMUNITY LANDFILL AND RECYCLING CENTER
Muskogee, Muskogee County, Oklahoma

GAS PROBE – GP-9

APPENDIX G-3

RECORDKEEPING FORM

MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY
LANDFILL GAS MONITORING REPORT FORM

Sampled by: ______________________________________ Date: ___________________
Time: ____________ (Start) _____________ (Finish) Temperature: _____________
Weather: ___________________ ___________Barometric Pressure (optional): ________
Monitoring Equipment: ______________ Date of Calibration: _____________________

Probe No.	% Methane 0-100	%[1] LEL 0-100	Static Pressure "w.c."[2] (Optional)	O_2 % (Optional)	Probe Integrity Verified Yes/No

Onsite Structures	Verify if Continuous LFG Alarm is Operational		Continuous LFG Alarm Activated (LEL>25%) During	
	YES	NO	YES	NO
	YES	NO	YES	NO
	YES	NO	YES	NO
	YES	NO	YES	NO
	YES	NO	YES	NO

[1] % LEL = (20) x (observed % methane)
[2] "w.c." – Inches Water Column

MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY
MUSKOGEE COUNTY, OKLAHOMA
ODEQ PERMIT NO. 3551020

APPENDIX H

SURFACE WATER MANAGEMENT PLAN

Prepared for

Waste Management of Oklahoma, Inc.

October 2023

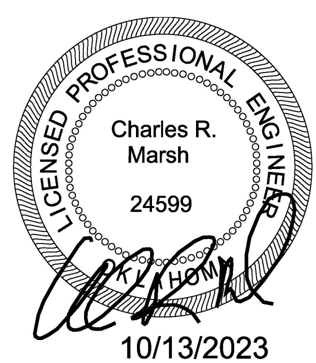
LICENSED PROFESSIONAL ENGINEER
Charles R.
Marsh
24599
OKLAHOMA
10/13/2023

Prepared by

Weaver Consultants Group, LLC
CA 3804 PE – 06/30/2025
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0086-364-11-19

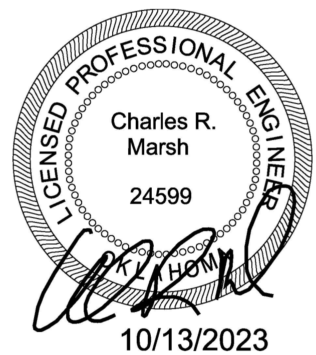
CONTENTS



LICENSED PROFESSIONAL ENGINEER
Charles R.
Marsh
24599
10/13/2023

LIST OF TABLES

LIST OF APPENDICES



1 INTRODUCTION

1.1 Purpose

This Surface Water Management Plan is prepared as part of this Tier III Permit Modification for the Muskogee Community Recycling and Disposal Facility (RDF) consistent with OAC 252:515-17. This drainage plan addresses surface water drainage design and erosion control. Permit level plans and details are presented for the proposed drainage system in this appendix. Appendix H also includes a demonstration that the proposed landfill development will not significantly alter the existing drainage patterns. Note that the scope of this appendix is limited to the surface water drainage design and erosion controls.

This appendix includes the design of the final cover erosion control structures (i.e., chute and swale system), perimeter drainage channels, stormwater detention ponds, and culverts, as well as hydrologic calculations for the post-development condition only. Details and designs for the existing condition are included in the Tier 1 modification dated November 2021. Consistent with OAC 252:515-17-2, these facilities are designed to convey runoff produced from the 25-year storm event.

1.2 Stormwater Management System

This Drainage Design Report has been prepared in accordance with OAC 252:515-17. The proposed drainage improvements for this expansion include providing final cover erosion control structures (i.e., chutes and swales), perimeter drainage channels, and stormwater retention and detention areas. Figures depicting the layout of the drainage system are presented in Appendix H-1. As shown on Figure H-1-3, stormwater runoff in the post-development condition will be collected in swales located near the upper grade break on the landfill and on the 4 (Horizontal) to 1 (Vertical) sideslopes, and then conveyed to drainage letdown structures (chutes) and down the 25 percent slopes to the perimeter drainage system. The perimeter channels will be constructed before or in conjunction with fill being placed above existing grade in each landfill phase. Analysis of the post-development perimeter drainage system components is provided in Appendix H-4. The site is designed so that it does not significantly alter existing drainage patterns.

As the site develops, the stormwater management system, including permanent erosion control structures (i.e., chutes and swales) will be constructed. This will provide for the conveyance of all stormwater generated from the developed portions of the site.

Surface runoff will be managed throughout the active life of the landfill to minimize the amount of stormwater that will come in contact with waste or enter the leachate collection system. Surface water will be controlled through the use of diversion berms, stormwater diversion channels, and stormwater detention ponds. Stormwater that comes into contact with waste at the working face area will be considered contaminated water and treated as leachate. Contaminated water at the working face will be contained by the containment berm as shown in Appendix L.

In accordance with OAC 252:515-17-3, the facility has been designed to prevent discharge of pollutants into waters of the State or waters of the United States, as follows:

- No discharge of solid waste or pollutants into or adjacent to waters of the State, including wetlands, that is in violation of the requirements of the Oklahoma Water Quality Management Plan will occur. During the active life of the facility all stormwater coming into contact with solid waste will be retained as contaminated water and treated or disposed of as outlined in Appendix L.
- No discharge of pollutants into or adjacent to waters of the United States, including wetlands, that violates any requirement of the Clean Water Act. Waste Management of Oklahoma, Inc. has received a permit from ODEQ to discharge stormwater runoff consistent with an OPDES Multi-sector General Permit for industrial activity.
- No discharge of dredged or fill materials to waters of the United States, including wetlands, that is in violation of the requirements under the Federal Clean Water Act, §404 will occur.
- No discharge of a nonpoint source pollution of waters of the United States, including wetlands, that violates any requirement of an area-wide or statewide Water Quality Management Plan that has been approved under the Federal Clean Water Act, §208 or §319, as amended will occur.

1.3 Erosion and Sedimentation Control Plan

During site development, measures such as best management practices (BMPs) will be employed to control erosion and sedimentation. BMPs may include the use of temporary rock riprap, silt fences, straw bales, check dams, interceptor swales and berms, temporary and permanent seeding and sodding, surface roughening, matting and mulching, sediment traps, and surface wetting for dust control.

Swales and chutes will be constructed upon placement of the final cover. In addition, each final cover area will be seeded upon the completion of final cover placement with introduced and/or native grasses. Mulch may be used to protect the seed against erosive velocities, allowing the native grass seed time to germinate. The vegetative layer will consist of a minimum of 36 inches of earthen material that is capable of sustaining plant life and will be seeded immediately following the application of the final cover in order to minimize erosion. A soil loss demonstration for the vegetative layer is included in Appendix H-5.

Drainage structures with flow velocities less than 5 feet per second (fps) will be protected from erosion by vegetation established over the structure upon its completion. Structures with flow velocities between 5 fps and 10 fps will be protected from erosion by using turf reinforcement or rock riprap/gabions. Structures with flow velocities greater than 11 fps will be protected from erosion by using rock riprap/gabions. See Figure H-1-3 for locations of riprap and gabion placement. Gabion and riprap design calculations are presented in Appendix H-4. Note that alternative materials such as turf reinforcement matting, concrete riprap, grouted riprap, or HDPE panels designed by a qualified engineer may be used as substitute materials. Velocity calculations for the drainage chutes and swales are presented in Appendix H-3. Velocity calculations for the perimeter channels are provided in Appendix H-4.

The following provides general guidelines of how the erosion control features will minimize sediment discharge from the site:

- Final cover will be placed as the site develops and permanent erosion control structures (chutes, swales, vegetation) constructed.
- Vegetation will be established on above-grade intermediate cover areas that remain inactive for long periods. The temporary vegetative cover will minimize erosion potential.
- All uncontaminated stormwater runoff from the site will be channeled through the perimeter channel system and/or stormwater detention ponds before being discharged from the site. Sediment that collects in the channels and stormwater detention ponds will be removed consistent with the stormwater system maintenance plan presented in Section 1.4 of this appendix.
- The operator is required by its OPDES stormwater permit to keep an updated stormwater pollution prevention plan (SWP3) on site at all times. This plan will contain details of specific measures used to control erosion throughout development of the site.

Runoff from a storm event that comes in contact with the active fill area will be contained by a containment berm (see Appendix L, Appendix L-7 – Containment and Diversion Berm Calculations for Details).

1.4 Stormwater System Maintenance Plan

Waste Management of Oklahoma, Inc. will restore and repair constructed stormwater systems such as channels, drainage swales, and chutes in the event of wash-out or failure from extreme storm events. In addition, the BMPs discussed in Section 1.3 will also be replaced or repaired in the event of failure. Excessive sediment will be removed, as needed, so that the drainage structures, such as the perimeter channels and stormwater detention ponds, function as designed. Site inspections will be performed by the landfill personnel.

The following items will be evaluated during the inspections:

- Erosion of daily and intermediate cover areas, final cover areas, perimeter ditches, chutes, swales, stormwater detention pond, berms, and other drainage features.
- Settlement of intermediate cover areas, final cover areas, perimeter ditches, chutes, swales, and other drainage features.
- Silt and sediment build-up in perimeter ditches, chutes, swales, and stormwater detention ponds.
- Obstructions in drainage features.
- Presence of erosion or sediment discharge at offsite stormwater discharge locations.
- Presence of sediment discharges along the site boundary in areas which have been disturbed by site activities.

Maintenance activities will be performed to correct damaged or deficient items noted during the site inspections. These activities will be performed as soon as possible after the inspection. The time frame for correction of damaged or deficient items will vary based on weather, ground conditions, and other site-specific conditions.

Maintenance activities will consist of the following, as needed:

- Placement of additional vegetation.
- Placement, grading, and stabilization of additional soils in eroded areas or in areas which have settled.

- Replacement or repair of riprap or other structural lining.
- Placement of riprap in eroded areas or in areas which have settled.
- Removal of obstructions from drainage features.
- Removal of silt and sediment build-up from drainage features.
- Repairs to erosion and sedimentation controls.
- Installation of additional erosion and sedimentation controls.

2 DRAINAGE SYSTEM DESIGN

2.1 Hydrology

Hydrologic analyses were performed to derive design flow rates for the post-development swales and chutes. The Wright-McLaughlin adjustment of the Rational Method, as described in Section 2.1.1, was used to determine the flow rates for the chutes and swales. The swale and chute drainage areas are presented in Appendix H-3, as well as the supporting calculations used to analyze the design of the chutes and swales. Perimeter channels and the stormwater ponds were modeled using HEC-1, as discussed in Section 2.1.2. The evaluation of these structures, including culverts, is included in Appendix H-4.

2.1.1 Wright-McLaughlin Adjustment of the Rational Method

Peak flow rates for the final cover erosion control structures (i.e., chutes and swales) were computed by the Wright-McLaughlin Adjustment of the Rational Method (Rational Method) using the following equation:

$$Q = C_f CIA$$

where:

- Q = Flow rate, cubic feet per second (cfs)
- C_f = Runoff correction factor
- C = Runoff coefficient
- I = Rainfall intensity, inches per hour (in/hr)
- A = Drainage area, acres (ac)

Runoff coefficients were obtained from Figure 7.6-A of the 2014 Oklahoma Department of Transportation (DOT) *Drainage Design Manual*. These coefficients are a function of land use, percent imperviousness, type of soil, and topography.

The rainfall intensity is determined from Figure 7.6-P in the 2014 Oklahoma DOT *Drainage Design Manual for Zone 2* as follows:

$$I = a / (t_c + b)^c$$

where:

- a = 67 (constant for Muskogee County, 25-year storm)

b = 10 (constant for Muskogee County, 25-year storm)
c = 0.75 (constant for Muskogee County, 25-year storm)
t_c = time of concentration, minutes (min)

The hydrologic analyses of the post-development chutes and swales are included in Appendix H-4.

2.1.2 HEC-1

HEC-1 was utilized to model the post-development conditions to determine peak flows entering and leaving the site. HEC-1 was developed by the USACE Hydrologic Engineering Center to simulate the surface runoff response of a watershed. The HEC-1 model represents a watershed as a network of hydrologic and hydraulic components. The modeling process results in the computation of stream-flow hydrographs at desired locations in the watershed. The hydrologic analysis of the proposed post-development condition is presented in Appendix H-2.

2.1.2.1 Watershed Subareas and Schematization

The landfill areas and upland area were delineated to derive a peak flow entering and leaving the site. The drainage areas for the post-development condition are shown in Appendix H-1, Figure H-1-1. Offsite drainage areas that drain on to the permit boundary are shown on Figure H-1-2.

2.1.2.2 Time Step

The time step, or the program computation interval, is the time interval that the flow rates for the hydrographs are generated by the program. The time step used for the design storm event is 5 minutes.

2.1.2.3 Hypothetical Precipitation

The hypothetical precipitation of the 25-year design storm was obtained from Technical Paper No. 40 Rainfall Frequency Atlas of the United States and National Oceanic and Atmospheric Administration (NOAA) Technical Memorandum HYDRO-35 for the project area. For this analysis, the design storm utilized was the 25-year, 24-hour storm event. The precipitation is assumed to be evenly distributed over the landfill area for each time interval.

2.1.2.4 Precipitation Losses

Precipitation losses (the precipitation that does not contribute to the peak runoff) for each drainage area are calculated using the Soil Conservation Service (SCS) Curve Number (CN) method. The CN is a function of soil cover, land use, and antecedent moisture conditions. A conservative CN of 88 was selected to represent the vegetative layer at the site. A CN of 100 was selected to represent the drainage area for the stormwater detention ponds. A CN of 84 was selected to represent the non-landfill areas and perimeter channels. A CN of 75 or 79 was selected to represent the upland areas, depending on the existing soil type.

2.1.2.5 Hydrograph Information

Two different types of hydrograph generation methods were used in the post-development analyses including distributed runoff methods and the Snyder unit hydrograph method. Muskingum-Cunge and reservoir routing (pond storage discharge) methods were used for hydrograph routing through the stormwater detention ponds. Information for the model parameters used for the post-development condition is included in this Appendix H-2.

Distributed Runoff Methods

The distributed runoff methods (e.g., kinematic wave) are applicable to small-water catchments with uniform slopes, channels, and drainage patterns. Conceptual drainage elements (overland flow length and channels) are used to represent the actual transfer of runoff within the drainage area in the distributed runoff methods. HEC-1 utilizes Kinematic Wave and Muskingum-Cunge routing to implement these methods. Landfill final cover areas consist of relatively short (typically 120 feet for the proposed post-development condition) overland flow lengths that drain into landfill final cover swales.

The kinematic wave and the Muskingum-Cunge methods have been used for estimating peak runoff rates for the drainage areas that drain to the perimeter channels and stormwater ponds. A hydrograph was developed using the kinematic wave method to simulate overland flow (e.g., landfill areas to swales, etc.), and the Muskingum-Cunge method was utilized to model channelized flow. Distributed runoff methods utilize a simplified form of the energy equation and is based on the characteristics of the drainage area, swale, or channel. Both of these methods use physical (measurable) characteristics (e.g., flow lengths, slopes, surface roughness coefficients, channel cross sections) of a watershed to estimate peak discharges.

Snyder Unit Hydrograph Method

The Snyder unit hydrograph method was used to develop hydrographs for the upland and non-landfill areas. This method is applicable to basins with a wide range of basin area, watershed length, slope, impervious cover, and conveyance characteristics. Several different methods have been developed to estimate Snyder unit hydrograph parameters (watershed lag and peaking coefficient). The Espey "10-Minute" method was used in this project to estimate Snyder unit hydrograph parameters.

Hydrograph Routing

The hydrograph at the pond outlets was generated by routing the inflow hydrograph through the detention volume for the stormwater detention ponds. Pond routing was performed by utilizing the storage-discharge relationship for the stormwater detention pond by defining surface area versus elevation. Additionally, characteristics of discharge structures (low level outlet and spillway) were utilized for pond routing.

2.2 Hydraulics

Drainage structure details are provided in Appendix H-1. Drainage chutes will be trapezoidal with 8-foot (minimum) bottom widths and 2 (Horizontal) to 1 (Vertical) side slopes above the energy dissipater. The energy dissipater spacing and sizing are presented in Appendix H-3. Chutes are lined with geomembrane to protect against erosion. Drainage swales will be triangular and grass-lined unless noted otherwise on the permit drawings.

The swales, chutes, and perimeter channels are designed to safely convey the 25-year, 24-hour storm. These drainage features will also reduce maintenance at the site after closure by minimizing erosion. Hydraulic analyses of the swales, chutes, and channels have been conducted using Manning's uniform flow formula. The uniform flow formula assumption is applicable to long prismatic channels of uniform slopes, as proposed at the site.

The general form of Manning's equation is:

V =

in which

V = Velocity of flow, fps (feet per second)
n = Manning's Roughness Coefficient

R = = Hydraulic radius, ft (feet)

S = Friction slope for nonuniform flow or channel slope for uniform flow, ft/ft
A = Area of water perpendicular to direction of flow, sf (square feet)
P = Wetted perimeter, ft

Using the relationship

$$Q = VA$$

Manning's equation can also be written as

Q =

The uniform flow assumption equates the channel slope to the friction slope; therefore, the slope of the channel can be used for "S" in Manning's formula for computation of uniform flow.

Typical values for Manning's Roughness Coefficient are presented in the 2014 Oklahoma DOT *Drainage Design Manual* (Figure 8.3-B). A value of 0.04 is used for all perimeter channels. A value of 0.03 is used for all swales. A value of 0.01 is used for all geomembrane-lined chutes. These values will yield maximum expected depths of flow in the drainage structures after vegetation has been established. Hydraulic calculations for the post-development swales and chutes are presented in Appendix H-3. Analyses of the post-development perimeter channels are presented in Appendix H-4.

3 EXISTING AND POST-DEVELOPMENT DRAINAGE INFORMATION

This section has been developed to show that the proposed landfill development will not significantly alter the existing drainage patterns at the site. The drawings depicting the proposed landfill development are included and Appendix H-1. Supporting calculations for the proposed landfill development are presented in Appendix H-2 (Post-Development Drainage Analysis). Drainage design information for the existing condition is included in the Tier I modification, dated November 2021. A comparison summary of the existing and post-development condition flows produced by the 25-year storm event are presented on Table 3.1 of this section.

The following three sections discuss: (1) site drainage patterns and (2) the effect of the post-development on peak flows generated from the site; and (3) a summary of the results.

3.1 Site Drainage Patterns

To demonstrate that the development of the landfill will not adversely impact existing drainage patterns, drainage areas were delineated (or subdivided as needed) to calculate peak flow rates entering and exiting the permit boundary. The results of these calculations are shown on Figure 3-1 for the existing and post-development conditions. The hydrologic calculations and drainage areas used for both conditions are included in Appendix H-2.

As shown on Figure 3-1, peak 25-year 25-hour flow rates entering the permit boundary from the offsite areas (O1 through O4) are the same for the existing and post-development conditions. Offsite runoff entering the permit boundary towards the eastern portion of the site is managed by a series of ponds and channels before discharging into roadside ditches. Offsite runoff entering the permit boundary to the western portion of the site either sheet flows off the site or is collected by a series of channels that discharge into a retention pond to the west of the proposed landfill development.

In both analyzed conditions, runoff exits the permit boundary at the same six locations, DP1 through DP6. The peak flows exiting the permit boundary are less than the existing flow rates exiting the permit boundary at the same locations.

3.2 Effect of Proposed Development on Peak Flows Generated from the Site

To assess the effects the proposed landfill development will have on runoff that is generated at the site, an analysis was developed to address peak flows from the landfill. In addition, Table 3.1 has been developed to facilitate a comparison of peak flow rates discharging offsite (from the permit boundary) at the discharge points and onsite (flow entering the permit boundary) from the upland area.

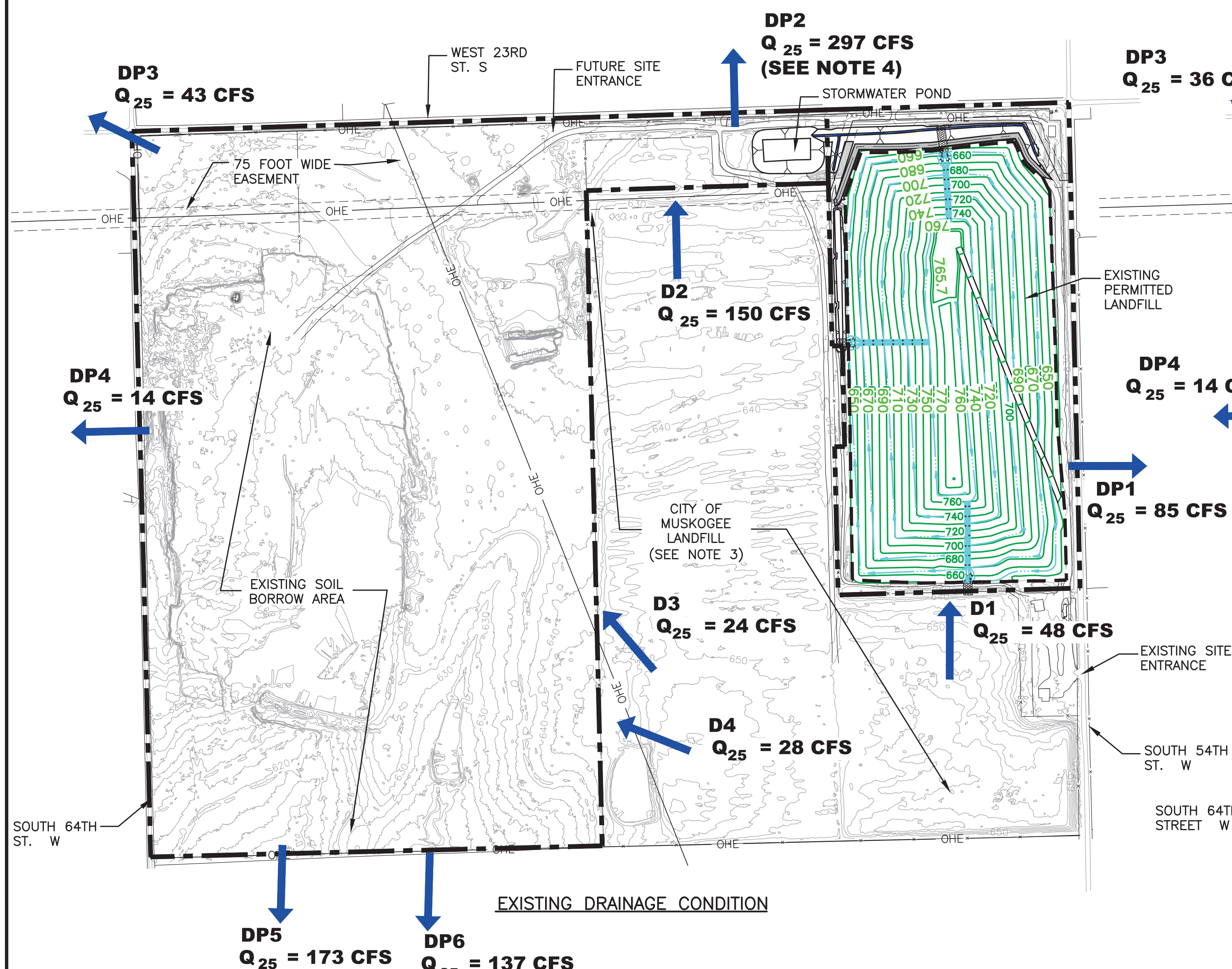
Table 3.1
Existing and Post-Development Comparison of Peak Flow Rates for the Design Storm Event

Upland Area and Stormwater Discharge Points	Existing Condition 25-Year, 24-Hour Peak Flow Rates (cfs)	Post-Development Condition 25-Year, 24-Hour Peak Flow Rates (cfs)
O1	48	48
O2	150	150
O3	24	24
O4	28	28
DP1	85	85
DP2	297	253
DP3	43	36
DP4	14	14
DP5	173	8
DP6	137	2

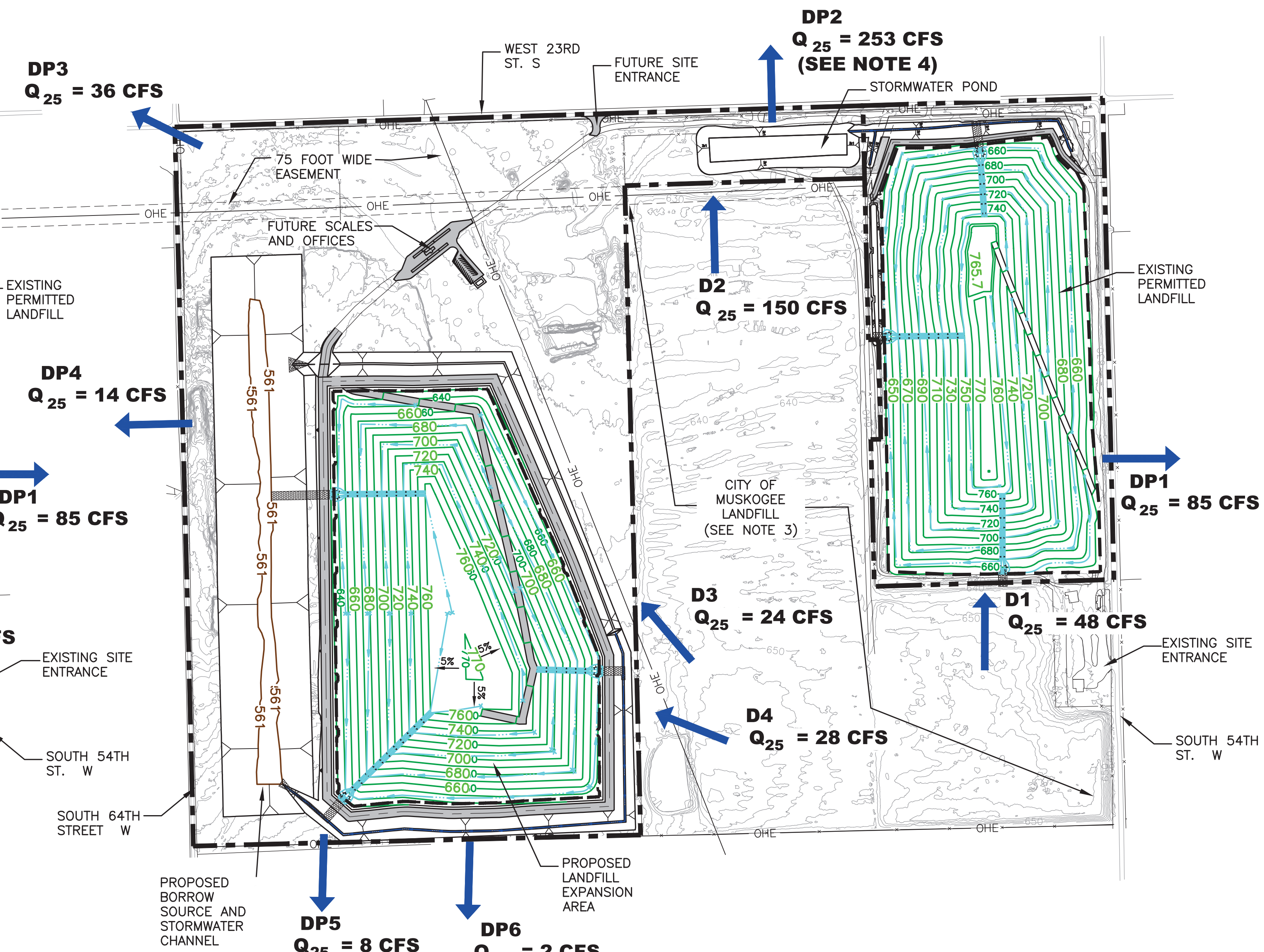
As shown on Table 3.1, the peak flow rates discharging offsite from the post-development condition are the same or are less than the peak flow rates discharging offsite for the existing condition.

3.3 Summary

From the hydraulic and hydrologic evaluations of the post-development drainage plan, runoff generated from the landfill will be attenuated and controlled by the perimeter drainage structures prior to discharging offsite. Given that (1) the stormwater discharge outfall locations are consistent with the existing site discharge locations, (2) runoff from the 25-year design storm event will be attenuated and controlled by the stormwater management system, (3) erosion control features will minimize sediment discharge from the site, and (4) maintenance activities and site inspections will be performed on the stormwater management system following storm events, it is concluded that the post-development drainage plan will not adversely alter existing or permitted drainage patterns at the site.



EXISTING DRAINAGE CONDITION



POST–DEVELOPMENT DRAINAGE PLAN

LEGEND:

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- N 273000 STATE PLANE COORDINATE GRID
- 700 EXISTING CONTOUR
- 700 FINAL COVER CONTOUR
- 561 BORROW AREA CONTOUR
- DRAINAGE SWALE
- DRAINAGE CHUTE
- DRAINAGE CHANNEL
- OHE EXISTING OVERHEAD EASEMENT

0 400 800
SCALE IN FEET

LICENSED PROFESSIONAL ENGINEER
Charles R. Marsh
24599
OKLAHOMA
10/13/2023

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01–25–2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL AND PROPERTY CONTIGUOUS WITH THE CURRENT LANDFILL PROPERTY. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. DCP2 WAS UPDATED FROM THE TIER I PERMIT MODIFICATION TO INCLUDE UPLAND FLOW FROM THE EXPANDED SITE.

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PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

DATE: 10/2023	DRAWN BY: RAA
FILE: 0086–364–11	DESIGN BY: JBP
CAD: 3–1–DRAINAGE COMPARISON.DWG	REVIEWED BY: JVQ

REVISIONS

NO.	DATE	DESCRIPTION

Weaver Consultants Group
CA 3804 PE – 06/30/2025

TIER III PERMIT MODIFICATION DRAINAGE COMPARISON

MUSKOGEE COMMUNITY, RDF
MUSKOGEE COUNTY, OKLAHOMA

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FIGURE 3–1

O:\0086\364\EXPANSION 2022\APPENDIX III\3–1–DRAINAGE COMPARISON.dwg, jpulter, 1:2

4 CONCLUSIONS

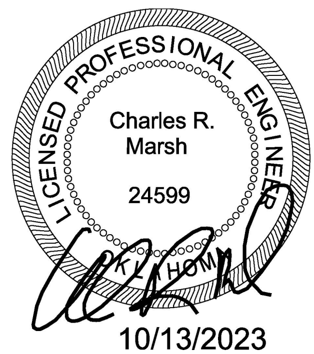
The stormwater management plan for this facility is designed to convey runoff from the 25-year, 24-hour storm runoff volumes and to minimize surface water flow onto the active fill area. The flow due to the development of the expanded disposal facility will be attenuated by the perimeter drainage structures before discharging offsite. As noted in Section 3, the post-development plan does not result in significant alteration of the existing drainage patterns. Temporary and permanent erosion control measures are provided to minimize potential sediment generated from the site. With this stormwater management system, no adverse impacts to the adjacent surface waters are anticipated.

The following conclusions summarize the results of this drainage analysis:

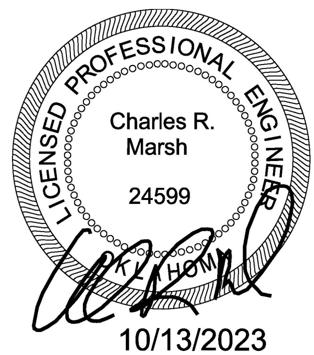
- The design criteria used for these drainage calculations meet the requirements of the Municipal Solid Waste Management Regulations of the ODEQ.
- Drainage analyses were conducted in accordance with the *Drainage Design Manual*, November 2014, of the Oklahoma Department of Transportation (DOT).
- Drainage structures (swales, chutes, culverts, perimeter channels, and stormwater detention ponds) are designed to convey the peak flow rates from the 25-year, 24-hour rainfall event.
- Erosion will be reduced using BMPs during site development.

APPENDIX H-1

FIGURES



CONTENTS



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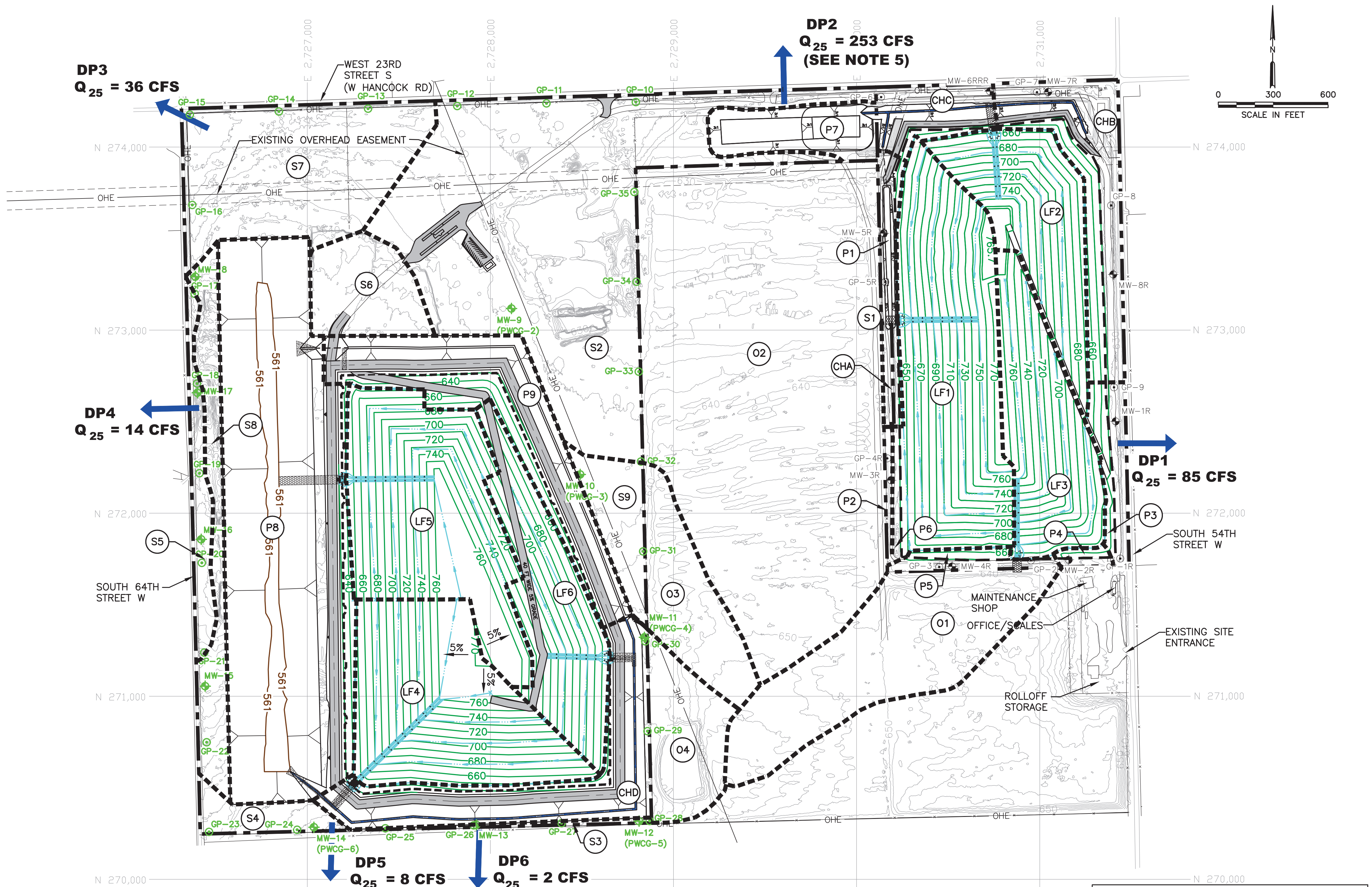

LEGEND

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- N 273,000 STATE PLANE COORDINATE GRID
- 640 EXISTING CONTOUR
- 561 BORROW AREA CONTOUR
- 770 FINAL COVER CONTOUR
- DRAINAGE SWALE
- DRAINAGE CHUTE
- DRAINAGE CHANNEL
- RIPRAP/GABIONS
- OHE APPROXIMATE OG&E POWER LINE EASEMENT
- MW-5R EXISTING GROUNDWATER MONITORING WELL
- MW-9 (PWCG-1) PROPOSED GROUNDWATER MONITORING WELL
- GP-5 EXISTING LANDFILL GAS MONITORING PROBE
- GP-10 PROPOSED LANDFILL GAS MONITORING PROBE
- DRAINAGE AREA BOUNDARY
- (LF1) DRAINAGE AREA DESIGNATION

HEC-1 DRAINAGE AREAS – ONSITE

DRAINAGE AREA	AREA (ACRES)	AREA (SQ MILES)
LF1	25.64	0.0401
LF2	13.41	0.0210
LF3	14.29	0.0223
LF4	21.29	0.0333
LF5	23.14	0.0362
LF6	13.63	0.0213
S1	0.69	0.0011
S2	51.48	0.0804
S3	0.62	0.0010
S4	3.02	0.0047
S5	3.79	0.0059
S6	6.97	0.0109
S7	20.69	0.0323
S8	7.57	0.0118
S9	4.77	0.0075
P1	2.22	0.0035
P2	0.60	0.0009
P3	3.52	0.0055
P4	0.68	0.0011
P5	1.96	0.0031
P6	1.34	0.0021
P7	5.84	0.0091
P8	45.30	0.0708
P9	15.54	0.0243
CHA	0.61	0.0010
CHB	10.94	0.0171
CHC	4.52	0.0071
CHD	13.62	0.0213

HEC-1 DRAINAGE AREAS – OFFSITE

DRAINAGE AREA	AREA (ACRES)	AREA (SQ MILES)
O1	20.60	0.0322
O2	72.56	0.1134
O3	9.01	0.0141
O4	7.91	0.0124

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NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. PERMITTED FINAL COVER CONTOURS AND DRAINAGE REPRODUCED FROM THE TIER I PERMIT MODIFICATION PREPARED BY WEAVER CONSULTANTS GROUP, LLC IN NOVEMBER 2021 AND APPROVED BY ODEQ ON JANUARY 24, 2022.
5. DP2 WAS UPDATED FROM THE TIER I PERMIT MODIFICATION TO INCLUDE UPLAND FLOW FROM THE EXPANDED SITE.

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DRAWN BY: JBM
DESIGN BY: MB
REVIEWED BY: CRM

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TIER III PERMIT MODIFICATION
POST-DEVELOPMENT HEC-1
DRAINAGE AREAS

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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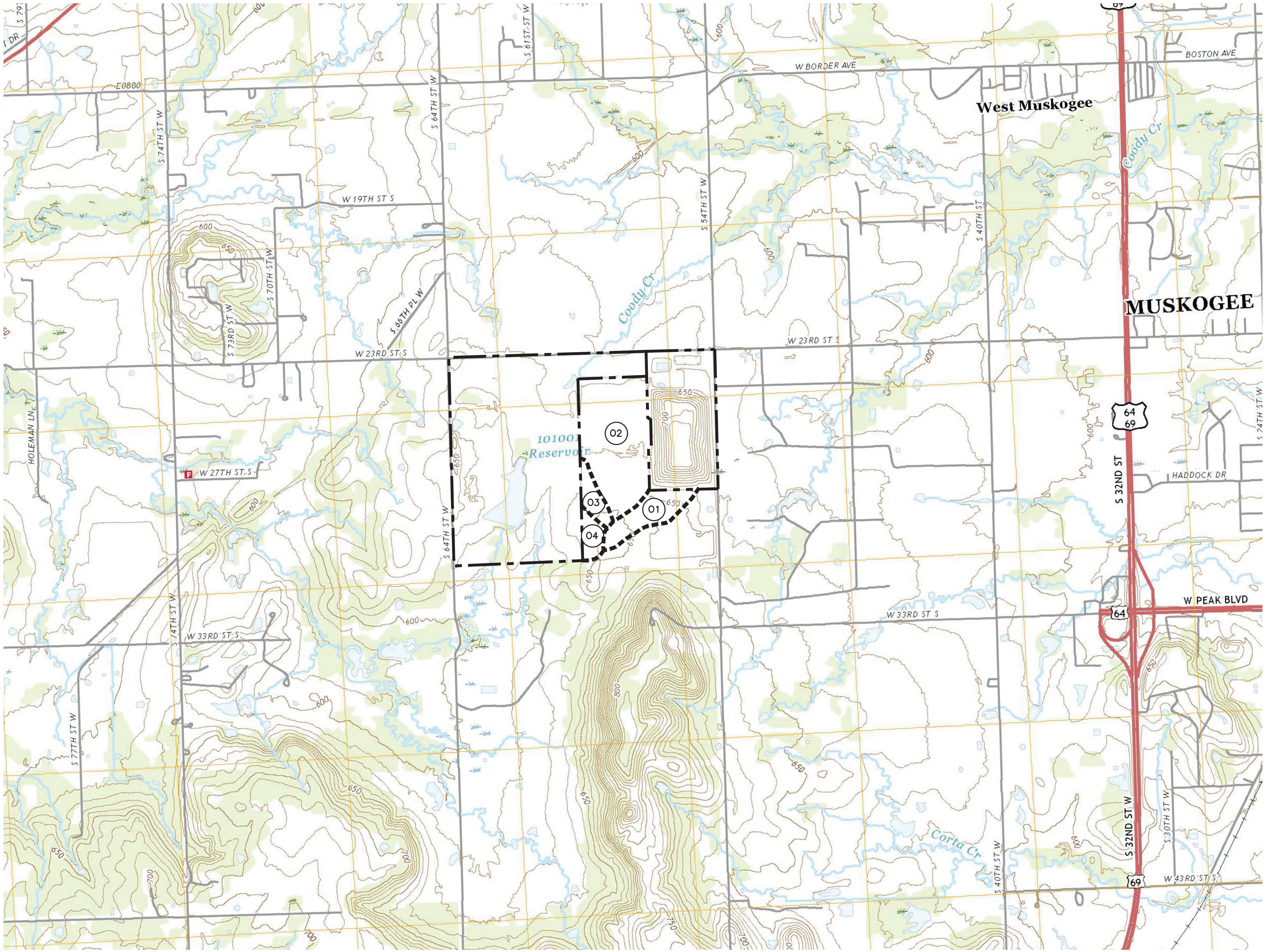
FIGURE H-1-1

O:\0086\364\EXPANSION 2022\APPENDIX H\FIG H-1-1-POST DEVELOPMENT DRAINAGE AREAS.dwg, jpuhr, 1:2



0 1000 2000
SCALE IN FEET

LEGEND

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- DRAINAGE AREA BOUNDARY
- (01) DRAINAGE AREA DESIGNATION

NOTES:

1. ADAPTED FROM USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAP (MUSKOGEE COUNTY, OKLAHOMA, 2018).
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.

HEC-1 DRAINAGE AREAS – OFFSITE

DRAINAGE AREA	AREA (ACRES)	AREA (SQ MILES)
01	20.60	0.0322
02	72.56	0.1134
03	9.01	0.0141
04	7.91	0.0124

SOUTHWEST MUSKOGEE, OK
2018

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REVIEWED BY: CRM

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TIER III PERMIT MODIFICATION
OFFSITE DRAINAGE AREA PLAN

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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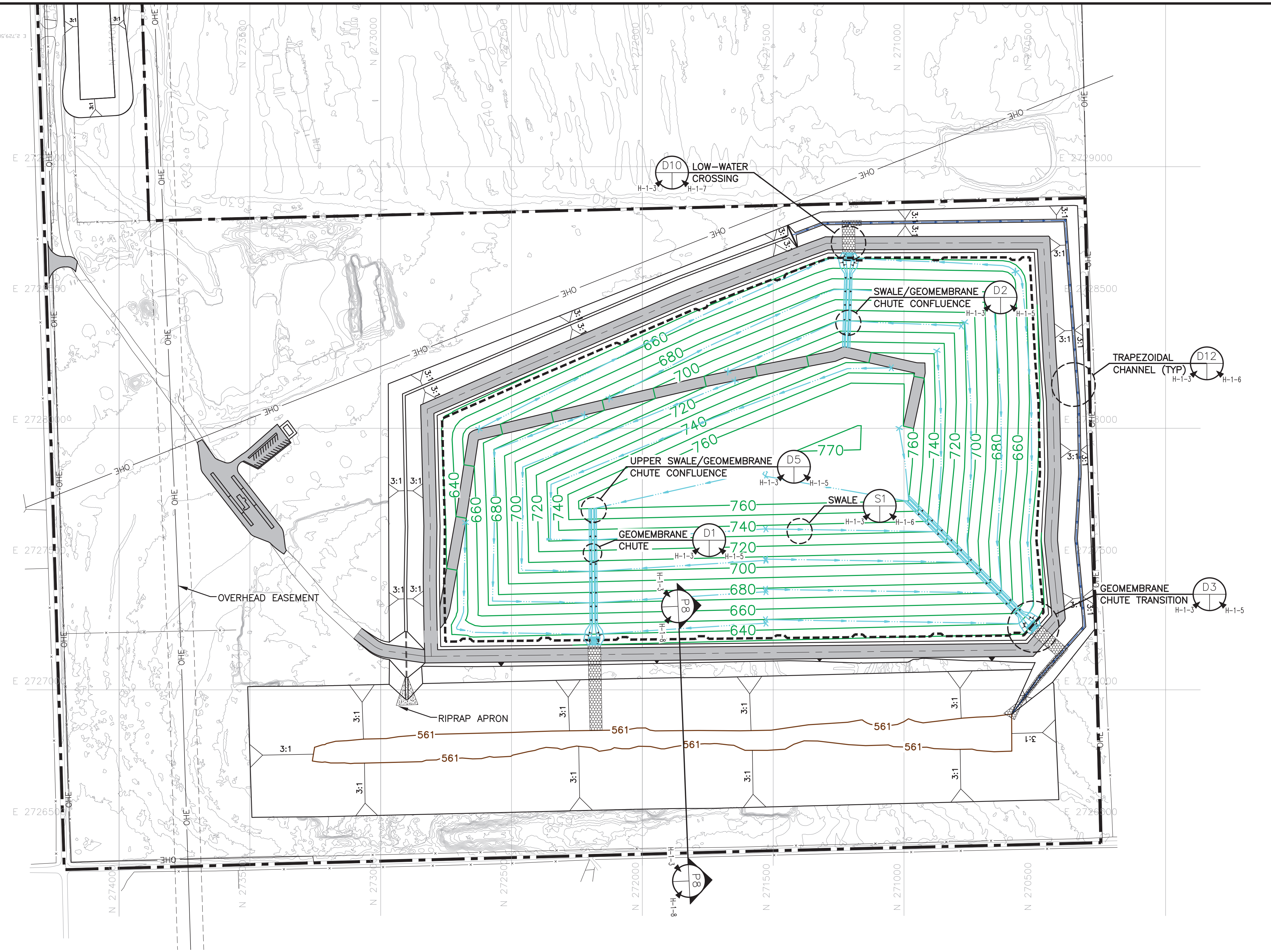
FIGURE H-1-2

O:\0086\364\EXPANSION 2022\APPENDIX H\FIG H-1-2-OFF-SITE DRAINAGE AREA.dwg



SCALE IN FEET: 0 200 400

LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- STATE PLANE COORDINATE GRID (N 273,000)
- EXISTING CONTOUR (640)
- BORROW AREA CONTOUR (561)
- FINAL COVER CONTOUR (770)
- PROPOSED DRAINAGE SWALE
- PROPOSED DRAINAGE CHUTE
- PROPOSED DRAINAGE CHANNEL
- GABIONS
- RIPRAP APRON
- EXISTING OVERHEAD EASEMENT (OHE)

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.

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FILE: 0086-364-11
CAD: H-1-3 POST DEV DRNG.DWG

DRAWN BY: JDW
DESIGN BY: MB
REVIEWED BY: CRM

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CA 3804 PE – 06/30/2025

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TIER III PERMIT MODIFICATION
POST-DEVELOPMENT DRAINAGE PLAN

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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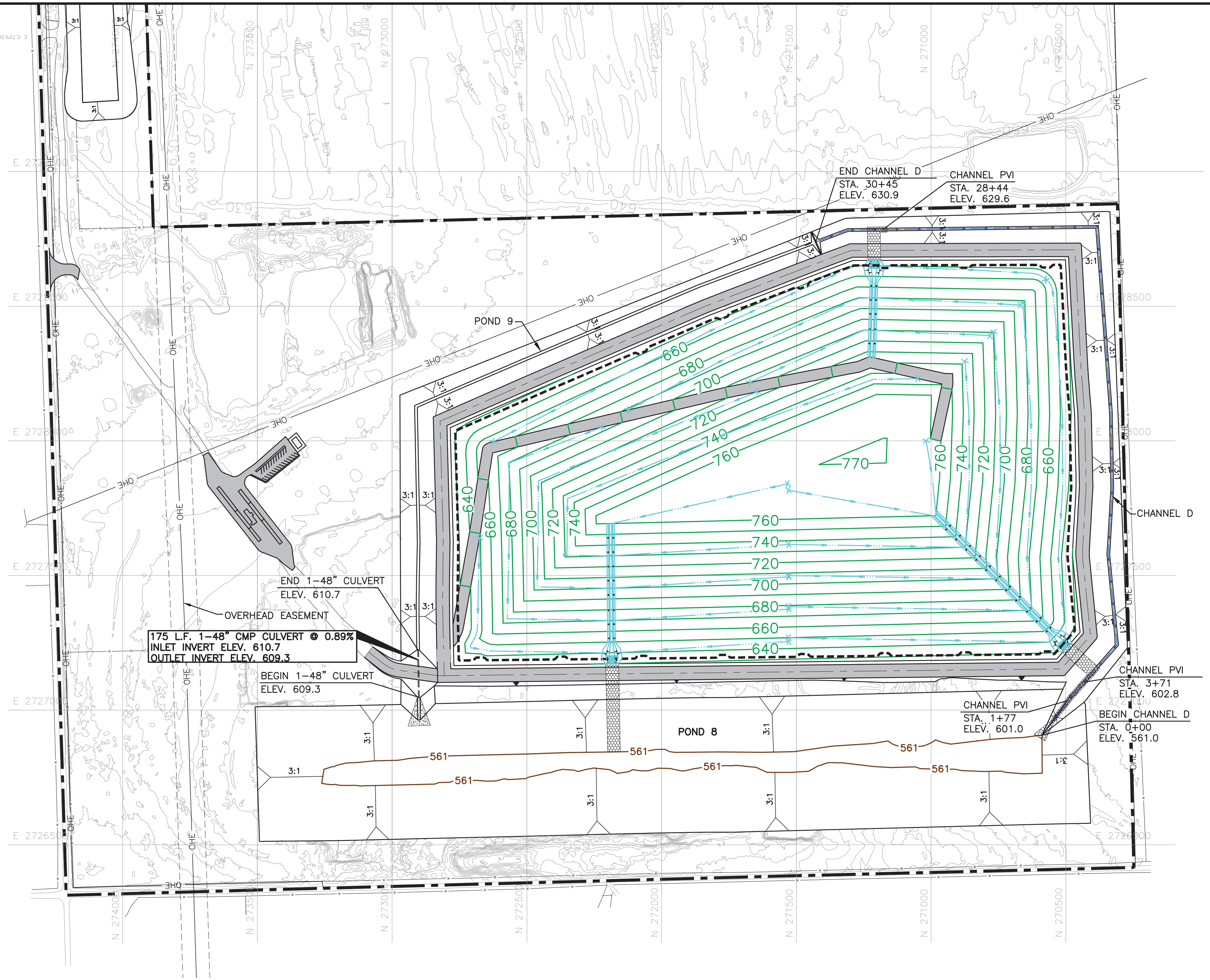
FIGURE H-1-3



0 200 400
SCALE IN FEET

LEGEND

PROPOSED PERMIT BOUNDARY
PROPOSED LIMITS OF WASTE
N 273,000 STATE PLANE COORDINATE GRID
640 EXISTING CONTOUR
561 BORROW AREA CONTOUR
770 FINAL COVER CONTOUR
PROPOSED DRAINAGE SWALE
PROPOSED DRAINAGE CHUTE
PROPOSED DRAINAGE CHANNEL
RIPRAP/GABIONS
OHE EXISTING OVERHEAD EASEMENT

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.

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CAD: H-1-4-PERIMETER DRNG.DWG

DRAWN BY: JDW
DESIGN BY: MB
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REVISIONS

NO.	DATE	DESCRIPTION

TIER III PERMIT MODIFICATION
PERIMETER DRAINAGE PLAN

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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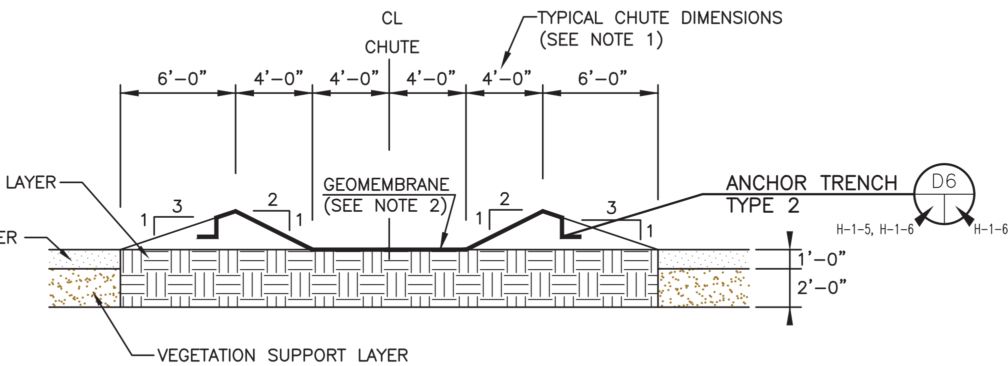
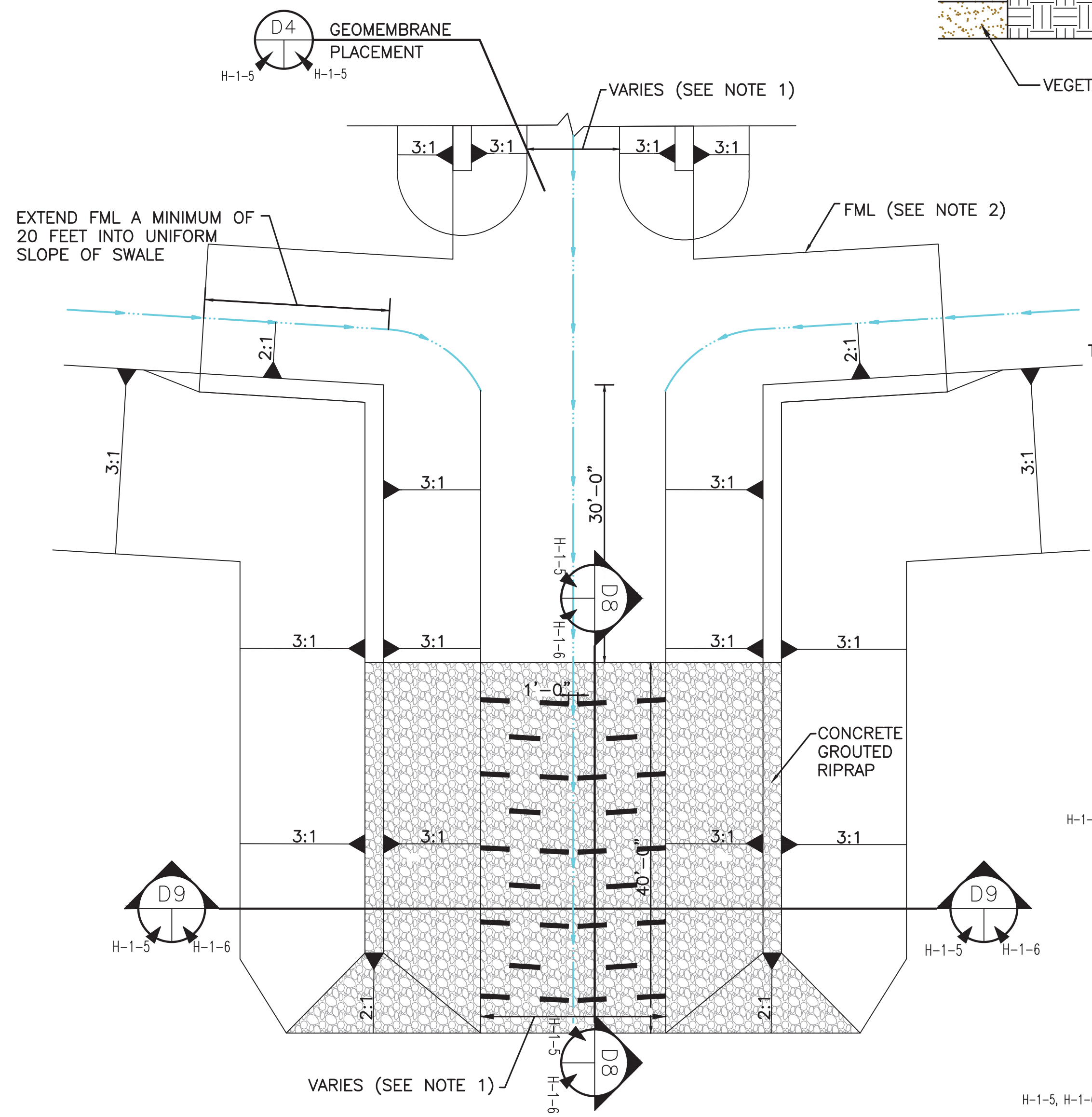
FIGURE H-1-4



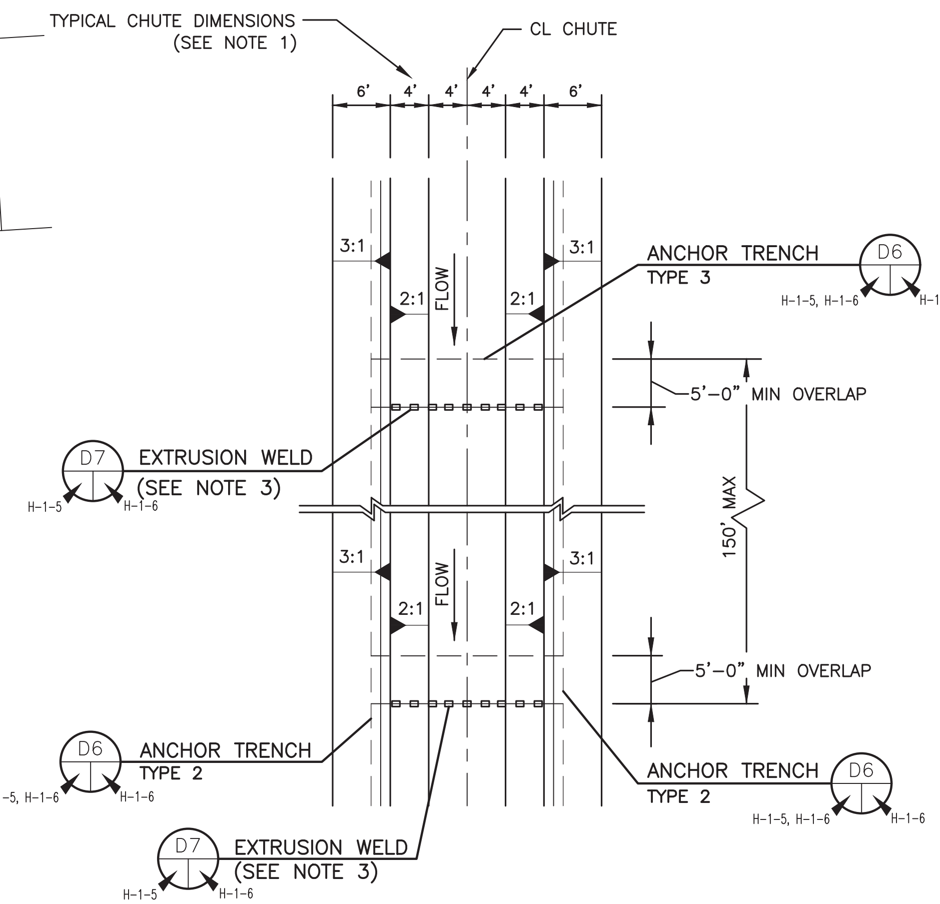
GEOMEMBRANE CHUTE D1 H-1-3, H-1-5, H-1-6 H-1-5

0 5 10 SCALE IN FEET



GEOMEBRANE CHUTE TRANSITION D3 H-1-3 H-1-5

0 10 20 SCALE IN FEET



GEOMEMBRANE PLACEMENT D4 H-1-5 H-1-5

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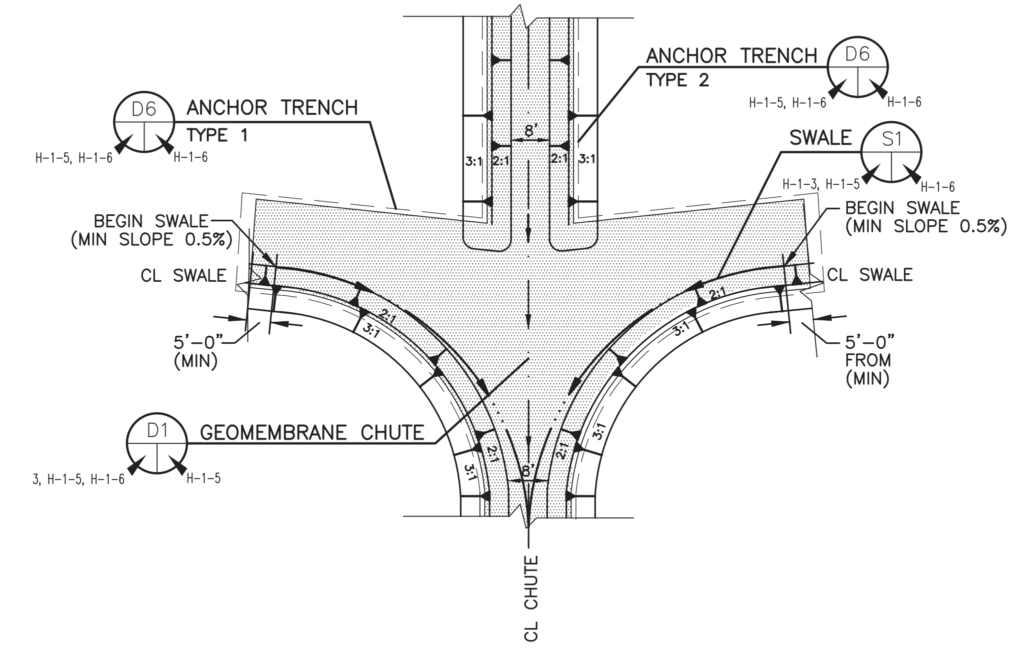
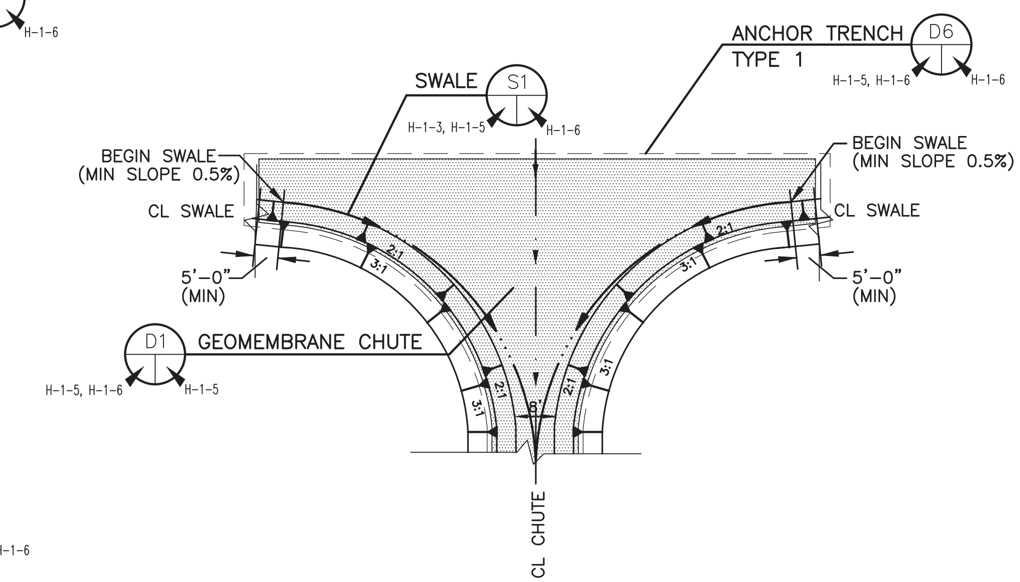


SWALE/GEOMEMBRANE CHUTE CONFLUENCE D2 H-1-3 H-1-5

0 20 40 SCALE IN FEET



UPPER SWALE/GEOMEMBRANE CHUTE CONFLUENCE D5 H-1-3 H-1-5

0 20 40 SCALE IN FEET

LICENSED PROFESSIONAL ENGINEER
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OKLAHOMA
10/13/2023

NOTES:

1. SEE APPENDIX H–3 FOR CHUTE DESIGN SUMMARY.
2. 60 MIL HDPE GEOMEMBRANE TEXTURED BOTH SIDES SHALL BE USED FOR GEOMEMBRANE LETDOWN LINING.
3. EXTRUSION WELD UPSTREAM PANEL OVER DOWNSTREAM PANEL USING 1'–0" LONG EXTRUSION WELD WITH A SPACING OF 1'–0" BETWEEN EACH WELD.
4. VEGETATION LAYER MATERIAL WILL CONSIST OF A SW OR SP MATERIAL AS DEFINED BY UNIFIED SOIL CLASSIFICATION SYSTEM (USCS).

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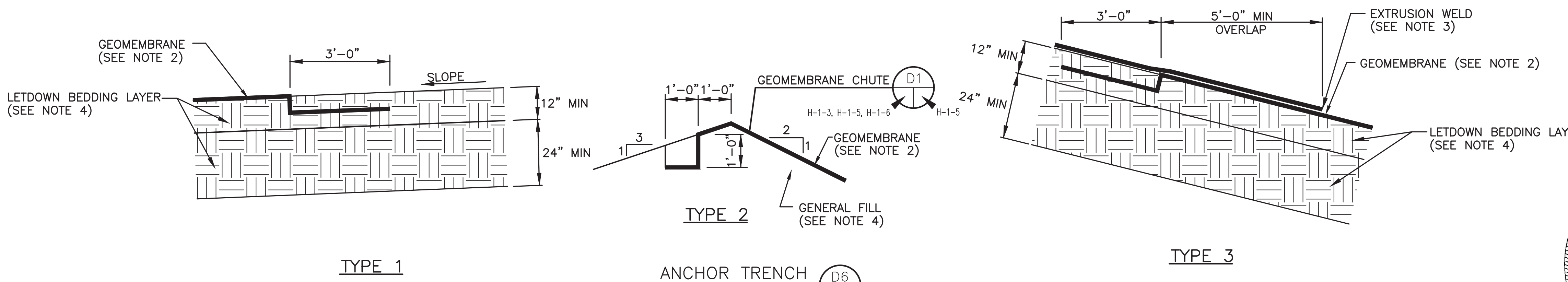
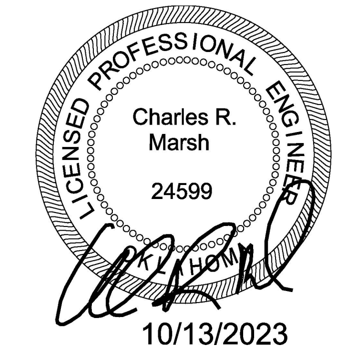
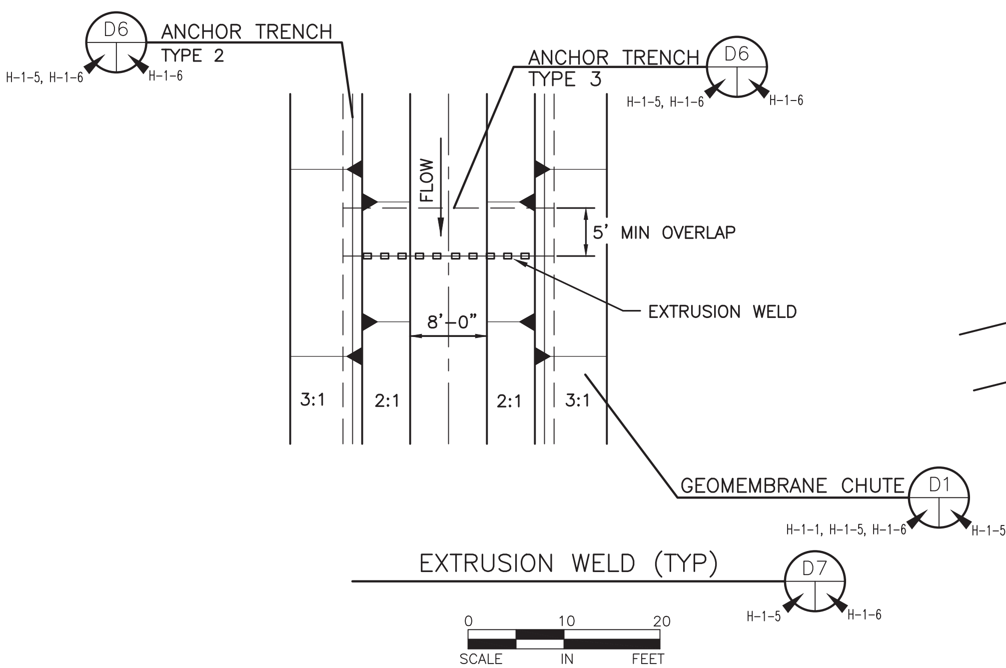
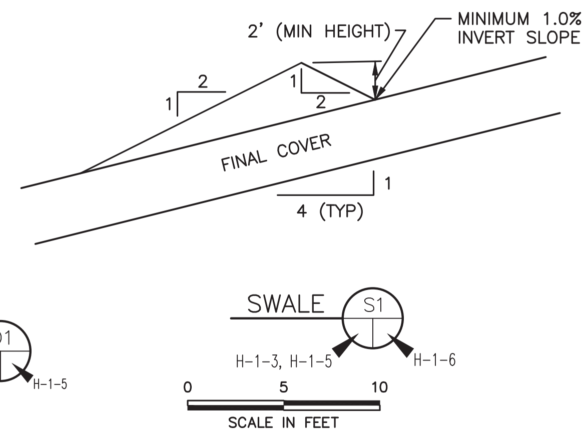
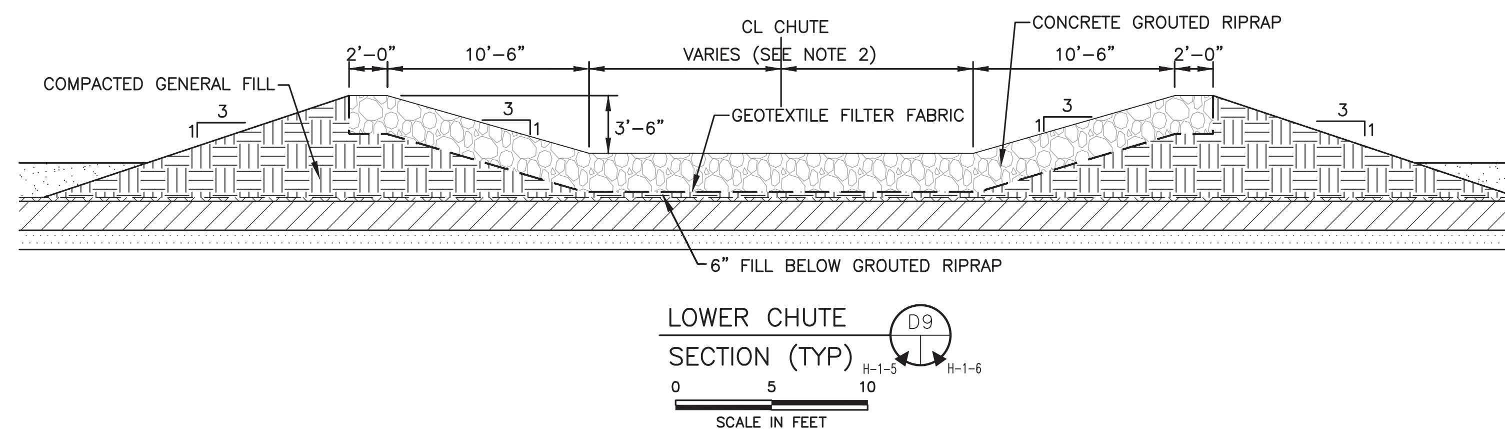
DATE: 10/2023 FILE: 0086-364-11 CAD: FIG H-1-5-DRAINAGE DETAILS.DWG	DRAWN BY: RAA DESIGN BY: MB REVIEWED BY: CRM	
Weaver Consultants Group CA 3804 PE – 06/30/2025	REVISIONS: NO. / DATE / DESCRIPTION	WWW.WCGRP.COM — FIGURE H-1-5

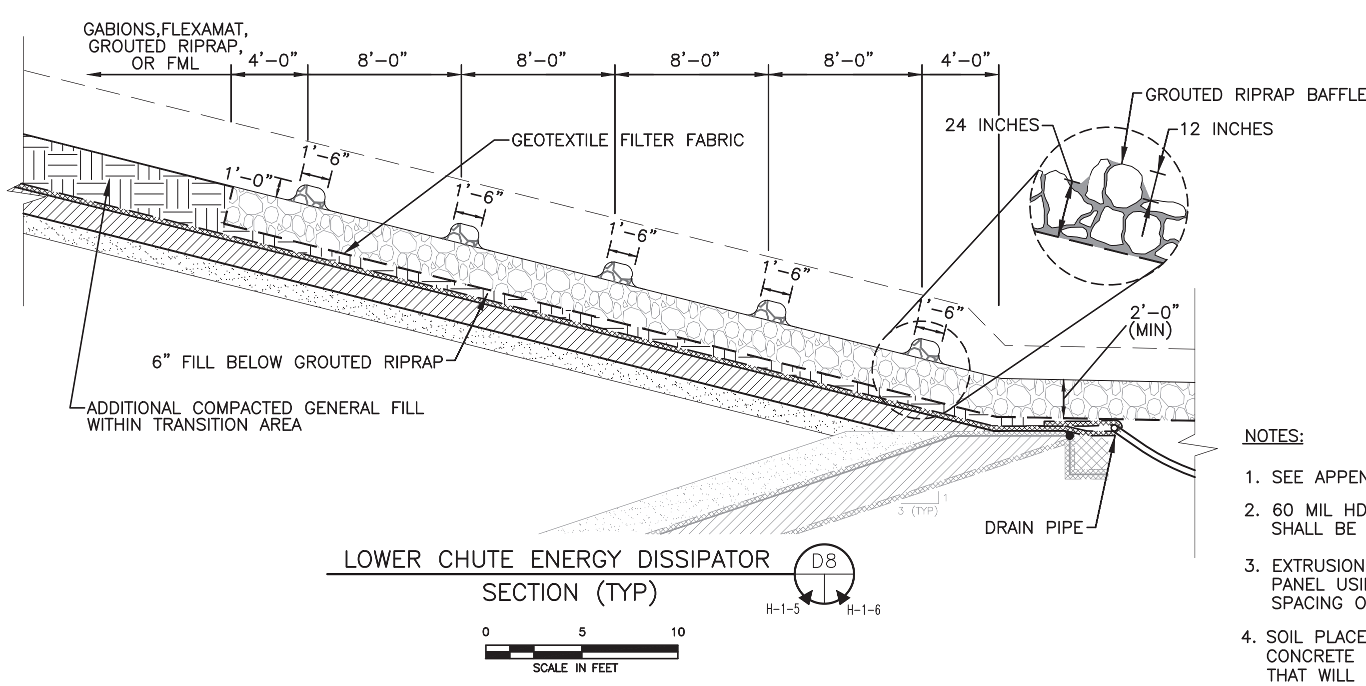


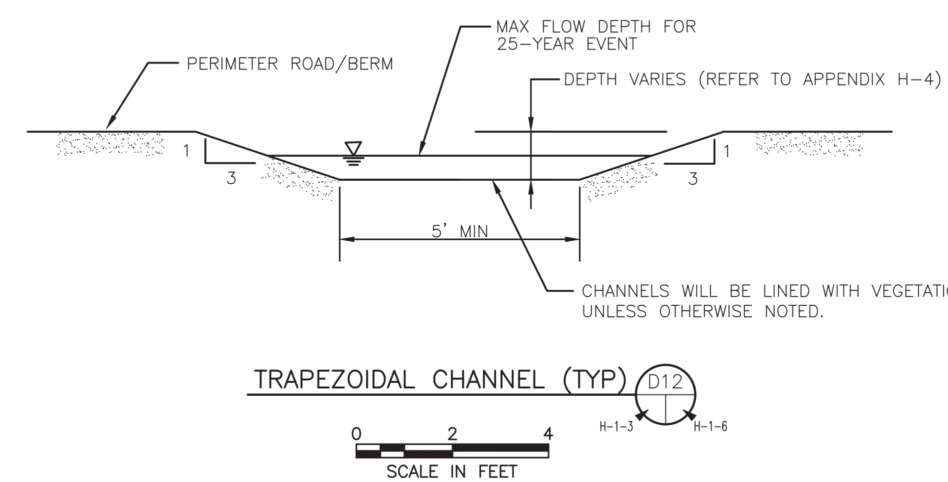












NOTES:

1. SEE APPENDIX H-3 FOR CHUTE DESIGN SUMMARY.
2. 60 MIL HDPE GEOMEMBRANE TEXTURED BOTH SIDES SHALL BE USED FOR GEOMEMBRANE LETDOWN LINING.
3. EXTRUSION WELD UPSTREAM PANEL OVER DOWNSTREAM PANEL USING 1'-0" LONG EXTRUSION WELD WITH A SPACING OF 1'-0" BETWEEN EACH WELD.
4. SOIL PLACED UNDER GEOMEMBRANE LETDOWN AND CONCRETE DISSIPATER SHALL NOT CONTAIN TOPSOIL THAT WILL BE USED FOR VEGETATIVE LAYER.
5. SEE APPENDIX H-3 FOR CHUTE HYDRAULIC CALCULATIONS.

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DATE: 10/2023
FILE: 0086-364-11
CAD: FIG H-1-6-DRAINAGE DETAILS.DWG

DRAWN BY: RAA
DESIGN BY: MB
REVIEWED BY: CRM

Weaver Consultants Group
CA 3804 PE – 06/30/2025

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS		
NO.	DATE	DESCRIPTION

TIER III PERMIT MODIFICATION
DRAINAGE DETAILS

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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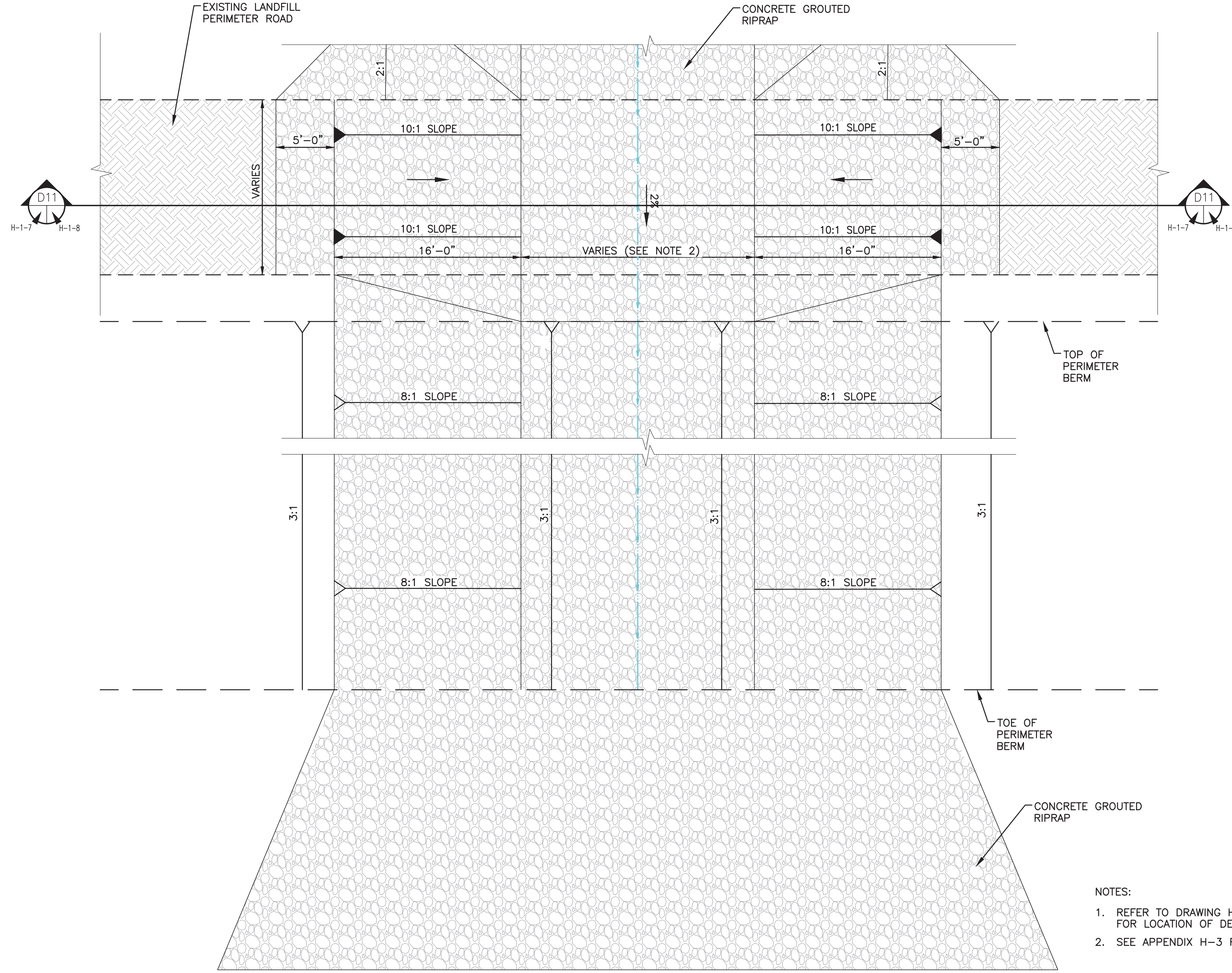
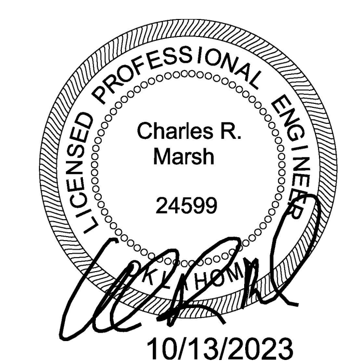
FIGURE H-1-6



LOW WATER CROSSING (TYP)

D10 H-1-3 H-1-7

0 5 10
SCALE IN FEET



NOTES:

1. REFER TO DRAWING H–1–3 STORMWATER MANAGEMENT PLAN FOR LOCATION OF DETAILS.
2. SEE APPENDIX H–3 FOR CHUTE DESIGN SUMMARY.

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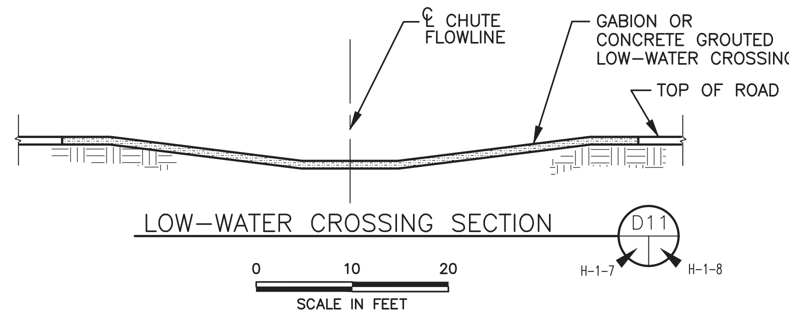
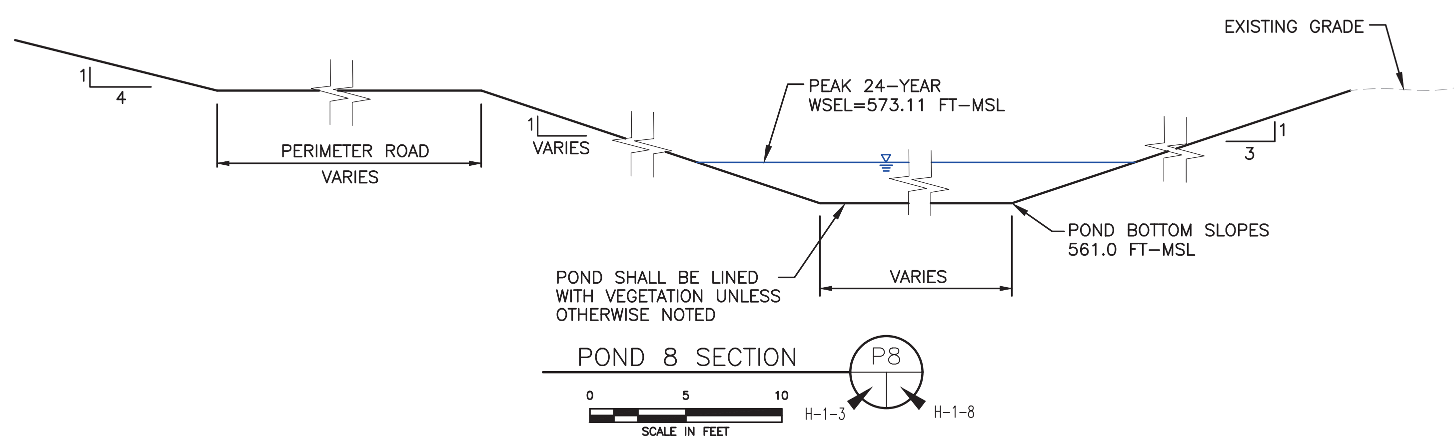
FIGURE H–1–7





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DATE: 10/2023
FILE: 0086–364–11
CAD: FIG H–1–8.DWG

DRAWN BY: JDW
DESIGN BY: MB
REVIEWED BY: CRM

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CA 3804 PE – 06/30/2025

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DRAINAGE DETAILS

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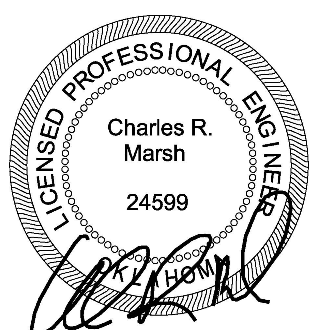
FIGURE H-1-8

O:\0086\364\EXPANSION 2022\APPENDIX H\FIG H-1-8-DRAINAGE DETAILS.dwg, jpuhr, 1:2

APPENDIX H-2

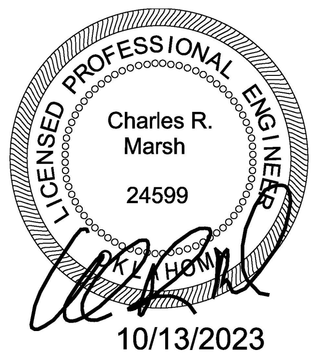
PROPOSED POST-DEVELOPMENT DRAINAGE ANALYSIS

Includes Pages H-2-1 through H-2-67



10/13/2023

CONTENTS



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10/13/2023

PROPOSED POST-DEVELOPMENT
HEC-1 PEAK FLOW RATE ANALYSIS

HYPOTHETICAL STORM DATA

Hypothetical Storm Data

Precipitation data taken from TP-40 and Hydro 35 rainfall data.

Time	5 min	15 min	60 min	2 hr	3 hr	6 hr	12 hr	24 hr
25-Year Event	0.71 in.	1.54 in.	3.20 in.	3.88 in.	4.30 in.	5.28 in.	6.25 in.	7.25 in.

PRECIPITATION LOSS DATA

Required: Determine the SCS curve numbers for the on-site drainage areas and the upland drainage areas for use in the HEC-1 analysis.

References:
1. Dodson's and Associates, Inc., *Hands-On HEC-1* , 1997.
2. United States Department of Agriculture, National Resource Conservation Service, Web Soil Survey for Muskogee County, Oklahoma (http://websoilsurvey.nrcs.usda.gov).

Solution: The final cover system will be in-place and the vegetative layer will control precipitation loss. A curve number for the landfill erosion layer (e.g., drawing area LF1) was selected using the chart on page H-2-6 (Ref.1) based on soil information obtained information obtained from pages from pages H-2-7 through H-2-10 (Ref. 2).

Use: CN = 88

Perimeter channel drainage area (e.g., drainage area CHA) curve numbers were selected assuming fair vegetation establishment.

Use: CN = 84 .

Offsite areas (O1 to O4) and non-landfill areas (S1 to S9) curve numbers were selected based on the in-situ soil type in the area.

Use: CN = 79 Hydrological Soil Group: D

Use: CN = 75 Hydrological Soil Group: C/D

Use: CN = 70 Hydrological Soil Group: C

The pond area is assumed to be at its capacity. Therefore, no losses from the pond surface will occur.

Use: CN = 100

TABLE 5.3 Values of SCS Curve Number for Rural Areas

Source: [McCuen, 1982]

	Hydrologic Soil Group			
Land Use Description	**A**	**B**	**C**	**D**
Fallow:				
Straight Row	77	86	91	94
Row Crops:				
Straight Row, Poor Condition	72	81	88	91
Straight Row, Good Condition	67	78	85	89
Contoured, Poor Condition	70	79	84	88
Contoured, Good Condition	65	75	82	86
Contoured and Terraced, Poor Condition	66	74	80	82
Contoured and Terraced, Good Condition	62	71	78	81
Small Grain:				
Straight Row, Poor Condition	65	76	84	88
Straight Row, Good Condition	63	75	83	87
Contoured, Poor Condition	63	74	82	85
Contoured, Good Condition	61	73	81	84
Contoured and Terraced, Poor Condition	61	72	79	82
Contoured and Terraced, Good Condition	59	70	78	81
Close-Seeded Legumes or Rotation Meadow				
Straight Row, Poor Condition	66	77	85	89
Straight Row, Good Condition	58	72	81	85
Contoured, Poor Condition	64	75	83	85
Contoured, Good Condition	55	69	78	83
Contoured and Terraced, Poor Condition	63	73	80	83
Contoured and Terraced, Good Condition	51	67	76	80
Pasture or Range:				
Poor Condition	68	79	86	89
Fair Condition	49	69	79	84
Good Condition	39	61	74	80
Contoured, Poor Condition	47	67	81	88
Contoured, Fair Condition	25	59	75	83
Contoured, Good Condition	6	35	70	79
Meadow, Good Condition	30	58	71	78
Woods or Forest Land:				
Poor Condition	45	66	77	83
Fair Condition	36	60	73	79
Good Condition	25	55	70	77
Farmsteads:	59	74	82	86

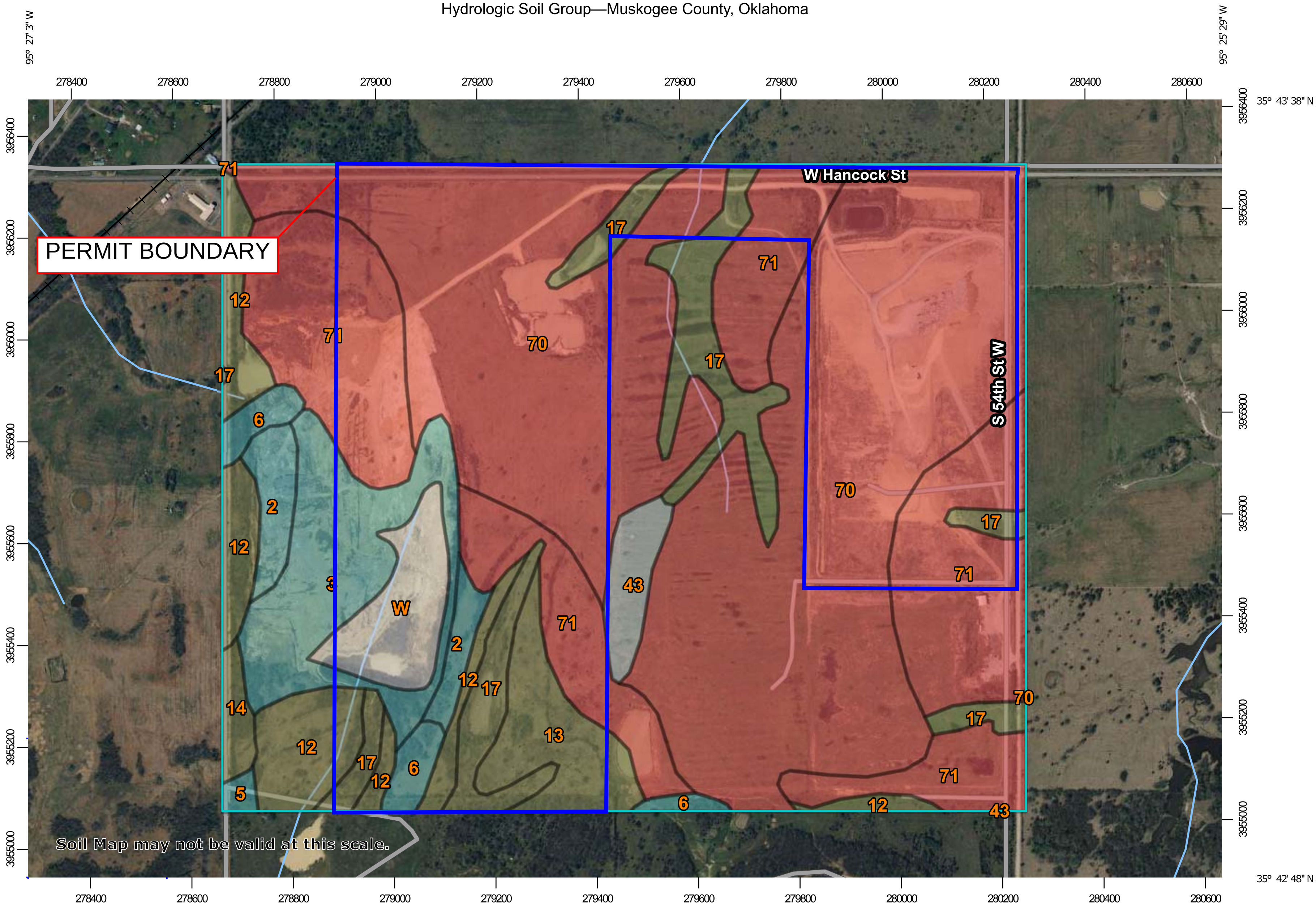
Initial and Uniform Loss Rate

An initial loss in inches (*STRTL*) and a constant loss rate (*CNSTL*) in inches per hour are specified for this method. All rainfall is lost until the volume of initial loss is satisfied. After the initial loss is satisfied, rainfall is lost at the constant rate.

This section provides guidance in selecting the values used for the initial loss and uniform loss rate in two ways:

1. By consulting previous studies of actual rainfall events for a particular watershed or region.
2. By relating the parameters to the SCS Curve Number, which can be estimated using the information presented earlier in this chapter.

Previous studies by the U.S. Army Corps of Engineers or other public agencies may provide guidance on selecting appropriate values for the initial loss and uniform loss rate for a particular location. Tables 5.4 through 5.6 list the values of initial and



Map Scale: 1:10,800 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0, 150, 300, 600, 900

Feet: 0, 500, 1000, 2000, 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Approximate Permit Boundary

Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

8/30/2022
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Muskogee County, Oklahoma
Survey Area Data: Version 17, Aug 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 29, 2021—Apr 1, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2	Bates loam, 1 to 3 percent slopes	C	9.6	1.9%
3	Bates loam, 3 to 5 percent slopes	C	31.0	6.2%
5	Bates-Coweta complex, 1 to 3 percent slopes	C	1.2	0.2%
6	Bates-Coweta complex, 3 to 5 percent slopes	C	7.6	1.5%
12	Dennis silt loam, 1 to 3 percent slopes	C/D	29.4	5.9%
13	Dennis silt loam, 3 to 5 percent slopes	C/D	16.2	3.2%
14	Dennis silt loam, 3 to 5 percent slopes, eroded	C/D	3.4	0.7%
17	Dennis-Verdigris complex, 0 to 12 percent slopes	C/D	35.4	7.1%
43	Oil waste land		6.9	1.4%
70	Taloka silt loam, 0 to 1 percent slopes	D	238.3	47.7%
71	Taloka silt loam, 1 to 3 percent slopes	D	107.3	21.5%
W	Water		13.3	2.7%
Totals for Area of Interest			**499.7**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

HYDROGRAPH DEVELOPMENT INFORMATION

HYDROGRAPH DEVELOPMENT INFORMATION

Landfill Areas

Direct runoff methods (i.e., kinematic wave) were used for landfill areas that drain to the perimeter drainage system. The kinematic wave method was used to model the 4(H):1(V) sideslope areas before the flow is intercepted by perimeter channels. The kinematic wave method is a physically based method using slope, surface roughness, catchment lengths, and areas. This method does not consider attenuation for flood wave; as a consequence, this method provides for a conservative analysis. To demonstrate how the HEC-1 model was developed for landfill areas, typical parameters used for the kinematic wave method are (1) listed below for drainage area LF1 and (2) shown graphically on Figure H-2-17.

Kinematic Wave parameters for overland flow:

Slope: 0.25 ft/ft landfill sideslopes

N: 0.3 Manning's coefficient for overland flow

L: Represents a typical distance between swales for overland flow

Percentage of drainage area represented by this element is 100 percent.

Kinematic Wave routing data for swales:

- Swale length (ft): Longest swale length for the drainage area was used.
- Swale bottom slope (ft/ft): 0.01
- Channel roughness coefficient: 0.03
- Channel type: A trapezoidal channel was used with no bottom width to simulate a triangular channel.

Drainage Areas

The onsite drainage areas used for this analysis are shown on Figure H-2-17. The routing scheme is shown in the HEC-1 output file.

Snyder's Hydrograph Coefficients (Espey's 10 Minute Method)

Area No.	Area (acres)	Max. Flow Length (L) (ft)	S (ft/ft)	I (%)[1]	Manning "n"[1]	Φ[2]	T_r[3] (min)	T_{lag}[4] (min)	T_{lag} (hr)	Area[5] (sq mi)	q_p[6] (cfs/sq mi)	C_p[7]
O1	20.60	2,240	0.010	2	0.04	0.86	40.3	37.8	0.63	0.0322	695.2	0.68
O2	72.56	2,845	0.008	2	0.04	0.86	45.0	42.5	0.71	0.1134	587.2	0.65
O3	9.01	900	0.009	2	0.04	0.86	33.5	31.0	0.52	0.0141	874.4	0.71
O4	7.91	412	0.030	2	0.04	0.86	20.7	18.2	0.30	0.0124	1470.2	0.70
S1	0.69	550	0.004	2	0.04	0.86	36.7	34.2	0.57	0.0011	880.6	0.78
S2	51.48	2,816	0.006	2	0.04	0.86	48.2	45.7	0.76	0.0804	552.6	0.66
S3	0.62	946	0.025	2	0.04	0.86	26.3	23.8	0.40	0.0010	1263.5	0.78
S4	3.02	895	0.012	2	0.04	0.86	31.2	28.7	0.48	0.0047	987.9	0.74
S5	3.79	153	0.030	2	0.04	0.86	16.5	14.0	0.23	0.0059	1932.1	0.70
S6	6.97	577	0.006	2	0.04	0.86	33.5	31.0	0.52	0.0109	884.3	0.71
S7	20.69	2,200	0.003	2	0.04	0.86	54.2	51.7	0.86	0.0323	506.0	0.68
S8	7.57	145	0.040	2	0.04	0.86	15.2	12.7	0.21	0.0118	2056.7	0.68
S9	4.77	1,014	0.006	2	0.04	0.86	38.1	35.6	0.59	0.0075	781.5	0.72

[1] Non-landfill areas were assumed to be 2 percent impervious (maximum) to provide a conservative convenyance coefficient.

[2] Conveyance efficiency coefficient from Dodson & Associates Inc., *ProHec-1 Program Documentation* , 1995, pages 6-19 and 6-20.

[3] $T_r = 3.1(L^{0.23})(S^{-0.25})(I^{-0.18})(\Phi^{1.57})$

[4] $T_{lag} = T_r - 5/2$

[5] From area summary sheet

[6] $q_p = 31600(A^{-0.04})(T_r^{-1.07})$

[7] $C_p = 49.375(A^{-0.04})(T_r^{-1.07})(T_{lag})$

T_r = surface runoff to unit hydrograph peak (min)
L = distance along main channel from study point to watershed boundary (ft)
S = main channel slope (ft/ft)
I = impervious cover within the watershed (%)
T_{lag} = watershed lag time (min)
q_p = unit hydrograph peak discharge (cfs/sq mi)
C_p = Snyder's peaking coefficient

ESPEY 10-MINUTE SAMPLE CALCULATION

Snyder Unit Hydrograph uses lag time (T_{lag}) and peaking coefficient accounting for flood wave and watershed storage conditions.

Upland Area 1 "O2" is used in this example.

Estimated Watershed specific parameters

A =	72.56	acres	watershed area
L =	2845	feet	maximun flow length with this watershed
S =	0.008	feet/feet	watershed slope
I =	2	percent (%)	watershed imperviousness
n =	0.04		Manning's coefficient

Calculate Tr: time beginning of surface runoff to the unit hydrograph peak in minutes

$T_r = 3.1(L^{0.23})(S^{-0.25})(I^{-0.18})(\Phi^{1.57})$

Estimate : conveyance efficiency coefficient

Φ = for 0.86 percent impervious cover and n = 0.04

$\Phi = 0.86$

$T_r = 3.1(2845^{0.23})(0.008^{-0.25})(2^{-0.18})(0.86^{1.57})$

$T_r = 45.0$ min

Calculate T_{lag}: watershed lag time

$T_{lag} = Tr - (\Delta t/2)$ — Δt is calculation interval, and 5 minutes is used in the HEC - 1 modeling in this project

$T_{lag} = 42.5$ minutes

$T_{lag} = 0.71$ hours

A= A/640

A= 0.1134 square miles

Calculate q_p: peak discharge of unit hydrograph per unit area (cfs/sq. mi).

$q_p = 31600(A^{-0.04})(T_r^{-1.07})$

$q_p = 31600(0.1098^{-0.04})(45.0^{-1.07})$

$q_p = 587.2$ cfs/sq. mi

Calculate Peaking coefficient C_p:

$C_p = 49.375(A^{-0.04})(T_r^{-1.07})(T_{lag})$

$C_p = 49.375(0.1098^{-0.04})(45.0^{-1.07})(0.71)$

$C_p = 0.65$

compute the value of Snyder's peaking coefficient C_p for use in HEC-1 analyses. First, the watershed lag time T_L is determined by subtracting one-half of the computation interval from the time to rise ($T_L = T_r - \Delta t/2$). Then, C_p may be computed by substituting the known values of T_L and q_p into Snyder's equation for peak unit hydrograph flow rate and solving for C_p.

$$C_p = \frac{q_p \times T_L}{640} \qquad 6.30$$

Espey "10-Minute" Method for Estimating Snyder Parameters

In another study, Espey [1977] derived the following equation for computing the time from the beginning of surface runoff to the unit hydrograph peak:

$$T_r = 3.10 L^{0.23} S^{-0.25} I^{-0.18} \Phi^{1.57} \qquad 6.31$$

in which:

T_r = time from beginning of surface runoff to unit hydrograph peak (minutes)

L = total distance along main channel from study point to watershed boundary (feet)

S = main channel slope between the reference point and a point 0.2L downstream from the upstream watershed boundary (feet per foot)

I = impervious cover within the watershed (percent)

Φ = description of conveyance efficiency of the watershed drainage system.

The conveyance efficiency coefficient Φ is determined using the relationships illustrated on Figure 6.12.

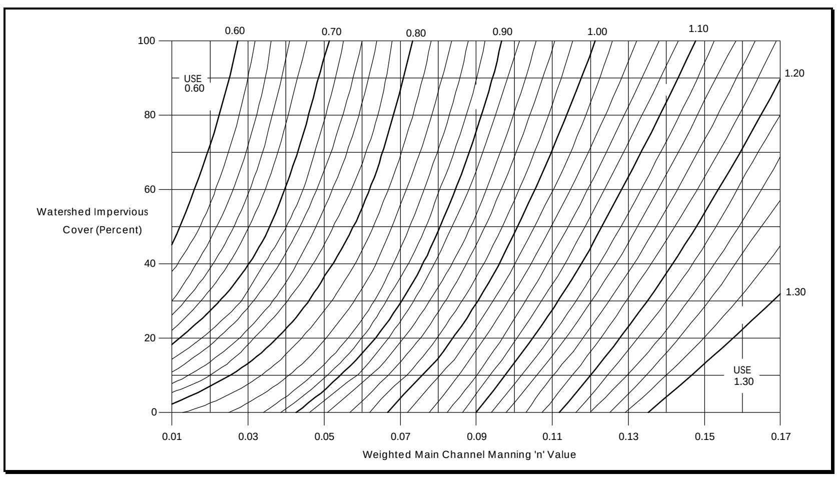


FIGURE 6.12 Determination of Conveyance Efficiency Coefficient Φ

This equation was derived from records for 41 watersheds in Texas, Tennessee, Mississippi, Pennsylvania, North Carolina, Colorado, Kentucky, and Indiana. The range in the watershed characteristics used to develop the equations for urban areas were:

Area : From 0.0128 square miles to 15.00 square miles

L : From 555 feet to 35,600 feet

S : From 0.0005 ft. per ft. to 0.0295 ft. per ft.

I : From 2% to 100%

Φ : From 0.60 to 1.30

Again, note that the time to rise T_r is not the same as the watershed lag time T_p. The difference between the two is that T_r is defined as the time from the beginning of effective rainfall to the peak of the unit hydrograph, while T_L is the time from the centroid of the effective rainfall to the peak of the unit hydrograph. For the purposes of HEC-1 analyses, however, T_L may be determined simply by subtracting one-half the computation time interval from the computed value of T_r (T_R - $\Delta t/2$).

The relationship developed by Espey to compute the peak flow rate of the unit hydrograph is as follows:

6.32 $$Q_u = 31600 A^{0.96} T_r^{-1.07}$$

in which:

Q_u = unit hydrograph peak discharge (cfs)

A = drainage area (square miles)

T_r = time of rise from beginning of surface runoff to unit hydrograph peak (minutes)

Riverside County Method for Estimating Snyder Parameters

Three watershed lag equations have been derived for use in rural areas of Riverside County, California by the Riverside County Flood Control and Water Conservation District [Anonymous, 1963]. These equations differ slightly from those developed at the Tulsa District of the U.S. Army Corps of Engineers in that lag is defined as the time from the beginning of rainfall to the point on the unit hydrograph corresponding to one-half of the total runoff volume.

Each equation is applicable to a different topographic region:

6.33 $$T_L = 1.20\left(\frac{L \times L_{ca}}{\sqrt{S}}\right)^{0.38}$$ (Mountain Areas)

6.34 $$T_L = 0.72\left(\frac{L \times L_{ca}}{\sqrt{S}}\right)^{0.38}$$ (Foothill Areas)

6.35 $$T_L = 0.38\left(\frac{L \times L_{ca}}{\sqrt{S}}\right)^{0.38}$$ (Valley Areas)

in which:

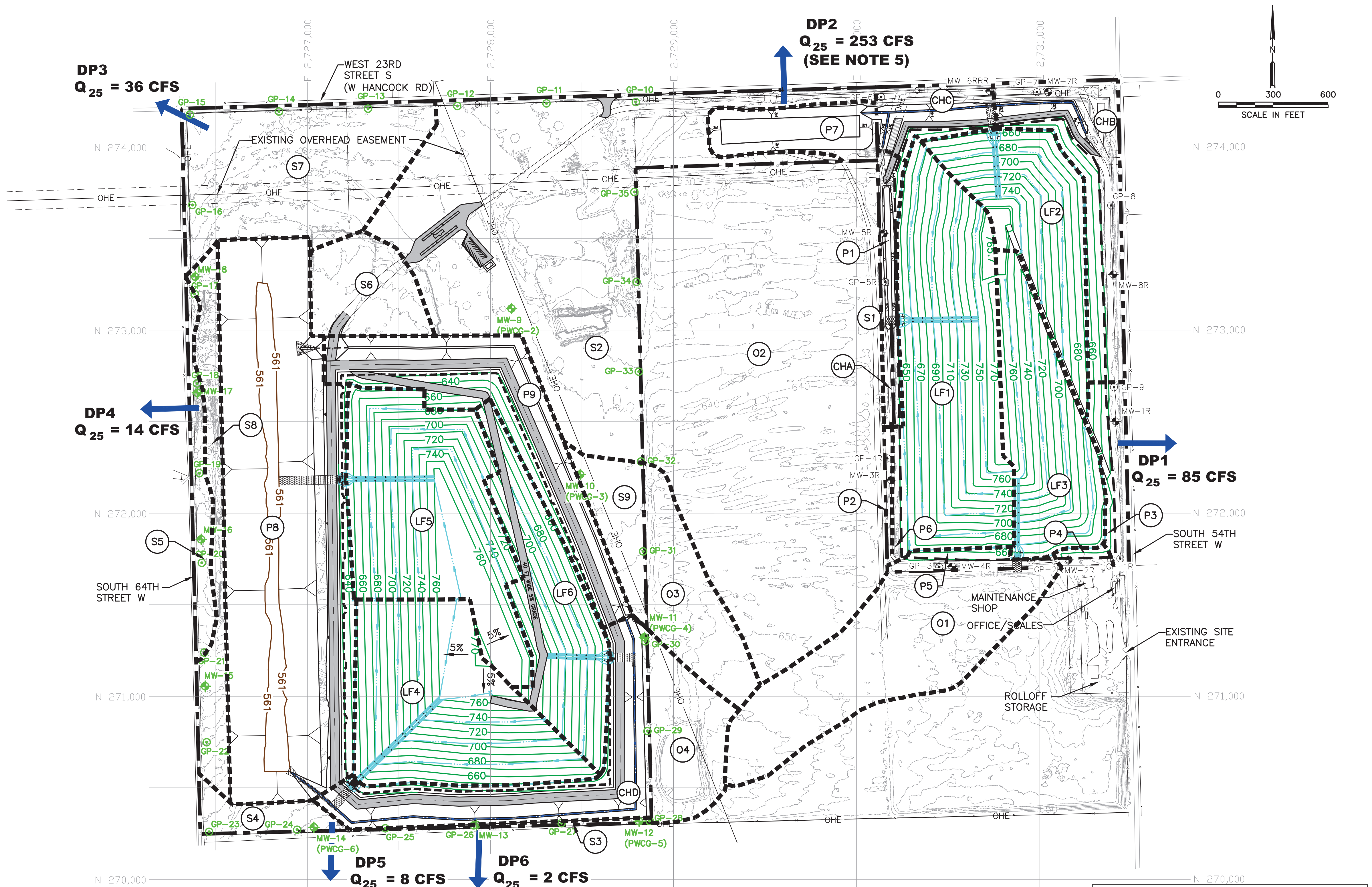
T_L = watershed lag in hours

L = watershed length in miles

L_{ca} = length to centroid in miles

S = watershed slope in feet per mile.

The sizes of the watersheds studied in developing these equations ranged from 2.3 square miles to 645 square miles.



LEGEND

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- N 273,000 STATE PLANE COORDINATE GRID
- 640 EXISTING CONTOUR
- 561 BORROW AREA CONTOUR
- 770 FINAL COVER CONTOUR
- DRAINAGE SWALE
- DRAINAGE CHUTE
- DRAINAGE CHANNEL
- RIPRAP/GABIONS
- OHE APPROXIMATE OG&E POWER LINE EASEMENT
- MW-5R EXISTING GROUNDWATER MONITORING WELL
- MW-9 (PWCG-1) PROPOSED GROUNDWATER MONITORING WELL
- GP-5 EXISTING LANDFILL GAS MONITORING PROBE
- GP-10 PROPOSED LANDFILL GAS MONITORING PROBE
- DRAINAGE AREA BOUNDARY
- LF1 DRAINAGE AREA DESIGNATION

HEC-1 DRAINAGE AREAS – ONSITE

DRAINAGE AREA	AREA (ACRES)	AREA (SQ MILES)
LF1	25.64	0.0401
LF2	13.41	0.0210
LF3	14.29	0.0223
LF4	21.29	0.0333
LF5	23.14	0.0362
LF6	13.63	0.0213
S1	0.69	0.0011
S2	51.48	0.0804
S3	0.62	0.0010
S4	3.02	0.0047
S5	3.79	0.0059
S6	6.97	0.0109
S7	20.69	0.0323
S8	7.57	0.0118
S9	4.77	0.0075
P1	2.22	0.0035
P2	0.60	0.0009
P3	3.52	0.0055
P4	0.68	0.0011
P5	1.96	0.0031
P6	1.34	0.0021
P7	5.84	0.0091
P8	45.30	0.0708
P9	15.54	0.0243
CHA	0.61	0.0010
CHB	10.94	0.0171
CHC	4.52	0.0071
CHD	13.62	0.0213

HEC-1 DRAINAGE AREAS – OFFSITE

DRAINAGE AREA	AREA (ACRES)	AREA (SQ MILES)
O1	20.60	0.0322
O2	72.56	0.1134
O3	9.01	0.0141
O4	7.91	0.0124

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. PERMITTED FINAL COVER CONTOURS AND DRAINAGE REPRODUCED FROM THE TIER I PERMIT MODIFICATION PREPARED BY WEAVER CONSULTANTS GROUP, LLC IN NOVEMBER 2021 AND APPROVED BY ODEQ ON JANUARY 24, 2022.
5. DP2 WAS UPDATED FROM THE TIER I PERMIT MODIFICATION TO INCLUDE UPLAND FLOW FROM THE EXPANDED SITE.

LICENSED PROFESSIONAL ENGINEER
Charles R. Marsh
24599
OKLAHOMA
10/13/2023

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

DATE: 10/2023
FILE: 0086-364-11
CAD: H-2-17-POST DEV. DRAINAGE.DWG

DRAWN BY: JBM
DESIGN BY: MB
REVIEWED BY: CRM

REVISIONS

NO.	DATE	DESCRIPTION

Weaver Consultants Group
CA 3804 PE – 06/30/2025

TIER III PERMIT MODIFICATION
POST-DEVELOPMENT DRAINAGE AREAS

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

WWW.WCGRP.COM

FIGURE H-2-17

PROPOSED POST-DEVELOPMENT HYDROLOGIC ANALYSIS:
HEC-1 OUTPUT

Includes Pages H-2-19 through H-2-67

```
1****************************************                                        ***************************************
 *                                      *                                        *                                     *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                        *   U.S. ARMY CORPS OF ENGINEERS      *
 *              JUN  1998               *                                        *   HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                        *        609 SECOND STREET            *
 *                                      *                                        *      DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   07MAR23  TIME  17:19:45  *                                        *          (916) 756-1104             *
 *                                      *                                        *                                     *
 ****************************************                                        ***************************************




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




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

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

1                                          HEC-1 INPUT                                          PAGE  1

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

                        *DIAGRAM
            1           ID  MUSKOGEE COMMUNITY RDF
            2           ID  TIER I PERMIT MODIFICATION
            3           ID  25-YEAR 24-HOUR STORM EVENT
            4           ID  P:\SOLIDWASTE\MUSKOGEE\TIER 1 MOD\APPENDIX B\HEC1\PROPOSED.IH1
            5           IT       5       0    2400     720       0       0
            6           IO       3       0       0
                        *

            7           KK      P6
            8           KM  POND 6
            9           KO       0       0       0       7      21
           10           PH                    0.71    1.54     3.2    3.88     4.3    5.28    6.25    7.25
           11           BA  0.0021
           12           LS       0     100
           13           UD       0
                        *

           14           KK    R/P6
           15           KM  ROUTE THROUGH 30 INCH CMP CULVERT
           16           KO       0       0       0       7      21
           17           RS       1    ELEV   635.5
           18           SA       0    0.01    0.07    0.19    0.32    0.46
           19           SE   635.5     636     637     638     639     640
           20           SS     639      20     2.6     1.5
           21           SL  636.15  4.9087     0.8     0.5
                        *

           22           KK     LF3
           23           KM  SUBAREA LF3
           24           KO       0       0       0       7      21
           25           BA  0.0223
           26           LS       0      88
           27           UK     120    0.25     0.3     100
           28           RD    1316    0.01    0.03            TRAP       0       2      NO
                        *

           29           KK      O1
           30           KM  OFFSITE AREA 1
           31           KO       0       0       0       7      21
           32           BA  0.0322
           33           LS       0      79
           34           US    0.63    0.68
                        *

           35           KK      P5
           36           KM  POND 5
           37           KO       0       0       0       7      21
           38           BA  0.0031
           39           LS       0     100
           40           UD       0
                        *
1                                          HEC-1 INPUT                                          PAGE  2

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


           41           KK     C/4
           42           KO       0       0       0       7      21
           43           HC       4
                        *

           44           KK    R/P5
           45           KM  ROUTE THROUGH 30 INCH RCP
           46           KO       0       0       0       7      21
           47           RS       1    ELEV   632.7
```

```
  48           SA      0    0.31    0.39    0.47    0.55    0.64    0.72    0.82    0.94
  49           SE  632.7     633     634     635     636     637     638     639     640
  50           SS  639.9      20     2.6     1.5
  51           SL 633.75   4.908     0.8     0.5
               *

  52           KK     P4
  53           KM  POND 4
  54           KO      0       0       0       7      21
  55           BA 0.0011
  56           LS      0     100
  57           UD      0
               *

  58           KK    C/2
  59           KO      0       0       0       7      21
  60           HC      2
               *

  61           KK   R/P4
  62           KM  ROUTE THROUGH 2-30 INCH CMPS
  63           KO      0       0       0       7      21
  64           RS      1    ELEV   627.7
  65           SA      0    0.17    0.19    0.21    0.36
  66           SE  627.7     628     629     630     631
  67           SS    630      20     2.6     1.5
  68           SL 628.45  9.8174     0.8     0.5
               *

  69           KK     P3
  70           KM  POND 3
  71           KO      0       0       0       7      21
  72           BA 0.0055
  73           LS      0     100
  74           UD      0
               *

  75           KK    C/2
  76           KO      0       0       0       7      21
  77           HC      2
               *
1                                    HEC-1 INPUT                                        PAGE  3

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


  78           KK  P3/DP1
  79           KM  ROUTE THROUGH 30 INCH CMP OFFSITE
  80           KO      0       0       0       7      21
  81           RS      1    ELEV   625.5
  82           SA      0    0.06    0.32    0.41     0.5    0.59
  83           SE  625.5   625.6     626     627     628     629
  84           SS    628     700     2.6     1.5
  85           SL 626.55  4.9087     0.8     0.5
               *

  86           KK     P2
  87           KM  POND 2
  88           KO      0       0       0       7      21
  89           BA 0.0009
  90           LS      0     100
  91           UD      0
               *

  92           KK   R/P2
  93           KM  ROUTE THROUGH 30 INCH CMP
  94           KO      0       0       0       7      21
  95           RS      1    ELEV   638.4
  96           SA      0    0.01    0.07
  97           SE  638.4     640     641
  98           SS  639.9      20     2.6     1.5
  99           SL 639.25  4.9087     0.8     0.5
               *

 100           KK  R/CHA
 101           KM  CHANNEL CHA
 102           KO      0       0       0       7      21
 103           BA  0.001
 104           LS      0      84
 105           UK     59   0.051    0.35     100
 106           RD    582   0.011    0.04            TRAP       0     2.5     YES
               *

 107           KK    LF1
 108           KM  SUBAREA LF1
 109           KO      0       0       0       7      21
 110           BA 0.0401
 111           LS      0      88
 112           UK     88    0.25     0.3     100
 113           RD   1788    0.01    0.03            TRAP       0       2      NO
               *

 114           KK     P1
 115           KM  POND 1
 116           KO      0       0       0       7      21
 117           BA 0.0035
 118           LS      0     100
 119           UD      0
               *
1                                    HEC-1 INPUT                                        PAGE  4

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

```
 120           KK     C/3
 121           KO       0       0       0       7      21
 122           HC       3
               *

 123           KK    R/P1
 124           KM  ROUTE THROUGH 36 INCH RCP
 125           KO       0       0       0       7      21
 126           RS       1    ELEV     626
 127           SA       0       0   0.493   0.567    0.64   0.712
 128           SE     626   628.6     629     630     631     632
 129           SS     631      15     2.6     1.5
 130           SL   623.5    7.07     0.8     0.5
               *

 131           KK     CHB
 132           KM  SUBAREA CHB
 133           KO       0       0       0       7      21
 134           BA  0.0171
 135           LS       0      88
 136           UK     184   0.224     0.3     100
 137           RD    2088   0.004    0.03            TRAP      10       2      NO
               *

 138           KK     LF2
 139           KM  SUBAREA LF2
 140           KO       0       0       0       7      21
 141           BA   0.021
 142           LS       0      88
 143           UK     120    0.25     0.3     100
 144           RD    1920    0.01    0.03            TRAP       0       2      NO
               *

 145           KK     C/3
 146           KO       0       0       0       7      21
 147           HC       3
               *

 148           KK     CHC
 149           KM  SUBAREA CHC
 150           KO       0       0       0       7      21
 151           BA  0.0071
 152           LS       0      88
 153           UK     140    0.25     0.3     100
 154           RD     645   0.005    0.03            TRAP      10       2     YES
               *

 155           KK      S1
 156           KM  AREA S1
 157           KO       0       0       0       7      21
 158           BA  0.0011
 159           LS       0      79
 160           UD    0.57    0.78
               *
1                                      HEC-1 INPUT                                         PAGE  5

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


 161           KK      P7
 162           KM  POND 7
 163           KO       0       0       0       7      21
 164           BA  0.0089
 165           LS       0     100
 166           UD       0
               *

 167           KK     C/3
 168           KO       0       0       0       7      21
 169           HC       3
               *

 170           KK    R/P7
 171           KM  ROUTE THROUGH 36 INCH RCP
 172           KO       0       0       0       7      21
 173           RS       1    ELEV     605
 174           SA       0    2.26    2.51    3.02    3.56    3.83    4.39
 175           SE     605     606     608     612     616     618     622
 176           SS     621     189     2.6     1.5
               *

 177           KK      O2
 178           KM  OFFSITE AREA 2
 179           KO       0       0       0       7      21
 180           BA  0.1134
 181           LS       0      79
 182           US    0.71    0.65
               *

 183           KK      S2
 184           KM  AREA S2
 185           KO       0       0       0       7      21
 186           BA  0.0804
 187           LS       0      79
 188           US    0.76    0.66
               *

 189           KK     DP2
 190           KO       0       0       0       7      21
 191           HC       3
               *

 192           KK  S2/DP2
 193           KM  ROUTE THROUGH 12 INCH CMP
```

```
 194          KO       0       0       0       7      21
 195          RS       1    ELEV   617.9
 196          SA       0    0.12    1.61    3.32    5.84
 197          SE   617.9     620     622     624     626
 198          SS     622     746     2.6     1.5
 199          SL   618.3   0.785     0.8     0.5
              *
```



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


 200          KK     LF6
 201          KM  SUBAREA LF6
 202          KO       0       0       0       7      21
 203          BA  0.0213
 204          LS       0      88
 205          UK     120    0.25     0.3     100
 206          RD    1554    0.01    0.03            TRAP       0       2      NO
              *

 207          KK      O4
 208          KM  AREA O4
 209          KO       0       0       0       7      21
 210          BA  0.0124
 211          LS       0      79
 212          US     0.3     0.7
              *

 213          KK     C/2
 214          KO       0       0       0       7      21
 215          HC       2
              *

 216          KK     CHD
 217          KM  SUBAREA CHD
 218          KO       0       0       0       7      21
 219          BA  0.0213
 220          LS       0      88
 221          UK     139    0.25     0.3     100
 222          RD    2806    0.01    0.03            TRAP      10       3     YES
              *

 223          KK     LF4
 224          KM  SUBAREA LF4
 225          KO       0       0       0       7      21
 226          BA  0.0333
 227          LS       0      88
 228          UK     120    0.25     0.3     100
 229          RD    1258    0.01    0.03            TRAP       0       2      NO
              *

 230          KK     C/2
 231          KO       0       0       0       7      21
 232          HC       2
              *

 233          KK      O3
 234          KM  OFFSITE AREA 3
 235          KO       0       0       0       7      21
 236          BA  0.0141
 237          LS       0      79
 238          US    0.52    0.71
              *
```



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


 239          KK      S9
 240          KM  AREA S9
 241          KO       0       0       0       7      21
 242          BA  0.0075
 243          LS       0      79
 244          US    0.59    0.72
              *

 245          KK      P9
 246          KM  POND 9
 247          KO       0       0       0       7      21
 248          BA  0.0243
 249          LS       0     100
 250          UD       0
              *

 251          KK      S6
 252          KM  AREA S6
 253          KO       0       0       0       7      21
 254          BA  0.0109
 255          LS       0      79
 256          US    0.52    0.71
              *

 257          KK     C/4
 258          KO       0       0       0       7      21
 259          HC       4
              *

 260          KK    R/P9
 261          KM  ROUTE THROUGH 1x48 INCH CMP
 262          KO       0       0       0       7      21
 263          RS       1    ELEV   610.7
 264          SA       0   0.055    1.07    3.93    4.21
 265          SE   610.7     612     620     630   630.8
```

```
          266           SS   630.3      10     2.6     1.5
          267           SL   611.3  12.567     0.8     0.5
                        *

          268           KK     LF5
          269           KM  SUBAREA LF5
          270           KO       0       0       0       7      21
          271           BA  0.0362
          272           LS       0      88
          273           UK     259    0.25     0.3     100
          274           RD    1500    0.01    0.03            TRAP       0       2      NO
                        *

          275           KK      P8
          276           KM  POND 8
          277           KO       0       0       0       7      21
          278           BA  0.0708
          279           LS       0     100
          280           UD       0
                        *
1                                                       HEC-1 INPUT                                                        PAGE  8

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


          281           KK      S8
          282           KM  AREA S8
          283           KO       0       0       0       7      21
          284           BA  0.0118
          285           LS       0      75
          286           US    0.21    0.68
                        *

          287           KK     C/4
          288           KO       0       0       0       7      21
          289           HC       4
                        *

          290           KK    R/P8
          291           KM  ROUTE THROUGH P8 SPILLWAY
          292           KO       0       0       0       7      21
          293           RS       1    ELEV     561
          294           SA       0    8.61   12.63   16.82   21.15   29.36
          295           SE     561     570     580     590     600     618
          296           SS     617     200     2.6     1.5
                        *

          297           KK  S3/DP6
          298           KM  AREA S3
          299           KO       0       0       0       7      21
          300           BA   0.001
          301           LS       0      75
          302           US     0.4    0.78
                        *

          303           KK  S7/DP3
          304           KM  AREA S7
          305           KO       0       0       0       7      21
          306           BA  0.0323
          307           LS       0      75
          308           US    0.86    0.68
                        *

          309           KK  S5/DP4
          310           KM  AREA S5
          311           KO       0       0       0       7      21
          312           BA  0.0059
          313           LS       0      75
          314           US    0.23     0.7
                        *

          315           KK  S4/DP5
          316           KM  AREA S4
          317           KO       0       0       0       7      21
          318           BA  0.0047
          319           LS       0      75
          320           US    0.48    0.74
                        *
          321           ZZ
1
              SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    7          P6
                V
                V
   14        R/P6
                .
                .
   22           .          LF3
                .            .
                .            .
   29           .            .          O1
                .            .           .
                .            .           .
   35           .            .           .           P5
                .            .           .            .
                .            .           .            .
   41         C/4......................................
                V
                V
```

```
  44         R/P5
                .
                .
  52            .          P4
                .           .
                .           .
  58          C/2............
                V
                V
  61         R/P4
                .
                .
  69            .          P3
                .           .
                .           .
  75          C/2............
                V
                V
  78       P3/DP1
                .
                .
  86            .          P2
                .           V
                .           V
  92            .        R/P2
                .           V
                .           V
 100            .       R/CHA ***
                .           .
                .           .
 107            .           .         LF1
                .           .           .
                .           .           .
 114            .           .           .          P1
                .           .           .           .
                .           .           .           .
 120            .         C/3........................
                .           V
                .           V
 123            .        R/P1
                .           .
                .           .
 131            .           .         CHB
                .           .           .
                .           .           .
 138            .           .           .         LF2
                .           .           .           .
                .           .           .           .
 145            .         C/3........................
                .           V
                .           V
 148            .         CHC ***
                .           .
                .           .
 155            .           .          S1
                .           .           .
                .           .           .
 161            .           .           .          P7
                .           .           .           .
                .           .           .           .
 167            .         C/3........................
                .           V
                .           V
 170            .        R/P7
                .           .
                .           .
 177            .           .          O2
                .           .           .
                .           .           .
 183            .           .           .          S2
                .           .           .           .
                .           .           .           .
 189            .         DP2........................
                .           V
                .           V
 192            .      S2/DP2
                .           .
                .           .
 200            .           .         LF6
                .           .           .
                .           .           .
 207            .           .           .          O4
                .           .           .           .
                .           .           .           .
 213            .           .         C/2............
                .           .           V
                .           .           V
 216            .           .         CHD ***
                .           .           .
                .           .           .
 223            .           .           .         LF4
                .           .           .           .
                .           .           .           .
 230            .           .         C/2............
                .           .           .
                .           .           .
 233            .           .           .          O3
                .           .           .           .
                .           .           .           .
 239            .           .           .           .          S9
                .           .           .           .           .
                .           .           .           .           .
 245            .           .           .           .           .          P9
                .           .           .           .           .           .
```

```
                 .          .          .          .          .          .
  251            .          .          .          .          .          .          S6
                 .          .          .          .          .          .           .
                 .          .          .          .          .          .           .
  257            .          .          .        C/4.................................
                 .          .          .          V
                 .          .          .          V
  260            .          .          .        R/P9
                 .          .          .          .
                 .          .          .          .
  268            .          .          .          .         LF5
                 .          .          .          .          .
                 .          .          .          .          .
  275            .          .          .          .          .         P8
                 .          .          .          .          .          .
                 .          .          .          .          .          .
  281            .          .          .          .          .          .          S8
                 .          .          .          .          .          .           .
                 .          .          .          .          .          .           .
  287            .          .          .        C/4.................................
                 .          .          .          V
                 .          .          .          V
  290            .          .          .        R/P8
                 .          .          .          .
                 .          .          .          .
  297            .          .          .          .      S3/DP6
                 .          .          .          .          .
                 .          .          .          .          .
  303            .          .          .          .          .     S7/DP3
                 .          .          .          .          .          .
                 .          .          .          .          .          .
  309            .          .          .          .          .          .      S5/DP4
                 .          .          .          .          .          .           .
                 .          .          .          .          .          .           .
  315            .          .          .          .          .          .           .     S4/DP5

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************                                               ***************************************
 *                                       *                                               *                                     *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                               *    U.S. ARMY CORPS OF ENGINEERS     *
 *             JUN   1998                *                                               *    HYDROLOGIC ENGINEERING CENTER    *
 *          VERSION 4.1                  *                                               *         609 SECOND STREET           *
 *                                       *                                               *      DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   07MAR23  TIME  17:19:45   *                                               *          (916) 756-1104             *
 *                                       *                                               *                                     *
 *****************************************                                               ***************************************




                          MUSKOGEE COMMUNITY RDF
                          TIER I PERMIT MODIFICATION
                          25-YEAR 24-HOUR STORM EVENT
                          P:\SOLIDWASTE\MUSKOGEE\TIER 1 MOD\APPENDIX B\HEC1\PROPOSED.IH1

   6 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                        NMIN           5  MINUTES IN COMPUTATION INTERVAL
                       IDATE      1    0  STARTING DATE
                       ITIME        0000  STARTING TIME
                          NQ         720  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE      4    0  ENDING DATE
                      NDTIME        1155  ENDING TIME
                       ICENT          19  CENTURY MARK

                    COMPUTATION INTERVAL     .08 HOURS
                         TOTAL TIME BASE   59.92 HOURS

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


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   7 KK     *        P6  *
            *            *
            **************
                          POND 6

   9 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                       IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                        IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT        .083  TIME INTERVAL IN HOURS
```

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             SUBBASIN RUNOFF DATA

  11 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .00  SUBBASIN AREA

                PRECIPITATION DATA

  10 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                   STORM AREA =     .00

  12 LS         SCS LOSS RATE
                      STRTL         .00  INITIAL ABSTRACTION
                     CRVNBR      100.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

  13 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .00  LAG

                                                          ***

                                                    UNIT HYDROGRAPH
                                                5 END-OF-PERIOD ORDINATES
               12.        3.        1.        0.        0.

      ***            ***            ***            ***            ***

                       HYDROGRAPH AT STATION       P6

    TOTAL RAINFALL =     7.25, TOTAL LOSS =     .00, TOTAL EXCESS =     7.25

 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                        (CFS)
+      10.     12.08                  1.          0.          0.          0.
                      (INCHES)     5.278       7.247       7.250        7.250
                       (AC-FT)        1.          1.          1.           1.

                       CUMULATIVE AREA =     .00 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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           *            *
  14 KK    *      R/P6  *
           *            *
           **************
                        ROUTE THROUGH 30 INCH CMP CULVERT

  16 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           3  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                      IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                       IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT        .083  TIME INTERVAL IN HOURS


             HYDROGRAPH ROUTING DATA

  17 RS         STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      635.50  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

  18 SA              AREA          .0         .0         .1         .2         .3         .5

  19 SE         ELEVATION      635.50     636.00     637.00     638.00     639.00     640.00

  21 SL         LOW-LEVEL OUTLET
                      ELEVL      636.15  ELEVATION AT CENTER OF OUTLET
                      CAREA        4.91  CROSS-SECTIONAL AREA
                       COQL         .80  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

  20 SS         SPILLWAY
                       CREL      639.00  SPILLWAY CREST ELEVATION
                      SPWID       20.00  SPILLWAY WIDTH
                       COQW        2.60  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                          ***

                                                COMPUTED STORAGE-ELEVATION DATA

           STORAGE        .00        .00        .04        .16        .41        .80
         ELEVATION     635.50     636.00     637.00     638.00     639.00     640.00

                                                COMPUTED OUTFLOW-ELEVATION DATA

           OUTFLOW        .00        .00      34.04      35.89      37.94      40.25      42.85      45.81      49.22      53.17
         ELEVATION     635.50     636.15     637.32     637.45     637.60     637.78     638.00     638.27     638.59     639.00
```

```
           OUTFLOW      54.03      55.32      57.46      60.66      65.14      71.09      78.72      88.25      99.87     113.80
         ELEVATION     639.04     639.09     639.15     639.22     639.31     639.42     639.54     639.68     639.83     640.00


                                             COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

           STORAGE        .00        .00        .00        .04        .06        .08        .10        .12        .16        .22
           OUTFLOW        .00        .00        .00      29.04      34.04      35.89      37.94      40.25      42.84      45.81
         ELEVATION     635.50     636.00     636.15     637.00     637.32     637.45     637.60     637.78     638.00     638.27

           STORAGE        .30        .41        .43        .44        .46        .49        .52        .56        .61        .66
           OUTFLOW      49.22      53.17      54.03      55.32      57.46      60.66      65.14      71.09      78.72      88.25
         ELEVATION     638.59     639.00     639.04     639.09     639.15     639.22     639.31     639.42     639.54     639.68

           STORAGE        .73        .80
           OUTFLOW      99.87     113.80
         ELEVATION     639.83     640.00

 *** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO       29.
                 THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                 THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

       ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION     R/P6

  PEAK FLOW     TIME                             MAXIMUM AVERAGE FLOW
                                           6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                           (CFS)
+      10.     12.08                         1.          0.          0.            0.
                         (INCHES)      5.278       7.218       7.218         7.218
                          (AC-FT)         1.          1.          1.            1.

 PEAK STORAGE   TIME                            MAXIMUM AVERAGE STORAGE
                                           6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
        0.     12.08                         0.          0.          0.            0.

  PEAK STAGE    TIME                             MAXIMUM AVERAGE STAGE
                                           6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    636.44     12.08                     636.19      636.16      636.16        636.16

                        CUMULATIVE AREA =     .00 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


             **************
             *            *
   22 KK     *      LF3   *
             *            *
             **************
                         SUBAREA LF3

   24 KO          OUTPUT CONTROL VARIABLES
                        IPRNT          3  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE
                        IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                         IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                        ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                        ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                       TIMINT       .083  TIME INTERVAL IN HOURS


                SUBBASIN RUNOFF DATA

   25 BA          SUBBASIN CHARACTERISTICS
                        TAREA        .02  SUBBASIN AREA

                  PRECIPITATION DATA

   10 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                  ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                  5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                    .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                        STORM AREA =      .02

   26 LS          SCS LOSS RATE
                        STRTL        .27  INITIAL ABSTRACTION
                       CRVNBR      88.00  CURVE NUMBER
                        RTIMP        .00  PERCENT IMPERVIOUS AREA

                  KINEMATIC WAVE
   27 UK            OVERLAND-FLOW ELEMENT NO. 1
                            L       120.  OVERLAND FLOW LENGTH
                            S      .2500  SLOPE
                            N       .300  ROUGHNESS COEFFICIENT
                           PA      100.0  PERCENT OF SUBBASIN
                        DXMIN          5  MINIMUM NUMBER OF DX INTERVALS
                  MUSKINGUM-CUNGE
   28 RD            MAIN CHANNEL
                            L      1316.  CHANNEL LENGTH
                            S      .0100  SLOPE
                            N       .030  CHANNEL ROUGHNESS COEFFICIENT
                           CA        .02  CONTRIBUTING AREA
                        SHAPE       TRAP  CHANNEL SHAPE
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                    WD         .00  BOTTOM WIDTH OR DIAMETER
                     Z        2.00  SIDE SLOPE
                RUPSTQ          NO  ROUTE UPSTREAM HYDROGRAPH

                                                           ***
                                   COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                          COMPUTATION TIME STEP
              ELEMENT    ALPHA       M         DT         DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                            PEAK                 CELERITY
                                              (MIN)      (FT)      (CFS)    (MIN)       (IN)      (FPS)

             PLANE1        2.48      1.67        .76     24.00    111.28    724.75      5.84        .67
             MAIN          2.31      1.33       3.22    658.00    108.88    724.80      5.64       6.81


 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00  EXCESS= .6941E+01 OUTFLOW= .6706E+01 BASIN STORAGE= .5516E-03 PERCENT ERROR=   3.4


                                         INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


             MAIN          2.31      1.33       5.00              106.96    725.00      5.67

       ***             ***             ***             ***             ***

                              HYDROGRAPH AT STATION      LF3

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    1.41, TOTAL EXCESS =    5.84

  PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                             (CFS)
+     107.     12.08                 11.          3.          1.          1.
                           (INCHES)     4.627       5.667       5.667       5.667
                             (AC-FT)       6.          7.          7.          7.

                             CUMULATIVE AREA =     .02 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
   29 KK    *       O1  *
            *            *
            **************
                  OFFSITE AREA 1

   31 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

   32 BA         SUBBASIN CHARACTERISTICS
                      TAREA        .03  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                           DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   .............. TP-40 ..............   .......... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                 STORM AREA =     .03

   33 LS         SCS LOSS RATE
                      STRTL        .53  INITIAL ABSTRACTION
                     CRVNBR      79.00  CURVE NUMBER
                      RTIMP        .00  PERCENT IMPERVIOUS AREA

   34 US         SNYDER UNITGRAPH
                         TP        .63  LAG
                         CP        .68  PEAKING COEFFICIENT

                 SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                           ***

                                                 UNIT HYDROGRAPH PARAMETERS
                                           CLARK   TC=   .74 HR,       R=   .49 HR
                                          SNYDER   TP=   .63 HR,      CP=   .68

                                                      UNIT HYDROGRAPH
                                                 36 END-OF-PERIOD ORDINATES
                    1.         4.         8.        12.        16.        20.        22.        23.        22.        19.
                   16.        14.        12.        10.         8.         7.         6.         5.         4.         3.
                    3.         2.         2.         2.         1.         1.         1.         1.         1.         1.
                    1.         0.         0.         0.         0.         0.

       ***             ***             ***             ***             ***

                              HYDROGRAPH AT STATION       O1
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```
     TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.44, TOTAL EXCESS =    4.81

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                             (CFS)
+      48.     12.67                 13.          4.          2.           2.
                           (INCHES)     3.893       4.790       4.790        4.790
                            (AC-FT)       7.          8.          8.           8.

                            CUMULATIVE AREA =     .03 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   35 KK    *        P5  *
            *            *
            **************
                          POND 5

   37 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

   38 BA         SUBBASIN CHARACTERISTICS
                       TAREA         .00  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                STORM AREA =      .00

   39 LS         SCS LOSS RATE
                       STRTL         .00  INITIAL ABSTRACTION
                      CRVNBR      100.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

   40 UD         SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .00  LAG

                                                              ***

                                                        UNIT HYDROGRAPH
                                                    5 END-OF-PERIOD ORDINATES
               18.        5.        1.        0.        0.

      ***             ***             ***             ***             ***

                             HYDROGRAPH AT STATION       P5

     TOTAL RAINFALL =    7.25, TOTAL LOSS =     .00, TOTAL EXCESS =    7.25

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                             (CFS)
+      15.     12.08                  2.          1.          0.           0.
                           (INCHES)     5.278       7.247       7.250        7.250
                            (AC-FT)       1.          1.          1.           1.

                            CUMULATIVE AREA =     .00 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   41 KK    *       C/4  *
            *            *
            **************

   42 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS
```

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  43 HC         HYDROGRAPH COMBINATION
                      ICOMP           4  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                ***

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION      C/4

 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+     147.     12.08                 27.          9.          3.           3.
                      (INCHES)     4.249       5.322       5.331        5.331
                       (AC-FT)       14.         17.         17.          17.

                        CUMULATIVE AREA =     .06 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
  44 KK    *      R/P5  *
           *            *
           **************
                         ROUTE THROUGH 30 INCH RCP

  46 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           3  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                      IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                       IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT        .083  TIME INTERVAL IN HOURS


               HYDROGRAPH ROUTING DATA

  47 RS         STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      632.70  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

  48 SA              AREA          .0        .3        .4        .5        .6        .6        .7        .8        .9

  49 SE         ELEVATION      632.70    633.00    634.00    635.00    636.00    637.00    638.00    639.00    640.00

  51 SL         LOW-LEVEL OUTLET
                      ELEVL      633.75  ELEVATION AT CENTER OF OUTLET
                      CAREA        4.91  CROSS-SECTIONAL AREA
                       COQL         .80  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

  50 SS         SPILLWAY
                       CREL      639.90  SPILLWAY CREST ELEVATION
                      SPWID       20.00  SPILLWAY WIDTH
                       COQW        2.60  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                                ***

                                                 COMPUTED STORAGE-ELEVATION DATA

           STORAGE        .00       .03       .38       .81      1.32      1.91      2.59      3.36      4.24
         ELEVATION     632.70    633.00    634.00    635.00    636.00    637.00    638.00    639.00    640.00

                                                 COMPUTED OUTFLOW-ELEVATION DATA

           OUTFLOW        .00       .00     34.93     37.92     41.48     45.77     51.05     57.71     66.37     78.09
         ELEVATION     632.70    633.75    634.98    635.20    635.48    635.86    636.38    637.11    638.19    639.90

           OUTFLOW      78.22     78.31     78.42     78.57     78.75     78.98     79.25     79.57     79.94     80.37
         ELEVATION     639.91    639.92    639.92    639.93    639.94    639.95    639.96    639.97    639.99    640.00


                                             COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

           STORAGE        .00       .03       .29       .38       .80       .81       .91      1.05      1.24      1.32
           OUTFLOW        .00       .00       .00     15.74     34.93     35.21     37.92     41.48     45.77     47.23
         ELEVATION     632.70    633.00    633.75    634.00    634.98    635.00    635.20    635.48    635.86    636.00

           STORAGE       1.53      1.91      1.98      2.59      2.73      3.36      4.15      4.16      4.17      4.19
           OUTFLOW      51.05     56.77     57.71     64.92     66.37     72.15     78.09     78.22     78.42     78.75
         ELEVATION     636.38    637.00    637.11    638.00    638.19    639.00    639.90    639.91    639.92    639.94

           STORAGE       4.20      4.22      4.23      4.24
           OUTFLOW      79.25     79.57     79.94     80.37
         ELEVATION     639.96    639.97    639.99    640.00

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION     R/P5

 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
```

```
                         (CFS)
+      64.     12.67                  27.          8.          3.           3.
                       (INCHES)     4.249       5.241       5.241        5.241
                        (AC-FT)       14.         17.         17.          17.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
       3.      12.67                   1.          0.          0.           0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    637.94     12.67               635.00      634.09      633.81       633.81

                        CUMULATIVE AREA =     .06 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   52 KK    *        P4  *
            *            *
            **************
                          POND 4

   54 KO         OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                       IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                        IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT        .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

   55 BA         SUBBASIN CHARACTERISTICS
                       TAREA         .00  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                   STORM AREA =     .00

   56 LS         SCS LOSS RATE
                       STRTL         .00  INITIAL ABSTRACTION
                      CRVNBR      100.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

   57 UD         SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .00  LAG

                                                            ***

                                                        UNIT HYDROGRAPH
                                                    5 END-OF-PERIOD ORDINATES
                 6.        2.        0.        0.        0.

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       P4

     TOTAL RAINFALL =     7.25, TOTAL LOSS =     .00, TOTAL EXCESS =    7.25

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+       5.     12.08                   1.          0.          0.           0.
                       (INCHES)     5.278       7.247       7.250        7.250
                        (AC-FT)        0.          0.          0.           0.

                        CUMULATIVE AREA =     .00 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   58 KK    *       C/2  *
            *            *
            **************

   59 KO         OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                       IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                        IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
```

```
                    ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT        .083  TIME INTERVAL IN HOURS


   60 HC         HYDROGRAPH COMBINATION
                    ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                                     ***

       ***              ***              ***              ***              ***

                      HYDROGRAPH AT STATION      C/2

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                           6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+      65.     12.50                       28.         9.          3.          3.
                        (INCHES)     4.265       5.274       5.278       5.278
                         (AC-FT)       14.         17.         17.         17.

                      CUMULATIVE AREA =     .06 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
   61 KK    *      R/P4  *
            *            *
            **************
                       ROUTE THROUGH 2-30 INCH CMPS

   63 KO         OUTPUT CONTROL VARIABLES
                    IPRNT           3  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                     IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT        .083  TIME INTERVAL IN HOURS


               HYDROGRAPH ROUTING DATA

   64 RS         STORAGE ROUTING
                    NSTPS           1  NUMBER OF SUBREACHES
                     ITYP        ELEV  TYPE OF INITIAL CONDITION
                   RSVRIC      627.70  INITIAL CONDITION
                        X         .00 WORKING R AND D COEFFICIENT

   65 SA              AREA          .0        .2        .2        .2        .4

   66 SE         ELEVATION      627.70    628.00    629.00    630.00    631.00

   68 SL         LOW-LEVEL OUTLET
                    ELEVL      628.45  ELEVATION AT CENTER OF OUTLET
                    CAREA        9.82  CROSS-SECTIONAL AREA
                     COQL         .80  COEFFICIENT
                     EXPL         .50  EXPONENT OF HEAD

   67 SS         SPILLWAY
                     CREL      630.00  SPILLWAY CREST ELEVATION
                    SPWID       20.00  SPILLWAY WIDTH
                     COQW        2.60  WEIR COEFFICIENT
                     EXPW        1.50  EXPONENT OF HEAD

                                                                                     ***

                                                 COMPUTED STORAGE-ELEVATION DATA

             STORAGE       .00       .02       .20       .40       .68
           ELEVATION    627.70    628.00    629.00    630.00    631.00

                                                 COMPUTED OUTFLOW-ELEVATION DATA

             OUTFLOW       .00       .00     77.18     77.35     77.53     77.71     77.88     78.06     78.24     78.42
           ELEVATION    627.70    628.45    629.95    629.96    629.97    629.97    629.98    629.99    629.99    630.00

             OUTFLOW     85.34     88.63     92.77     97.83    103.92    111.11    119.48    129.12    140.13    152.58
           ELEVATION    630.15    630.21    630.28    630.35    630.44    630.53    630.64    630.75    630.87    631.00


                                             COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

             STORAGE       .00       .02       .10       .20       .39       .39       .39       .40       .43       .44
             OUTFLOW       .00       .00       .00     46.71     77.18     77.53     77.88     78.24     85.34     88.63
           ELEVATION    627.70    628.00    628.45    629.00    629.95    629.97    629.98    629.99    630.15    630.21

             STORAGE       .46       .48       .50       .53       .56       .59       .63       .68
             OUTFLOW     92.77     97.83    103.92    111.11    119.48    129.12    140.13    152.58
           ELEVATION    630.28    630.35    630.44    630.53    630.64    630.75    630.87    631.00

 *** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO       47.
                 THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                 THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

       ***              ***              ***              ***              ***

                      HYDROGRAPH AT STATION     R/P4
```

```
  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+      65.     12.58                  28.         9.          3.           3.
                        (INCHES)     4.265      5.248       5.248        5.248
                         (AC-FT)       14.        17.         17.          17.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
        0.     12.58                   0.          0.          0.           0.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    629.57     12.58                628.85      628.57      628.43       628.43

                          CUMULATIVE AREA =     .06 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   69 KK    *        P3  *
            *            *
            **************
                          POND 3

   71 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

   72 BA         SUBBASIN CHARACTERISTICS
                       TAREA        .01  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......    ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                 STORM AREA =      .01

   73 LS         SCS LOSS RATE
                       STRTL        .00  INITIAL ABSTRACTION
                      CRVNBR     100.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA

   74 UD         SCS DIMENSIONLESS UNITGRAPH
                        TLAG        .00  LAG

                                                         ***

                                                   UNIT HYDROGRAPH
                                               5 END-OF-PERIOD ORDINATES
               32.         9.         2.         0.         0.

      ***             ***             ***             ***             ***

                            HYDROGRAPH AT STATION       P3

     TOTAL RAINFALL =     7.25, TOTAL LOSS =      .00, TOTAL EXCESS =     7.25

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+      27.     12.08                   3.          1.          0.           0.
                        (INCHES)     5.278      7.247       7.250        7.250
                         (AC-FT)        2.          2.          2.           2.

                          CUMULATIVE AREA =     .01 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   75 KK    *       C/2  *
            *            *
            **************

   76 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
```

```
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .083  TIME INTERVAL IN HOURS


  77 HC         HYDROGRAPH COMBINATION
                    ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                        ***

      ***             ***             ***             ***             ***

                      HYDROGRAPH AT STATION      C/2

  PEAK FLOW     TIME                       MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+      79.     12.08                31.         10.          4.          4.
                        (INCHES)   4.337       5.404       5.414       5.414
                         (AC-FT)     15.         19.         19.         19.

                     CUMULATIVE AREA =     .07 SQ MI



*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  78 KK     *    P3/DP1  *
            *            *
            **************
                     ROUTE THROUGH 30 INCH CMP OFFSITE

  80 KO         OUTPUT CONTROL VARIABLES
                    IPRNT          3  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .083  TIME INTERVAL IN HOURS


              HYDROGRAPH ROUTING DATA

  81 RS         STORAGE ROUTING
                    NSTPS          1  NUMBER OF SUBREACHES
                     ITYP       ELEV  TYPE OF INITIAL CONDITION
                   RSVRIC     625.50  INITIAL CONDITION
                        X        .00 WORKING R AND D COEFFICIENT

  82 SA              AREA          .0         .1         .3         .4         .5         .6

  83 SE         ELEVATION      625.50     625.60     626.00     627.00     628.00     629.00

  85 SL         LOW-LEVEL OUTLET
                    ELEVL     626.55  ELEVATION AT CENTER OF OUTLET
                    CAREA       4.91  CROSS-SECTIONAL AREA
                     COQL        .80  COEFFICIENT
                     EXPL        .50  EXPONENT OF HEAD

  84 SS         SPILLWAY
                     CREL     628.00  SPILLWAY CREST ELEVATION
                    SPWID     700.00  SPILLWAY WIDTH
                     COQW       2.60  WEIR COEFFICIENT
                     EXPW       1.50  EXPONENT OF HEAD

                                                        ***

                                              COMPUTED STORAGE-ELEVATION DATA

           STORAGE        .00        .00        .07        .44        .89       1.43
         ELEVATION     625.50     625.60     626.00     627.00     628.00     629.00

                                              COMPUTED OUTFLOW-ELEVATION DATA

           OUTFLOW        .00        .00      32.98      33.61      34.26      34.93      35.63      36.37      37.13      37.92
         ELEVATION     625.50     626.55     627.65     627.69     627.73     627.78     627.83     627.88     627.94     628.00

           OUTFLOW      40.13      53.89      89.93     158.98     271.85     439.30     671.98     980.75    1376.23    1869.30
         ELEVATION     628.01     628.04     628.09     628.16     628.25     628.36     628.49     628.64     628.81     629.00


                                          COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

           STORAGE        .00        .00        .07        .26        .44        .72        .74        .76        .78        .81
           OUTFLOW        .00        .00        .00        .00      21.13      32.98      33.61      34.26      34.93      35.63
         ELEVATION     625.50     625.60     626.00     626.55     627.00     627.65     627.69     627.73     627.78     627.83

           STORAGE        .83        .86        .89        .89        .91        .94        .97       1.02       1.08       1.15
           OUTFLOW      36.37      37.13      37.92      40.13      53.89      89.93     158.98     271.85     439.30     671.98
         ELEVATION     627.88     627.94     628.00     628.01     628.04     628.09     628.16     628.25     628.36     628.49

           STORAGE       1.23       1.32       1.43
           OUTFLOW     980.75    1376.23    1869.30
         ELEVATION     628.64     628.81     629.00
```

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 *** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN       38. TO     1869.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

       ***             ***             ***             ***             ***

                           HYDROGRAPH AT STATION   P3/DP1

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+      85.     12.17                    31.         10.          4.           4.
                         (INCHES)     4.336       5.341       5.341        5.341
                          (AC-FT)       15.         19.         19.          19.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
        1.     12.17                     1.          0.          0.           0.

  PEAK STAGE    TIME                           MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    628.09     12.17                  627.32      626.78      626.58       626.58

                          CUMULATIVE AREA =     .07 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
   86 KK    *        P2  *
            *            *
            **************
                          POND 2

   88 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

   89 BA         SUBBASIN CHARACTERISTICS
                       TAREA        .00  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                   STORM AREA =      .00

   90 LS         SCS LOSS RATE
                       STRTL        .00  INITIAL ABSTRACTION
                      CRVNBR     100.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA

   91 UD         SCS DIMENSIONLESS UNITGRAPH
                        TLAG        .00  LAG

                                                                                      ***

                                                                               UNIT HYDROGRAPH
                                                                            5 END-OF-PERIOD ORDINATES
                 5.         1.         0.         0.         0.

       ***             ***             ***             ***             ***

                           HYDROGRAPH AT STATION       P2

    TOTAL RAINFALL =    7.25, TOTAL LOSS =     .00, TOTAL EXCESS =    7.25

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+       4.     12.08                     1.          0.          0.           0.
                         (INCHES)     5.278       7.247       7.250        7.250
                          (AC-FT)        0.          0.          0.           0.

                          CUMULATIVE AREA =     .00 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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          *           *
   92 KK  *      R/P2 *
          *           *
          *************
                       ROUTE THROUGH 30 INCH CMP

   94 KO        OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


                HYDROGRAPH ROUTING DATA

   95 RS        STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC     638.40  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

   96 SA             AREA          .0        .0        .1

   97 SE        ELEVATION      638.40    640.00    641.00

   99 SL        LOW-LEVEL OUTLET
                      ELEVL     639.25  ELEVATION AT CENTER OF OUTLET
                      CAREA       4.91  CROSS-SECTIONAL AREA
                       COQL        .80  COEFFICIENT
                       EXPL        .50  EXPONENT OF HEAD

   98 SS        SPILLWAY
                       CREL     639.90  SPILLWAY CREST ELEVATION
                      SPWID      20.00  SPILLWAY WIDTH
                       COQW       2.60  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                        ***

                                            COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00       .01       .04
        ELEVATION     638.40    640.00    641.00

                                            COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00       .00     31.30     30.29     29.35     28.46     27.63     26.84     26.10     25.39
        ELEVATION     638.40    639.25    640.24    640.18    640.12    640.07    640.02    639.98    639.94    639.90

          OUTFLOW      29.31     32.07     35.83     40.71     46.86     54.43     63.54     74.35     87.01    101.65
        ELEVATION     640.01    640.07    640.14    640.22    640.32    640.43    640.55    640.69    640.84    641.00


                                        COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .00       .01       .01       .01       .01       .02       .02       .03       .04
          OUTFLOW        .00       .00     28.92     41.51     46.86     54.43     63.54     74.35     87.01    101.65
        ELEVATION     638.40    639.25    640.00    640.24    640.32    640.43    640.55    640.69    640.84    641.00

 *** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      102.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

       ***             ***             ***             ***             ***

                      HYDROGRAPH AT STATION     R/P2

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                        (CFS)
+       4.     12.08                 1.          0.          0.          0.
                        (INCHES)   5.278       7.233       7.233       7.233
                        (AC-FT)       0.          0.          0.          0.

 PEAK STORAGE   TIME                    MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
        0.     11.83                 0.          0.          0.          0.

  PEAK STAGE    TIME                     MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    639.37     12.08             639.26      639.25      639.25      639.25

                       CUMULATIVE AREA =      .00 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


          *************
          *           *
  100 KK  *     R/CHA *
          *           *
          *************
                       CHANNEL CHA
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```
 102 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

 103 BA         SUBBASIN CHARACTERISTICS
                      TAREA        .00  SUBBASIN AREA

                PRECIPITATION DATA

  10 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                  STORM AREA =      .00

 104 LS         SCS LOSS RATE
                      STRTL        .38  INITIAL ABSTRACTION
                     CRVNBR      84.00  CURVE NUMBER
                      RTIMP        .00  PERCENT IMPERVIOUS AREA

                KINEMATIC WAVE
 105 UK           OVERLAND-FLOW ELEMENT NO. 1
                          L        59.  OVERLAND FLOW LENGTH
                          S      .0510  SLOPE
                          N       .350  ROUGHNESS COEFFICIENT
                         PA      100.0  PERCENT OF SUBBASIN
                      DXMIN          5  MINIMUM NUMBER OF DX INTERVALS
                MUSKINGUM-CUNGE
 106 RD           MAIN CHANNEL
                          L       582.  CHANNEL LENGTH
                          S      .0110  SLOPE
                          N       .040  CHANNEL ROUGHNESS COEFFICIENT
                         CA        .00  CONTRIBUTING AREA
                      SHAPE       TRAP  CHANNEL SHAPE
                         WD        .00  BOTTOM WIDTH OR DIAMETER
                          Z       2.50  SIDE SLOPE
                     RUPSTQ        YES  ROUTE UPSTREAM HYDROGRAPH

                                                                ***
                             COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                    COMPUTATION TIME STEP
                   ELEMENT    ALPHA       M          DT         DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                                   PEAK                CELERITY
                                                   (MIN)       (FT)     (CFS)     (MIN)       (IN)      (FPS)

                  PLANE1         .96      1.67        .75      11.80      4.64    724.86       5.38        .27
                  MAIN          1.73      1.33       3.31     291.00      8.16    725.55       6.24       2.93

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3472E+00  EXCESS= .2868E+00 OUTFLOW= .6326E+00 BASIN STORAGE= .2835E-03 PERCENT ERROR=    .2


                                         INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                  MAIN          1.73      1.33       5.00                7.91    725.00      6.25

      ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION    R/CHA

    TOTAL RAINFALL =     7.25, TOTAL LOSS =     1.87, TOTAL EXCESS =     5.38

  PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+       8.     12.08                   1.          0.          0.           0.
                        (INCHES)     4.788       6.247       6.254        6.254
                         (AC-FT)        0.          1.          1.           1.

                         CUMULATIVE AREA =      .00 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


           **************
           *            *
 107 KK    *       LF1  *
           *            *
           **************
                            SUBAREA LF1

 109 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
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                   ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                  TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

 110 BA          SUBBASIN CHARACTERISTICS
                   TAREA        .04  SUBBASIN AREA

                 PRECIPITATION DATA

  10 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                            STORM AREA =     .04

 111 LS          SCS LOSS RATE
                   STRTL        .27  INITIAL ABSTRACTION
                  CRVNBR      88.00  CURVE NUMBER
                   RTIMP        .00  PERCENT IMPERVIOUS AREA

                 KINEMATIC WAVE
 112 UK            OVERLAND-FLOW ELEMENT NO. 1
                       L        88.  OVERLAND FLOW LENGTH
                       S      .2500  SLOPE
                       N       .300  ROUGHNESS COEFFICIENT
                      PA      100.0  PERCENT OF SUBBASIN
                   DXMIN          5  MINIMUM NUMBER OF DX INTERVALS
                 MUSKINGUM-CUNGE
 113 RD            MAIN CHANNEL
                       L      1788.  CHANNEL LENGTH
                       S      .0100  SLOPE
                       N       .030  CHANNEL ROUGHNESS COEFFICIENT
                      CA        .04  CONTRIBUTING AREA
                   SHAPE       TRAP  CHANNEL SHAPE
                      WD        .00  BOTTOM WIDTH OR DIAMETER
                       Z       2.00  SIDE SLOPE
                  RUPSTQ         NO  ROUTE UPSTREAM HYDROGRAPH

                                                        ***
                             COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                    COMPUTATION TIME STEP
                    ELEMENT    ALPHA       M         DT         DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                                  PEAK                 CELERITY
                                                   (MIN)      (FT)      (CFS)     (MIN)       (IN)      (FPS)

                   PLANE1       2.48      1.67        .59     17.60    201.86    724.59      5.83        .59
                   MAIN         2.31      1.33       3.76    894.00    187.29    722.88      5.62       7.92

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00  EXCESS= .1248E+02 OUTFLOW= .1201E+02 BASIN STORAGE= .7302E-03 PERCENT ERROR=   3.7

                                         INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                   MAIN         2.31      1.33       5.00              171.06    725.00      5.59

      ***             ***              ***              ***              ***

                            HYDROGRAPH AT STATION      LF1

    TOTAL RAINFALL =     7.25, TOTAL LOSS =     1.41, TOTAL EXCESS =     5.84

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                              (CFS)
+     171.     12.08                    20.          6.          2.           2.
                          (INCHES)    4.553       5.587       5.588        5.588
                           (AC-FT)      10.         12.         12.          12.

                            CUMULATIVE AREA =      .04 SQ MI



*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 114 KK     *        P1  *
            *            *
            **************
                      POND 1

 116 KO          OUTPUT CONTROL VARIABLES
                   IPRNT          3  PRINT CONTROL
                   IPLOT          0  PLOT CONTROL
                   QSCAL         0.  HYDROGRAPH PLOT SCALE
                   IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                    IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                   ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                   ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                  TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

 117 BA          SUBBASIN CHARACTERISTICS
                   TAREA        .00  SUBBASIN AREA
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              PRECIPITATION DATA

  10 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                           STORM AREA =     .00

 118 LS       SCS LOSS RATE
                    STRTL         .00  INITIAL ABSTRACTION
                   CRVNBR      100.00  CURVE NUMBER
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

 119 UD       SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .00  LAG

                                                       ***

                                                UNIT HYDROGRAPH
                                            5 END-OF-PERIOD ORDINATES
             20.        6.        1.        0.        0.

      ***          ***          ***          ***          ***

                     HYDROGRAPH AT STATION       P1

    TOTAL RAINFALL =    7.25, TOTAL LOSS =     .00, TOTAL EXCESS =    7.25

  PEAK FLOW     TIME                       MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+      17.    12.08                   2.          1.          0.           0.
                       (INCHES)     5.278       7.247       7.250        7.250
                        (AC-FT)        1.          1.          1.           1.

                        CUMULATIVE AREA =     .00 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
 120 KK    *       C/3  *
           *            *
           **************

 121 KO       OUTPUT CONTROL VARIABLES
                    IPRNT           3  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                     IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT        .083  TIME INTERVAL IN HOURS


 122 HC       HYDROGRAPH COMBINATION
                    ICOMP           3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                       ***

      ***          ***          ***          ***          ***

                     HYDROGRAPH AT STATION      C/3

  PEAK FLOW     TIME                       MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+     196.    12.08                  23.          7.          3.           3.
                       (INCHES)     4.615       5.737       5.743        5.743
                        (AC-FT)       11.         14.         14.          14.

                        CUMULATIVE AREA =     .05 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
 123 KK    *      R/P1  *
           *            *
           **************
                         ROUTE THROUGH 36 INCH RCP

 125 KO       OUTPUT CONTROL VARIABLES
                    IPRNT           3  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                     IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT        .083  TIME INTERVAL IN HOURS
```

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              HYDROGRAPH ROUTING DATA

 126 RS          STORAGE ROUTING
                       NSTPS           1  NUMBER OF SUBREACHES
                        ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC      626.00  INITIAL CONDITION
                           X         .00 WORKING R AND D COEFFICIENT

 127 SA               AREA          .0         .0         .5         .6         .6         .7

 128 SE          ELEVATION      626.00     628.60     629.00     630.00     631.00     632.00

 130 SL          LOW-LEVEL OUTLET
                       ELEVL      623.50  ELEVATION AT CENTER OF OUTLET
                       CAREA        7.07  CROSS-SECTIONAL AREA
                        COQL         .80  COEFFICIENT
                        EXPL         .50  EXPONENT OF HEAD

 129 SS          SPILLWAY
                        CREL      631.00  SPILLWAY CREST ELEVATION
                       SPWID       15.00  SPILLWAY WIDTH
                        COQW        2.60  WEIR COEFFICIENT
                        EXPW        1.50  EXPONENT OF HEAD

                                                         ***

                                            COMPUTED STORAGE-ELEVATION DATA

            STORAGE       .00       .00       .07       .60      1.20      1.87
          ELEVATION    626.00    628.60    629.00    630.00    631.00    632.00

                                            COMPUTED OUTFLOW-ELEVATION DATA

            OUTFLOW       .00     75.26     79.16     83.48     88.31     93.73     99.86    106.85    114.88    124.23
          ELEVATION    626.00    626.25    626.55    626.89    627.29    627.77    628.35    629.05    629.91    631.00

            OUTFLOW    125.11    126.24    128.02    130.61    134.15    138.79    144.67    151.95    160.76    171.25
          ELEVATION    631.05    631.10    631.16    631.24    631.33    631.43    631.55    631.69    631.84    632.00


                                        COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

            STORAGE       .00       .00       .00       .00       .00       .00       .00       .00       .07       .09
            OUTFLOW     71.72     75.26     79.16     83.48     88.31     93.73     99.86    102.44    106.38    106.85
          ELEVATION    626.00    626.25    626.55    626.89    627.29    627.77    628.35    628.60    629.00    629.05

            STORAGE       .55       .60      1.20      1.23      1.26      1.30      1.35      1.41      1.48      1.56
            OUTFLOW    114.88    115.65    124.23    125.11    126.24    128.02    130.61    134.15    138.79    144.67
          ELEVATION    629.91    630.00    631.00    631.05    631.10    631.16    631.24    631.33    631.43    631.55

            STORAGE      1.65      1.76      1.87
            OUTFLOW    151.95    160.76    171.25
          ELEVATION    631.69    631.84    632.00

      ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION     R/P1

 PEAK FLOW     TIME                             MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                        (CFS)
+     120.     12.17                 23.          7.          3.           3.
                       (INCHES)     4.618       5.831       5.849        5.849
                        (AC-FT)       11.         14.         14.          14.

 PEAK STORAGE   TIME                           MAXIMUM AVERAGE STORAGE
                                  6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
         1.    12.17                  0.          0.          0.           0.

 PEAK STAGE    TIME                             MAXIMUM AVERAGE STAGE
                                  6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    630.51     12.17               626.35      626.09      626.04       626.04

                        CUMULATIVE AREA =      .05 SQ MI



*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
 131 KK     *       CHB  *
            *            *
            **************
                         SUBAREA CHB

 133 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           3  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                       IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                        IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT        .083  TIME INTERVAL IN HOURS
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              SUBBASIN RUNOFF DATA

  134 BA        SUBBASIN CHARACTERISTICS
                      TAREA          .02  SUBBASIN AREA

                PRECIPITATION DATA

   10 PH                               DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                    STORM AREA =      .02

  135 LS        SCS LOSS RATE
                      STRTL          .27  INITIAL ABSTRACTION
                     CRVNBR        88.00  CURVE NUMBER
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

                KINEMATIC WAVE
  136 UK          OVERLAND-FLOW ELEMENT NO. 1
                          L         184.  OVERLAND FLOW LENGTH
                          S        .2240  SLOPE
                          N         .300  ROUGHNESS COEFFICIENT
                         PA        100.0  PERCENT OF SUBBASIN
                      DXMIN            5  MINIMUM NUMBER OF DX INTERVALS
                MUSKINGUM-CUNGE
  137 RD          MAIN CHANNEL
                          L        2088.  CHANNEL LENGTH
                          S        .0040  SLOPE
                          N         .030  CHANNEL ROUGHNESS COEFFICIENT
                         CA          .02  CONTRIBUTING AREA
                      SHAPE         TRAP  CHANNEL SHAPE
                         WD        10.00  BOTTOM WIDTH OR DIAMETER
                          Z         2.00  SIDE SLOPE
                     RUPSTQ           NO  ROUTE UPSTREAM HYDROGRAPH

                                                        ***
                              COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                     COMPUTATION TIME STEP
                   ELEMENT    ALPHA       M          DT         DX       PEAK     TIME TO     VOLUME    MAXIMUM
                                                                                    PEAK                CELERITY
                                                   (MIN)       (FT)      (CFS)     (MIN)       (IN)      (FPS)

                  PLANE1       2.35      1.67        .88      36.80      80.61    725.26       5.84        .74
                  MAIN          .87      1.44       5.00     696.00      67.03    725.00       5.30       4.06

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00  EXCESS= .5322E+01 OUTFLOW= .4834E+01 BASIN STORAGE= .2292E-02 PERCENT ERROR=   9.1

                                       INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                  MAIN          .87      1.44       5.00                 67.03    725.00       5.30

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION       CHB

     TOTAL RAINFALL =     7.25, TOTAL LOSS =     1.41, TOTAL EXCESS =     5.84

   PEAK FLOW      TIME                           MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                           (CFS)
 +      67.     12.08                  8.          2.          1.           1.
                         (INCHES)     4.434       5.299       5.300        5.300
                          (AC-FT)       4.          5.          5.           5.

                          CUMULATIVE AREA =      .02 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
  138 KK    *       LF2  *
            *            *
            **************
                           SUBAREA LF2

  140 KO        OUTPUT CONTROL VARIABLES
                      IPRNT            3  PRINT CONTROL
                      IPLOT            0  PLOT CONTROL
                      QSCAL           0.  HYDROGRAPH PLOT SCALE
                      IPNCH            7  PUNCH COMPUTED HYDROGRAPH
                       IOUT           21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1            1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2          720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT         .083  TIME INTERVAL IN HOURS


              SUBBASIN RUNOFF DATA

  141 BA        SUBBASIN CHARACTERISTICS
                      TAREA          .02  SUBBASIN AREA

                PRECIPITATION DATA

   10 PH                               DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
```

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                  ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                  5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                    .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                 STORM AREA =      .02

 142 LS           SCS LOSS RATE
                        STRTL         .27  INITIAL ABSTRACTION
                       CRVNBR       88.00  CURVE NUMBER
                        RTIMP         .00  PERCENT IMPERVIOUS AREA

                  KINEMATIC WAVE
 143 UK             OVERLAND-FLOW ELEMENT NO. 1
                            L        120.  OVERLAND FLOW LENGTH
                            S       .2500  SLOPE
                            N        .300  ROUGHNESS COEFFICIENT
                           PA       100.0  PERCENT OF SUBBASIN
                        DXMIN           5  MINIMUM NUMBER OF DX INTERVALS
                  MUSKINGUM-CUNGE
 144 RD             MAIN CHANNEL
                            L       1920.  CHANNEL LENGTH
                            S       .0100  SLOPE
                            N        .030  CHANNEL ROUGHNESS COEFFICIENT
                           CA         .02  CONTRIBUTING AREA
                        SHAPE        TRAP  CHANNEL SHAPE
                           WD         .00  BOTTOM WIDTH OR DIAMETER
                            Z        2.00  SIDE SLOPE
                       RUPSTQ          NO  ROUTE UPSTREAM HYDROGRAPH

                                                           ***
                                     COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                            COMPUTATION TIME STEP
                     ELEMENT    ALPHA       M          DT         DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                                     PEAK                CELERITY
                                                      (MIN)      (FT)      (CFS)     (MIN)       (IN)      (FPS)

                    PLANE1       2.48      1.67        .76      24.00     104.79    724.75       5.84        .67
                    MAIN         2.31      1.33       4.77     960.00     100.77    725.21       5.65       6.71

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00  EXCESS= .6536E+01 OUTFLOW= .6327E+01 BASIN STORAGE= .7921E-03 PERCENT ERROR=   3.2

                                             INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                    MAIN         2.31      1.33       5.00                 99.44    725.00       5.66

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION      LF2

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    1.41, TOTAL EXCESS =    5.84

   PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                          (CFS)
 +      99.     12.08                 10.          3.          1.           1.
                        (INCHES)     4.624       5.661       5.662        5.662
                         (AC-FT)        5.          6.          6.           6.

                         CUMULATIVE AREA =      .02 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

             **************
             *            *
 145 KK      *       C/3  *
             *            *
             **************

 146 KO           OUTPUT CONTROL VARIABLES
                        IPRNT           3  PRINT CONTROL
                        IPLOT           0  PLOT CONTROL
                        QSCAL          0.  HYDROGRAPH PLOT SCALE
                        IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                         IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                        ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                        ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                       TIMINT        .083  TIME INTERVAL IN HOURS


 147 HC           HYDROGRAPH COMBINATION
                        ICOMP           3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                           ***

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION      C/3

   PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                          (CFS)
 +     282.     12.08                 41.         13.          5.           5.
                        (INCHES)     4.582       5.669       5.689        5.689
                         (AC-FT)       20.         25.         25.          25.
```

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                     CUMULATIVE AREA =     .08 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


           **************
           *            *
  148 KK   *      CHC   *
           *            *
           **************
                         SUBAREA CHC

  150 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

  151 BA         SUBBASIN CHARACTERISTICS
                      TAREA        .01  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                        DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                           STORM AREA =     .01

  152 LS         SCS LOSS RATE
                      STRTL        .27  INITIAL ABSTRACTION
                     CRVNBR      88.00  CURVE NUMBER
                      RTIMP        .00  PERCENT IMPERVIOUS AREA

                 KINEMATIC WAVE
  153 UK           OVERLAND-FLOW ELEMENT NO. 1
                          L       140.  OVERLAND FLOW LENGTH
                          S      .2500  SLOPE
                          N       .300  ROUGHNESS COEFFICIENT
                         PA      100.0  PERCENT OF SUBBASIN
                      DXMIN          5  MINIMUM NUMBER OF DX INTERVALS
                 MUSKINGUM-CUNGE
  154 RD           MAIN CHANNEL
                          L       645.  CHANNEL LENGTH
                          S      .0050  SLOPE
                          N       .030  CHANNEL ROUGHNESS COEFFICIENT
                         CA        .01  CONTRIBUTING AREA
                      SHAPE       TRAP  CHANNEL SHAPE
                         WD      10.00  BOTTOM WIDTH OR DIAMETER
                          Z       2.00  SIDE SLOPE
                     RUPSTQ        YES  ROUTE UPSTREAM HYDROGRAPH

                                                    ***
                                  COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                         COMPUTATION TIME STEP
                    ELEMENT    ALPHA       M          DT        DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                                   PEAK                CELERITY
                                                    (MIN)      (FT)     (CFS)     (MIN)       (IN)      (FPS)

                   PLANE1       2.48      1.67        .72     28.00     35.22    724.95       5.84        .70
                   MAIN          .97      1.44       1.51    645.00    304.33    726.51       5.69       7.10

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .2537E+02  EXCESS= .2210E+01 OUTFLOW= .2754E+02 BASIN STORAGE=-.2918E+00 PERCENT ERROR=   1.2

                                        INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                   MAIN          .97      1.44       5.00              297.78    725.00       5.70

      ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION      CHC

    TOTAL RAINFALL =     7.25, TOTAL LOSS =     1.41, TOTAL EXCESS =     5.84

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR        24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+     298.     12.08                  45.         14.          6.           6.
                        (INCHES)     4.570       5.675       5.697        5.697
                         (AC-FT)       22.         27.         28.          28.

                     CUMULATIVE AREA =     .09 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***
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              **************
              *            *
   155 KK     *        S1  *
              *            *
              **************
                            AREA S1

   157 KO          OUTPUT CONTROL VARIABLES
                         IPRNT          3  PRINT CONTROL
                         IPLOT          0  PLOT CONTROL
                         QSCAL         0.  HYDROGRAPH PLOT SCALE
                         IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                          IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                         ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                         ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                        TIMINT       .083  TIME INTERVAL IN HOURS


                 SUBBASIN RUNOFF DATA

   158 BA          SUBBASIN CHARACTERISTICS
                         TAREA        .00  SUBBASIN AREA

                   PRECIPITATION DATA

    10 PH                                 DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                   ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                   5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                     .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                       STORM AREA =     .00

   159 LS          SCS LOSS RATE
                         STRTL        .53  INITIAL ABSTRACTION
                        CRVNBR      79.00  CURVE NUMBER
                         RTIMP        .00  PERCENT IMPERVIOUS AREA

   160 UD          SCS DIMENSIONLESS UNITGRAPH
                          TLAG        .57  LAG

                                                                 ***

                                                             UNIT HYDROGRAPH
                                                        36 END-OF-PERIOD ORDINATES
                   0.        0.        0.        0.        1.        1.        1.        1.        1.        1.
                   1.        0.        0.        0.        0.        0.        0.        0.        0.        0.
                   0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
                   0.        0.        0.        0.        0.        0.

       ***             ***             ***             ***             ***

                             HYDROGRAPH AT STATION       S1

      TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.44, TOTAL EXCESS =    4.81

   PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                            (CFS)
 +       2.     12.67                0.          0.          0.           0.
                         (INCHES)     3.916       4.814       4.814        4.814
                          (AC-FT)        0.          0.          0.           0.

                            CUMULATIVE AREA =     .00 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


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              *            *
   161 KK     *        P7  *
              *            *
              **************
                            POND 7

   163 KO          OUTPUT CONTROL VARIABLES
                         IPRNT          3  PRINT CONTROL
                         IPLOT          0  PLOT CONTROL
                         QSCAL         0.  HYDROGRAPH PLOT SCALE
                         IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                          IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                         ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                         ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                        TIMINT       .083  TIME INTERVAL IN HOURS


                 SUBBASIN RUNOFF DATA

   164 BA          SUBBASIN CHARACTERISTICS
                         TAREA        .01  SUBBASIN AREA

                   PRECIPITATION DATA

    10 PH                                 DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                   ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                   5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                     .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                       STORM AREA =     .01

   165 LS          SCS LOSS RATE
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                     STRTL         .00  INITIAL ABSTRACTION
                    CRVNBR      100.00  CURVE NUMBER
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

  166 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .00  LAG

                                                         ***

                                                   UNIT HYDROGRAPH
                                               5 END-OF-PERIOD ORDINATES
               51.       14.        3.        1.        0.

      ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION       P7

     TOTAL RAINFALL =    7.25, TOTAL LOSS =     .00, TOTAL EXCESS =    7.25

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                             (CFS)
+      44.     12.08                     5.          2.          1.           1.
                           (INCHES)     5.278       7.247       7.250        7.250
                            (AC-FT)       3.          3.          3.           3.

                      CUMULATIVE AREA =     .01 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
  167 KK    *      C/3  *
            *            *
            **************

  168 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          3  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                     IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                      IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                     ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                     ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                    TIMINT       .083  TIME INTERVAL IN HOURS


  169 HC          HYDROGRAPH COMBINATION
                     ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                         ***

      ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION      C/3

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                             (CFS)
+     343.     12.08                    50.         16.          6.           6.
                           (INCHES)     4.620       5.804       5.825        5.825
                            (AC-FT)      25.         31.         31.          31.

                      CUMULATIVE AREA =     .10 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


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            *            *
  170 KK    *     R/P7  *
            *            *
            **************
                        ROUTE THROUGH 36 INCH RCP

  172 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          3  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                     IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                      IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                     ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                     ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                    TIMINT       .083  TIME INTERVAL IN HOURS


                HYDROGRAPH ROUTING DATA

  173 RS          STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC     605.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

  174 SA              AREA          .0       2.3       2.5       3.0       3.6       3.8       4.4
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175 SE         ELEVATION      605.00    606.00    608.00    612.00    616.00    618.00    622.00

176 SS         SPILLWAY
                     CREL      621.00  SPILLWAY CREST ELEVATION
                    SPWID      189.00  SPILLWAY WIDTH
                     COQW        2.60  WEIR COEFFICIENT
                     EXPW        1.50  EXPONENT OF HEAD

                                                         ***

                                                COMPUTED STORAGE-ELEVATION DATA

           STORAGE        .00       .75      5.52     16.57     29.71     37.10     53.53
         ELEVATION     605.00    606.00    608.00    612.00    616.00    618.00    622.00

                                                COMPUTED OUTFLOW-ELEVATION DATA

           OUTFLOW        .00       .00       .09       .67      2.27      5.39     10.53     18.19     28.90     43.13
         ELEVATION     605.00    621.00    621.00    621.01    621.03    621.05    621.08    621.11    621.15    621.20

           OUTFLOW      61.42     84.26    112.16    145.61    185.12    231.20    284.38    345.11    413.96    491.40
         ELEVATION     621.25    621.31    621.37    621.44    621.52    621.60    621.69    621.79    621.89    622.00


                                            COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

           STORAGE        .00       .75      5.52     16.57     29.71     37.10     49.21     49.26     49.33     49.42
           OUTFLOW        .00       .00       .00       .00       .00       .00       .00       .67      2.27      5.39
         ELEVATION     605.00    606.00    608.00    612.00    616.00    618.00    621.00    621.01    621.03    621.05

           STORAGE      49.54     49.68     49.85     50.05     50.27     50.53     50.80     51.11     51.44     51.80
           OUTFLOW      10.53     18.19     28.90     43.13     61.42     84.26    112.16    145.61    185.12    231.20
         ELEVATION     621.08    621.11    621.15    621.20    621.25    621.31    621.37    621.44    621.52    621.60

           STORAGE      52.19     52.61     53.05     53.53
           OUTFLOW     284.38    345.11    413.96    491.40
         ELEVATION     621.69    621.79    621.89    622.00

     ***            ***            ***            ***            ***

                       HYDROGRAPH AT STATION     R/P7

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+       0.       .00                    0.          0.          0.          0.
                        (INCHES)      .000        .000        .000        .000
                         (AC-FT)        0.          0.          0.          0.

 PEAK STORAGE   TIME                       MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
       31.     37.08                   31.         31.         25.         25.

  PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    616.43     44.75                616.43      616.42      614.19      614.19

                       CUMULATIVE AREA =      .10 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


           **************
           *            *
 177 KK    *       O2   *
           *            *
           **************
                     OFFSITE AREA 2

 179 KO         OUTPUT CONTROL VARIABLES
                    IPRNT          3  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                    IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .083  TIME INTERVAL IN HOURS


              SUBBASIN RUNOFF DATA

 180 BA         SUBBASIN CHARACTERISTICS
                    TAREA        .11  SUBBASIN AREA

                PRECIPITATION DATA

  10 PH                        DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                 STORM AREA =      .11

 181 LS         SCS LOSS RATE
                    STRTL        .53  INITIAL ABSTRACTION
                   CRVNBR      79.00  CURVE NUMBER
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```
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

  182 US          SNYDER UNITGRAPH
                       TP         .71  LAG
                       CP         .65  PEAKING COEFFICIENT

                SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                  ***

                                          UNIT HYDROGRAPH PARAMETERS
                                    CLARK   TC=   .82 HR,       R=   .60 HR
                                   SNYDER   TP=   .71 HR,      CP=   .65

                                               UNIT HYDROGRAPH
                                          44 END-OF-PERIOD ORDINATES
                 3.       10.       19.       30.       42.       53.       61.       66.       68.       66.
                59.       52.       45.       39.       34.       30.       26.       23.       20.       17.
                15.       13.       11.       10.        9.        7.        7.        6.        5.        4.
                 4.        3.        3.        2.        2.        2.        2.        1.        1.        1.
                 1.        1.        1.        1.

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION       O2

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.44, TOTAL EXCESS =    4.81

  PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+     150.    12.75                     47.         15.          6.           6.
                        (INCHES)     3.885       4.790       4.790        4.790
                         (AC-FT)       23.         29.         29.          29.

                         CUMULATIVE AREA =     .11 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

             **************
             *            *
  183 KK     *        S2  *
             *            *
             **************
                       AREA S2

  185 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           3  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                      IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                       IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT        .083  TIME INTERVAL IN HOURS


                SUBBASIN RUNOFF DATA

  186 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .08  SUBBASIN AREA

                  PRECIPITATION DATA

   10 PH                               DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                  ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                  5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                    .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                  STORM AREA =      .08

  187 LS          SCS LOSS RATE
                      STRTL         .53  INITIAL ABSTRACTION
                     CRVNBR       79.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

  188 US          SNYDER UNITGRAPH
                       TP         .76  LAG
                       CP         .66  PEAKING COEFFICIENT

                SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                  ***

                                          UNIT HYDROGRAPH PARAMETERS
                                    CLARK   TC=   .85 HR,       R=   .64 HR
                                   SNYDER   TP=   .76 HR,      CP=   .66

                                               UNIT HYDROGRAPH
                                          47 END-OF-PERIOD ORDINATES
                 2.        6.       12.       19.       27.       34.       40.       44.       46.       46.
                42.       37.       33.       29.       25.       22.       19.       17.       15.       13.
                12.       10.        9.        8.        7.        6.        5.        5.        4.        4.
                 3.        3.        2.        2.        2.        2.        1.        1.        1.        1.
                 1.        1.        1.        1.        1.        0.        0.

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION       S2
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```
    TOTAL RAINFALL =     7.25, TOTAL LOSS =     2.44, TOTAL EXCESS =     4.81

  PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+     103.     12.83               34.         10.          4.           4.
                        (INCHES)     3.883       4.791       4.791        4.791
                         (AC-FT)       17.         21.         21.          21.

                         CUMULATIVE AREA =      .08 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
  189 KK   *       DP2  *
           *            *
           **************

  190 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


  191 HC         HYDROGRAPH COMBINATION
                       ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                ***

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION       DP2

  PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                   6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+     253.     12.75               81.         25.         10.          10.
                        (INCHES)     2.556       3.152       3.152        3.152
                         (AC-FT)       40.         50.         50.          50.

                         CUMULATIVE AREA =      .29 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
  192 KK   *    S2/DP2  *
           *            *
           **************
                          ROUTE THROUGH 12 INCH CMP

  194 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               HYDROGRAPH ROUTING DATA

  195 RS         STORAGE ROUTING
                       NSTPS          1  NUMBER OF SUBREACHES
                        ITYP       ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC     617.90  INITIAL CONDITION
                           X        .00 WORKING R AND D COEFFICIENT

  196 SA              AREA          .0         .1        1.6        3.3        5.8

  197 SE         ELEVATION      617.90     620.00     622.00     624.00     626.00

  199 SL         LOW-LEVEL OUTLET
                       ELEVL     618.30  ELEVATION AT CENTER OF OUTLET
                       CAREA        .79  CROSS-SECTIONAL AREA
                        COQL        .80  COEFFICIENT
                        EXPL        .50  EXPONENT OF HEAD

  198 SS         SPILLWAY
                        CREL     622.00  SPILLWAY CREST ELEVATION
                       SPWID     746.00  SPILLWAY WIDTH
                        COQW       2.60  WEIR COEFFICIENT
                        EXPW       1.50  EXPONENT OF HEAD

                                                                ***
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                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00       .08      1.53      6.36     15.40
        ELEVATION    617.90    620.00    622.00    624.00    626.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00       .00      3.57      3.92      4.36      4.89      5.59      6.50      7.78      9.69
        ELEVATION    617.90    618.30    618.80    618.91    619.05    619.24    619.53    619.97    620.69    622.00

          OUTFLOW     25.35    134.35    429.72   1004.60   1951.76   3364.55   5335.83   7958.61  11325.92  15530.78
        ELEVATION    622.04    622.16    622.36    622.64    623.00    623.44    623.96    624.56    625.24    626.00


                                    COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00       .00       .01       .01       .01       .02       .04       .08       .08       .27
          OUTFLOW       .00       .00      3.57      3.92      4.36      4.89      5.59      6.50      6.57      7.78
        ELEVATION    617.90    618.30    618.80    618.91    619.05    619.24    619.53    619.97    620.00    620.69

          STORAGE      1.53      1.60      1.80      2.16      2.71      3.52      4.65      6.23      6.36      8.39
          OUTFLOW      9.69     25.35    134.35    429.72   1004.60   1951.76   3364.55   5335.83   5498.04   7958.61
        ELEVATION    622.00    622.04    622.16    622.36    622.64    623.00    623.44    623.96    624.00    624.56

          STORAGE     11.36     15.40
          OUTFLOW  11325.92  15530.78
        ELEVATION    625.24    626.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN       0. TO    15531.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   S2/DP2

  PEAK FLOW     TIME                             MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                             (CFS)
+     253.     12.83                   80.         25.         10.          10.
                          (INCHES)    2.530       3.152       3.152        3.152
                           (AC-FT)      40.         50.         50.          50.

 PEAK STORAGE   TIME                            MAXIMUM AVERAGE STORAGE
                                      6-HR        24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
        2.     12.75                    2.          1.          0.           0.

  PEAK STAGE    TIME                             MAXIMUM AVERAGE STAGE
                                      6-HR        24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    622.24     12.83                 622.09      620.79      619.26       619.26

                       CUMULATIVE AREA =     .29 SQ MI



*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
  200 KK    *       LF6  *
            *            *
            **************
                         SUBAREA LF6

  202 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

  203 BA         SUBBASIN CHARACTERISTICS
                       TAREA        .02  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......    ............... TP-40 ...............    ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR    2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25      .00     .00     .00     .00

                                                   STORM AREA =      .02

  204 LS         SCS LOSS RATE
                       STRTL        .27  INITIAL ABSTRACTION
                      CRVNBR      88.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA

                 KINEMATIC WAVE
  205 UK           OVERLAND-FLOW ELEMENT NO. 1
                           L       120.  OVERLAND FLOW LENGTH
                           S      .2500  SLOPE
```

```
                         N        .300  ROUGHNESS COEFFICIENT
                        PA       100.0  PERCENT OF SUBBASIN
                     DXMIN           5  MINIMUM NUMBER OF DX INTERVALS
                   MUSKINGUM-CUNGE
  206 RD             MAIN CHANNEL
                         L       1554.  CHANNEL LENGTH
                         S       .0100  SLOPE
                         N        .030  CHANNEL ROUGHNESS COEFFICIENT
                        CA         .02  CONTRIBUTING AREA
                     SHAPE        TRAP  CHANNEL SHAPE
                        WD         .00  BOTTOM WIDTH OR DIAMETER
                         Z        2.00  SIDE SLOPE
                    RUPSTQ          NO  ROUTE UPSTREAM HYDROGRAPH

                                                        ***
                                  COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                         COMPUTATION TIME STEP
                    ELEMENT    ALPHA       M          DT         DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                                   PEAK                 CELERITY
                                                     (MIN)      (FT)     (CFS)     (MIN)       (IN)      (FPS)

                   PLANE1       2.48      1.67        .76      24.00    106.29    724.75       5.84        .67
                   MAIN         2.31      1.33       3.85     777.00     99.08    723.41       5.63       6.73

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00  EXCESS= .6630E+01 OUTFLOW= .6390E+01 BASIN STORAGE= .6431E-03 PERCENT ERROR=   3.6

                                        INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                   MAIN         2.31      1.33       5.00                91.97    725.00       5.61

      ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION      LF6

    TOTAL RAINFALL =    7.25, TOTAL LOSS =    1.41, TOTAL EXCESS =    5.84

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                  6-HR        24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+      92.     12.08               10.          3.          1.           1.
                       (INCHES)     4.573       5.611       5.611        5.611
                        (AC-FT)        5.          6.          6.           6.

                        CUMULATIVE AREA =      .02 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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            *            *
  207 KK    *       O4   *
            *            *
            **************
                AREA O4

  209 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


                SUBBASIN RUNOFF DATA

  210 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .01  SUBBASIN AREA

                  PRECIPITATION DATA

   10 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                  ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                  5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR    2-DAY   4-DAY   7-DAY  10-DAY
                    .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                  STORM AREA =      .01

  211 LS          SCS LOSS RATE
                      STRTL         .53  INITIAL ABSTRACTION
                     CRVNBR       79.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

  212 US          SNYDER UNITGRAPH
                         TP         .30  LAG
                         CP         .70  PEAKING COEFFICIENT

                  SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                        ***

                                                   UNIT HYDROGRAPH PARAMETERS
                                             CLARK   TC=   .36 HR,        R=   .22 HR
                                            SNYDER   TP=   .30 HR,       CP=   .69
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                                                    UNIT HYDROGRAPH
                                                17 END-OF-PERIOD ORDINATES
                2.        8.       15.       18.       16.       11.        8.        5.        4.        2.
                2.        1.        1.        1.        0.        0.        0.

     ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION       O4

   TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.44, TOTAL EXCESS =    4.81

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+      28.     12.33                     5.          2.          1.          1.
                        (INCHES)     3.907       4.795       4.795       4.795
                         (AC-FT)        3.          3.          3.          3.

                        CUMULATIVE AREA =     .01 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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           *            *
  213 KK   *       C/2  *
           *            *
           **************

  214 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


  215 HC         HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                   ***

     ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION      C/2

  PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+     106.     12.08                    16.          5.          2.          2.
                        (INCHES)     4.317       5.310       5.311       5.311
                         (AC-FT)        8.         10.         10.         10.

                        CUMULATIVE AREA =     .03 SQ MI


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           *            *
  216 KK   *       CHD  *
           *            *
           **************
                         SUBAREA CHD

  218 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

  219 BA         SUBBASIN CHARACTERISTICS
                      TAREA        .02  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                    STORM AREA =     .02

  220 LS         SCS LOSS RATE
                      STRTL        .27  INITIAL ABSTRACTION
                     CRVNBR      88.00  CURVE NUMBER
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                     RTIMP         .00  PERCENT IMPERVIOUS AREA

               KINEMATIC WAVE
 221 UK          OVERLAND-FLOW ELEMENT NO. 1
                         L        139.  OVERLAND FLOW LENGTH
                         S       .2500  SLOPE
                         N        .300  ROUGHNESS COEFFICIENT
                        PA       100.0  PERCENT OF SUBBASIN
                     DXMIN           5  MINIMUM NUMBER OF DX INTERVALS
               MUSKINGUM-CUNGE
 222 RD          MAIN CHANNEL
                         L       2806.  CHANNEL LENGTH
                         S       .0100  SLOPE
                         N        .030  CHANNEL ROUGHNESS COEFFICIENT
                        CA         .02  CONTRIBUTING AREA
                     SHAPE        TRAP  CHANNEL SHAPE
                        WD       10.00  BOTTOM WIDTH OR DIAMETER
                         Z        3.00  SIDE SLOPE
                    RUPSTQ         YES  ROUTE UPSTREAM HYDROGRAPH

                                                       ***


        *** FDKRUT - NEWTON RAPHSON FAILEDFIXED POINT ITERATION USED - ITERATION=  1


                               COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                      COMPUTATION TIME STEP
                  ELEMENT    ALPHA       M         DT        DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                               PEAK                 CELERITY
                                                  (MIN)      (FT)     (CFS)    (MIN)       (IN)      (FPS)

                 PLANE1       2.48      1.67        .71     27.80    104.84    725.08       5.84        .70
                 MAIN         1.38      1.42       5.00    935.33    168.74    730.00       5.48       6.99

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .9545E+01  EXCESS= .6630E+01 OUTFLOW= .1608E+02 BASIN STORAGE= .2067E-02 PERCENT ERROR=    .6


                                      INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                 MAIN         1.38      1.42       5.00              168.74    730.00       5.48

      ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION      CHD

    TOTAL RAINFALL =    7.25, TOTAL LOSS =    1.41, TOTAL EXCESS =    5.84

  PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                           (CFS)
+     169.     12.17                 26.          8.          3.           3.
                        (INCHES)    4.448       5.481       5.482        5.482
                          (AC-FT)     13.         16.         16.          16.

                       CUMULATIVE AREA =     .05 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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           *            *
 223 KK    *      LF4   *
           *            *
           **************
                        SUBAREA LF4

 225 KO          OUTPUT CONTROL VARIABLES
                     IPRNT           3  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                     IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                      IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                     ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                     ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                    TIMINT        .083  TIME INTERVAL IN HOURS


             SUBBASIN RUNOFF DATA

 226 BA          SUBBASIN CHARACTERISTICS
                     TAREA         .03  SUBBASIN AREA

               PRECIPITATION DATA

  10 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                STORM AREA =      .03

 227 LS          SCS LOSS RATE
                     STRTL         .27  INITIAL ABSTRACTION
                    CRVNBR       88.00  CURVE NUMBER
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

               KINEMATIC WAVE
```

```
 228 UK           OVERLAND-FLOW ELEMENT NO. 1
                        L       120.  OVERLAND FLOW LENGTH
                        S      .2500  SLOPE
                        N       .300  ROUGHNESS COEFFICIENT
                       PA      100.0  PERCENT OF SUBBASIN
                    DXMIN          5  MINIMUM NUMBER OF DX INTERVALS
                MUSKINGUM-CUNGE
 229 RD           MAIN CHANNEL
                        L      1258.  CHANNEL LENGTH
                        S      .0100  SLOPE
                        N       .030  CHANNEL ROUGHNESS COEFFICIENT
                       CA        .03  CONTRIBUTING AREA
                    SHAPE       TRAP  CHANNEL SHAPE
                       WD        .00  BOTTOM WIDTH OR DIAMETER
                        Z       2.00  SIDE SLOPE
                   RUPSTQ         NO  ROUTE UPSTREAM HYDROGRAPH

                                                       ***
                                 COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                        COMPUTATION TIME STEP
                  ELEMENT    ALPHA      M         DT        DX       PEAK    TIME TO     VOLUME    MAXIMUM
                                                                              PEAK                 CELERITY
                                                 (MIN)      (FT)     (CFS)    (MIN)       (IN)      (FPS)

                 PLANE1        2.48      1.67        .76     24.00    166.15    724.75      5.84        .67
                 MAIN          2.31      1.33       2.78    629.00    160.98    724.07      5.64       7.53

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00  EXCESS= .1036E+02 OUTFLOW= .1002E+02 BASIN STORAGE= .5353E-03 PERCENT ERROR=   3.3


                                      INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                 MAIN          2.31      1.33       5.00              152.01    725.00      5.64

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION      LF4

    TOTAL RAINFALL =    7.25, TOTAL LOSS =    1.41, TOTAL EXCESS =    5.84

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                           (CFS)
+     152.     12.08                16.          5.          2.           2.
                        (INCHES)    4.596       5.635       5.636        5.636
                         (AC-FT)       8.         10.         10.          10.

                         CUMULATIVE AREA =     .03 SQ MI



*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
 230 KK    *       C/2  *
           *            *
           **************

 231 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


 232 HC         HYDROGRAPH COMBINATION
                      ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                       ***

      ***             ***             ***             ***             ***

                          HYDROGRAPH AT STATION      C/2

  PEAK FLOW     TIME                      MAXIMUM AVERAGE FLOW
                                  6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                           (CFS)
+     317.     12.08                43.         13.          5.           5.
                        (INCHES)    4.502       5.539       5.540        5.540
                         (AC-FT)      21.         26.         26.          26.

                         CUMULATIVE AREA =     .09 SQ MI



*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
 233 KK    *        O3  *
           *            *
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           **************
                         OFFSITE AREA 3

 235 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

 236 BA          SUBBASIN CHARACTERISTICS
                       TAREA        .01  SUBBASIN AREA

                 PRECIPITATION DATA

  10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                STORM AREA =      .01

 237 LS          SCS LOSS RATE
                       STRTL        .53  INITIAL ABSTRACTION
                      CRVNBR      79.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA

 238 US          SNYDER UNITGRAPH
                          TP        .52  LAG
                          CP        .71  PEAKING COEFFICIENT

                 SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                          ***

                                                    UNIT HYDROGRAPH PARAMETERS
                                              CLARK   TC=    .64 HR,       R=   .36 HR
                                             SNYDER   TP=    .52 HR,      CP=   .71

                                                         UNIT HYDROGRAPH
                                                    27 END-OF-PERIOD ORDINATES
                 1.        3.        5.        8.       11.       12.       12.       11.        9.        7.
                 6.        5.        4.        3.        2.        2.        1.        1.        1.        1.
                 1.        0.        0.        0.        0.        0.        0.

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION       O3

    TOTAL RAINFALL =     7.25, TOTAL LOSS =     2.44, TOTAL EXCESS =     4.81

 PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                       6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+       24.     12.58                    6.          2.          1.          1.
                        (INCHES)     3.899       4.791       4.791       4.791
                         (AC-FT)        3.          4.          4.          4.

                        CUMULATIVE AREA =      .01 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


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           *            *
 239 KK    *       S9   *
           *            *
           **************
                         AREA S9

 241 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

 242 BA          SUBBASIN CHARACTERISTICS
                       TAREA        .01  SUBBASIN AREA

                 PRECIPITATION DATA

  10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                STORM AREA =      .01
```

```
  243 LS          SCS LOSS RATE
                        STRTL         .53  INITIAL ABSTRACTION
                       CRVNBR       79.00  CURVE NUMBER
                        RTIMP         .00  PERCENT IMPERVIOUS AREA

  244 US          SNYDER UNITGRAPH
                           TP         .59  LAG
                           CP         .72  PEAKING COEFFICIENT

                  SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                       ***

                                               UNIT HYDROGRAPH PARAMETERS
                                         CLARK   TC=    .70 HR,        R=   .40 HR
                                        SNYDER   TP=    .59 HR,       CP=   .71

                                                    UNIT HYDROGRAPH
                                               31 END-OF-PERIOD ORDINATES
                  0.        1.        2.        3.        5.        6.        6.        6.        5.        4.
                  4.        3.        2.        2.        2.        1.        1.        1.        1.        1.
                  0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
                  0.

       ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION       S9

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.44, TOTAL EXCESS =    4.81

   PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                          (CFS)
 +      12.     12.67                   3.          1.          0.           0.
                        (INCHES)     3.899       4.793       4.793        4.793
                         (AC-FT)        2.          2.          2.           2.

                        CUMULATIVE AREA =     .01 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

             **************
             *            *
  245 KK     *       P9   *
             *            *
             **************
                           POND 9

  247 KO          OUTPUT CONTROL VARIABLES
                        IPRNT          3  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE
                        IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                         IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                        ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                        ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                       TIMINT       .083  TIME INTERVAL IN HOURS


                SUBBASIN RUNOFF DATA

  248 BA          SUBBASIN CHARACTERISTICS
                        TAREA         .02  SUBBASIN AREA

                  PRECIPITATION DATA

   10 PH                                 DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                  ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                  5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR    2-DAY   4-DAY   7-DAY  10-DAY
                    .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25      .00     .00     .00     .00

                                                  STORM AREA =     .02

  249 LS          SCS LOSS RATE
                        STRTL         .00  INITIAL ABSTRACTION
                       CRVNBR      100.00  CURVE NUMBER
                        RTIMP         .00  PERCENT IMPERVIOUS AREA

  250 UD          SCS DIMENSIONLESS UNITGRAPH
                         TLAG         .00  LAG

                                                       ***

                                                    UNIT HYDROGRAPH
                                                5 END-OF-PERIOD ORDINATES
                140.       39.        8.        2.        0.

       ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION       P9

     TOTAL RAINFALL =    7.25, TOTAL LOSS =     .00, TOTAL EXCESS =    7.25

   PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                          (CFS)
 +     121.     12.08                  14.          5.          2.           2.
```

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                (INCHES)     5.277       7.247       7.250        7.250
                 (AC-FT)        7.          9.          9.           9.

                 CUMULATIVE AREA =     .02 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  251 KK    *        S6  *
            *            *
            **************
                          AREA S6

  253 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

  254 BA         SUBBASIN CHARACTERISTICS
                       TAREA        .01  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......    ............... TP-40 ...............    ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR    2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25      .00     .00     .00     .00

                                                      STORM AREA =      .01

  255 LS         SCS LOSS RATE
                       STRTL        .53  INITIAL ABSTRACTION
                      CRVNBR      79.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA

  256 US         SNYDER UNITGRAPH
                          TP        .52  LAG
                          CP        .71  PEAKING COEFFICIENT

                 SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                                      ***

                                                        UNIT HYDROGRAPH PARAMETERS
                                                  CLARK   TC=    .64 HR,       R=   .36 HR
                                                 SNYDER   TP=    .52 HR,      CP=   .71

                                                             UNIT HYDROGRAPH
                                                        27 END-OF-PERIOD ORDINATES
                 1.         2.         4.         6.         8.         9.        10.         9.         7.         6.
                 5.         4.         3.         2.         2.         1.         1.         1.         1.         1.
                 0.         0.         0.         0.         0.         0.         0.

        ***              ***              ***              ***              ***

                         HYDROGRAPH AT STATION       S6

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.44, TOTAL EXCESS =    4.81

  PEAK FLOW      TIME                         MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)        (HR)
                          (CFS)
+      19.     12.58                  5.          1.          1.           1.
                (INCHES)     3.899       4.791       4.791        4.791
                 (AC-FT)        2.          3.          3.           3.

                 CUMULATIVE AREA =     .01 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  257 KK    *       C/4  *
            *            *
            **************

  258 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS
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 259 HC         HYDROGRAPH COMBINATION
                      ICOMP           4  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                ***

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION      C/4

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                       (CFS)
+     140.     12.08                27.          9.          4.           4.
                      (INCHES)     4.425       5.823       5.843        5.843
                       (AC-FT)       13.         18.         18.          18.

                       CUMULATIVE AREA =     .06 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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           *            *
 260 KK    *      R/P9  *
           *            *
           **************
                  ROUTE THROUGH 1x48 INCH CMP

 262 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           3  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                      IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                       IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT        .083  TIME INTERVAL IN HOURS


               HYDROGRAPH ROUTING DATA

 263 RS         STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      610.70  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 264 SA              AREA          .0         .1        1.1        3.9        4.2

 265 SE         ELEVATION      610.70     612.00     620.00     630.00     630.80

 267 SL         LOW-LEVEL OUTLET
                      ELEVL      611.30  ELEVATION AT CENTER OF OUTLET
                      CAREA       12.57  CROSS-SECTIONAL AREA
                       COQL         .80  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 266 SS         SPILLWAY
                       CREL      630.30  SPILLWAY CREST ELEVATION
                      SPWID       10.00  SPILLWAY WIDTH
                       COQW        2.60  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                                ***

                                                     COMPUTED STORAGE-ELEVATION DATA

           STORAGE        .00        .02       3.67      27.17      30.43
         ELEVATION     610.70     612.00     620.00     630.00     630.80

                                                     COMPUTED OUTFLOW-ELEVATION DATA

           OUTFLOW        .00        .00     114.93     127.15     142.29     161.51     186.74     221.32     271.60     351.46
         ELEVATION     610.70     611.30     613.33     613.79     614.41     615.31     616.66     618.83     622.65     630.30

           OUTFLOW     352.80     353.41     354.18     355.12     356.25     357.58     359.13     360.91     362.94     365.24
         ELEVATION     630.38     630.41     630.44     630.48     630.52     630.57     630.62     630.68     630.74     630.80


                                                 COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

           STORAGE        .00        .00        .02        .15        .22        .34        .58       1.13       2.56       3.67
           OUTFLOW        .00        .00      67.46     114.93     127.15     142.29     161.51     186.74     221.32     237.82
         ELEVATION     610.70     611.30     612.00     613.33     613.79     614.41     615.31     616.66     618.83     620.00

           STORAGE       7.25      27.17      28.37      28.69      28.81      28.95      29.10      29.28      29.47      29.68
           OUTFLOW     271.60     348.67     351.46     352.80     353.41     354.18     355.12     356.25     357.58     359.13
         ELEVATION     622.65     630.00     630.30     630.38     630.41     630.44     630.48     630.52     630.57     630.62

           STORAGE      29.91      30.16      30.43
           OUTFLOW     360.91     362.94     365.24
         ELEVATION     630.68     630.74     630.80

 *** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO       115.
                 THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                 THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

      ***             ***             ***             ***             ***
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                        HYDROGRAPH AT STATION     R/P9

  PEAK FLOW     TIME                         MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                          (CFS)
+     122.     12.17                  27.          9.          4.           4.
                         (INCHES)    4.425       5.823       5.842        5.842
                         (AC-FT)       13.         18.         18.          18.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
        0.     12.17                   0.          0.          0.           0.

  PEAK STAGE    TIME                         MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    613.61     12.17                611.63      611.41      611.35       611.35

                       CUMULATIVE AREA =      .06 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


           **************
           *            *
  268 KK   *      LF5   *
           *            *
           **************
                   SUBAREA LF5

  270 KO        OUTPUT CONTROL VARIABLES
                      IPRNT          3  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                      IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                       IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT       .083  TIME INTERVAL IN HOURS


              SUBBASIN RUNOFF DATA

  271 BA        SUBBASIN CHARACTERISTICS
                      TAREA        .04  SUBBASIN AREA

                PRECIPITATION DATA

   10 PH                           DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                              STORM AREA =      .04

  272 LS        SCS LOSS RATE
                      STRTL        .27  INITIAL ABSTRACTION
                     CRVNBR      88.00  CURVE NUMBER
                      RTIMP        .00  PERCENT IMPERVIOUS AREA

                KINEMATIC WAVE
  273 UK          OVERLAND-FLOW ELEMENT NO. 1
                          L       259.  OVERLAND FLOW LENGTH
                          S      .2500  SLOPE
                          N       .300  ROUGHNESS COEFFICIENT
                         PA      100.0  PERCENT OF SUBBASIN
                      DXMIN          5  MINIMUM NUMBER OF DX INTERVALS
                MUSKINGUM-CUNGE
  274 RD          MAIN CHANNEL
                          L      1500.  CHANNEL LENGTH
                          S      .0100  SLOPE
                          N       .030  CHANNEL ROUGHNESS COEFFICIENT
                         CA        .04  CONTRIBUTING AREA
                      SHAPE       TRAP  CHANNEL SHAPE
                         WD        .00  BOTTOM WIDTH OR DIAMETER
                          Z       2.00  SIDE SLOPE
                     RUPSTQ         NO  ROUTE UPSTREAM HYDROGRAPH

                                                          ***
                            COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                   COMPUTATION TIME STEP
                 ELEMENT    ALPHA       M          DT         DX        PEAK    TIME TO     VOLUME    MAXIMUM
                                                                                  PEAK                CELERITY
                                                 (MIN)      (FT)      (CFS)     (MIN)       (IN)      (FPS)

                PLANE1       2.48      1.67       1.12      51.80     165.86     724.83      5.84        .87
                MAIN         2.31      1.33       3.34     750.00     152.95     723.70      5.65       7.50

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00  EXCESS= .1127E+02 OUTFLOW= .1091E+02 BASIN STORAGE= .7211E-03 PERCENT ERROR=   3.1


                                      INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                MAIN         2.31      1.33       5.00                151.79     725.00      5.64

      ***            ***            ***            ***            ***
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                         HYDROGRAPH AT STATION      LF5

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    1.41, TOTAL EXCESS =    5.84

   PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                         (CFS)
 +     152.     12.08                 18.          5.          2.           2.
                       (INCHES)     4.591       5.638       5.639        5.639
                        (AC-FT)        9.         11.         11.          11.

                        CUMULATIVE AREA =     .04 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   275 KK   *        P8  *
            *            *
            **************
                          POND 8

   277 KO         OUTPUT CONTROL VARIABLES
                        IPRNT          3  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE
                        IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                         IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                        ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                        ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                       TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

   278 BA         SUBBASIN CHARACTERISTICS
                        TAREA         .07  SUBBASIN AREA

                  PRECIPITATION DATA

    10 PH                           DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                  ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                  5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                    .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                               STORM AREA =     .07

   279 LS         SCS LOSS RATE
                        STRTL         .00  INITIAL ABSTRACTION
                       CRVNBR      100.00  CURVE NUMBER
                        RTIMP         .00  PERCENT IMPERVIOUS AREA

   280 UD         SCS DIMENSIONLESS UNITGRAPH
                         TLAG         .00  LAG

                                                           ***

                                                       UNIT HYDROGRAPH
                                                   5 END-OF-PERIOD ORDINATES
               407.      114.       22.        4.        0.

        ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION       P8

     TOTAL RAINFALL =    7.25, TOTAL LOSS =     .00, TOTAL EXCESS =    7.25

   PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     59.92-HR
 +   (CFS)       (HR)
                         (CFS)
 +     353.     12.08                 40.         14.          6.           6.
                       (INCHES)     5.277       7.246       7.249        7.249
                        (AC-FT)       20.         27.         27.          27.

                        CUMULATIVE AREA =     .07 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
   281 KK   *        S8  *
            *            *
            **************
                          AREA S8

   283 KO         OUTPUT CONTROL VARIABLES
                        IPRNT          3  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE
                        IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                         IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                        ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                        ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                       TIMINT       .083  TIME INTERVAL IN HOURS
```

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              SUBBASIN RUNOFF DATA

 284 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .01  SUBBASIN AREA

                PRECIPITATION DATA

  10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                                   STORM AREA =      .01

 285 LS         SCS LOSS RATE
                      STRTL         .67  INITIAL ABSTRACTION
                     CRVNBR       75.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 286 US         SNYDER UNITGRAPH
                         TP         .21  LAG
                         CP         .68  PEAKING COEFFICIENT

                SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                             ***

                                                     UNIT HYDROGRAPH PARAMETERS
                                               CLARK   TC=   .25 HR,       R=   .16 HR
                                              SNYDER   TP=   .21 HR,      CP=   .68

                                                          UNIT HYDROGRAPH
                                                     12 END-OF-PERIOD ORDINATES
                5.        17.        24.        19.        11.         7.         4.         2.         1.         1.
                0.         0.

      ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION        S8

   TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.88, TOTAL EXCESS =    4.37

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                              (CFS)
+       28.     12.25                  5.          1.          1.           1.
                           (INCHES)    3.573       4.352       4.352        4.352
                            (AC-FT)       2.          3.          3.           3.

                          CUMULATIVE AREA =      .01 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
 287 KK    *       C/4  *
           *            *
           **************

 288 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           3  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                      IPNCH           7  PUNCH COMPUTED HYDROGRAPH
                       IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2         720  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT        .083  TIME INTERVAL IN HOURS


 289 HC         HYDROGRAPH COMBINATION
                      ICOMP           4  NUMBER OF HYDROGRAPHS TO COMBINE

                                                             ***

      ***             ***             ***             ***             ***

                       HYDROGRAPH AT STATION       C/4

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                              (CFS)
+      642.     12.08                 89.         30.         12.          12.
                           (INCHES)    4.723       6.253       6.268        6.268
                            (AC-FT)      44.         59.         59.          59.

                          CUMULATIVE AREA =      .18 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

           **************
           *            *
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 290 KK     *      R/P8  *
            *            *
            **************
                          ROUTE THROUGH P8 SPILLWAY

 292 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               HYDROGRAPH ROUTING DATA

 293 RS          STORAGE ROUTING
                       NSTPS          1  NUMBER OF SUBREACHES
                        ITYP       ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC     561.00  INITIAL CONDITION
                           X        .00 WORKING R AND D COEFFICIENT

 294 SA               AREA          .0       8.6      12.6      16.8      21.1      29.4

 295 SE          ELEVATION      561.00    570.00    580.00    590.00    600.00    618.00

 296 SS          SPILLWAY
                        CREL     617.00  SPILLWAY CREST ELEVATION
                       SPWID     200.00  SPILLWAY WIDTH
                        COQW       2.60  WEIR COEFFICIENT
                        EXPW       1.50  EXPONENT OF HEAD

                                                                         ***

                                                    COMPUTED STORAGE-ELEVATION DATA

           STORAGE        .00     25.83    131.39    278.14    467.58    920.15
         ELEVATION     561.00    570.00    580.00    590.00    600.00    618.00

                                                    COMPUTED OUTFLOW-ELEVATION DATA

           OUTFLOW        .00       .00       .09       .71      2.41      5.71     11.14     19.25     30.59     45.64
         ELEVATION     561.00    617.00    617.00    617.01    617.03    617.05    617.08    617.11    617.15    617.20

           OUTFLOW      65.00     89.17    118.68    154.08    195.89    244.65    300.93    365.20    438.05    520.00
         ELEVATION     617.25    617.31    617.37    617.44    617.52    617.60    617.69    617.79    617.89    618.00


                                                COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

           STORAGE        .00     25.83    131.39    278.14    467.58    891.04    891.39    891.84    892.47    893.27
           OUTFLOW        .00       .00       .00       .00       .00       .00       .71      2.41      5.71     11.14
         ELEVATION     561.00    570.00    580.00    590.00    600.00    617.00    617.01    617.03    617.05    617.08

           STORAGE     894.25    895.41    896.75    898.27    899.97    901.85    903.92    906.16    908.59    911.21
           OUTFLOW      19.25     30.59     45.64     65.00     89.17    118.68    154.08    195.89    244.65    300.93
         ELEVATION     617.11    617.15    617.20    617.25    617.31    617.37    617.44    617.52    617.60    617.69

           STORAGE     914.00    916.98    920.15
           OUTFLOW     365.20    438.05    520.00
         ELEVATION     617.79    617.89    618.00

      ***             ***             ***             ***             ***

                         HYDROGRAPH AT STATION     R/P8

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+       0.       .00                    0.          0.          0.           0.
                       (INCHES)       .000        .000        .000         .000
                        (AC-FT)         0.          0.          0.           0.

PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                      6-HR       24-HR       72-HR     59.92-HR
+  (AC-FT)      (HR)
       59.     40.42                   59.         59.         46.          46.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                      6-HR       24-HR       72-HR     59.92-HR
+   (FEET)      (HR)
    573.11     38.25                573.11      573.11      570.82       570.82

                        CUMULATIVE AREA =      .18 SQ MI



*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***


            **************
            *            *
 297 KK     *    S3/DP6  *
            *            *
            **************
                          AREA S3

 299 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
```

```
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .083  TIME INTERVAL IN HOURS


             SUBBASIN RUNOFF DATA

  300 BA       SUBBASIN CHARACTERISTICS
                    TAREA        .00  SUBBASIN AREA

               PRECIPITATION DATA

   10 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR    2-DAY   4-DAY   7-DAY  10-DAY
                 .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25      .00     .00     .00     .00

                                                STORM AREA =      .00

  301 LS       SCS LOSS RATE
                    STRTL        .67  INITIAL ABSTRACTION
                   CRVNBR      75.00  CURVE NUMBER
                    RTIMP        .00  PERCENT IMPERVIOUS AREA

  302 US       SNYDER UNITGRAPH
                       TP        .40  LAG
                       CP        .78  PEAKING COEFFICIENT

               SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                          ***

                                                  UNIT HYDROGRAPH PARAMETERS
                                            CLARK   TC=   .50 HR,       R=   .22 HR
                                           SNYDER   TP=   .40 HR,      CP=   .77

                                                       UNIT HYDROGRAPH
                                                  18 END-OF-PERIOD ORDINATES
               0.        0.        1.        1.        1.        1.        1.        1.        0.        0.
               0.        0.        0.        0.        0.        0.        0.        0.

      ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   S3/DP6

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.88, TOTAL EXCESS =    4.37

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                      6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                            (CFS)
+       2.     12.42                    0.          0.          0.           0.
                          (INCHES)     3.574       4.354       4.354        4.354
                           (AC-FT)       0.          0.          0.           0.

                           CUMULATIVE AREA =     .00 SQ MI


 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
  303 KK  *   S7/DP3   *
          *            *
          **************
                       AREA S7

  305 KO       OUTPUT CONTROL VARIABLES
                    IPRNT          3  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                    IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .083  TIME INTERVAL IN HOURS


             SUBBASIN RUNOFF DATA

  306 BA       SUBBASIN CHARACTERISTICS
                    TAREA        .03  SUBBASIN AREA

               PRECIPITATION DATA

   10 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR    2-DAY   4-DAY   7-DAY  10-DAY
                 .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25      .00     .00     .00     .00

                                                STORM AREA =      .03

  307 LS       SCS LOSS RATE
                    STRTL        .67  INITIAL ABSTRACTION
                   CRVNBR      75.00  CURVE NUMBER
                    RTIMP        .00  PERCENT IMPERVIOUS AREA

  308 US       SNYDER UNITGRAPH
```

```
                         TP         .86  LAG
                         CP         .68  PEAKING COEFFICIENT

               SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                         ***

                                                   UNIT HYDROGRAPH PARAMETERS
                                             CLARK   TC=   .97 HR,       R=   .67 HR
                                            SNYDER   TP=   .85 HR,      CP=   .68

                                                        UNIT HYDROGRAPH
                                                   50 END-OF-PERIOD ORDINATES
               1.        2.        4.        6.        8.       11.       13.       15.       16.       17.
              17.       16.       14.       13.       11.       10.        9.        8.        7.        6.
               5.        5.        4.        4.        3.        3.        3.        2.        2.        2.
               2.        1.        1.        1.        1.        1.        1.        1.        1.        1.
               0.        0.        0.        0.        0.        0.        0.        0.        0.        0.

       ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   S7/DP3

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.88, TOTAL EXCESS =    4.37

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                           (CFS)
+      36.     12.92                  12.          4.          2.          2.
                        (INCHES)     3.548       4.351       4.351       4.351
                         (AC-FT)        6.          7.          7.          7.

                        CUMULATIVE AREA =     .03 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
  309 KK  *    S5/DP4  *
          *            *
          **************
                         AREA S5

  311 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


             SUBBASIN RUNOFF DATA

  312 BA         SUBBASIN CHARACTERISTICS
                       TAREA        .01  SUBBASIN AREA

               PRECIPITATION DATA

   10 PH                        DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .71    1.54    3.20    3.88    4.30    5.28    6.25    7.25     .00     .00     .00     .00

                                              STORM AREA =     .01

  313 LS         SCS LOSS RATE
                       STRTL        .67  INITIAL ABSTRACTION
                      CRVNBR      75.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA

  314 US         SNYDER UNITGRAPH
                          TP        .23  LAG
                          CP        .70  PEAKING COEFFICIENT

               SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                         ***

                                                   UNIT HYDROGRAPH PARAMETERS
                                             CLARK   TC=   .28 HR,       R=   .16 HR
                                            SNYDER   TP=   .23 HR,      CP=   .70

                                                        UNIT HYDROGRAPH
                                                   12 END-OF-PERIOD ORDINATES
               2.        7.       11.       10.        6.        4.        2.        1.        1.        0.
               0.        0.

       ***             ***             ***             ***             ***

                        HYDROGRAPH AT STATION   S5/DP4

     TOTAL RAINFALL =    7.25, TOTAL LOSS =    2.88, TOTAL EXCESS =    4.37

  PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
```

```
                         (CFS)
+      14.     12.25                  2.          1.          0.          0.
                       (INCHES)     3.573       4.352       4.352       4.352
                        (AC-FT)        1.          1.          1.          1.

                        CUMULATIVE AREA =      .01 SQ MI



 *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

            **************
            *            *
  315 KK    *    S4/DP5  *
            *            *
            **************
                          AREA S4

  317 KO         OUTPUT CONTROL VARIABLES
                       IPRNT          3  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                       IPNCH          7  PUNCH COMPUTED HYDROGRAPH
                        IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                       ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                       ISAV2        720  LAST ORDINATE PUNCHED OR SAVED
                      TIMINT       .083  TIME INTERVAL IN HOURS


               SUBBASIN RUNOFF DATA

  318 BA         SUBBASIN CHARACTERISTICS
                       TAREA        .00  SUBBASIN AREA

                 PRECIPITATION DATA

   10 PH                        DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR  24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .71    1.54    3.20    3.88    4.30    5.28    6.25   7.25     .00     .00     .00     .00

                                           STORM AREA =      .00

  319 LS         SCS LOSS RATE
                       STRTL        .67  INITIAL ABSTRACTION
                      CRVNBR      75.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA

  320 US         SNYDER UNITGRAPH
                          TP        .48  LAG
                          CP        .74  PEAKING COEFFICIENT

                 SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

                                                    ***

                                             UNIT HYDROGRAPH PARAMETERS
                                       CLARK   TC=   .58 HR,        R=   .31 HR
                                      SNYDER   TP=   .48 HR,       CP=   .74

                                                  UNIT HYDROGRAPH
                                             24 END-OF-PERIOD ORDINATES
                 0.        1.        2.        3.        4.        5.        4.        4.        3.        2.
                 2.        1.        1.        1.        1.        0.        0.        0.        0.        0.
                 0.        0.        0.        0.

      ***            ***              ***              ***              ***

                         HYDROGRAPH AT STATION    S4/DP5

     TOTAL RAINFALL =     7.25, TOTAL LOSS =     2.88, TOTAL EXCESS =     4.37

  PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                      6-HR        24-HR       72-HR     59.92-HR
+   (CFS)       (HR)
                         (CFS)
+       8.     12.50                  2.          1.          0.          0.
                       (INCHES)     3.570       4.353       4.353       4.353
                        (AC-FT)        1.          1.          1.          1.

                        CUMULATIVE AREA =      .00 SQ MI

1
                                                     RUNOFF SUMMARY
                                                FLOW IN CUBIC FEET PER SECOND
                                             TIME IN HOURS,  AREA IN SQUARE MILES

                                         PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
          OPERATION       STATION        FLOW    PEAK                                             AREA      STAGE     MAX STAGE
+                                                             6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                              P6         10.   12.08           1.          0.          0.         .00

          ROUTED TO
+                            R/P6         10.   12.08           1.          0.          0.         .00
+                                                                                                         636.44      12.08

          HYDROGRAPH AT
+                             LF3        107.   12.08          11.          3.          1.         .02

          HYDROGRAPH AT
```

+		O1	48.	12.67	13.	4.	2.	.03		
+	HYDROGRAPH AT	P5	15.	12.08	2.	1.	0.	.00		
+	4 COMBINED AT	C/4	147.	12.08	27.	9.	3.	.06		
+	ROUTED TO	R/P5	64.	12.67	27.	8.	3.	.06		
+									637.94	12.67
+	HYDROGRAPH AT	P4	5.	12.08	1.	0.	0.	.00		
+	2 COMBINED AT	C/2	65.	12.50	28.	9.	3.	.06		
+	ROUTED TO	R/P4	65.	12.58	28.	9.	3.	.06		
+									629.57	12.58
+	HYDROGRAPH AT	P3	27.	12.08	3.	1.	0.	.01		
+	2 COMBINED AT	C/2	79.	12.08	31.	10.	4.	.07		
+	ROUTED TO	P3/DP1	85.	12.17	31.	10.	4.	.07		
+									628.09	12.17
+	HYDROGRAPH AT	P2	4.	12.08	1.	0.	0.	.00		
+	ROUTED TO	R/P2	4.	12.08	1.	0.	0.	.00		
+									639.37	12.08
+	HYDROGRAPH AT	R/CHA	8.	12.08	1.	0.	0.	.00		
+	HYDROGRAPH AT	LF1	171.	12.08	20.	6.	2.	.04		
+	HYDROGRAPH AT	P1	17.	12.08	2.	1.	0.	.00		
+	3 COMBINED AT	C/3	196.	12.08	23.	7.	3.	.05		
+	ROUTED TO	R/P1	120.	12.17	23.	7.	3.	.05		
+									630.51	12.17
+	HYDROGRAPH AT	CHB	67.	12.08	8.	2.	1.	.02		
+	HYDROGRAPH AT	LF2	99.	12.08	10.	3.	1.	.02		
+	3 COMBINED AT	C/3	282.	12.08	41.	13.	5.	.08		
+	HYDROGRAPH AT	CHC	298.	12.08	45.	14.	6.	.09		
+	HYDROGRAPH AT	S1	2.	12.67	0.	0.	0.	.00		
+	HYDROGRAPH AT	P7	44.	12.08	5.	2.	1.	.01		
+	3 COMBINED AT	C/3	343.	12.08	50.	16.	6.	.10		
+	ROUTED TO	R/P7	0.	.00	0.	0.	0.	.10		
+									616.43	44.75
+	HYDROGRAPH AT	O2	150.	12.75	47.	15.	6.	.11		
+	HYDROGRAPH AT	S2	103.	12.83	34.	10.	4.	.08		
+	3 COMBINED AT	DP2	253.	12.75	81.	25.	10.	.29		
+	ROUTED TO	S2/DP2	253.	12.83	80.	25.	10.	.29		
+									622.24	12.83
+	HYDROGRAPH AT	LF6	92.	12.08	10.	3.	1.	.02		
+	HYDROGRAPH AT	O4	28.	12.33	5.	2.	1.	.01		
+	2 COMBINED AT	C/2	106.	12.08	16.	5.	2.	.03		
+	HYDROGRAPH AT	CHD	169.	12.17	26.	8.	3.	.05		

```
         HYDROGRAPH AT
+                       LF4       152.   12.08          16.          5.          2.         .03

         2 COMBINED AT
+                       C/2       317.   12.08          43.         13.          5.         .09

         HYDROGRAPH AT
+                        O3        24.   12.58           6.          2.          1.         .01

         HYDROGRAPH AT
+                        S9        12.   12.67           3.          1.          0.         .01

         HYDROGRAPH AT
+                        P9       121.   12.08          14.          5.          2.         .02

         HYDROGRAPH AT
+                        S6        19.   12.58           5.          1.          1.         .01

         4 COMBINED AT
+                       C/4       140.   12.08          27.          9.          4.         .06

         ROUTED TO
+                      R/P9       122.   12.17          27.          9.          4.         .06
+                                                                                                 613.61       12.17

         HYDROGRAPH AT
+                       LF5       152.   12.08          18.          5.          2.         .04

         HYDROGRAPH AT
+                        P8       353.   12.08          40.         14.          6.         .07

         HYDROGRAPH AT
+                        S8        28.   12.25           5.          1.          1.         .01

         4 COMBINED AT
+                       C/4       642.   12.08          89.         30.         12.         .18

         ROUTED TO
+                      R/P8         0.     .00           0.          0.          0.         .18
+                                                                                                 573.11       38.25

         HYDROGRAPH AT
+                    S3/DP6         2.   12.42           0.          0.          0.         .00

         HYDROGRAPH AT
+                    S7/DP3        36.   12.92          12.          4.          2.         .03

         HYDROGRAPH AT
+                    S5/DP4        14.   12.25           2.          1.          0.         .01

         HYDROGRAPH AT
+                    S4/DP5         8.   12.50           2.          1.          0.         .00
1
                                         SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                             (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                              COMPUTATION INTERVAL
           ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME       DT       PEAK    TIME TO     VOLUME
                                                    PEAK                                     PEAK

                                (MIN)     (CFS)     (MIN)      (IN)      (MIN)     (CFS)     (MIN)       (IN)

               LF3  MANE         3.22    108.88    724.80      5.64      5.00    106.96    725.00       5.67

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6941E+01 OUTFLOW= .6706E+01 BASIN STORAGE= .5516E-03 PERCENT ERROR=   3.4

             R/CHA  MANE         3.31      8.16    725.55      6.24      5.00      7.91    725.00       6.25

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3472E+00 EXCESS= .2868E+00 OUTFLOW= .6326E+00 BASIN STORAGE= .2835E-03 PERCENT ERROR=    .2

               LF1  MANE         3.76    187.29    722.88      5.62      5.00    171.06    725.00       5.59

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1248E+02 OUTFLOW= .1201E+02 BASIN STORAGE= .7302E-03 PERCENT ERROR=   3.7

               CHB  MANE         5.00     67.03    725.00      5.30      5.00     67.03    725.00       5.30

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .5322E+01 OUTFLOW= .4834E+01 BASIN STORAGE= .2292E-02 PERCENT ERROR=   9.1

               LF2  MANE         4.77    100.77    725.21      5.65      5.00     99.44    725.00       5.66

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6536E+01 OUTFLOW= .6327E+01 BASIN STORAGE= .7921E-03 PERCENT ERROR=   3.2

               CHC  MANE         1.51    304.33    726.51      5.69      5.00    297.78    725.00       5.70

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .2537E+02 EXCESS= .2210E+01 OUTFLOW= .2754E+02 BASIN STORAGE=-.2918E+00 PERCENT ERROR=   1.2

               LF6  MANE         3.85     99.08    723.41      5.63      5.00     91.97    725.00       5.61

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .6630E+01 OUTFLOW= .6390E+01 BASIN STORAGE= .6431E-03 PERCENT ERROR=   3.6
```

```
              CHD  MANE         5.00    168.74    730.00      5.48      5.00    168.74    730.00        5.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9545E+01 EXCESS= .6630E+01 OUTFLOW= .1608E+02 BASIN STORAGE= .2067E-02 PERCENT ERROR=    .6

              LF4  MANE         2.78    160.98    724.07      5.64      5.00    152.01    725.00        5.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1036E+02 OUTFLOW= .1002E+02 BASIN STORAGE= .5353E-03 PERCENT ERROR=   3.3

              LF5  MANE         3.34    152.95    723.70      5.65      5.00    151.79    725.00        5.64

CONTINUITY SUMMARY (AC-FT) - INFLOW= .0000E+00 EXCESS= .1127E+02 OUTFLOW= .1091E+02 BASIN STORAGE= .7211E-03 PERCENT ERROR=   3.1


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

APPENDIX H-3

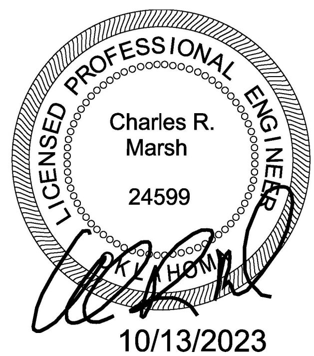
POST-DEVELOPMENT FINAL COVER EROSION CONTROL STRUCTURE DESIGN

Includes Pages H-3-1 through H-3-21

LICENSED PROFESSIONAL ENGINEER
Charles R. Marsh
24599
OKLAHOMA

10/13/2023

CONTENTS



LICENSED PROFESSIONAL ENGINEER
Charles R.
Marsh
24599
OKLAHOMA
10/13/2023

DRAINAGE SWALE DESIGN

Landfill Cover Swales

- Landfill cover drainage swale layout is shown on Figure H-1-2. A swale detail is provided on Figure H-1-6.
- Landfill Cover Swale Design Summary:
  - The swale drainage areas analyzed are shown on Figure H-3-6.
  - Swale peak flow calculations are summarized on page H-3-2.
  - Swale design calculations are provided on pages H-3-2 through H-3-5. Maximum normal depth is 1.69 feet. Swale design depth is 2 feet.
  - Maximum flow velocity is 4.27 fps. Given that the velocity is less than 5 fps, the swale will be lined with vegetation.
  - The swales are adequately designed to convey the 25-year, 24-hour frequency storm run-off.

Required: Analyze the critical swales for each letdown to determine the adequacy of the swale design.

Method:
1. Determine the 25-year frequency flow rates for the swale drainage areas by the Wright-McLaughlin Method.
2. Determine the size of the swales.

Reference:
1. State of Oklahoma, Department of Transportation, Roadway Drainage, November, 2014, Chapter 7.

Solution:
1. Determine the 25-year frequency flow rates using the Wright-McLaughlin Method.

$$\boxed{Q = C \cdot C_f \cdot I \cdot A}$$

Where:
C= 0.7 (runoff coefficient)
C_f= 1.1 (runoff correction factor, from Ref 1 for 25-yr design storm frequency)
I = intensity in/hr
A= drainage area, ac

$$I = \frac{a}{(t_d + b)^c}$$

a = 67
b = 10
c = 0.75

From Ref 1, for Muskogee County (Zone 2)
25-year storm event

t_d is assumed to be 10 min. for all cases

I = 7.08 in/hr

Swale	Area (ac)	Flow Rate (cfs)	Normal Depth for Design Flow (ft)
SW1	3.33	18.17	1.30
SW2	4.23	23.07	1.42
SW3	6.74	36.77	1.69
SW4	1.49	8.13	0.58

Channel	Flow Rate (cfs)	Bottom Slope (ft/ft)[1]	n-value	Side Slope[2] (left)	Side Slope[2] (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)	Froude No.	Velocity Head (ft)	Energy Head (ft)	Flow Area (sq. ft.)	Top Width of Flow (ft)
SW1	18.17	0.01	0.03	2	4	0	1.30	3.57	0.781	0.20	1.50	5.09	7.81
SW2	23.07	0.01	0.03	2	4	0	1.42	3.79	0.792	0.22	1.65	6.08	8.54
SW3	36.77	0.01	0.03	2	4	0	1.69	4.27	0.818	0.28	1.98	8.61	10.17
SW4	8.13	0.01	0.03	2	20	0	0.58	2.17	0.708	0.07	0.66	3.75	12.84

[1] Swales will have a minimum 1.0 percent slope.

[2] Swale side slopes are 2 Horizontal(H) to 1 Vertical(V) and 4H:1V on landfill side slopes, and 20H:1V on top deck.

[3] Calculations were performed using the HYDROCALC HYDRAULICS program developed by Dodson and Associates (Version 1.2a, 1996).

Maximum flow depth is 1.69 ft < 2.0 ft (channel depth)

Design is acceptable.

Example Calculation: Calculate the normal depth for the channel for drainage area SW1

List of Symbols

Q_d = design flow rate for channel, cfs
R = hydraulic radius, ft
n = Manning's roughness coefficient
S = channel slope, ft/ft
b = bottom width of channel, ft
z_r = z-ratio (ratio of run to rise for channel sideslope) for right sideslope of channel
z_l = z-ratio (ratio of run to rise for channel sideslope) for left sideslope of channel
A_f = flow area, sf
g = gravitational acceleration = 32.2 ft/s^2
T = top width of flow, ft
d = normal depth of channel, ft

The program uses an iterative process to calculate the normal depth of the channel to satisfy Manning's Equation

$$Q = \frac{1.486}{n} A R^{0.67} S^{0.5}$$

Design Inputs:

Q_d =	18.17	cfs (from page B-4-2)
S =	0.01	ft/ft
b =	0	ft
z_r =	2	(H) : 1 (V)
z_l =	4	(H) : 1 (V)
n =	0.03	

Step 1 - Based on the geometry of the channel cross-section, solve for R and Af

$$R = \frac{bd + 1/2d^2(z_r + z_l)}{b + d((z_l^2 + 1)^{0.5} + (z_r^2 + 1)^{0.5})}$$

$$A_f = bd + 1/2d^2(z_r + z_l)$$

assume: d = 1.30 ft

R = 0.614 ft

A_f = 5.09 sf

solve for Q: Q = 18.17 cfs

if Q is not equal to Q_d, select a new d and repeat calculations

Step 2 - solve for velocity, T (wet perimeter), Froude number, velocity head, and energy head

Q = VA => V = Q/A

V = 3.57 ft/s

$T = b + d(z_l + z_r)$

T = 7.81 ft

$$F_r = \frac{V}{(gA/T)^{0.5}}$$

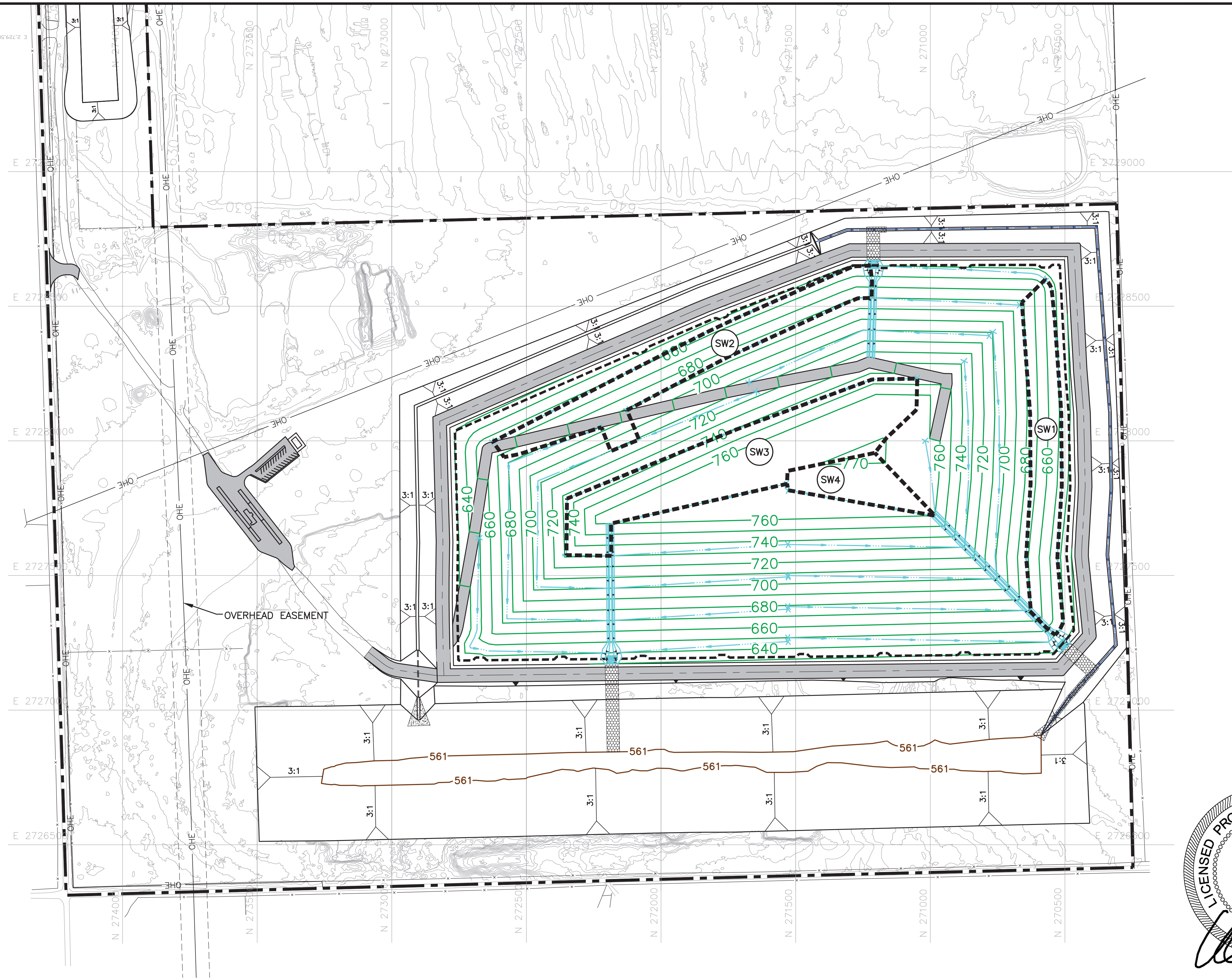
F_r = 0.781

$$\text{Velocity Head} = \frac{V^2}{2g}$$

Velocity Head = 0.2 ft

Energy Head = water elevation + velocity head

Energy Head = 1.50 ft



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SCALE IN FEET

LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- N 273,000 — STATE PLANE COORDINATE GRID
- 640 — EXISTING CONTOUR
- 561 — BORROW AREA CONTOUR
- 770 — FINAL COVER CONTOUR
- PROPOSED DRAINAGE SWALE
- PROPOSED DRAINAGE CHUTE
- PROPOSED DRAINAGE CHANNEL
- RIPRAP/GABIONS
- OHE — EXISTING OVERHEAD EASEMENT
- DRAINAGE AREA BOUNDARY
- SW1 — DRAINAGE AREA DESIGNATION

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.

SWALE DRAINAGE AREA INFORMATION	
DRAINAGE AREA	AREA (ACRES)
SW1	3.33
SW2	4.23
SW3	6.74
SW4	1.49

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10/13/2023

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☐ ISSUED FOR CONSTRUCTION

DATE: 10/2023
FILE: 0086-364-11
CAD: H-3-6 SWALE DRNG.DWG

DRAWN BY: JDW
DESIGN BY: MB
REVIEWED BY: CRM

Weaver Consultants Group
CA 3804 PE – 06/30/2025

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

TIER III PERMIT MODIFICATION
SWALE DRAINAGE AREAS

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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FIGURE H-3-6

O:\0086\364\EXPANSION 2022\APPENDIX H\FIG H-3-6 SWALE DRNG.dwg, jpuhr, 1:2

GEOMEMBRANE LINED CHUTE DESIGN

The letdown structures are designed using a geomembrane as a lining. The geomembrane is placed along the entire chute to protect the chute bottom and the final cover from erosion due to potential erosive velocities. Tumbling flow energy dissipaters will be placed at the bottom of the letdown structure to dissipate excess energy present in the water as it travels down the chutes.

- Chute layout is shown on Figure H-1-1. Chute details are provided on Figures H-1-5 through H-1-8.
- Chute Design Summary:
  - Chute drainage areas are shown on Sheet H-3-21.
  - Peak flow calculations are presented on page H-3-8.
  - As shown on pages H-3-9 and H-3-10, the maximum normal depth is 0.43 feet. The chutes have a minimum of two feet of depth.
  - As shown on pages H-3-9 and H-3-10, the maximum flow velocity is 39.55 fps.

Flowrate Data

Flowrate data are the result of hydrologic modeling of the drainage areas by HEC-1 software.

Reference:

1. State of Oklahoma, Department of Transportation, Roadway Drainage, November, 2014, Chapter 7.
2. U.S. Army Corps of Engineers, Hydrologic Engineering Center. 2013. HEC-HMS Hydrologic Modeling System, User's Manual, Version 4.0, CPD-74A. Hydrologic Engineering Center, Davis, CA.

Swale	Area[1] (ac)	Flow Rate[2] (cfs)
LD4	21.29	152.0
LD5	23.14	152.0
LD6	13.63	92.0

[1] The letdown drainage areas are shown on Sheet H-3-21.
[1] Flow rates are calculated with HEC-1.

2. Uniform flow design for the upper portion of the geomembrane lined chutes above the dissapator.

Letdown	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)	Froude Number	Velocity Head (ft)	Energy Head (ft)	Flow Area (sf)	Flow Top Width (ft)
LD4	152.0	0.25	0.01	2.00	2.00	8.00	0.43	39.55	11.098	24.31	24.75	3.84	9.73
LD5	152.0	0.25	0.01	2.00	2.00	8.00	0.43	39.55	11.098	24.31	24.75	3.84	9.73
LD6	92.0	0.25	0.01	2.00	2.00	8.00	0.32	32.98	10.610	16.90	17.22	2.79	9.29

1. Calculations were performed using the HYDROCALC Hydraulics for Windows program developed by Dodson and Associates (Version 1.2a, 1996).

Conclusions: Maximum normal depth is 0.43 feet. Chute design depth is 2.0 feet.
Maximum flow velocity for the upper portion of the geomembrane-lined chute is 39.55 fps.

3. Chute flow design for the lower portion of the geomembraned lined chutes (dissapator width).

Letdown	Flow Rate (cfs)	Bottom Slope (ft/ft)	Manning's n	Side Slope (left)	Side Slope (right)	Bottom Width (ft)	Normal Depth (ft)	Flow Vel. (fps)	Froude Number	Velocity Head (ft)	Energy Head (ft)	Flow Area (sf)	Flow Top Width (ft)
LD4	152.0	0.25	0.01	2	2	16	0.29	31.65	10.547	15.57	15.86	4.80	17.16
LD5	152.0	0.25	0.01	2	2	16	0.29	30.65	10.547	15.57	15.86	7.80	17.16
LD6	92.0	0.25	0.01	2	2	10	0.28	30.73	10.448	14.68	14.96	2.99	11.13

1. Calculations were performed using the HYDROCALC Hydraulics for Windows program developed by Dodson and Associates (Version 1.2a, 1996).
2. The bottom width of the geomembrane chutes are designed to accommodate the energy dissipater design given in Section 4 of these calculations.

Conclusions: Maximum normal depth is 0.29 feet. Chute design depth is 2.0 feet.
Maximum flow velocity for the lower portion of the geomembrane-lined chute is 31.65 fps.

Required: Determine the hydraulic properties for the grouted ripraps as energy letdown structures (chutes).

Method:
1. Calculate the design flow rate of the chute section.
2. Estimate the normal and flow velocity from Hydrocalc using calculated design flow rate.
3. Calculate the critical depth and critical flow velocity.
4. Calculate the height of the roughness element and spacing between the rows of the roughness elements.
5. Calculate the total length of roughness elements.

Referenc

1. Henry M. Morris, *Hydraulic Dissipation in Steep, Rough Channels* , Bulletin19, Research Division, Virginia Polytechnic Institute, 1968.
2. "Open Channel Hydraulics" by V.T. Chow.
3. "Hydraulic Design of Energy Dissipators for Culverts and Channels", FHWA Hydraulics Engineering Circular Number 14, Third Edition.
4. "Hydraulic Considerations for Corrugated Plastic Pipes" Plastic Pipe Institute.
5. "Reclamation Managing Water in the West" Erosion and Sedimentation Manual. US Department of the Interior Bureau of Reclamation, November 2006.

Solution:

The design of energy dissipators for the 25 percent sideslope is based on tumbling flow in the chute. Tumbling flow consists of a series of hydraulic jumps on overfalls that maintain the critical velocity in the chute.

For Chute LD4 (For the Upper Portion of a Chute):
1. Calculate the design flow rate of the chute section.

According to the definition of the unit flow rate,

q= Q/b

where:

Q = flowrate, cfs (from Page H-3-8) = 152 cfs
b = bottom width of chute, ft = 8 ft
q = unit flowrate, cfs/ft of chute width

q = 152 cfs/ 8 ft
= 19.00 cfs/ft

2. Estimate the normal and flow velocity from Hydrocalc using flow rate and appropriate Manning's coefficient.

Q = 152 cfs
Manning's coefficient selection (Reference 2, Page 14, Table 2)
FML:
n = 0.01
bottom slope = 0.25 ft/ft
side slope = 2 ft/ft
bottom width = 8ft

From Hydrocalc

Normal depth = 0.43 ft
Flow Velocity = 39.55 ft/sec

For Chute LD4 (For the Lower Portion of the Chute):

1. Calculate the design flow rate of the chute section.

According to the definition of the unit flow rate,

q= Q/b

where:

Q = flowrate, cfs = 152 cfs

b = bottom width of chute, ft = 16 ft

q = unit flowrate, cfs/ft of chute width

q = 152 cfs/ 16 ft

= 9.50 cfs/ft

2. Estimate the normal and flow velocity from Hydrocalc using flow rate and appropriate Manning's coefficient.

Q = flowrate, cfs = 152 cfs (Equation 5-12, Reference 2)

roughness coefficient, $n = (n_0+n_1+n_2+n_3+n_4)\ m_5$

where, (Reference 2, Page 109, Table 5-5)

n_0 = basic n value for straight, uniform, smooth channel based on material = 0.025 (Reference 2, Page 109, Table 5-5)

n_1 = value added for surface irregularities = 0.01 (Reference 2, Page 109, Table 5-5)

n_2 = value added for variation in channel cross section= 0.0 (Reference 2, Page 109, Table 5-5)

n_3 = value added for obstructions = 0.015 (Reference 2, Page 109, Table 5-5)

n_4 = value added for vegetation and flow conditions = 0.005 (Reference 2, Page 109, Table 5-5)

m_5 = correction factor for meandering of channel =1.0

n = (0.025+.01+0.0+.015+.005)*1.0

Therefore, n = 0.055

bottom slope = 0.25 ft/ft

side slope = 3 ft/ft

bottom width = 16 ft

From Hydrocalc

Normal depth = 0.79 ft

Flow Velocity = 10.54 ft/sec

3. Calculate the critical depth and critical flow velocity.

$Y_c = (q^2/g)^{1/3}$ (Reference 3, Equation 7.1)

$V_c = (gq)^{1/3}$ (Reference 3)

where:

Y_c = critical depth, ft

q = unit flowrate, cfs/ft of chute width

g = acceleration due to gravity = 32.2 ft/s^2

V_c = critical (also outlet) velocity, ft/s

$Y_c = (9.50\text{^}2)/32.2)^{1/3}$

= 1.41 ft

$V_c = (32.2*9.5)^{1/3}$

= 6.74 ft/s

4. Calculate the height of the roughness element and spacing between the rows of the roughness elements.

$h = Y_{c/}((3\text{-}3.7S)\text{\^{}}(2/3))$ (Reference 3, Equation 7.2)

where:

Y_c = critical depth, ft
S = slope in percent
h = element height, ft

$h = 1.41/(3-3.7*0.25)^{2/3}$
= 0.86 ft
= 10.4 in

$h_{provided}$ = 12.00 in

$h_{provided}$ > h, so the design is adequate.

5. Calculate the total length of roughness elements.

L = spacing between the roughness elements, ft
L_{Total}= Total length of roughened section, ft

(Reference 3)

L/h = 8.5 to 10 (L/h = 9.25 average)

L= 9.25 h =9.25 * 0.85
= 8.0 ft

The spacing and height of the roughness elements are designed based on 5 rows of roughness elements. (reference 3)

So, $L_{total\ (recommended)}$ = 5L
= 5*7.9 ft
= 39.9 ft

$L_{total(provided)}$ = 40 ft

$L_{total(provided)} > L_{total\ (recommended)}$, so the design is adequate.

The following table summarizes the calculations for FML chutes.

Upper Portion of Chutes

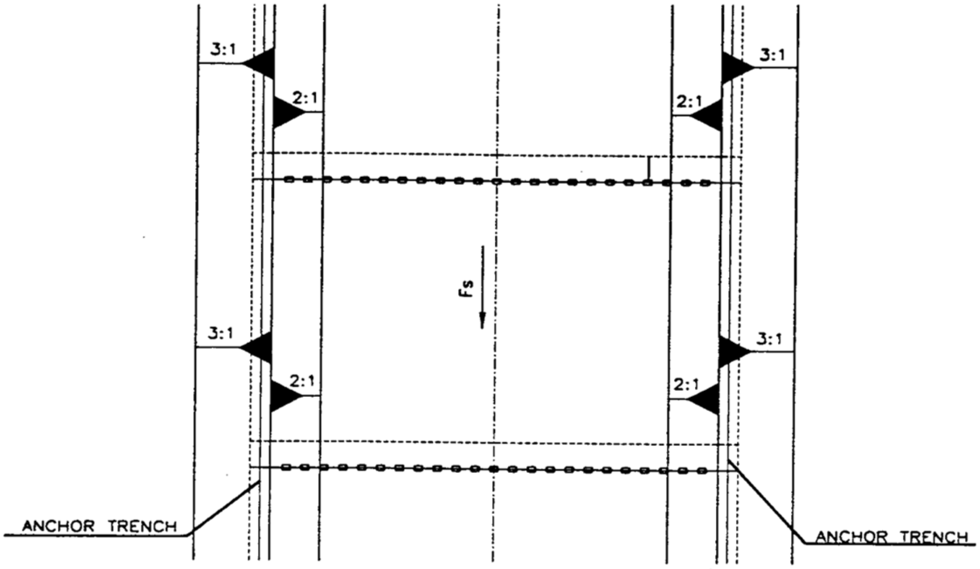
Chute	[1]Q	W_{Design}	q	n-value	Bottom Slope	Side Slope	Normal Depth	Flow Velocity
	(cfs)	(ft)	(cfs/ft)		(ft/ft)	(ft/ft)	(ft)	(ft/sec)
LD4	152.0	8	19.00	0.01	0.250	2	0.43	39.55
LD5	152.0	8	19.00	0.01	0.250	2	0.43	39.55
LD6	92.0	8	11.50	0.01	0.250	2	0.32	32.98

Lower Portion of Chutes

Chute	[1]Q	W_{Design}	q	n-value	Bottom Slope	Side Slope	Normal Depth	Flow Velocity	Y_c	V_c	h	L (=9.25h)	h_{Design}	[2]L_{Total} (Recommended)	$W_{Provided}$	$h_{Provided}$	L_{Total} (Provided)
	(cfs)	(ft)	(cfs/ft)		(ft/ft)	(ft/ft)	(ft)	(ft/sec)	(ft)	(fps)	(ft)	(ft)	(in)	(ft)	(ft)	(in)	(ft)
LF4	152.0	16	9.50	0.055	0.250	3	0.79	10.54	1.41	6.74	0.86	8.0	10.4	39.9	16	12.0	40.0
LF5	152.0	16	9.50	0.055	0.250	3	0.79	10.54	1.41	6.74	0.86	8.0	10.4	39.9	16	12.0	40.0
LF6	92.0	10	9.20	0.055	0.250	3	0.59	8.84	1.38	6.67	0.85	7.8	10.1	39.1	10	12.0	40.0

1. The flowrates were reproduced from Appendix H-2.
2. Total length of the roughened section was calculated based on FHWA recommendation of 5 rows of roughened elements.

5. Side Anchor Trench Design



Shear force pulling on geomembrane due to water:

The shear force acting on the geomembrane per square foot of water in the chute:

$T = \gamma_w \times D \times S$ where: γ_w = unit weight of water (lb/cf)
D = maximum water depth (ft)
S = hydraulic gradient (ft/ft)

Shear force acting on the geomembrane per foot of anchor trench:

$F_{s1} = T \times P$

where:
P = wetted perimeter of the chute = $(W + 2 \times (a^2+D^2)^{1/2})$
a = h x D = horizontal distance from bottom of chute to the depth submerged on the sideslopes
h = Slope of sidewalls = 2 (H) : 1 (V)
W = Minimum bottom width of flow = 8 ft

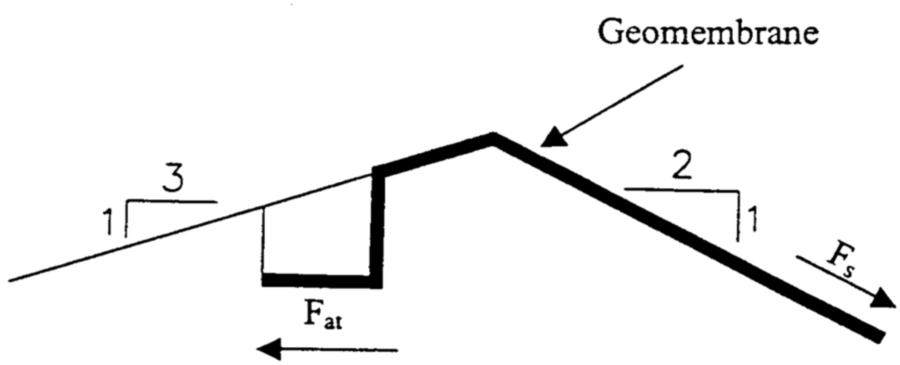
Conservatively, the maximum calculated water depth in the chutes will be used to verify the design. Thus, the water depth in the narrowest part of the chute with the highest depth will be used.

Letdown	Maximum Water Depth (ft)[1]	Hydraulic Gradient (ft/ft)	T (lb/sf)	a (ft)	F_{s1} (lb/ft)
LD4	0.43	0.25	6.71	0.86	67
LD5	0.43	0.25	6.71	0.86	67
LD6	0.32	0.25	4.99	0.64	47

[1] See design depths on page H-3-9.

Pullout Resistance from Edges, F_{at1}

Assuming pullout only opposed by trench (conservative assumption)



$$F_{at} = 2[\{K_o\gamma(D/2)\}\{\tan\zeta\}\{D\} + \{\gamma D\}\{\tan\zeta\}\{w\}]$$

where: ζ = interface friction angle
K_o = 1 - sin ζ (Ref 3)
γ = unit weight of soil (lb/cf)
D = depth of anchor trench (ft)
w = bottom width of anchor trench (ft)

soil friction angle =	15	degrees
soil/geomembrane friction angle =	15	degrees
unit weight =	120	lb/ft^3
depth of anchor trench =	1	ft
bottom width of anchor trench =	1	ft

[2]See detail D6 - Anchor Trench Type 2 on Figure H-1-6 for dimensions.

K_o = 0.74

F_{at1} =	88	lb/ft width	on one side

Factor of Safety = $2F_{at1}/F_{s1}$ =	$\frac{176}{67}$	FS = 2.6

6. Upstream End Anchor Trench Design

Shear force pulling on geomembrane due to water:

F_{s2} = T x A

where: T = Maximum shear force acting on the geomembrane per square foot of water in the chute (lb/sf)

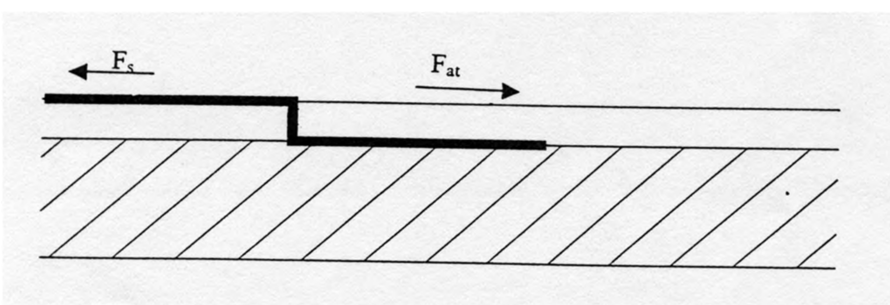
A = area of geomembrane at the top of the chute (ft^2)

Area of geomembrane at top of chute = 116 ft x 17 ft = 1,972 sf

Conservatively, use the maximum shear force per square foot calculated in Part 2

F_{s2} =	13,228	lbs

Pullout resistance of upstream end, F_{at2}[3]



[3]See detail D6 - Anchor Trench Type 1 on Figure H-1-6 for dimensions.

$F_{at} = 2[\{K_o\gamma(D/2)\}\{\tan\zeta\}\{D\} + \{\gamma D\}\{\tan\zeta\}\{w\}]$

where:

ζ = interface friction angle

K_o = 1 - sin ζ (Ref 2)

γ = unit weight of soil (lb/cf)

D = depth of anchor trench (ft)

w = bottom width of anchor trench (ft)

friction angle =	15	degrees
anchor trench soil unit weight =	120	lb/ft^3
depth of anchor trench =	0.5	ft
bottom width of anchor trench =	3	ft

K_o = 0.74

F_{at2}= 102 lb/ft width

Total End Anchor Length (L_T)[4] = 145 ft

F_{pr} = Pullout Resistance (End) = F_{at2} x L_T = 14,851 lbs

Factor of Safety = F_{pr}/F_{s2} = $\frac{14,851}{13,228}$ FS = 1.1

[4]See detail D5 on Figure H-1-5 for total of anchor trench length (L_T=[14+117+14]feet) for Pullout resistance of upstream end.

Summary of Results

Side Anchor Trench Pullout resistance:

FS = $\frac{2F_{AT2}}{F_{S1}}$ ==> FS = 2.6

Upstream End Anchor Trench Pullout resistance:

FS = $\frac{F_{pr}}{F_{s2}}$ ==> FS = 1.1

As it is stated on page 557 of Reference two, the typical factors of safety for the proposed anchor trenches are between 0.7 to 5.0. Therefore, the design is acceptable.

Example Calculation: Calculate the normal depth of the chute for drainage area LD4.

List of Symbols

Q_d = design flow rate for channel, cfs
R = hydraulic radius, ft
n = Manning's roughness coefficient
S = channel slope, ft/ft
b = bottom width of channel, ft
z = z-ratio (ratio of run to rise for channel sideslope)
A_f = flow area, sf
g = gravitational acceleration = 32.2 ft/s^2
T = top width of flow, ft
d = normal depth of chute, ft

The program uses an iterative process to calculate the normal depth of the chute to satisfy Manning's Equation

$$Q = \frac{1.486}{n} A\, R^{0.67} S^{0.5}$$

Design Inputs:

Q_d =	152.0	cfs
S =	0.25	ft/ft
b =	8	ft
z =	2	(H) : 1 (V)
n =	0.01	

Step 1 - Based on the geometry of the chute cross-section, solve for R and A_f

$$R = \frac{bd + zd^2}{b + 2d(z^2 + 1)^{0.5}}$$

$$A_f = bd + zd^2$$

assume: d = 0.43 ft

R = 0.387 ft

A_f = 3.84 sf

solve for Q: Q = 152.0 cfs

if Q is not equal to Q_d, select a new d and repeat calculations

Step 2 - solve for velocity, T, Froude number, velocity head, and energy head

Q = VA => V = Q/A

V = 39.55 ft/s

T = b + 2(z x d)

T = 9.73 ft

$$F_r = \frac{V}{(gA/T)^{0.5}}$$

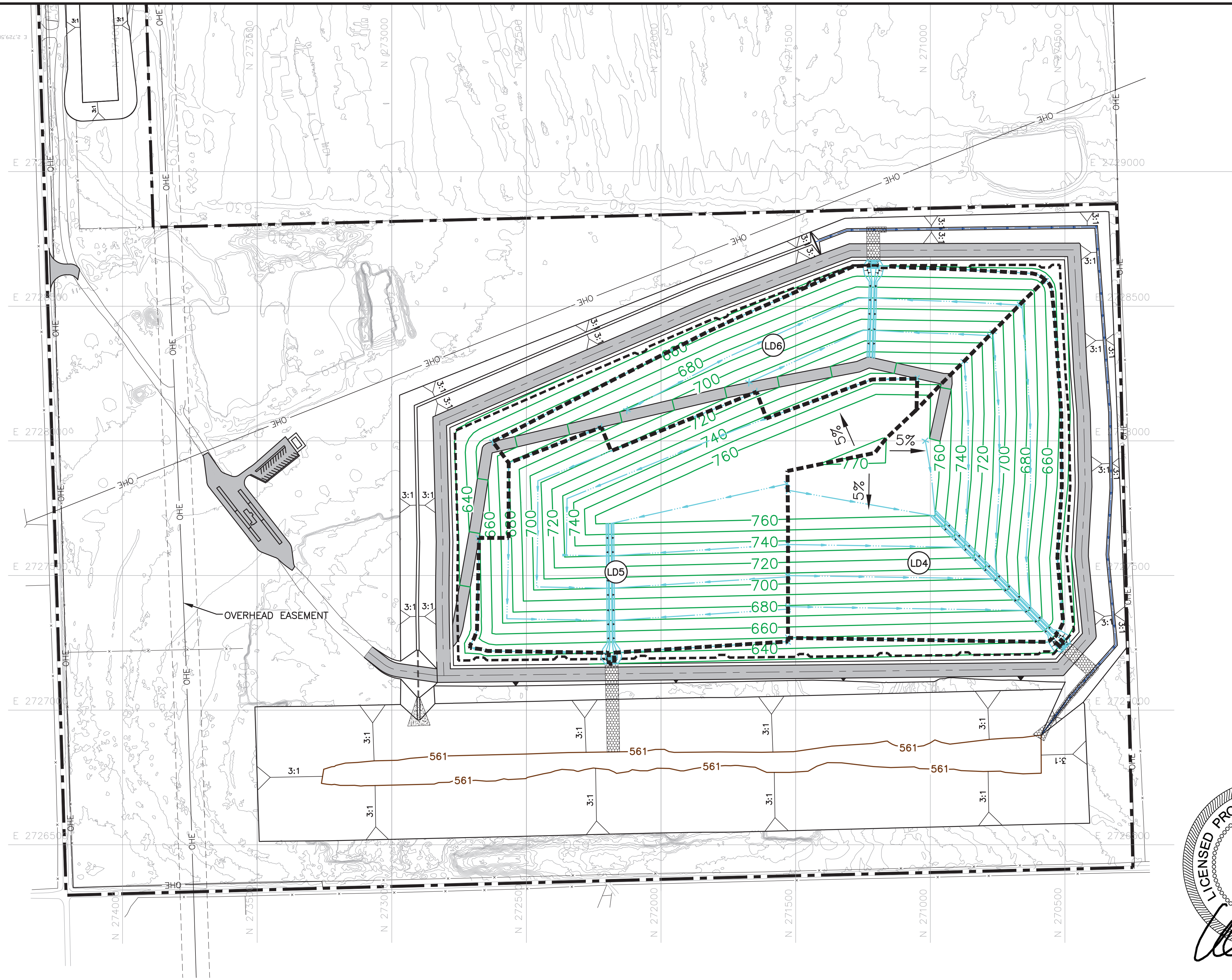
F_r = 11.098

$$\text{Velocity Head} = \frac{V^2}{2g}$$

Velocity Head = 24.31 ft

Energy Head = water elevation + velocity head

Energy Head = 24.75 ft



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SCALE IN FEET

LEGEND

PROPOSED PERMIT BOUNDARY

PROPOSED LIMITS OF WASTE

N 273,000 — STATE PLANE COORDINATE GRID

640 — EXISTING CONTOUR

561 — BORROW AREA CONTOUR

770 — FINAL COVER CONTOUR

PROPOSED DRAINAGE SWALE

PROPOSED DRAINAGE CHUTE

PROPOSED DRAINAGE CHANNEL

RIPRAP/GABIONS

OHE — EXISTING OVERHEAD EASEMENT

DRAINAGE AREA BOUNDARY

LD1 — DRAINAGE AREA DESIGNATION

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.

CHUTE DRAINAGE AREA INFORMATION	
DRAINAGE AREA	AREA (ACRES)
LD4	21.29
LD5	23.14
LD6	13.63

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10/13/2023

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DATE: 10/2023
FILE: 0086-364-11
CAD: H-3-21 CHUTE DRNG.DWG

DRAWN BY: JDW
DESIGN BY: MB
REVIEWED BY: CRM

PREPARED FOR

WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

Weaver Consultants Group

CA 3804 PE – 06/30/2025

TIER III PERMIT MODIFICATION
CHUTE DRAINAGE AREAS

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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FIGURE H-3-21

O:\0086\364\EXPANSION 2022\APPENDIX H\FIG H-3-21 CHUTE DRNG.dwg, jpuhr, 1:2

APPENDIX H-4

POST-DEVELOPMENT PERIMETER CHANNEL, STORMWATER DETENTION POND, AND CULVERT DESIGN

Includes Pages H-4-1 through H-4-10

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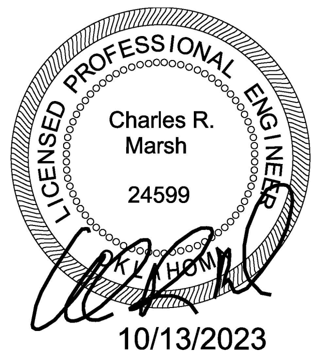
10/13/2023

CONTENTS



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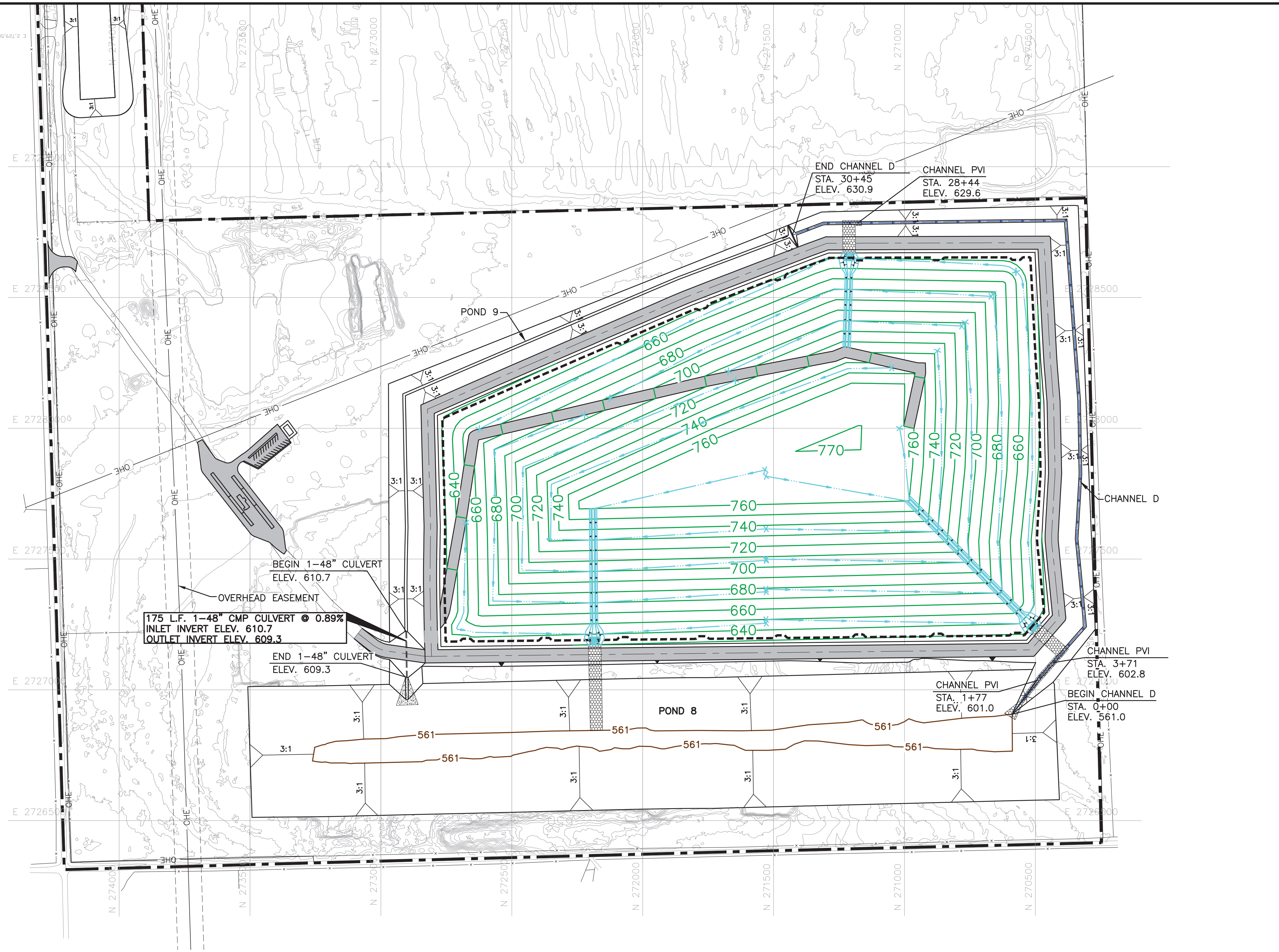
10/13/2023

PERIMETER CHANNEL DESIGN

This appendix evaluates the adequacy of the perimeter channels proposed at the site. The perimeter channels are designed to carry run-off from the landfill area and run-on from the offsite area to the stormwater ponds and discharge points.

- Perimeter Channel Design Summary:
  - Channel drainage area analyzed is shown on Figure H-1-1. Details of the channel are shown on Figure H-4-2.
  - Perimeter channel design information and calculations are presented on page H-4-3.
  - The maximum normal water depth and channel bottom width is provided on page H-4-3.
  - Calculations on page H-4-3 show the maximum flow velocity in the perimeter channel.
  - The perimeter channel was designed to convey the run-off generated by the 25-year, 24-hour frequency storm event.
  - Perimeter Channel Erosion Control Design is included on page H-4-4.



0 200 400
SCALE IN FEET

LEGEND

— · —	PROPOSED PERMIT BOUNDARY
- - -	PROPOSED LIMITS OF WASTE
N 273,000	STATE PLANE COORDINATE GRID
640	EXISTING CONTOUR
561	BORROW AREA CONTOUR
770	FINAL COVER CONTOUR
	PROPOSED DRAINAGE SWALE
	PROPOSED DRAINAGE CHUTE
	PROPOSED DRAINAGE CHANNEL
	RIPRAP/GABIONS
OHE	EXISTING OVERHEAD EASEMENT

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01–25–2023.

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DATE: 10/2023
FILE: 0086–364–11
CAD: H-4-2-PERIMETER DRNG.DWG

DRAWN BY: JDW
DESIGN BY: MB
REVIEWED BY: CRM

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

Weaver Consultants Group
CA 3804 PE – 06/30/2025

TIER III PERMIT MODIFICATION
PERIMETER DRAINAGE PLAN

MUSKOGEE COMMUNITY RDF
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FIGURE H-4-2

O:\0086\364\EXPANSION 2022\APPENDIX H\FIG H-4-2 PERIMETER DRAINAGE PLAN.dwg, jputhr, 1:2

MUSKOGEE COMMUNITY RDF
0086-364-11-19
APPENDIX H
PERIMETER CHANNEL DESIGN
HYDRAULIC ANALYSIS

Channel / Pond	Station		Flow Rate[3] (cfs)	Bottom Slope (ft/ft)	Bottom Width (ft)	Side Slopes (ft/ft)	Manning's N-Value	Normal Depth (ft)	Flow Vel. (fps)	Froude No.	Vel. Head (ft)	Energy Head (ft)	Flow Area (sq.ft.)	Top Width of Flow (ft)
CHD-1	30+45	28+44	169	0.006	10	3.0	0.04	2.43	4.03	0.543	0.25	2.68	41.97	24.57
CHD-2	28+44	03+71	169	0.01	10	3.0	0.04	2.13	4.84	0.689	0.36	2.49	34.92	22.78
CHD-3	03+71	01+77	317	0.008	10	3.0	0.04	3.10	5.31	0.647	0.44	3.53	59.73	28.58
CHD-4	01+77	00+00	317	0.23	10	3.0	0.04	1.29	17.66	3.097	4.85	6.14	17.95	17.76

Note:
1. Calculations were performed using the HYDROCALC Computer Program developed by Dodson and Associates (Version 1.2a, 1996).
2. n = 0.04 (Manning's coefficient) is used for the calculations.
3. Flow rate obtained from HEC-1 analysis included in Appendix H-2.
4. Geometries listed in the table are average values approximated along the length of the channel.

PERIMETER CHANNEL EROSION CONTROL DESIGN

Channel erosion controls have been designed for flow velocities resulting from the 25-year, 24-hour storm frequency flow rates. As shown on page H-4-3, the maximum velocity for channel CHD is 17.61 fps for the 25-year storm event. The channel lining needed to protect against erosive velocities is detailed below.

Typical channel lining material needed to protect against erosive velocities is indicated below.

- Vegetation – used in all areas where velocities are less than 5 fps for channels.
- Turf Reinforcement Matting – used in channels for velocities between 5 fps and 10 fps.
- Riprap – used in channel sections with velocities more than 10 fps will be lined with riprap. 18-inch rock riprap will be used at locations where chutes discharge into the channels and stormwater ponds.

CULVERT DESIGN

This section evaluates the adequacy of the proposed stormwater culvert at the site as shown on Figure H-4-2. HEC-1 was utilized to design and analyze the culverts. HEC-1 output is included in Appendix H-2.

Required: Design culverts to convey the flow.

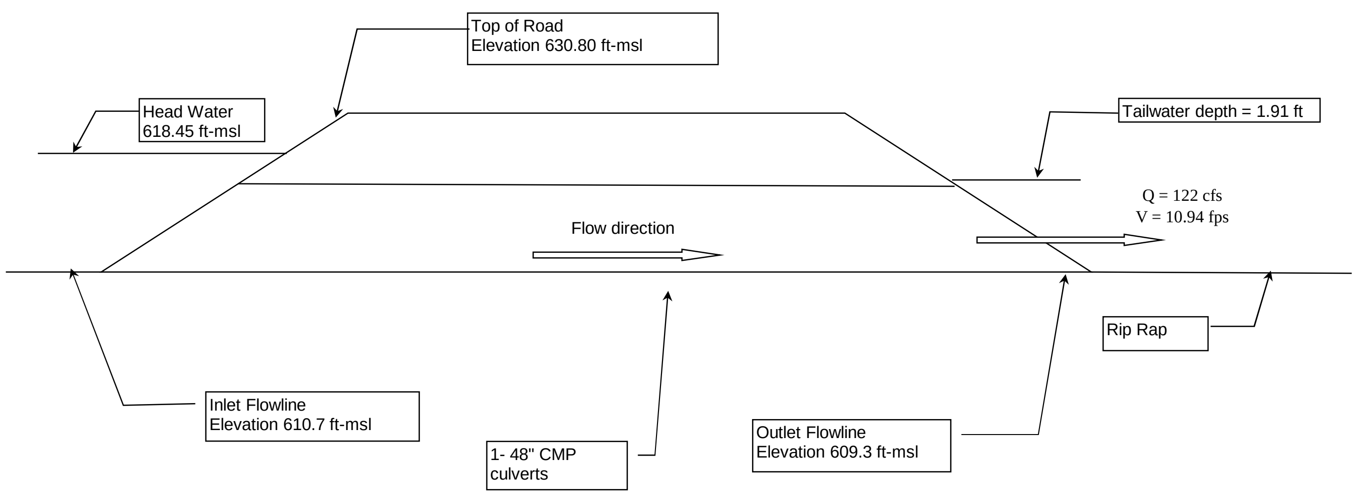
Method: Use HYDROCALC Hydraulics for Windows computer program to determine number and size of the culverts.
Use total 25-year frequency storm event flow estimated by HEC-1 included in Appendix H-2.

For proposed 1 X 48" CMP culvert at downstream end of "POND 9", Culvert "1"

Total Flow=	122	cfs
No. of Culverts=	1	
Culvert Span=	--	inches
Culvert Rise=	--	inches
Culvert Diameter=	48	inches

Culvert ID	Culvert Span (ft)	Culvert Span (ft)	FHWA Chart Number	FHWA Scale Number	Culvert Diameter (ft)	Manning's Coefficient	Entrance Loss Coefficient	Culvert Length (ft)	Downstream Invert Elevation (ft msl)	Upstream Invert Elevation (ft msl)	Flow Rate (cfs)	Tailwater Depth[2] (ft)	Headwater Inlet Control (ft)	Headwater Outlet Control (ft)	Normal Depth (ft)	Critical Depth (ft)	Depth at Outlet (ft)	Outlet Velocity (fps)
1	--	--	2	2	4	0.024	0.8	175.00	609.30	610.70	140.00	1.91	7.39	7.75	4.00	3.32	3.32	10.94

1. Calculations were performed using the HYDROCALC Hydraulics for Windows program developed by Dodson and Associates (Version 2.0, 1996-2010).
2. Tailwater depth is assumed to be the 25-year, 24-hour normal depth in the channel right after the culvert.



STORMWATER DETENTION POND DESIGN

The stormwater detention ponds have been analyzed using HEC-1 storage routing method. The input parameters for the models are presented in Appendix H-2. A summary of the HEC-1 results are presented on page H-4-8. As shown on page H-4-8, during the 25-year storm event, Ponds 8 and 9 are not expected to have flow over their spillways.

Purpose: Demonstrate that the detention pond outlet structure designs are adequate to convey runoff from the various subbasins to their discharge points.

Method:
1. Use the 25-year, 24-hour flow rates and water surface elevations for the drainage areas that will discharge to each detention pond from the HEC-1 analysis (see Appendix H-2).
2. Use the Weir Equation to calculate the flow rate over the spillways as appropriate.

Solution:

25-Year 24-Hour Storm	Pond 7	Pond 8	Pond 9
Bottom ELEV, ft	605.0	561.0	610.7
Spillway ELEV, ft	621.0	617.0	630.3
Spillway Length, ft	189	200	10
Top of Road/Berm, ft			
Discharge Pipe Downstream Invert ELEV, ft	--	--	609.3
Peak Inflow Q_{25}, cfs	343	642	140
Peak Outflow Q_{25}, cfs	0	0	122
Peak Stage in Pond, ft	616.43	573.11	613.61
Est. Flow (Q_{25}) over Spillway, cfs	--	--	--
Velocity (V_{25}) over Spillway, fps	--	--	--

Note: [1] Calculations for velocity over the spillway were performed using the HYDROCALC HYDRAULICS FOR WINDOWS Computer Program developed by Dodson and Associates (Version 1.2a, 1996).

Requried: Determine the minimum length and median diameter of riprap required at the detention pond and channel outlet structures to control erosion.

Reference:
1. Haan, Barfield, and Hayes, *Design Hydrology and Sedimentology for Small Catchments*, 1994.
2. Dodson's and Associates, Inc., *ProHec-1 Plus Program Documentation,* 1995.

Solution: The riprap will be designed for the 25-year flow rates at the detention pond and channel outlet structures. The flow at the outlet stucture can be divided into two categories:

1. Flow over the Spillway

As shown on page H-4-8, detention pond 9, is not expected to have flow over the spillway.

2. Flow through the Low Water Outlet

The flow rate through the low water outlet (LWO) is summarized below.

Flow Structure	Pond Bottom Elev (ft-msl)	LWO Invert Elev. Upstream (ft-msl)	LWO Invert Elev. Downstream (ft-msl)	LWO Diameter (in)	25-Year Flow Rate (cfs)	25-Year Outlet Velocity[1] (ft/s)
P9	610.7	610.7	609.3	48	122	10.94

[1] Velocities through the low water outlet were calculated using the HYDROCALC HYDRAULICS FOR WINDOWS program developed by Dodson and Associates (Version 1.2a, 1996).
[2] The flow rates were obtained from the HEC-1 analysis output.

The nomograph used for design of the length of the riprap and the median diameter is shown on pages H-4-10 (Figures 5.24 and 5.25).

The minimum riprap length and median rock diameter for each outlet is summarized below. The length of the riprap is increased by 20 percent to provide for a conservative design.

Pond	Flow in LWO (cfs)	Riprap Length (ft)	Adjusted Length L x 1.2 (ft)	Median Rock Diameter (ft)
P9	122	28	33.6	1.00

Apron width (W) for ponds LWO:
W = LWO diameter + 0.4 * (Adjusted RipRap Length)

Pond	W (ft)
P9	15.9

The median diameter of riprap is intended to determine the minimum diameter of the riprap that will be used. As an alternative, 16-inch thick gabions can be used.

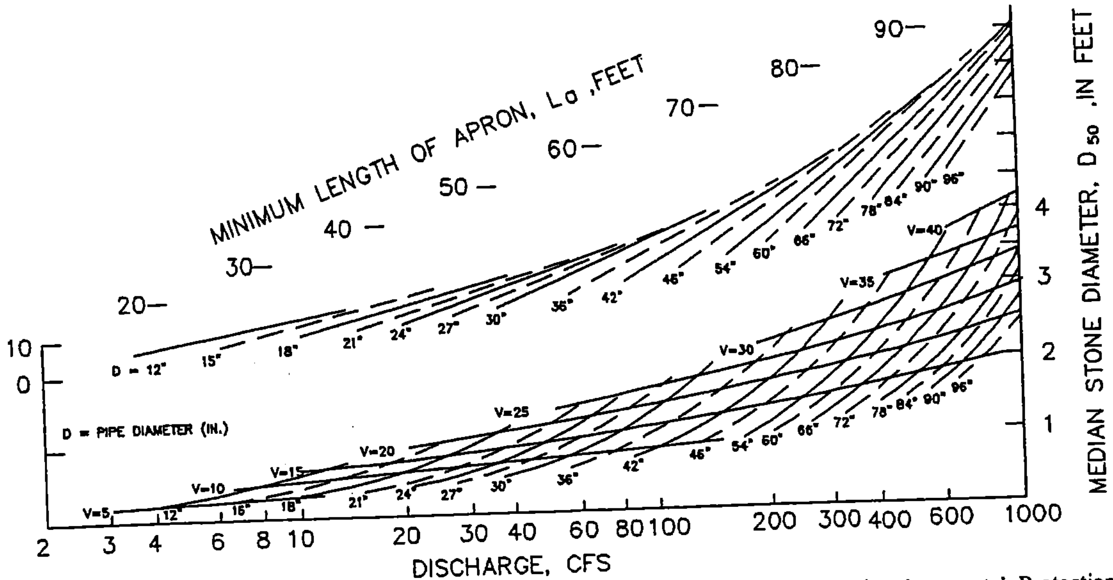


Figure 5.24 Design of outlet protection—minimum tailwater condition, $T_w < 0.5D$ (Environmental Protection Agency, 1976).

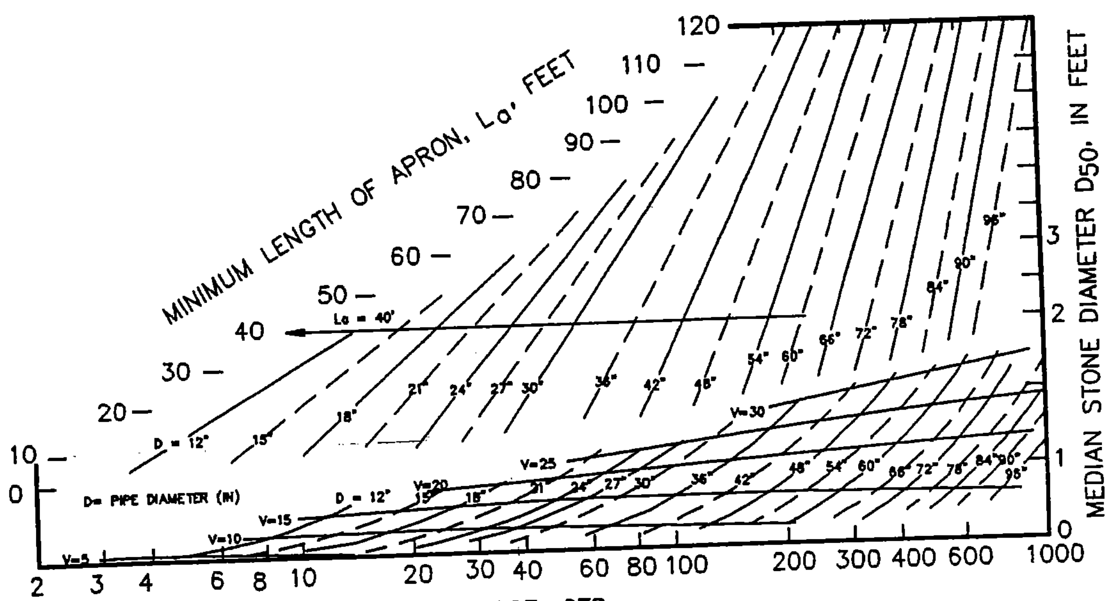


Figure 5.25 Design of outlet protection—maximum tailwater condition, $T_w \geq 0.5D$ (Environmental Protection Agency, 1976).

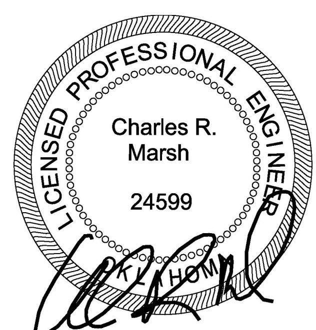
into the riser 3 ft below its top, what discharge will pass through the four holes with the water level at 1, 2, 4, and 8 ft above the riser? (c) What is the total discharge through the pipe? (d) How might the orifices be sized to provide better stormwater control? (e) Explain whether you would expect two rows (each consisting of four holes) of 8-in.-diameter holes to provide better results? Assume that one row is 2 ft below the riser invert and the other row is 4 ft below the riser invert.

(5.6) A gravel roadway is constructed in a low-lying area such that the roadway is frequently overtopped as a result of severe storms. The roadway is 40 ft wide, and its elevation is 36 ft. (a) If the water level upstream of the roadway is 2 ft above the crest of the roadway, what is the discharge across the roadway? (b) If the roadway is paved, what upstream depth would be required to carry the same flow? (c) Would paving reduce flooding problems?

APPENDIX H-5

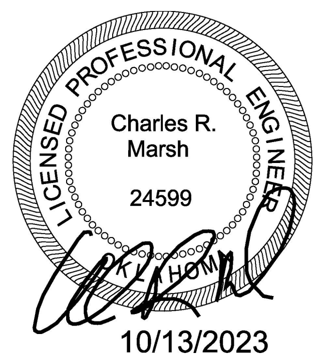
POST-DEVELOPMENT FINAL COVER SOIL LOSS CALCULATIONS

Includes Pages H-5-1 through H-5-12



10/13/2023

CONTENTS



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FINAL COVER SOIL LOSS CALCULATIONS

This appendix presents the supporting documentation for evaluation of the thickness of the vegetative and support layer for the ET final cover system at the Muskogee Community RDF. The evaluation is based on the premise of adding excess soil to increase the time required before maintenance is needed as recommended in the EPA Solid Waste Disposal Facility Criteria Technical Manual (EPA 530-R-93-017, November 1993).

The design procedure is as follows:

1. Minimum thickness of the vegetative layer at the end of the 30-year postclosure period is evaluated based on the depth of frost penetration or 6 inches, whichever is greater. For Muskogee County, the approximate depth of frost penetration is approximately 8 inches. The minimum vegetative and support layer thickness for the ET final cover system is 36 inches.
2. Soil loss is calculated using the Universal Soil Loss Equation (USLE) by following SCS procedures. The soil loss is adjusted by a safety factor of 2 and is then converted to a thickness. The thickness of the soil loss over a 30-year postclosure period is added to the minimum thickness of the vegetative and support layer (from Step 1) to yield an initial thickness to be placed at closure of the site. According to the USLE, the typical topslope and sideslope require 8.0 inches and 9.1 inches, respectively, for the vegetative and support layer. These USLE requirements include the 8-inch minimum required by regulations. Conservatively, a 36-inch vegetative and support layer is proposed for the ET final cover system. These calculations begin on page H-5-2.
3. Vegetation for the site will consist of native and introduced grasses with root depths of up to 48 inches. Native and introduced grasses will be hydroseeded with fertilizer on the disked (parallel to contours) vegetative layer upon final grading (or an equipment method). Temporary cold weather vegetation will be established if needed. Irrigation will be employed for 6 to 8 weeks or until vegetation is well established. Vegetative support control measures such as silt fences and straw bales will be used to minimize vegetative support until the vegetation is established. Areas that experience vegetative support or do not readily vegetate after hydroseeding will be reseeded until vegetation is established or the soil will be replaced with soil that will support the grasses.

Required: Determine expected soil loss and minimum thickness for the vegetative and support layer.

Method: Expected soil loss is calculated using the Universal Soil Loss Equation.
Minimum vegetation and support layer thickness is determined by adding the minimum thickness allowed by the regulations to the expected soil loss.

References:

1. *Control of Water Pollution from Corplands*. B.A. Stewart, D.A. Woolhiser, W.H. Wischmeier, J.H. Caro and M.H. Frere, EPA-600/2-75-026, Environmental Protection Agency.
2. *Use of the Universal Soil Loss Equation in Final Cover/Configuration Design*, Procedural Handbook, Texas Natural Resources Conservation Commission, 1993.
3. United States Department of Agriculture, Soil Conservation Service, *Soil Survey of Muskogee County, Oklahoma*, 1992.
4. United States Environmental Protection Agency, *Solid Waste Disposal Facility Criteria Technical Manual*, 1993.

Solution: 1. Soil Loss Equation: $A=RKL_SCP$

Where:

A= Soil loss (tons/ac/yr)
R= Rainfall factor
K= Soil erodibility factor
L_S= Slope length/slope gradient factor
C= Plant cover or cropping management factor
P= Erosion practice factor

The rainfall factor, R, represents the average intensity for the maximum intensity, 30 minute storms over a 22 year period of record compiled by the SCS. Using Figure 5.3 on Sheet H-5-11 (Ref 2), Average Annual Values of the R Factor, the R factor for Muskogee County is:

R = 270

The soil erodibility factor, K, factor represents the resistance of a soil surface to erosion as a function of the soil's physical and chemical properties. Assume a sandy loam with organic matter content of 2% to determine the K on Sheet H-5-9 (Ref 2).

K = 0.24

The slope length/slope gradient factor, L_s, represents the erosion of the soil due to both slope length and degree of slope. The slopes of interest are shown on Sheet H-5-5.

Location 1. Typical topslope
slope = 5 %
length = 200 ft

Location 2. Typical sideslope
slope = 25 %
length = 120 ft

Location 3. Longest topslope
slope = 5 %
length = 300 ft

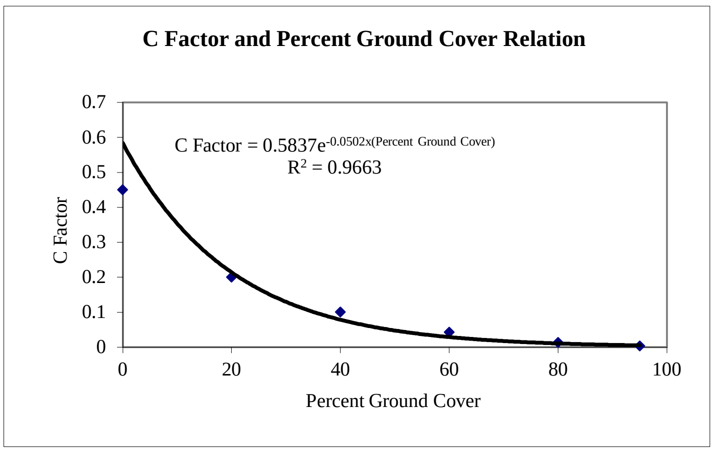
Location 4. Longest sideslope pl
slope = 25 %
length = 125 ft

Using the above information, the L_s factors were determined.

Case	Slope (%)	Slope Length (ft)	L_s
1. Typical topslope	5	200	0.75
2. Typical sideslope	25	120	6.50
3. Longest topslope	5	300	0.85
4. Longest sideslope	25	125	6.80

The plant cover or cropping management factor, C, represents the percentage of soil loss that would occur if the surface were partially protected by some combination of cover and management practices. C Factor for Permanent Pasture, Range, and Idle Land with No Appreciable Canopy has the following relation with percent ground cover (GC) (Ref 2).

% GC	C Factor:
0	0.45
20	0.20
40	0.10
60	0.042
80	0.013
95	0.003



Note: Vegetative layer will be maintained to provide 85% ground cover.

C Factor= $0.5837e^{(-0.0502x85)}$

C Factor= 0.0082

The erosion control practice factor, P, measures the effect of control practices that reduce the erosion potential of the runoff by influencing drainage patterns, runoff concentration , and runoff velocity. Contouring for this site will be done only to establish vegetation.

P = 1.00

2. Soil loss calculations

Slope Condition	R	K	L_s	C	P	A (tons/ac/yr)
1. Typical Topslope 5 % slope 200 ft length	270	0.24	0.75	0.0082	1.0	0.4
2. Typical Sideslope 25 % slope 120 ft length	270	0.24	6.50	0.0082	1.0	3.4
3. Longest Topslope 5 % slope 300 ft length	270	0.24	0.85	0.0082	1.0	0.5
4.Longest Sideslope 25 % slope 125 ft length	270	0.24	6.80	0.0082	1.0	3.6

Note: Vegetative layer will be maintained to provide 85% ground cover.

3. Vegetative and support layer thickness calculations:

$$T_{el} = 8\text{ in} + \frac{AYF(2000\text{lb/ton})(12\text{in/ft})}{w(43{,}560\text{sf/ac})}$$

Where:
T_{el} = Vegetative and support layer thickness
A = Soil loss (ton/ac/yr)
Y = Postclosure period (yr)
F = Factor of Safety
w = Specific weight of soil (pcf)

Y = 30 yr
F = 2
w = 110 pcf

1. Typical Topslope Thickness:

Required thickness(in)[1] = 8.1
Specified thickness(in) = 36

2. Typical Sideslope Thickness:

Required thickness (in)[1] = 9.0
Specified thickness (in)= 36

3. Longest Topslope Thickness:

Required thickness (in)[1] = 8.1
Specified thickness (in)= 36

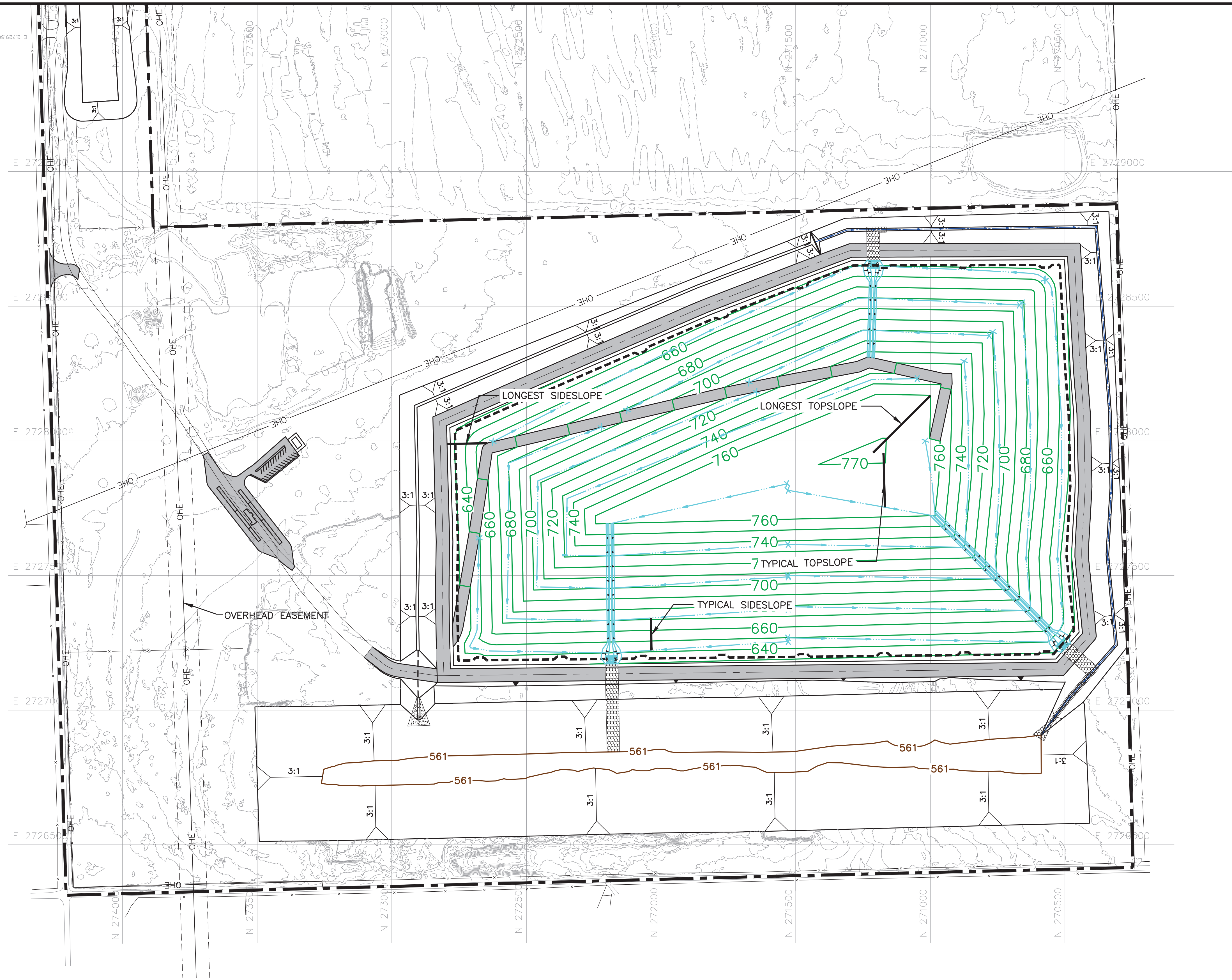
4. Longest Sideslope Thickness:

Required thickness (in)[1] = 9.1
Specified thickness (in)= 36

Note: [1]Required thicknesses include 8 inch minimum required.

4. Summary:

As discuseed above, the vegetation and support layer will be a minimum of 36 inches thick. As shown above, this is a conservative design considering the maximum expected soil loss for a 30 year period is 1.1 inches, and the maximum required thickness is 9.1 inches.



0 200 400
SCALE IN FEET

LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- N 273,000 — STATE PLANE COORDINATE GRID
- 640 — EXISTING CONTOUR
- 561 — BORROW AREA CONTOUR
- 770 — FINAL COVER CONTOUR
- PROPOSED DRAINAGE SWALE
- PROPOSED DRAINAGE CHUTE
- PROPOSED DRAINAGE CHANNEL
- RIPRAP/GABIONS
- OHE — EXISTING OVERHEAD EASEMENT

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01–25–2023.

TYPICAL SLOPE LENGTHS

SLOPE LENGTH	LENGTH (FEET)
TOPSLOPE	200.0
SIDESLOPE	120.0

LONGEST SLOPE LENGTHS

SLOPE LENGTH	LENGTH (FEET)
TOPSLOPE	300.0
SIDESLOPE	150.0

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☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 10/2023
FILE: 0086–364–11
CAD: H-5-5 SLOPE LENGTH.DWG

DRAWN BY: JDW
DESIGN BY: MB
REVIEWED BY: CRM

Weaver Consultants Group
CA 3804 PE – 06/30/2025

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

TIER III PERMIT MODIFICATION SLOPE LENGTHS FOR SOIL LOSS DEMONSTRATION

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

WWW.WCGRP.COM

FIGURE H-5-5

O:\0086\364\EXPANSION 2022\APPENDIX H\FIG H-5-5 SLOPE LENGTH.dwg, jpshr, 1:2

United States Environmental Protection Agency
Solid Waste and Emergency Response (5305)
EPA530-R-93-017
November 1993
www.epa.gov/osw

Solid Waste Disposal Facility Criteria

Technical Manual

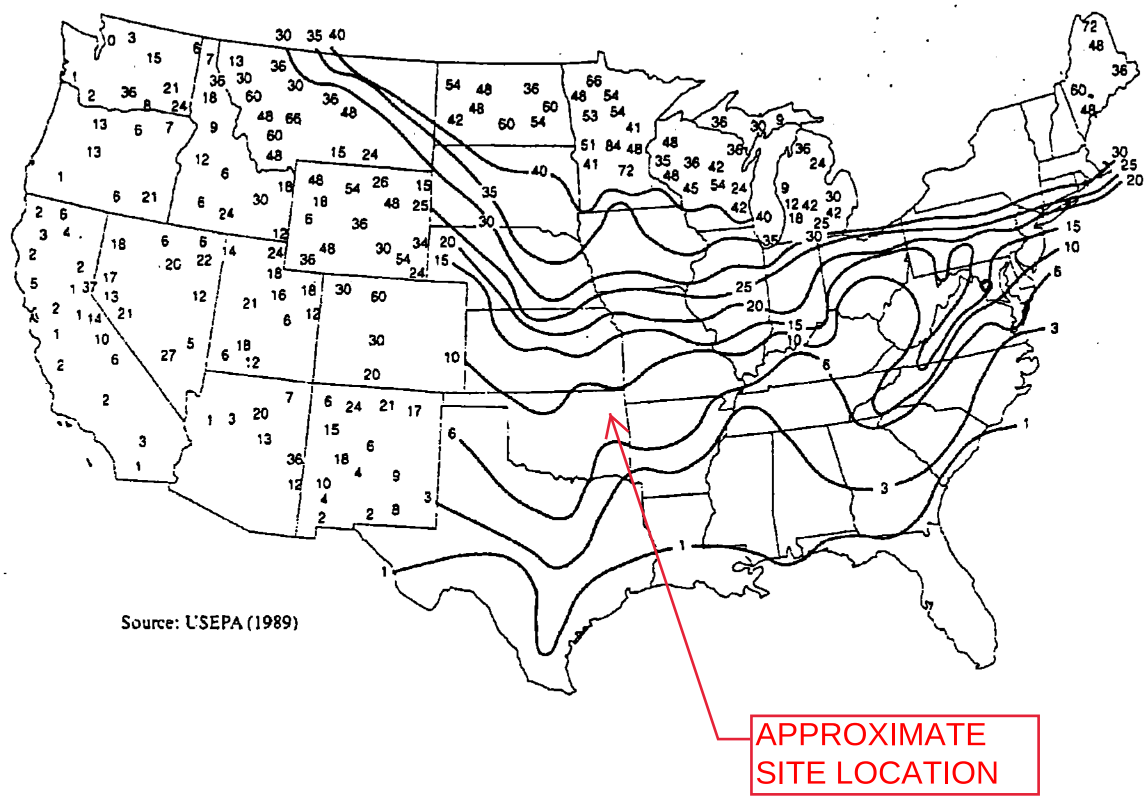


Figure 6-4
Regional Depth of Frost Penetration in Inches

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

USE OF THE UNIVERSAL SOIL LOSS EQUATION IN FINAL COVER/CONFIGURATION DESIGN

PROCEDURAL HANDBOOK

PERMITS SECTION
MUNICIPAL SOLID WASTE DIVISION

OCTOBER 1993

Table 1 Approximate Values of Factor K for USDA Textural Classes

Texture Class	Organic Matter Content		
	<0.5%	2%	4%
	K	K	K
Sand	0.05	0.03	0.02
Fine Sand	0.16	0.14	0.10
Very Fine Sand	0.42	0.36	0.28
Loamy Sand	0.12	0.10	0.08
Loamy Fine Sand	0.24	0.20	0.16
Loamy Very Fine Sand	0.44	0.38	0.30
Sandy Loam	0.27	$\boxed{0.24}$	0.19
Fine Sandy Loam	0.35	0.30	0.24
Very Fine Sandy Loam	0.47	0.41	0.33
Loam	0.38	0.32	0.29
Silt Loam	0.48	0.42	0.33
Silt	0.60	0.52	0.42
Sandy Clay Loam	0.27	0.25	0.21
Clay Loam	0.28	0.25	0.21
Silty Clay Loam	0.37	0.32	0.26
Sandy Clay	0.14	0.13	0.12
Silty Clay	0.25	0.23	0.19
Clay	0.13 - 0.29		

The values shown are estimated averages of broad ranges of specific-soil values. When a texture is near the borderline of two texture classes, use the average of the two K values.

Table 2 Factor C for permanent pasture, range, and idle land[1]

Vegetative Canopy		Cover that contacts the soil surface					
Type and height[2]	Percent cover[3]	Percent ground cover					
		0	20	40	60	80	95+
No Appreciable Canopy		0.45	0.20	0.10	0.042	0.013	0.003
Tall weeds or short brush with average drop fall height of 20 in.	25	0.36	0.17	0.09	0.038	0.013	0.011
	50	0.26	0.13	0.07	0.035	0.012	0.003
	75	0.17	0.10	0.06	0.032	0.011	0.003

Extracted from:
United States Department of Agriculture, AGRICULTURE HANDBOOK NUMBER 537

1 The listed C values assume that the vegetation and mulch are randomly distributed over the entire area.

2 Canopy height is measured as the average fall height of water drops falling from the canopy to the ground. Canopy effect is inversely proportional to drop fall height and is negligible if fall height exceeds 33 ft.

3 Portions of total-area surface that would be hidden from view by canopy in a vertical projection (a bird's-eye view).

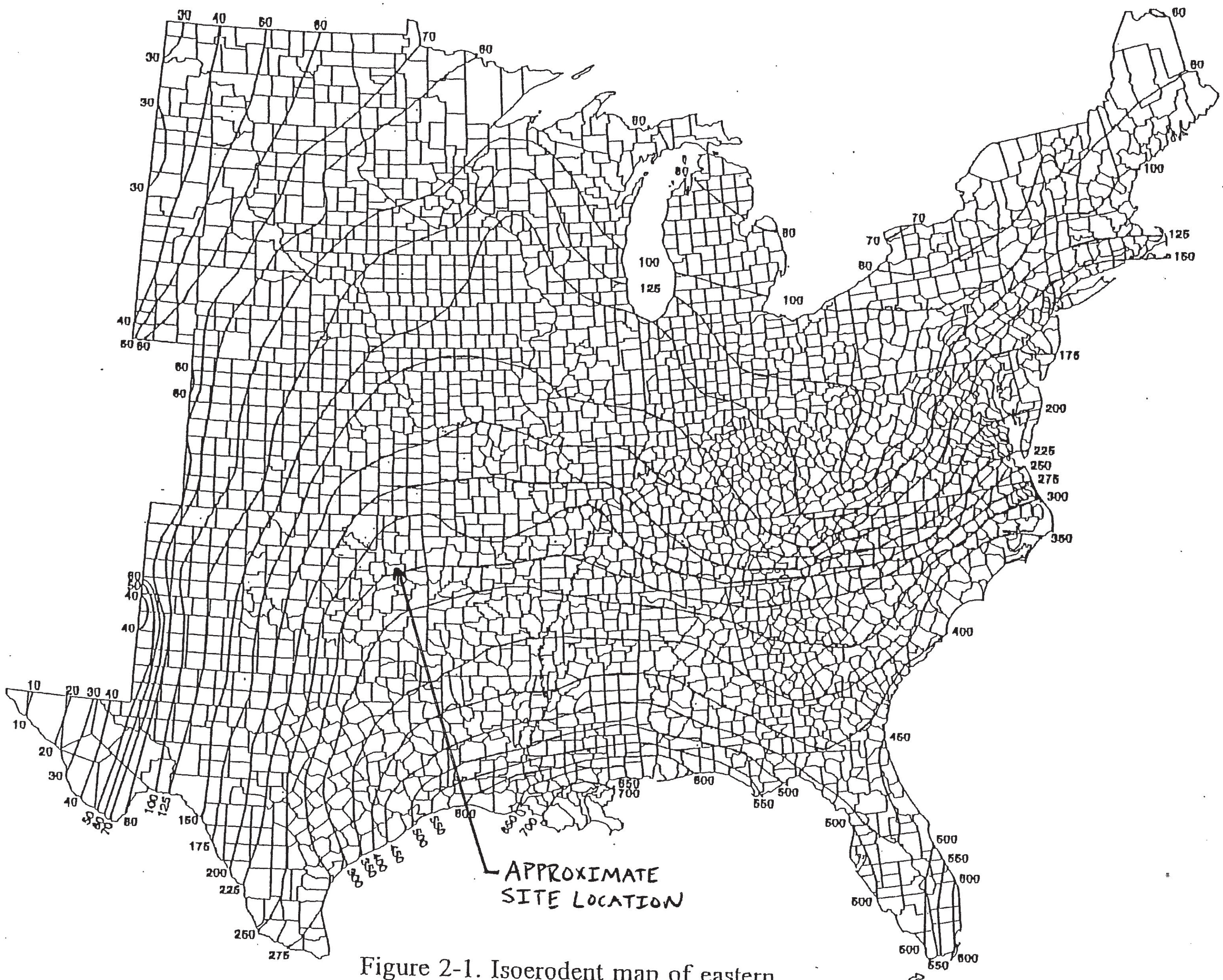
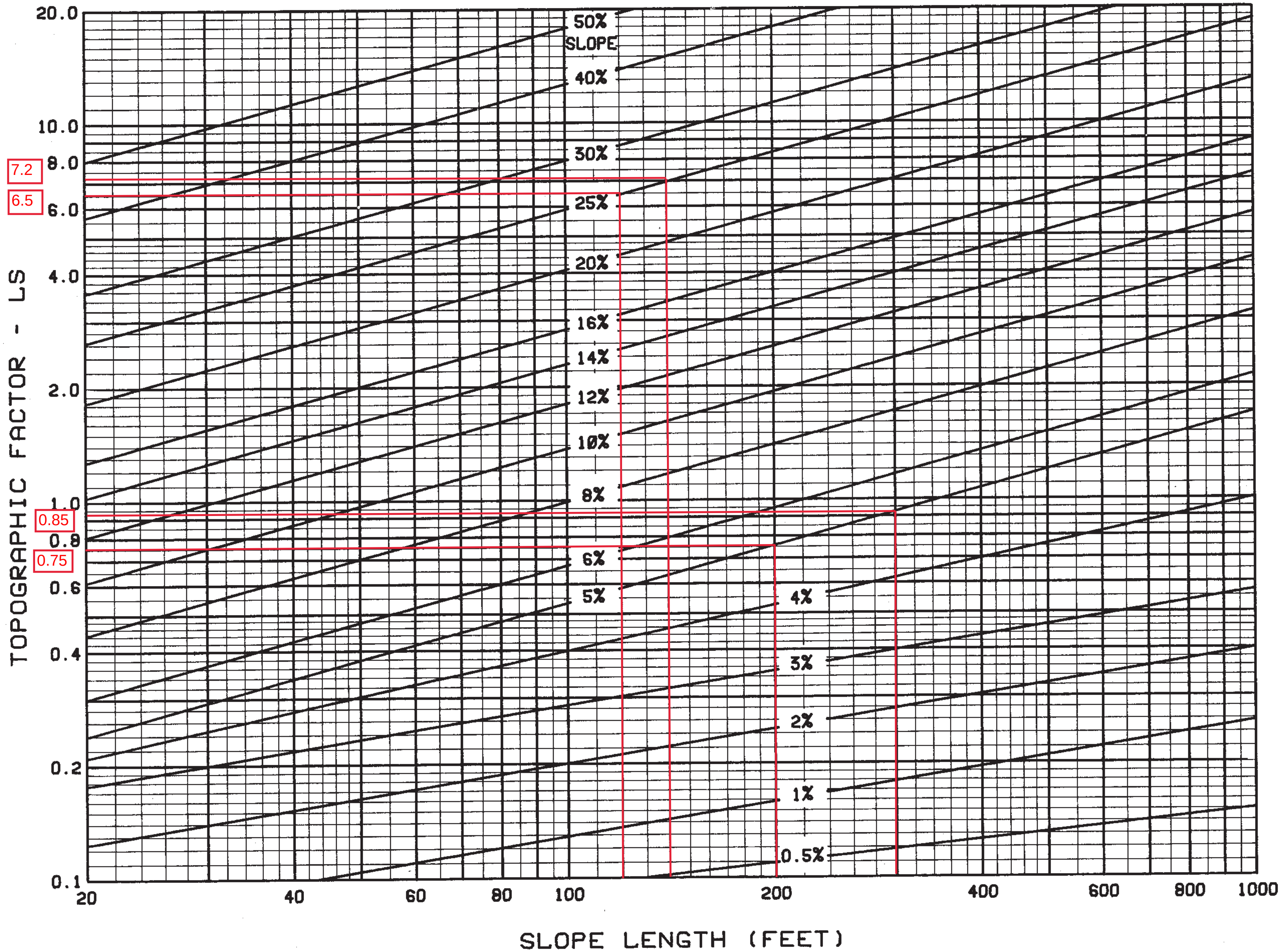


Figure 2-1. Isoerodent map of eastern United States. Units are hundreds ft·tonf·in(ac·h·yr)$^{-1}$.

FIGURE 4.—Slope-effect chart (topographic factor, LS). LS = $(\lambda/72.6)^m$ $(65.41 \sin^2\theta + 4.56 \sin\theta + 0.065)$ where λ = slope length in feet; θ = angle of slope; and m = 0.2 for gradients < 1 percent, 0.3 for 1 to 3 percent slopes, 0.4 for 3.5 to 4.5 percent slopes, and 0.5 for slopes of 5 percent or steeper.



MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY
MUSKOGEE COUNTY, OKLAHOMA
ODEQ PERMIT NO. 3551020

APPENDIX I
USACE INFORMATION

Prepared for

Waste Management of Oklahoma, Inc.

October 2023

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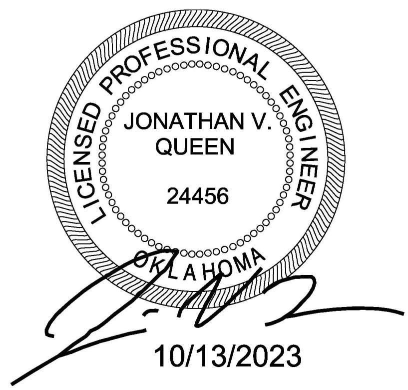
WCG Project No. 0086-364-11-19

CONTENTS



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USACE INDIVIDUAL PERMIT SUMMARY

The USACE is given the authority under Section 404 of the Clean Water Act to issue permits for all construction activities that affect the nation's waters and wetlands, including dredging or placement of fill material into or adjacent to Waters of the United States (U.S.). The regulatory program that governs these permits is focused on protecting the nation's aquatic resources, while allowing reasonable development. Therefore, as part of the expansion process, a determination of Section 404 Jurisdictional Waters of the United States was performed to delineate the waters of the U.S. and wetlands within the permit boundary.

A determination indicated the presence of jurisdictional waters onsite. WMO evaluated several options to avoid and minimize impacts to the jurisdictional waters. The option selected balances long-term solid waste disposal needs in the City of Muskogee and surrounding areas while minimizing the impact to existing jurisdictional waters. The selected alternative placed an emphasis on (1) benefitting the community and local industry by providing a much-needed basic service in the form of an environmentally safe, solid waste disposal, (2) compatibility with immediately adjacent land uses, with the expanded landfill being located immediately west of the existing landfill, as well as compatibility with nearby land uses that include agricultural, rangeland and low to very low-density rural residential areas, (3) incorporating perimeter drainage features that will collect, convey and control stormwater and sediment on the project site while providing water quality improvements prior to off-site discharge of stormwater to downstream receiving waters, (4) utilizing established roadways and traffic patterns sufficient to handle waste management traffic, and (5) the creation of additional jurisdictional waters through a USACE approved in-lieu fee program such that there will be no net loss of Waters of the US with the project.

Section 404 Individual Permit Request was submitted to the USACE in September 2023. Portions of the USACE Section 404 Individual Permit is included in this appendix.

EXCERPTS FROM THE SEPTEMBER 2023
SECTION 404 INDIVIDUAL PERMIT APPLICATION

MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY (RDF)
MUSKOGEE COUNTY, OKLAHOMA

APPENDIX F
MITIGATION PLAN

Prepared for

Waste Management of Oklahoma, Inc.

August 2023

Prepared by

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CA 3804 PE 06/30/2025
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WCG Project No. 0086-364-11-20

CONTENTS

CONTENTS (Continued)

1 INTRODUCTION

1.1 Location

The Muskogee Community Recycling and Disposal Facility (Muskogee Community RDF) is an existing non-hazardous municipal solid waste landfill located approximately four miles southwest of downtown Muskogee, Oklahoma. The proposed expansion area is located within Section 6 of Township 14 North, Range 18 East in Muskogee County, Oklahoma. The site is south of West 23rd Street S (West Hancock Street), west of South 54th Street W, and east of South 64th Street W outside of the City of Muskogee city limits. The site location is shown on Figure B-1 in Appendix B. The center of the landfill expansion is located approximately at latitude 35° 43′ 14.18” and longitude 95° 26′ 31.86″.

The figures associated with this Mitigation Plan (plan) are included in Appendix B of this submittal, and include the following:

- Figure B-1 – Site Location Map
- Figure B-2 – Topographic Site Map
- Figure B-3 – Land Use Map
- Figure B-4 – Flood Insurance Rate Map (FIRM)
- Figure B-5 – Landfill Excavation Plan

Additional figures for this plan presenting the Alternatives Analysis are included in Section 3 of this plan.

1.2 Proposed Landfill Development

Waste Management of Oklahoma, Inc. (WMO) proposes to expand the existing Muskogee Community RDF onto property located immediately west of the currently permitted property. The closed City of Muskogee Landfill abuts the currently permitted landfill footprint on the current landfill’s western boundary, and the landfill expansion property is sited immediately west of the closed City of Muskogee Landfill property, with a parcel north of the closed City of Muskogee Landfill added to the permit boundary to facilitate access between the existing and proposed expansion properties. The existing permitted landfill and proposed landfill expansion area configuration are shown on Figure 3-4. The comparison of the permitted and proposed project area is listed in Table 1-1.

Table 1-1
Project Area Information (Existing and Proposed Expansion Combined)

Description	Existing Permitted Condition	Proposed Condition
Permit Boundary	80.5 acres	316.8 acres
Waste Disposal Area	60.9 acres	126.4 acres

Note that this plan addresses the newly added 236.3-acre western expansion property only, as the currently permitted property will not change from its currently permitted configuration for this effort. The evaluation of impacts to Waters of the United States (WATERS) as presented in the Waters of the US Delineation (Appendix A) is limited to the western expansion property only.

Figure 3-4 shows the proposed final configuration of the expanded western landfill property. For the proposed project, the final cover erosion control structures, ponds, and perimeter channels will be designed to effectively minimize erosion of final cover soils and increase detention of stormwater before it is discharged from the property (by infiltration or pumping to adjacent surface drainage features).

1.3 Site Background

Muskogee Community RDF was originally owned by the City of Muskogee, who operated the site from 1987 to 1992 under the name Tract A of the City of Muskogee Landfill. In 1992, the ownership of Tract A of the City of Muskogee Landfill was transferred to Waste Management of Oklahoma, Inc.

WMO is the holder of the Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3551020. The facility accepts municipal solid waste and nonhazardous industrial solid waste (NHIW) in accordance with Title 252 of the Oklahoma Administrative Code, Chapter 515-Management of Solid Waste. WMO is a subsidiary of Waste Management, Inc., who operates solid waste management facilities across the US. The existing facility is located at 2801 S. 54th St. W., Muskogee, Oklahoma, 74401, in Muskogee County, Oklahoma. This location is approximately four miles southwest of downtown Muskogee.

1.4 Site Conditions

The proposed expansion property is undeveloped rangeland that is currently used as a source of borrow soils for the ongoing landfill activities. Vegetation consists of native plants and shrubs. A portion of the property appears to be regularly hayed, with the remainder of the site dominated by woodlands and grasslands. A powerline right of way (ROW) traverses the northern portion of the property in an east-west direction, and a second powerline traverses the eastern half of the property in a north-south direction. Several water bodies and depressions are observed on the property. The proposed property is located east of an unnamed tributary of Pecan Creek and south of an unnamed tributary of Coody Creek. No portion of the property is located within a FEMA-designated floodplain.

A USGS Contour Map showing topographic contours of the property is provided as Figure B-2 and a Flood Insurance Rate Map (FIRM) is provided on Figure B-4 in Appendix B.

1.5 Surrounding Land Use

Land use of the adjacent properties is mostly closed trench landfill, undeveloped property, range land, agricultural property, commercial/light industrial, rural residential properties, and limited oil production. A Land Use Map is provided as Figure B-3 (Appendix B).

The use of this western expansion property as a municipal solid waste landfill represents a compatible land use for the following reasons.

- Landfill operations have occurred on the contiguous property adjacent to the expansion property since 1987, beginning with the City of Muskogee. The permit boundary also abuts the closed City of Muskogee Landfill, a compatible land use to the expanded landfill.
- Surrounding land uses are predominantly agricultural, rangeland, and low to very low density rural residential.
- Current traffic patterns and roadways are sufficient to handle the continued waste management traffic served by the landfill.

2 MITIGATION PLAN OBJECTIVES

2.1 Overview

The objective of this plan is to provide the required information to support the issuance of an Individual Permit for this site. This plan has been developed to ensure that there will be no overall net loss of waters of the U.S. with this project. As detailed in subsequent sections of this plan, communication with various local state and federal agencies will be completed for this expansion. Approval will also be obtained from the ODEQ for the landfill prior to construction.

2.2 Mitigation Type and Amount

The Mitigation Plan for this site has been developed to ensure that there will be no overall net loss of waters of the U.S. with this project. A summary of the unavoidable impacts to jurisdictional waters from the proposed landfill expansion is shown on Figure B-5 (Appendix B). In addition, Table 2-1 has been developed to show compliance with 33 CFR §332.3(b).

2.3 Party Responsible for Compensatory Mitigation

The Muskogee Community RDF is owned and operated by Waste Management of Oklahoma, Inc. WMO is the permittee responsible for the implementation, performance, and long-term management of this project. WMO is a wholly-owned subsidiary of Waste Management, Inc. Waste Management is one of the leading providers of solid waste services in the nation. Waste Management provides non-hazardous waste collection, transfer, recycling, and disposal services to residential, municipal, and commercial customers across the country.

2.4 Timing and Sequence of Development

The expected active life of the landfill without the expansion has been estimated to be approximately 3.5 to 4 years. Therefore, the initial development of the expansion area will not likely begin for approximately 2 years. Large portions of the western expansion area could potentially be developed without disturbing jurisdictional waters, however, WMO intends to develop perimeter drainage features initially to support site operations and control stormwater. This perimeter drainage development will disturb portions of the on-site jurisdictional waters. Therefore, development of expansion area features that require disturbance of jurisdictional waters will not be initiated until mitigation activities are procured by WMO.

The proposed mitigation for this project will be completed off-site utilizing a US Army Corps of Engineers (USACE) approved in-lieu fee program. WMO will contract with the in-lieu fee program and notify the USACE once the off-site mitigation has been procured/confirmed. If the mitigation is not available through the in-lieu program, WMO will contact the USACE to discuss other alternatives.

2.5 Financial Assurance

Financial assurance requirements for this project are detailed in Section 13. In summary, financial assurance for the mitigation activities and related site improvements, the closure of the landfill, and 30 years of post-closure care is required by ODEQ.

2.6 Compliance with Compensatory Mitigation Criteria

Compliance with the Compensatory Mitigation Criteria included in 33 CFR §332.3(a) is summarized in Table 2-2.

Table 2-1
Type and Location of Compensatory Mitigation
(Compliance with §332.3(b))

Compensatory Mitigation Requirement	Discussion
Mitigation located in same watershed as the improvements?	No. Mitigation activities will be completed through a USACE approved in-lieu fee program. As noted in §332.3(b), mitigation bank credits are a more preferred approach over onsite mitigation for compensatory mitigation. Offsite mitigation at an in-lieu fee program will be more successful, as noted below.
Mitigation located where most likely to successfully replace lost functions and services. Functions that were considered:	
• Aquatic habitat diversity and habitat connectivity	A comprehensive mitigation project developed through an in-lieu fee program will allow for a more comprehensive increase in ecological functions and benefits for the environment than a smaller isolated onsite mitigation effort. The offsite mitigation activities through the in-lieu fee program will be more effective for successful ecological restoration as well as provide incrementally more habitats for many species of wildlife and plants.
• Relationship to hydrologic source	Proposed perimeter drainage features will collect, convey, and control stormwater from upland areas around the site. Collected stormwater will be periodically pumped off site to adjacent receiving stormwater features (i.e., roadway drainage ditches or other).
• Trends in land use and compatibility with surrounding land use	Land use is discussed in Section 1.5 above. The proposed development represents a compatible land use.
• Ecological benefits	As noted above, a comprehensive mitigation projected developed through an in-lieu fee program will allow for a more comprehensive increase in ecological functions and benefits for the environmental.

Table 2-2
Compliance with Compensatory Mitigation Criteria (§332.3(a))

Item	How Requirement is Met
Likelihood for ecological success and sustainability	With the use of compensatory mitigation through an in-lieu fee program the likelihood for ecological success and sustainability is significantly greater than a smaller isolated onsite mitigation effort. This is based on the development, maintenance, and management of mitigation activities being completed by a mitigation sponsor who specializes in creation, restoration, enhancement, and preservation of wetlands and waters of the U.S.
Location of the compensation site relative to the impact site and their significance within the watershed	The unavoidable impacts on the project will not significantly impact the watershed of the project being that; (1) the area of impact is located at the headwaters of an unnamed tributary; (2) the area of impact is outside the 100-year floodplain; and (3) proposed development includes potential perimeter drainage features that will collect, convey, and control stormwater on the project site. Therefore, onsite mitigation would not provide significant benefits to the watershed. However, offsite mitigation, as discussed above, would provide significantly greater ecological success and sustainability.
Costs of the compensatory mitigation project	The estimated cost for this project is approximately $800,000 to $1,000,000.
Does mitigation provided offset unavoidable impacts?	Yes. This plan proposes to purchase credits from a USACE approved in-lieu fee program to offset the loss of jurisdictional waters of the U.S. that are impacted by this project. A total of 2.39 acres of wetlands and 2,076 linear feet of jurisdictional waters are proposed to be impacted as a part of this project.

3 SITE SELECTION

3.1 Introduction

WMO (Applicant) evaluated several options to avoid and minimize impacts to Section 404 Jurisdictional Areas located within the 236.3-acre landfill expansion permit boundary. A description of the evaluation process and alternatives considered are provided on Figure 3-1 through Figure 3-4. The selected alternative places a priority on:

- Benefitting the community and local industry by providing a much-needed basic service in the form of an environmentally safe, solid waste disposal facility.
- Compatibility with immediately adjacent land uses, with the expanded landfill being located immediately west of the existing landfill.
- Compatibility with nearby land uses that include agricultural, rangeland and low to very low-density rural residential areas.
- Utilizing established roadways and traffic patterns sufficient to handle waste management traffic.
- WMO's stated willingness to provide mitigation of jurisdictional waters impacted by the project.
- Incorporating perimeter drainage features that will collect, convey and control stormwater and sediment on the project site while providing water quality improvements prior to off-site discharge of stormwater to downstream receiving waters. Note that FEMA 100-year floodplains are not impacted by the project.

3.2 Local, State, and Federal Regulations

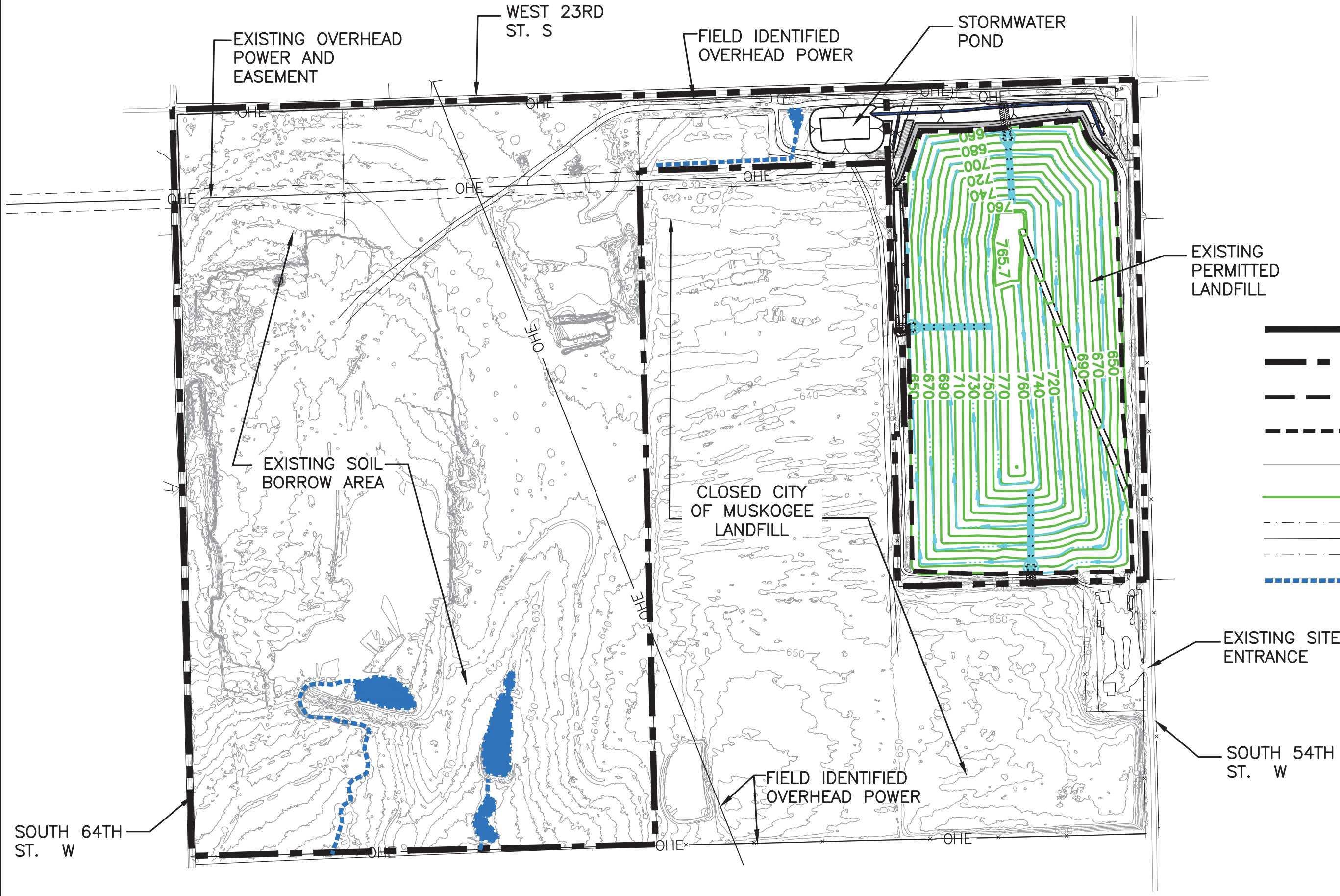
The expansion of the Muskogee Community RDF will require a Tier III Modification to the ODEQ Solid Waste Permit. The modification will be developed to show that the design and operation of the Muskogee Community RDF expansion will be in compliance with Title 252 of the Oklahoma Administrative Code, Chapter 515 – Management of Solid Waste. This requires coordination or use of publicly available local, state, and federal resources to indicate compliance.

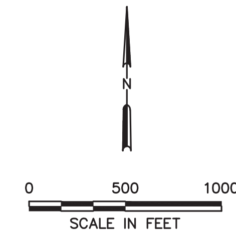
3.3 Ecological Suitability of the Compensatory Mitigation Plan

This mitigation plan has been developed to ensure that there will be no overall net loss of waters of the U.S. with this project. As noted on Figure B-4 for the selected alternative, there is an unavoidable impact to 2.39 acres of wetlands and 2,067 linear feet of jurisdictional waters that will be mitigated by WMO obtaining credits from a USACE approved in-lieu fee program.

The creation of perimeter drainage channels and a sedimentation and storage ponds onsite will allow for the conveyance, collection, and control of stormwater and will improve water quality that discharges offsite. These features will also allow for native vegetation to establish which will increase the potential for nutrient assimilation.

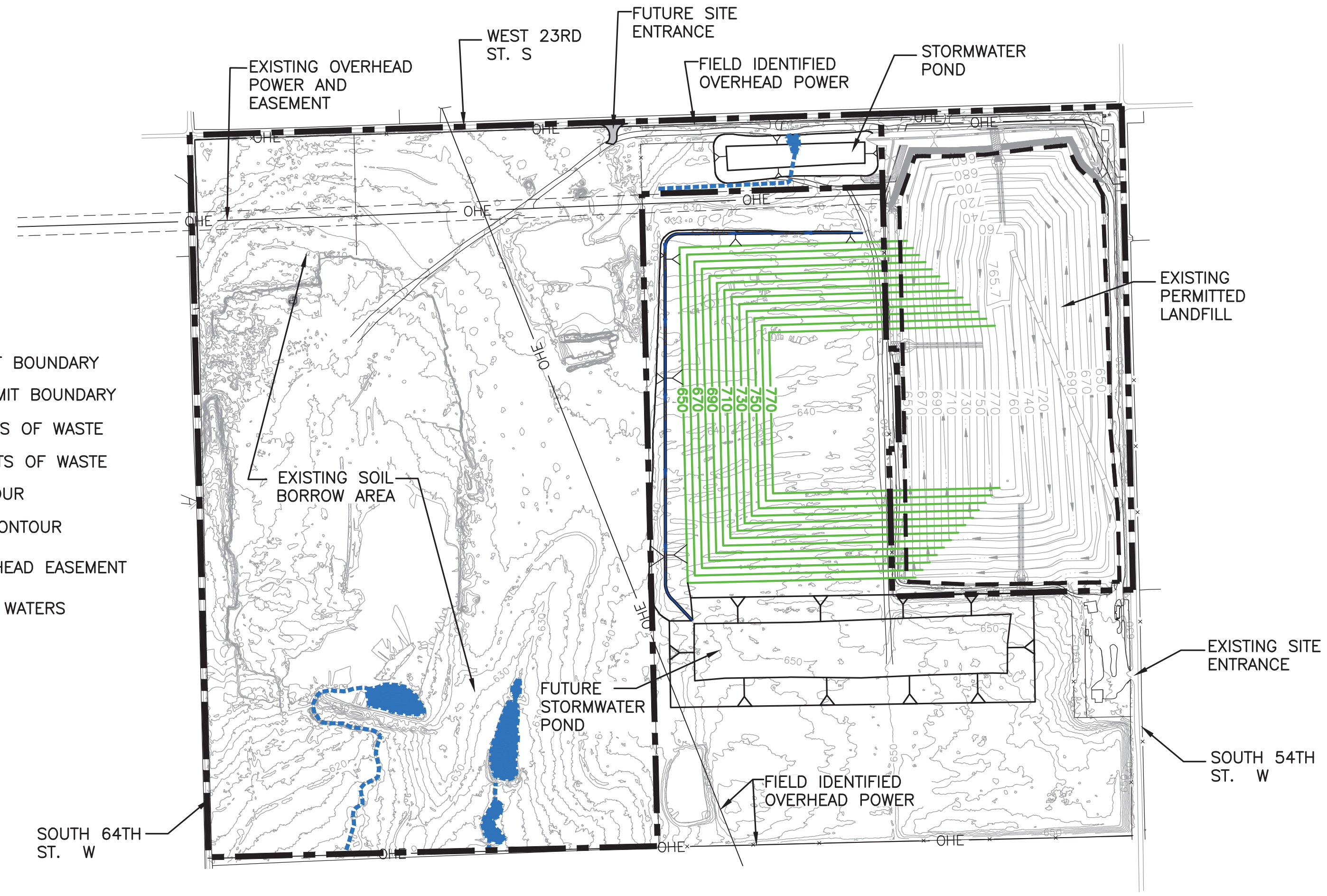
Given the location of unavoidable impacts to the jurisdictional waters located (1) at the headwaters of an unnamed tributary; (2) the area of impact is outside the 100-year floodplain; and (3) proposed development includes potential perimeter drainage features that will collect, convey, and control stormwater on the project site.





LEGEND:

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- 700 EXISTING CONTOUR
- 700 FINAL COVER CONTOUR
- OHE EXISTING OVERHEAD EASEMENT
- JURISDICTIONAL WATERS



ALTERNATIVE 1–DO NOT EXPAND LANDFILL

THIS OPTION INCLUDES NOT EXPANDING THE CURRENT LANDFILL BEYOND THE CURRENTLY PERMITTED FOOTPRINT AND GRADES. THIS OPTION WAS ELIMINATED FROM CONSIDERATION FOR THE FOLLOWING REASONS:

- THE EXISTING LANDFILL HAS LESS THAN 4 YEARS OF DISPOSAL CAPACITY REMAINING. THIS ALTERNATIVE WOULD LEAVE THE CITY OF MUSKOGEE AND SURROUNDING COMMUNITIES WITHOUT A VIABLE WASTE DISPOSAL OPTION WITHIN A REASONABLE DISTANCE FROM THE COMMUNITIES AND INCREASE DISPOSAL COSTS TO THE RESIDENTS DEPENDENT ON THE LANDFILL FOR WASTE MANAGEMENT SERVICES.
- THIS ALTERNATIVE WOULD PLACE ADDITIONAL PRESSURES ON THE LONG–TERM WASTE MANAGEMENT STRATEGIES WITHIN THE STATE OF OKLAHOMA BY REMOVING OR CLOSING A CURRENTLY VIABLE ALTERNATIVE FOR WASTE DISPOSAL AND MANAGEMENT.
- NOT EXPANDING THE LANDFILL ONTO ADJACENT WASTE DISPOSAL PROPERTY IS A POOR USE OF RESOURCES FROM A LAND USE PERSPECTIVE, AS THE CURRENT LANDFILL PROPERTY AND ADJACENT PROPERTIES HAVE PROVEN TO BE COMPATIBLE WITH OTHER NEARBY RURAL LAND USES.
- THIS ALTERNATIVE WOULD REQUIRE WMO AND THE CITY OF MUSKOGEE TO SEEK ALTERNATIVE DISPOSAL OPTIONS, INCLUDING IMPACTING LANDS THAT WERE NOT PREVIOUSLY UTILIZED FOR WASTE MANAGEMENT ACTIVITIES, JURISDICTIONAL WATERS IMPACTS, VISUAL IMPACTS, LOCAL OR REGIONAL OPPOSITION, OR OTHER SITING CRITERIA IMPACTS.
- THE ONGOING USE OF THE PROPERTY WEST OF THE CURRENTLY PERMITTED LANDFILL PROPERTY WILL RENDER THE PROPERTY UNUSABLE FOR FUTURE COMMERCIAL OR RESIDENTIAL DEVELOPMENT.

NOTES:

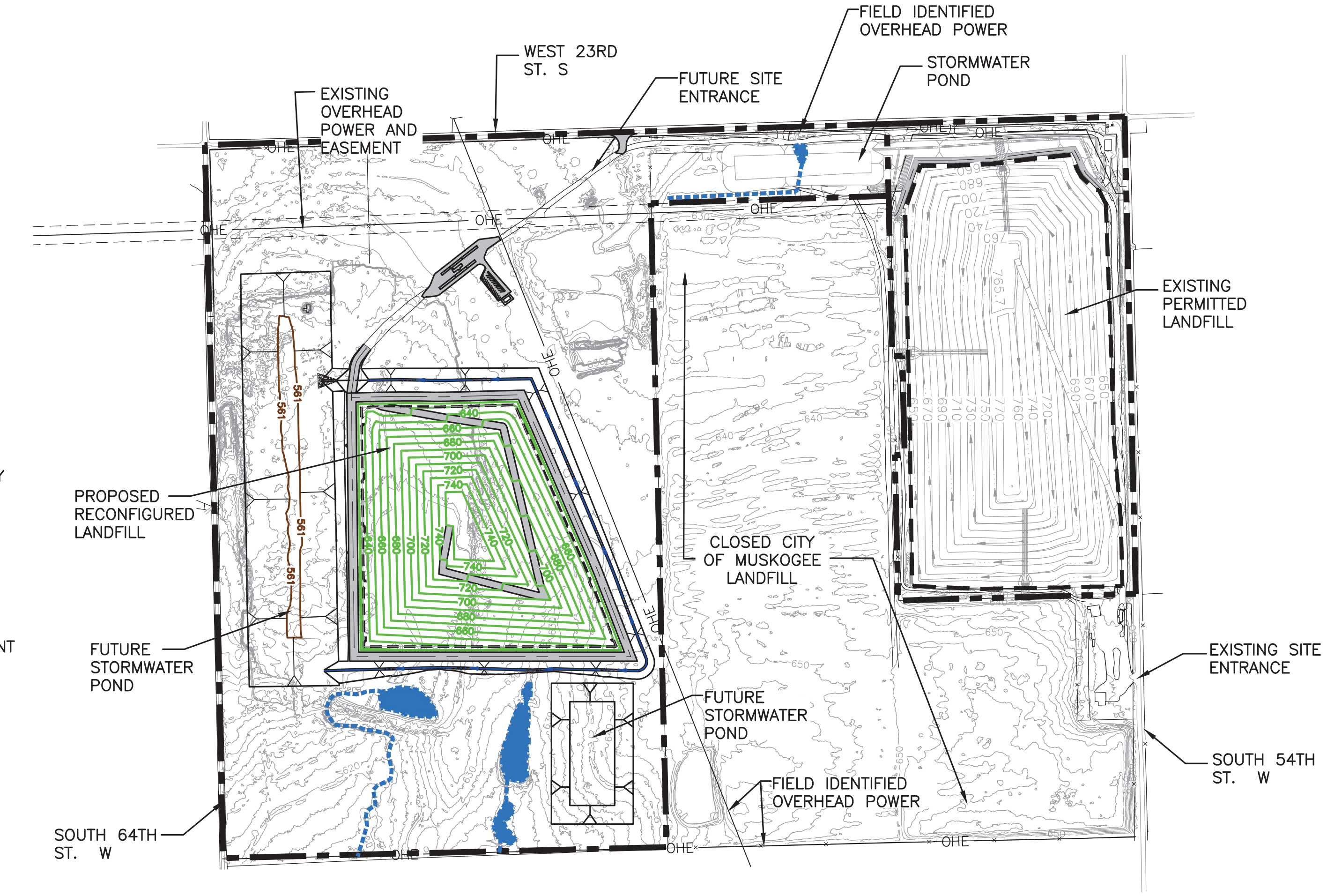
1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL FROM AERIAL PHOTOGRAPHY FLOWN 01–25–2023.

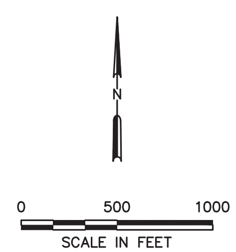
ALTERNATIVE 2–EXPAND LANDFILL ONTO CLOSED CITY OF MUSKOGEE LANDFILL

THIS OPTION INCLUDES A LATERAL EXPANSION FROM THE CURRENT LANDFILL TO THE WEST, OVER THE TOP OF THE CLOSED CITY OF MUSKOGEE LANDFILL. THIS OPTION AVOIDS MOST IMPACTS TO JURISDICTIONAL WATERS BUT WAS ELIMINATED FROM CONSIDERATION FOR THE FOLLOWING REASONS:

- THE CITY LANDFILL IS A TRENCH FILL, WITH LIMITED INFORMATION AVAILABLE REGARDING THE LOCATION, DEPTH, PLACEMENT METHOD AND COMPOSITION OF WASTE WITHIN THE LANDFILL. OPERATIONAL IN THE 1980'S, IT IS REASONABLY ASSUMED THAT THE DISPOSAL TRENCHES WERE CONSTRUCTED WITHOUT THE BENEFIT OF LINER OR LEACHATE COLLECTION SYSTEMS, OR OTHER ENVIRONMENTAL CONTROLS. RECONFIGURED LANDFILL PROVIDES DISPOSAL CAPACITY OF APPROXIMATELY 4.5 MILLION CUBIC YARDS, WHICH IS APPROXIMATELY 13 YEARS OF ADDITIONAL LIFE WITH LIMITED OPPORTUNITY FOR FUTURE EXPANSION.
- THE DEVELOPMENT OVER THE CLOSED CITY OF MUSKOGEE LANDFILL WOULD REQUIRE WMO TO NEGOTIATE PURCHASE OF THE ADJACENT PROPERTY WHICH REASONABLY WOULD REQUIRE THAT WMO ASSUME THE ENVIRONMENTAL RISKS AND LIABILITIES ASSOCIATED WITH THE EXISTING HISTORIC LANDFILL CURRENTLY OWNED BY THE CITY.
- EXPANSION OVER A CLOSED TRENCH FILL LANDFILL POSES SIGNIFICANT ENGINEERING CHALLENGES ASSOCIATED WITH LINER SYSTEM INTEGRITY, LEACHATE MANAGEMENT, AND CONSTRUCTION. DIFFERENTIAL SETTLEMENT OF VERTICAL EXPANSIONS OVER TRENCH FILL LANDFILLS POSES A RISK OF DAMAGE OR FAILURE OF LINER SYSTEMS AND LEACHATE MANAGEMENT SYSTEMS WITHOUT SIGNIFICANT LINER FOUNDATION IMPROVEMENTS.
- THE NEED TO EXCAVATE AND RELOCATE WASTE FROM THE TRENCH FILL IS OFTEN REQUIRED FOR WASTE DETERMINED TO BE HIGHLY COMPRESSIBLE OR OF SUCH VARYING THICKNESS AND COMPOSITION THAT ISSUES OF DIFFERENTIAL SETTLEMENT (AND POTENTIAL ENVIRONMENTAL IMPACTS) ARE UNACCEPTABLE. EXCAVATION AND RELOCATION OF WASTE WOULD LIKELY BE REQUIRED TO PROVIDE NEEDED STORMWATER MANAGEMENT FEATURES REQUIRED FOR DEVELOPMENT.
- THE EXPANSION OF THE MSW LANDFILL OVER THE CLOSED CITY OF MUSKOGEE LANDFILL PRESENTS SIGNIFICANT ENGINEERING CHALLENGES, AND FORMIDABLE ENVIRONMENTAL PROTECTION AND LIABILITY RISKS TO WMO, WITH POTENTIAL ENVIRONMENTAL LIABILITIES EXCEEDING THE VALUE OF THE EXPANSION OPTION.

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR WASTE MANAGEMENT OF OKLAHOMA, INC.		SECTION 404 PERMIT ALTERNATIVES ASSESSMENT
DATE: 08/2023 FILE: 0086–364–11 CAD: FIG 3–1–PROJECT OVERVIEW.DWG	DRAWN BY: RAA DESIGN BY: JBP REVIEWED BY: JVQ	REVISIONS NO. / DATE / DESCRIPTION	MUSKOGEE COMMUNITY RDF MUSKOGEE COUNTY, OKLAHOMA
Weaver Consultants Group CA 3804 PE – 06/30/2025		WWW.WCGRP.COM	FIGURE 3–1





LEGEND:

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- 700 EXISTING CONTOUR
- 700 FINAL COVER CONTOUR
- OHE EXISTING OVERHEAD EASEMENT
- JURISDICTIONAL WATERS

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL FROM AERIAL PHOTOGRAPHY FLOWN 01–25–2023.

ALTERNATIVE 3–RECONFIGURATION OF PROPOSED FACILITY

THIS OPTION INCLUDES A RECONFIGURATION OF THE PROPOSED LANDFILL TO THE LAYOUT SHOWN IN ABOVE FIGURE. RECONFIGURED LANDFILL PROVIDES ADDITIONAL DISPOSAL CAPACITY OF APPROXIMATELY 2.6 MILLION CUBIC YARDS, WHICH REPRESENTS APPROXIMATELY 8 YEARS OF ADDITIONAL DISPOSAL CAPACITY. THIS OPTION WAS ELIMINATED FROM CONSIDERATION FOR THE FOLLOWING REASONS:

- THIS CONFIGURATION PROVIDES ONLY 8 YEARS OF ADDITIONAL DISPOSAL CAPACITY WHICH IS NOT A LONG TERM SOLUTION FOR WASTE DISPOSAL IN THE COMMUNITY. ADDITIONALLY, THIS LAYOUT IS VERY INEFFICIENT REGARDING THE AIRSPACE GAINED COMPARED TO THE LANDFILL FOOTPRINT.
- LANDFILL RECONFIGURATION REDUCES THE AVAILABLE LANDS FOR SOIL BORROWING AND STORMWATER MANAGEMENT FACILITIES IN THE SOUTHERN PORTION OF THE PROPERTY, AT A POTENTIAL COST TO WMO ASSOCIATED WITH OFF–SITE BORROWING AND TRANSPORT OF SOILS FOR CONSTRUCTION AND WASTE MANAGEMENT.

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 08/2023
FILE: 0086–364–11
CAD: FIG 3–2–PROJECT OVERVIEW.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: JVQ

Weaver Consultants Group
CA 3804 PE – 06/30/2025

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

SECTION 404 PERMIT
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MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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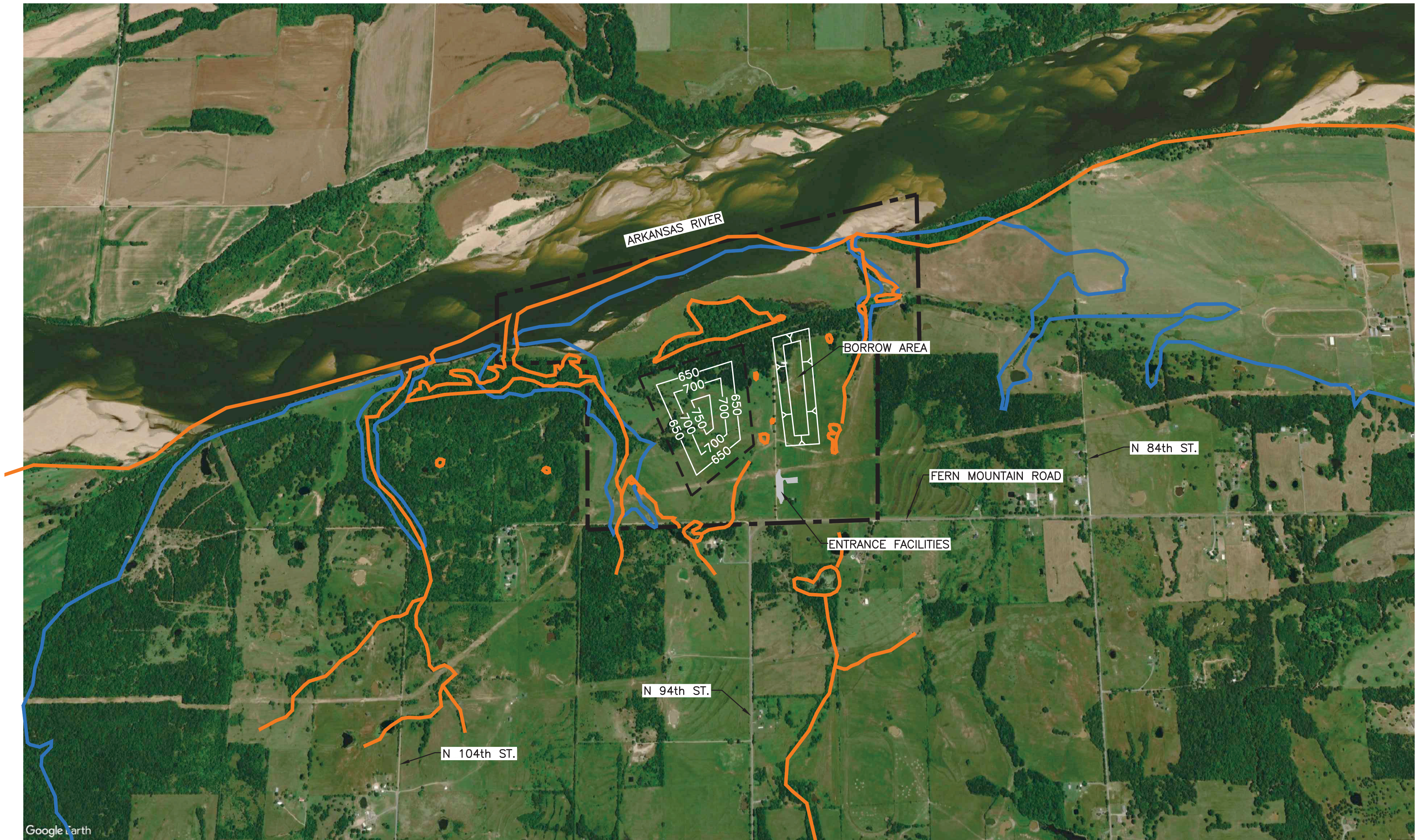
FIGURE 3–2

N

0 1000 2000
SCALE IN FEET

LEGEND:

- PROPOSED PROPERTY BOUNDARY
- PROPOSED LANDFILL FOOTPRINT
- 750 PROPOSED FINAL CONTOUR
- WETLANDS (SEE NOTE 2)
- 100–YEAR FLOODPLAIN (SEE NOTE 1)



ALTERNATIVE 4–LANDFILL DEVELOPMENT ON A DIFFERENT PROPERTY

THIS OPTION INVOLVES NOT EXPANDING THE EXISTING LANDFILL, BUT INSTEAD PERMITTING A NEW LANDFILL ON A PROPERTY REMOTE TO THE EXISTING LANDFILL PROPERTY. THIS OPTION WAS ELIMINATED FROM CONSIDERATION FOR THE FOLLOWING REASONS:

- THE DEVELOPMENT OF A SEPARATE TRACT WOULD IMPACT COMMUNITIES AND NEIGHBORHOODS CURRENTLY NOT IMPACTED OR FAMILIAR WITH WASTE MANAGEMENT ACTIVITIES. WHILE WASTE MANAGEMENT AND DISPOSAL REPRESENTS AN INVALUABLE AND NEEDED SERVICE TO ALL RESIDENTS AND COMMUNITIES IN MUSKOGEE COUNTY AND NORTHEAST OKLAHOMA, THE DEVELOPMENT OF NEW LANDFILLS IS CONSIDERED A NEGATIVE IMPACT ON NEARBY CITIZENS AND PROPERTIES, AND IS USUALLY CONTESTED AT A LOCAL AND STATE LEVEL TO PREVENT DEVELOPMENT OF THESE NEW FACILITIES. LEGAL COSTS ALONE CAN EXCEED $1,000,000 FOR SITING OF NEW LANDFILL FACILITIES IF SUBJECT TO PUBLIC OPPOSITION AND THE TIMEFRAME CAN STRETCH INTO 3 TO 5 YEARS OR MORE. WITH THE CURRENT FACILITY HAVING APPROXIMATELY 4 YEARS OF REMAINING LIFE, IT IS UNLIKELY THAT A NEW LANDFILL COULD BE SITED, PERMITTED, AND CONSTRUCTED BEFORE THE EXISTING LANDFILL REACHED ITS CAPACITY.
- THE DEVELOPMENT OF A SEPARATE PROPERTY WOULD REQUIRE THE PURCHASE OF BETWEEN 200 AND 400 ACRES OF PROPERTY (INCLUDES ACCESS, ENTRANCE AND STAGING FACILITIES, EQUIPMENT MAINTENANCE AND STORAGE FACILITIES, AND STORMWATER CONTROL FACILITIES, AND LANDS NOT USABLE DUE TO JURISDICTIONAL WATERS IMPACTS OR OTHER ENVIRONMENTAL IMPACTS). THIS PROPERTY IS 566 ACRES AND FOR SALE FOR $3.3 MILLION DOLLARS. THIS PROPERTY IS LARGE ENOUGH TO SITE A LANDFILL BUT THE DEVELOPMENT IS LIMITED BY FLOODPLAIN, WETLANDS, AND OTHER LOCATION RESTRICTIONS. THIS POTENTIAL LANDFILL COULD YIELD APPROXIMATELY 11 MILLION CUBIC YARDS OF AIRSPACE AND IS LOCATED APPROXIMATELY 5 MILES FROM THE MUSKOGEE LANDFILL.
- THE DEVELOPMENT OF SEPARATE LANDFILL ON THIS TRACT OF LAND COULD POTENTIALLY HAVE A GREATER IMPACT ON JURISDICTIONAL WATERS THAN THOSE IMPACTED BY THE PROPOSED LANDFILL EXPANSION. AS SHOWN, THE PROPERTY HAS WETLANDS (FORESTED, EMERGENT, AND RIVERINE) ON SITE, AND THESE WETLANDS ARE AT THE DOWNSTREAM END OF THEIR CONTRIBUTING DRAINAGE BASINS NEXT TO THE ARKANSAS RIVER. AS OPPOSED TO THE UPLAND WETLANDS NEAR THE MUSKOGEE LANDFILL, THESE WETLANDS ARE WELL ESTABLISHED AND WILL NEED LARGE BUFFER ZONES TO AVOID IMPACTS.
- THE DEVELOPMENT OF THIS SEPARATE TRACT OF LAND WOULD REQUIRE THE DEVELOPMENT OF OPERATIONAL INFRASTRUCTURE (E.G., OFFICES, SCALEHOUSE, MAINTENANCE SHOP, ENTRANCE ROADS AND ROADWAY IMPROVEMENTS, UTILITY CONNECTIONS, AND OTHER IMPACTS). THIS ADDITIONAL OPERATIONAL INFRASTRUCTURE WOULD CREATE AN ADDITIONAL AND UNDUE FINANCIAL BURDEN ESTIMATED BETWEEN $1,500,000 TO $2,500,000, WHICH IS IN ADDITION TO PROPERTY ACQUISITION AND PERMITTING COSTS.
- THE DEVELOPMENT OF A SEPARATE LANDFILL WOULD NOT BE A REASONABLE UTILIZATION OF RESOURCES OR LANDS CONSIDERING THE AVAILABILITY OF RESOURCES (LAND) IMMEDIATELY ADJACENT TO THE EXISTING LANDFILL WITH OVER 20 YEARS OF SUCCESSFUL WASTE MANAGEMENT AND DISPOSAL. DEVELOPMENT OF THIS SEPARATE LANDFILL WOULD REQUIRE WMO TO OBTAIN A NEW MSW PERMIT FROM THE ODEQ FOR A GREENFIELD SITE. THIS WOULD CREATE AN UNDUE FINANCIAL BURDEN CONSIDERING WMO HOLDS A PERMIT FOR THE CURRENT LANDFILL, AND THE PROPOSED EXPANDED LANDFILL IS BEING PERMITTED AS A MODIFICATION TO THE EXISTING PERMIT. ADDITIONALLY, WMO IS WILLING TO PROVIDE FOR OFF–SITE MITIGATION.

NOTES:

1. FLOODPLAIN REPRODUCED FROM FEMA FIRM PANEL NO. 40101C0075F AND 40101C0090F FOR MUSKOGEE COUNTY AND INCORPORATED AREAS, EFFECTIVE FEBRUARY 4, 2011.
2. WETLAND INFORMATION REPRODUCED FROM THE U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLAND INVENTORY.

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 08/2023
FILE: 0086-364-11
CAD: 3-3 OPTION 4.DWG

DRAWN BY: SRF
DESIGN BY: JBP
REVIEWED BY: JVQ

Weaver Consultants Group
CA 3804 PE – 06/30/2023

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

SECTION 404 PERMIT
ALTERNATIVES ASSESSMENT

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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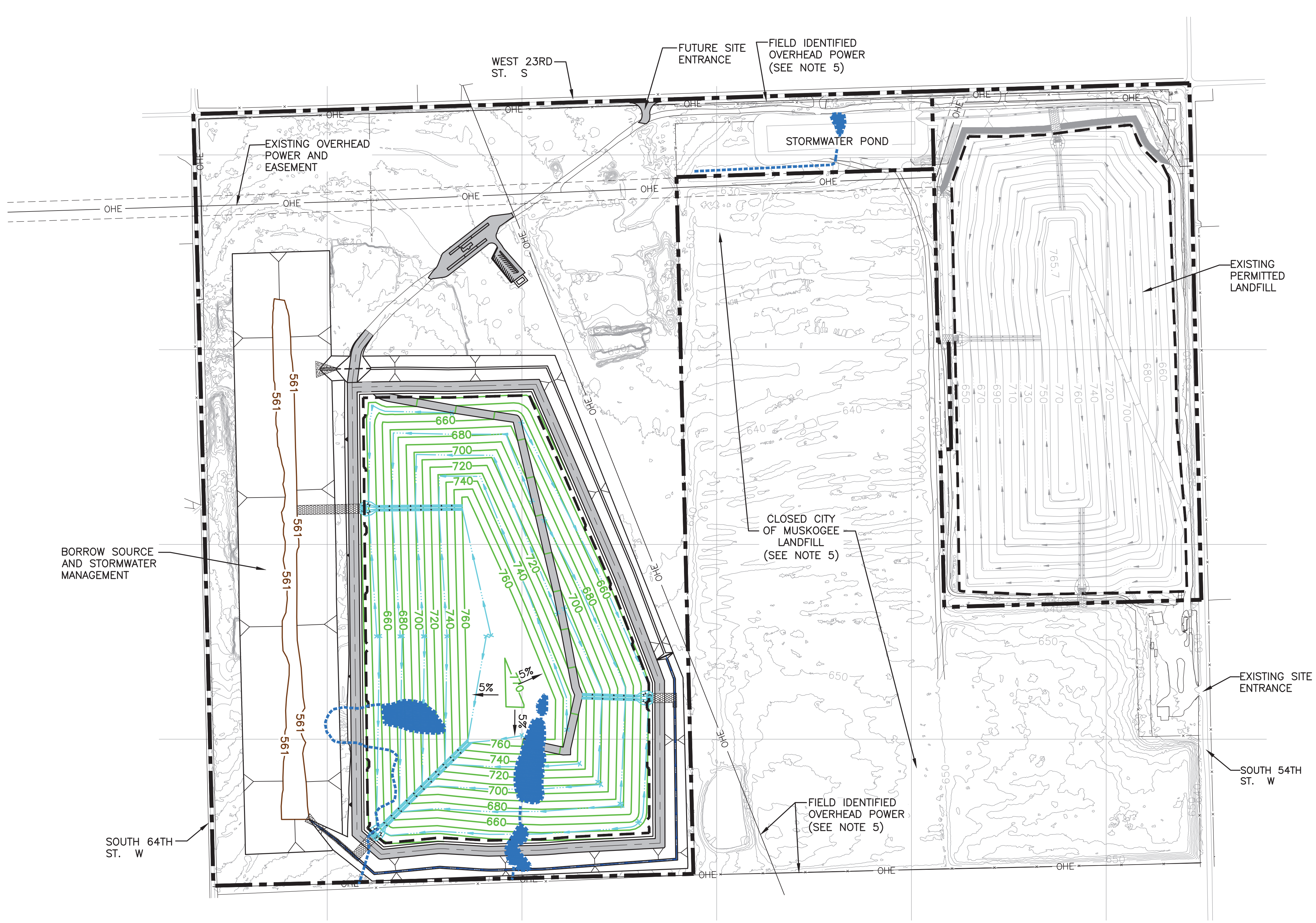
FIGURE 3–3



LEGEND:

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- 700 EXISTING CONTOUR
- 700 FINAL COVER CONTOUR
- OHE EXISTING OVERHEAD EASEMENT
- JURISDICTIONAL WATERS

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL FROM AERIAL PHOTOGRAPHY FLOWN 01–25–2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. PERMIT BOUNDARY AND EXISTING OVERHEAD EASEMENTS WERE REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY WEAVER CONSULTANTS GROUP, SIGNED BY MICHAEL D BYTNER, LLS# 1986.
5. AN EASEMENT RECORD WAS NOT FOUND OR PROVIDED TO THE SURVEYOR. THE OVERHEAD POWER RUNNING ALONG THE NORTHERN AND SOUTHERN PROPERTY LINE AND NORTHWEST/SOUTHEAST ACROSS THE PROPERTY WAS FIELD IDENTIFIED AND SURVEYED.

PROPOSED LANDFILL DEVELOPMENT

THIS ALTERNATIVE PROVIDES FOR THE LONG–TERM WASTE MANAGEMENT NEEDS OF MUSKOGEE COUNTY AND OTHER COMMUNITIES CURRENTLY SERVED BY THE LANDFILL. THIS ALTERNATIVE WAS SELECTED FOR THE FOLLOWING REASONS:

- THE LANDFILL EXPANSION BENEFITS THE COMMUNITY AND LOCAL INDUSTRY BY PROVIDING A MUCH–NEEDED BASIC SERVICE IN THE FORM OF AN ENVIRONMENTALLY SAFE SOLID WASTE DISPOSAL FACILITY.
- THE LANDFILL PROPERTY AND ADJACENT PROPERTIES HAVE A HISTORY OF LAND USE COMPATIBILITY, HAVING SUCCESSFULLY OPERATED AT THIS LOCATION SINCE 1987, BEGINNING WITH THE CITY OF MUSKOGEE LANDFILL.
- SURROUNDING LAND USES ARE COMPATIBLE WITH THE PROPOSED LANDFILL DEVELOPMENT AND ARE PREDOMINANTLY AGRICULTURAL, RANGELAND, AND LOW TO VERY LOW DENSITY RURAL RESIDENTIAL AREAS.
- THE CURRENT TRAFFIC PATTERNS AND ROADWAYS ARE SUFFICIENT TO HANDLE THE CONTINUED WASTE MANAGEMENT TRAFFIC SERVED BY THE LANDFILL.
- WASTE MANAGEMENT OF OKLAHOMA, INC. HAS EXPRESSED A WILLINGNESS TO PROVIDE MITIGATION OF JURISDICTIONAL WATERS IMPACTED BY THE DEVELOPMENT BY PURCHASE OF CREDITS FROM USACE–APPROVED IN–LIEU FEE PROGRAM.
- INCORPORATING PERIMETER DRAINAGE FEATURES THAT WILL COLLECT, CONVEY AND CONTROL STORMWATER AND SEDIMENT ON THE PROJECT SITE WHILE PROVIDING WATER QUALITY IMPROVEMENTS PRIOR TO OFF–SITE DISCHARGE TO DOWNSTREAM RECEIVING WATERS.

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 08/2023
FILE: 0086–364–11
CAD: 3–4 PROJECT OVERVIEW.DWG

DRAWN BY: RAA
DESIGN BY: JBP
REVIEWED BY: JVQ

Weaver Consultants Group
CA 3804 PE – 06/30/2025

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION

SECTION 404 PERMIT
ALTERNATIVES ASSESSMENT

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

WWW.WCGRP.COM

FIGURE 3–4

4 SITE PROTECTION INSTRUMENTS

Long-term protection of the project site is provided by the following mechanisms which prohibit incompatible uses that might otherwise jeopardize the objectives of the project.

- ODEQ Solid Waste Facility Operating Permit. After the USACE Individual Permit is issued, the permit, including this plan, will be incorporated into the ODEQ Solid Waste Operating Permit (ODEQ Permit No. 3551020). The permit provisions of ODEQ Permit No. 3551020 are enforced by the ODEQ Solid Waste Compliance Section. The active life of the expanded Muskogee Community RDF has been estimated as 24 years. Also, as part of the MSW permit, the facility will be maintained for a period of 30 years after the landfill is closed (postclosure care period). During the active life of the landfill and the postclosure period, the site will be routinely inspected by the ODEQ to ensure compliance with the ODEQ Solid Waste Permit provisions.
- County Land Records Notice. WMO will upon closure develop and file a notice in the county land records of Muskogee County that will serve notice in perpetuity that the site was used for the processing and disposal of solid waste and has been closed for the entire 316.8-acre project area.

5 BASELINE INFORMATION

5.1 Wetland and Waters of the U.S. Information

Goshawk Environmental Consulting, Inc. (Goshawk) performed a Waters of the U.S. Delineation of the expansion area for Muskogee Community RDF. The delineation report, dated May 2023, identified possible waters of the U.S. and wetlands on the property. The report is incorporated into this application as Appendix A.

A summary of the proposed compensatory mitigation is provided in Section 6 of this plan.

5.2 Threatened or Endangered Species

A threatened and endangered species habitat assessment was completed by Goshawk and is included as Appendix D. Goshawk's habitat assessment literature review concluded that the site has potential to provide habitat for the American burying beetle. No additional species were identified within the assessment.

The American burying beetle utilizes a wide range of vegetative habitats including woodlands, shrublands, grasslands, riparian areas, and forests. They will even utilize lightly grazed pastures. The presence of small mammals, birds, and other carrion sources may be more important than vegetation types. The American burying beetle are not typically found in highly modified habitats, especially when soils have been impacted. The Muskogee Community RDF expansion property has both grassland and woodland vegetative habitats that are relatively unimpacted by previous disturbances. These areas are limited to the south, east, and northern portions of the property. Some of the grasslands are regularly mowed for hay production and there is evidence of some terracing. Since the American burying beetle has been documented within relatively close proximity to the property, there exists a potential that American burying beetle may use portions of the site not previously impacted.

Based on the site having a potential to provide habitat for the American burying beetle, a formal consultation with the US Fish and Wildlife Service was conducted. The consultation indicated that any incidental take of the American burying beetle that may occur as a result of the expansion is not prohibited under the Act, Section 4

(d) rule adopted for this species at so CFR § 17.47(d). A copy of the consistency letter from US Fish and Wildlife Service is included in Appendix D.

Habitat does not exist within the site for any of the other listed species. While it is possible that the migratory bird species may utilize the landfill site during migration, use would be transitory in nature and of short duration. Lack of suitable habitat makes the occurrence of the migratory species highly unlikely.

6 DETERMINATION OF CREDITS

A summary of the unavoidable impacts to jurisdictional waters from the proposed landfill expansion is shown on Figure B-5 (Appendix B) and summarized below. However, this plan should also be judged by the overall positive impact this project will have on the community and local industry. For example, the benefits to the community and local industry include providing a much-needed basic service in the form of an environmentally safe, solid waste disposal facility. The benefits of the project are delineated in Section 3.1 and on Figure 3-4 of this plan.

Unavoidable Impact Summary

- 0.17 acres of emergent wetlands
- 1.90 acres of open water pond
- 0.32 acres of forested wetlands
- 2,067 linear feet of ephemeral streamline

To offset the unavoidable impacts and to ensure that there will be no overall net loss of waters of the U.S., WMO is proposing to obtain the following credits from the USACE approved in-lieu fee Program (Terra Foundation, Inc.).

- 2.55 acres of wetlands credits
- 10,207 credits of ephemeral streamline

The majority of our site (the southwestern portion) lies within the Terra Foundations lower Arkansas A service area. The northeastern portion of the site lies with the Terra Foundations lower Arkansas B service area. The Terra Foundation currently has available wetlands credits in both service areas.

The proposed credits would represent the following ratio of mitigation to disturbance for wetlands.

- 1:1 for emergent wetlands
- 1:1 for open water ponds
- 1:5:1 for forested wetlands

To determine the proposed stream credits the Oklahoma Stream Mitigation Method (July 2021) was utilized. The OSMM Adverse Impact Features Worksheet A-1 is included in Appendix A. The Terra Foundation currently has available stream credits in both service areas.

7 MITIGATION WORK PLAN

7.1 Mitigation Areas

The unavoidable impacts on the project will not significantly impact the watershed of the project being that; (1) the area of impact is located at the headwaters of the watersheds; (2) the area of impact is outside the 100-year floodplain; and (3) proposed development includes perimeter drainage features that will collect, convey, and control stormwater and sediment on the project site. The proposed mitigation will be completed through a USACE approved in-lieu fee program.

7.1.1 Mitigation Centers

The proposed mitigation for this project will be completed off-site utilizing a USACE approved in-lieu fee program. WMO will contract with the in-lieu fee program and notify the USACE once the off-site mitigation has been procured/confirmed. If the mitigation is not available, WMO will contact the USACE to discuss other alternatives.

As described in Section 6 of this plan, The proposed mitigation for this project includes the mitigation of 2.39 acres of wetlands and 2,067 linear feet of jurisdictional waters at a mitigation ratio presented in Section 6.

7.2 Sequence of Development and Storm Water Control

The expected active life of the landfill without the expansion has been estimated to be approximately 3.5 to 4 years. Therefore, the initial development of the expansion area will not likely begin for approximately 2 years. Large portions of the western expansion area could potentially be developed without disturbing jurisdictional waters, however, WMO intends to develop perimeter drainage features initially to support site operations and control stormwater. This perimeter drainage development will disturb portions of the on-site jurisdictional waters. Therefore, development of expansion area features that require disturbance of jurisdictional waters will not be initiated until mitigation activities are procured by WMO.

7.2.1 Perimeter Drainage System

The stormwater controls for the landfill have been designed consistent with the ODEQ regulations for MSW landfills. Per ODEQ requirements, the runon stormwater controls have been designed to prevent flow onto the active portion of the landfill during the peak discharge from a 25-year storm and the runoff stormwater controls have been designed to collect and control the water volume resulting from a 24-hour, 25-year storm. These include drainage controls for the final cover, perimeter channels, culverts, and a sedimentation and storage pond.

The drainage system is shown on Figure 3-4 (Section 3). Drainage from the landfill itself is directed through a system of swales, chutes, and perimeter channels to a detention/sedimentation pond located along the western boundary of the property. From the pond, waters will infiltrate, evaporate, or will be pumped to adjacent existing surface water drainage features.

7.2.2 Storm Water Controls During Below Grade Fill

Control of stormwater runon and runoff within excavation areas will be achieved using temporary diversion berms, channels, and containment areas as needed. The temporary stormwater control structures are used to divert uncontaminated stormwater runoff into temporary storage areas. The stormwater will be used for liner construction, control of dust, and establishing vegetation. If discharge of uncontaminated stormwater is required, it will be discharged consistent with National Pollutant Discharge Elimination System (NPDES) requirements.

Contaminated stormwater consists of stormwater that has come into contact with waste. Control of the contaminated stormwater will be provided through temporary diversion berms, channels, and containment areas. Contaminated stormwater structures will be constructed to capture the stormwater for a 24-hour, 25-year storm runoff volume as required by the landfill permit. Contaminated stormwater will be diverted and contained on approved areas only. Contaminated water and leachate will be disposed of as required by the permit application to be submitted to the ODEQ.

7.2.3 Storm Water Controls During Aerial Fill

Additional storm water controls will be necessary as the site is brought above grade. Temporary diversion berms, channels, and containment areas will continue to be used for control of uncontaminated and contaminated stormwater runon and runoff. Separation of the contaminated stormwater and uncontaminated stormwater runoff will be provided. Diversion berms, channels, and containment areas will be implemented for the active fill portions of the landfill.

The final cover will incorporate drainage swales and letdown structures or chutes for conveyance of stormwater off of the final cover. These swales and chutes have been designed to protect the final cover from erosion. As areas of the final cover are completed, vegetation will be established to provide additional erosion protection. The final cover will be designed consistent with ODEQ regulations.

Surface water runon and runoff will be managed consistent with the ODEQ regulations. Areas that receive waste will be covered with cover soils. As such, runoff from these areas will be considered uncontaminated consistent with ODEQ requirements. Also, by implementing (1) the site design and proper operating practices and (2) ongoing placement of final cover, contaminated water will be kept to a minimum. Routine daily cover, in combination with the other operating practices (e.g., use of small landfill working face), will minimize the generation of contaminated water. Contaminated stormwater will be diverted and contained on approved areas only. Contaminated water and leachate will be pumped to an existing leachate pond, temporary leachate storage pond, or leachate storage tanks, or transported to an offsite treatment facility for disposal in accordance with the permit application to be submitted to ODEQ.

7.2.4 Erosion and Sedimentation Control

Erosion and sedimentation control is provided on site during construction activities and is incorporated into the design of the perimeter drainage system and final cover system. During construction of the excavations, perimeter berms, perimeter channels, and a sedimentation and storage pond, erosion and sedimentation control will be provided through the use of temporary diversion berms, drainage channels, silt fences, vegetation, and hay bales. These measures will provide for control of erosion and sediment prior to stormwater flows leaving the site. An erosion and sedimentation control plan will be developed as part of the permit application to be submitted to the ODEQ.

Permanent erosion control features have been included in the site design. These features include design of perimeter channels for non-erodible velocities. In areas where erosion has been anticipated, erosion protection of the channels in the form of turf reinforcement matting and gabions are provided. Permanent features included in the final cover design are drainage swales and chutes are shown on Drawing B-6 (Appendix B). Erosion protection will also be provided on areas susceptible to erosion. Establishment of vegetation on the final cover, perimeter channel, and buffer zones will be ongoing as the site is developed.

7.3 Protection During Construction

Contractors will be required to implement the site Storm Water Pollution Prevention Plan (SWPPP) or comply with the current site SWPPP to minimize and control the discharge of pollutants in storm water runoff during construction. The site SWPPP was developed to meet the requirements of the OPDES General Permit.

7.4 Planting Plan

Planting lists, methods, and success criteria for the offsite mitigation activities will be based on the USACE approved in-lieu fee program's approved plan.

8 MAINTENANCE PLAN

8.1 Consistency with Other Plans

Certain other environmental management plans may contain provisions for managing stormwater. The site operator has the responsibility to incorporate these provisions into the plan, as applicable. Examples of compatible environmental plans include the following.

- Landfill Operating Permit developed for the provisions of Title 252 of the Oklahoma Administrative Code, Chapter 515-Management of Solid Waste.
- Spill Prevention, Control, and Countermeasure Plan developed for the provisions of 40 Code of Federal Regulations Part 112.
- Stormwater Pollution Prevention Plan developed for the provisions of the NPDES Stormwater Permit.

8.2 Routine Maintenance

Maintenance activities described in this section will be performed on a regular basis by landfill personnel on the project site. Routine maintenance of the offsite mitigation activities will be performed in accordance with the USACE approved in-lieu fee program's approved plan.

8.2.1 Vegetation Management

The site will be operated in a manner to minimize disturbances to vegetation established on the project site. Vegetation management of the offsite mitigation activities will be performed in accordance with the USACE approved in-lieu fee program's approved plan.

8.2.2 Good Housekeeping Measures

Good housekeeping measures will reduce or eliminate the impact of landfill operations on precipitation and runoff at the project site. The measures used to ensure areas that could contribute pollutants are kept in a neat and orderly fashion consist of the BMPs identified in this facility's storm water pollution prevention plan. The BMPs to be used at the landfill include the following:

- Routine litter patrolling by landfill staff
- Dust control on access roads internal to the landfill.

Good housekeeping measures for the offsite mitigation activities will be performed in accordance with the USACE approved in-lieu fee program's approved plan.

8.2.3 Erosion Control Measures

During project site development, BMPs will be employed to control erosion at the active landfill area, soil stockpiles, and inactive areas with and without final cover. BMPs may include the use of temporary rock riprap, silt fences, straw bales, check dams, interceptor swales and berms, temporary and permanent seeding and sodding, surface roughening, matting and mulching, sediment traps, and surface wetting for dust control. Landfill personnel will follow the guidelines in the SWPPP to select appropriate erosion control measures to minimize sediment discharge from the site.

Erosion control measures for the offsite mitigation activities will be performed in accordance with the USACE approved in-lieu fee program's approved plan.

8.2.4 Maintenance Program for Drainage Control Structures

WMO personnel will restore and repair the drainage control structures in the event of washout or failure from extreme storm events. In addition, BMPs will also be replaced or repaired in the event of failure. Excessive sediment will be removed, as needed, so that the perimeter channels, and sediment ponds function as designed.

The following items will be evaluated during the routine inspections:

- Erosion of perimeter channels, sedimentation ponds, berms, and other drainage features
- Settlement of perimeter channels and other drainage features
- Silt and sediment build-up in perimeter channels, chutes, swales, and sedimentation ponds
- Obstructions or foreign objects
- Presence of erosion or sediment discharge at offsite storm water discharge locations
- Presence of sediment discharges along the site boundary in areas, which have been disturbed by site activities.

Maintenance activities will be performed to correct damaged or deficient items noted during the routine site inspections. These activities will be performed as soon as possible after the inspection. The time frame for correction of damaged or deficient items will vary based on weather, ground conditions, and other site-specific conditions.

Maintenance activities will consist of the following, as needed.

- Placement of additional temporary or permanent vegetation
- Placement, grading, and stabilization of additional soils in eroded areas or in areas that have settled
- Replacement of gabions, turf reinforcement mat, or other structural lining
- Removal of obstructions and/or foreign objects
- Removal of silt and sediment build-up
- Repairs to erosion and sedimentation controls
- Installation of additional erosion and sedimentation controls

Maintenance programs for the offsite mitigation activities will be performed in accordance with the USACE approved in-lieu fee program's approved plan.

9 PERFORMANCE STANDARDS

The landfill will be constructed and operated in accordance with the site MSW permit, ODEQ regulations, and industry standards. During the active life of the landfill (approximately 24 years at time of closure of the expansion area) and the post-closure period (30 years), the site will be routinely inspected by the ODEQ to ensure compliance with the ODEQ MSW permit.

Offsite mitigation will be completed utilizing a USACE approved in-lieu fee program. Mitigation activities including performance standards, long term management, and monitoring/reports will be completed in accordance with the USACE approved in-lieu fee program's approved plan.

10 MONITORING REQUIREMENTS

The landfill will be constructed and operated in accordance with the site MSW permit, ODEQ regulations, and industry standards. During the active life of the landfill (approximately 24 years at time of closure of the expansion area) and the post-closure period (30 years), the site will be routinely inspected by the ODEQ to ensure compliance with the ODEQ MSW permit.

Offsite mitigation will be completed utilizing a USACE approved in-lieu fee program. Mitigation activities including performance standards, long term management, and monitoring/reports will be completed in accordance with the USACE approved in-lieu fee program's approved plan.

11 LONG-TERM MANAGEMENT PLAN

The expected active life of the landfill with the expansion has been estimated as 24 years. However, the actual site life may vary depending on the incoming waste volume and other site-specific factors (e.g., waste density; amount of cover soil used). Also, as part of the MSW permit, the facility will be maintained for a period of 30 years after the landfill is closed (post-closure care period). During the active life of the landfill constructed drainage and erosion control structures will be inspected on a regular basis and after every significant rainfall event. During the postclosure care period, the site will be inspected according to a schedule set by ODEQ. Any repairs or maintenance to drainage and erosion control structures will be performed as soon as practical following the inspections.

Landfill personnel who conduct the inspections will be familiar with the MSW permit, ODEQ regulations, and industry standards related to perimeter drainage systems, stormwater controls, erosion sedimentation controls and landfill operations.

The landfill will be constructed and operated in accordance with the site MSW permit, ODEQ regulations, and industry standards. During the active life of the landfill and the postclosure period, the site will be routinely inspected by the ODEQ to ensure compliance with the ODEQ MSW permit.

Offsite mitigation will be completed utilizing a USACE approved in-lieu fee program. Mitigation activities including performance standards, long term management, and monitoring/reports will be completed in accordance with the USACE approved in-lieu fee program's approved plan.

12 ADAPTIVE MANAGEMENT PLAN

If the compensatory mitigation cannot be constructed in accordance with the USACE approved in-lieu fee program's approved plan, the in-lieu fee program will notify the USACE.

13 FINANCIAL ASSURANCE

Financial assurance will be maintained to meet ODEQ requirements by WMO. Financial assurance is required for all solid waste landfill facilities whose debts and liabilities could become the debts and liabilities of a state or the United States (i.e., in the event of forced closure, which occurs when an operational municipal solid waste landfill facility can no longer operate because of an inability to manage the incurred debts and liabilities). At such time, the responsibility for closure would be assumed by the ODEQ. WMO provides financial assurance to the ODEQ to cover the cost of hiring a third party to close the landfill and to provide continuous maintenance and monitoring during the 30-year post-closure period for the landfill. Closure of the landfill includes construction of final cover over uncapped areas, site grading and drainage improvement, and stabilizing disturbed areas. Postclosure activities include annual site inspections, periodic site monitoring, and routine maintenance.

Offsite mitigation will be completed utilizing a USACE approved in-lieu fee program. Mitigation activities including performance standards, long term management, and monitoring/reports will be completed in accordance with the USACE approved in-lieu fee program's approved plan.

Financial assurance for the offsite mitigation activities will be provided by the sponsor of the USACE approved in-lieu fee program in accordance with the approved plan. Therefore, this plan also shows compliance with 33 CFR §332.3(n).

MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY
MUSKOGEE COUNTY, OKLAHOMA
ODEQ PERMIT NO. 3551020

APPENDIX J
ALTERNATIVE FINAL COVER SYSTEM DESIGN

Prepared for

Waste Management of Oklahoma, Inc.

October 2023

LICENSED PROFESSIONAL ENGINEER
JONATHAN V. QUEEN
24456
OKLAHOMA

10/13/2023

Prepared by

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WCG Project No. 0086-364-11-19

INTRODUCTION

This appendix includes a copy of the approved Alternative Final Cover (AFC) Design Permit Modification submitted by Weaver Boos Consultants, LLC–Southwest in September 2008 and ODEQ's approval letter dated October 13, 2008 (see following two pages). The ODEQ approved AFC design has been modified based on current conditions and to include a vegetation plan. The modifications include revisions to Figures A-1 through A-3.

Since this alternative final cover design is not a function of a particular area and can be used for both top slopes and sideslopes, it is also applicable for the expansion area. The current vegetation plan required to meet OAC 252.515-19-54 is also included (see Appendix E of the Alternative Final Cover Design).

MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY MUSKOGEE COUNTY, OKLAHOMA ODEQ PERMIT NO. 3551020

TIER I PERMIT MODIFICATION

ALTERNATIVE FINAL COVER SYSTEM DESIGN

Prepared for

Waste Management of Oklahoma, Inc.

Approved October 13, 2008

Revised October 2023

LICENSED PROFESSIONAL ENGINEER
JONATHAN V. QUEEN
24456
OKLAHOMA

10/13/2023

Prepared by

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September 15, 2008
Project No. 0086-364-11-01-01

Saba Tahmassebi, Ph.D., P.E.
Chief Engineer
Oklahoma Department of Environmental Quality
707 North Robinson
Oklahoma City, Oklahoma 73101-1677

Re: Tier I Permit Modification –Alternative Final Cover System Design
Muskogee Community Recycling and Disposal Facility, Permit No. 3551020
Muskogee County, Oklahoma

Dear Dr. Tahmassebi,

On behalf of Waste Management of Oklahoma, Inc. (WM), please find attached two copies of the referenced permit modification. The purpose of this permit modification is to permit an evapotranspiration (ET) monolithic soil alternative final cover system at the Muskogee Community Recycling and Disposal Facility (RDF). This permit modification will provide WM the option to construct an ET monolithic soil alternative final cover system in addition to the existing permitted final cover options. Note that this permit modification is similar to the ET monolithic soil alternative final cover system included in the recently approved Tier III Permit Modification Lateral Expansion for East Oak RDF.

Please process this application per Oklahoma Administrative Code (OAC) 252:4-7-58(2)(A)(ii) given that the proposed ET monolithic soil alternative final cover system meets the requirements set forth in OAC 252:515-19-53(c). Two copies of this application are provided for your use and distribution. Consistent with OAC 252:515-19-40(a), a copy of this application has been placed in the site operating record for this facility.

During the course of your review, if you need additional information or have any questions please call.

Sincerely,
Weaver Boos Consultants, LLC–Southwest

Jeffrey P. Young, P.E.
Senior Engineer

Attachment: Tier I Permit Modification (2 copies)

cc: Pete Schultze, Waste Management of Oklahoma, Inc.

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APPENDIX E
Vegetation Plan

1 INTRODUCTION

1.1 Purpose

The purpose of this permit modification is to permit an Evapotranspiration (ET) monolithic soil alternative final cover system at the Muskogee Community Recycling and Disposal Facility (RDF). The monolithic final cover system will consist of the following layers.

- 12-inch-thick Vegetative Layer. Soil for this layer will be selected to support the rapid establishment of a vegetative cover that will consist of native and introduced grasses that will thrive in the Muskogee area climate.
- 24-inch-thick Vegetative Support Layer. The soils in this layer will be capable of storing moisture in the ET monolithic soil alternative final cover system so that the moisture can be removed by evaporation and transpiration from vegetation growing on the cover.
- Existing 12-inch-thick Intermediate Cover Layer. This layer functions as a foundation layer for the vegetative support layer. However, this material will also function as a vegetative support layer.

The above ET monolithic soil alternative final cover system is designed to minimize infiltration of stormwater into the underlying wastes. The ET alternative final cover is basically a monolithic soil cover that employs a thick layer of soil with adequate soil-water storage capacity to retain any infiltrated water until it can be removed through ET. The ET alternative final cover concept relies on the soil to act like a sponge. A key to the design is that the "soil sponge" or "soil rooting medium" be designed thick enough to hold infiltration of precipitation until the water can be consumed by ET.

Consistent with OAC 252:515-19-53(c), the proposed alternative cover is designed to be equivalent with the Subtitle D prescriptive composite final cover system and also by extension the pre-Subtitle D area final cover system. ~~As shown on Figure A-1 (Appendix A), no final cover has previously been constructed at the Muskogee Community RDF.~~ Consistent with OAC 252:515-25-33, the site will initiate final cover activities 90 days after the final receipt of waste. As shown on Figure A-2 (Appendix A), approximately 3 acres of final cover has been previously constructed at Muskogee Community RDF.

The following sections of this permit modification discuss the requirements of the equivalency demonstration, a description of the numeric model used to make the equivalency demonstration, a summary of the model input parameters, a summary of the equivalency demonstration, and specifications for the ET monolithic soil alternative final cover system. In addition, the following information is presented in appendices that are attached to this permit modification.

- Appendix A – Figures. This appendix includes site plans that depict the ET monolithic soil alternative final cover system area and various details of the proposed alternative final cover system.
- Appendix B – Equivalency Design Demonstration. This appendix includes the UNSAT-H model input and output files for both the prescriptive Subtitle D composite final cover system and the ET monolithic soil alternative final cover system.
- Appendix C – Daily Climatological Data Summary. This appendix includes climatological data that was used as input into the UNSAT-H model.
- Appendix D – Alternative Final Cover Quality Assurance/Quality Control Plan. This plan sets forth the QA/QC plan for each component of the ET monolithic soil alternative final cover system.

1.2 Equivalency Demonstration Requirements

Consistent with OAC 252:515-19-53(c), the ET monolithic soil alternative final cover system is designed to be equivalent with the prescriptive Subtitle D composite final cover system design and also by extension the pre-Subtitle D final cover design. Both designs are summarized in Table 1-1.

Table 1-1
Pre-Subtitle D/Subtitle D Final Cover System Design

Pre-Subtitle D Final Cover	Prescriptive Subtitle D Cover
12-inch-thick erosion layer	12-inch-thick erosion layer
24-inch-thick compacted clay layer ($k \leq 1x10^{-7}$ cm/s)	• Drainage geocomposite or geotextile • 40-mil-thick LLDPE geomembrane • 24-inch-thick compacted clay layer ($k \leq 1x10^{-7}$ cm/s)

As stated previously, the purpose of this permit modification is to demonstrate that the ET monolithic soil alternative final cover system is equivalent to the pre-Subtitle D/Subtitle D final cover systems listed in Table 1-1. The following two criteria will be used to demonstrate equivalency.

1) Through the use of UNSAT-H, it will be demonstrated that the estimated percolation through the ET monolithic soil alternative final cover system will be less than the prescriptive Subtitle D final cover system and by extension the pre-Subtitle D area final cover system.

2) Also through the use of UNSAT-H, it will be demonstrated that the moisture content in the bottom layer of the ET monolithic soil alternative final cover system will remain at a consistent level over the analysis period. This demonstrates that the alternative final cover system will function as designed. For example, the moisture content in the upper levels of the ET monolithic soil alternative final cover system will vary due to evapotranspiration and infiltration. However, if the moisture content in the bottom layer of the ET monolithic soil alternative final cover system remains consistent, then this is an indication that no significant amount of water will infiltrate past the bottom final cover layer.

As documented in numerous references regarding alternative final cover demonstrations, the estimate of infiltration through the prescriptive Subtitle D composite final cover system (Criteria 1 listed above) has been studied extensively over the past few years. Until recently, relatively unsophisticated models (e.g., HELP) and limited information from constructed composite final covers has been available. However, more sophisticated models (e.g., UNSAT-H) and information from the EPA's Alternate Cover Assessment Program (ACAP) are now available to more accurately predict percolation through a composite final cover system. A summary of various percolation rates through composite final covers, including the estimated percolation rate using UNSAT-H for the Muskogee Community RDF alternative final cover system is summarized in Table 1-2.

Given the above (Criteria 1 and 2) and the information listed in Table 1-2, a percolation rate of 14.0 mm (0.553 inches) has been used as the benchmark for Criterion 1. This value is the lowest percolation rate listed in Table 1-2 and ensures a conservative comparison.

1.3 Alternative Final Cover Model Summary

UNSAT-H (Fayer and Junes, 1990) was selected to model both the prescriptive Subtitle D composite final cover system and the ET monolithic soil alternative final cover system. UNSAT-H is a one-dimensional physically based model and is one of the most commonly used models for alternative final covers. The various UNSAT-H input parameters for climate, vegetation, and soils are discussed in the following subsections.

Climate

Muskogee County, Oklahoma has a continental climate characterized by rapid changes in temperature. Occasionally the county may experience influence exerted by warm, moist air currents from the Gulf of Mexico. The winters are generally mild and the summers are hot. Actual daily rainfall data obtained from the Bixby, Oklahoma, weather station are used in the simulations. Weather data includes rainfall, temperature, wind speed, solar radion, and humidity for one year (2001). Total rainfall measured during this period was 37.34 inches.

The area is occasionally subjected to large hail and violent windstorms which occur mostly during the spring and early summer, although occurrences have been noted throughout the year. Snowfall averages less than 10 inches per year and seldom remains on the ground very long. Occasional periods of brief freezing rain and sleet storms can occur during winter months.

UNSAT-H, the modeling program used for this analysis, requires daily climatological data. Climate data for the model input were compiled from year 2001 records for using the Bixby, Oklahoma, weather station by using Mesonet (an Oklahoma climate data provider). Bixby, Oklahoma, is less than 31 miles from the site. Individual data was occasionally missing because of equipment failures at the weather station. Because the UNSAT-H model requires input of daily climate data, those gaps were filled in by replacing missing records with an average value from the day before and the day after the gap. The weather data used is included in Appendix C.

Table 1-2
Summary of Percolation Rates through Prescriptive Subtitle D Composite Final Cover Systems

Case	Average Annual Precipitation	Estimated Yearly Percolation Rate	Comments
Muskogee Community RDF	37.34 inches[1]	14.0 mm or 0.553 inches	The input/output files for this modeling effort are included in Appendix B. A discussion of the various modeling parameters is included in the section entitled, "Alternative Final Cover Model Summary."
Omaha, NE EPA ACAP Site	28 inches	5.5 mm or 0.22 inches	This information was reproduced from the EPA's Alternate Cover Assessment Program 2002 Annual Report (Albright and Benson).
Cedar Rapids, ID EPA ACAP Site	36.4 inches	6.1 mm or 0.24 inches	This information was reproduced from the EPA's Alternate Cover Assessment Program 2002 Annual Report (Albright and Benson).
EPA ACAP Program Current Recommended Percolation Rate for AFC	N/A	5 mm or 0.20 inches	This information was obtained from Craig H. Benson, PhD, P.E. who is a key advisor for the EPA ACAP Program.

1This value is from 2001 and was used for this demonstration.

Vegetation

With UNSAT-H, plant cover over the course of the year is represented by the leaf area index (LAI). The LAI is the ratio of the total leaf surface area to the size of the area vegetation is growing (USEPA, 1994). For this analysis, it was assumed that the vegetative growing season started in spring on the average date of the last frost (early April) and the transpiration ended on the average date of the first severe frost (early November).

Soils

The major soil input parameters for both cover systems are discussed below.

- Saturated Water Content of Soils. Saturated water content of 40 percent has been used for the top one-foot layer of soil for the prescriptive subtitle D composite final cover system and for the entire thickness of the ET monolithic soil alternative final cover system. The saturated water content for soils below the top one-foot layer is assumed to be 32 percent for the prescriptive Subtitle D composite final cover system.
- Residual Water Content of Soils. The residual water content for the top one-foot thick layer is assumed to be 8 percent for both the prescriptive Subtitle D composite and the ET monolithic alternative soil final cover systems. The layers below the top one-foot layer are assumed to have 15 percent residual water content for both the prescriptive Subtitle D composite and the ET monolithic soil alternative final cover system.
- Saturated Hydraulic Conductivity. A saturated conductivity of $5x10^{-5}$ cm/s has been used for the top 12 inches of both the prescriptive Subtitle D composite and the ET monolithic soil alternative final cover systems. A hydraulic conductivity of $1x10^{-7}$ cm/s has been used at lower portion of the prescriptive Subtitle D composite final cover system. Additionally, a thin layer (below the top one-foot layer) is modeled with $3.2x10^{-12}$ cm/s hydraulic conductivity to represent the geomembrane cover. A hydraulic conductivity of $2x10^{-5}$ cm/s has been used for the lower portion of the ET monolithic alternative soil final cover system. This value is typical for the hydraulic conductivity of silty or sandy clay material placed with low levels of compactive effort, which is the suggested soil placement technique for monolithic covers.
- Suction Head. UNSAT-H utilizes the initial suction head of the soil layers for initial hydraulic conditions. Initial suction head for the ET monolithic soil alternative final cover system is 15,000 cm, which corresponds to wilting point, and suggested to be used for ET monolithic soil alternative final cover systems. However, considering that the soils will not be at the wilting point when placed, a value of 10,000 cm was used for the erosion layer of the prescriptive Subtitle D composite and all layers of the ET monolithic alternative soil final cover systems. Considering that the prescriptive Subtitle D composite final cover system infiltration layer will be constructed with a relatively high moisture content and

the geomembrane does not have a suction head, a value of 1,000 cm and 100 cm, respectively, was used for these layers.

1.4 Equivalency Demonstration Summary

A summary of the equivalency demonstration is provided in Table 1-3. As shown, the ET monolithic soil alternative final cover system performs better than the prescriptive Subtitle D composite final cover system for each of the following equivalency criteria.

- Percolation Rate. As shown on Table 1-3 and Figure 1, the ET monolithic soil alternative final cover system estimated percolation rate is less than (1) the site specific modeling estimate, (2) similar ACAP sites, and (3) ACAP's current alternative final cover recommended percolation rate.
- Moisture Content Variance. Figure 2 provides a summary of the moisture content fluctuation of the various layers of the ET monolithic soil alternative final cover system. As shown, the moisture content fluctuates substantially in the upper layers of the system; however, the moisture content in the bottom layer is relatively constant. This analysis provides another demonstration that very little surface water infiltrates through the ET monolithic soil alternative final cover system.

1.5 Alternative Final Cover Material Requirements

As discussed in previous sections of this permit modification, the ET monolithic soil alternative final cover system includes three layers (from top to bottom): a vegetation layer; a vegetation support layer; and a existing intermediate cover layer. A description of the material requirements for each layer is listed below.

- Vegetation Layer. Soil for this layer will consist of material that is capable of supporting the rapid establishment of vegetation. If on-site "topsoil" is not available, this material will be imported from an off-site source. Muskogee Community RDF will notify the ODEQ of the vegetation layer source two weeks prior to construction.
- Vegetation Support Layer. This 24-inch-thick layer will be capable of storing moisture to be used by the vegetation layer. This layer will consist of cohesive soils that classify as either CL, CH, ML, SM, or SC according to the Unified Soil Classification System (USCS). As recommended in information developed for the EPA's ACAP, to promote adequate root development, the soil in a vegetation support layer should be compacted to between 75 and 85 percent of Standard Proctor density at a moisture content less than optimum. This layer will be placed in one 24-inch lift.

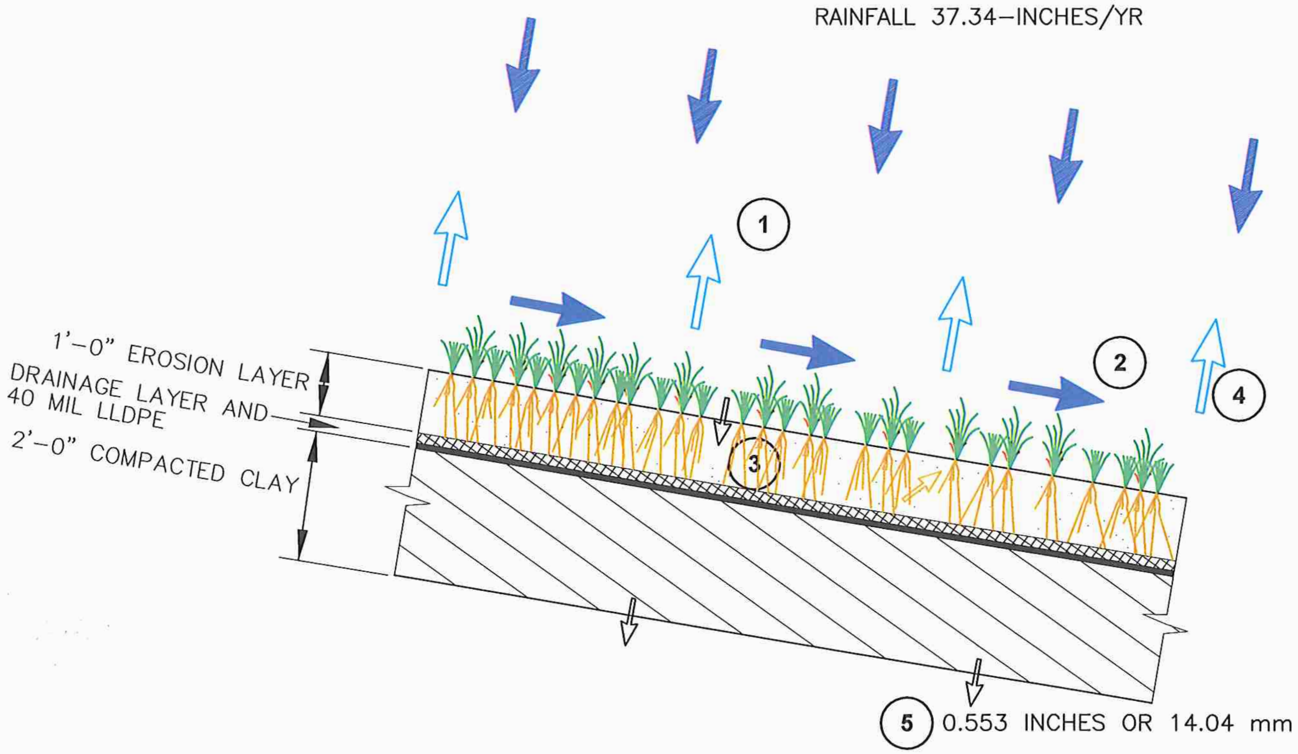
Table 1-3
Equivalency Demonstration Summary

Equivalency Criteria	Prescriptive Subtitle D Composite Final Cover System	ET Monolithic Soil Alternative Final Cover System
1. Estimated percolation rate through the final cover systems	• 14.0 mm using UNSAT-H • 5.5 – 6.1 mm – similar ACAP sites • 5 mm ACAP current recommendation	4.7 mm using UNSAT-H

- Existing 12-inch-thick Intermediate Layer. This layer functions as a foundation layer for the vegetation support layer. However, this material will also function as a vegetation support layer. Although this layer has no specific material requirements, it is composed of soils that are classified as CL, CH, ML, SM, or SL, according to the USCS. Therefore, this layer meets the specifications of the vegetation support layer.

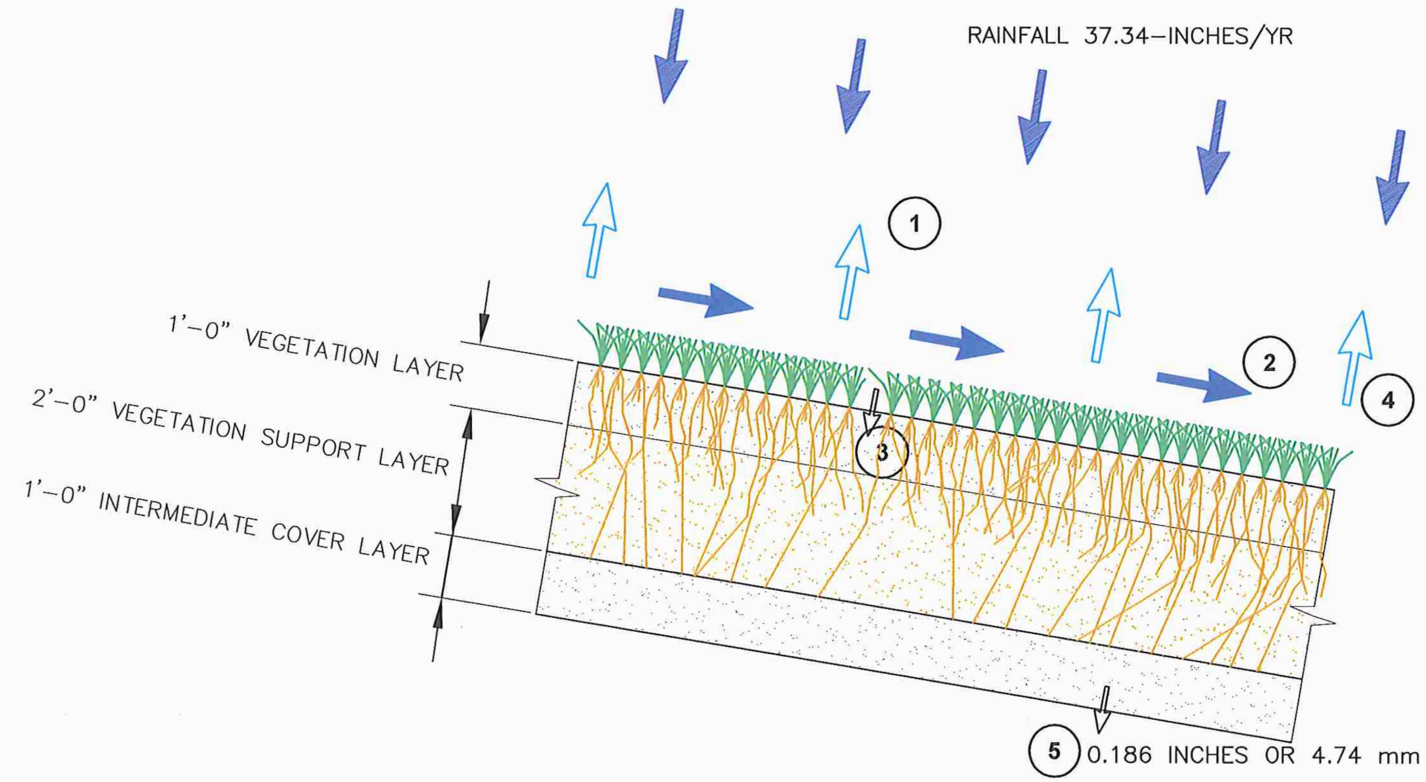
The existing 12-inch-thick intermediate layer thickness will be verified prior to placement of the 24-inch-thick vegetation support layer. As an option to the intermediate layer thickness verification, the vegetation support layer may be installed as a 36-inch-thick single layer.

Construction Quality Assurance and Quality Control (QA/QC) procedures for each of these layers, including surveying requirements, are addressed in the Alternative Final Cover QA/QC Plan included in Appendix D.



PRESCRIPTIVE SUBTITLE D COMPOSITE FINAL COVER SYSTEM

0 1.5 3
SCALE IN FEET



ET MONOLITHIC SOIL ALTERNATIVE FINAL COVER SYSTEM

0 1.5 3
SCALE IN FEET

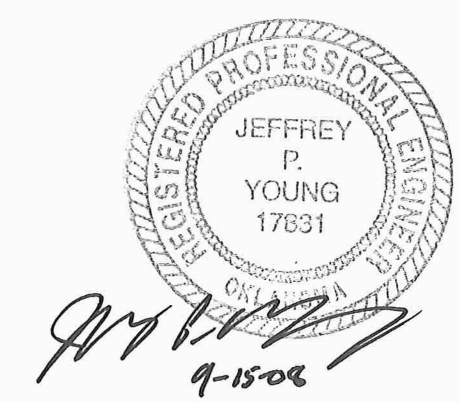
LEGEND

1 PRECIPITATION
2 RUNOFF
3 INFILTRATION
4 EVAPOTRANSPIRATION
5 PERCOLATION, INCHES

RAINFALL
RUNOFF
INFILTRATION AND PERCOLATION

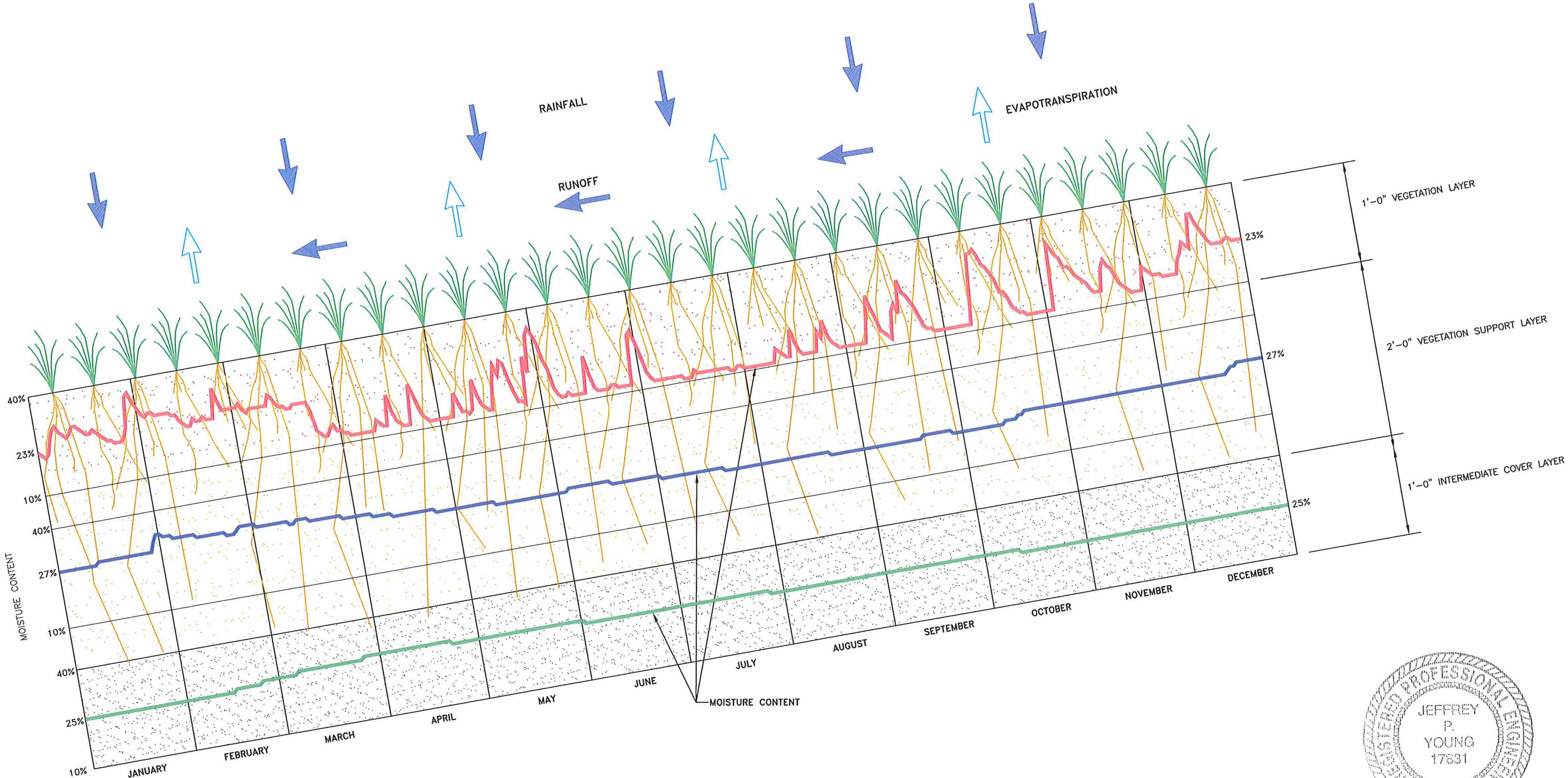
NOTES:

1. REFER TO APPENDIX B FOR ADDITIONAL UNSAT–H MODELING INFORMATION.



☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION ☐ CLIENT APPROVAL BY:	PREPARED FOR WASTE MANAGEMENT OF OKLAHOMA, INC	TIER I PERMIT MODIFICATION ALTERNATIVE FINAL COVER FINAL COVER COMPARISON MUSKOGEE COMMUNITY RDF MUSKOGEE COUNTY, OKLAHOMA
DATE: 09/2008 FILE: 0086–364–11 CAD: FIGURE–1.DWG DRAWN BY: SRF DESIGN BY: JVQ REVIEWED BY: JPY	REVISIONS NO. / DATE / DESCRIPTION	Weaver Boos Consultants
REUSE OF DOCUMENTS THIS DOCUMENT, AND THE DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF WEAVER BOOS CONSULTANTS – LLC SOUTHWEST AND IS NOT TO BE USED IN WHOLE OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF WEAVER BOOS CONSULTANTS – LLC SOUTHWEST.		CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO FORT WORTH, TX (817) 735–9770 GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO FIGURE 1

O:\0086\364\AFC MOD 2008\FIG 1– FINAL COVER COMPARISON.dwg, sford



REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. YOUNG 17631
OKLAHOMA

9-15-08

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☒ FOR PERMITTING PURPOSES ONLY	
☐ ISSUED FOR CONSTRUCTION	
☐ CLIENT APPROVAL BY:	
DATE: 09/2008	DRAWN BY: VRS
FILE: 0086-364-11	DESIGN BY: JVQ
CAD: FIGURE-2.DWG	REVIEWED BY: JPY

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC

REVISIONS

NO.	DATE	DESCRIPTION

TIER I PERMIT MODIFICATION ALTERNATIVE FINAL COVER MOISTURE CONTENT DISTRIBUTION

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

Weaver Boos Consultants
CHICAGO, IL NAPERVILLE, IL COLUMBUS, OH DENVER, CO
FORT WORTH, TX (817) 735-9770
GRIFFITH, IN SOUTH BEND, IN SPRINGFIELD, IL ST. LOUIS, MO

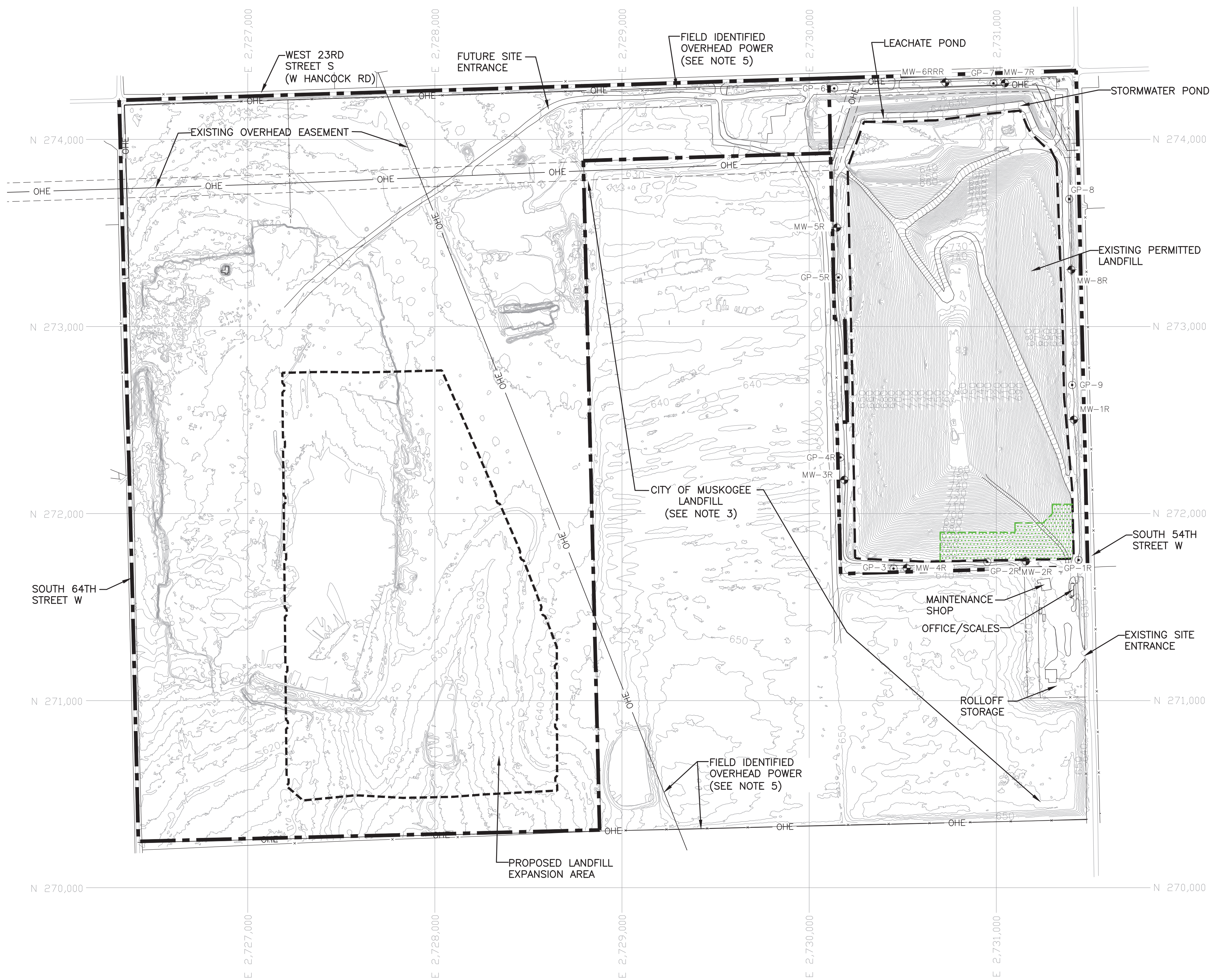
FIGURE 2

O:\0086\364\AFC MOD 2008\FIGURE-2.dwg, sford

APPENDIX A

FIGURES

Includes pages A-1 through A-3



0 300 600

SCALE IN FEET

LEGEND

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- N 273,000 — STATE PLANE COORDINATE GRID
- 640 — EXISTING CONTOUR
- OHE — EXISTING OVERHEAD EASEMENT
- IN-PLACE FINAL COVER
- MW-5R — EXISTING GROUNDWATER MONITORING WELL
- GP-5 — EXISTING LANDFILL GAS MONITORING PROBE

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. PERMIT BOUNDARY AND EXISTING OVERHEAD EASEMENTS WERE REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY WEAVER CONSULTANTS GROUP, SIGNED BY MICHAEL D BYTNER, LLS# 1986.
5. AN EASEMENT RECORD WAS NOT FOUND OR PROVIDED TO THE SURVEYOR. THE OVERHEAD POWER RUNNING ALONG THE NORTHERN AND SOUTHERN PROPERTY LINE AND NORTHWEST/SOUTHEAST ACROSS THE PROPERTY WAS FIELD IDENTIFIED AND SURVEYED.

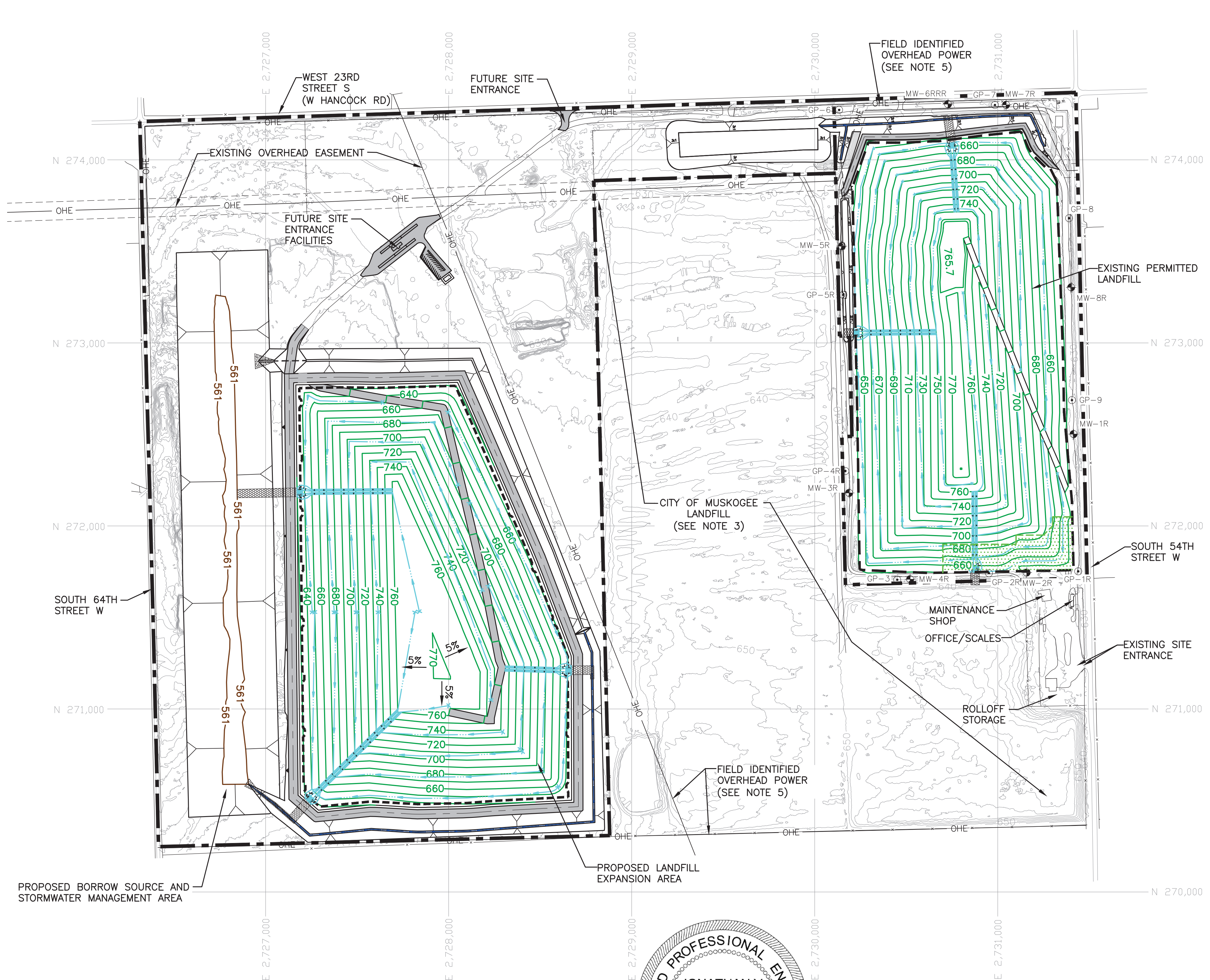
LICENSED PROFESSIONAL ENGINEER
JONATHAN V. QUEEN
24456
OKLAHOMA

10/13/2023

☐ DRAFT ☒ FOR INFORMATIONAL PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR WASTE MANAGEMENT OF OKLAHOMA, INC.		ALTERNATE FINAL COVER SITE PLAN
DATE: 09/2008 FILE: 0086-364-11 CAD: A1-ALTERNATE COVER.DWG	DRAWN BY: JDW DESIGN BY: JBP REVIEWED BY: JVQ	REVISIONS	MUSKOGEE COMMUNITY RDF MUSKOGEE COUNTY, OKLAHOMA
Weaver Consultants Group CA 3804 PE – 06/30/2025			WWW.WCGRP.COM / FIGURE A-1

NO.	DATE	DESCRIPTION
1	10/2023	REVISED TO INCLUDE EXPANSION AREA

O:\0086\364\EXPANSION 2022\APPENDIX J\A-1 ALT FINAL COVER.dwg, jpuhr, 1:2



LEGEND

- EXISTING PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMITS OF WASTE
- PROPOSED LIMITS OF WASTE
- N 273,000 — STATE PLANE COORDINATE GRID
- 640 — EXISTING CONTOUR
- 561 — BORROW AREA CONTOUR
- 770 — FINAL COVER CONTOUR
- PROPOSED DRAINAGE SWALE
- PROPOSED DRAINAGE CHUTE
- PROPOSED DRAINAGE CHANNEL
- RIPRAP/GABIONS
- OHE — EXISTING OVERHEAD EASEMENT
- MW-5R — EXISTING GROUNDWATER MONITORING WELL
- GP-5 — EXISTING LANDFILL GAS MONITORING PROBE
- IN-PLACE FINAL COVER

NOTES:

1. EXISTING CONTOURS AND ELEVATIONS PROVIDED BY HYDREX ENVIRONMENTAL COMPILED FROM AERIAL PHOTOGRAPHY FLOWN 01-25-2023.
2. THE EXPANSION WILL ADD A SEPARATE UNIT TO THE WEST OF THE EXISTING LANDFILL. NO CHANGES ARE PROPOSED TO THE EASTERN UNIT.
3. THE CITY OF MUSKOGEE LANDFILL IS NOT PART OF THE PROPOSED EXPANSION AND IS SHOWN FOR REFERENCE PURPOSES.
4. PERMIT BOUNDARY AND EXISTING OVERHEAD EASEMENTS WERE REPRODUCED FROM LEGAL DESCRIPTION PREPARED BY WEAVER CONSULTANTS GROUP, SIGNED BY MICHAEL D BYTNER, LLS# 1986.
5. AN EASEMENT RECORD WAS NOT FOUND OR PROVIDED TO THE SURVEYOR. THE OVERHEAD POWER RUNNING ALONG THE NORTHERN AND SOUTHERN PROPERTY LINE AND NORTHWEST/SOUTHEAST ACROSS THE PROPERTY WAS FIELD IDENTIFIED AND SURVEYED.
6. PERMITTED FINAL COVER CONTOURS AND DRAINAGE REPRODUCED FROM THE TIER I PERMIT MODIFICATION PREPARED BY WEAVER CONSULTANTS GROUP, LLC IN NOVEMBER 2021 AND APPROVED BY ODEQ ON JANUARY 24, 2022.

LICENSED PROFESSIONAL ENGINEER
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10/13/2023

- [ ] DRAFT
- [x] FOR PERMITTING PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 09/2008
FILE: 0086-364-11
CAD: A-2 FINAL COVER PLAN.DWG

DRAWN BY: JDW
DESIGN BY: JBP
REVIEWED BY: JVQ

PREPARED FOR
WASTE MANAGEMENT OF OKLAHOMA, INC.

REVISIONS

NO.	DATE	DESCRIPTION
1	10/2023	REVISED TO INCLUDE EXPANSION AREA

Weaver Consultants Group
CA 3804 PE – 06/30/2025

ALTERNATE FINAL COVER
FINAL CONTOUR PLAN

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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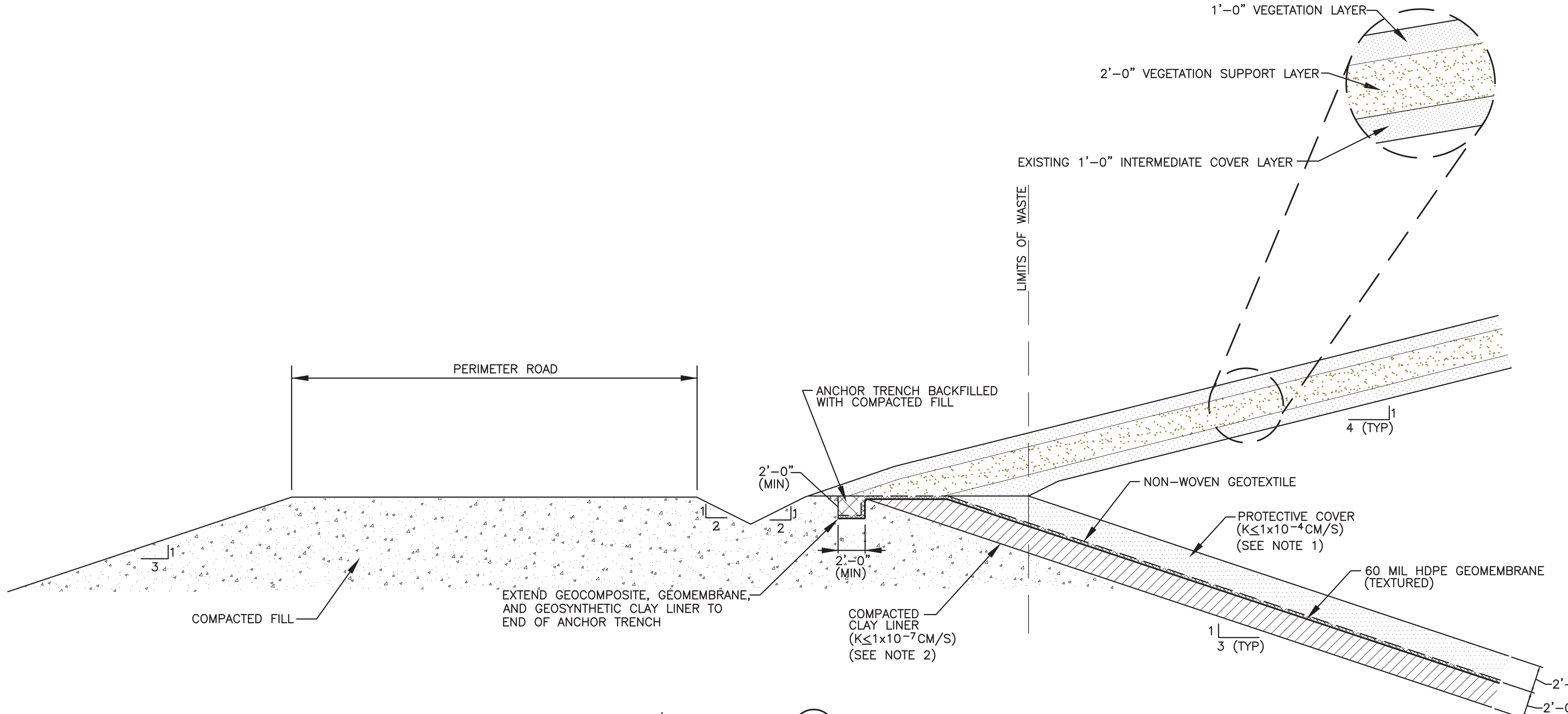
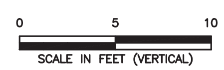
FIGURE A-2

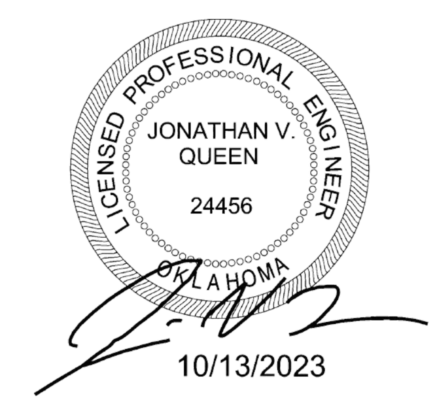


FINAL COVER/LINER TIE-IN D1 B-3 B-3



NOTES:

1. AN ALTERNATE TO THE 2 FEET OF CLAY IS 1 FOOT OF CLAY OVERLAIN BY A GCL.



10/13/2023

☐ DRAFT ☒ FOR PERMITTING PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR WASTE MANAGEMENT OF OKLAHOMA, INC.
DATE: 09/2008 FILE: 0086-364-11 CAD: FIGURE A-3.DWG	DRAWN BY: JDW DESIGN BY: JBP REVIEWED BY: JVQ

Weaver Consultants Group
CA 3804 PE – 06/30/2025

REVISIONS

NO.	DATE	DESCRIPTION
1	10/2023	REVISED DETAIL TO BE CONSISTENT WITH TIER III MODIFICATION.

TIER I PERMIT MODIFICATION
ALTERNATIVE FINAL COVER
FINAL COVER DETAILS

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

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FIGURE A-3

O:\0086\364\EXPANSION 2022\APPENDIX J\A-3 FINAL COVER DETAILS.dwg, jpuhr, 1:2

APPENDIX B

EQUIVALENCY DESIGN DEMONSTRATION

PRESCRIPTIVE SUBTITLE D COMPOSITE FINAL COVER SYSTEM UNSAT-H ANALYSIS

```
--------------------------------------------------------------------------------

                           Program DATAINH
                             Version2.03

--------------------------------------------------------------------------------

 Input Filename: S:\Nevzat\WinUnsatH\project.inp
 Date Processed: 15-JUL-**
 Time Processed:  9: 4:33

--------------------------------------------------------------------------------
 Title:
 Muskogee LF Subtitle D Final Cover
--------------------------------------------------------------------------------

 Options chosen include:

 IPLANT =   1        LOWER  =   1        NGRAV  =   1        ISWDIF =   1
 IHEAT  =   0        UPPERH =   0        LOWERH =   1
 NPRINT =   0        DAYEND = 365        NDAYS  = 365        NYEARS =   5
 IRAIN  =   1        ICONVH =   0
 NSURPE =   1        NFHOUR =   2        ITOPBC =   0        ET_OPT =   1
 ICLOUD =   0
 KOPT   =   4        KEST   =   3        IVAPOR =   1        SH_OPT =   1
 INMAX  =   2        INHMAX =   1
 HIRRI  =   1.00     HDRY   =  1.000E-06 HTOP   =   15.0     DHMAX  =   10.0
 DMAXBA =  1.000E-03 DELMAX =  0.250     DELMIN =  1.000E-04 STOPHR =   24.0
 OUTTIM =  0.250
 TORT   =  0.660     TSOIL  =   291.     VAPDIF =  0.240     QHTOP  =   0.00

 IVAPOR = 1:  This option allows vapor flow
 Saturated vapor density (g/cm3)
  of soil when soil temperature is
  a constant equal to TSOIL        =  1.521E-05
 100*MOLAR*GRAV/GASCON (K/cm)      =  2.123E-04
 VC (cm5/g/h)                      =  5.702E+02
 TGRAD  =   0.00     TSMEAN =   0.00     TSAMP  =   0.00     QHLEAK =   0.00
 WTF    =  0.500     RFACT  =   1.00     RAINIF =  1.000E-03 DHFACT =  0.100
 MATN   =   3        NPT    =  25

--------------------------------------------------------------------------------
 KOPT = 4:  van Genuchten functions for soil hydraulic properties

 THETA vs H, MAT 1,
      AIRINT =   0.0000                           THET =  0.40000
        THTR =  8.00000E-02                      ALPHA =  5.00000E-03
           N =   1.4800                              M =  0.32432
     K vs H, MAT 1,
      AIRINK =   0.0000                             SK =  0.18000
           A =  5.00000E-03                          N =   1.4800
           M =  0.32432                         KMODEL =   2.0000
        EPIT =  0.50000

 THETA vs H, MAT 2,
      AIRINT =   0.0000                           THET =  1.00000E-02
        THTR =  1.00000E-02                      ALPHA =  5.00000E-03
```

```
        N =   1.4800                                  M =  0.32432
    K vs H, MAT 2,
     AIRINK =   0.0000                               SK =  1.15000E-08
          A =  5.00000E-03                            N =   1.4800
          M =  0.32432                           KMODEL =   2.0000
       EPIT =  0.50000

THETA vs H, MAT 3,
     AIRINT =   0.0000                             THET =  0.32000
       THTR =  0.15000                            ALPHA =  5.00000E-03
          N =   1.4800                                M =  0.32432
    K vs H, MAT 3,
     AIRINK =   0.0000                               SK =  3.60000E-02
          A =  5.00000E-03                            N =   1.4800
          M =  0.32432                           KMODEL =   2.0000
       EPIT =  0.50000
```

Surface node hydraulic properties

```
HIRRI =       1.0     , THETA = 0.4000, K =   1.5281E-01, C =  -6.0345E-05
HDRY  =      1.00E-06, THETA = 0.4000, K =   1.8000E-01, C =  -7.9592E-08
NDAY =   0
```

NODE	Z	MAT	HEAD	CONDUCTIVITY	CAPACITY	THETA	TEMP
1	0.00	1	1.0000E+03	9.6214E-05	-6.3106E-05	0.2236	291.0
2	5.00	1	1.0000E+03	9.6214E-05	-6.3106E-05	0.2236	291.0
3	9.00	1	1.0000E+03	9.6214E-05	-6.3106E-05	0.2236	291.0
4	12.00	1	1.0000E+03	9.6214E-05	-6.3106E-05	0.2236	291.0
5	15.00	1	1.0000E+02	2.1082E-02	-3.6699E-04	0.3697	291.0
6	18.00	1	1.0000E+02	2.1082E-02	-3.6699E-04	0.3697	291.0
7	21.00	1	1.0000E+02	2.1082E-02	-3.6699E-04	0.3697	291.0
8	25.00	1	1.0000E+02	2.1082E-02	-3.6699E-04	0.3697	291.0
9	30.00	1	1.0000E+02	2.1082E-02	-3.6699E-04	0.3697	291.0
10	30.50	1	1.0000E+02	2.1082E-02	-3.6699E-04	0.3697	291.0
11	30.60	2	1.0000E+02	1.3469E-09	0.0000E+00	0.0100	291.0
12	30.70	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
13	35.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
14	40.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
15	45.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
16	50.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
17	55.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
18	60.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
19	65.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
20	70.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
21	75.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
22	80.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
23	85.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
24	90.00	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0
25	91.50	3	1.0000E+02	4.2164E-03	-1.9496E-04	0.3039	291.0

Total Initial Storage = 27.8173 cm

IPLANT = 1

LEAF= 1, NFROOT= 1, NUPTAK= 1, NFPET= 1, NSOW= 81, NHRVST=335

Total number of Growth Day - Leaf Area Index (LAI) data pairs = 5

Growth Day	LAI
0	0.100
81	2.000
320	2.000
335	2.000
364	0.100

BARE = 0.050

DAY	LAI	DAY	LAI	DAY	LAI	DAY	LAI	DAY	LAI	DAY	LAI
1	0.123	2	0.147	3	0.170	4	0.194	5	0.217	6	0.241
7	0.264	8	0.288	9	0.311	10	0.335	11	0.358	12	0.381
13	0.405	14	0.428	15	0.452	16	0.475	17	0.499	18	0.522
19	0.546	20	0.569	21	0.593	22	0.616	23	0.640	24	0.663
25	0.686	26	0.710	27	0.733	28	0.757	29	0.780	30	0.804
31	0.827	32	0.851	33	0.874	34	0.898	35	0.921	36	0.944
37	0.968	38	0.991	39	1.015	40	1.038	41	1.062	42	1.085
43	1.109	44	1.132	45	1.156	46	1.179	47	1.202	48	1.226
49	1.249	50	1.273	51	1.296	52	1.320	53	1.343	54	1.367
55	1.390	56	1.414	57	1.437	58	1.460	59	1.484	60	1.507
61	1.531	62	1.554	63	1.578	64	1.601	65	1.625	66	1.648
67	1.672	68	1.695	69	1.719	70	1.742	71	1.765	72	1.789
73	1.812	74	1.836	75	1.859	76	1.883	77	1.906	78	1.930
79	1.953	80	1.977	81	2.000	82	2.000	83	2.000	84	2.000
85	2.000	86	2.000	87	2.000	88	2.000	89	2.000	90	2.000
91	2.000	92	2.000	93	2.000	94	2.000	95	2.000	96	2.000
97	2.000	98	2.000	99	2.000	100	2.000	101	2.000	102	2.000
103	2.000	104	2.000	105	2.000	106	2.000	107	2.000	108	2.000
109	2.000	110	2.000	111	2.000	112	2.000	113	2.000	114	2.000
115	2.000	116	2.000	117	2.000	118	2.000	119	2.000	120	2.000
121	2.000	122	2.000	123	2.000	124	2.000	125	2.000	126	2.000
127	2.000	128	2.000	129	2.000	130	2.000	131	2.000	132	2.000
133	2.000	134	2.000	135	2.000	136	2.000	137	2.000	138	2.000
139	2.000	140	2.000	141	2.000	142	2.000	143	2.000	144	2.000
145	2.000	146	2.000	147	2.000	148	2.000	149	2.000	150	2.000
151	2.000	152	2.000	153	2.000	154	2.000	155	2.000	156	2.000
157	2.000	158	2.000	159	2.000	160	2.000	161	2.000	162	2.000
163	2.000	164	2.000	165	2.000	166	2.000	167	2.000	168	2.000
169	2.000	170	2.000	171	2.000	172	2.000	173	2.000	174	2.000
175	2.000	176	2.000	177	2.000	178	2.000	179	2.000	180	2.000
181	2.000	182	2.000	183	2.000	184	2.000	185	2.000	186	2.000
187	2.000	188	2.000	189	2.000	190	2.000	191	2.000	192	2.000
193	2.000	194	2.000	195	2.000	196	2.000	197	2.000	198	2.000
199	2.000	200	2.000	201	2.000	202	2.000	203	2.000	204	2.000
205	2.000	206	2.000	207	2.000	208	2.000	209	2.000	210	2.000
211	2.000	212	2.000	213	2.000	214	2.000	215	2.000	216	2.000
217	2.000	218	2.000	219	2.000	220	2.000	221	2.000	222	2.000
223	2.000	224	2.000	225	2.000	226	2.000	227	2.000	228	2.000
229	2.000	230	2.000	231	2.000	232	2.000	233	2.000	234	2.000
235	2.000	236	2.000	237	2.000	238	2.000	239	2.000	240	2.000
241	2.000	242	2.000	243	2.000	244	2.000	245	2.000	246	2.000

247	2.000	248	2.000	249	2.000	250	2.000	251	2.000	252	2.000
253	2.000	254	2.000	255	2.000	256	2.000	257	2.000	258	2.000
259	2.000	260	2.000	261	2.000	262	2.000	263	2.000	264	2.000
265	2.000	266	2.000	267	2.000	268	2.000	269	2.000	270	2.000
271	2.000	272	2.000	273	2.000	274	2.000	275	2.000	276	2.000
277	2.000	278	2.000	279	2.000	280	2.000	281	2.000	282	2.000
283	2.000	284	2.000	285	2.000	286	2.000	287	2.000	288	2.000
289	2.000	290	2.000	291	2.000	292	2.000	293	2.000	294	2.000
295	2.000	296	2.000	297	2.000	298	2.000	299	2.000	300	2.000
301	2.000	302	2.000	303	2.000	304	2.000	305	2.000	306	2.000
307	2.000	308	2.000	309	2.000	310	2.000	311	2.000	312	2.000
313	2.000	314	2.000	315	2.000	316	2.000	317	2.000	318	2.000
319	2.000	320	2.000	321	2.000	322	2.000	323	2.000	324	2.000
325	2.000	326	2.000	327	2.000	328	2.000	329	2.000	330	2.000
331	2.000	332	2.000	333	2.000	334	2.000	335	2.000	336	1.934
337	1.869	338	1.803	339	1.738	340	1.672	341	1.607	342	1.541
343	1.476	344	1.410	345	1.345	346	1.279	347	1.214	348	1.148
349	1.083	350	1.017	351	0.952	352	0.886	353	0.821	354	0.755
355	0.690	356	0.624	357	0.559	358	0.493	359	0.428	360	0.362
361	0.297	362	0.231	363	0.166	364	0.100	365	0.000		

NFROOT = 1: Negative exponential representation of root growth

AA (intersection of the curve at z=0 with abscissa) = 1.300
B1 (coefficient defining degree of curvature) = 0.13000
B2 (coefficient that determines the value of asymptote = 0.020

Root depth, density, and weight/node versus depth

DAY	MAX ROOT DEPTH	ROOT DENSITY (cm/cm)	NORMALIZED DENSITY (1/cm)
1	0.00	0.000	0.0000
1	5.00	0.699	0.1718
1	9.00	0.423	0.1041
1	12.00	0.293	0.0721
1	15.00	0.205	0.0504

MXROOT (deepest node to which roots penetrate) = 5
NUPTAK = 1: Feddes et al. 1975 moisture dependent sink term

For Material No. 1

THETAW (wilting point moisture content) = 0.1203
THETAD (lower limit of optimum moisture content) = 0.1667
THETAN (upper limit of optimum moisture content) = 0.3988

For Material No. 2

THETAW (wilting point moisture content) = 0.0100
THETAD (lower limit of optimum moisture content) = 0.0100
THETAN (upper limit of optimum moisture content) = 0.0100

For Material No. 3

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 THETAW (wilting point moisture content)          =     0.1714
 THETAD (lower limit of optimum moisture content) =     0.1961
 THETAN (upper limit of optimum moisture content) =     0.3194
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NFHOUR = 2:  User subroutine for hourly PET distribution

  0.0100   0.0100   0.0100   0.0100   0.0100   0.0100   0.0150   0.0440
  0.0699   0.0911   0.1061   0.1139   0.1139   0.1061   0.0911   0.0699
  0.0440   0.0150   0.0100   0.0100   0.0100   0.0100   0.0100   0.0100
ET_OPT = 1 and IHEAT = 0:
PET calculated from meteorological data
using subroutine CALPEN

ALBEDO =  2.000E-01
   ALT =  7.040E+02 (m)
    ZU =  5.000E-01 (m)
   PMB =  1.000E+03 (mb)


ET_OPT = 1:  Meteorological Data
```

IDAY	Temperature Max F	Temperature Min F	Temperature Dew F	Solar Rad ly/d	Wind Speed mph	Cloud Cover tenth	Prec. in
1.	29.	12.	18.6	225.	3.9	0.0	0.03
2.	24.	0.	8.9	268.	2.5	0.0	0.01
3.	36.	10.	20.3	273.	4.1	0.0	0.04
4.	48.	14.	25.1	275.	2.4	0.0	0.31
5.	56.	22.	26.8	283.	1.6	0.0	0.42
6.	57.	25.	29.5	245.	3.4	0.0	0.20
7.	43.	33.	31.3	153.	7.5	0.0	0.00
8.	49.	25.	27.3	286.	3.0	0.0	0.00
9.	45.	22.	26.9	285.	4.9	0.0	0.00
10.	45.	28.	30.0	150.	5.3	0.0	0.08
11.	41.	32.	35.1	90.	3.0	0.0	0.16
12.	43.	27.	36.2	69.	6.1	0.0	0.01
13.	48.	37.	39.6	25.	13.5	0.0	0.02
14.	50.	28.	31.4	292.	6.0	0.0	0.00
15.	51.	23.	27.4	269.	1.9	0.0	0.00
16.	37.	27.	29.0	61.	7.2	0.0	0.00
17.	35.	29.	28.9	84.	9.2	0.0	0.04
18.	46.	28.	26.4	205.	5.2	0.0	0.01
19.	33.	21.	17.0	269.	8.9	0.0	0.00
20.	36.	12.	13.2	293.	3.2	0.0	0.00
21.	49.	24.	24.0	253.	2.4	0.0	0.00
22.	54.	22.	26.8	314.	2.8	0.0	0.00
23.	55.	33.	35.6	159.	4.0	0.0	0.00
24.	51.	31.	29.0	456.	5.6	0.0	0.00
25.	50.	20.	22.0	334.	8.1	0.0	0.00
26.	57.	28.	32.4	326.	11.5	0.0	0.00
27.	39.	24.	24.5	221.	7.1	0.0	0.40
28.	43.	36.	37.5	23.	5.6	0.0	2.07
29.	46.	35.	36.0	92.	7.0	0.0	0.60
30.	54.	37.	31.2	270.	9.1	0.0	0.00

31.	50.	27.	22.0	352.	6.6	0.0	0.00
32.	54.	23.	25.0	324.	7.9	0.0	0.00
33.	44.	17.	16.9	857.	20.6	0.0	0.00
34.	58.	29.	30.3	884.	23.4	0.0	0.00
35.	57.	34.	30.5	950.	31.2	0.0	0.00
36.	62.	25.	28.6	936.	23.9	0.0	0.00
37.	62.	36.	35.0	989.	14.8	0.0	0.00
38.	66.	37.	48.4	1036.	0.0	0.0	0.00
39.	73.	61.	60.4	1201.	0.0	0.0	0.00
40.	69.	25.	26.7	1065.	0.0	0.0	0.00
41.	38.	20.	19.2	943.	13.2	0.0	0.00
42.	46.	26.	26.6	943.	22.5	0.0	0.00
43.	43.	38.	39.3	59.	6.5	0.0	0.01
44.	55.	42.	48.0	1055.	0.0	0.0	0.00
45.	65.	31.	50.6	1160.	0.0	0.0	0.00
46.	31.	29.	28.4	25.	5.8	0.0	0.00
47.	34.	25.	25.2	927.	33.4	0.0	0.15
48.	38.	19.	16.4	872.	20.8	0.0	0.05
49.	49.	21.	26.3	881.	24.0	0.0	0.02
50.	65.	34.	38.9	979.	25.7	0.0	0.00
51.	57.	37.	44.5	1029.	0.0	0.0	0.00
52.	46.	28.	28.8	993.	25.5	0.0	0.01
53.	48.	25.	26.2	972.	15.3	0.0	0.00
54.	44.	32.	36.9	955.	32.7	0.0	2.12
55.	65.	42.	46.3	1086.	0.0	0.0	0.00
56.	52.	36.	30.7	1072.	0.0	0.0	0.00
57.	65.	36.	37.1	1086.	0.0	0.0	0.00
58.	54.	31.	39.8	1103.	0.0	0.0	0.00
59.	31.	27.	27.8	950.	23.9	0.0	0.00
60.	43.	30.	34.5	107.	6.4	0.0	0.15
61.	47.	29.	36.7	161.	2.9	0.0	0.00
62.	53.	35.	36.2	272.	7.5	0.0	0.00
63.	58.	36.	32.0	466.	7.4	0.0	0.00
64.	56.	28.	31.0	470.	5.0	0.0	0.00
65.	56.	29.	29.2	332.	4.3	0.0	0.00
66.	61.	33.	31.3	433.	4.9	0.0	0.00
67.	55.	32.	32.0	290.	5.1	0.0	0.00
68.	61.	30.	28.1	484.	4.4	0.0	0.00
69.	65.	34.	31.8	489.	9.3	0.0	0.00
70.	64.	50.	42.9	123.	8.7	0.0	0.59
71.	59.	39.	42.0	420.	5.9	0.0	0.06
72.	73.	38.	35.6	517.	4.7	0.0	0.00
73.	66.	40.	45.8	216.	10.3	0.0	0.00
74.	53.	41.	41.9	73.	12.3	0.0	0.09
75.	52.	33.	29.5	378.	7.9	0.0	0.00
76.	54.	30.	28.6	420.	6.6	0.0	0.00
77.	50.	39.	32.9	188.	5.1	0.0	0.00
78.	55.	39.	34.6	323.	4.8	0.0	0.00
79.	62.	29.	31.2	544.	3.4	0.0	0.00
80.	72.	32.	32.8	454.	6.4	0.0	0.00
81.	76.	50.	42.2	437.	8.2	0.0	0.00
82.	74.	44.	45.0	439.	4.8	0.0	0.00
83.	59.	36.	28.1	376.	17.5	0.0	0.00
84.	45.	30.	20.4	277.	8.0	0.0	0.00
85.	48.	32.	17.2	463.	6.3	0.0	0.00
86.	50.	40.	26.4	183.	4.3	0.0	0.09
87.	45.	40.	39.8	76.	5.0	0.0	0.05

88.	50.	42.	42.5	123.	2.9	0.0	0.02
89.	65.	39.	42.7	513.	3.1	0.0	0.00
90.	62.	38.	38.7	460.	5.6	0.0	0.01
91.	69.	33.	36.8	263.	6.8	0.0	0.00
92.	73.	59.	57.4	109.	10.8	0.0	0.01
93.	87.	66.	64.5	336.	9.4	0.0	0.00
94.	89.	59.	64.4	503.	5.7	0.0	0.00
95.	80.	67.	67.3	236.	10.7	0.0	0.00
96.	84.	71.	63.0	223.	15.9	0.0	0.00
97.	84.	67.	46.6	594.	12.1	0.0	0.00
98.	86.	66.	63.6	425.	12.6	0.0	0.00
99.	86.	68.	64.5	700.	9.1	0.0	0.00
100.	80.	70.	65.8	163.	10.9	0.0	0.00
101.	75.	54.	43.7	609.	18.4	0.0	0.49
102.	68.	42.	41.3	349.	9.1	0.0	0.00
103.	79.	40.	47.0	612.	4.1	0.0	0.00
104.	72.	52.	57.9	234.	7.8	0.0	0.00
105.	74.	51.	53.2	622.	7.2	0.0	0.77
106.	63.	45.	39.8	469.	9.7	0.0	0.00
107.	58.	38.	31.1	655.	8.6	0.0	0.00
108.	67.	32.	35.0	586.	5.8	0.0	0.00
109.	70.	55.	51.9	287.	14.6	0.0	0.00
110.	76.	70.	64.7	203.	15.6	0.0	0.00
111.	74.	68.	63.4	162.	13.7	0.0	0.00
112.	79.	63.	61.7	150.	16.1	0.0	1.15
113.	70.	46.	41.5	638.	7.3	0.0	0.10
114.	70.	40.	41.8	657.	2.1	0.0	0.00
115.	80.	45.	46.5	665.	3.7	0.0	0.00
116.	84.	50.	50.6	640.	5.4	0.0	0.00
117.	82.	54.	50.6	657.	5.5	0.0	0.00
118.	82.	51.	53.7	626.	3.8	0.0	0.00
119.	82.	52.	52.4	661.	6.3	0.0	0.00
120.	81.	53.	52.3	535.	7.4	0.0	0.00
121.	84.	61.	59.8	620.	10.0	0.0	0.00
122.	81.	66.	62.9	494.	13.6	0.0	0.00
123.	82.	65.	63.2	483.	9.1	0.0	0.00
124.	80.	64.	62.5	356.	10.2	0.0	0.10
125.	76.	64.	63.1	390.	9.5	0.0	0.27
126.	77.	60.	62.1	353.	8.6	0.0	0.00
127.	76.	52.	52.9	579.	7.0	0.0	0.00
128.	81.	45.	51.8	694.	2.4	0.0	0.00
129.	84.	55.	59.2	680.	6.0	0.0	0.00
130.	81.	64.	62.6	327.	7.9	0.0	0.07
131.	80.	61.	63.8	273.	5.6	0.0	0.52
132.	81.	59.	60.1	693.	3.7	0.0	0.00
133.	84.	56.	62.7	604.	5.2	0.0	0.00
134.	85.	66.	64.6	636.	8.2	0.0	0.00
135.	86.	67.	63.2	683.	9.9	0.0	0.00
136.	86.	68.	67.7	490.	6.8	0.0	0.00
137.	85.	65.	69.3	465.	7.3	0.0	0.46
138.	82.	65.	65.5	499.	6.3	0.0	0.72
139.	81.	61.	65.9	462.	2.8	0.0	0.03
140.	80.	66.	67.3	372.	5.7	0.0	0.50
141.	67.	50.	49.5	369.	8.2	0.0	0.10
142.	77.	45.	45.5	718.	7.1	0.0	0.00
143.	82.	49.	50.2	699.	5.8	0.0	0.02
144.	69.	49.	42.4	656.	6.3	0.0	0.00

145.	72.	48.	46.6	660.	4.4	0.0	0.00
146.	82.	47.	53.7	676.	3.4	0.0	0.00
147.	87.	58.	63.1	532.	5.3	0.0	1.47
148.	84.	61.	63.3	712.	4.7	0.0	0.00
149.	73.	65.	66.2	116.	7.8	0.0	1.19
150.	75.	62.	64.9	256.	7.4	0.0	1.47
151.	68.	57.	58.3	187.	4.9	0.0	0.00
152.	81.	50.	58.5	700.	4.5	0.0	0.00
153.	78.	68.	57.3	710.	6.9	0.0	0.00
154.	88.	67.	67.9	481.	9.3	0.0	0.00
155.	88.	77.	71.6	549.	11.3	0.0	0.00
156.	87.	73.	70.6	491.	9.8	0.0	0.00
157.	87.	69.	67.9	643.	5.4	0.0	0.00
158.	89.	67.	68.6	639.	6.5	0.0	0.00
159.	88.	68.	70.4	579.	4.0	0.0	0.08
160.	88.	69.	70.0	630.	3.1	0.0	0.00
161.	89.	68.	70.2	629.	5.2	0.0	0.00
162.	90.	69.	68.9	718.	6.3	0.0	0.00
163.	90.	71.	68.5	712.	11.4	0.0	0.00
164.	90.	75.	72.1	559.	14.0	0.0	0.00
165.	88.	67.	71.0	278.	10.2	0.0	0.89
166.	88.	62.	61.5	710.	3.0	0.0	0.01
167.	90.	62.	60.7	737.	6.5	0.0	0.00
168.	89.	65.	61.7	608.	7.3	0.0	0.00
169.	90.	67.	63.9	726.	8.2	0.0	0.00
170.	90.	69.	66.8	691.	6.5	0.0	0.00
171.	85.	69.	69.0	480.	5.6	0.0	0.02
172.	80.	62.	64.8	419.	5.5	0.0	0.11
173.	84.	57.	58.8	661.	3.2	0.0	0.00
174.	88.	60.	61.8	700.	4.2	0.0	0.00
175.	90.	63.	63.9	704.	5.0	0.0	0.00
176.	89.	64.	63.9	704.	5.2	0.0	0.00
177.	88.	63.	64.7	663.	4.9	0.0	0.00
178.	91.	65.	67.1	652.	4.6	0.0	0.00
179.	76.	68.	67.2	193.	8.0	0.0	1.50
180.	84.	67.	68.3	472.	9.7	0.0	0.46
181.	85.	70.	70.2	517.	4.5	0.0	0.00
182.	88.	68.	71.4	647.	3.7	0.0	0.00
183.	89.	69.	70.0	676.	4.7	0.0	0.00
184.	90.	68.	70.4	616.	4.9	0.0	0.00
185.	96.	70.	71.2	677.	5.8	0.0	0.00
186.	91.	75.	72.8	474.	6.3	0.0	0.00
187.	97.	73.	74.3	698.	6.3	0.0	0.00
188.	96.	77.	73.6	703.	7.5	0.0	0.00
189.	97.	74.	72.2	701.	6.9	0.0	0.00
190.	98.	74.	72.0	706.	4.6	0.0	0.00
191.	97.	72.	72.7	649.	4.0	0.0	0.00
192.	97.	73.	73.9	678.	5.1	0.0	0.00
193.	101.	77.	73.4	646.	5.8	0.0	0.00
194.	82.	75.	72.3	299.	9.7	0.0	0.00
195.	86.	70.	65.0	516.	5.9	0.0	0.00
196.	87.	66.	67.0	451.	7.1	0.0	0.00
197.	94.	74.	73.6	510.	9.9	0.0	0.18
198.	98.	78.	75.0	664.	8.5	0.0	0.00
199.	98.	76.	74.6	663.	8.0	0.0	0.00
200.	97.	79.	73.7	667.	7.2	0.0	0.00
201.	95.	75.	71.4	665.	6.3	0.0	0.00

202.	100.	73.	71.6	674.	5.3	0.0	0.00
203.	100.	74.	70.5	686.	6.4	0.0	0.00
204.	100.	73.	70.3	666.	6.2	0.0	0.00
205.	100.	75.	73.3	656.	4.3	0.0	0.00
206.	99.	79.	72.7	603.	6.2	0.0	0.00
207.	97.	75.	73.8	513.	4.7	0.0	0.00
208.	95.	78.	73.8	410.	6.1	0.0	0.00
209.	97.	77.	73.5	553.	6.5	0.0	0.06
210.	95.	75.	74.9	579.	5.5	0.0	0.00
211.	100.	76.	73.0	628.	7.1	0.0	0.00
212.	99.	77.	71.3	654.	7.2	0.0	0.00
213.	99.	72.	69.8	660.	5.7	0.0	0.00
214.	97.	74.	71.9	631.	5.8	0.0	0.00
215.	97.	69.	68.6	642.	2.7	0.0	0.00
216.	101.	70.	69.0	649.	2.6	0.0	0.00
217.	101.	74.	70.4	651.	3.9	0.0	0.00
218.	98.	68.	66.2	641.	3.9	0.0	0.00
219.	97.	70.	70.3	609.	3.0	0.0	0.00
220.	98.	73.	70.0	555.	4.5	0.0	0.00
221.	104.	79.	68.7	595.	6.8	0.0	0.00
222.	98.	74.	71.6	505.	4.2	0.0	0.28
223.	88.	73.	74.1	335.	2.1	0.0	0.00
224.	94.	73.	73.4	495.	3.4	0.0	0.00
225.	96.	70.	66.7	597.	4.5	0.0	0.00
226.	95.	66.	63.0	637.	3.9	0.0	0.00
227.	95.	70.	68.0	419.	9.3	0.0	0.73
228.	91.	68.	68.1	585.	3.1	0.0	0.00
229.	93.	67.	69.1	590.	4.4	0.0	0.00
230.	93.	68.	69.7	581.	5.3	0.0	0.00
231.	92.	66.	59.7	627.	5.3	0.0	0.00
232.	98.	67.	65.6	557.	6.5	0.0	0.00
233.	96.	73.	67.6	570.	9.2	0.0	0.00
234.	96.	78.	68.3	585.	5.1	0.0	0.00
235.	90.	74.	69.5	218.	6.3	0.0	0.32
236.	92.	73.	68.0	388.	8.7	0.0	0.07
237.	97.	73.	70.4	395.	7.2	0.0	0.49
238.	92.	69.	70.3	533.	4.0	0.0	0.00
239.	94.	71.	70.8	606.	2.6	0.0	0.00
240.	93.	68.	70.0	591.	3.8	0.0	0.00
241.	90.	68.	68.3	555.	5.4	0.0	0.00
242.	86.	73.	69.5	492.	7.0	0.0	0.00
243.	89.	66.	65.9	492.	4.9	0.0	0.00
244.	90.	66.	67.5	571.	4.0	0.0	0.00
245.	92.	67.	68.6	581.	3.4	0.0	0.00
246.	94.	68.	68.9	495.	2.8	0.0	0.00
247.	91.	68.	69.3	382.	3.0	0.0	0.00
248.	88.	72.	71.4	243.	3.7	0.0	0.03
249.	88.	72.	70.7	402.	10.2	0.0	0.01
250.	91.	66.	70.3	380.	14.1	0.0	0.41
251.	77.	62.	64.4	213.	3.9	0.0	0.86
252.	79.	55.	56.2	529.	5.2	0.0	0.01
253.	82.	49.	53.8	588.	2.0	0.0	0.00
254.	84.	52.	56.8	569.	3.1	0.0	0.00
255.	86.	55.	58.7	544.	2.5	0.0	0.00
256.	88.	55.	60.4	552.	2.1	0.0	0.00
257.	88.	60.	64.4	402.	4.1	0.0	0.00
258.	76.	66.	65.4	187.	6.6	0.0	0.26

259.	77.	68.	68.4	144.	4.8	0.0	0.18
260.	84.	70.	69.9	232.	6.6	0.0	0.01
261.	77.	66.	67.6	252.	7.0	0.0	1.04
262.	81.	63.	61.1	479.	4.0	0.0	0.00
263.	77.	58.	62.9	210.	4.8	0.0	0.00
264.	80.	62.	65.6	315.	3.9	0.0	0.00
265.	85.	60.	66.2	405.	2.8	0.0	0.00
266.	82.	60.	61.3	437.	9.1	0.0	0.01
267.	69.	50.	47.9	418.	9.9	0.0	0.00
268.	71.	42.	45.3	527.	2.6	0.0	0.00
269.	77.	40.	48.6	515.	2.0	0.0	0.00
270.	78.	48.	51.4	490.	3.6	0.0	0.00
271.	80.	50.	53.8	484.	2.7	0.0	0.00
272.	77.	48.	51.0	498.	4.0	0.0	0.00
273.	78.	44.	49.5	500.	1.9	0.0	0.00
274.	80.	44.	49.9	493.	1.7	0.0	0.00
275.	81.	47.	51.4	486.	6.0	0.0	0.01
276.	82.	57.	55.6	436.	7.9	0.0	0.00
277.	83.	63.	63.4	378.	9.3	0.0	0.00
278.	73.	38.	48.8	167.	11.2	0.0	0.09
279.	68.	33.	38.0	483.	2.0	0.0	0.00
280.	69.	36.	40.5	466.	5.6	0.0	0.00
281.	76.	47.	48.9	445.	11.7	0.0	0.00
282.	73.	66.	61.2	126.	12.2	0.0	0.59
283.	75.	60.	63.4	27.	7.4	0.0	2.14
284.	62.	57.	58.7	57.	3.5	0.0	0.24
285.	73.	56.	58.7	313.	7.0	0.0	0.57
286.	69.	47.	51.5	263.	4.2	0.0	0.00
287.	71.	43.	44.3	407.	3.5	0.0	0.00
288.	73.	37.	44.3	271.	9.3	0.0	0.00
289.	66.	31.	34.8	449.	2.5	0.0	0.00
290.	70.	36.	37.5	436.	6.8	0.0	0.00
291.	75.	53.	47.2	405.	10.4	0.0	0.00
292.	68.	46.	52.5	184.	2.4	0.0	0.00
293.	82.	47.	57.0	370.	5.6	0.0	0.00
294.	80.	60.	59.4	384.	8.4	0.0	0.00
295.	80.	58.	62.8	245.	9.3	0.0	0.00
296.	85.	58.	61.2	336.	7.6	0.0	0.00
297.	72.	42.	44.9	398.	8.9	0.0	0.00
298.	67.	34.	29.8	408.	4.2	0.0	0.00
299.	67.	31.	30.8	398.	3.2	0.0	0.00
300.	65.	30.	30.8	400.	3.1	0.0	0.00
301.	70.	39.	34.6	380.	9.4	0.0	0.00
302.	75.	48.	40.5	333.	8.5	0.0	0.00
303.	73.	43.	41.2	378.	6.3	0.0	0.00
304.	71.	53.	49.8	220.	12.9	0.0	0.00
305.	78.	62.	60.5	148.	11.3	0.0	0.00
306.	69.	61.	62.8	86.	5.1	0.0	0.00
307.	64.	59.	61.4	46.	4.4	0.0	2.78
308.	74.	53.	59.3	214.	1.5	0.0	0.00
309.	75.	49.	55.0	233.	1.2	0.0	0.00
310.	77.	47.	53.5	294.	3.9	0.0	0.00
311.	78.	49.	48.3	337.	5.9	0.0	0.00
312.	62.	49.	46.9	224.	8.4	0.0	0.03
313.	58.	40.	40.2	236.	4.8	0.0	0.00
314.	71.	45.	45.2	332.	2.9	0.0	0.00
315.	71.	40.	46.6	315.	3.0	0.0	0.00

316.	68.	45.	47.4	218.	7.0	0.0	0.00
317.	72.	48.	53.2	225.	8.6	0.0	0.00
318.	72.	55.	54.8	226.	8.2	0.0	0.00
319.	72.	46.	51.0	275.	2.9	0.0	0.00
320.	69.	45.	50.9	139.	1.9	0.0	0.00
321.	67.	56.	53.2	104.	3.7	0.0	0.00
322.	74.	55.	57.1	222.	8.2	0.0	0.41
323.	61.	32.	34.0	254.	11.9	0.0	0.35
324.	56.	26.	26.2	308.	2.6	0.0	0.00
325.	59.	28.	29.5	252.	5.3	0.0	0.00
326.	67.	41.	42.4	283.	11.2	0.0	0.00
327.	73.	53.	55.3	122.	13.2	0.0	0.00
328.	59.	48.	41.7	60.	11.3	0.0	0.00
329.	70.	33.	37.5	294.	8.2	0.0	0.00
330.	63.	38.	37.1	81.	11.3	0.0	0.00
331.	39.	29.	21.2	162.	8.4	0.0	0.00
332.	30.	26.	25.8	55.	13.1	0.0	0.00
333.	34.	28.	28.5	51.	6.7	0.0	0.00
334.	57.	30.	32.6	291.	7.9	0.0	0.31
335.	62.	28.	37.4	199.	3.1	0.0	0.00
336.	71.	33.	44.3	280.	7.6	0.0	0.00
337.	62.	53.	54.8	71.	9.8	0.0	0.00
338.	75.	61.	60.6	155.	12.6	0.0	0.00
339.	75.	51.	53.6	95.	12.2	0.0	0.00
340.	66.	38.	39.6	140.	3.0	0.0	0.00
341.	67.	33.	43.0	206.	4.1	0.0	0.00
342.	53.	28.	27.4	257.	10.0	0.0	0.00
343.	55.	22.	23.4	288.	1.4	0.0	0.00
344.	56.	20.	25.1	285.	5.2	0.0	0.00
345.	51.	28.	35.3	141.	8.9	0.0	0.26
346.	52.	46.	48.7	31.	4.0	0.0	0.13
347.	49.	44.	45.0	54.	4.6	0.0	0.25
348.	48.	37.	40.7	111.	6.6	0.0	0.00
349.	49.	40.	42.2	52.	11.4	0.0	0.00
350.	53.	47.	49.3	16.	6.1	0.0	1.49
351.	57.	35.	37.8	276.	5.3	0.0	0.33
352.	66.	31.	35.5	277.	7.9	0.0	0.00
353.	50.	28.	23.5	284.	7.0	0.0	0.00
354.	61.	27.	28.2	275.	4.9	0.0	0.00
355.	63.	32.	33.2	268.	10.6	0.0	0.00
356.	60.	28.	36.6	268.	11.5	0.0	0.00
357.	43.	21.	14.7	279.	6.1	0.0	0.00
358.	42.	19.	16.1	289.	5.4	0.0	0.00
359.	39.	16.	19.1	261.	2.4	0.0	0.00
360.	39.	21.	14.7	284.	6.5	0.0	0.00
361.	51.	23.	26.0	233.	2.8	0.0	0.00
362.	58.	22.	26.7	230.	4.0	0.0	0.00
363.	37.	20.	14.2	275.	8.6	0.0	0.00
364.	27.	16.	15.1	76.	3.3	0.0	0.00
365.	38.	13.	16.4	266.	1.6	0.0	0.00

NFPET = 1:

PET is partitioned into PT and PE according to the relationship developed by Ritchie (1972)

DAY	PET	PTRANS	PEVAPO	DAY	PET	PTRANS	PEVAPO

1	0.0344	0.0000	0.0344	2	0.0446	0.0000	0.0446
3	0.0652	0.0000	0.0652	4	0.0920	0.0000	0.0920
5	0.1353	0.0000	0.1353	6	0.1549	0.0000	0.1549
7	0.1085	0.0000	0.1085	8	0.1473	0.0000	0.1473
9	0.1392	0.0000	0.1392	10	0.0714	0.0000	0.0714
11	0.0000	0.0000	0.0000	12	0.0000	0.0000	0.0000
13	0.0037	0.0000	0.0037	14	0.1895	0.0000	0.1895
15	0.1157	0.0000	0.1157	16	0.0000	0.0000	0.0000
17	0.0122	0.0000	0.0122	18	0.1497	0.0000	0.1497
19	0.2042	0.0000	0.2042	20	0.1231	0.0000	0.1231
21	0.1310	0.0000	0.1310	22	0.1736	0.0000	0.1736
23	0.0905	0.0000	0.0905	24	0.3505	0.0000	0.3505
25	0.3079	0.0000	0.3079	26	0.3789	0.0000	0.3789
27	0.1306	0.0000	0.1306	28	0.0000	0.0000	0.0000
29	0.0307	0.0000	0.0307	30	0.3811	0.0000	0.3811
31	0.3426	0.0000	0.3426	32	0.3257	0.0000	0.3257
33	0.8340	0.0000	0.8340	34	1.1620	0.0000	1.1620
35	1.5681	0.0000	1.5681	36	1.2792	0.0000	1.2792
37	1.1146	0.0000	1.1146	38	0.6816	0.0000	0.6816
39	1.0053	0.0000	1.0053	40	0.6911	0.0000	0.6911
41	0.6259	0.0000	0.6259	42	0.8859	0.0000	0.8859
43	0.0000	0.0000	0.0000	44	0.6556	0.0000	0.6556
45	0.7157	0.0000	0.7157	46	0.0000	0.0000	0.0000
47	0.6604	0.0000	0.6604	48	0.7685	0.0000	0.7685
49	0.8301	0.0000	0.8301	50	1.2925	0.0000	1.2925
51	0.6273	0.0000	0.6273	52	0.9353	0.0000	0.9353
53	0.8044	0.0000	0.8044	54	0.5666	0.0000	0.5666
55	0.7538	0.0000	0.7538	56	0.6519	0.0000	0.6519
57	0.7344	0.0000	0.7344	58	0.6304	0.0000	0.6304
59	0.4525	0.0000	0.4525	60	0.0000	0.0000	0.0000
61	0.0021	0.0000	0.0021	62	0.2246	0.0000	0.2246
63	0.4896	0.0000	0.4896	64	0.3410	0.0000	0.3410
65	0.2563	0.0000	0.2563	66	0.3918	0.0000	0.3918
67	0.2355	0.0000	0.2355	68	0.4158	0.0000	0.4158
69	0.6366	0.0000	0.6366	70	0.3189	0.0000	0.3189
71	0.3127	0.0000	0.3127	72	0.5490	0.0000	0.5490
73	0.2615	0.0000	0.2615	74	0.1037	0.0000	0.1037
75	0.3805	0.0000	0.3805	76	0.3753	0.0000	0.3753
77	0.1698	0.0000	0.1698	78	0.2764	0.0000	0.2764
79	0.4015	0.0000	0.4015	80	0.5375	0.0000	0.5375
81	0.7257	0.5377	0.1880	82	0.4540	0.3364	0.1176
83	0.8822	0.6537	0.2285	84	0.3375	0.2501	0.0874
85	0.4707	0.3488	0.1219	86	0.2076	0.1538	0.0538
87	0.0000	0.0000	0.0000	88	0.0020	0.0015	0.0005
89	0.3704	0.2744	0.0959	90	0.4033	0.2988	0.1045
91	0.3358	0.2488	0.0870	92	0.2821	0.2090	0.0731
93	0.6193	0.4589	0.1604	94	0.5844	0.4330	0.1514
95	0.3606	0.2672	0.0934	96	0.8724	0.6464	0.2260
97	1.4021	1.0389	0.3632	98	0.8415	0.6235	0.2180
99	0.9910	0.7343	0.2567	100	0.4049	0.3000	0.1049
101	1.4297	1.0593	0.3704	102	0.4977	0.3688	0.1289
103	0.5631	0.4172	0.1459	104	0.1902	0.1409	0.0493
105	0.6423	0.4759	0.1664	106	0.6165	0.4568	0.1597
107	0.7052	0.5225	0.1827	108	0.5406	0.4006	0.1400
109	0.5963	0.4419	0.1545	110	0.5313	0.3936	0.1376
111	0.3974	0.2944	0.1029	112	0.5262	0.3899	0.1363
113	0.7438	0.5511	0.1927	114	0.5061	0.3750	0.1311

115	0.6527	0.4836	0.1691	116	0.7484	0.5545	0.1939
117	0.7901	0.5854	0.2047	118	0.6231	0.4617	0.1614
119	0.7811	0.5788	0.2023	120	0.7122	0.5277	0.1845
121	0.9063	0.6715	0.2348	122	0.8571	0.6351	0.2220
123	0.6854	0.5079	0.1776	124	0.5626	0.4169	0.1457
125	0.4837	0.3584	0.1253	126	0.4056	0.3005	0.1051
127	0.6455	0.4783	0.1672	128	0.5944	0.4404	0.1540
129	0.7397	0.5481	0.1916	130	0.4770	0.3534	0.1236
131	0.2837	0.2102	0.0735	132	0.6780	0.5024	0.1756
133	0.5976	0.4428	0.1548	134	0.8391	0.6217	0.2174
135	1.0227	0.7578	0.2649	136	0.6221	0.4609	0.1611
137	0.5109	0.3786	0.1323	138	0.5629	0.4171	0.1458
139	0.3874	0.2870	0.1003	140	0.3751	0.2779	0.0972
141	0.4134	0.3063	0.1071	142	0.8201	0.6077	0.2125
143	0.7913	0.5863	0.2050	144	0.7289	0.5401	0.1888
145	0.6285	0.4657	0.1628	146	0.6186	0.4583	0.1602
147	0.5850	0.4335	0.1515	148	0.7391	0.5477	0.1915
149	0.0709	0.0526	0.0184	150	0.2189	0.1622	0.0567
151	0.1140	0.0845	0.0295	152	0.6301	0.4669	0.1632
153	0.9309	0.6898	0.2412	154	0.7048	0.5222	0.1826
155	0.9301	0.6892	0.2409	156	0.7459	0.5527	0.1932
157	0.7551	0.5595	0.1956	158	0.7739	0.5734	0.2005
159	0.6097	0.4518	0.1579	160	0.6518	0.4829	0.1688
161	0.7081	0.5247	0.1834	162	0.8855	0.6561	0.2294
163	1.1189	0.8291	0.2899	164	1.0209	0.7565	0.2645
165	0.4273	0.3166	0.1107	166	0.7487	0.5547	0.1939
167	0.9632	0.7137	0.2495	168	0.8810	0.6528	0.2282
169	1.0437	0.7734	0.2704	170	0.9056	0.6710	0.2346
171	0.5513	0.4085	0.1428	172	0.4140	0.3067	0.1072
173	0.6546	0.4850	0.1696	174	0.7641	0.5662	0.1979
175	0.8270	0.6128	0.2142	176	0.8353	0.6189	0.2164
177	0.7473	0.5537	0.1936	178	0.7491	0.5550	0.1940
179	0.2159	0.1600	0.0559	180	0.6179	0.4579	0.1601
181	0.5507	0.4081	0.1427	182	0.6576	0.4872	0.1703
183	0.7570	0.5609	0.1961	184	0.6957	0.5155	0.1802
185	0.8795	0.6517	0.2278	186	0.6555	0.4857	0.1698
187	0.9202	0.6819	0.2384	188	1.0349	0.7668	0.2681
189	1.0046	0.7443	0.2602	190	0.9197	0.6814	0.2382
191	0.7917	0.5866	0.2051	192	0.8609	0.6379	0.2230
193	0.9664	0.7160	0.2503	194	0.4335	0.3212	0.1123
195	0.6941	0.5143	0.1798	196	0.5936	0.4398	0.1538
197	0.8362	0.6196	0.2166	198	1.0559	0.7824	0.2735
199	1.0075	0.7465	0.2610	200	1.0264	0.7605	0.2659
201	0.9393	0.6960	0.2433	202	0.9369	0.6942	0.2427
203	1.0363	0.7679	0.2685	204	0.9943	0.7367	0.2576
205	0.8685	0.6435	0.2250	206	0.9519	0.7053	0.2466
207	0.6932	0.5136	0.1796	208	0.6550	0.4853	0.1697
209	0.8460	0.6269	0.2192	210	0.7537	0.5584	0.1952
211	0.9938	0.7363	0.2574	212	1.0591	0.7848	0.2744
213	0.9442	0.6996	0.2446	214	0.8850	0.6557	0.2293
215	0.7401	0.5484	0.1917	216	0.7783	0.5767	0.2016
217	0.8736	0.6473	0.2263	218	0.8200	0.6076	0.2124
219	0.7123	0.5278	0.1845	220	0.7677	0.5688	0.1989
221	1.1037	0.8178	0.2859	222	0.6909	0.5119	0.1790
223	0.3156	0.2339	0.0818	224	0.5781	0.4283	0.1497
225	0.7996	0.5925	0.2071	226	0.8013	0.5937	0.2076
227	0.8153	0.6041	0.2112	228	0.6433	0.4767	0.1667

229	0.6946	0.5147	0.1799	230	0.7213	0.5345	0.1869
231	0.8749	0.6483	0.2266	232	0.8671	0.6425	0.2246
233	1.0454	0.7746	0.2708	234	0.8848	0.6556	0.2292
235	0.4236	0.3138	0.1097	236	0.7541	0.5588	0.1954
237	0.7128	0.5281	0.1846	238	0.6166	0.4569	0.1597
239	0.6723	0.4982	0.1742	240	0.6731	0.4987	0.1744
241	0.6841	0.5069	0.1772	242	0.6660	0.4935	0.1725
243	0.6043	0.4477	0.1565	244	0.6399	0.4742	0.1658
245	0.6446	0.4776	0.1670	246	0.5561	0.4121	0.1441
247	0.4198	0.3110	0.1087	248	0.2844	0.2107	0.0737
249	0.6649	0.4927	0.1722	250	0.7054	0.5226	0.1827
251	0.1615	0.1197	0.0418	252	0.5604	0.4152	0.1452
253	0.5079	0.3763	0.1316	254	0.5406	0.4006	0.1401
255	0.5187	0.3843	0.1344	256	0.5131	0.3802	0.1329
257	0.4341	0.3217	0.1125	258	0.2004	0.1485	0.0519
259	0.1046	0.0775	0.0271	260	0.3088	0.2288	0.0800
261	0.2311	0.1712	0.0599	262	0.5095	0.3775	0.1320
263	0.1579	0.1170	0.0409	264	0.2702	0.2002	0.0700
265	0.3548	0.2629	0.0919	266	0.6048	0.4481	0.1567
267	0.5710	0.4230	0.1479	268	0.4115	0.3049	0.1066
269	0.3871	0.2868	0.1003	270	0.4552	0.3373	0.1179
271	0.4293	0.3181	0.1112	272	0.4714	0.3493	0.1221
273	0.3963	0.2937	0.1027	274	0.3929	0.2911	0.1018
275	0.5537	0.4103	0.1434	276	0.6461	0.4788	0.1674
277	0.5661	0.4194	0.1466	278	0.2359	0.1748	0.0611
279	0.3330	0.2467	0.0863	280	0.4341	0.3216	0.1124
281	0.6975	0.5168	0.1807	282	0.3427	0.2539	0.0888
283	0.0145	0.0108	0.0038	284	0.0000	0.0000	0.0000
285	0.3002	0.2224	0.0778	286	0.1890	0.1400	0.0490
287	0.3567	0.2643	0.0924	288	0.3780	0.2801	0.0979
289	0.3196	0.2368	0.0828	290	0.5014	0.3715	0.1299
291	0.7384	0.5471	0.1913	292	0.0683	0.0506	0.0177
293	0.3565	0.2641	0.0923	294	0.5466	0.4050	0.1416
295	0.3154	0.2337	0.0817	296	0.4782	0.3543	0.1239
297	0.5144	0.3812	0.1333	298	0.4111	0.3046	0.1065
299	0.3368	0.2495	0.0872	300	0.3168	0.2348	0.0821
301	0.6412	0.4751	0.1661	302	0.6391	0.4735	0.1656
303	0.4886	0.3620	0.1266	304	0.5330	0.3949	0.1381
305	0.3829	0.2837	0.0992	306	0.0000	0.0000	0.0000
307	0.0000	0.0000	0.0000	308	0.0963	0.0713	0.0249
309	0.1217	0.0902	0.0315	310	0.2510	0.1860	0.0650
311	0.4512	0.3343	0.1169	312	0.2730	0.2023	0.0707
313	0.1789	0.1326	0.0464	314	0.2793	0.2070	0.0724
315	0.2241	0.1660	0.0581	316	0.2495	0.1848	0.0646
317	0.2563	0.1899	0.0664	318	0.3105	0.2300	0.0804
319	0.1929	0.1429	0.0500	320	0.0373	0.0277	0.0097
321	0.0752	0.0557	0.0195	322	0.2803	0.2077	0.0726
323	0.4231	0.3135	0.1096	324	0.1968	0.1458	0.0510
325	0.2415	0.1789	0.0626	326	0.4572	0.3388	0.1184
327	0.3076	0.2279	0.0797	328	0.2844	0.2107	0.0737
329	0.4053	0.3003	0.1050	330	0.3241	0.2401	0.0840
331	0.2078	0.1539	0.0538	332	0.0000	0.0000	0.0000
333	0.0000	0.0000	0.0000	334	0.2953	0.2188	0.0765
335	0.0960	0.0711	0.0249	336	0.2655	0.0000	0.2655
337	0.0183	0.0000	0.0183	338	0.3385	0.0000	0.3385
339	0.3181	0.0000	0.3181	340	0.1046	0.0000	0.1046
341	0.1241	0.0000	0.1241	342	0.3445	0.0000	0.3445

343	0.1436	0.0000	0.1436	344	0.2246	0.0000	0.2246
345	0.0740	0.0000	0.0740	346	0.0000	0.0000	0.0000
347	0.0000	0.0000	0.0000	348	0.0000	0.0000	0.0000
349	0.0000	0.0000	0.0000	350	0.0000	0.0000	0.0000
351	0.2005	0.0000	0.2005	352	0.3478	0.0000	0.3478
353	0.3040	0.0000	0.3040	354	0.2643	0.0000	0.2643
355	0.4404	0.0000	0.4404	356	0.2832	0.0000	0.2832
357	0.2536	0.0000	0.2536	358	0.2110	0.0000	0.2110
359	0.0921	0.0000	0.0921	360	0.2384	0.0000	0.2384
361	0.1201	0.0000	0.1201	362	0.1714	0.0000	0.1714
363	0.2621	0.0000	0.2621	364	0.0000	0.0000	0.0000
365	0.0829	0.0000	0.0829				

Totals: PET = 148.7921
PTRANS = 108.1140
PEVAPO = 75.0677

IRAIN = 1

Rainfall/Irrigation Details

Day	Time (hr)	Amount (cm)	Application Type	Efficiency	Changes In Rate/Head
1	0.000	0.0762	1	1.000	2
	1.000	0.0000			
2	0.000	0.0254	1	1.000	2
	1.000	0.0000			
3	0.000	0.1016	1	1.000	2
	1.000	0.0000			
4	0.000	0.7874	1	1.000	2
	1.000	0.0000			
5	0.000	1.0000	1	1.000	3
	1.000	0.0668			
	2.000	0.0000			
6	0.000	0.5080	1	1.000	2
	1.000	0.0000			
10	0.000	0.2032	1	1.000	2
	1.000	0.0000			
11	0.000	0.4064	1	1.000	2
	1.000	0.0000			
12	0.000	0.0254	1	1.000	2
	1.000	0.0000			
13	0.000	0.0508	1	1.000	2
	1.000	0.0000			
17	0.000	0.1016	1	1.000	2
	1.000	0.0000			
18	0.000	0.0254	1	1.000	2
	1.000	0.0000			
27	0.000	1.0000	1	1.000	3
	1.000	0.0160			
	2.000	0.0000			
28	0.000	5.0000	1	1.000	3
	5.000	0.2578			
	6.000	0.0000			
29	0.000	1.0000	1	1.000	3
	1.000	0.5240			

	2.000	0.0000			
43	0.000	0.0254	1	1.000	2
	1.000	0.0000			
47	0.000	0.3810	1	1.000	2
	1.000	0.0000			
48	0.000	0.1270	1	1.000	2
	1.000	0.0000			
49	0.000	0.0508	1	1.000	2
	1.000	0.0000			
52	0.000	0.0254	1	1.000	2
	1.000	0.0000			
54	0.000	5.0000	1	1.000	3
	5.000	0.3848			
	6.000	0.0000			
60	0.000	0.3810	1	1.000	2
	1.000	0.0000			
70	0.000	1.0000	1	1.000	3
	1.000	0.4986			
	2.000	0.0000			
71	0.000	0.1524	1	1.000	2
	1.000	0.0000			
74	0.000	0.2286	1	1.000	2
	1.000	0.0000			
86	0.000	0.2286	1	1.000	2
	1.000	0.0000			
87	0.000	0.1270	1	1.000	2
	1.000	0.0000			
88	0.000	0.0508	1	1.000	2
	1.000	0.0000			
90	0.000	0.0254	1	1.000	2
	1.000	0.0000			
92	0.000	0.0254	1	1.000	2
	1.000	0.0000			
101	0.000	1.0000	1	1.000	3
	1.000	0.2446			
	2.000	0.0000			
105	0.000	1.0000	1	1.000	3
	1.000	0.9558			
	2.000	0.0000			
112	0.000	2.0000	1	1.000	3
	2.000	0.9210			
	3.000	0.0000			
113	0.000	0.2540	1	1.000	2
	1.000	0.0000			
124	0.000	0.2540	1	1.000	2
	1.000	0.0000			
125	0.000	0.6858	1	1.000	2
	1.000	0.0000			
130	0.000	0.1778	1	1.000	2
	1.000	0.0000			
131	0.000	1.0000	1	1.000	3
	1.000	0.3208			
	2.000	0.0000			
137	0.000	1.0000	1	1.000	3
	1.000	0.1684			
	2.000	0.0000			
138	0.000	1.0000	1	1.000	3

	1.000	0.8288			
	2.000	0.0000			
139	0.000	0.0762	1	1.000	2
	1.000	0.0000			
140	0.000	1.0000	1	1.000	3
	1.000	0.2700			
	2.000	0.0000			
141	0.000	0.2540	1	1.000	2
	1.000	0.0000			
143	0.000	0.0508	1	1.000	2
	1.000	0.0000			
147	0.000	3.0000	1	1.000	3
	3.000	0.7338			
	4.000	0.0000			
149	0.000	3.0000	1	1.000	3
	3.000	0.0226			
	4.000	0.0000			
150	0.000	3.0000	1	1.000	3
	3.000	0.7338			
	4.000	0.0000			
159	0.000	0.2032	1	1.000	2
	1.000	0.0000			
165	0.000	2.0000	1	1.000	3
	2.000	0.2606			
	3.000	0.0000			
166	0.000	0.0254	1	1.000	2
	1.000	0.0000			
171	0.000	0.0508	1	1.000	2
	1.000	0.0000			
172	0.000	0.2794	1	1.000	2
	1.000	0.0000			
179	0.000	3.0000	1	1.000	3
	3.000	0.8100			
	4.000	0.0000			
180	0.000	1.0000	1	1.000	3
	1.000	0.1684			
	2.000	0.0000			
197	0.000	0.4572	1	1.000	2
	1.000	0.0000			
209	0.000	0.1524	1	1.000	2
	1.000	0.0000			
222	0.000	0.7112	1	1.000	2
	1.000	0.0000			
227	0.000	1.0000	1	1.000	3
	1.000	0.8542			
	2.000	0.0000			
235	0.000	0.8128	1	1.000	2
	1.000	0.0000			
236	0.000	0.1778	1	1.000	2
	1.000	0.0000			
237	0.000	1.0000	1	1.000	3
	1.000	0.2446			
	2.000	0.0000			
248	0.000	0.0762	1	1.000	2
	1.000	0.0000			
249	0.000	0.0254	1	1.000	2
	1.000	0.0000			

250	0.000	1.0000	1	1.000	3
	1.000	0.0414			
	2.000	0.0000			
251	0.000	2.0000	1	1.000	3
	2.000	0.1844			
	3.000	0.0000			
252	0.000	0.0254	1	1.000	2
	1.000	0.0000			
258	0.000	0.6604	1	1.000	2
	1.000	0.0000			
259	0.000	0.4572	1	1.000	2
	1.000	0.0000			
260	0.000	0.0254	1	1.000	2
	1.000	0.0000			
261	0.000	2.0000	1	1.000	3
	2.000	0.6416			
	3.000	0.0000			
266	0.000	0.0254	1	1.000	2
	1.000	0.0000			
275	0.000	0.0254	1	1.000	2
	1.000	0.0000			
278	0.000	0.2286	1	1.000	2
	1.000	0.0000			
282	0.000	1.0000	1	1.000	3
	1.000	0.4986			
	2.000	0.0000			
283	0.000	5.0000	1	1.000	3
	5.000	0.4356			
	6.000	0.0000			
284	0.000	0.6096	1	1.000	2
	1.000	0.0000			
285	0.000	1.0000	1	1.000	3
	1.000	0.4478			
	2.000	0.0000			
307	0.000	7.0000	1	1.000	3
	7.000	0.0612			
	8.000	0.0000			
312	0.000	0.0762	1	1.000	2
	1.000	0.0000			
322	0.000	1.0000	1	1.000	3
	1.000	0.0414			
	2.000	0.0000			
323	0.000	0.8890	1	1.000	2
	1.000	0.0000			
334	0.000	0.7874	1	1.000	2
	1.000	0.0000			
345	0.000	0.6604	1	1.000	2
	1.000	0.0000			
346	0.000	0.3302	1	1.000	2
	1.000	0.0000			
347	0.000	0.6350	1	1.000	2
	1.000	0.0000			
350	0.000	3.0000	1	1.000	3
	3.000	0.7846			
	4.000	0.0000			
351	0.000	0.8382	1	1.000	2
	1.000	0.0000			

NWATER (number of days of rain/irrigation) = 87

Total Water Applied = 89.5604 cm

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--------------------------------------------------------------------------------
                         UNSAT-H Version 2.03
                         INITIAL CONDITIONS

 Input Filename:   S:\Nevzat\WinUnsatH\project.inp
 Results Filename: S:\Nevzat\WinUnsatH\project.res
 Date of Run:      15-JUL-**
 Time of Run:       9: 4:36
 Title:
 Muskogee LF Subtitle D Final Cover
--------------------------------------------------------------------------------
                  Initial Conditions                        Initial Conditions
                 -----------------------                   -----------------------
 NODE    DEPTH      HEAD     THETA   TEMP   NODE    DEPTH      HEAD     THETA   TEMP
          (cm)      (cm)    (vol.)   (K)             (cm)      (cm)    (vol.)   (K)
 ---- ---------- ---------- ------ ------   ---- ---------- ---------- ------ ------
    1 0.000E+00 8.418E+02 0.2348   0.00        2 5.000E+00 7.756E+02 0.2403   0.00
    3 9.000E+00 7.230E+02 0.2451   0.00        4 1.200E+01 6.919E+02 0.2481   0.00
    5 1.500E+01 6.673E+02 0.2506   0.00        6 1.800E+01 6.480E+02 0.2527   0.00
    7 2.100E+01 6.331E+02 0.2544   0.00        8 2.500E+01 6.192E+02 0.2559   0.00
    9 3.000E+01 6.088E+02 0.2571   0.00       10 3.050E+01 6.083E+02 0.2572   0.00
   11 3.060E+01 5.877E+02 0.0100   0.00       12 3.070E+01 5.330E+02 0.2492   0.00
   13 3.500E+01 5.289E+02 0.2495   0.00       14 4.000E+01 5.258E+02 0.2497   0.00
   15 4.500E+01 5.241E+02 0.2498   0.00       16 5.000E+01 5.235E+02 0.2499   0.00
   17 5.500E+01 5.237E+02 0.2499   0.00       18 6.000E+01 5.244E+02 0.2498   0.00
   19 6.500E+01 5.255E+02 0.2497   0.00       20 7.000E+01 5.266E+02 0.2497   0.00
   21 7.500E+01 5.277E+02 0.2496   0.00       22 8.000E+01 5.286E+02 0.2495   0.00
   23 8.500E+01 5.292E+02 0.2495   0.00       24 9.000E+01 5.295E+02 0.2494   0.00
   25 9.150E+01 5.295E+02 0.2494   0.00

 Initial Water Storage =  22.7987 cm

 NOTE:  There are no temperature data when plants are modelled.


--------------------------------------------------------------------------------


 DAILY SUMMARY:  Day =    1, Simulated Time = 24.0000 hr
 -------------
 Node Number         =       2          12          25
 Depth (cm)          =     5.00000    30.70000    91.50000
 Water (cm3/cm3)     =     0.24670     0.24919     0.24944
 Head (cm)           = 7.06097E+02 5.33012E+02 5.29480E+02
 Water Flow (cm)     =-1.20049E-02 1.23016E-04 2.92969E-03
 Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  22.7987+ 0.0762+ 0.0000 - 0.0340- 0.0000-  0.0029 = 22.8379  Versus  22.8627

 Mass Balance = -2.4817E-02 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  0.1375 cm, Actual =  0.0340 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 92.6 %;  TMEAN = 266.8 K;  HDRY =  1.0584E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day =   2, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.24639     0.24919     0.24944
Head (cm)         = 7.09292E+02 5.33012E+02 5.29480E+02
Water Flow (cm)   =-1.60660E-02 1.23016E-04 2.92969E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.8627+ 0.0254+ 0.0000 - 0.0442- 0.0000-  0.0029 = 22.8410  Versus  22.8596

Mass Balance = -1.8641E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1786 cm, Actual =  0.0442 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 87.7 %;  TMEAN = 262.0 K;  HDRY =  1.8049E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =   3, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.24956     0.24919     0.24944
Head (cm)         = 6.77703E+02 5.33012E+02 5.29480E+02
Water Flow (cm)   = 1.58816E-02 1.23016E-04 2.92969E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.8596+ 0.1016+ 0.0000 - 0.0646- 0.0000-  0.0029 = 22.8938  Versus  22.9082

Mass Balance = -1.4482E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2608 cm, Actual =  0.0646 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 89.7 %;  TMEAN = 268.2 K;  HDRY =  1.4889E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =   4, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.27999     0.24909     0.24947
Head (cm)         = 4.44443E+02 5.34364E+02 5.29164E+02
Water Flow (cm)   = 4.79248E-01 1.03763E-04 2.93111E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.9082+ 0.7874+ 0.0000 - 0.0911- 0.0000-  0.0029 = 23.6016  Versus  23.6047

Mass Balance = -3.1528E-03 cm;  Time step attempts =97643 and successes =97643
  Evaporation:  Potential =  0.3681 cm, Actual =  0.0911 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 79.4 %;  TMEAN = 272.6 K;  HDRY =  3.1556E+05 cm;  DAYUBC =     0
```

```
-------------------------------------------------------------------------------

 DAILY SUMMARY:  Day =   5, Simulated Time = 24.0000 hr
 -------------
 Node Number        =        2          12           25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.30463     0.24957     0.24950
 Head (cm)          = 3.17028E+02 5.27669E+02 5.28691E+02
 Water Flow (cm)    = 7.55842E-01 1.82369E-03 2.93805E-03
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  23.6047+ 1.0593+ 0.0075 - 0.1326- 0.0000-  0.0029 = 24.5284  Versus  24.5286

 Mass Balance = -1.7548E-04 cm;  Time step attempts = 3247 and successes = 3247
   Evaporation:  Potential =  0.5414 cm, Actual =  0.1326 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 62.8 %;  TMEAN = 277.0 K;  HDRY =  6.3781E+05 cm;  DAYUBC =    50

-------------------------------------------------------------------------------

 DAILY SUMMARY:  Day =   6, Simulated Time = 24.0000 hr
 -------------
 Node Number        =        2          12           25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.31329     0.25039     0.24953
 Head (cm)          = 2.80502E+02 5.16642E+02 5.28278E+02
 Water Flow (cm)    = 2.95137E-01 5.82611E-03 2.94502E-03
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  24.5286+ 0.5080+ 0.0000 - 0.1534- 0.0000-  0.0029 = 24.8803  Versus  24.8803

 Mass Balance = -1.7166E-05 cm;  Time step attempts = 2096 and successes = 2096
   Evaporation:  Potential =  0.6197 cm, Actual =  0.1534 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 64.8 %;  TMEAN = 278.2 K;  HDRY =  5.9459E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

 DAILY SUMMARY:  Day =   7, Simulated Time = 24.0000 hr
 -------------
 Node Number        =        2          12           25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.30915     0.25076     0.24956
 Head (cm)          = 2.97545E+02 5.11693E+02 5.27933E+02
 Water Flow (cm)    =-7.97446E-02 7.38057E-03 2.95103E-03
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  24.8803+ 0.0000+ 0.0000 - 0.1085- 0.0000-  0.0030 = 24.7688  Versus  24.7688

 Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
```

```
  Evaporation:  Potential =  0.4341 cm, Actual =  0.1085 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.6 %;  TMEAN = 276.5 K;  HDRY =  3.4736E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =   8, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.30326     0.25090     0.24957
Head (cm)         = 3.23146E+02 5.09923E+02 5.27672E+02
Water Flow (cm)   =-1.05306E-01 6.90128E-03 2.95570E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.7688+ 0.0000+ 0.0000 - 0.1473- 0.0000-  0.0030 = 24.6185  Versus  24.6185

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.5893 cm, Actual =  0.1473 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 69.0 %;  TMEAN = 275.9 K;  HDRY =  5.0887E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =   9, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.29834     0.25089     0.24959
Head (cm)         = 3.45930E+02 5.09960E+02 5.27472E+02
Water Flow (cm)   =-1.04691E-01 6.10810E-03 2.95924E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.6185+ 0.0000+ 0.0000 - 0.1392- 0.0000-  0.0030 = 24.4763  Versus  24.4763

Mass Balance =  1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.5570 cm, Actual =  0.1392 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.5 %;  TMEAN = 274.0 K;  HDRY =  3.4943E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  10, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.30459     0.25096     0.24960

Head (cm)         = 3.17217E+02 5.09132E+02 5.27307E+02
Water Flow (cm)   = 8.70202E-02 5.65331E-03 2.96196E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE

 24.4763+ 0.2032+ 0.0000 - 0.0707- 0.0000-  0.0030 = 24.6059  Versus  24.6058

Mass Balance =  7.0572E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.2856 cm, Actual =  0.0707 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 78.1 %;  TMEAN = 275.7 K;  HDRY =  3.3921E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  11, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.31849     0.25139     0.24961
Head (cm)          = 2.60128E+02 5.03473E+02 5.27134E+02
Water Flow (cm)    = 3.08355E-01 6.77402E-03 2.96455E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE
 24.6058+ 0.4064+ 0.0000 - 0.0000- 0.0000-  0.0030 = 25.0092  Versus  25.0092

Mass Balance =  6.2943E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 94.9 %;  TMEAN = 275.7 K;  HDRY =  7.2186E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  12, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.31853     0.25176     0.24963
Head (cm)          = 2.59984E+02 4.98690E+02 5.26931E+02
Water Flow (cm)    = 2.53315E-02 8.37801E-03 2.96745E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE
 25.0092+ 0.0254+ 0.0000 - 0.0000- 0.0000-  0.0030 = 25.0316  Versus  25.0315

Mass Balance =  8.3923E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = **** %;  TMEAN = 274.8 K;  HDRY = -6.1934E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  13, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
```

```
Water (cm3/cm3)     =     0.31971     0.25207     0.24965
Head (cm)           = 2.55519E+02 4.94787E+02 5.26688E+02
Water Flow (cm)     = 3.89231E-02 8.81049E-03 2.97089E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.0315+ 0.0508+ 0.0000 - 0.0037- 0.0000-  0.0030 = 25.0757  Versus  25.0756

Mass Balance =  4.1962E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0149 cm, Actual =  0.0037 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 89.9 %;  TMEAN = 279.0 K;  HDRY =  1.4591E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  14, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.31079     0.25223     0.24967
Head (cm)           = 2.90703E+02 4.92719E+02 5.26385E+02
Water Flow (cm)     =-1.24680E-01 8.90725E-03 2.97525E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.0756+ 0.0000+ 0.0000 - 0.1895- 0.0000-  0.0030 = 24.8831  Versus  24.8831

Mass Balance = -5.7220E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.7582 cm, Actual =  0.1895 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 75.1 %;  TMEAN = 277.0 K;  HDRY =  3.9301E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  15, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.30754     0.25218     0.24970
Head (cm)           = 3.04358E+02 4.93290E+02 5.26023E+02
Water Flow (cm)     =-9.39608E-02 7.85602E-03 2.98045E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.8831+ 0.0000+ 0.0000 - 0.1157- 0.0000-  0.0030 = 24.7644  Versus  24.7644

Mass Balance =  1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.4628 cm, Actual =  0.1157 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 69.3 %;  TMEAN = 275.9 K;  HDRY =  5.0351E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  16, Simulated Time = 24.0000 hr
```

```
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.30910     0.25212     0.24973
Head (cm)         = 2.97724E+02 4.94065E+02 5.25591E+02
Water Flow (cm)   =-1.27043E-02 6.94122E-03 2.98666E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.7644+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0030 = 24.7614  Versus  24.7614

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 89.1 %;  TMEAN = 273.2 K;  HDRY =  1.5860E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day =  17, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.31189     0.25220     0.24976
Head (cm)         = 2.86169E+02 4.93075E+02 5.25105E+02
Water Flow (cm)   = 7.01197E-02 6.84626E-03 2.99371E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.7614+ 0.1016+ 0.0000 - 0.0121- 0.0000-  0.0030 = 24.8479  Versus  24.8479

Mass Balance =  3.8147E-06 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0489 cm, Actual =  0.0121 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 88.7 %;  TMEAN = 273.2 K;  HDRY =  1.6392E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  18, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.30536     0.25226     0.24980
Head (cm)         = 3.13827E+02 4.92335E+02 5.24542E+02
Water Flow (cm)   =-7.48594E-02 7.08562E-03 3.00200E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.8479+ 0.0254+ 0.0000 - 0.1482- 0.0000-  0.0030 = 24.7222  Versus  24.7221

Mass Balance =  9.5367E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.5987 cm, Actual =  0.1482 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 66.6 %;  TMEAN = 275.9 K;  HDRY =  5.5728E+05 cm;  DAYUBC =     0

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```

```
DAILY SUMMARY:  Day =  19, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.29681     0.25216     0.24985
Head (cm)          = 3.53302E+02 4.93535E+02 5.23887E+02
Water Flow (cm)    =-1.42656E-01 6.46334E-03 3.01184E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.7221+ 0.0000+ 0.0000 - 0.2042- 0.0000-  0.0030 = 24.5148  Versus  24.5148

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.8170 cm, Actual =  0.2042 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 66.9 %;  TMEAN = 270.4 K;  HDRY =  5.5057E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  20, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.29385     0.25197     0.24990
Head (cm)          = 3.67961E+02 4.95960E+02 5.23175E+02
Water Flow (cm)    =-1.03963E-01 5.41850E-03 3.02273E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.5148+ 0.0000+ 0.0000 - 0.1231- 0.0000-  0.0030 = 24.3886  Versus  24.3886

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.4926 cm, Actual =  0.1231 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 64.3 %;  TMEAN = 268.7 K;  HDRY =  6.0445E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  21, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.28909     0.25178     0.24996
Head (cm)          = 3.92666E+02 4.98468E+02 5.22420E+02
Water Flow (cm)    =-9.72019E-02 4.57526E-03 3.03448E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.3886+ 0.0000+ 0.0000 - 0.1310- 0.0000-  0.0030 = 24.2547  Versus  24.2546

Mass Balance =  1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.5238 cm, Actual =  0.1310 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 61.7 %;  TMEAN = 275.7 K;  HDRY =  6.6173E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  22, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.28167     0.25157     0.25002
Head (cm)         = 4.34394E+02 5.01163E+02 5.21636E+02
Water Flow (cm)   =-1.19522E-01 3.88918E-03 3.04688E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 24.2546+ 0.0000+ 0.0000 - 0.1736- 0.0000-  0.0030 = 24.0780  Versus  24.0780

Mass Balance = -3.8147E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.6946 cm, Actual =  0.1736 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.2 %;  TMEAN = 276.5 K;  HDRY =  5.8689E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  23, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.28045     0.25134     0.25008
Head (cm)         = 4.41663E+02 5.04169E+02 5.20836E+02
Water Flow (cm)   =-8.46008E-02 3.20479E-03 3.05971E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 24.0780+ 0.0000+ 0.0000 - 0.0905- 0.0000-  0.0031 = 23.9844  Versus  23.9844

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.3621 cm, Actual =  0.0905 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 73.3 %;  TMEAN = 279.8 K;  HDRY =  4.2514E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  24, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.25952     0.25111     0.25014
Head (cm)         = 5.88808E+02 5.07098E+02 5.20040E+02
Water Flow (cm)   =-1.78051E-01 2.64242E-03 3.07270E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.9844+ 0.0000+ 0.0000 - 0.3505- 0.0000-  0.0031 = 23.6308  Versus  23.6308
```

```
Mass Balance = -5.7220E-06 cm;  Time step attempts =  360 and successes =  360
  Evaporation:  Potential =  1.4021 cm, Actual =  0.3505 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 63.6 %;  TMEAN = 278.2 K;  HDRY =  6.2118E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  25, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.24703     0.25083     0.25019
Head (cm)         = 7.02785E+02 5.10767E+02 5.19269E+02
Water Flow (cm)   =-1.99918E-01 1.98307E-03 3.08553E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.6308+ 0.0000+ 0.0000 - 0.3079- 0.0000-  0.0031 = 23.3199  Versus  23.3199

Mass Balance =  0.0000E+00 cm;  Time step attempts =  500 and successes =  500
  Evaporation:  Potential =  1.2314 cm, Actual =  0.3079 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.3 %;  TMEAN = 274.8 K;  HDRY =  6.9394E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  26, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.23715     0.25053     0.25025
Head (cm)         = 8.12324E+02 5.14760E+02 5.18556E+02
Water Flow (cm)   =-1.86160E-01 1.23439E-03 3.09778E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.3199+ 0.0000+ 0.0000 - 0.3789- 0.0000-  0.0031 = 22.9378  Versus  22.9378

Mass Balance =  4.1962E-05 cm;  Time step attempts = 2247 and successes = 2247
  Evaporation:  Potential =  1.5158 cm, Actual =  0.3789 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 68.6 %;  TMEAN = 279.0 K;  HDRY =  5.1683E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  27, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.28122     0.25035     0.25030
Head (cm)         = 4.37047E+02 5.17119E+02 5.17912E+02
Water Flow (cm)   = 4.07863E-01 8.26102E-04 3.10867E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 22.9378+ 1.0160+ 0.0000 - 0.1279- 0.0000-  0.0031 = 23.8227  Versus  23.8228

Mass Balance = -6.6757E-05 cm;  Time step attempts = 5110 and successes = 5110
  Evaporation:  Potential =  0.5222 cm, Actual =  0.1279 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 76.1 %;  TMEAN = 272.9 K;  HDRY =  3.7449E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  28, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.37969     0.25752     0.25034
Head (cm)          = 7.27959E+01 4.30136E+02 5.17324E+02
Water Flow (cm)    = 2.48750E+00 2.67461E-02 3.11898E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 23.8228+ 3.1760+ 2.0818 - 0.0000- 0.0000-  0.0031 = 26.9957  Versus  26.9959

Mass Balance = -2.2507E-04 cm;  Time step attempts = 2393 and successes = 2393
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 92.8 %;  TMEAN = 277.3 K;  HDRY =  1.0183E+05 cm;  DAYUBC =   394
```

```
DAILY SUMMARY:  Day =  29, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.39278     0.26745     0.25038
Head (cm)          = 3.40958E+01 3.33088E+02 5.16804E+02
Water Flow (cm)    = 3.99890E-01 9.71246E-02 3.12824E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 26.9959+ 0.5225+ 1.0015 - 0.0300- 0.0000-  0.0031 = 27.4852  Versus  27.4847

Mass Balance =  4.8828E-04 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.1226 cm, Actual =  0.0300 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 84.6 %;  TMEAN = 277.9 K;  HDRY =  2.2939E+05 cm;  DAYUBC =  1640
```

```
DAILY SUMMARY:  Day =  30, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.37673     0.26696     0.25041
```

```
Head (cm)          = 8.09186E+01 3.37379E+02 5.16321E+02
Water Flow (cm)    =-2.67512E-01 7.41075E-02 3.13673E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.4847+ 0.0000+ 0.0000 - 0.3811- 0.0000-  0.0031 = 27.1005  Versus  27.1005

Mass Balance = -3.8147E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  1.5245 cm, Actual =  0.3811 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 58.8 %;  TMEAN = 280.7 K;  HDRY =  7.2878E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  31, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.36388     0.26581     0.25046
Head (cm)          = 1.16034E+02 3.47625E+02 5.15695E+02
Water Flow (cm)    =-2.52388E-01 4.65319E-02 3.14550E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.1005+ 0.0000+ 0.0000 - 0.3426- 0.0000-  0.0031 = 26.7547  Versus  26.7547

Mass Balance =  0.0000E+00 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  1.3704 cm, Actual =  0.3426 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 52.9 %;  TMEAN = 276.8 K;  HDRY =  8.7361E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  32, Simulated Time = 24.0000 hr

-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.35207     0.26466     0.25056
Head (cm)          = 1.49373E+02 3.58071E+02 5.14386E+02
Water Flow (cm)    =-2.42942E-01 3.28752E-02 3.16089E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.7547+ 0.0000+ 0.0000 - 0.3257- 0.0000-  0.0032 = 26.4258  Versus  26.4258

Mass Balance =  1.9073E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  1.3029 cm, Actual =  0.3257 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 59.6 %;  TMEAN = 276.8 K;  HDRY =  7.0964E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  33, Simulated Time = 24.0000 hr
```

```
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.31826     0.26319     0.25075
Head (cm)         = 2.61025E+02 3.71936E+02 5.11833E+02
Water Flow (cm)   =-5.89605E-01 2.29952E-02 3.19320E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.4258+ 0.0000+ 0.0000 - 0.8340- 0.0000-  0.0032 = 25.5886  Versus  25.5886

Mass Balance = -3.4332E-05 cm;  Time step attempts =  224 and successes =  224
  Evaporation:  Potential =  3.3361 cm, Actual =  0.8340 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 58.2 %;  TMEAN = 272.3 K;  HDRY =  7.4279E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  34, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.30781     0.26159     0.25103
Head (cm)         = 3.03218E+02 3.87535E+02 5.08180E+02
Water Flow (cm)   =-3.64908E-01 1.25792E-02 3.24774E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.5886+ 0.0000+ 0.0000 - 0.9782- 0.0000-  0.0032 = 24.6071  Versus  24.6067

Mass Balance =  4.6539E-04 cm;  Time step attempts =17052 and successes =17052
  Evaporation:  Potential =  4.6481 cm, Actual =  0.9782 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 61.0 %;  TMEAN = 279.5 K;  HDRY =  6.7727E+05 cm;  DAYUBC =  2943
```

```
DAILY SUMMARY:  Day =  35, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.30854     0.26045     0.25141
Head (cm)         = 3.00098E+02 3.99019E+02 5.03192E+02
Water Flow (cm)   =-5.48281E-02 8.17758E-03 3.32366E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.6067+ 0.0000+ 0.0000 - 0.0524- 0.0000-  0.0033 = 24.5509  Versus  24.5508

Mass Balance =  1.5068E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  6.2724 cm, Actual =  0.0524 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 57.2 %;  TMEAN = 280.7 K;  HDRY =  7.6572E+05 cm;  DAYUBC =  4410
```

```
DAILY SUMMARY:  Day =  36, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.30667     0.25968     0.25185
Head (cm)          = 3.08107E+02 4.06990E+02 4.97533E+02
Water Flow (cm)    =-4.19422E-02 6.90713E-03 3.42239E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.5508+ 0.0000+ 0.0000 - 0.0504- 0.0000-  0.0034 = 24.4969  Versus  24.4972

Mass Balance = -2.4414E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  5.1168 cm, Actual =  0.0504 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 57.1 %;  TMEAN = 279.5 K;  HDRY =  7.6758E+05 cm;  DAYUBC =  5081
```

```
DAILY SUMMARY:  Day =  37, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.30466     0.25908     0.25231
Head (cm)          = 3.16885E+02 4.13333E+02 4.91703E+02
Water Flow (cm)    =-4.21401E-02 6.22772E-03 3.53342E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.4972+ 0.0000+ 0.0000 - 0.0506- 0.0000-  0.0035 = 24.4431  Versus  24.4433

Mass Balance = -2.7275E-04 cm;  Time step attempts = 3760 and successes = 3760
  Evaporation:  Potential =  4.4585 cm, Actual =  0.0506 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 59.9 %;  TMEAN = 282.6 K;  HDRY =  7.0145E+05 cm;  DAYUBC =  3747
```

```
DAILY SUMMARY:  Day =  38, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.29903     0.25856     0.25276
Head (cm)          = 3.42658E+02 4.18853E+02 4.86072E+02
Water Flow (cm)    =-8.02628E-02 5.64724E-03 3.64841E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.4433+ 0.0000+ 0.0000 - 0.0881- 0.0000-  0.0036 = 24.3516  Versus  24.3516

Mass Balance =  1.3351E-05 cm;  Time step attempts = 3157 and successes = 3157
  Evaporation:  Potential =  2.7264 cm, Actual =  0.0881 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 89.7 %;  TMEAN = 284.0 K;  HDRY =  1.4970E+05 cm;  DAYUBC =  3115
```

```
DAILY SUMMARY:  Day =  39, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.29725     0.25810     0.25314
Head (cm)          = 3.51142E+02 4.23785E+02 4.81267E+02
Water Flow (cm)    =-6.58003E-02 4.95932E-03 3.75272E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.3516+ 0.0000+ 0.0000 - 0.0832- 0.0000-  0.0038 = 24.2646  Versus  24.2649

Mass Balance = -3.0136E-04 cm;  Time step attempts =20088 and successes =20088
  Evaporation:  Potential =  4.0214 cm, Actual =  0.0832 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 80.4 %;  TMEAN = 292.6 K;  HDRY =  2.9946E+05 cm;  DAYUBC =  4891
```

```
DAILY SUMMARY:  Day =  40, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.29693     0.25771     0.25348
Head (cm)          = 3.52729E+02 4.28045E+02 4.77081E+02
Water Flow (cm)    =-3.70564E-02 4.38210E-03 3.84815E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.2649+ 0.0000+ 0.0000 - 0.0495- 0.0000-  0.0038 = 24.2115  Versus  24.2142

Mass Balance = -2.6627E-03 cm;  Time step attempts =27585 and successes =27585
  Evaporation:  Potential =  2.7644 cm, Actual =  0.0495 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 46.8 %;  TMEAN = 281.5 K;  HDRY =  1.0421E+06 cm;  DAYUBC =  4388
```

```
DAILY SUMMARY:  Day =  41, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.29469     0.25734     0.25383
Head (cm)          = 3.63732E+02 4.32190E+02 4.72900E+02
Water Flow (cm)    =-3.95282E-02 3.99201E-03 3.94648E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.2142+ 0.0000+ 0.0000 - 0.0446- 0.0000-  0.0039 = 24.1656  Versus  24.1656
```

```
Mass Balance =  3.8147E-06 cm;  Time step attempts =  176 and successes =  176
  Evaporation:  Potential =  2.5036 cm, Actual =  0.0446 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 67.7 %;  TMEAN = 271.5 K;  HDRY =  5.3416E+05 cm;  DAYUBC =   139

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  42, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.29273     0.25700     0.25412
Head (cm)          = 3.73599E+02 4.35921E+02 4.69348E+02
Water Flow (cm)    =-4.19912E-02 3.65173E-03 4.03389E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.1656+ 0.0000+ 0.0000 - 0.0502- 0.0000-  0.0040 = 24.1114  Versus  24.1118

Mass Balance = -4.0436E-04 cm;  Time step attempts = 3751 and successes = 3751
  Evaporation:  Potential =  3.5437 cm, Actual =  0.0502 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 69.7 %;  TMEAN = 275.4 K;  HDRY =  4.9511E+05 cm;  DAYUBC =  3734

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  43, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.26404     0.25669     0.25434
Head (cm)          = 5.52987E+02 4.39459E+02 4.66650E+02
Water Flow (cm)    =-2.61586E-01 3.24699E-03 4.10431E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.1118+ 0.0254+ 0.0000 - 0.0000- 0.0000-  0.0041 = 24.1331  Versus  24.1336

Mass Balance = -4.4250E-04 cm;  Time step attempts =25162 and successes =25162
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 95.7 %;  TMEAN = 277.9 K;  HDRY =  6.0702E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  44, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25983     0.25624     0.25455
Head (cm)          = 5.86279E+02 4.44503E+02 4.64152E+02
Water Flow (cm)    =-2.11682E-01 2.19242E-03 4.17024E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR          STORAGE
 24.1336+ 0.0000+ 0.0000 - 0.5857- 0.0000-  0.0042 = 23.5437  Versus  23.5438

Mass Balance = -1.3351E-04 cm;  Time step attempts =12558 and successes =12558
  Evaporation:  Potential =  2.6223 cm, Actual =  0.5857 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 98.2 %;  TMEAN = 282.3 K;  HDRY =  2.4333E+04 cm;  DAYUBC =  3141

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  45, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24341     0.25579     0.25475
Head (cm)          = 7.40656E+02 4.49683E+02 4.61857E+02
Water Flow (cm)    =-2.04487E-01 1.15841E-03 4.22821E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR          STORAGE
 23.5438+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0042 = 23.5396  Versus  23.5395

Mass Balance =  8.7738E-05 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  2.8630 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = **** %;  TMEAN = 282.0 K;  HDRY = -1.2593E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  46, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25315     0.25536     0.25491
Head (cm)          = 6.43950E+02 4.54657E+02 4.59928E+02
Water Flow (cm)    =-1.13349E-01 4.02821E-04 4.28052E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR          STORAGE
 23.5395+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0043 = 23.5352  Versus  23.5352

Mass Balance =  0.0000E+00 cm;  Time step attempts =  128 and successes =  128
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 94.0 %;  TMEAN = 272.0 K;  HDRY =  8.5107E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  47, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25364     0.25501     0.25503
Head (cm)          = 6.39489E+02 4.58749E+02 4.58475E+02
```

```
Water Flow (cm)    = 5.48880E-02-7.82888E-05 4.32290E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.5352+ 0.3810+ 0.0000 - 0.6538- 0.0000-  0.0043 = 23.2581  Versus  23.2582

Mass Balance = -1.1444E-04 cm;  Time step attempts = 9211 and successes = 9211
  Evaporation:  Potential =  2.6417 cm, Actual =  0.6538 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 84.5 %;  TMEAN = 271.8 K;  HDRY =  2.3075E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  48, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24959     0.25473     0.25513
Head (cm)          = 6.77447E+02 4.62035E+02 4.57363E+02
Water Flow (cm)    =-1.33441E-01-1.67814E-04 4.35455E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.2582+ 0.1270+ 0.0000 - 0.3600- 0.0000-  0.0044 = 23.0208  Versus  23.0212

Mass Balance = -3.6430E-04 cm;  Time step attempts =22001 and successes =22001
  Evaporation:  Potential =  3.0741 cm, Actual =  0.3600 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 61.6 %;  TMEAN = 271.2 K;  HDRY =  6.6480E+05 cm;  DAYUBC =  3123

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  49, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25162     0.25448     0.25519
Head (cm)          = 6.58117E+02 4.65031E+02 4.56610E+02
Water Flow (cm)    =-4.97482E-02-4.37798E-04 4.37619E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.0212+ 0.0508+ 0.0000 - 0.0883- 0.0000-  0.0044 = 22.9793  Versus  22.9812

Mass Balance = -1.8959E-03 cm;  Time step attempts =42279 and successes =42279
  Evaporation:  Potential =  3.3203 cm, Actual =  0.0883 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm

RHMEAN = 71.5 %;  TMEAN = 274.8 K;  HDRY =  4.5964E+05 cm;  DAYUBC =  2899

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  50, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2           12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.25233     0.25420     0.25526
Head (cm)          = 6.51506E+02 4.68333E+02 4.55768E+02
Water Flow (cm)    =-2.76340E-02-6.76378E-04 4.39950E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 22.9812+ 0.0000+ 0.0000 - 0.0255- 0.0000-  0.0044 = 22.9513  Versus  22.9515

Mass Balance = -2.2507E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  5.1699 cm, Actual =  0.0255 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 68.1 %;  TMEAN = 282.9 K;  HDRY =  5.2566E+05 cm;  DAYUBC =  4073
```

```
DAILY SUMMARY:  Day =  51, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.24990     0.25395     0.25532
Head (cm)          = 6.74426E+02 4.71374E+02 4.55147E+02
Water Flow (cm)    =-3.17803E-02-8.07890E-04 4.41896E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 22.9515+ 0.0000+ 0.0000 - 0.0243- 0.0000-  0.0044 = 22.9228  Versus  22.9228

Mass Balance = -1.7166E-05 cm;  Time step attempts =  841 and successes =  841
  Evaporation:  Potential =  2.5091 cm, Actual =  0.0243 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 91.4 %;  TMEAN = 281.5 K;  HDRY =  1.2308E+05 cm;  DAYUBC =   777
```

```
DAILY SUMMARY:  Day =  52, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.24953     0.25378     0.25534
Head (cm)          = 6.77967E+02 4.73451E+02 4.54860E+02
Water Flow (cm)    =-3.57919E-02-8.88740E-04 4.42914E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 22.9228+ 0.0254+ 0.0000 - 0.0792- 0.0000-  0.0044 = 22.8646  Versus  22.8719

Mass Balance = -7.3166E-03 cm;  Time step attempts =53090 and successes =53090
  Evaporation:  Potential =  3.7411 cm, Actual =  0.0792 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 73.1 %;  TMEAN = 275.9 K;  HDRY =  4.2865E+05 cm;  DAYUBC =  4960
```

```
DAILY SUMMARY:  Day =  53, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000    30.70000     91.50000
Water (cm3/cm3)   =     0.24946     0.25357      0.25536
Head (cm)         = 6.78648E+02 4.76036E+02 4.54612E+02
Water Flow (cm)   =-2.27236E-02-9.72135E-04 4.43741E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE
 22.8719+ 0.0000+ 0.0000 - 0.0251- 0.0000-  0.0044 = 22.8424  Versus  22.8431

Mass Balance = -7.4005E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  3.2177 cm, Actual =  0.0251 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 67.3 %;  TMEAN = 275.7 K;  HDRY =  5.4240E+05 cm;  DAYUBC =  4535
```

```
DAILY SUMMARY:  Day =  54, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25

Depth (cm)        =     5.00000    30.70000     91.50000
Water (cm3/cm3)   =     0.34248     0.25645      0.25537
Head (cm)         = 1.78095E+02 4.42081E+02 4.54536E+02
Water Flow (cm)   = 2.26214E+00 9.98596E-03 4.44169E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE
 22.8431+ 3.8444+ 1.5404 - 0.5326- 0.0000-  0.0044 = 26.1504  Versus  26.1512

Mass Balance = -7.6103E-04 cm;  Time step attempts = 5431 and successes = 5431
  Evaporation:  Potential =  2.2663 cm, Actual =  0.5326 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 96.0 %;  TMEAN = 276.5 K;  HDRY =  5.6282E+04 cm;  DAYUBC =   519
```

```
DAILY SUMMARY:  Day =  55, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000    30.70000     91.50000
Water (cm3/cm3)   =     0.31139     0.25692      0.25536
Head (cm)         = 2.88229E+02 4.36869E+02 4.54610E+02
Water Flow (cm)   =-5.28860E-01 1.60296E-02 4.44190E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE
 26.1512+ 0.0000+ 0.0000 - 0.7538- 0.0000-  0.0044 = 25.3929  Versus  25.3930

Mass Balance = -3.0518E-05 cm;  Time step attempts =  224 and successes =  224
  Evaporation:  Potential =  3.0153 cm, Actual =  0.7538 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

RHMEAN = 77.6 %; TMEAN = 285.1 K; HDRY = 3.4778E+05 cm; DAYUBC = 0

DAILY SUMMARY: Day = 56, Simulated Time = 24.0000 hr

Node Number	=	2	12	25
Depth (cm)	=	5.00000	30.70000	91.50000
Water (cm3/cm3)	=	0.28376	0.25651	0.25535
Head (cm)	=	4.22207E+02	4.41470E+02	4.54809E+02
Water Flow (cm)	=	-4.43940E-01	9.68216E-03	4.43815E-03
Plant Sink (cm)	=	0.00000E+00	0.00000E+00	0.00000E+00

PRESTOR	INFIL	RUNOFF	EVAPO	TRANS	DRAIN	NEWSTOR		STORAGE
25.3930+	0.0000+	0.0000 -	0.6519-	0.0000-	0.0044 =	24.7367	Versus	24.7367

Mass Balance = -1.3351E-05 cm; Time step attempts = 442 and successes = 442
Evaporation: Potential = 2.6075 cm, Actual = 0.6519 cm
Transpiration: Potential = 0.0000 cm, Actual = 0.0000 cm
RHMEAN = 60.8 %; TMEAN = 279.8 K; HDRY = 6.8096E+05 cm; DAYUBC = 0

DAILY SUMMARY: Day = 57, Simulated Time = 24.0000 hr

Node Number	=	2	12	25
Depth (cm)	=	5.00000	30.70000	91.50000
Water (cm3/cm3)	=	0.27206	0.25598	0.25533
Head (cm)	=	4.95211E+02	4.47476E+02	4.54951E+02
Water Flow (cm)	=	-3.28862E-01	5.63063E-03	4.43291E-03
Plant Sink (cm)	=	0.00000E+00	0.00000E+00	0.00000E+00

PRESTOR	INFIL	RUNOFF	EVAPO	TRANS	DRAIN	NEWSTOR		STORAGE
24.7367+	0.0000+	0.0000 -	0.7344-	0.0000-	0.0044 =	23.9979	Versus	23.9978

Mass Balance = 1.2207E-04 cm; Time step attempts = 9539 and successes = 9539
Evaporation: Potential = 2.9374 cm, Actual = 0.7344 cm
Transpiration: Potential = 0.0000 cm, Actual = 0.0000 cm
RHMEAN = 61.5 %; TMEAN = 283.4 K; HDRY = 6.6580E+05 cm; DAYUBC = 0

DAILY SUMMARY: Day = 58, Simulated Time = 24.0000 hr

Node Number	=	2	12	25
Depth (cm)	=	5.00000	30.70000	91.50000
Water (cm3/cm3)	=	0.27247	0.25552	0.25532
Head (cm)	=	4.92421E+02	4.52829E+02	4.55067E+02
Water Flow (cm)	=	-2.15588E-01	3.23070E-03	4.43043E-03
Plant Sink (cm)	=	0.00000E+00	0.00000E+00	0.00000E+00

PRESTOR	INFIL	RUNOFF	EVAPO	TRANS	DRAIN	NEWSTOR		STORAGE
23.9978+	0.0000+	0.0000 -	0.3065-	0.0000-	0.0044 =	23.6868	Versus	23.6869

```
Mass Balance = -7.8201E-05 cm;  Time step attempts =19848 and successes =19848
  Evaporation:  Potential =  2.5217 cm, Actual =  0.3065 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 90.6 %;  TMEAN = 279.0 K;  HDRY =  1.3578E+05 cm;  DAYUBC =  3823

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DAILY SUMMARY:  Day =  59, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.27001     0.25512     0.25532
Head (cm)          = 5.09358E+02 4.57438E+02 4.55132E+02
Water Flow (cm)    =-9.59645E-02 1.86887E-03 4.42755E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.6869+ 0.0000+ 0.0000 - 0.0919- 0.0000-  0.0044 = 23.5906  Versus  23.5906

Mass Balance =  1.7166E-05 cm;  Time step attempts = 3093 and successes = 3093
  Evaporation:  Potential =  1.8100 cm, Actual =  0.0919 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 95.4 %;  TMEAN = 271.5 K;  HDRY =  6.4075E+04 cm;  DAYUBC =   623

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DAILY SUMMARY:  Day =  60, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.27248     0.25481     0.25532
Head (cm)          = 4.92417E+02 4.61125E+02 4.55083E+02
Water Flow (cm)    =-5.85026E-02 1.20860E-03 4.42732E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.5906+ 0.3810+ 0.0000 - 0.0000- 0.0000-  0.0044 = 23.9671  Versus  23.9672

Mass Balance = -7.4387E-05 cm;  Time step attempts = 5093 and successes = 5093
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 92.7 %;  TMEAN = 275.7 K;  HDRY =  1.0327E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  61, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.27371     0.25455     0.25533
Head (cm)          = 4.84198E+02 4.64193E+02 4.54958E+02
Water Flow (cm)    =-1.12059E-02 8.24363E-04 4.42975E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.9672+ 0.0000+ 0.0000 - 0.0021- 0.0000-  0.0044 = 23.9607  Versus  23.9607

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0083 cm, Actual =  0.0021 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 95.3 %;  TMEAN = 276.5 K;  HDRY =  6.6547E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  62, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25833     0.25434     0.25534
Head (cm)          = 5.98669E+02 4.66726E+02 4.54826E+02
Water Flow (cm)    =-1.00796E-01 6.58817E-04 4.43324E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.9607+ 0.0000+ 0.0000 - 0.2246- 0.0000-  0.0044 = 23.7317  Versus  23.7317

Mass Balance = -3.8147E-06 cm;  Time step attempts =  192 and successes =  192
  Evaporation:  Potential =  0.8982 cm, Actual =  0.2246 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 75.0 %;  TMEAN = 279.8 K;  HDRY =  3.9421E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  63, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24389     0.25411     0.25535
Head (cm)          = 7.35481E+02 4.69455E+02 4.54769E+02
Water Flow (cm)    =-1.56598E-01 4.14336E-04 4.43594E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.7317+ 0.0000+ 0.0000 - 0.4896- 0.0000-  0.0044 = 23.2376  Versus  23.2377

Mass Balance = -9.3460E-05 cm;  Time step attempts = 4174 and successes = 4174
  Evaporation:  Potential =  1.9585 cm, Actual =  0.4896 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 57.4 %;  TMEAN = 281.5 K;  HDRY =  7.6038E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  64, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24584     0.25389     0.25535
```

```
Head (cm)          = 7.14903E+02 4.72116E+02 4.54737E+02
Water Flow (cm)    =-1.43081E-01-2.30364E-05 4.43678E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.2377+ 0.0000+ 0.0000 - 0.2762- 0.0000-  0.0044 = 22.9571  Versus  22.9582

Mass Balance = -1.0815E-03 cm;  Time step attempts =28697 and successes =28697
  Evaporation:  Potential =  1.3641 cm, Actual =  0.2762 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 66.2 %;  TMEAN = 278.7 K;  HDRY =  5.6541E+05 cm;  DAYUBC =  2672

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DAILY SUMMARY:  Day =  65, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25081     0.25365     0.25535
Head (cm)          = 6.65679E+02 4.75042E+02 4.54747E+02
Water Flow (cm)    =-4.30699E-02-4.35280E-04 4.43730E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.9582+ 0.0000+ 0.0000 - 0.0223- 0.0000-  0.0044 = 22.9314  Versus  22.9316

Mass Balance = -1.4687E-04 cm;  Time step attempts =12591 and successes =12591
  Evaporation:  Potential =  1.0253 cm, Actual =  0.0223 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.6 %;  TMEAN = 279.0 K;  HDRY =  6.8577E+05 cm;  DAYUBC =  3468

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DAILY SUMMARY:  Day =  66, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25185     0.25343     0.25534
Head (cm)          = 6.55953E+02 4.77696E+02 4.54847E+02
Water Flow (cm)    =-2.52751E-02-6.97577E-04 4.43597E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.9316+ 0.0000+ 0.0000 - 0.0216- 0.0000-  0.0044 = 22.9056  Versus  22.9060

Mass Balance = -4.5395E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  1.5673 cm, Actual =  0.0216 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 55.9 %;  TMEAN = 281.5 K;  HDRY =  7.9718E+05 cm;  DAYUBC =  3921

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  67, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =      2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25151     0.25324     0.25533
Head (cm)          = 6.59133E+02 4.80118E+02 4.55037E+02
Water Flow (cm)    =-2.13509E-02-8.38843E-04 4.43218E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.9060+ 0.0000+ 0.0000 - 0.0205- 0.0000-  0.0044 = 22.8810  Versus  22.8814

Mass Balance = -3.4523E-04 cm;  Time step attempts = 3167 and successes = 3167
  Evaporation:  Potential =  0.9421 cm, Actual =  0.0205 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.1 %;  TMEAN = 279.5 K;  HDRY =  5.8767E+05 cm;  DAYUBC =  3141

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  68, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25125     0.25307     0.25530
Head (cm)          = 6.61579E+02 4.82229E+02 4.55301E+02
Water Flow (cm)    =-1.85639E-02-9.10405E-04 4.42641E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.8814+ 0.0000+ 0.0000 - 0.0229- 0.0000-  0.0044 = 22.8541  Versus  22.8554

Mass Balance = -1.3142E-03 cm;  Time step attempts =12591 and successes =12591
  Evaporation:  Potential =  1.6632 cm, Actual =  0.0229 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 52.1 %;  TMEAN = 280.7 K;  HDRY =  8.9332E+05 cm;  DAYUBC =  2951

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  69, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25073     0.25290     0.25527
Head (cm)          = 6.66476E+02 4.84255E+02 4.55655E+02
Water Flow (cm)    =-1.71480E-02-9.64718E-04 4.41831E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.8554+ 0.0000+ 0.0000 - 0.0195- 0.0000-  0.0044 = 22.8314  Versus  22.8321

Mass Balance = -6.4278E-04 cm;  Time step attempts = 4976 and successes = 4976
  Evaporation:  Potential =  2.5464 cm, Actual =  0.0195 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 52.1 %;  TMEAN = 282.9 K;  HDRY =  8.9255E+05 cm;  DAYUBC =  4964

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day =  70, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.27813     0.25290     0.25524
Head (cm)         = 4.55868E+02 4.84279E+02 4.56083E+02
Water Flow (cm)   = 5.90730E-01-6.92524E-04 4.40820E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 22.8321+ 1.4986+ 0.0000 - 0.3125- 0.0000-  0.0044 = 24.0137  Versus  24.0144

Mass Balance = -6.1035E-04 cm;  Time step attempts = 5326 and successes = 5326
  Evaporation:  Potential =  1.2756 cm, Actual =  0.3125 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.8 %;  TMEAN = 287.0 K;  HDRY =  6.8103E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  71, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.26394     0.25300     0.25519
Head (cm)         = 5.53705E+02 4.83060E+02 4.56594E+02
Water Flow (cm)   =-4.72954E-02 5.53391E-04 4.39599E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 24.0144+ 0.1524+ 0.0000 - 0.3095- 0.0000-  0.0044 = 23.8528  Versus  23.8530

Mass Balance = -1.5068E-04 cm;  Time step attempts = 2248 and successes = 2248
  Evaporation:  Potential =  1.2506 cm, Actual =  0.3095 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.7 %;  TMEAN = 282.6 K;  HDRY =  3.4503E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  72, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.25070     0.25296     0.25515
Head (cm)         = 6.66742E+02 4.83519E+02 4.57121E+02
Water Flow (cm)   =-1.71203E-01 7.65793E-04 4.38197E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.8530+ 0.0000+ 0.0000 - 0.5490- 0.0000-  0.0044 = 23.2996  Versus  23.2999

Mass Balance = -3.3760E-04 cm;  Time step attempts = 5786 and successes = 5786
  Evaporation:  Potential =  2.1961 cm, Actual =  0.5490 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 48.9 %;  TMEAN = 286.2 K;  HDRY =  9.8105E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  73, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25133     0.25285     0.25511
Head (cm)          = 6.60795E+02 4.84871E+02 4.57564E+02
Water Flow (cm)    =-1.46153E-01 3.60408E-04 4.36963E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 23.2999+ 0.0000+ 0.0000 - 0.2432- 0.0000-  0.0044 = 23.0523  Versus  23.0537

Mass Balance = -1.4038E-03 cm;  Time step attempts =40592 and successes =40592
  Evaporation:  Potential =  1.0460 cm, Actual =  0.2432 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.5 %;  TMEAN = 284.8 K;  HDRY =  3.4858E+05 cm;  DAYUBC =  4166
```

```
DAILY SUMMARY:  Day =  74, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.23713     0.25269     0.25505
Head (cm)          = 8.12540E+02 4.86916E+02 4.58222E+02
Water Flow (cm)    =-1.49842E-01-1.09319E-04 4.35613E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 23.0537+ 0.2286+ 0.0000 - 0.1027- 0.0000-  0.0044 = 23.1753  Versus  23.1754

Mass Balance = -1.5450E-04 cm;  Time step attempts = 7727 and successes = 7727
  Evaporation:  Potential =  0.4149 cm, Actual =  0.1027 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 83.2 %;  TMEAN = 281.5 K;  HDRY =  2.5259E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  75, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.23136     0.25251     0.25500
Head (cm)          = 8.86504E+02 4.89164E+02 4.58909E+02
Water Flow (cm)    =-1.23196E-01-4.92886E-04 4.33838E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 23.1754+ 0.0000+ 0.0000 - 0.3805- 0.0000-  0.0043 = 22.7907  Versus  22.7908
```

```
Mass Balance = -1.4305E-04 cm;  Time step attempts = 3826 and successes = 3826
  Evaporation:  Potential =  1.5218 cm, Actual =  0.3805 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 61.3 %;  TMEAN = 279.0 K;  HDRY =  6.6982E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  76, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.23601     0.25235     0.25495
Head (cm)         = 8.26288E+02 4.91163E+02 4.59503E+02
Water Flow (cm)   =-9.22291E-02-8.05696E-04 4.32247E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.7908+ 0.0000+ 0.0000 - 0.1860- 0.0000-  0.0043 = 22.6005  Versus  22.6017

Mass Balance = -1.2302E-03 cm;  Time step attempts =27961 and successes =27961
  Evaporation:  Potential =  1.5011 cm, Actual =  0.1860 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.3 %;  TMEAN = 278.7 K;  HDRY =  6.9271E+05 cm;  DAYUBC =  4844
```

```
DAILY SUMMARY:  Day =  77, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.23981     0.25218     0.25488
Head (cm)         = 7.80833E+02 4.93374E+02 4.60226E+02
Water Flow (cm)   =-3.53022E-02-1.05410E-03 4.30592E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.6017+ 0.0000+ 0.0000 - 0.0169- 0.0000-  0.0043 = 22.5805  Versus  22.5807

Mass Balance = -2.3842E-04 cm;  Time step attempts = 4298 and successes = 4298
  Evaporation:  Potential =  0.6794 cm, Actual =  0.0169 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.0 %;  TMEAN = 280.1 K;  HDRY =  5.9016E+05 cm;  DAYUBC =  4278
```

```
DAILY SUMMARY:  Day =  78, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.24087     0.25202     0.25482
Head (cm)         = 7.68726E+02 4.95413E+02 4.60966E+02
Water Flow (cm)   =-2.34128E-02-1.21642E-03 4.28763E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.5807+ 0.0000+ 0.0000 - 0.0190- 0.0000-  0.0043 = 22.5574  Versus  22.5577

Mass Balance = -2.1553E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  1.1055 cm, Actual =  0.0190 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 63.4 %;  TMEAN = 281.5 K;  HDRY =  6.2473E+05 cm;  DAYUBC =  2756

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DAILY SUMMARY:  Day =  79, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24107     0.25187     0.25476
Head (cm)          = 7.66504E+02 4.97274E+02 4.61714E+02
Water Flow (cm)    =-1.87647E-02-1.30643E-03 4.26913E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.5577+ 0.0000+ 0.0000 - 0.0190- 0.0000-  0.0043 = 22.5344  Versus  22.5350

Mass Balance = -6.5613E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  1.6059 cm, Actual =  0.0190 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 58.8 %;  TMEAN = 280.7 K;  HDRY =  7.2878E+05 cm;  DAYUBC =  3913

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  80, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24098     0.25174     0.25469
Head (cm)          = 7.67519E+02 4.99020E+02 4.62481E+02
Water Flow (cm)    =-1.61128E-02-1.35958E-03 4.25038E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.5350+ 0.0000+ 0.0000 - 0.0184- 0.0000-  0.0043 = 22.5124  Versus  22.5131

Mass Balance = -7.6675E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  2.1500 cm, Actual =  0.0184 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 49.6 %;  TMEAN = 284.3 K;  HDRY =  9.6041E+05 cm;  DAYUBC =  3437

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  81, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24066     0.25161     0.25463
Head (cm)          = 7.71148E+02 5.00683E+02 4.63285E+02
```

```
Water Flow (cm)    =-1.48041E-02-1.39652E-03 4.23083E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.5131+ 0.0000+ 0.0000 - 0.0165- 0.0000-  0.0042 = 22.4924  Versus  22.4930

Mass Balance = -5.7220E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  0.7520 cm, Actual =  0.0165 cm
Transpiration:  Potential =  2.1508 cm, Actual =  0.0000 cm
RHMEAN = 48.5 %;  TMEAN = 290.4 K;  HDRY =  9.9280E+05 cm;  DAYUBC =  3291

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DAILY SUMMARY:  Day =  82, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.20922     0.25148     0.25455
Head (cm)          = 1.26757E+03 5.02365E+02 4.64148E+02
Water Flow (cm)    =-5.42692E-02-1.42232E-03 4.21000E-03
Plant Sink (cm)    = 4.04257E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.4930+ 0.0000+ 0.0000 - 0.0110- 0.3364-  0.0042 = 22.1414  Versus  22.1414

Mass Balance = -4.0054E-05 cm;  Time step attempts =  981 and successes =  981
  Evaporation:  Potential =  0.4704 cm, Actual =  0.0110 cm
Transpiration:  Potential =  1.3454 cm, Actual =  0.3364 cm
RHMEAN = 61.3 %;  TMEAN = 288.2 K;  HDRY =  6.6988E+05 cm;  DAYUBC =   955

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DAILY SUMMARY:  Day =  83, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.14821     0.25137     0.25450
Head (cm)          = 4.97827E+03 5.03746E+02 4.64786E+02
Water Flow (cm)    =-5.67184E-02-1.51296E-03 4.19101E-03
Plant Sink (cm)    = 7.17160E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.1414+ 0.0000+ 0.0000 - 0.0111- 0.6229-  0.0042 = 21.5033  Versus  21.5045

Mass Balance = -1.2074E-03 cm;  Time step attempts =64976 and successes =64976
  Evaporation:  Potential =  0.9141 cm, Actual =  0.0111 cm
Transpiration:  Potential =  2.6147 cm, Actual =  0.6229 cm
RHMEAN = 48.5 %;  TMEAN = 281.8 K;  HDRY =  9.9144E+05 cm;  DAYUBC = 49864

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DAILY SUMMARY:  Day =  84, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
```

```
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.13996     0.25136     0.25450
Head (cm)           = 6.52528E+03 5.03901E+02 4.64837E+02
Water Flow (cm)     =-3.84518E-02-1.60082E-03 4.18254E-03
Plant Sink (cm)     = 1.53461E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.5045+ 0.0000+ 0.0000 - 0.0056- 0.1839-  0.0042 = 21.3109  Versus  21.3165

Mass Balance = -5.6610E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3498 cm, Actual =  0.0056 cm
Transpiration:  Potential =  1.0004 cm, Actual =  0.1839 cm
RHMEAN = 51.4 %;  TMEAN = 276.2 K;  HDRY =  9.1100E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day =  85, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.13062     0.25136     0.25450
Head (cm)           = 9.29712E+03 5.03903E+02 4.64837E+02
Water Flow (cm)     =-2.55907E-02-1.60262E-03 4.18246E-03
Plant Sink (cm)     = 1.34982E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.3165+ 0.0000+ 0.0000 - 0.0089- 0.2192-  0.0042 = 21.0843  Versus  21.0912

Mass Balance = -6.9046E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4877 cm, Actual =  0.0089 cm
Transpiration:  Potential =  1.3950 cm, Actual =  0.2192 cm
RHMEAN = 41.1 %;  TMEAN = 277.6 K;  HDRY =  1.2170E+06 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day =  86, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.13259     0.25136     0.25450
Head (cm)           = 8.58570E+03 5.03903E+02 4.64837E+02
Water Flow (cm)     =-1.78957E-02-1.60347E-03 4.18246E-03
Plant Sink (cm)     = 4.72602E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.0912+ 0.2286+ 0.0000 - 0.0532- 0.0894-  0.0042 = 21.1730  Versus  21.1799

Mass Balance = -6.8111E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2151 cm, Actual =  0.0532 cm
Transpiration:  Potential =  0.6153 cm, Actual =  0.0894 cm
RHMEAN = 49.6 %;  TMEAN = 280.4 K;  HDRY =  9.5991E+05 cm;  DAYUBC =     0

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```
DAILY SUMMARY:  Day =  87, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.14776     0.25136     0.25450
Head (cm)         = 5.04810E+03 5.03903E+02 4.64837E+02
Water Flow (cm)   =-2.24365E-02-1.60347E-03 4.18246E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.1799+ 0.1270+ 0.0000 - 0.0000- 0.0000-  0.0042 = 21.3027  Versus  21.3120

Mass Balance = -9.3155E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 90.6 %;  TMEAN = 279.0 K;  HDRY =  1.3578E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  88, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.16398     0.25136     0.25450
Head (cm)         = 3.21064E+03 5.03904E+02 4.64837E+02
Water Flow (cm)   =-2.51996E-02-1.60371E-03 4.18246E-03
Plant Sink (cm)   = 1.43161E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.3120+ 0.0508+ 0.0000 - 0.0005- 0.0013-  0.0042 = 21.3567  Versus  21.3652

Mass Balance = -8.4610E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0021 cm, Actual =  0.0005 cm
Transpiration:  Potential =  0.0061 cm, Actual =  0.0013 cm
RHMEAN = 88.1 %;  TMEAN = 280.9 K;  HDRY =  1.7350E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  89, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.14537     0.25136     0.25450
Head (cm)         = 5.44376E+03 5.03906E+02 4.64837E+02
Water Flow (cm)   =-1.82563E-02-1.60451E-03 4.18246E-03
Plant Sink (cm)   = 2.44321E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.3652+ 0.0000+ 0.0000 - 0.0959- 0.2349-  0.0042 = 21.0301  Versus  21.0361

Mass Balance = -5.9166E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3838 cm, Actual =  0.0959 cm
Transpiration:  Potential =  1.0977 cm, Actual =  0.2349 cm
RHMEAN = 71.8 %;  TMEAN = 284.3 K;  HDRY =  4.5453E+05 cm;  DAYUBC =     0
```

```
--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day =  90, Simulated Time = 24.0000 hr
 -------------
 Node Number       =        2          12          25
 Depth (cm)        =     5.00000    30.70000    91.50000
 Water (cm3/cm3)   =     0.13341     0.25136     0.25450
 Head (cm)         = 8.31095E+03 5.03912E+02 4.64837E+02
 Water Flow (cm)   =-1.08255E-02-1.60784E-03 4.18246E-03
 Plant Sink (cm)   = 1.42647E-02 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
  21.0361+ 0.0254+ 0.0000 - 0.1034- 0.1844-  0.0042 = 20.7695  Versus  20.7740

 Mass Balance = -4.5185E-03 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  0.4179 cm, Actual =  0.1034 cm
 Transpiration:  Potential =  1.1952 cm, Actual =  0.1844 cm
 RHMEAN = 66.5 %;  TMEAN = 283.2 K;  HDRY =  5.6000E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day =  91, Simulated Time = 24.0000 hr
 -------------
 Node Number       =        2          12          25
 Depth (cm)        =     5.00000    30.70000    91.50000
 Water (cm3/cm3)   =     0.12770     0.25136     0.25450
 Head (cm)         = 1.05294E+04 5.03916E+02 4.64837E+02
 Water Flow (cm)   =-6.39042E-03-1.61326E-03 4.18246E-03
 Plant Sink (cm)   = 6.64049E-03 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
  20.7740+ 0.0000+ 0.0000 - 0.0619- 0.1184-  0.0042 = 20.5895  Versus  20.5986

 Mass Balance = -9.0885E-03 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  0.3479 cm, Actual =  0.0619 cm
 Transpiration:  Potential =  0.9951 cm, Actual =  0.1184 cm
 RHMEAN = 59.8 %;  TMEAN = 283.7 K;  HDRY =  7.0524E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day =  92, Simulated Time = 24.0000 hr
 -------------
 Node Number       =        2          12          25
 Depth (cm)        =     5.00000    30.70000    91.50000
 Water (cm3/cm3)   =     0.12509     0.25136     0.25450
 Head (cm)         = 1.18384E+04 5.03916E+02 4.64837E+02
 Water Flow (cm)   =-4.71530E-03-1.61374E-03 4.18246E-03
 Plant Sink (cm)   = 3.26181E-03 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
  20.5986+ 0.0254+ 0.0000 - 0.0229- 0.0816-  0.0042 = 20.5153  Versus  20.5238

 Mass Balance = -8.4057E-03 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  0.2923 cm, Actual =  0.0229 cm
```

```
Transpiration:  Potential =  0.8362 cm, Actual =  0.0816 cm
RHMEAN = 75.0 %;  TMEAN = 292.0 K;  HDRY =  3.9374E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  93, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12158     0.25136     0.25450
Head (cm)         = 1.40242E+04 5.03928E+02 4.64837E+02
Water Flow (cm)   =-2.90231E-03-1.61843E-03 4.18246E-03
Plant Sink (cm)   = 3.37386E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.5238+ 0.0000+ 0.0000 - 0.0067- 0.1353-  0.0042 = 20.3775  Versus  20.3840

Mass Balance = -6.4754E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6417 cm, Actual =  0.0067 cm
Transpiration:  Potential =  1.8356 cm, Actual =  0.1353 cm
RHMEAN = 68.0 %;  TMEAN = 297.9 K;  HDRY =  5.2825E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  94, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12038     0.25116     0.25446
Head (cm)         = 1.49115E+04 5.06429E+02 4.65312E+02
Water Flow (cm)   =-1.38565E-03-2.24772E-03 4.17444E-03
Plant Sink (cm)   = 7.30103E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.3840+ 0.0000+ 0.0000 - 0.0015- 0.0899-  0.0042 = 20.2884  Versus  20.2911

Mass Balance = -2.6188E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6055 cm, Actual =  0.0015 cm
Transpiration:  Potential =  1.7320 cm, Actual =  0.0899 cm
RHMEAN = 73.3 %;  TMEAN = 296.5 K;  HDRY =  4.2502E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  95, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11992     0.25095     0.25438
Head (cm)         = 1.52676E+04 5.09246E+02 4.66210E+02
Water Flow (cm)   =-9.03009E-04-2.43922E-03 4.16066E-03
Plant Sink (cm)   = 2.14977E-06 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.2911+ 0.0000+ 0.0000 - 0.0000- 0.0464-  0.0042 = 20.2405  Versus  20.2407
```

```
Mass Balance = -1.9455E-04 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.3736 cm, Actual =  0.0000 cm
Transpiration:  Potential =  1.0687 cm, Actual =  0.0464 cm
RHMEAN = 81.9 %;  TMEAN = 296.2 K;  HDRY =  2.7302E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  96, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.11914     0.25095     0.25438
Head (cm)          = 1.59071E+04 5.09246E+02 4.66210E+02
Water Flow (cm)    =-6.11866E-04-2.48280E-03 4.14929E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.2407+ 0.0000+ 0.0000 - 0.0110- 0.0907-  0.0041 = 20.1349  Versus  20.1424

Mass Balance = -7.4997E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9040 cm, Actual =  0.0110 cm
Transpiration:  Potential =  2.5857 cm, Actual =  0.0907 cm
RHMEAN = 62.7 %;  TMEAN = 298.4 K;  HDRY =  6.3905E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  97, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.11776     0.25095     0.25438
Head (cm)          = 1.71451E+04 5.09246E+02 4.66210E+02
Water Flow (cm)    =-3.56162E-04-2.48279E-03 4.14929E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.1424+ 0.0000+ 0.0000 - 0.0122- 0.0913-  0.0041 = 20.0348  Versus  20.0439

Mass Balance = -9.1324E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.4528 cm, Actual =  0.0122 cm
Transpiration:  Potential =  4.1554 cm, Actual =  0.0913 cm
RHMEAN = 37.9 %;  TMEAN = 297.3 K;  HDRY =  1.3282E+06 cm;  DAYUBC = *****

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  98, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.11661     0.25076     0.25430
Head (cm)          = 1.82945E+04 5.11686E+02 4.67135E+02
Water Flow (cm)    =-3.30205E-04-2.52674E-03 4.13876E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0439+ 0.0000+ 0.0000 - 0.0000- 0.0401-  0.0041 = 19.9996  Versus  19.9998

Mass Balance = -1.7166E-04 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.8720 cm, Actual =  0.0000 cm
Transpiration:  Potential =  2.4941 cm, Actual =  0.0401 cm
RHMEAN = 67.1 %;  TMEAN = 297.6 K;  HDRY =  5.4756E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  99, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12           25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11647     0.25074     0.25429
Head (cm)         = 1.84412E+04 5.12043E+02 4.67284E+02
Water Flow (cm)   =-3.50103E-04-2.54705E-03 4.12396E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9998+ 0.0000+ 0.0000 - 0.0034- 0.0416-  0.0041 = 19.9507  Versus  19.9620

Mass Balance = -1.1278E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0269 cm, Actual =  0.0034 cm
Transpiration:  Potential =  2.9371 cm, Actual =  0.0416 cm
RHMEAN = 67.0 %;  TMEAN = 298.2 K;  HDRY =  5.4966E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 100, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12           25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11590     0.25060     0.25423
Head (cm)         = 1.90491E+04 5.13792E+02 4.68040E+02
Water Flow (cm)   =-3.67366E-04-2.56141E-03 4.11325E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9620+ 0.0000+ 0.0000 - 0.0006- 0.0169-  0.0041 = 19.9403  Versus  19.9433

Mass Balance = -3.0499E-03 cm;  Time step attempts =50361 and successes =50361
  Evaporation:  Potential =  0.4196 cm, Actual =  0.0006 cm
Transpiration:  Potential =  1.2001 cm, Actual =  0.0169 cm
RHMEAN = 74.4 %;  TMEAN = 297.0 K;  HDRY =  4.0514E+05 cm;  DAYUBC = 47783

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 101, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12           25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.13674     0.25060     0.25423
```

```
Head (cm)          = 7.32364E+03 5.13792E+02 4.68040E+02
Water Flow (cm)    = 6.36401E-02-2.56558E-03 4.10564E-03
Plant Sink (cm)    = 1.07453E-01 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9433+ 1.0693+ 0.1753 - 0.3629- 0.5825-  0.0041 = 20.0631  Versus  20.0706

Mass Balance = -7.4310E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.4814 cm, Actual =  0.3629 cm
Transpiration:  Potential =  4.2374 cm, Actual =  0.5825 cm
RHMEAN = 48.7 %;  TMEAN = 291.2 K;  HDRY =  9.8604E+05 cm;  DAYUBC =  3949

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 102, Simulated Time = 24.0000 hr
-------------
Node Number        =       2         12         25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12589     0.25060     0.25423
Head (cm)          = 1.14156E+04 5.13792E+02 4.68040E+02
Water Flow (cm)    = 1.20182E-03-2.56558E-03 4.10564E-03
Plant Sink (cm)    = 9.77031E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0706+ 0.0000+ 0.0000 - 0.0729- 0.0686-  0.0041 = 19.9250  Versus  19.9329

Mass Balance = -7.8697E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5157 cm, Actual =  0.0729 cm
Transpiration:  Potential =  1.4751 cm, Actual =  0.0686 cm
RHMEAN = 61.5 %;  TMEAN = 285.9 K;  HDRY =  6.6719E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 103, Simulated Time = 24.0000 hr
-------------
Node Number        =       2         12         25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12156     0.25057     0.25421
Head (cm)          = 1.40368E+04 5.14192E+02 4.68208E+02
Water Flow (cm)    = 1.11864E-04-2.57253E-03 4.10228E-03
Plant Sink (cm)    = 3.34618E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9329+ 0.0000+ 0.0000 - 0.0035- 0.0408-  0.0041 = 19.8846  Versus  19.9017

Mass Balance = -1.7113E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5835 cm, Actual =  0.0035 cm
Transpiration:  Potential =  1.6689 cm, Actual =  0.0408 cm
RHMEAN = 64.8 %;  TMEAN = 288.4 K;  HDRY =  5.9468E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 104, Simulated Time = 24.0000 hr
-------------
```

```
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12051     0.25042     0.25413
Head (cm)         = 1.48114E+04 5.16248E+02 4.69189E+02
Water Flow (cm)   =-1.02729E-04-2.58187E-03 4.09066E-03
Plant Sink (cm)   = 2.65312E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 19.9017+ 0.0000+ 0.0000 - 0.0000- 0.0101-  0.0041 = 19.8875  Versus  19.8877

Mass Balance = -1.6403E-04 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.1971 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.5637 cm, Actual =  0.0101 cm
RHMEAN = 87.1 %;  TMEAN = 289.8 K;  HDRY =  1.8918E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 105, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.19513     0.25042     0.25413
Head (cm)         = 1.63337E+03 5.16248E+02 4.69189E+02
Water Flow (cm)   = 2.71689E-01-2.58406E-03 4.07856E-03
Plant Sink (cm)   = 5.60533E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 19.8877+ 1.3051+ 0.6507 - 0.1631- 0.3882-  0.0041 = 20.6375  Versus  20.6600

Mass Balance = -2.2522E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6655 cm, Actual =  0.1631 cm
Transpiration:  Potential =  1.9037 cm, Actual =  0.3882 cm
RHMEAN = 72.9 %;  TMEAN = 290.1 K;  HDRY =  4.3325E+05 cm;  DAYUBC = 12047
```

```
DAILY SUMMARY:  Day = 106, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.14413     0.25042     0.25413
Head (cm)         = 5.66692E+03 5.16248E+02 4.69189E+02
Water Flow (cm)   = 2.43065E-02-2.58406E-03 4.07856E-03
Plant Sink (cm)   = 4.68804E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 20.6600+ 0.0000+ 0.0000 - 0.1597- 0.3285-  0.0041 = 20.1677  Versus  20.1911

Mass Balance = -2.3458E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6388 cm, Actual =  0.1597 cm
Transpiration:  Potential =  1.8270 cm, Actual =  0.3285 cm
RHMEAN = 60.2 %;  TMEAN = 285.4 K;  HDRY =  6.9554E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 107, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12587     0.25042     0.25413
Head (cm)         = 1.14268E+04 5.16248E+02 4.69189E+02
Water Flow (cm)   =-3.26557E-04-2.58406E-03 4.07856E-03
Plant Sink (cm)   = 1.74880E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1911+ 0.0000+ 0.0000 - 0.1259- 0.1564-  0.0041 = 19.9048  Versus  19.9303

Mass Balance = -2.5482E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7307 cm, Actual =  0.1259 cm
Transpiration:  Potential =  2.0900 cm, Actual =  0.1564 cm
RHMEAN = 53.5 %;  TMEAN = 282.0 K;  HDRY =  8.5655E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 108, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12147     0.25039     0.25412
Head (cm)         = 1.41039E+04 5.16652E+02 4.69387E+02
Water Flow (cm)   =-5.90899E-04-2.58344E-03 4.07453E-03
Plant Sink (cm)   = 3.21530E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9303+ 0.0000+ 0.0000 - 0.0039- 0.0536-  0.0041 = 19.8687  Versus  19.8877

Mass Balance = -1.8932E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5602 cm, Actual =  0.0039 cm
Transpiration:  Potential =  1.6023 cm, Actual =  0.0536 cm
RHMEAN = 58.9 %;  TMEAN = 282.9 K;  HDRY =  7.2567E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 109, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12013     0.25029     0.25406
Head (cm)         = 1.51003E+04 5.18053E+02 4.70117E+02
Water Flow (cm)   =-4.03992E-04-2.58455E-03 4.06348E-03
Plant Sink (cm)   = 4.99091E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8877+ 0.0000+ 0.0000 - 0.0010- 0.0358-  0.0041 = 19.8468  Versus  19.8532

Mass Balance = -6.3801E-03 cm;  Time step attempts =67374 and successes =67374
  Evaporation:  Potential =  0.6179 cm, Actual =  0.0010 cm
Transpiration:  Potential =  1.7674 cm, Actual =  0.0358 cm
RHMEAN = 69.7 %;  TMEAN = 290.1 K;  HDRY =  4.9529E+05 cm;  DAYUBC = 64817
```

```
--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 110, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.11946     0.25016     0.25398
 Head (cm)          = 1.56429E+04 5.19678E+02 4.71017E+02
 Water Flow (cm)    =-2.75373E-04-2.58268E-03 4.04553E-03
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  19.8532+ 0.0000+ 0.0000 - 0.0004- 0.0250-  0.0040 = 19.8237  Versus  19.8264

 Mass Balance = -2.6016E-03 cm;  Time step attempts =32967 and successes =32967
   Evaporation:  Potential =  0.5505 cm, Actual =  0.0004 cm
 Transpiration:  Potential =  1.5745 cm, Actual =  0.0250 cm
 RHMEAN = 76.5 %;  TMEAN = 295.9 K;  HDRY =  3.6803E+05 cm;  DAYUBC = 30381

--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 111, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.11882     0.25013     0.25396
 Head (cm)          = 1.61890E+04 5.20196E+02 4.71312E+02
 Water Flow (cm)    =-2.48003E-04-2.57652E-03 4.03029E-03
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  19.8264+ 0.0000+ 0.0000 - 0.0019- 0.0174-  0.0040 = 19.8030  Versus  19.8176

 Mass Balance = -1.4559E-02 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  0.4118 cm, Actual =  0.0019 cm
 Transpiration:  Potential =  1.1778 cm, Actual =  0.0174 cm
 RHMEAN = 78.1 %;  TMEAN = 294.8 K;  HDRY =  3.3948E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 112, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.23335     0.25013     0.25396
 Head (cm)          = 8.59990E+02 5.20196E+02 4.71312E+02
 Water Flow (cm)    = 8.97355E-01-2.57684E-03 4.02913E-03
 Plant Sink (cm)    = 4.54513E-02 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  19.8176+ 2.1170+ 0.8040 - 0.1322- 0.3718-  0.0040 = 21.4265  Versus  21.4445

 Mass Balance = -1.7935E-02 cm;  Time step attempts =***** and successes =*****
```

```
  Evaporation:  Potential =  0.5453 cm, Actual =  0.1322 cm
Transpiration:  Potential =  1.5597 cm, Actual =  0.3718 cm
RHMEAN = 73.8 %;  TMEAN = 294.8 K;  HDRY =  4.1700E+05 cm;  DAYUBC = 14908
```

```
DAILY SUMMARY:  Day = 113, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.18611     0.25013     0.25396
Head (cm)         = 1.94912E+03 5.20196E+02 4.71312E+02
Water Flow (cm)   = 1.13765E-01-2.57684E-03 4.02913E-03
Plant Sink (cm)   = 6.55760E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.4445+ 0.2540+ 0.0000 - 0.1908- 0.5456-  0.0040 = 20.9581  Versus  20.9701

Mass Balance = -1.2051E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7707 cm, Actual =  0.1908 cm
Transpiration:  Potential =  2.2045 cm, Actual =  0.5456 cm
RHMEAN = 55.9 %;  TMEAN = 287.6 K;  HDRY =  7.9775E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 114, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.14810     0.25013     0.25396
Head (cm)         = 4.99480E+03 5.20196E+02 4.71312E+02
Water Flow (cm)   =-1.27283E-02-2.57684E-03 4.02913E-03
Plant Sink (cm)   = 3.95183E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.9701+ 0.0000+ 0.0000 - 0.1311- 0.3489-  0.0040 = 20.4861  Versus  20.4929

Mass Balance = -6.7959E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5244 cm, Actual =  0.1311 cm
Transpiration:  Potential =  1.5000 cm, Actual =  0.3489 cm
RHMEAN = 62.6 %;  TMEAN = 285.9 K;  HDRY =  6.4209E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 115, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12830     0.25013     0.25396
Head (cm)         = 1.02570E+04 5.20196E+02 4.71312E+02
Water Flow (cm)   =-6.58045E-03-2.57684E-03 4.02913E-03
Plant Sink (cm)   = 2.03572E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
```

```
 20.4929+ 0.0000+ 0.0000 - 0.1208- 0.2568-  0.0040 = 20.1112  Versus  20.1161

Mass Balance = -4.8790E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6763 cm, Actual =  0.1208 cm
Transpiration:  Potential =  1.9345 cm, Actual =  0.2568 cm
RHMEAN = 57.6 %;  TMEAN = 290.1 K;  HDRY =  7.5695E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 116, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12162     0.25013     0.25396
Head (cm)         = 1.39985E+04 5.20196E+02 4.71312E+02

Water Flow (cm)   =-2.01562E-03-2.57684E-03 4.02913E-03
Plant Sink (cm)   = 5.82130E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1161+ 0.0000+ 0.0000 - 0.0053- 0.1408-  0.0040 = 19.9660  Versus  19.9720

Mass Balance = -5.9776E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7755 cm, Actual =  0.0053 cm
Transpiration:  Potential =  2.2180 cm, Actual =  0.1408 cm
RHMEAN = 57.4 %;  TMEAN = 292.6 K;  HDRY =  7.6090E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 117, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11984     0.25013     0.25396
Head (cm)         = 1.53358E+04 5.20196E+02 4.71312E+02
Water Flow (cm)   =-7.63156E-04-2.57684E-03 4.02913E-03
Plant Sink (cm)   = 5.66124E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9720+ 0.0000+ 0.0000 - 0.0058- 0.0774-  0.0040 = 19.8847  Versus  19.8932

Mass Balance = -8.4705E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8187 cm, Actual =  0.0058 cm
Transpiration:  Potential =  2.3417 cm, Actual =  0.0774 cm
RHMEAN = 55.6 %;  TMEAN = 293.2 K;  HDRY =  8.0550E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 118, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11894     0.25006     0.25391
Head (cm)         = 1.60832E+04 5.21079E+02 4.71831E+02
```

```
Water Flow (cm)     =-4.24377E-04-2.58302E-03 4.02036E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8932+ 0.0000+ 0.0000 - 0.0021- 0.0420-  0.0040 = 19.8450  Versus  19.8521

Mass Balance = -7.1850E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6457 cm, Actual =  0.0021 cm
Transpiration:  Potential =  1.8468 cm, Actual =  0.0420 cm
RHMEAN = 65.0 %;  TMEAN = 292.3 K;  HDRY =  5.9033E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 119, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11829     0.25006     0.25391
Head (cm)           = 1.66599E+04 5.21079E+02 4.71831E+02
Water Flow (cm)     =-3.26322E-04-2.57839E-03 4.01714E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8521+ 0.0000+ 0.0000 - 0.0058- 0.0407-  0.0040 = 19.8017  Versus  19.8195

Mass Balance = -1.7818E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8094 cm, Actual =  0.0058 cm
Transpiration:  Potential =  2.3151 cm, Actual =  0.0407 cm
RHMEAN = 61.1 %;  TMEAN = 292.6 K;  HDRY =  6.7459E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 120, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11765     0.25006     0.25391
Head (cm)           = 1.72477E+04 5.21079E+02 4.71831E+02
Water Flow (cm)     =-2.92454E-04-2.57839E-03 4.01714E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8195+ 0.0000+ 0.0000 - 0.0048- 0.0297-  0.0040 = 19.7809  Versus  19.7975

Mass Balance = -1.6592E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7380 cm, Actual =  0.0048 cm
Transpiration:  Potential =  2.1109 cm, Actual =  0.0297 cm
RHMEAN = 60.9 %;  TMEAN = 292.6 K;  HDRY =  6.7937E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 121, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
```

```
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11735     0.25002     0.25389
Head (cm)           = 1.75459E+04 5.21617E+02 4.72151E+02
Water Flow (cm)     =-2.96403E-04-2.57170E-03 4.01116E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7975+ 0.0000+ 0.0000 - 0.0028- 0.0316-  0.0040 = 19.7591  Versus  19.7727

Mass Balance = -1.3618E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9391 cm, Actual =  0.0028 cm
Transpiration:  Potential =  2.6861 cm, Actual =  0.0316 cm
RHMEAN = 66.0 %;  TMEAN = 295.7 K;  HDRY =  5.7002E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 122, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11700     0.24997     0.25385
Head (cm)           = 1.78897E+04 5.22358E+02 4.72609E+02
Water Flow (cm)     =-2.99690E-04-2.57311E-03 4.00182E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7727+ 0.0000+ 0.0000 - 0.0020- 0.0253-  0.0040 = 19.7414  Versus  19.7519

Mass Balance = -1.0574E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8881 cm, Actual =  0.0020 cm
Transpiration:  Potential =  2.5403 cm, Actual =  0.0253 cm
RHMEAN = 70.9 %;  TMEAN = 296.2 K;  HDRY =  4.7140E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 123, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11694     0.24996     0.25385
Head (cm)           = 1.79491E+04 5.22445E+02 4.72662E+02
Water Flow (cm)     =-3.04155E-04-2.57255E-03 3.99807E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7519+ 0.0000+ 0.0000 - 0.0032- 0.0189-  0.0040 = 19.7258  Versus  19.7467

Mass Balance = -2.0845E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7102 cm, Actual =  0.0032 cm
Transpiration:  Potential =  2.0314 cm, Actual =  0.0189 cm
RHMEAN = 71.6 %;  TMEAN = 296.2 K;  HDRY =  4.5775E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 124, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11959     0.24996     0.25385
Head (cm)          = 1.55386E+04 5.22445E+02 4.72662E+02
Water Flow (cm)    =-1.41231E-04-2.57260E-03 3.99800E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7467+ 0.2540+ 0.0000 - 0.1443- 0.0155-  0.0040 = 19.8369  Versus  19.8567

Mass Balance = -1.9766E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5830 cm, Actual =  0.1443 cm
Transpiration:  Potential =  1.6675 cm, Actual =  0.0155 cm
RHMEAN = 73.4 %;  TMEAN = 295.4 K;  HDRY =  4.2426E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 125, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.16521     0.24996     0.25385
Head (cm)          = 3.11356E+03 5.22445E+02 4.72662E+02
Water Flow (cm)    = 2.67933E-02-2.57260E-03 3.99800E-03
Plant Sink (cm)    = 4.21773E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8567+ 0.6858+ 0.0000 - 0.1240- 0.2103-  0.0040 = 20.2041  Versus  20.2242

Mass Balance = -2.0149E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5012 cm, Actual =  0.1240 cm
Transpiration:  Potential =  1.4336 cm, Actual =  0.2103 cm
RHMEAN = 79.8 %;  TMEAN = 294.3 K;  HDRY =  3.0910E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 126, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.14044     0.24996     0.25385
Head (cm)          = 6.41591E+03 5.22445E+02 4.72662E+02
Water Flow (cm)    = 9.74640E-03-2.57260E-03 3.99800E-03
Plant Sink (cm)    = 2.43323E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.2242+ 0.0000+ 0.0000 - 0.1051- 0.1323-  0.0040 = 19.9829  Versus  20.0021

Mass Balance = -1.9144E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4203 cm, Actual =  0.1051 cm
Transpiration:  Potential =  1.2020 cm, Actual =  0.1323 cm
RHMEAN = 81.0 %;  TMEAN = 293.4 K;  HDRY =  2.8831E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 127, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12552     0.24996     0.25385
Head (cm)          = 1.16078E+04 5.22445E+02 4.72662E+02
Water Flow (cm)    = 1.53516E-03-2.57260E-03 3.99800E-03
Plant Sink (cm)    = 1.39203E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0021+ 0.0000+ 0.0000 - 0.1268- 0.0935-  0.0040 = 19.7778  Versus  19.7985

Mass Balance = -2.0748E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6688 cm, Actual =  0.1268 cm
Transpiration:  Potential =  1.9130 cm, Actual =  0.0935 cm
RHMEAN = 68.6 %;  TMEAN = 290.9 K;  HDRY =  5.1573E+05 cm;  DAYUBC = 96890
```

```
DAILY SUMMARY:  Day = 128, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12139     0.24996     0.25385
Head (cm)          = 1.41602E+04 5.22445E+02 4.72662E+02
Water Flow (cm)    = 7.40822E-05-2.57260E-03 3.99800E-03
Plant Sink (cm)    = 3.22607E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7985+ 0.0000+ 0.0000 - 0.0041- 0.0378-  0.0040 = 19.7526  Versus  19.7739

Mass Balance = -2.1305E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6159 cm, Actual =  0.0041 cm
Transpiration:  Potential =  1.7616 cm, Actual =  0.0378 cm
RHMEAN = 68.3 %;  TMEAN = 290.4 K;  HDRY =  5.2286E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 129, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12006     0.24993     0.25382
Head (cm)          = 1.51585E+04 5.22886E+02 4.72942E+02
Water Flow (cm)    =-9.17463E-05-2.57028E-03 3.99274E-03
Plant Sink (cm)    = 5.13857E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7739+ 0.0000+ 0.0000 - 0.0026- 0.0268-  0.0040 = 19.7406  Versus  19.7533

Mass Balance = -1.2690E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7665 cm, Actual =  0.0026 cm
```

```
Transpiration:  Potential =  2.1923 cm, Actual =  0.0268 cm
RHMEAN = 71.2 %;  TMEAN = 294.0 K;  HDRY =  4.6601E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 130, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12051     0.24993     0.25382
Head (cm)          = 1.48110E+04 5.22886E+02 4.72942E+02
Water Flow (cm)    =-5.55997E-05-2.56954E-03 3.99175E-03
Plant Sink (cm)    = 2.73822E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7533+ 0.1778+ 0.0000 - 0.1223- 0.0157-  0.0040 = 19.7891  Versus  19.8090

Mass Balance = -1.9920E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4942 cm, Actual =  0.1223 cm
Transpiration:  Potential =  1.4137 cm, Actual =  0.0157 cm
RHMEAN = 72.5 %;  TMEAN = 295.7 K;  HDRY =  4.4154E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 131, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.21189     0.24993     0.25382
Head (cm)          = 1.21127E+03 5.22886E+02 4.72942E+02
Water Flow (cm)    = 2.37992E-01-2.56954E-03 3.99175E-03
Plant Sink (cm)    = 2.47565E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8090+ 1.1105+ 0.2103 - 0.0720- 0.1587-  0.0040 = 20.6848  Versus  20.7044

Mass Balance = -1.9600E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2939 cm, Actual =  0.0720 cm
Transpiration:  Potential =  0.8408 cm, Actual =  0.1587 cm
RHMEAN = 80.4 %;  TMEAN = 294.5 K;  HDRY =  2.9934E+05 cm;  DAYUBC =  4769

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DAILY SUMMARY:  Day = 132, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.14924     0.24993     0.25382
Head (cm)          = 4.82352E+03 5.22886E+02 4.72942E+02
Water Flow (cm)    = 4.47160E-02-2.56954E-03 3.99175E-03
Plant Sink (cm)    = 5.61017E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.7044+ 0.0000+ 0.0000 - 0.1756- 0.3978-  0.0040 = 20.1269  Versus  20.1476
```

```
Mass Balance = -2.0615E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7025 cm, Actual =  0.1756 cm
Transpiration:  Potential =  2.0095 cm, Actual =  0.3978 cm
RHMEAN = 72.2 %;  TMEAN = 294.3 K;  HDRY =  4.4650E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 133, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12918     0.24993     0.25382
Head (cm)          = 9.87742E+03 5.22886E+02 4.72942E+02
Water Flow (cm)    =-4.13585E-04-2.56954E-03 3.99175E-03
Plant Sink (cm)    = 1.95131E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.1476+ 0.0000+ 0.0000 - 0.1387- 0.1628-  0.0040 = 19.8420  Versus  19.8620

Mass Balance = -1.9978E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6193 cm, Actual =  0.1387 cm
Transpiration:  Potential =  1.7713 cm, Actual =  0.1628 cm
RHMEAN = 78.8 %;  TMEAN = 294.3 K;  HDRY =  3.2732E+05 cm;  DAYUBC = 77991
```

```
DAILY SUMMARY:  Day = 134, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12166     0.24993     0.25382
Head (cm)          = 1.39708E+04 5.22886E+02 4.72942E+02
Water Flow (cm)    =-6.34368E-04-2.56954E-03 3.99175E-03
Plant Sink (cm)    = 6.83850E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.8620+ 0.0000+ 0.0000 - 0.0076- 0.0900-  0.0040 = 19.7604  Versus  19.7793

Mass Balance = -1.8930E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8694 cm, Actual =  0.0076 cm
Transpiration:  Potential =  2.4868 cm, Actual =  0.0900 cm
RHMEAN = 70.4 %;  TMEAN = 297.3 K;  HDRY =  4.8077E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 135, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12001     0.24993     0.25382
Head (cm)          = 1.51974E+04 5.22886E+02 4.72942E+02
Water Flow (cm)    =-2.88917E-04-2.56954E-03 3.99175E-03
Plant Sink (cm)    = 7.95896E-04 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR            STORAGE
 19.7793+ 0.0000+ 0.0000 - 0.0060- 0.0443-  0.0040 = 19.7250  Versus  19.7453

Mass Balance = -2.0281E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0597 cm, Actual =  0.0060 cm
Transpiration:  Potential =  3.0312 cm, Actual =  0.0443 cm
RHMEAN = 65.2 %;  TMEAN = 297.9 K;  HDRY =  5.8719E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 136, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000    30.70000     91.50000
Water (cm3/cm3)    =     0.11924     0.24981      0.25374
Head (cm)          = 1.58271E+04 5.24449E+02 4.73962E+02
Water Flow (cm)    =-1.82879E-04-2.56645E-03 3.97952E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR            STORAGE
 19.7453+ 0.0000+ 0.0000 - 0.0003- 0.0184-  0.0040 = 19.7227  Versus  19.7241

Mass Balance = -1.4210E-03 cm;  Time step attempts =22526 and successes =22526
  Evaporation:  Potential =  0.6446 cm, Actual =  0.0003 cm
Transpiration:  Potential =  1.8436 cm, Actual =  0.0184 cm
RHMEAN = 74.4 %;  TMEAN = 298.2 K;  HDRY =  4.0602E+05 cm;  DAYUBC = 19933
```

```
DAILY SUMMARY:  Day = 137, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000    30.70000     91.50000
Water (cm3/cm3)    =     0.18809     0.24981      0.25374
Head (cm)          = 1.87301E+03 5.24449E+02 4.73962E+02
Water Flow (cm)    = 9.99406E-02-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 4.45870E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR            STORAGE
 19.7241+ 1.0037+ 0.1646 - 0.1297- 0.2427-  0.0040 = 20.3515  Versus  20.3719

Mass Balance = -2.0323E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5294 cm, Actual =  0.1297 cm
Transpiration:  Potential =  1.5142 cm, Actual =  0.2427 cm
RHMEAN = 83.4 %;  TMEAN = 297.0 K;  HDRY =  2.4906E+05 cm;  DAYUBC =  2048
```

```
DAILY SUMMARY:  Day = 138, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000    30.70000     91.50000
Water (cm3/cm3)    =     0.23440     0.24981      0.25374
```

```
Head (cm)          = 8.46479E+02 5.24449E+02 4.73962E+02
Water Flow (cm)    = 9.96541E-01-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 4.91252E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.3719+ 1.6745+ 0.1542 - 0.1429- 0.4059-  0.0040 = 21.4936  Versus  21.5097

Mass Balance = -1.6029E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5833 cm, Actual =  0.1429 cm
Transpiration:  Potential =  1.6683 cm, Actual =  0.4059 cm
RHMEAN = 77.3 %;  TMEAN = 296.2 K;  HDRY =  3.5370E+05 cm;  DAYUBC =  6498

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 139, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.20294     0.24981     0.25374
Head (cm)          = 1.41516E+03 5.24449E+02 4.73962E+02
Water Flow (cm)    = 4.89808E-02-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 3.41507E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.5097+ 0.0762+ 0.0000 - 0.0993- 0.2841-  0.0040 = 21.1984  Versus  21.2051

Mass Balance = -6.6662E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4014 cm, Actual =  0.0993 cm
Transpiration:  Potential =  1.1481 cm, Actual =  0.2841 cm
RHMEAN = 84.8 %;  TMEAN = 294.8 K;  HDRY =  2.2653E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 140, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24755     0.24981     0.25374
Head (cm)          = 6.97510E+02 5.24449E+02 4.73962E+02
Water Flow (cm)    = 6.82931E-01-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 3.27326E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.2051+ 1.2421+ 0.0279 - 0.0952- 0.2723-  0.0040 = 22.0756  Versus  22.0800

Mass Balance = -4.4250E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3886 cm, Actual =  0.0952 cm
Transpiration:  Potential =  1.1116 cm, Actual =  0.2723 cm
RHMEAN = 83.2 %;  TMEAN = 295.9 K;  HDRY =  2.5128E+05 cm;  DAYUBC =  2174

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 141, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =        2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.22673     0.24981     0.25374
Head (cm)          = 9.52182E+02 5.24449E+02 4.73962E+02
Water Flow (cm)    = 1.34366E-01-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 3.64481E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 22.0800+ 0.2540+ 0.0000 - 0.1060- 0.3033-  0.0040 = 21.9208  Versus  21.9273

Mass Balance = -6.5327E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4284 cm, Actual =  0.1060 cm
Transpiration:  Potential =  1.2253 cm, Actual =  0.3033 cm
RHMEAN = 73.2 %;  TMEAN = 287.9 K;  HDRY =  4.2667E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 142, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.15910     0.24981     0.25374
Head (cm)          = 3.64387E+03 5.24449E+02 4.73962E+02
Water Flow (cm)    =-2.86885E-02-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 7.20058E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.9273+ 0.0000+ 0.0000 - 0.2125- 0.6030-  0.0040 = 21.1078  Versus  21.1141

Mass Balance = -6.2122E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8498 cm, Actual =  0.2125 cm
Transpiration:  Potential =  2.4307 cm, Actual =  0.6030 cm
RHMEAN = 58.4 %;  TMEAN = 289.3 K;  HDRY =  7.3747E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 143, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13033     0.24981     0.25374
Head (cm)          = 9.41076E+03 5.24449E+02 4.73962E+02
Water Flow (cm)    =-2.02506E-02-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 3.30614E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.1141+ 0.0508+ 0.0000 - 0.1973- 0.3969-  0.0040 = 20.5666  Versus  20.5740

Mass Balance = -7.3643E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8199 cm, Actual =  0.1973 cm
Transpiration:  Potential =  2.3452 cm, Actual =  0.3969 cm
RHMEAN = 59.4 %;  TMEAN = 291.8 K;  HDRY =  7.1289E+05 cm;  DAYUBC = 30490

-------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 144, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12247     0.24981     0.25374
Head (cm)          = 1.34166E+04 5.24449E+02 4.73962E+02
Water Flow (cm)    =-4.66654E-03-2.56081E-03 3.96833E-03
Plant Sink (cm)    = 7.65474E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.5740+ 0.0000+ 0.0000 - 0.0063- 0.2002-  0.0040 = 20.3636  Versus  20.3687

Mass Balance = -5.0926E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7553 cm, Actual =  0.0063 cm
Transpiration:  Potential =  2.1603 cm, Actual =  0.2002 cm
RHMEAN = 55.8 %;  TMEAN = 288.2 K;  HDRY =  7.9910E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 145, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12056     0.24978     0.25371
Head (cm)          = 1.47664E+04 5.24861E+02 4.74328E+02
Water Flow (cm)    =-1.78577E-03-2.48834E-03 3.96185E-03
Plant Sink (cm)    = 1.33994E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.3687+ 0.0000+ 0.0000 - 0.0030- 0.1090-  0.0040 = 20.2528  Versus  20.2590

Mass Balance = -6.2561E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6513 cm, Actual =  0.0030 cm
Transpiration:  Potential =  1.8629 cm, Actual =  0.1090 cm
RHMEAN = 62.8 %;  TMEAN = 288.7 K;  HDRY =  6.3737E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 146, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11988     0.24973     0.25366
Head (cm)          = 1.52980E+04 5.25570E+02 4.74877E+02
Water Flow (cm)    =-9.42377E-04-2.46623E-03 3.95111E-03
Plant Sink (cm)    = 2.66243E-05 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.2590+ 0.0000+ 0.0000 - 0.0019- 0.0802-  0.0040 = 20.1730  Versus  20.1793

Mass Balance = -6.3400E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6410 cm, Actual =  0.0019 cm
Transpiration:  Potential =  1.8334 cm, Actual =  0.0802 cm
RHMEAN = 69.4 %;  TMEAN = 291.2 K;  HDRY =  5.0032E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 147, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000     30.70000     91.50000
Water (cm3/cm3)    =     0.25232      0.24973      0.25366
Head (cm)          = 6.51543E+02 5.25570E+02 4.74877E+02
Water Flow (cm)    = 1.36870E+00-2.46300E-03 3.94785E-03
Plant Sink (cm)    = 5.00114E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.1793+ 2.7487+ 0.9851 - 0.1455- 0.4161-  0.0039 = 22.3625  Versus  22.3717

Mass Balance = -9.2068E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6062 cm, Actual =  0.1455 cm
Transpiration:  Potential =  1.7338 cm, Actual =  0.4161 cm
RHMEAN = 73.7 %;  TMEAN = 295.7 K;  HDRY =  4.1877E+05 cm;  DAYUBC = 23339
```

```
DAILY SUMMARY:  Day = 148, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000     30.70000     91.50000
Water (cm3/cm3)    =     0.18933      0.24973      0.25366
Head (cm)          = 1.82721E+03 5.25570E+02 4.74877E+02
Water Flow (cm)    =-2.10183E-02-2.46300E-03 3.94785E-03
Plant Sink (cm)    = 6.58207E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 22.3717+ 0.0000+ 0.0000 - 0.1915- 0.5477-  0.0039 = 21.6286  Versus  21.6351

Mass Balance = -6.4106E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7659 cm, Actual =  0.1915 cm
Transpiration:  Potential =  2.1906 cm, Actual =  0.5477 cm
RHMEAN = 74.2 %;  TMEAN = 295.7 K;  HDRY =  4.0968E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 149, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000     30.70000     91.50000
Water (cm3/cm3)    =     0.30066      0.24974      0.25366
Head (cm)          = 3.35008E+02 5.25408E+02 4.74877E+02
Water Flow (cm)    = 1.73955E+00-2.46217E-03 3.94785E-03
Plant Sink (cm)    = 6.06321E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.6351+ 2.5885+ 0.4341 - 0.0176- 0.0504-  0.0039 = 24.1515  Versus  24.1572
```

```
Mass Balance = -5.7068E-03 cm;  Time step attempts =***** and successes =*****

  Evaporation:  Potential =  0.0735 cm, Actual =  0.0176 cm
Transpiration:  Potential =  0.2102 cm, Actual =  0.0504 cm
RHMEAN = 91.3 %;  TMEAN = 293.7 K;  HDRY =  1.2484E+05 cm;  DAYUBC = 17203

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 150, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.35535     0.25410     0.25357
Head (cm)          = 1.39922E+02 4.69585E+02 4.76007E+02
Water Flow (cm)    = 1.89118E+00 1.30483E-02 3.93578E-03
Plant Sink (cm)    = 1.87136E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.1572+ 2.4077+ 1.3261 - 0.0544- 0.1557-  0.0039 = 26.3508  Versus  26.3511

Mass Balance = -3.0136E-04 cm;  Time step attempts = 5997 and successes = 5997
  Evaporation:  Potential =  0.2268 cm, Actual =  0.0544 cm
Transpiration:  Potential =  0.6488 cm, Actual =  0.1557 cm
RHMEAN = 88.9 %;  TMEAN = 293.4 K;  HDRY =  1.6116E+05 cm;  DAYUBC =   767

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 151, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.35094     0.25572     0.25347
Head (cm)          = 1.52666E+02 4.50437E+02 4.77216E+02
Water Flow (cm)    =-4.45114E-02 2.26787E-02 3.90905E-03
Plant Sink (cm)    = 1.01539E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.3511+ 0.0000+ 0.0000 - 0.0295- 0.0845-  0.0039 = 26.2332  Versus  26.2332

Mass Balance =  1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.1181 cm, Actual =  0.0295 cm
Transpiration:  Potential =  0.3379 cm, Actual =  0.0845 cm
RHMEAN = 86.8 %;  TMEAN = 290.1 K;  HDRY =  1.9340E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 152, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.32718     0.25595     0.25337
Head (cm)          = 2.28365E+02 4.47775E+02 4.78422E+02
Water Flow (cm)    =-2.48603E-01 1.97817E-02 3.88223E-03
Plant Sink (cm)    = 5.61133E-02 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.2332+ 0.0000+ 0.0000 - 0.1632- 0.4669-  0.0039 = 25.5992  Versus  25.5992

Mass Balance = -9.5367E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.6529 cm, Actual =  0.1632 cm
Transpiration:  Potential =  1.8675 cm, Actual =  0.4669 cm
RHMEAN = 79.2 %;  TMEAN = 291.8 K;  HDRY =  3.2004E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 153, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.28686     0.25535     0.25328
Head (cm)         = 4.04762E+02 4.54742E+02 4.79544E+02
Water Flow (cm)   =-3.25330E-01 1.23486E-02 3.85645E-03
Plant Sink (cm)   = 8.29031E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.5992+ 0.0000+ 0.0000 - 0.2412- 0.6898-  0.0039 = 24.6644  Versus  24.6645

Mass Balance = -4.9591E-05 cm;  Time step attempts =  128 and successes =  128
  Evaporation:  Potential =  0.9646 cm, Actual =  0.2412 cm
Transpiration:  Potential =  2.7591 cm, Actual =  0.6898 cm
RHMEAN = 59.7 %;  TMEAN = 295.9 K;  HDRY =  7.0789E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 154, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.25881     0.25455     0.25321
Head (cm)         = 5.94646E+02 4.64155E+02 4.80448E+02
Water Flow (cm)   =-2.62777E-01 6.41092E-03 3.83416E-03
Plant Sink (cm)   = 6.27652E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.6645+ 0.0000+ 0.0000 - 0.1826- 0.5222-  0.0038 = 23.9558  Versus  23.9559

Mass Balance = -1.7166E-05 cm;  Time step attempts =  176 and successes =  176
  Evaporation:  Potential =  0.7303 cm, Actual =  0.1826 cm
Transpiration:  Potential =  2.0889 cm, Actual =  0.5222 cm
RHMEAN = 73.7 %;  TMEAN = 298.4 K;  HDRY =  4.1847E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 155, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.20799     0.25386     0.25316
```

```
Head (cm)          = 1.29491E+03 4.72474E+02 4.81029E+02
Water Flow (cm)    =-2.19580E-01 3.13161E-03 3.81797E-03
Plant Sink (cm)    = 8.28276E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.9559+ 0.0000+ 0.0000 - 0.2409- 0.6892-  0.0038 = 23.0219  Versus  23.0219

Mass Balance = -7.6294E-06 cm;  Time step attempts =   629 and successes =   629
  Evaporation:  Potential =  0.9638 cm, Actual =  0.2409 cm
Transpiration:  Potential =  2.7566 cm, Actual =  0.6892 cm
RHMEAN = 71.2 %;  TMEAN = 301.2 K;  HDRY =  4.6613E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 156, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.16774     0.25326     0.25315
Head (cm)          = 2.92629E+03 4.79869E+02 4.81236E+02
Water Flow (cm)    =-1.63578E-01 1.10916E-03 3.80953E-03
Plant Sink (cm)    = 6.63390E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.0219+ 0.0000+ 0.0000 - 0.1932- 0.5523-  0.0038 = 22.2726  Versus  22.2726

Mass Balance =  7.4387E-05 cm;  Time step attempts = 3916 and successes = 3916
  Evaporation:  Potential =  0.7729 cm, Actual =  0.1932 cm
Transpiration:  Potential =  2.2107 cm, Actual =  0.5523 cm
RHMEAN = 74.4 %;  TMEAN = 299.8 K;  HDRY =  4.0507E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 157, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13954     0.25306     0.25314
Head (cm)          = 6.62147E+03 4.82237E+02 4.81258E+02
Water Flow (cm)    =-8.99954E-02 6.74206E-05 3.80743E-03
Plant Sink (cm)    = 4.60047E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.2726+ 0.0000+ 0.0000 - 0.1061- 0.4639-  0.0038 = 21.6988  Versus  21.7011

Mass Balance = -2.3193E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7824 cm, Actual =  0.1061 cm
Transpiration:  Potential =  2.2379 cm, Actual =  0.4639 cm
RHMEAN = 72.6 %;  TMEAN = 298.7 K;  HDRY =  4.3979E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 158, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12764     0.25291     0.25314
Head (cm)          = 1.05576E+04 4.84097E+02 4.81266E+02
Water Flow (cm)    =-3.83102E-02-5.10868E-04 3.80728E-03
Plant Sink (cm)    = 1.94121E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.7011+ 0.0000+ 0.0000 - 0.0028- 0.3500-  0.0038 = 21.3444  Versus  21.3482

Mass Balance = -3.7651E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8019 cm, Actual =  0.0028 cm
Transpiration:  Potential =  2.2936 cm, Actual =  0.3500 cm
RHMEAN = 74.2 %;  TMEAN = 298.7 K;  HDRY =  4.0867E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 159, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12489     0.25287     0.25314
Head (cm)          = 1.19516E+04 4.84599E+02 4.81266E+02
Water Flow (cm)    =-1.64125E-02-9.83512E-04 3.80726E-03
Plant Sink (cm)    = 7.56335E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.3482+ 0.2032+ 0.0000 - 0.1564- 0.2262-  0.0038 = 21.1650  Versus  21.1711

Mass Balance = -6.1035E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6318 cm, Actual =  0.1564 cm
Transpiration:  Potential =  1.8070 cm, Actual =  0.2262 cm
RHMEAN = 78.7 %;  TMEAN = 298.7 K;  HDRY =  3.2909E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 160, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000

Water (cm3/cm3)    =     0.12227     0.25286     0.25314
Head (cm)          = 1.35488E+04 4.84805E+02 4.81266E+02
Water Flow (cm)    =-8.76024E-03-1.30789E-03 3.80726E-03
Plant Sink (cm)    = 4.15419E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.1711+ 0.0000+ 0.0000 - 0.0426- 0.2000-  0.0038 = 20.9248  Versus  20.9326

Mass Balance = -7.7782E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6754 cm, Actual =  0.0426 cm
Transpiration:  Potential =  1.9318 cm, Actual =  0.2000 cm
RHMEAN = 76.5 %;  TMEAN = 299.0 K;  HDRY =  3.6799E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 161, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12095     0.25281     0.25314
Head (cm)         = 1.44794E+04 4.85460E+02 4.81266E+02
Water Flow (cm)   =-4.41842E-03-1.32441E-03 3.80726E-03
Plant Sink (cm)   = 1.73491E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.9326+ 0.0000+ 0.0000 - 0.0027- 0.1756-  0.0038 = 20.7505  Versus  20.7570

Mass Balance = -6.4602E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7337 cm, Actual =  0.0027 cm
Transpiration:  Potential =  2.0987 cm, Actual =  0.1756 cm
RHMEAN = 76.9 %;  TMEAN = 299.0 K;  HDRY =  3.5917E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 162, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12018     0.25281     0.25314
Head (cm)         = 1.50641E+04 4.85461E+02 4.81266E+02
Water Flow (cm)   =-1.98768E-03-1.30320E-03 3.80726E-03
Plant Sink (cm)   = 5.62133E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.7570+ 0.0000+ 0.0000 - 0.0060- 0.1647-  0.0038 = 20.5825  Versus  20.5907

Mass Balance = -8.1463E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9175 cm, Actual =  0.0060 cm
Transpiration:  Potential =  2.6245 cm, Actual =  0.1647 cm
RHMEAN = 71.5 %;  TMEAN = 299.5 K;  HDRY =  4.5902E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 163, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11952     0.25280     0.25314
Head (cm)         = 1.55905E+04 4.85467E+02 4.81266E+02
Water Flow (cm)   =-7.93289E-04-1.28602E-03 3.80726E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.5907+ 0.0000+ 0.0000 - 0.0050- 0.1448-  0.0038 = 20.4370  Versus  20.4453

Mass Balance = -8.3065E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.1594 cm, Actual =  0.0050 cm
Transpiration:  Potential =  3.3163 cm, Actual =  0.1448 cm
```

```
RHMEAN = 68.5 %;  TMEAN = 300.1 K;  HDRY =  5.1897E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 164, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11879     0.25254     0.25314
Head (cm)          = 1.62092E+04 4.88743E+02 4.81259E+02
Water Flow (cm)    =-3.78227E-04-1.68085E-03 3.80731E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.4453+ 0.0000+ 0.0000 - 0.0021- 0.0994-  0.0038 = 20.3400  Versus  20.3436

Mass Balance = -3.5133E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0579 cm, Actual =  0.0021 cm
Transpiration:  Potential =  3.0258 cm, Actual =  0.0994 cm
RHMEAN = 72.3 %;  TMEAN = 301.2 K;  HDRY =  4.4425E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 165, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.21900     0.25254     0.25314
Head (cm)          = 1.07674E+03 4.88822E+02 4.81259E+02
Water Flow (cm)    = 4.68646E-01-1.81099E-03 3.80735E-03
Plant Sink (cm)    = 3.69065E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.3436+ 1.5339+ 0.7266 - 0.1074- 0.2889-  0.0038 = 21.4774  Versus  21.4848

Mass Balance = -7.4234E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4427 cm, Actual =  0.1074 cm
Transpiration:  Potential =  1.2663 cm, Actual =  0.2889 cm
RHMEAN = 81.4 %;  TMEAN = 298.4 K;  HDRY =  2.8139E+05 cm;  DAYUBC = 12046

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 166, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.15363     0.25253     0.25314
Head (cm)          = 4.23895E+03 4.88904E+02 4.81259E+02
Water Flow (cm)    = 3.31411E-02-1.88007E-03 3.80735E-03
Plant Sink (cm)    = 6.36272E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.4848+ 0.0254+ 0.0000 - 0.1920- 0.5356-  0.0038 = 20.7788  Versus  20.7857
```

```
Mass Balance = -6.8569E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7758 cm, Actual =  0.1920 cm
Transpiration:  Potential =  2.2190 cm, Actual =  0.5356 cm
RHMEAN = 64.5 %;  TMEAN = 297.0 K;  HDRY =  6.0028E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 167, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12537     0.25252     0.25314
Head (cm)          = 1.16868E+04 4.88977E+02 4.81259E+02
Water Flow (cm)    =-3.61881E-03-1.94442E-03 3.80735E-03
Plant Sink (cm)    = 2.83333E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.7857+ 0.0000+ 0.0000 - 0.1566- 0.3334-  0.0038 = 20.2919  Versus  20.2993

Mass Balance = -7.4043E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9981 cm, Actual =  0.1566 cm
Transpiration:  Potential =  2.8548 cm, Actual =  0.3334 cm
RHMEAN = 60.9 %;  TMEAN = 297.6 K;  HDRY =  6.8006E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 168, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12079     0.25252     0.25314
Head (cm)          = 1.45943E+04 4.89060E+02 4.81259E+02
Water Flow (cm)    =-1.01799E-03-2.01499E-03 3.80735E-03
Plant Sink (cm)    = 3.86899E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.2993+ 0.0000+ 0.0000 - 0.0048- 0.1227-  0.0038 = 20.1680  Versus  20.1767

Mass Balance = -8.6708E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9129 cm, Actual =  0.0048 cm
Transpiration:  Potential =  2.6112 cm, Actual =  0.1227 cm
RHMEAN = 61.0 %;  TMEAN = 298.2 K;  HDRY =  6.7703E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 169, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11980     0.25246     0.25314
Head (cm)          = 1.53659E+04 4.89857E+02 4.81257E+02
Water Flow (cm)    =-3.78508E-04-2.11183E-03 3.80750E-03
Plant Sink (cm)    = 1.24052E-04 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1767+ 0.0000+ 0.0000 - 0.0041- 0.0807-  0.0038 = 20.0880  Versus  20.0946

Mass Balance = -6.5804E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0815 cm, Actual =  0.0041 cm
Transpiration:  Potential =  3.0935 cm, Actual =  0.0807 cm
RHMEAN = 62.7 %;  TMEAN = 299.0 K;  HDRY =  6.4076E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 170, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11893     0.25232     0.25315
Head (cm)         = 1.60879E+04 4.91588E+02 4.81233E+02
Water Flow (cm)   =-2.21690E-04-2.09964E-03 3.80780E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0946+ 0.0000+ 0.0000 - 0.0029- 0.0517-  0.0038 = 20.0362  Versus  20.0434

Mass Balance = -7.1964E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9384 cm, Actual =  0.0029 cm
Transpiration:  Potential =  2.6841 cm, Actual =  0.0517 cm
RHMEAN = 66.8 %;  TMEAN = 299.5 K;  HDRY =  5.5254E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 171, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11859     0.25232     0.25315
Head (cm)         = 1.63840E+04 4.91588E+02 4.81233E+02
Water Flow (cm)   =-2.09570E-04-2.09284E-03 3.80787E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0434+ 0.0508+ 0.0000 - 0.0484- 0.0286-  0.0038 = 20.0134  Versus  20.0222

Mass Balance = -8.7872E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5712 cm, Actual =  0.0484 cm
Transpiration:  Potential =  1.6338 cm, Actual =  0.0286 cm
RHMEAN = 77.6 %;  TMEAN = 298.2 K;  HDRY =  3.4825E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 172, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12217     0.25232     0.25315
Head (cm)         = 1.36167E+04 4.91588E+02 4.81233E+02
```

```
Water Flow (cm)     = 3.10951E-05-2.09284E-03 3.80787E-03
Plant Sink (cm)     = 1.15614E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.0222+ 0.2794+ 0.0000 - 0.1062- 0.0275-  0.0038 = 20.1642  Versus  20.1734

Mass Balance = -9.2793E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4290 cm, Actual =  0.1062 cm
Transpiration:  Potential =  1.2270 cm, Actual =  0.0275 cm
RHMEAN = 81.8 %;  TMEAN = 294.8 K;  HDRY =  2.7607E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 173, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.12056     0.25232     0.25315
Head (cm)           = 1.47677E+04 4.91588E+02 4.81233E+02
Water Flow (cm)     = 4.33801E-05-2.09284E-03 3.80787E-03
Plant Sink (cm)     = 1.51658E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.1734+ 0.0000+ 0.0000 - 0.1553- 0.0421-  0.0038 = 19.9722  Versus  19.9805

Mass Balance = -8.2569E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6783 cm, Actual =  0.1553 cm
Transpiration:  Potential =  1.9401 cm, Actual =  0.0421 cm
RHMEAN = 68.0 %;  TMEAN = 294.5 K;  HDRY =  5.2865E+05 cm;  DAYUBC = 73727

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 174, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11966     0.25232     0.25315
Head (cm)           = 1.54751E+04 4.91588E+02 4.81233E+02
Water Flow (cm)     =-7.25801E-05-2.09295E-03 3.80787E-03
Plant Sink (cm)     = 1.75257E-05 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.9805+ 0.0000+ 0.0000 - 0.0043- 0.0367-  0.0038 = 19.9357  Versus  19.9448

Mass Balance = -9.0847E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7918 cm, Actual =  0.0043 cm
Transpiration:  Potential =  2.2646 cm, Actual =  0.0367 cm
RHMEAN = 67.3 %;  TMEAN = 296.5 K;  HDRY =  5.4331E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 175, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11879     0.25232     0.25315
Head (cm)          = 1.62121E+04 4.91588E+02 4.81233E+02
Water Flow (cm)    =-1.36251E-04-2.09297E-03 3.80787E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9448+ 0.0000+ 0.0000 - 0.0043- 0.0344-  0.0038 = 19.9023  Versus  19.9084

Mass Balance = -6.0825E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8570 cm, Actual =  0.0043 cm
Transpiration:  Potential =  2.4512 cm, Actual =  0.0344 cm
RHMEAN = 66.7 %;  TMEAN = 297.9 K;  HDRY =  5.5541E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 176, Simulated Time = 24.0000 hr
-------------

Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11858     0.25232     0.25315
Head (cm)          = 1.63931E+04 4.91588E+02 4.81233E+02
Water Flow (cm)    =-1.79902E-04-2.09294E-03 3.80787E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9084+ 0.0000+ 0.0000 - 0.0041- 0.0307-  0.0038 = 19.8698  Versus  19.8900

Mass Balance = -2.0214E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8655 cm, Actual =  0.0041 cm
Transpiration:  Potential =  2.4756 cm, Actual =  0.0307 cm
RHMEAN = 66.7 %;  TMEAN = 297.9 K;  HDRY =  5.5541E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 177, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11830     0.25215     0.25315
Head (cm)          = 1.66517E+04 4.93768E+02 4.81186E+02
Water Flow (cm)    =-1.99908E-04-2.17568E-03 3.80864E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8900+ 0.0000+ 0.0000 - 0.0023- 0.0258-  0.0038 = 19.8581  Versus  19.8755

Mass Balance = -1.7418E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7743 cm, Actual =  0.0023 cm
Transpiration:  Potential =  2.2147 cm, Actual =  0.0258 cm
RHMEAN = 70.6 %;  TMEAN = 297.3 K;  HDRY =  4.7625E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 178, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11829     0.25214     0.25315
Head (cm)         = 1.66549E+04 4.93792E+02 4.81186E+02
Water Flow (cm)   =-2.03811E-04-2.19070E-03 3.80881E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8755+ 0.0000+ 0.0000 - 0.0036- 0.0251-  0.0038 = 19.8431  Versus  19.8718

Mass Balance = -2.8727E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7762 cm, Actual =  0.0036 cm
Transpiration:  Potential =  2.2201 cm, Actual =  0.0251 cm
RHMEAN = 70.7 %;  TMEAN = 298.7 K;  HDRY =  4.7547E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 179, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.26647     0.25214     0.25315
Head (cm)         = 5.34712E+02 4.93792E+02 4.81186E+02
Water Flow (cm)   = 1.42235E+00-2.19293E-03 3.80881E-03
Plant Sink (cm)   = 1.84596E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8718+ 2.6782+ 1.1318 - 0.0537- 0.1533-  0.0038 = 22.3392  Versus  22.3568

Mass Balance = -1.7611E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2237 cm, Actual =  0.0537 cm
Transpiration:  Potential =  0.6400 cm, Actual =  0.1533 cm
RHMEAN = 85.7 %;  TMEAN = 295.4 K;  HDRY =  2.1212E+05 cm;  DAYUBC = 26291

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 180, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.25972     0.25214     0.25315
Head (cm)         = 5.87145E+02 4.93792E+02 4.81186E+02
Water Flow (cm)   = 8.23838E-01-2.19293E-03 3.80881E-03
Plant Sink (cm)   = 5.39271E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.3568+ 1.1684+ 0.0000 - 0.1569- 0.4487-  0.0038 = 22.9158  Versus  22.9233

Mass Balance = -7.4730E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6403 cm, Actual =  0.1569 cm
Transpiration:  Potential =  1.8314 cm, Actual =  0.4487 cm
```

```
RHMEAN = 79.5 %;  TMEAN = 297.3 K;  HDRY =  3.1495E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 181, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.21642     0.25214     0.25315
Head (cm)          = 1.12322E+03 4.93793E+02 4.81186E+02
Water Flow (cm)    =-4.62051E-02-2.19409E-03 3.80881E-03
Plant Sink (cm)    = 4.90442E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 22.9233+ 0.0000+ 0.0000 - 0.1427- 0.4081-  0.0038 = 22.3687  Versus  22.3754

Mass Balance = -6.6986E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5707 cm, Actual =  0.1427 cm
Transpiration:  Potential =  1.6323 cm, Actual =  0.4081 cm
RHMEAN = 79.4 %;  TMEAN = 298.4 K;  HDRY =  3.1659E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 182, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.16752     0.25214     0.25315
Head (cm)          = 2.94196E+03 4.93793E+02 4.81186E+02
Water Flow (cm)    =-6.52096E-02-2.19425E-03 3.80881E-03
Plant Sink (cm)    = 5.85597E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 22.3754+ 0.0000+ 0.0000 - 0.1703- 0.4872-  0.0038 = 21.7140  Versus  21.7201

Mass Balance = -6.0387E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6814 cm, Actual =  0.1703 cm
Transpiration:  Potential =  1.9490 cm, Actual =  0.4872 cm
RHMEAN = 81.2 %;  TMEAN = 298.7 K;  HDRY =  2.8516E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 183, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13395     0.25214     0.25315
Head (cm)          = 8.13856E+03 4.93793E+02 4.81186E+02
Water Flow (cm)    =-3.67536E-02-2.19425E-03 3.80881E-03
Plant Sink (cm)    = 3.99819E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.7201+ 0.0000+ 0.0000 - 0.1629- 0.4354-  0.0038 = 21.1180  Versus  21.1243
```

```
Mass Balance = -6.3419E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7844 cm, Actual =  0.1629 cm
Transpiration:  Potential =  2.2436 cm, Actual =  0.4354 cm
RHMEAN = 75.3 %;  TMEAN = 299.3 K;  HDRY =  3.8921E+05 cm;  DAYUBC = 88137

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 184, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12458     0.25211     0.25315
Head (cm)         = 1.21246E+04 4.94187E+02 4.81169E+02
Water Flow (cm)   =-1.09945E-02-1.94115E-03 3.80929E-03
Plant Sink (cm)   = 1.10533E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.1243+ 0.0000+ 0.0000 - 0.0027- 0.2510-  0.0038 = 20.8668  Versus  20.8717

Mass Balance = -4.8904E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7208 cm, Actual =  0.0027 cm
Transpiration:  Potential =  2.0618 cm, Actual =  0.2510 cm
RHMEAN = 76.3 %;  TMEAN = 299.3 K;  HDRY =  3.7158E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 185, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12098     0.25211     0.25315
Head (cm)         = 1.44556E+04 4.94217E+02 4.81169E+02
Water Flow (cm)   =-3.83536E-03-1.94394E-03 3.80932E-03
Plant Sink (cm)   = 3.70989E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.8717+ 0.0000+ 0.0000 - 0.0068- 0.2108-  0.0038 = 20.6503  Versus  20.6573

Mass Balance = -7.0076E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9113 cm, Actual =  0.0068 cm
Transpiration:  Potential =  2.6066 cm, Actual =  0.2108 cm
RHMEAN = 69.2 %;  TMEAN = 301.5 K;  HDRY =  5.0451E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 186, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12019     0.25197     0.25316
Head (cm)         = 1.50583E+04 4.95983E+02 4.81099E+02
Water Flow (cm)   =-1.53655E-03-1.97311E-03 3.81049E-03
Plant Sink (cm)   = 3.64569E-04 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.6573+ 0.0000+ 0.0000 - 0.0021- 0.1136-  0.0038 = 20.5379  Versus  20.5434

Mass Balance = -5.4703E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6792 cm, Actual =  0.0021 cm
Transpiration:  Potential =  1.9428 cm, Actual =  0.1136 cm
RHMEAN = 72.8 %;  TMEAN = 301.5 K;  HDRY =  4.3456E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 187, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11961     0.25197     0.25316
Head (cm)          = 1.55216E+04 4.95983E+02 4.81099E+02
Water Flow (cm)    =-8.62326E-04-1.98032E-03 3.81082E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.5434+ 0.0000+ 0.0000 - 0.0039- 0.1251-  0.0038 = 20.4106  Versus  20.4172

Mass Balance = -6.5441E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9536 cm, Actual =  0.0039 cm
Transpiration:  Potential =  2.7274 cm, Actual =  0.1251 cm
RHMEAN = 71.9 %;  TMEAN = 302.6 K;  HDRY =  4.5238E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 188, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11882     0.25197     0.25316
Head (cm)          = 1.61837E+04 4.95983E+02 4.81099E+02
Water Flow (cm)    =-4.48546E-04-1.98032E-03 3.81082E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.4172+ 0.0000+ 0.0000 - 0.0057- 0.1065-  0.0038 = 20.3012  Versus  20.3079

Mass Balance = -6.6509E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0723 cm, Actual =  0.0057 cm
Transpiration:  Potential =  3.0672 cm, Actual =  0.1065 cm
RHMEAN = 67.2 %;  TMEAN = 303.4 K;  HDRY =  5.4446E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 189, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11859     0.25197     0.25316
```

```
Head (cm)           = 1.63876E+04 4.95983E+02 4.81099E+02
Water Flow (cm)     =-2.96343E-04-1.98032E-03 3.81082E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 20.3079+ 0.0000+ 0.0000 - 0.0044- 0.0817-  0.0038 = 20.2180  Versus  20.2269

Mass Balance = -8.9226E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0409 cm, Actual =  0.0044 cm
Transpiration:  Potential =  2.9774 cm, Actual =  0.0817 cm
RHMEAN = 66.3 %;  TMEAN = 302.9 K;  HDRY =  5.6432E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 190, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11856     0.25197     0.25316
Head (cm)           = 1.64125E+04 4.95983E+02 4.81099E+02
Water Flow (cm)     =-2.24830E-04-1.98041E-03 3.81082E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 20.2269+ 0.0000+ 0.0000 - 0.0047- 0.0629-  0.0038 = 20.1554  Versus  20.1654

Mass Balance = -1.0021E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9530 cm, Actual =  0.0047 cm
Transpiration:  Potential =  2.7257 cm, Actual =  0.0629 cm
RHMEAN = 64.8 %;  TMEAN = 303.2 K;  HDRY =  5.9364E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 191, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11825     0.25182     0.25316
Head (cm)           = 1.66906E+04 4.97913E+02 4.81024E+02
Water Flow (cm)     =-2.29770E-04-2.17490E-03 3.81201E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 20.1654+ 0.0000+ 0.0000 - 0.0024- 0.0492-  0.0038 = 20.1101  Versus  20.1169

Mass Balance = -6.8779E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8203 cm, Actual =  0.0024 cm
Transpiration:  Potential =  2.3463 cm, Actual =  0.0492 cm
RHMEAN = 69.4 %;  TMEAN = 302.3 K;  HDRY =  5.0120E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 192, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11813     0.25176     0.25316
Head (cm)          = 1.68042E+04 4.98695E+02 4.80997E+02
Water Flow (cm)    =-2.34489E-04-2.25077E-03 3.81286E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1169+ 0.0000+ 0.0000 - 0.0030- 0.0490-  0.0038 = 20.0611  Versus  20.0697

Mass Balance = -8.5621E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8920 cm, Actual =  0.0030 cm
Transpiration:  Potential =  2.5514 cm, Actual =  0.0490 cm
RHMEAN = 71.0 %;  TMEAN = 302.6 K;  HDRY =  4.6970E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 193, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11751     0.25176     0.25316
Head (cm)          = 1.73901E+04 4.98695E+02 4.80997E+02
Water Flow (cm)    =-2.48388E-04-2.25205E-03 3.81290E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0697+ 0.0000+ 0.0000 - 0.0074- 0.0484-  0.0038 = 20.0100  Versus  20.0211

Mass Balance = -1.1101E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0013 cm, Actual =  0.0074 cm
Transpiration:  Potential =  2.8641 cm, Actual =  0.0484 cm
RHMEAN = 62.0 %;  TMEAN = 304.8 K;  HDRY =  6.5517E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 194, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11672     0.25142     0.25318
Head (cm)          = 1.81755E+04 5.03066E+02 4.80759E+02
Water Flow (cm)    =-3.04324E-04-2.31818E-03 3.81549E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0211+ 0.0000+ 0.0000 - 0.0000- 0.0215-  0.0038 = 19.9958  Versus  19.9959

Mass Balance = -5.7220E-05 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.4491 cm, Actual =  0.0000 cm
Transpiration:  Potential =  1.2847 cm, Actual =  0.0215 cm
RHMEAN = 82.3 %;  TMEAN = 299.0 K;  HDRY =  2.6705E+05 cm;  DAYUBC =     0

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```

```
DAILY SUMMARY:  Day = 195, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11668     0.25142     0.25318
Head (cm)          = 1.82139E+04 5.03067E+02 4.80759E+02
Water Flow (cm)    =-3.38378E-04-2.36434E-03 3.81808E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9959+ 0.0000+ 0.0000 - 0.0068- 0.0349-  0.0038 = 19.9504  Versus  19.9635

Mass Balance = -1.3170E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7192 cm, Actual =  0.0068 cm
Transpiration:  Potential =  2.0572 cm, Actual =  0.0349 cm
RHMEAN = 66.0 %;  TMEAN = 298.7 K;  HDRY =  5.6975E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 196, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11611     0.25119     0.25320
Head (cm)          = 1.88234E+04 5.06102E+02 4.80603E+02
Water Flow (cm)    =-3.63693E-04-2.39584E-03 3.82016E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9635+ 0.0000+ 0.0000 - 0.0007- 0.0287-  0.0038 = 19.9303  Versus  19.9328

Mass Balance = -2.4662E-03 cm;  Time step attempts =52128 and successes =52128
  Evaporation:  Potential =  0.6150 cm, Actual =  0.0007 cm
Transpiration:  Potential =  1.7592 cm, Actual =  0.0287 cm
RHMEAN = 73.8 %;  TMEAN = 297.9 K;  HDRY =  4.1586E+05 cm;  DAYUBC = 49556

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DAILY SUMMARY:  Day = 197, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12454     0.25119     0.25320
Head (cm)          = 1.21492E+04 5.06102E+02 4.80603E+02
Water Flow (cm)    = 5.01107E-04-2.41094E-03 3.82155E-03
Plant Sink (cm)    = 1.00712E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9328+ 0.4572+ 0.0000 - 0.2145- 0.0822-  0.0038 = 20.0895  Versus  20.0969

Mass Balance = -7.3948E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8665 cm, Actual =  0.2145 cm
Transpiration:  Potential =  2.4785 cm, Actual =  0.0822 cm
RHMEAN = 72.5 %;  TMEAN = 302.0 K;  HDRY =  4.4133E+05 cm;  DAYUBC =     0
```

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 DAILY SUMMARY:  Day = 198, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.12050     0.25119     0.25320
 Head (cm)          = 1.48167E+04 5.06102E+02 4.80603E+02
 Water Flow (cm)    = 1.97183E-04-2.41095E-03 3.82155E-03
 Plant Sink (cm)    = 3.85455E-03 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  20.0969+ 0.0000+ 0.0000 - 0.1618- 0.0568-  0.0038 = 19.8745  Versus  19.8818

 Mass Balance = -7.3547E-03 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  1.0942 cm, Actual =  0.1618 cm
 Transpiration:  Potential =  3.1296 cm, Actual =  0.0568 cm
 RHMEAN = 67.2 %;  TMEAN = 304.3 K;  HDRY =  5.4522E+05 cm;  DAYUBC = *****

------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 199, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.11961     0.25116     0.25320
 Head (cm)          = 1.55181E+04 5.06420E+02 4.80595E+02
 Water Flow (cm)    =-4.42116E-05-2.42971E-03 3.82159E-03
 Plant Sink (cm)    = 1.37661E-05 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  19.8818+ 0.0000+ 0.0000 - 0.0035- 0.0326-  0.0038 = 19.8419  Versus  19.8581

 Mass Balance = -1.6121E-02 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  1.0439 cm, Actual =  0.0035 cm
 Transpiration:  Potential =  2.9859 cm, Actual =  0.0326 cm
 RHMEAN = 68.3 %;  TMEAN = 303.7 K;  HDRY =  5.2164E+05 cm;  DAYUBC = *****

------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 200, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    30.70000    91.50000
 Water (cm3/cm3)    =     0.11870     0.25116     0.25320
 Head (cm)          = 1.62871E+04 5.06420E+02 4.80595E+02
 Water Flow (cm)    =-1.21865E-04-2.42995E-03 3.82159E-03
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  19.8581+ 0.0000+ 0.0000 - 0.0056- 0.0297-  0.0038 = 19.8190  Versus  19.8416

 Mass Balance = -2.2663E-02 cm;  Time step attempts =***** and successes =*****
```

```
  Evaporation:  Potential =  1.0635 cm, Actual =  0.0056 cm
Transpiration:  Potential =  3.0420 cm, Actual =  0.0297 cm
RHMEAN = 64.5 %;  TMEAN = 304.3 K;  HDRY =  6.0147E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 201, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11857     0.25115     0.25320
Head (cm)         = 1.64076E+04 5.06658E+02 4.80591E+02
Water Flow (cm)   =-1.70009E-04-2.43670E-03 3.82164E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.8416+ 0.0000+ 0.0000 - 0.0039- 0.0255-  0.0038 = 19.8084  Versus  19.8324

Mass Balance = -2.3973E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9733 cm, Actual =  0.0039 cm
Transpiration:  Potential =  2.7839 cm, Actual =  0.0255 cm
RHMEAN = 65.6 %;  TMEAN = 302.6 K;  HDRY =  5.7869E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 202, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11794     0.25115     0.25320
Head (cm)         = 1.69805E+04 5.06658E+02 4.80591E+02
Water Flow (cm)   =-1.97945E-04-2.43683E-03 3.82163E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.8324+ 0.0000+ 0.0000 - 0.0052- 0.0247-  0.0038 = 19.7987  Versus  19.8232

Mass Balance = -2.4513E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9708 cm, Actual =  0.0052 cm
Transpiration:  Potential =  2.7767 cm, Actual =  0.0247 cm
RHMEAN = 63.1 %;  TMEAN = 303.4 K;  HDRY =  6.3168E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 203, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11691     0.25115     0.25320
Head (cm)         = 1.79769E+04 5.06658E+02 4.80591E+02
Water Flow (cm)   =-2.62495E-04-2.43683E-03 3.82163E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 19.8232+ 0.0000+ 0.0000 - 0.0057- 0.0260-  0.0038 = 19.7877  Versus  19.8129

Mass Balance = -2.5251E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0739 cm, Actual =  0.0057 cm
Transpiration:  Potential =  3.0715 cm, Actual =  0.0260 cm
RHMEAN = 60.0 %;  TMEAN = 303.7 K;  HDRY =  7.0047E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 204, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11626     0.25114     0.25320
Head (cm)          = 1.86611E+04 5.06724E+02 4.80591E+02
Water Flow (cm)    =-3.24069E-04-2.44539E-03 3.82164E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 19.8129+ 0.0000+ 0.0000 - 0.0047- 0.0239-  0.0038 = 19.7805  Versus  19.8073

Mass Balance = -2.6773E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0302 cm, Actual =  0.0047 cm
Transpiration:  Potential =  2.9468 cm, Actual =  0.0239 cm
RHMEAN = 60.5 %;  TMEAN = 303.4 K;  HDRY =  6.8878E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 205, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11584     0.25108     0.25320
Head (cm)          = 1.91168E+04 5.07573E+02 4.80559E+02
Water Flow (cm)    =-3.65398E-04-2.44988E-03 3.82234E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 19.8073+ 0.0000+ 0.0000 - 0.0032- 0.0208-  0.0038 = 19.7795  Versus  19.8010

Mass Balance = -2.1507E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9000 cm, Actual =  0.0032 cm
Transpiration:  Potential =  2.5741 cm, Actual =  0.0208 cm
RHMEAN = 64.6 %;  TMEAN = 304.0 K;  HDRY =  5.9844E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 206, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11520     0.25108     0.25320
```

```
Head (cm)          = 1.98495E+04 5.07573E+02 4.80559E+02
Water Flow (cm)    =-3.96037E-04-2.44959E-03 3.82244E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8010+ 0.0000+ 0.0000 - 0.0058- 0.0227-  0.0038 = 19.7686  Versus  19.7957

Mass Balance = -2.7067E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9864 cm, Actual =  0.0058 cm
Transpiration:  Potential =  2.8213 cm, Actual =  0.0227 cm
RHMEAN = 60.6 %;  TMEAN = 304.8 K;  HDRY =  6.8563E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 207, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11473     0.25093     0.25321
Head (cm)          = 2.04200E+04 5.09443E+02 4.80498E+02
Water Flow (cm)    =-4.34453E-04-2.46133E-03 3.82335E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7957+ 0.0000+ 0.0000 - 0.0017- 0.0168-  0.0038 = 19.7734  Versus  19.7845

Mass Balance = -1.1101E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7183 cm, Actual =  0.0017 cm
Transpiration:  Potential =  2.0545 cm, Actual =  0.0168 cm
RHMEAN = 68.7 %;  TMEAN = 303.2 K;  HDRY =  5.1525E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 208, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11472     0.25093     0.25321
Head (cm)          = 2.04322E+04 5.09443E+02 4.80498E+02
Water Flow (cm)    =-4.40419E-04-2.46608E-03 3.82365E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7845+ 0.0000+ 0.0000 - 0.0043- 0.0168-  0.0038 = 19.7597  Versus  19.7867

Mass Balance = -2.7081E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6787 cm, Actual =  0.0043 cm
Transpiration:  Potential =  1.9414 cm, Actual =  0.0168 cm
RHMEAN = 67.6 %;  TMEAN = 303.4 K;  HDRY =  5.3579E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 209, Simulated Time = 24.0000 hr
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```

```
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.11508     0.25093     0.25321
Head (cm)          = 1.99946E+04 5.09443E+02 4.80498E+02
Water Flow (cm)    =-4.21447E-04-2.46608E-03 3.82365E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7867+ 0.1524+ 0.0000 - 0.1533- 0.0217-  0.0038 = 19.7604  Versus  19.7859

Mass Balance = -2.5557E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8766 cm, Actual =  0.1533 cm
Transpiration:  Potential =  2.5074 cm, Actual =  0.0217 cm
RHMEAN = 66.0 %;  TMEAN = 303.7 K;  HDRY =  5.6930E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 210, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.11457     0.25076     0.25321
Head (cm)          = 2.06186E+04 5.11701E+02 4.80471E+02
Water Flow (cm)    =-4.36332E-04-2.47995E-03 3.82418E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7859+ 0.0000+ 0.0000 - 0.0009- 0.0192-  0.0038 = 19.7620  Versus  19.7683

Mass Balance = -6.3000E-03 cm;  Time step attempts =69692 and successes =69692
  Evaporation:  Potential =  0.7809 cm, Actual =  0.0009 cm
Transpiration:  Potential =  2.2337 cm, Actual =  0.0192 cm
RHMEAN = 73.3 %;  TMEAN = 302.6 K;  HDRY =  4.2644E+05 cm;  DAYUBC = 67137

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 211, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.11396     0.25076     0.25321
Head (cm)          = 2.13892E+04 5.11701E+02 4.80471E+02
Water Flow (cm)    =-4.62685E-04-2.48005E-03 3.82425E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7683+ 0.0000+ 0.0000 - 0.0079- 0.0240-  0.0038 = 19.7326  Versus  19.7547

Mass Balance = -2.2156E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0298 cm, Actual =  0.0079 cm
Transpiration:  Potential =  2.9454 cm, Actual =  0.0240 cm
RHMEAN = 63.1 %;  TMEAN = 304.3 K;  HDRY =  6.3189E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 212, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11294     0.25076     0.25321
Head (cm)         = 2.27922E+04 5.11701E+02 4.80471E+02
Water Flow (cm)   =-5.09722E-04-2.48005E-03 3.82425E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7547+ 0.0000+ 0.0000 - 0.0057- 0.0234-  0.0038 = 19.7218  Versus  19.7427

Mass Balance = -2.0853E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0975 cm, Actual =  0.0057 cm
Transpiration:  Potential =  3.1390 cm, Actual =  0.0234 cm
RHMEAN = 59.7 %;  TMEAN = 304.3 K;  HDRY =  7.0617E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 213, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11229     0.25074     0.25321
Head (cm)         = 2.37665E+04 5.11950E+02 4.80471E+02
Water Flow (cm)   =-5.55003E-04-2.48684E-03 3.82426E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7427+ 0.0000+ 0.0000 - 0.0042- 0.0197-  0.0038 = 19.7149  Versus  19.7352

Mass Balance = -2.0332E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9783 cm, Actual =  0.0042 cm
Transpiration:  Potential =  2.7983 cm, Actual =  0.0197 cm
RHMEAN = 61.3 %;  TMEAN = 302.9 K;  HDRY =  6.6971E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 214, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11166     0.25068     0.25321
Head (cm)         = 2.47694E+04 5.12739E+02 4.80476E+02
Water Flow (cm)   =-5.86752E-04-2.49789E-03 3.82423E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7352+ 0.0000+ 0.0000 - 0.0030- 0.0182-  0.0038 = 19.7102  Versus  19.7264

Mass Balance = -1.6205E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9170 cm, Actual =  0.0030 cm
Transpiration:  Potential =  2.6229 cm, Actual =  0.0182 cm
RHMEAN = 65.6 %;  TMEAN = 302.9 K;  HDRY =  5.7743E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 215, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11107     0.25068     0.25321
Head (cm)          = 2.57496E+04 5.12739E+02 4.80476E+02
Water Flow (cm)    =-6.14362E-04-2.49588E-03 3.82419E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7264+ 0.0000+ 0.0000 - 0.0049- 0.0155-  0.0038 = 19.7022  Versus  19.7248

Mass Balance = -2.2659E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7669 cm, Actual =  0.0049 cm
Transpiration:  Potential =  2.1934 cm, Actual =  0.0155 cm
RHMEAN = 63.6 %;  TMEAN = 301.5 K;  HDRY =  6.1925E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 216, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11006     0.25068     0.25321
Head (cm)          = 2.75846E+04 5.12739E+02 4.80476E+02
Water Flow (cm)    =-6.50441E-04-2.49588E-03 3.82419E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7248+ 0.0000+ 0.0000 - 0.0058- 0.0168-  0.0038 = 19.6984  Versus  19.7198

Mass Balance = -2.1358E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8065 cm, Actual =  0.0058 cm
Transpiration:  Potential =  2.3068 cm, Actual =  0.0168 cm
RHMEAN = 59.8 %;  TMEAN = 302.9 K;  HDRY =  7.0510E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 217, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.10904     0.25068     0.25321
Head (cm)          = 2.96427E+04 5.12739E+02 4.80476E+02
Water Flow (cm)    =-6.93830E-04-2.49588E-03 3.82419E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7198+ 0.0000+ 0.0000 - 0.0051- 0.0187-  0.0038 = 19.6921  Versus  19.7136

Mass Balance = -2.1498E-02 cm;  Time step attempts =***** and successes =*****
```

```
  Evaporation:  Potential =  0.9052 cm, Actual =  0.0051 cm
Transpiration:  Potential =  2.5892 cm, Actual =  0.0187 cm
RHMEAN = 58.9 %;  TMEAN = 304.0 K;  HDRY =  7.2532E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 218, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.10804     0.25068     0.25321
Head (cm)         = 3.19054E+04 5.12739E+02 4.80476E+02
Water Flow (cm)   =-7.34359E-04-2.49588E-03 3.82419E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7136+ 0.0000+ 0.0000 - 0.0049- 0.0175-  0.0038 = 19.6874  Versus  19.7091


Mass Balance = -2.1627E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8497 cm, Actual =  0.0049 cm
Transpiration:  Potential =  2.4303 cm, Actual =  0.0175 cm
RHMEAN = 58.9 %;  TMEAN = 301.5 K;  HDRY =  7.2635E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 219, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.10763     0.25059     0.25320
Head (cm)         = 3.28866E+04 5.14032E+02 4.80505E+02
Water Flow (cm)   =-7.61495E-04-2.49867E-03 3.82379E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7091+ 0.0000+ 0.0000 - 0.0022- 0.0155-  0.0038 = 19.6876  Versus  19.7008

Mass Balance = -1.3195E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7381 cm, Actual =  0.0022 cm
Transpiration:  Potential =  2.1112 cm, Actual =  0.0155 cm
RHMEAN = 66.2 %;  TMEAN = 301.8 K;  HDRY =  5.6489E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 220, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.10703     0.25059     0.25320
Head (cm)         = 3.44301E+04 5.14032E+02 4.80505E+02
Water Flow (cm)   =-7.75447E-04-2.49564E-03 3.82357E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7008+ 0.0000+ 0.0000 - 0.0058- 0.0170-  0.0038 = 19.6742  Versus  19.6965

Mass Balance = -2.2278E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7955 cm, Actual =  0.0058 cm
Transpiration:  Potential =  2.2753 cm, Actual =  0.0170 cm
RHMEAN = 61.7 %;  TMEAN = 302.9 K;  HDRY =  6.6088E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 221, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.10592     0.25059     0.25320
Head (cm)          = 3.75768E+04 5.14032E+02 4.80505E+02
Water Flow (cm)    =-8.06298E-04-2.49564E-03 3.82357E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.6965+ 0.0000+ 0.0000 - 0.0086- 0.0229-  0.0038 = 19.6611  Versus  19.6828

Mass Balance = -2.1667E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.1436 cm, Actual =  0.0086 cm
Transpiration:  Potential =  3.2710 cm, Actual =  0.0229 cm
RHMEAN = 49.5 %;  TMEAN = 306.2 K;  HDRY =  9.6246E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 222, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13888     0.25059     0.25320
Head (cm)          = 6.77754E+03 5.14032E+02 4.80505E+02
Water Flow (cm)    = 4.27166E-03-2.49564E-03 3.82357E-03

Plant Sink (cm)    = 3.38308E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.6828+ 0.7112+ 0.0000 - 0.1772- 0.1676-  0.0038 = 20.0454  Versus  20.0674

Mass Balance = -2.2018E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7159 cm, Actual =  0.1772 cm
Transpiration:  Potential =  2.0477 cm, Actual =  0.1676 cm
RHMEAN = 64.0 %;  TMEAN = 303.2 K;  HDRY =  6.1114E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 223, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13170     0.25059     0.25320
```

```
Head (cm)          = 8.89712E+03 5.14032E+02 4.80505E+02
Water Flow (cm)    = 2.51901E-03-2.49564E-03 3.82357E-03
Plant Sink (cm)    = 9.34153E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0674+ 0.0000+ 0.0000 - 0.0818- 0.0509-  0.0038 = 19.9309  Versus  19.9525

Mass Balance = -2.1605E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3270 cm, Actual =  0.0818 cm
Transpiration:  Potential =  0.9354 cm, Actual =  0.0509 cm
RHMEAN = 81.9 %;  TMEAN = 300.1 K;  HDRY =  2.7336E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 224, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12361     0.25059     0.25320
Head (cm)          = 1.26935E+04 5.14032E+02 4.80505E+02
Water Flow (cm)    = 8.30656E-04-2.49564E-03 3.82357E-03
Plant Sink (cm)    = 7.53435E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9525+ 0.0000+ 0.0000 - 0.1311- 0.0513-  0.0038 = 19.7663  Versus  19.7859

Mass Balance = -1.9564E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5990 cm, Actual =  0.1311 cm
Transpiration:  Potential =  1.7132 cm, Actual =  0.0513 cm
RHMEAN = 73.1 %;  TMEAN = 301.8 K;  HDRY =  4.2926E+05 cm;  DAYUBC = 81931

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 225, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12023     0.25059     0.25320
Head (cm)          = 1.50226E+04 5.14032E+02 4.80505E+02
Water Flow (cm)    = 9.06027E-05-2.49564E-03 3.82357E-03
Plant Sink (cm)    = 2.02600E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7859+ 0.0000+ 0.0000 - 0.0091- 0.0314-  0.0038 = 19.7415  Versus  19.7612

Mass Balance = -1.9699E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8285 cm, Actual =  0.0091 cm
Transpiration:  Potential =  2.3699 cm, Actual =  0.0314 cm
RHMEAN = 59.8 %;  TMEAN = 301.5 K;  HDRY =  7.0395E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 226, Simulated Time = 24.0000 hr
-------------
```

```
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11887     0.25059     0.25320
Head (cm)           = 1.61407E+04 5.14032E+02 4.80505E+02
Water Flow (cm)     =-1.02665E-04-2.49564E-03 3.82357E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7612+ 0.0000+ 0.0000 - 0.0058- 0.0204-  0.0038 = 19.7311  Versus  19.7513

Mass Balance = -2.0199E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8303 cm, Actual =  0.0058 cm
Transpiration:  Potential =  2.3748 cm, Actual =  0.0204 cm
RHMEAN = 57.2 %;  TMEAN = 300.1 K;  HDRY =  7.6624E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 227, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.18263     0.25059     0.25320
Head (cm)           = 2.09431E+03 5.14032E+02 4.80505E+02
Water Flow (cm)     = 2.10998E-01-2.49564E-03 3.82357E-03
Plant Sink (cm)     = 7.11507E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7513+ 1.2757+ 0.5784 - 0.2070- 0.4411-  0.0038 = 20.3751  Versus  20.3958

Mass Balance = -2.0626E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8448 cm, Actual =  0.2070 cm

Transpiration:  Potential =  2.4164 cm, Actual =  0.4411 cm
RHMEAN = 63.4 %;  TMEAN = 301.2 K;  HDRY =  6.2507E+05 cm;  DAYUBC = 12000
```

```
DAILY SUMMARY:  Day = 228, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.13797     0.25059     0.25320
Head (cm)           = 7.00339E+03 5.14032E+02 4.80505E+02
Water Flow (cm)     = 1.54689E-02-2.49564E-03 3.82357E-03
Plant Sink (cm)     = 4.17831E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.3958+ 0.0000+ 0.0000 - 0.1667- 0.2666-  0.0038 = 19.9587  Versus  19.9801

Mass Balance = -2.1389E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6666 cm, Actual =  0.1667 cm
Transpiration:  Potential =  1.9067 cm, Actual =  0.2666 cm
RHMEAN = 69.7 %;  TMEAN = 299.5 K;  HDRY =  4.9455E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 229, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12451     0.25059     0.25320
Head (cm)          = 1.21652E+04 5.14032E+02 4.80505E+02
Water Flow (cm)    = 6.50765E-05-2.49564E-03 3.82357E-03
Plant Sink (cm)    = 1.27606E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9801+ 0.0000+ 0.0000 - 0.0813- 0.1068-  0.0038 = 19.7882  Versus  19.8092

Mass Balance = -2.1040E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7197 cm, Actual =  0.0813 cm
Transpiration:  Potential =  2.0587 cm, Actual =  0.1068 cm
RHMEAN = 70.9 %;  TMEAN = 299.8 K;  HDRY =  4.7128E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 230, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12088     0.25058     0.25320
Head (cm)          = 1.45302E+04 5.14081E+02 4.80505E+02
Water Flow (cm)    =-2.94772E-04-2.48877E-03 3.82357E-03
Plant Sink (cm)    = 2.86554E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8092+ 0.0000+ 0.0000 - 0.0035- 0.0458-  0.0038 = 19.7561  Versus  19.7758

Mass Balance = -1.9669E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7474 cm, Actual =  0.0035 cm
Transpiration:  Potential =  2.1379 cm, Actual =  0.0458 cm
RHMEAN = 71.2 %;  TMEAN = 300.1 K;  HDRY =  4.6583E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 231, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11946     0.25058     0.25320
Head (cm)          = 1.56441E+04 5.14081E+02 4.80505E+02
Water Flow (cm)    =-2.24501E-04-2.48868E-03 3.82357E-03
Plant Sink (cm)    = 8.11071E-05 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7758+ 0.0000+ 0.0000 - 0.0104- 0.0293-  0.0038 = 19.7322  Versus  19.7531

Mass Balance = -2.0905E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9066 cm, Actual =  0.0104 cm
Transpiration:  Potential =  2.5930 cm, Actual =  0.0293 cm
```

```
RHMEAN = 53.6 %;  TMEAN = 299.3 K;  HDRY =  8.5417E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 232, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11826     0.25054     0.25320
Head (cm)          = 1.66836E+04 5.14669E+02 4.80523E+02
Water Flow (cm)    =-2.13805E-04-2.50008E-03 3.82330E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7531+ 0.0000+ 0.0000 - 0.0040- 0.0228-  0.0038 = 19.7225  Versus  19.7352

Mass Balance = -1.2619E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8985 cm, Actual =  0.0040 cm
Transpiration:  Potential =  2.5699 cm, Actual =  0.0228 cm
RHMEAN = 58.6 %;  TMEAN = 301.2 K;  HDRY =  7.3246E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 233, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11721     0.25054     0.25320
Head (cm)          = 1.76778E+04 5.14679E+02 4.80523E+02
Water Flow (cm)    =-2.57415E-04-2.50069E-03 3.82325E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7352+ 0.0000+ 0.0000 - 0.0049- 0.0234-  0.0038 = 19.7030  Versus  19.7221

Mass Balance = -1.9091E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0832 cm, Actual =  0.0049 cm
Transpiration:  Potential =  3.0983 cm, Actual =  0.0234 cm
RHMEAN = 58.9 %;  TMEAN = 302.3 K;  HDRY =  7.2602E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 234, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11617     0.25054     0.25320
Head (cm)          = 1.87595E+04 5.14679E+02 4.80523E+02
Water Flow (cm)    =-3.20134E-04-2.50069E-03 3.82325E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7221+ 0.0000+ 0.0000 - 0.0060- 0.0184-  0.0038 = 19.6939  Versus  19.7153
```

```
Mass Balance = -2.1439E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9168 cm, Actual =  0.0060 cm
Transpiration:  Potential =  2.6223 cm, Actual =  0.0184 cm
RHMEAN = 55.9 %;  TMEAN = 303.7 K;  HDRY =  7.9777E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 235, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.17104     0.25054     0.25320
Head (cm)         = 2.70520E+03 5.14679E+02 4.80523E+02
Water Flow (cm)   = 2.99450E-02-2.50069E-03 3.82325E-03
Plant Sink (cm)   = 3.69232E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7153+ 0.8051+ 0.0077 - 0.1086- 0.1819-  0.0038 = 20.2261  Versus  20.2470

Mass Balance = -2.0918E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4389 cm, Actual =  0.1086 cm
Transpiration:  Potential =  1.2554 cm, Actual =  0.1819 cm
RHMEAN = 67.6 %;  TMEAN = 300.9 K;  HDRY =  5.3764E+05 cm;  DAYUBC =   119

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DAILY SUMMARY:  Day = 236, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.13806     0.25054     0.25320
Head (cm)         = 6.97824E+03 5.14679E+02 4.80523E+02
Water Flow (cm)   = 1.66224E-02-2.50069E-03 3.82325E-03
Plant Sink (cm)   = 5.05718E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.2470+ 0.1778+ 0.0000 - 0.1934- 0.2673-  0.0038 = 19.9603  Versus  19.9808

Mass Balance = -2.0554E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7814 cm, Actual =  0.1934 cm
Transpiration:  Potential =  2.2352 cm, Actual =  0.2673 cm
RHMEAN = 63.4 %;  TMEAN = 301.2 K;  HDRY =  6.2507E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 237, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.18689     0.25054     0.25320
Head (cm)         = 1.91872E+03 5.14679E+02 4.80523E+02
Water Flow (cm)   = 2.29045E-01-2.50069E-03 3.82325E-03
Plant Sink (cm)   = 6.22032E-02 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.9808+ 1.0328+ 0.2118 - 0.1809- 0.4069-  0.0038 = 20.4219  Versus  20.4415

Mass Balance = -1.9608E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7386 cm, Actual =  0.1809 cm
Transpiration:  Potential =  2.1125 cm, Actual =  0.4069 cm
RHMEAN = 63.5 %;  TMEAN = 302.6 K;  HDRY =  6.2263E+05 cm;  DAYUBC =  3297

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DAILY SUMMARY:  Day = 238, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.14064     0.25054     0.25320
Head (cm)          = 6.37147E+03 5.14679E+02 4.80523E+02
Water Flow (cm)    = 1.77577E-02-2.50069E-03 3.82325E-03
Plant Sink (cm)    = 4.30854E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.4415+ 0.0000+ 0.0000 - 0.1597- 0.2849-  0.0038 = 19.9930  Versus  20.0131

Mass Balance = -2.0103E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6389 cm, Actual =  0.1597 cm
Transpiration:  Potential =  1.8276 cm, Actual =  0.2849 cm
RHMEAN = 72.6 %;  TMEAN = 300.1 K;  HDRY =  4.3936E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 239, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.12548     0.25054     0.25320
Head (cm)          = 1.16321E+04 5.14679E+02 4.80523E+02
Water Flow (cm)    =-1.25336E-04-2.50069E-03 3.82325E-03
Plant Sink (cm)    = 1.45384E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0131+ 0.0000+ 0.0000 - 0.1005- 0.1225-  0.0038 = 19.7863  Versus  19.8065

Mass Balance = -2.0166E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6967 cm, Actual =  0.1005 cm
Transpiration:  Potential =  1.9926 cm, Actual =  0.1225 cm
RHMEAN = 69.4 %;  TMEAN = 301.2 K;  HDRY =  5.0123E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 240, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.12126     0.25049     0.25320
Head (cm)          = 1.42539E+04 5.15370E+02 4.80551E+02
```

```
Water Flow (cm)    =-4.03525E-04-2.50272E-03 3.82264E-03
Plant Sink (cm)    = 3.48849E-03 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.8065+ 0.0000+ 0.0000 - 0.0026- 0.0513-  0.0038 = 19.7488  Versus  19.7635

Mass Balance = -1.4713E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6974 cm, Actual =  0.0026 cm
Transpiration:  Potential =  1.9948 cm, Actual =  0.0513 cm
RHMEAN = 71.9 %;  TMEAN = 300.1 K;  HDRY =  4.5259E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 241, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12007     0.25049     0.25320
Head (cm)          = 1.51528E+04 5.15370E+02 4.80551E+02
Water Flow (cm)    =-2.69203E-04-2.50306E-03 3.82251E-03
Plant Sink (cm)    = 4.25702E-04 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7635+ 0.0000+ 0.0000 - 0.0038- 0.0282-  0.0038 = 19.7277  Versus  19.7485

Mass Balance = -2.0844E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7089 cm, Actual =  0.0038 cm
Transpiration:  Potential =  2.0276 cm, Actual =  0.0282 cm
RHMEAN = 71.3 %;  TMEAN = 299.3 K;  HDRY =  4.6448E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 242, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11930     0.25045     0.25320
Head (cm)          = 1.57721E+04 5.15863E+02 4.80575E+02
Water Flow (cm)    =-1.99243E-04-2.50707E-03 3.82219E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7485+ 0.0000+ 0.0000 - 0.0027- 0.0210-  0.0038 = 19.7210  Versus  19.7364

Mass Balance = -1.5400E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6901 cm, Actual =  0.0027 cm
Transpiration:  Potential =  1.9739 cm, Actual =  0.0210 cm
RHMEAN = 72.9 %;  TMEAN = 299.5 K;  HDRY =  4.3246E+05 cm;  DAYUBC = *****

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 243, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
```

```
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11859     0.25045     0.25320
Head (cm)           = 1.63845E+04 5.15863E+02 4.80575E+02
Water Flow (cm)     =-2.04136E-04-2.50699E-03 3.82213E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.7364+ 0.0000+ 0.0000 - 0.0053- 0.0173-  0.0038 = 19.7100  Versus  19.7310

Mass Balance = -2.1000E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6261 cm, Actual =  0.0053 cm
Transpiration:  Potential =  1.7909 cm, Actual =  0.0173 cm
RHMEAN = 69.0 %;  TMEAN = 298.4 K;  HDRY =  5.0792E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 244, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11839     0.25040     0.25320
Head (cm)           = 1.65639E+04 5.16516E+02 4.80618E+02
Water Flow (cm)     =-2.14062E-04-2.50528E-03 3.82137E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.7310+ 0.0000+ 0.0000 - 0.0026- 0.0175-  0.0038 = 19.7071  Versus  19.7246

Mass Balance = -1.7414E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6631 cm, Actual =  0.0026 cm
Transpiration:  Potential =  1.8966 cm, Actual =  0.0175 cm
RHMEAN = 71.6 %;  TMEAN = 298.7 K;  HDRY =  4.5761E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 245, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11839     0.25040     0.25320
Head (cm)           = 1.65646E+04 5.16516E+02 4.80618E+02
Water Flow (cm)     =-2.02226E-04-2.50578E-03 3.82123E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.7246+ 0.0000+ 0.0000 - 0.0039- 0.0171-  0.0038 = 19.6998  Versus  19.7226

Mass Balance = -2.2873E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6680 cm, Actual =  0.0039 cm
Transpiration:  Potential =  1.9106 cm, Actual =  0.0171 cm
RHMEAN = 70.8 %;  TMEAN = 299.5 K;  HDRY =  4.7233E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 246, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11838     0.25040     0.25320
Head (cm)         = 1.65773E+04 5.16516E+02 4.80618E+02
Water Flow (cm)   =-1.99467E-04-2.50578E-03 3.82123E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7226+ 0.0000+ 0.0000 - 0.0048- 0.0149-  0.0038 = 19.6992  Versus  19.7234

Mass Balance = -2.4189E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5763 cm, Actual =  0.0048 cm
Transpiration:  Potential =  1.6483 cm, Actual =  0.0149 cm
RHMEAN = 68.3 %;  TMEAN = 300.4 K;  HDRY =  5.2226E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 247, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11805     0.25032     0.25319
Head (cm)         = 1.68732E+04 5.17608E+02 4.80712E+02
Water Flow (cm)   =-2.20066E-04-2.50864E-03 3.81958E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7234+ 0.0000+ 0.0000 - 0.0019- 0.0117-  0.0038 = 19.7059  Versus  19.7190

Mass Balance = -1.3155E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4350 cm, Actual =  0.0019 cm
Transpiration:  Potential =  1.2442 cm, Actual =  0.0117 cm
RHMEAN = 72.5 %;  TMEAN = 299.5 K;  HDRY =  4.4130E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 248, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11805     0.25032     0.25319
Head (cm)         = 1.68732E+04 5.17608E+02 4.80712E+02
Water Flow (cm)   =-2.24845E-04-2.50854E-03 3.81902E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7190+ 0.0762+ 0.0000 - 0.0729- 0.0086-  0.0038 = 19.7099  Versus  19.7288

Mass Balance = -1.8888E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2947 cm, Actual =  0.0729 cm
Transpiration:  Potential =  0.8428 cm, Actual =  0.0086 cm
RHMEAN = 76.3 %;  TMEAN = 299.8 K;  HDRY =  3.6994E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 249, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11805     0.25032     0.25319
Head (cm)          = 1.68735E+04 5.17608E+02 4.80712E+02
Water Flow (cm)    =-2.24833E-04-2.50854E-03 3.81902E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7288+ 0.0254+ 0.0000 - 0.0313- 0.0200-  0.0038 = 19.6991  Versus  19.7205

Mass Balance = -2.1435E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6890 cm, Actual =  0.0313 cm
Transpiration:  Potential =  1.9707 cm, Actual =  0.0200 cm
RHMEAN = 74.7 %;  TMEAN = 299.8 K;  HDRY =  4.0068E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 250, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.15887     0.25032     0.25319
Head (cm)          = 3.66694E+03 5.17608E+02 4.80712E+02
Water Flow (cm)    = 3.73494E-02-2.50854E-03 3.81902E-03
Plant Sink (cm)    = 6.08350E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 19.7205+ 0.8746+ 0.1668 - 0.1791- 0.3084-  0.0038 = 20.1038  Versus  20.1233

Mass Balance = -1.9480E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7309 cm, Actual =  0.1791 cm
Transpiration:  Potential =  2.0906 cm, Actual =  0.3084 cm
RHMEAN = 77.2 %;  TMEAN = 299.0 K;  HDRY =  3.5476E+05 cm;  DAYUBC =  2056
```

```
DAILY SUMMARY:  Day = 251, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25781     0.25032     0.25319
Head (cm)          = 6.03013E+02 5.17608E+02 4.80712E+02
Water Flow (cm)    = 1.13837E+00-2.50854E-03 3.81902E-03
Plant Sink (cm)    = 1.39535E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1233+ 1.9178+ 0.2666 - 0.0406- 0.1153-  0.0038 = 21.8813  Versus  21.8968

Mass Balance = -1.5530E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1674 cm, Actual =  0.0406 cm
```

```
Transpiration:  Potential =  0.4788 cm, Actual =  0.1153 cm
RHMEAN = 84.7 %;  TMEAN = 294.0 K;  HDRY =  2.2805E+05 cm;  DAYUBC =  7990

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 252, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.20463     0.25032     0.25319
Head (cm)           = 1.37317E+03 5.17608E+02 4.80712E+02
Water Flow (cm)     = 4.76769E-02-2.50854E-03 3.81902E-03
Plant Sink (cm)     = 4.94069E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.8968+ 0.0254+ 0.0000 - 0.1437- 0.4111-  0.0038 = 21.3636  Versus  21.3698

Mass Balance = -6.1760E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5807 cm, Actual =  0.1437 cm
Transpiration:  Potential =  1.6610 cm, Actual =  0.4111 cm
RHMEAN = 69.7 %;  TMEAN = 292.6 K;  HDRY =  4.9471E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 253, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.16308     0.25032     0.25319
Head (cm)           = 3.28496E+03 5.17608E+02 4.80712E+02
Water Flow (cm)     =-2.52494E-02-2.50854E-03 3.81902E-03
Plant Sink (cm)     = 4.49867E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.3698+ 0.0000+ 0.0000 - 0.1316- 0.3752-  0.0038 = 20.8592  Versus  20.8639

Mass Balance = -4.7665E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5263 cm, Actual =  0.1316 cm
Transpiration:  Potential =  1.5052 cm, Actual =  0.3752 cm
RHMEAN = 67.4 %;  TMEAN = 291.8 K;  HDRY =  5.4068E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 254, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.13690     0.25032     0.25319
Head (cm)           = 7.27986E+03 5.17608E+02 4.80712E+02
Water Flow (cm)     =-1.68107E-02-2.50854E-03 3.81902E-03
Plant Sink (cm)     = 2.88412E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.8639+ 0.0000+ 0.0000 - 0.1400- 0.3052-  0.0038 = 20.4148  Versus  20.4222
```

```
Mass Balance = -7.3185E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5602 cm, Actual =  0.1400 cm
Transpiration:  Potential =  1.6023 cm, Actual =  0.3052 cm
RHMEAN = 68.9 %;  TMEAN = 293.2 K;  HDRY =  5.1119E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 255, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12670     0.25032     0.25319
Head (cm)          = 1.10028E+04 5.17608E+02 4.80712E+02
Water Flow (cm)    =-5.98272E-03-2.50854E-03 3.81902E-03
Plant Sink (cm)    = 1.08642E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.4222+ 0.0000+ 0.0000 - 0.0317- 0.1775-  0.0038 = 20.2092  Versus  20.2166

Mass Balance = -7.4902E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5374 cm, Actual =  0.0317 cm
Transpiration:  Potential =  1.5372 cm, Actual =  0.1775 cm
RHMEAN = 67.8 %;  TMEAN = 294.5 K;  HDRY =  5.3329E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 256, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12249     0.25029     0.25319
Head (cm)          = 1.34020E+04 5.17977E+02 4.80740E+02
Water Flow (cm)    =-2.65875E-03-2.51215E-03 3.81850E-03
Plant Sink (cm)    = 4.00889E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.2166+ 0.0000+ 0.0000 - 0.0032- 0.1118-  0.0038 = 20.0977  Versus  20.1042

Mass Balance = -6.4392E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5316 cm, Actual =  0.0032 cm
Transpiration:  Potential =  1.5206 cm, Actual =  0.1118 cm
RHMEAN = 69.5 %;  TMEAN = 295.1 K;  HDRY =  4.9862E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 257, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12091     0.25021     0.25318
Head (cm)          = 1.45064E+04 5.19006E+02 4.80860E+02
Water Flow (cm)    =-1.46415E-03-2.50148E-03 3.81661E-03
Plant Sink (cm)    = 1.13822E-03 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1042+ 0.0000+ 0.0000 - 0.0019- 0.0672-  0.0038 = 20.0313  Versus  20.0376

Mass Balance = -6.3152E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4499 cm, Actual =  0.0019 cm
Transpiration:  Potential =  1.2867 cm, Actual =  0.0672 cm
RHMEAN = 73.3 %;  TMEAN = 296.5 K;  HDRY =  4.2502E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 258, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000     91.50000
Water (cm3/cm3)    =     0.17321     0.25021      0.25318
Head (cm)          = 2.57321E+03 5.19006E+02 4.80860E+02
Water Flow (cm)    = 2.04030E-02-2.50265E-03 3.81600E-03
Plant Sink (cm)    = 1.72274E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0376+ 0.6604+ 0.0000 - 0.0514- 0.1044-  0.0038 = 20.5383  Versus  20.5559

Mass Balance = -1.7595E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2077 cm, Actual =  0.0514 cm
Transpiration:  Potential =  0.5941 cm, Actual =  0.1044 cm
RHMEAN = 83.4 %;  TMEAN = 294.8 K;  HDRY =  2.4902E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 259, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000     91.50000
Water (cm3/cm3)    =     0.21000     0.25021      0.25318
Head (cm)          = 1.25075E+03 5.19006E+02 4.80860E+02
Water Flow (cm)    = 1.74059E-01-2.50265E-03 3.81600E-03
Plant Sink (cm)    = 9.22315E-03 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.5559+ 0.4572+ 0.0000 - 0.0268- 0.0672-  0.0038 = 20.9153  Versus  20.9390

Mass Balance = -2.3737E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1084 cm, Actual =  0.0268 cm
Transpiration:  Potential =  0.3101 cm, Actual =  0.0672 cm
RHMEAN = 87.7 %;  TMEAN = 295.7 K;  HDRY =  1.8050E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 260, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000     91.50000
Water (cm3/cm3)    =     0.17776     0.25021      0.25318
```

```
Head (cm)          = 2.32427E+03 5.19006E+02 4.80860E+02
Water Flow (cm)    = 6.04837E-02-2.50265E-03 3.81600E-03
Plant Sink (cm)    = 2.72269E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.9390+ 0.0254+ 0.0000 - 0.0792- 0.2169-  0.0038 = 20.6644  Versus  20.6889

Mass Balance = -2.4416E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3200 cm, Actual =  0.0792 cm
Transpiration:  Potential =  0.9153 cm, Actual =  0.2169 cm
RHMEAN = 79.8 %;  TMEAN = 298.2 K;  HDRY =  3.0846E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 261, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.27679     0.25021     0.25318
Head (cm)          = 4.64238E+02 5.19006E+02 4.80860E+02
Water Flow (cm)    = 1.60145E+00-2.50265E-03 3.81600E-03
Plant Sink (cm)    = 1.99619E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.6889+ 2.4350+ 0.2066 - 0.0581- 0.1661-  0.0038 = 22.8959  Versus  22.9079

Mass Balance = -1.1984E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2395 cm, Actual =  0.0581 cm
Transpiration:  Potential =  0.6849 cm, Actual =  0.1661 cm
RHMEAN = 88.2 %;  TMEAN = 295.1 K;  HDRY =  1.7238E+05 cm;  DAYUBC =  7762

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 262, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.22977     0.25021     0.25318
Head (cm)          = 9.08392E+02 5.19006E+02 4.80860E+02
Water Flow (cm)    = 4.37563E-03-2.50265E-03 3.81600E-03
Plant Sink (cm)    = 4.53700E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.9079+ 0.0000+ 0.0000 - 0.1320- 0.3775-  0.0038 = 22.3946  Versus  22.4009

Mass Balance = -6.3400E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5279 cm, Actual =  0.1320 cm
Transpiration:  Potential =  1.5100 cm, Actual =  0.3775 cm
RHMEAN = 70.0 %;  TMEAN = 295.4 K;  HDRY =  4.8833E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 263, Simulated Time = 24.0000 hr
-------------
```

```
Node Number       =      2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.21961     0.25021     0.25318
Head (cm)         = 1.06619E+03 5.19006E+02 4.80860E+02
Water Flow (cm)   =-3.78997E-02-2.50265E-03 3.81600E-03
Plant Sink (cm)   = 1.40584E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.4009+ 0.0000+ 0.0000 - 0.0409- 0.1170-  0.0038 = 22.2393  Versus  22.2415

Mass Balance = -2.2106E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1636 cm, Actual =  0.0409 cm
Transpiration:  Potential =  0.4679 cm, Actual =  0.1170 cm
RHMEAN = 86.0 %;  TMEAN = 292.9 K;  HDRY =  2.0731E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 264, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.20096     0.25021     0.25318
Head (cm)         = 1.46643E+03 5.19006E+02 4.80860E+02
Water Flow (cm)   =-3.94440E-02-2.50262E-03 3.81600E-03
Plant Sink (cm)   = 2.40620E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.2415+ 0.0000+ 0.0000 - 0.0700- 0.2002-  0.0038 = 21.9674  Versus  21.9707

Mass Balance = -3.2864E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2800 cm, Actual =  0.0700 cm
Transpiration:  Potential =  0.8008 cm, Actual =  0.2002 cm
RHMEAN = 83.9 %;  TMEAN = 294.8 K;  HDRY =  2.4002E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 265, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.17621     0.25021     0.25318
Head (cm)         = 2.40491E+03 5.19006E+02 4.80860E+02
Water Flow (cm)   =-4.61988E-02-2.50262E-03 3.81600E-03
Plant Sink (cm)   = 3.15925E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.9707+ 0.0000+ 0.0000 - 0.0919- 0.2629-  0.0038 = 21.6122  Versus  21.6217

Mass Balance = -9.5444E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3676 cm, Actual =  0.0919 cm
Transpiration:  Potential =  1.0515 cm, Actual =  0.2629 cm
RHMEAN = 81.6 %;  TMEAN = 295.7 K;  HDRY =  2.7872E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 266, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.14184     0.25021     0.25318

Head (cm)          = 6.11525E+03 5.19006E+02 4.80860E+02
Water Flow (cm)    =-3.28080E-02-2.50262E-03 3.81600E-03
Plant Sink (cm)    = 4.07488E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE

 21.6217+ 0.0254+ 0.0000 - 0.1551- 0.3871-  0.0038 = 21.1011  Versus  21.1068

Mass Balance = -5.6534E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6267 cm, Actual =  0.1551 cm
Transpiration:  Potential =  1.7925 cm, Actual =  0.3871 cm
RHMEAN = 72.8 %;  TMEAN = 294.8 K;  HDRY =  4.3533E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 267, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12864     0.25021     0.25318
Head (cm)          = 1.01092E+04 5.19006E+02 4.80860E+02
Water Flow (cm)    =-1.35865E-02-2.50262E-03 3.81600E-03
Plant Sink (cm)    = 1.54981E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.1068+ 0.0000+ 0.0000 - 0.0738- 0.2445-  0.0038 = 20.7847  Versus  20.7921

Mass Balance = -7.4463E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5916 cm, Actual =  0.0738 cm
Transpiration:  Potential =  1.6922 cm, Actual =  0.2445 cm
RHMEAN = 66.9 %;  TMEAN = 288.4 K;  HDRY =  5.5071E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 268, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12469     0.25021     0.25318
Head (cm)          = 1.20651E+04 5.19006E+02 4.80862E+02
Water Flow (cm)    =-6.67158E-03-2.46066E-03 3.81580E-03
Plant Sink (cm)    = 4.91896E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.7921+ 0.0000+ 0.0000 - 0.0039- 0.1310-  0.0038 = 20.6534  Versus  20.6635

Mass Balance = -1.0113E-02 cm;  Time step attempts =***** and successes =*****
```

```
  Evaporation:  Potential =  0.4264 cm, Actual =  0.0039 cm
Transpiration:  Potential =  1.2197 cm, Actual =  0.1310 cm
RHMEAN = 67.5 %;  TMEAN = 286.8 K;  HDRY =  5.3856E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 269, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12261     0.25019     0.25317
Head (cm)          = 1.33237E+04 5.19388E+02 4.80960E+02
Water Flow (cm)    =-4.66403E-03-2.30399E-03 3.81414E-03
Plant Sink (cm)    = 2.42812E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 20.6635+ 0.0000+ 0.0000 - 0.0025- 0.1044-  0.0038 = 20.5528  Versus  20.5581

Mass Balance = -5.2738E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4011 cm, Actual =  0.0025 cm
Transpiration:  Potential =  1.1474 cm, Actual =  0.1044 cm
RHMEAN = 71.0 %;  TMEAN = 287.9 K;  HDRY =  4.7031E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 270, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12129     0.25019     0.25317
Head (cm)          = 1.42270E+04 5.19388E+02 4.80960E+02
Water Flow (cm)    =-3.23369E-03-2.28229E-03 3.81372E-03
Plant Sink (cm)    = 1.44252E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 20.5581+ 0.0000+ 0.0000 - 0.0053- 0.1031-  0.0038 = 20.4458  Versus  20.4529

Mass Balance = -7.0210E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4716 cm, Actual =  0.0053 cm
Transpiration:  Potential =  1.3490 cm, Actual =  0.1031 cm
RHMEAN = 67.3 %;  TMEAN = 290.4 K;  HDRY =  5.4202E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 271, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12059     0.25017     0.25317
Head (cm)          = 1.47495E+04 5.19586E+02 4.80983E+02
Water Flow (cm)    =-2.19032E-03-2.30708E-03 3.81341E-03
Plant Sink (cm)    = 5.43306E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
```

```
 20.4529+ 0.0000+ 0.0000 - 0.0035- 0.0814-  0.0038 = 20.3641  Versus  20.3702

Mass Balance = -6.0349E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4449 cm, Actual =  0.0035 cm
Transpiration:  Potential =  1.2724 cm, Actual =  0.0814 cm
RHMEAN = 68.5 %;  TMEAN = 291.5 K;  HDRY =  5.1815E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 272, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.12010     0.25017     0.25317
Head (cm)         = 1.51285E+04 5.19586E+02 4.80983E+02
Water Flow (cm)   =-1.54298E-03-2.30805E-03 3.81338E-03
Plant Sink (cm)   = 1.23074E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.3702+ 0.0000+ 0.0000 - 0.0043- 0.0763-  0.0038 = 20.2857  Versus  20.2923

Mass Balance = -6.6166E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4884 cm, Actual =  0.0043 cm
Transpiration:  Potential =  1.3971 cm, Actual =  0.0763 cm
RHMEAN = 67.5 %;  TMEAN = 290.1 K;  HDRY =  5.3845E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 273, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11954     0.25017     0.25317
Head (cm)         = 1.55782E+04 5.19586E+02 4.80983E+02
Water Flow (cm)   =-1.17225E-03-2.30805E-03 3.81338E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.2923+ 0.0000+ 0.0000 - 0.0041- 0.0573-  0.0038 = 20.2271  Versus  20.2345

Mass Balance = -7.3757E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4107 cm, Actual =  0.0041 cm
Transpiration:  Potential =  1.1747 cm, Actual =  0.0573 cm
RHMEAN = 67.3 %;  TMEAN = 289.3 K;  HDRY =  5.4213E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 274, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11890     0.25017     0.25317
Head (cm)         = 1.61151E+04 5.19586E+02 4.80983E+02
Water Flow (cm)   =-1.00060E-03-2.30805E-03 3.81338E-03
```

```
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.2345+ 0.0000+ 0.0000 - 0.0046- 0.0525-  0.0038 = 20.1736  Versus  20.1811

Mass Balance = -7.4329E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4071 cm, Actual =  0.0046 cm
Transpiration:  Potential =  1.1644 cm, Actual =  0.0525 cm
RHMEAN = 66.0 %;  TMEAN = 289.8 K;  HDRY =  5.6861E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 275, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11859     0.25017     0.25317
Head (cm)          = 1.63843E+04 5.19586E+02 4.80983E+02
Water Flow (cm)    =-7.99225E-04-2.30805E-03 3.81338E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1811+ 0.0254+ 0.0000 - 0.0289- 0.0644-  0.0038 = 20.1094  Versus  20.1154

Mass Balance = -5.9986E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5737 cm, Actual =  0.0289 cm
Transpiration:  Potential =  1.6410 cm, Actual =  0.0644 cm
RHMEAN = 65.1 %;  TMEAN = 290.9 K;  HDRY =  5.8744E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 276, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.11858     0.25017     0.25317
Head (cm)          = 1.63955E+04 5.19586E+02 4.80983E+02
Water Flow (cm)    =-5.38995E-04-2.30805E-03 3.81338E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1154+ 0.0000+ 0.0000 - 0.0051- 0.0613-  0.0038 = 20.0451  Versus  20.0571

Mass Balance = -1.2007E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6695 cm, Actual =  0.0051 cm
Transpiration:  Potential =  1.9150 cm, Actual =  0.0613 cm
RHMEAN = 63.0 %;  TMEAN = 294.0 K;  HDRY =  6.3405E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 277, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
```

```
Water (cm3/cm3)    =     0.11789     0.24999     0.25313
Head (cm)          = 1.70243E+04 5.21971E+02 4.81377E+02
Water Flow (cm)    =-4.23713E-04-2.44572E-03 3.80905E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0571+ 0.0000+ 0.0000 - 0.0003- 0.0454-  0.0038 = 20.0076  Versus  20.0087

Mass Balance = -1.1101E-03 cm;  Time step attempts =23636 and successes =23636
  Evaporation:  Potential =  0.5866 cm, Actual =  0.0003 cm
Transpiration:  Potential =  1.6778 cm, Actual =  0.0454 cm
RHMEAN = 73.2 %;  TMEAN = 295.9 K;  HDRY =  4.2692E+05 cm;  DAYUBC = 21034

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 278, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12076     0.24999     0.25313
Head (cm)          = 1.46157E+04 5.21972E+02 4.81377E+02
Water Flow (cm)    =-2.57833E-04-2.47745E-03 3.80489E-03
Plant Sink (cm)    = 1.16340E-05 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.0087+ 0.2286+ 0.0000 - 0.0605- 0.0183-  0.0038 = 20.1547  Versus  20.1654

Mass Balance = -1.0763E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2445 cm, Actual =  0.0605 cm
Transpiration:  Potential =  0.6992 cm, Actual =  0.0183 cm
RHMEAN = 79.2 %;  TMEAN = 286.2 K;  HDRY =  3.2031E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 279, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12084     0.24999     0.25313
Head (cm)          = 1.45590E+04 5.21972E+02 4.81377E+02
Water Flow (cm)    =-1.54986E-04-2.47746E-03 3.80489E-03
Plant Sink (cm)    = 4.54854E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.1654+ 0.0000+ 0.0000 - 0.0863- 0.0290-  0.0038 = 20.0464  Versus  20.0537

Mass Balance = -7.3776E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3450 cm, Actual =  0.0863 cm
Transpiration:  Potential =  0.9869 cm, Actual =  0.0290 cm
RHMEAN = 63.6 %;  TMEAN = 283.4 K;  HDRY =  6.1977E+05 cm;  DAYUBC =     0

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```

```
DAILY SUMMARY:  Day = 280, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.12011     0.24999     0.25313
Head (cm)           = 1.51175E+04 5.21972E+02 4.81377E+02
Water Flow (cm)     =-1.76903E-04-2.47746E-03 3.80489E-03
Plant Sink (cm)     = 2.92058E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 20.0537+ 0.0000+ 0.0000 - 0.0723- 0.0350-  0.0038 = 19.9427  Versus  19.9521

Mass Balance = -9.4814E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4498 cm, Actual =  0.0723 cm
Transpiration:  Potential =  1.2865 cm, Actual =  0.0350 cm
RHMEAN = 65.1 %;  TMEAN = 284.5 K;  HDRY =  5.8882E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 281, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.11923     0.24999     0.25313
Head (cm)           = 1.58344E+04 5.21972E+02 4.81377E+02
Water Flow (cm)     =-1.96846E-04-2.47746E-03 3.80489E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.9521+ 0.0000+ 0.0000 - 0.0044- 0.0462-  0.0038 = 19.8977  Versus  19.9136

Mass Balance = -1.5821E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.7227 cm, Actual =  0.0044 cm
Transpiration:  Potential =  2.0672 cm, Actual =  0.0462 cm
RHMEAN = 64.8 %;  TMEAN = 289.5 K;  HDRY =  5.9414E+05 cm;  DAYUBC = *****

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DAILY SUMMARY:  Day = 282, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.21078     0.24999     0.25313
Head (cm)           = 1.23423E+03 5.21972E+02 4.81377E+02
Water Flow (cm)     = 2.69388E-01-2.47746E-03 3.80489E-03
Plant Sink (cm)     = 2.99061E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 19.9136+ 1.2318+ 0.2668 - 0.0870- 0.2090-  0.0038 = 20.8456  Versus  20.8535

Mass Balance = -7.9155E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3551 cm, Actual =  0.0870 cm
Transpiration:  Potential =  1.0156 cm, Actual =  0.2090 cm
RHMEAN = 76.1 %;  TMEAN = 294.0 K;  HDRY =  3.7383E+05 cm;  DAYUBC =  8497
```

```
DAILY SUMMARY:  Day = 283, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.31845     0.25029     0.25313
Head (cm)          = 2.60304E+02 5.17940E+02 4.81377E+02
Water Flow (cm)    = 3.22834E+00-2.16070E-03 3.80489E-03
Plant Sink (cm)    = 1.21679E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.8535+ 3.9712+ 1.4644 - 0.0035- 0.0101-  0.0038 = 24.8072  Versus  24.8136

Mass Balance = -6.3496E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0151 cm, Actual =  0.0035 cm
Transpiration:  Potential =  0.0431 cm, Actual =  0.0101 cm
RHMEAN = 87.4 %;  TMEAN = 292.9 K;  HDRY =  1.8457E+05 cm;  DAYUBC = 38266
```

```
DAILY SUMMARY:  Day = 284, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.32694     0.25197     0.25310
Head (cm)          = 2.29206E+02 4.95978E+02 4.81822E+02
Water Flow (cm)    = 5.52926E-01 5.40500E-03 3.80112E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.8136+ 0.6096+ 0.0000 - 0.0000- 0.0000-  0.0038 = 25.4193  Versus  25.4199

Mass Balance = -5.5885E-04 cm;  Time step attempts =40096 and successes =40096
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 97.3 %;  TMEAN = 288.4 K;  HDRY =  3.7054E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 285, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.35766     0.25584     0.25305
Head (cm)          = 1.33373E+02 4.49129E+02 4.82427E+02
Water Flow (cm)    = 9.02154E-01 2.24555E-02 3.78940E-03
Plant Sink (cm)    = 2.61981E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.4199+ 1.3099+ 0.1379 - 0.0762- 0.2180-  0.0038 = 26.4318  Versus  26.4321

Mass Balance = -2.7466E-04 cm;  Time step attempts = 2993 and successes = 2993
  Evaporation:  Potential =  0.3111 cm, Actual =  0.0762 cm
```

```
Transpiration:  Potential =  0.8897 cm, Actual =  0.2180 cm
RHMEAN = 82.4 %;  TMEAN = 291.2 K;  HDRY =  2.6565E+05 cm;  DAYUBC =   369

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DAILY SUMMARY:  Day = 286, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.35073     0.25690     0.25299
Head (cm)         = 1.53294E+02 4.37022E+02 4.83147E+02
Water Flow (cm)   =-7.63307E-02 2.49499E-02 3.77483E-03
Plant Sink (cm)   = 1.68280E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.4321+ 0.0000+ 0.0000 - 0.0490- 0.1400-  0.0038 = 26.2393  Versus  26.2393

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.1958 cm, Actual =  0.0490 cm
Transpiration:  Potential =  0.5601 cm, Actual =  0.1400 cm
RHMEAN = 79.9 %;  TMEAN = 287.6 K;  HDRY =  3.0708E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 287, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.33774     0.25710     0.25293
Head (cm)         = 1.93008E+02 4.34806E+02 4.83882E+02
Water Flow (cm)   =-1.44349E-01 2.09732E-02 3.75923E-03
Plant Sink (cm)   = 3.17625E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.2393+ 0.0000+ 0.0000 - 0.0924- 0.2643-  0.0038 = 25.8789  Versus  25.8789

Mass Balance = -3.8147E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.3696 cm, Actual =  0.0924 cm
Transpiration:  Potential =  1.0571 cm, Actual =  0.2643 cm
RHMEAN = 64.0 %;  TMEAN = 287.0 K;  HDRY =  6.1142E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 288, Simulated Time = 24.0000 hr

-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.32410     0.25682     0.25288
Head (cm)         = 2.39328E+02 4.37902E+02 4.84497E+02
Water Flow (cm)   =-1.53809E-01 1.57459E-02 3.74471E-03
Plant Sink (cm)   = 3.36597E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
```

```
 25.8789+ 0.0000+ 0.0000 - 0.0979- 0.2801-  0.0037 = 25.4972  Versus  25.4972

Mass Balance = -1.9073E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  0.3917 cm, Actual =  0.0979 cm
Transpiration:  Potential =  1.1202 cm, Actual =  0.2801 cm
RHMEAN = 68.6 %;  TMEAN = 285.9 K;  HDRY =  5.1747E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 289, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.31292     0.25639     0.25286
Head (cm)          = 2.81997E+02 4.42820E+02 4.84836E+02
Water Flow (cm)    =-1.32650E-01 1.14962E-02 3.73444E-03
Plant Sink (cm)    = 2.84645E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.4972+ 0.0000+ 0.0000 - 0.0828- 0.2368-  0.0037 = 25.1738  Versus  25.1738

Mass Balance =  0.0000E+00 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  0.3312 cm, Actual =  0.0828 cm
Transpiration:  Potential =  0.9473 cm, Actual =  0.2368 cm
RHMEAN = 60.6 %;  TMEAN = 282.3 K;  HDRY =  6.8753E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 290, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.29207     0.25587     0.25286
Head (cm)          = 3.76997E+02 4.48774E+02 4.84804E+02
Water Flow (cm)    =-1.82650E-01 8.38723E-03 3.73114E-03
Plant Sink (cm)    = 4.46518E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.1738+ 0.0000+ 0.0000 - 0.1299- 0.3715-  0.0037 = 24.6687  Versus  24.6687

Mass Balance = -9.5367E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  0.5196 cm, Actual =  0.1299 cm
Transpiration:  Potential =  1.4861 cm, Actual =  0.3715 cm
RHMEAN = 57.2 %;  TMEAN = 284.8 K;  HDRY =  7.6505E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 291, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25658     0.25535     0.25288
Head (cm)          = 6.13540E+02 4.54743E+02 4.84543E+02
Water Flow (cm)    =-2.27359E-01 5.41021E-03 3.73541E-03
```

```
Plant Sink (cm)    = 6.57576E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.6687+ 0.0000+ 0.0000 - 0.1913- 0.5471-  0.0037 = 23.9265  Versus  23.9258

Mass Balance =  7.9536E-04 cm;  Time step attempts =65907 and successes =65907
  Evaporation:  Potential =  0.7651 cm, Actual =  0.1913 cm
Transpiration:  Potential =  2.1885 cm, Actual =  0.5471 cm
RHMEAN = 56.2 %;  TMEAN = 290.9 K;  HDRY =  7.9086E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 292, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.26721     0.25516     0.25288
Head (cm)          = 5.29324E+02 4.57022E+02 4.84543E+02
Water Flow (cm)    =-1.33649E-01 2.74390E-03 3.73766E-03
Plant Sink (cm)    = 6.07836E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.9258+ 0.0000+ 0.0000 - 0.0177- 0.0506-  0.0037 = 23.8538  Versus  23.8545

Mass Balance = -7.6866E-04 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0707 cm, Actual =  0.0177 cm
Transpiration:  Potential =  0.2023 cm, Actual =  0.0506 cm
RHMEAN = 85.6 %;  TMEAN = 287.0 K;  HDRY =  2.1259E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 293, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24934     0.25514     0.25288
Head (cm)          = 6.79818E+02 4.57178E+02 4.84543E+02
Water Flow (cm)    =-1.07577E-01 2.27550E-03 3.73766E-03
Plant Sink (cm)    = 3.17445E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.8545+ 0.0000+ 0.0000 - 0.0923- 0.2641-  0.0037 = 23.4943  Versus  23.4951

Mass Balance = -7.6103E-04 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3694 cm, Actual =  0.0923 cm
Transpiration:  Potential =  1.0565 cm, Actual =  0.2641 cm
RHMEAN = 77.8 %;  TMEAN = 291.2 K;  HDRY =  3.4484E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 294, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
```

```
Water (cm3/cm3)    =     0.21860     0.25493     0.25288
Head (cm)          = 1.08381E+03 4.59713E+02 4.84543E+02
Water Flow (cm)    =-1.31542E-01 1.65239E-03 3.73766E-03
Plant Sink (cm)    = 4.86715E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.4951+ 0.0000+ 0.0000 - 0.1416- 0.4050-  0.0037 = 22.9448  Versus  22.9460

Mass Balance = -1.2054E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5663 cm, Actual =  0.1416 cm
Transpiration:  Potential =  1.6199 cm, Actual =  0.4050 cm
RHMEAN = 70.5 %;  TMEAN = 294.3 K;  HDRY =  4.7883E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 295, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.20716     0.25471     0.25288
Head (cm)          = 1.31355E+03 4.62342E+02 4.84543E+02
Water Flow (cm)    =-1.24115E-01 1.43830E-04 3.73766E-03
Plant Sink (cm)    = 2.80896E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.9460+ 0.0000+ 0.0000 - 0.0817- 0.2337-  0.0037 = 22.6268  Versus  22.6305

Mass Balance = -3.6850E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3268 cm, Actual =  0.0817 cm
Transpiration:  Potential =  0.9349 cm, Actual =  0.2337 cm
RHMEAN = 81.6 %;  TMEAN = 293.7 K;  HDRY =  2.7855E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 296, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.17922     0.25469     0.25288
Head (cm)          = 2.25154E+03 4.62480E+02 4.84543E+02
Water Flow (cm)    =-9.97489E-02 1.20427E-04 3.73766E-03
Plant Sink (cm)    = 4.25804E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.6305+ 0.0000+ 0.0000 - 0.1239- 0.3543-  0.0037 = 22.1486  Versus  22.1542

Mass Balance = -5.5332E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4955 cm, Actual =  0.1239 cm
Transpiration:  Potential =  1.4172 cm, Actual =  0.3543 cm
RHMEAN = 71.4 %;  TMEAN = 295.1 K;  HDRY =  4.6185E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 297, Simulated Time = 24.0000 hr
```

```
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.15148     0.25457     0.25288
Head (cm)         = 4.51070E+03 4.63954E+02 4.84543E+02
Water Flow (cm)   =-7.18140E-02-1.52311E-04 3.73766E-03
Plant Sink (cm)   = 4.02590E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 22.1542+ 0.0000+ 0.0000 - 0.1333- 0.3562-  0.0037 = 21.6610  Versus  21.6657

Mass Balance = -4.6825E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5331 cm, Actual =  0.1333 cm
Transpiration:  Potential =  1.5247 cm, Actual =  0.3562 cm
RHMEAN = 65.4 %;  TMEAN = 287.0 K;  HDRY =  5.8172E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 298, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.14018     0.25431     0.25288
Head (cm)         = 6.47349E+03 4.67080E+02 4.84543E+02
Water Flow (cm)   =-4.54749E-02-8.65576E-04 3.73766E-03
Plant Sink (cm)   = 2.01466E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.6657+ 0.0000+ 0.0000 - 0.0722- 0.2305-  0.0037 = 21.3592  Versus  21.3632

Mass Balance = -4.0493E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4260 cm, Actual =  0.0722 cm
Transpiration:  Potential =  1.2184 cm, Actual =  0.2305 cm
RHMEAN = 46.6 %;  TMEAN = 283.4 K;  HDRY =  1.0464E+06 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 299, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.13451     0.25419     0.25288
Head (cm)         = 7.96549E+03 4.68450E+02 4.84495E+02
Water Flow (cm)   =-3.09779E-02-1.08110E-03 3.73853E-03
Plant Sink (cm)   = 1.11298E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.3632+ 0.0000+ 0.0000 - 0.0053- 0.1647-  0.0037 = 21.1896  Versus  21.1936

Mass Balance = -4.0188E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3490 cm, Actual =  0.0053 cm
Transpiration:  Potential =  0.9981 cm, Actual =  0.1647 cm
RHMEAN = 51.1 %;  TMEAN = 282.6 K;  HDRY =  9.2099E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 300, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13045     0.25409     0.25289
Head (cm)          = 9.36335E+03 4.69711E+02 4.84466E+02
Water Flow (cm)    =-2.22298E-02-1.40532E-03 3.73918E-03
Plant Sink (cm)    = 7.50277E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.1936+ 0.0000+ 0.0000 - 0.0052- 0.1406-  0.0037 = 21.0441  Versus  21.0480

Mass Balance = -3.8643E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3283 cm, Actual =  0.0052 cm
Transpiration:  Potential =  0.9391 cm, Actual =  0.1406 cm
RHMEAN = 53.9 %;  TMEAN = 281.8 K;  HDRY =  8.4799E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 301, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12372     0.25407     0.25289
Head (cm)          = 1.26302E+04 4.69883E+02 4.84466E+02
Water Flow (cm)    =-1.19866E-02-1.59293E-03 3.73922E-03
Plant Sink (cm)    = 8.06684E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.0480+ 0.0000+ 0.0000 - 0.0072- 0.2254-  0.0037 = 20.8116  Versus  20.8207

Mass Balance = -9.0790E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6644 cm, Actual =  0.0072 cm
Transpiration:  Potential =  1.9003 cm, Actual =  0.2254 cm
RHMEAN = 48.7 %;  TMEAN = 285.7 K;  HDRY =  9.8559E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 302, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.12095     0.25406     0.25289
Head (cm)          = 1.44807E+04 4.70071E+02 4.84466E+02
Water Flow (cm)    =-4.58217E-03-1.79183E-03 3.73922E-03
Plant Sink (cm)    = 2.41128E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.8207+ 0.0000+ 0.0000 - 0.0064- 0.1606-  0.0037 = 20.6499  Versus  20.6573

Mass Balance = -7.3833E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6622 cm, Actual =  0.0064 cm
Transpiration:  Potential =  1.8941 cm, Actual =  0.1606 cm
```

```
RHMEAN = 47.9 %;  TMEAN = 289.5 K;  HDRY =  1.0097E+06 cm;  DAYUBC = *****
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 303, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12           25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11995     0.25389     0.25290
Head (cm)         = 1.52409E+04 4.72153E+02 4.84340E+02
Water Flow (cm)   =-2.43350E-03-1.64477E-03 3.74146E-03
Plant Sink (cm)   = 1.99365E-04 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.6573+ 0.0000+ 0.0000 - 0.0041- 0.0961-  0.0037 = 20.5534  Versus  20.5565

Mass Balance = -3.1414E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5063 cm, Actual =  0.0041 cm
Transpiration:  Potential =  1.4480 cm, Actual =  0.0961 cm
RHMEAN = 55.3 %;  TMEAN = 287.6 K;  HDRY =  8.1282E+05 cm;  DAYUBC = *****
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 304, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12           25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11936     0.25350     0.25293
Head (cm)         = 1.57251E+04 4.76894E+02 4.83967E+02
Water Flow (cm)   =-1.66270E-03-1.76339E-03 3.74730E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.5565+ 0.0000+ 0.0000 - 0.0018- 0.0901-  0.0037 = 20.4608  Versus  20.4639

Mass Balance = -3.0842E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.5523 cm, Actual =  0.0018 cm
Transpiration:  Potential =  1.5796 cm, Actual =  0.0901 cm
RHMEAN = 65.8 %;  TMEAN = 289.8 K;  HDRY =  5.7344E+05 cm;  DAYUBC = *****
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 305, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12           25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11885     0.25308     0.25297
Head (cm)         = 1.61627E+04 4.81998E+02 4.83395E+02
Water Flow (cm)   =-1.29711E-03-1.96088E-03 3.75723E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.4639+ 0.0000+ 0.0000 - 0.0010- 0.0590-  0.0038 = 20.4002  Versus  20.4024
```

```
Mass Balance = -2.2240E-03 cm;  Time step attempts =71742 and successes =71742
  Evaporation:  Potential =  0.3968 cm, Actual =  0.0010 cm
Transpiration:  Potential =  1.1349 cm, Actual =  0.0590 cm
RHMEAN = 73.2 %;  TMEAN = 294.3 K;  HDRY =  4.2807E+05 cm;  DAYUBC = 69191
```

```
DAILY SUMMARY:  Day = 306, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.11854     0.25260     0.25305
Head (cm)         = 1.64318E+04 4.88061E+02 4.82473E+02
Water Flow (cm)   =-1.54921E-03-2.11445E-03 3.77118E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.4024+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0038 = 20.3986  Versus  20.3986

Mass Balance =  1.5259E-05 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 93.0 %;  TMEAN = 291.5 K;  HDRY =  9.9725E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 307, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.32045     0.25287     0.25305
Head (cm)         = 2.52717E+02 4.84606E+02 4.82473E+02
Water Flow (cm)   = 3.07540E+00-1.88572E-03 3.78138E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 20.3986+ 4.5614+ 2.4997 - 0.0000- 0.0000-  0.0038 = 24.9563  Versus  24.9626

Mass Balance = -6.3648E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 99.7 %;  TMEAN = 289.5 K;  HDRY =  4.5820E+03 cm;  DAYUBC = 56227
```

```
DAILY SUMMARY:  Day = 308, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.30601     0.25362     0.25312
Head (cm)         = 3.10994E+02 4.75371E+02 4.81545E+02
Water Flow (cm)   = 4.01518E-02 3.80322E-03 3.79112E-03
Plant Sink (cm)   = 8.57159E-03 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 24.9626+ 0.0000+ 0.0000 - 0.0249- 0.0713-  0.0038 = 24.8626  Versus  24.8626

Mass Balance =  0.0000E+00 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.0997 cm, Actual =  0.0249 cm
Transpiration:  Potential =  0.2853 cm, Actual =  0.0713 cm
RHMEAN = 86.9 %;  TMEAN = 290.7 K;  HDRY =  1.9254E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 309, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.30082     0.25381     0.25319
Head (cm)          = 3.34286E+02 4.73031E+02 4.80692E+02
Water Flow (cm)    =-4.36517E-02 5.19628E-03 3.81067E-03
Plant Sink (cm)    = 1.08391E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 24.8626+ 0.0000+ 0.0000 - 0.0315- 0.0902-  0.0038 = 24.7370  Versus  24.7370

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.1261 cm, Actual =  0.0315 cm
Transpiration:  Potential =  0.3607 cm, Actual =  0.0902 cm
RHMEAN = 78.9 %;  TMEAN = 289.8 K;  HDRY =  3.2513E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 310, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.28998     0.25379     0.25325
Head (cm)          = 3.87946E+02 4.73365E+02 4.80000E+02
Water Flow (cm)    =-8.85370E-02 4.75639E-03 3.82739E-03
Plant Sink (cm)    = 2.23503E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 24.7370+ 0.0000+ 0.0000 - 0.0650- 0.1860-  0.0038 = 24.4822  Versus  24.4822

Mass Balance = -5.7220E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.2601 cm, Actual =  0.0650 cm
Transpiration:  Potential =  0.7439 cm, Actual =  0.1860 cm
RHMEAN = 74.9 %;  TMEAN = 289.8 K;  HDRY =  3.9616E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 311, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    30.70000    91.50000
Water (cm3/cm3)    =    0.26879     0.25368     0.25328
Head (cm)          = 5.17898E+02 4.74693E+02 4.79634E+02
```

```
Water Flow (cm)    =-1.45191E-01 3.81178E-03 3.83999E-03
Plant Sink (cm)    = 4.01767E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.4822+ 0.0000+ 0.0000 - 0.1169- 0.3343-  0.0038 = 24.0272  Versus  24.0274

Mass Balance = -1.5640E-04 cm;  Time step attempts =82952 and successes =82952
  Evaporation:  Potential =  0.4675 cm, Actual =  0.1169 cm
Transpiration:  Potential =  1.3371 cm, Actual =  0.3343 cm
RHMEAN = 59.4 %;  TMEAN = 290.7 K;  HDRY =  7.1452E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 312, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.26533     0.25364     0.25328
Head (cm)          = 5.43169E+02 4.75196E+02 4.79634E+02
Water Flow (cm)    =-8.04452E-02 3.46438E-03 3.84251E-03
Plant Sink (cm)    = 2.40679E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.0274+ 0.0762+ 0.0000 - 0.0700- 0.2003-  0.0038 = 23.8295  Versus  23.8300

Mass Balance = -5.1498E-04 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2829 cm, Actual =  0.0700 cm
Transpiration:  Potential =  0.8091 cm, Actual =  0.2003 cm
RHMEAN = 74.0 %;  TMEAN = 286.2 K;  HDRY =  4.1295E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 313, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.26055     0.25355     0.25328
Head (cm)          = 5.80426E+02 4.76267E+02 4.79634E+02
Water Flow (cm)    =-8.54803E-02 2.52998E-03 3.84251E-03
Plant Sink (cm)    = 1.59358E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.8300+ 0.0000+ 0.0000 - 0.0464- 0.1326-  0.0038 = 23.6472  Versus  23.6514

Mass Balance = -4.1676E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1854 cm, Actual =  0.0464 cm
Transpiration:  Potential =  0.5304 cm, Actual =  0.1326 cm
RHMEAN = 72.8 %;  TMEAN = 282.6 K;  HDRY =  4.3557E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 314, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
```

```
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.24745     0.25348     0.25328
Head (cm)           = 6.98553E+02 4.77105E+02 4.79634E+02
Water Flow (cm)     =-9.10942E-02 1.70997E-03 3.84251E-03
Plant Sink (cm)     = 2.48757E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.6514+ 0.0000+ 0.0000 - 0.0724- 0.2070-  0.0038 = 23.3682  Versus  23.3692

Mass Balance = -1.0414E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2895 cm, Actual =  0.0724 cm
Transpiration:  Potential =  0.8279 cm, Actual =  0.2070 cm
RHMEAN = 63.9 %;  TMEAN = 287.6 K;  HDRY =  6.1356E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 315, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.23926     0.25342     0.25328
Head (cm)           = 7.87225E+02 4.77890E+02 4.79634E+02
Water Flow (cm)     =-9.02173E-02 9.76126E-04 3.84251E-03
Plant Sink (cm)     = 1.99555E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.3692+ 0.0000+ 0.0000 - 0.0581- 0.1660-  0.0038 = 23.1413  Versus  23.1459

Mass Balance = -4.6253E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2322 cm, Actual =  0.0581 cm
Transpiration:  Potential =  0.6642 cm, Actual =  0.1660 cm
RHMEAN = 73.2 %;  TMEAN = 286.2 K;  HDRY =  4.2765E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 316, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.22829     0.25336     0.25328
Head (cm)           = 9.29423E+02 4.78543E+02 4.79634E+02
Water Flow (cm)     =-8.56049E-02 3.45095E-04 3.84251E-03
Plant Sink (cm)     = 2.22163E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.1459+ 0.0000+ 0.0000 - 0.0646- 0.1848-  0.0038 = 22.8926  Versus  22.8961

Mass Balance = -3.4714E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2585 cm, Actual =  0.0646 cm
Transpiration:  Potential =  0.7394 cm, Actual =  0.1848 cm
RHMEAN = 72.8 %;  TMEAN = 286.8 K;  HDRY =  4.3547E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 317, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.21644     0.25332     0.25328
Head (cm)          = 1.12282E+03 4.79133E+02 4.79634E+02
Water Flow (cm)    =-8.35318E-02-1.94662E-04 3.84251E-03
Plant Sink (cm)    = 2.28216E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.8961+ 0.0000+ 0.0000 - 0.0664- 0.1899-  0.0038 = 22.6360  Versus  22.6387

Mass Balance = -2.7428E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2655 cm, Actual =  0.0664 cm
Transpiration:  Potential =  0.7595 cm, Actual =  0.1899 cm
RHMEAN = 79.3 %;  TMEAN = 288.7 K;  HDRY =  3.1857E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 318, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.19990     0.25327     0.25328
Head (cm)          = 1.49501E+03 4.79751E+02 4.79634E+02
Water Flow (cm)    =-8.14803E-02-6.33488E-04 3.84251E-03
Plant Sink (cm)    = 2.76466E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.6387+ 0.0000+ 0.0000 - 0.0804- 0.2300-  0.0038 = 22.3244  Versus  22.3281

Mass Balance = -3.7117E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3217 cm, Actual =  0.0804 cm
Transpiration:  Potential =  0.9201 cm, Actual =  0.2300 cm
RHMEAN = 74.5 %;  TMEAN = 290.7 K;  HDRY =  4.0292E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 319, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.19291     0.25323     0.25328
Head (cm)          = 1.70407E+03 4.80138E+02 4.79634E+02
Water Flow (cm)    =-7.45687E-02-9.67725E-04 3.84251E-03
Plant Sink (cm)    = 1.71746E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.3281+ 0.0000+ 0.0000 - 0.0500- 0.1429-  0.0038 = 22.1314  Versus  22.1371

Mass Balance = -5.7030E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1998 cm, Actual =  0.0500 cm
Transpiration:  Potential =  0.5716 cm, Actual =  0.1429 cm
RHMEAN = 75.9 %;  TMEAN = 288.2 K;  HDRY =  3.7753E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 320, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.19791     0.25323     0.25328
Head (cm)          = 1.55070E+03 4.80140E+02 4.79634E+02
Water Flow (cm)    =-6.48207E-02-8.82708E-04 3.84251E-03
Plant Sink (cm)    = 3.32509E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.1371+ 0.0000+ 0.0000 - 0.0097- 0.0277-  0.0038 = 22.0960  Versus  22.1049

Mass Balance = -8.9817E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0387 cm, Actual =  0.0097 cm
Transpiration:  Potential =  0.1107 cm, Actual =  0.0277 cm
RHMEAN = 81.0 %;  TMEAN = 287.0 K;  HDRY =  2.8924E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 321, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.19756     0.25323     0.25328
Head (cm)          = 1.56076E+03 4.80140E+02 4.79634E+02
Water Flow (cm)    =-5.23524E-02-8.01642E-04 3.84251E-03
Plant Sink (cm)    = 6.69267E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.1049+ 0.0000+ 0.0000 - 0.0195- 0.0557-  0.0038 = 22.0259  Versus  22.0343

Mass Balance = -8.3694E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0779 cm, Actual =  0.0195 cm
Transpiration:  Potential =  0.2227 cm, Actual =  0.0557 cm
RHMEAN = 75.4 %;  TMEAN = 289.5 K;  HDRY =  3.8754E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 322, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24781     0.25323     0.25328
Head (cm)          = 6.94961E+02 4.80140E+02 4.79634E+02
Water Flow (cm)    = 4.51619E-01-7.45974E-04 3.84251E-03
Plant Sink (cm)    = 2.44652E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.0343+ 1.0031+ 0.0383 - 0.0712- 0.2036-  0.0038 = 22.7588  Versus  22.7672

Mass Balance = -8.3656E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2905 cm, Actual =  0.0712 cm
```

```
Transpiration:  Potential =  0.8309 cm, Actual =  0.2036 cm
RHMEAN = 78.0 %;  TMEAN = 291.2 K;  HDRY =  3.4017E+05 cm;  DAYUBC =  2558

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 323, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.25983     0.25323     0.25328
Head (cm)         = 5.86244E+02 4.80142E+02 4.79634E+02
Water Flow (cm)   = 5.31391E-01-7.05902E-04 3.84251E-03
Plant Sink (cm)   = 3.73024E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.7672+ 0.8890+ 0.0000 - 0.1085- 0.3104-  0.0038 = 23.2335  Versus  23.2405

Mass Balance = -7.0686E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4384 cm, Actual =  0.1085 cm
Transpiration:  Potential =  1.2540 cm, Actual =  0.3104 cm
RHMEAN = 63.1 %;  TMEAN = 281.2 K;  HDRY =  6.3139E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 324, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.24448     0.25323     0.25328
Head (cm)         = 7.29212E+02 4.80142E+02 4.79634E+02
Water Flow (cm)   =-2.09288E-02-6.70204E-04 3.84251E-03
Plant Sink (cm)   = 1.75269E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.2405+ 0.0000+ 0.0000 - 0.0510- 0.1458-  0.0038 = 23.0399  Versus  23.0406

Mass Balance = -7.6866E-04 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2039 cm, Actual =  0.0510 cm
Transpiration:  Potential =  0.5833 cm, Actual =  0.1458 cm
RHMEAN = 57.0 %;  TMEAN = 278.2 K;  HDRY =  7.7126E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 325, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    30.70000    91.50000
Water (cm3/cm3)   =    0.22982     0.25323     0.25328
Head (cm)         = 9.07625E+02 4.80142E+02 4.79634E+02
Water Flow (cm)   =-5.18062E-02-6.29609E-04 3.84251E-03
Plant Sink (cm)   = 2.15039E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.0406+ 0.0000+ 0.0000 - 0.0626- 0.1789-  0.0038 = 22.7953  Versus  22.8042
```

```
Mass Balance = -8.8692E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2502 cm, Actual =  0.0626 cm
Transpiration:  Potential =  0.7157 cm, Actual =  0.1789 cm
RHMEAN = 59.2 %;  TMEAN = 279.5 K;  HDRY =  7.1968E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 326, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.19989     0.25323     0.25328
Head (cm)         = 1.49520E+03 4.80142E+02 4.79634E+02
Water Flow (cm)   =-7.51578E-02-5.94820E-04 3.84251E-03
Plant Sink (cm)   = 4.07134E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.8042+ 0.0000+ 0.0000 - 0.1184- 0.3387-  0.0038 = 22.3432  Versus  22.3494

Mass Balance = -6.2237E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4737 cm, Actual =  0.1184 cm
Transpiration:  Potential =  1.3550 cm, Actual =  0.3387 cm
RHMEAN = 66.2 %;  TMEAN = 285.4 K;  HDRY =  5.6475E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 327, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.18376     0.25323     0.25328
Head (cm)         = 2.04554E+03 4.80142E+02 4.79634E+02
Water Flow (cm)   =-7.81762E-02-5.62466E-04 3.84251E-03
Plant Sink (cm)   = 2.73913E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.3494+ 0.0000+ 0.0000 - 0.0797- 0.2279-  0.0038 = 22.0380  Versus  22.0436

Mass Balance = -5.6553E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3187 cm, Actual =  0.0797 cm
Transpiration:  Potential =  0.9116 cm, Actual =  0.2279 cm
RHMEAN = 77.1 %;  TMEAN = 290.4 K;  HDRY =  3.5660E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 328, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.16885     0.25323     0.25328
Head (cm)         = 2.84909E+03 4.80153E+02 4.79634E+02
Water Flow (cm)   =-6.71868E-02-5.35874E-04 3.84251E-03
Plant Sink (cm)   = 2.53246E-02 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR            STORAGE
 22.0436+ 0.0000+ 0.0000 - 0.0737- 0.2107-  0.0038 = 21.7554  Versus  21.7620

Mass Balance = -6.6319E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2947 cm, Actual =  0.0737 cm
Transpiration:  Potential =  0.8429 cm, Actual =  0.2107 cm
RHMEAN = 65.7 %;  TMEAN = 285.1 K;  HDRY =  5.7608E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 329, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.14865     0.25322     0.25328
Head (cm)          = 4.91179E+03 4.80254E+02 4.79634E+02
Water Flow (cm)    =-4.88232E-02-5.52831E-04 3.84251E-03
Plant Sink (cm)    = 2.89250E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR            STORAGE
 21.7620+ 0.0000+ 0.0000 - 0.1050- 0.2681-  0.0038 = 21.3851  Versus  21.3920

Mass Balance = -6.8989E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4200 cm, Actual =  0.1050 cm
Transpiration:  Potential =  1.2013 cm, Actual =  0.2681 cm
RHMEAN = 60.3 %;  TMEAN = 284.0 K;  HDRY =  6.9338E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 330, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13972     0.25321     0.25328
Head (cm)          = 6.57977E+03 4.80418E+02 4.79634E+02
Water Flow (cm)    =-3.16625E-02-6.50548E-04 3.84251E-03
Plant Sink (cm)    = 1.48853E-02 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR            STORAGE
 21.3920+ 0.0000+ 0.0000 - 0.0625- 0.1772-  0.0038 = 21.1484  Versus  21.1533

Mass Balance = -4.8790E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3358 cm, Actual =  0.0625 cm
Transpiration:  Potential =  0.9605 cm, Actual =  0.1772 cm
RHMEAN = 61.5 %;  TMEAN = 283.4 K;  HDRY =  6.6580E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 331, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.13658     0.25319     0.25328
```

```
Head (cm)          = 7.36638E+03 4.80671E+02 4.79634E+02
Water Flow (cm)    =-2.43849E-02-8.14580E-04 3.84251E-03
Plant Sink (cm)    = 7.15831E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.1533+ 0.0000+ 0.0000 - 0.0053- 0.1029-  0.0038 = 21.0413  Versus  21.0472

Mass Balance = -5.9433E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2153 cm, Actual =  0.0053 cm
Transpiration:  Potential =  0.6158 cm, Actual =  0.1029 cm
RHMEAN = 60.6 %;  TMEAN = 274.3 K;  HDRY =  6.8619E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 332, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.14168     0.25250     0.25331
Head (cm)          = 6.14926E+03 4.89267E+02 4.79199E+02
Water Flow (cm)    =-2.72189E-02-1.37741E-03 3.84726E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.0472+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0038 = 21.0434  Versus  21.0433

Mass Balance =  4.1962E-05 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 91.7 %;  TMEAN = 270.9 K;  HDRY =  1.1831E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 333, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.14828     0.25206     0.25334
Head (cm)          = 4.96803E+03 4.94922E+02 4.78837E+02
Water Flow (cm)    =-3.33029E-02-1.89695E-03 3.85611E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.0433+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0039 = 21.0395  Versus  21.0395

Mass Balance =  1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 90.8 %;  TMEAN = 272.6 K;  HDRY =  1.3263E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 334, Simulated Time = 24.0000 hr
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```

```
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.19785     0.25206     0.25334
Head (cm)         = 1.55238E+03 4.94922E+02 4.78837E+02
Water Flow (cm)   = 8.75378E-02-2.01992E-03 3.85992E-03
Plant Sink (cm)   = 2.60291E-02 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.0395+ 0.7874+ 0.0000 - 0.0757- 0.2166-  0.0039 = 21.5306  Versus  21.5396

Mass Balance = -9.0199E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3060 cm, Actual =  0.0757 cm
Transpiration:  Potential =  0.8753 cm, Actual =  0.2166 cm
RHMEAN = 66.6 %;  TMEAN = 279.5 K;  HDRY =  5.5622E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 335, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.18872     0.25206     0.25334
Head (cm)         = 1.84954E+03 4.94922E+02 4.78837E+02
Water Flow (cm)   = 1.29301E-02-2.01992E-03 3.85992E-03
Plant Sink (cm)   = 8.54885E-03 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.5396+ 0.0000+ 0.0000 - 0.0249- 0.0711-  0.0039 = 21.4398  Versus  21.4503

Mass Balance = -1.0469E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0995 cm, Actual =  0.0249 cm
Transpiration:  Potential =  0.2845 cm, Actual =  0.0711 cm
RHMEAN = 75.7 %;  TMEAN = 280.4 K;  HDRY =  3.8214E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 336, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.18646     0.25206     0.25334
Head (cm)         = 1.93520E+03 4.94922E+02 4.78837E+02
Water Flow (cm)   =-7.40476E-03-2.01992E-03 3.85992E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.4503+ 0.0000+ 0.0000 - 0.2655- 0.0000-  0.0039 = 21.1809  Versus  21.1995

Mass Balance = -1.8663E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0621 cm, Actual =  0.2655 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 76.1 %;  TMEAN = 284.3 K;  HDRY =  3.7493E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 337, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.18705     0.25169     0.25336
Head (cm)          = 1.91232E+03 4.99568E+02 4.78561E+02
Water Flow (cm)    =-1.16200E-02-2.15561E-03 3.86292E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.1995+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0039 = 21.1957  Versus  21.1958

Mass Balance = -9.5367E-05 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.0734 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 91.2 %;  TMEAN = 287.3 K;  HDRY =  1.2674E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 338, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.18705     0.25169     0.25336
Head (cm)          = 1.91231E+03 4.99568E+02 4.78561E+02
Water Flow (cm)    =-1.21938E-02-2.21870E-03 3.86602E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.1958+ 0.0000+ 0.0000 - 0.0193- 0.0000-  0.0039 = 21.1726  Versus  21.1844

Mass Balance = -1.1835E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.3539 cm, Actual =  0.0193 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 78.3 %;  TMEAN = 293.2 K;  HDRY =  3.3486E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 339, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.18705     0.25169     0.25336
Head (cm)          = 1.91231E+03 4.99568E+02 4.78561E+02
Water Flow (cm)    =-1.21939E-02-2.21870E-03 3.86602E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 21.1844+ 0.0000+ 0.0000 - 0.0103- 0.0000-  0.0039 = 21.1702  Versus  21.1817

Mass Balance = -1.1463E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.2723 cm, Actual =  0.0103 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 72.7 %;  TMEAN = 290.4 K;  HDRY =  4.3702E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 340, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.18705     0.25169     0.25336
Head (cm)          = 1.91231E+03 4.99568E+02 4.78561E+02
Water Flow (cm)    =-1.21939E-02-2.21870E-03 3.86602E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.1817+ 0.0000+ 0.0000 - 0.0106- 0.0000-  0.0039 = 21.1672  Versus  21.1787

Mass Balance = -1.1517E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4185 cm, Actual =  0.0106 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 64.1 %;  TMEAN = 284.3 K;  HDRY =  6.1043E+05 cm;  DAYUBC = *****
```

```
DAILY SUMMARY:  Day = 341, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.18773     0.25148     0.25337
Head (cm)          = 1.88654E+03 5.02328E+02 4.78417E+02
Water Flow (cm)    =-1.20051E-02-2.25789E-03 3.86794E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.1787+ 0.0000+ 0.0000 - 0.0024- 0.0000-  0.0039 = 21.1725  Versus  21.1760

Mass Balance = -3.5648E-03 cm;  Time step attempts =74271 and successes =74271
  Evaporation:  Potential =  0.4965 cm, Actual =  0.0024 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.8 %;  TMEAN = 283.2 K;  HDRY =  3.4344E+05 cm;  DAYUBC = 71727
```

```
DAILY SUMMARY:  Day = 342, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.18773     0.25148     0.25337
Head (cm)          = 1.88654E+03 5.02328E+02 4.78417E+02
Water Flow (cm)    =-1.19087E-02-2.27400E-03 3.86902E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.1760+ 0.0000+ 0.0000 - 0.0141- 0.0000-  0.0039 = 21.1580  Versus  21.1698

Mass Balance = -1.1705E-02 cm;  Time step attempts =***** and successes =*****
```

```
  Evaporation:  Potential =  1.3779 cm, Actual =  0.0141 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 60.8 %;  TMEAN = 277.9 K;  HDRY =  6.8150E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


 DAILY SUMMARY:  Day = 343, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    30.70000    91.50000
 Water (cm3/cm3)   =     0.18773     0.25148     0.25337
 Head (cm)         = 1.88654E+03 5.02328E+02 4.78417E+02
 Water Flow (cm)   =-1.19087E-02-2.27400E-03 3.86902E-03
 Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  21.1698+ 0.0000+ 0.0000 - 0.0092- 0.0000-  0.0039 = 21.1567  Versus  21.1686

 Mass Balance = -1.1887E-02 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  0.5743 cm, Actual =  0.0092 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 55.9 %;  TMEAN = 276.8 K;  HDRY =  7.9680E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


 DAILY SUMMARY:  Day = 344, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    30.70000    91.50000
 Water (cm3/cm3)   =     0.18786     0.25144     0.25338
 Head (cm)         = 1.88155E+03 5.02845E+02 4.78399E+02
 Water Flow (cm)   =-1.18350E-02-2.29170E-03 3.86949E-03
 Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  21.1686+ 0.0000+ 0.0000 - 0.0067- 0.0000-  0.0039 = 21.1580  Versus  21.1681

 Mass Balance = -1.0033E-02 cm;  Time step attempts =***** and successes =*****
   Evaporation:  Potential =  0.8985 cm, Actual =  0.0067 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 60.9 %;  TMEAN = 276.5 K;  HDRY =  6.7873E+05 cm;  DAYUBC = *****

--------------------------------------------------------------------------------


 DAILY SUMMARY:  Day = 345, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    30.70000    91.50000
 Water (cm3/cm3)   =     0.21847     0.25144     0.25338
 Head (cm)         = 1.08617E+03 5.02845E+02 4.78399E+02
 Water Flow (cm)   = 1.22004E-01-2.29143E-03 3.86953E-03
 Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
```

```
 21.1681+ 0.6604+ 0.0000 - 0.0733- 0.0000-  0.0039 = 21.7513  Versus  21.7674

Mass Balance = -1.6039E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2961 cm, Actual =  0.0733 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 85.5 %;  TMEAN = 277.3 K;  HDRY =  2.1495E+05 cm;  DAYUBC =     0

-----------------------------------------------------------------------------


DAILY SUMMARY:  Day = 346, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.23716     0.25144     0.25338
Head (cm)         = 8.12104E+02 5.02845E+02 4.78399E+02
Water Flow (cm)   = 1.90820E-01-2.29143E-03 3.86953E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 21.7674+ 0.3302+ 0.0000 - 0.0000- 0.0000-  0.0039 = 22.0937  Versus  22.1017

Mass Balance = -8.0242E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 98.9 %;  TMEAN = 282.6 K;  HDRY =  1.4559E+04 cm;  DAYUBC =     0

-----------------------------------------------------------------------------


DAILY SUMMARY:  Day = 347, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.26284     0.25144     0.25338
Head (cm)         = 5.62204E+02 5.02845E+02 4.78399E+02
Water Flow (cm)   = 4.57964E-01-2.29143E-03 3.86953E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.1017+ 0.6350+ 0.0000 - 0.0000- 0.0000-  0.0039 = 22.7328  Versus  22.7375

Mass Balance = -4.6635E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 94.8 %;  TMEAN = 281.2 K;  HDRY =  7.3844E+04 cm;  DAYUBC =     0

-----------------------------------------------------------------------------


DAILY SUMMARY:  Day = 348, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.25216     0.25144     0.25338
Head (cm)         = 6.53034E+02 5.02846E+02 4.78399E+02
Water Flow (cm)   = 7.67189E-02-2.29148E-03 3.86953E-03
```

```
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.7375+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0039 = 22.7336  Versus  22.7391

Mass Balance = -5.4417E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 93.6 %;  TMEAN = 279.0 K;  HDRY =  9.0333E+04 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 349, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24667     0.25144     0.25338
Head (cm)          = 7.06448E+02 5.02846E+02 4.78399E+02
Water Flow (cm)    = 3.93032E-02-2.29176E-03 3.86953E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.7391+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0039 = 22.7352  Versus  22.7396

Mass Balance = -4.3621E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 92.0 %;  TMEAN = 280.1 K;  HDRY =  1.1449E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 350, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.33165     0.25299     0.25338
Head (cm)          = 2.13008E+02 4.83190E+02 4.78320E+02
Water Flow (cm)    = 2.26373E+00 1.97940E-03 3.87000E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 22.7396+ 2.8545+ 0.9301 - 0.0000- 0.0000-  0.0039 = 25.5902  Versus  25.5929

Mass Balance = -2.6779E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 97.6 %;  TMEAN = 283.2 K;  HDRY =  3.3848E+04 cm;  DAYUBC = 28581

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DAILY SUMMARY:  Day = 351, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
```

```
Water (cm3/cm3)     =     0.34818     0.25568     0.25339
Head (cm)           = 1.60791E+02 4.50900E+02 4.78262E+02
Water Flow (cm)     = 4.77745E-01 1.71852E-02 3.87202E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.5929+ 0.7901+ 0.0481 - 0.1985- 0.0000-  0.0039 = 26.1807  Versus  26.1808

Mass Balance = -1.0300E-04 cm;  Time step attempts = 3231 and successes = 3231
  Evaporation:  Potential =  0.8018 cm, Actual =  0.1985 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 74.1 %;  TMEAN = 280.9 K;  HDRY =  4.1098E+05 cm;  DAYUBC =   190

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DAILY SUMMARY:  Day = 352, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.33518     0.25636     0.25338
Head (cm)           = 2.01291E+02 4.43092E+02 4.78322E+02
Water Flow (cm)     =-2.55658E-01 1.89764E-02 3.87209E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.1808+ 0.0000+ 0.0000 - 0.3478- 0.0000-  0.0039 = 25.8291  Versus  25.8291

Mass Balance = -3.8147E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  1.3912 cm, Actual =  0.3478 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 62.2 %;  TMEAN = 282.3 K;  HDRY =  6.5133E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 353, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    30.70000    91.50000
Water (cm3/cm3)     =     0.32428     0.25637     0.25337
Head (cm)           = 2.38686E+02 4.42999E+02 4.78470E+02
Water Flow (cm)     =-2.27486E-01 1.48117E-02 3.86966E-03
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.8291+ 0.0000+ 0.0000 - 0.3040- 0.0000-  0.0039 = 25.5212  Versus  25.5212

Mass Balance = -3.8147E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  1.2161 cm, Actual =  0.3040 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 55.1 %;  TMEAN = 277.0 K;  HDRY =  8.1676E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 354, Simulated Time = 24.0000 hr
```

```
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.31490     0.25617     0.25336
Head (cm)          = 2.74083E+02 4.45338E+02 4.78594E+02
Water Flow (cm)    =-1.98463E-01 1.14589E-02 3.86643E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.5212+ 0.0000+ 0.0000 - 0.2643- 0.0000-  0.0039 = 25.2530  Versus  25.2531

Mass Balance = -5.7220E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  1.0572 cm, Actual =  0.2643 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 55.2 %;  TMEAN = 279.8 K;  HDRY =  8.1379E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 355, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.29530     0.25584     0.25336
Head (cm)          = 3.60704E+02 4.49134E+02 4.78570E+02
Water Flow (cm)    =-2.96655E-01 8.86728E-03 3.86514E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 25.2531+ 0.0000+ 0.0000 - 0.4404- 0.0000-  0.0039 = 24.8087  Versus  24.8088

Mass Balance = -2.0981E-05 cm;  Time step attempts =  160 and successes =  160
  Evaporation:  Potential =  1.7618 cm, Actual =  0.4404 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 59.1 %;  TMEAN = 281.8 K;  HDRY =  7.2201E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 356, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.28705     0.25537     0.25338
Head (cm)          = 4.03755E+02 4.54525E+02 4.78330E+02
Water Flow (cm)    =-2.27448E-01 6.21962E-03 3.86798E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.8088+ 0.0000+ 0.0000 - 0.2832- 0.0000-  0.0039 = 24.5217  Versus  24.5217

Mass Balance = -1.3351E-05 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  1.1328 cm, Actual =  0.2832 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 76.1 %;  TMEAN = 279.8 K;  HDRY =  3.7365E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 357, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.27808     0.25494     0.25342
Head (cm)         = 4.56137E+02 4.59580E+02 4.77873E+02
Water Flow (cm)   =-1.89478E-01 4.35606E-03 3.87569E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.5217+ 0.0000+ 0.0000 - 0.2536- 0.0000-  0.0039 = 24.2642  Versus  24.2642

Mass Balance = -1.3351E-05 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  1.0145 cm, Actual =  0.2536 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 50.1 %;  TMEAN = 273.2 K;  HDRY =  9.4659E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 358, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.27114     0.25486     0.25343
Head (cm)         = 5.01495E+02 4.60566E+02 4.77761E+02
Water Flow (cm)   =-1.62175E-01 3.43103E-03 3.88330E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.2642+ 0.0000+ 0.0000 - 0.2110- 0.0000-  0.0039 = 24.0494  Versus  24.0509

Mass Balance = -1.5450E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.8438 cm, Actual =  0.2110 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 56.3 %;  TMEAN = 272.3 K;  HDRY =  7.8801E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 359, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.27162     0.25484     0.25343
Head (cm)         = 4.98227E+02 4.60701E+02 4.77761E+02
Water Flow (cm)   =-1.01493E-01 3.36369E-03 3.88355E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 24.0509+ 0.0000+ 0.0000 - 0.0921- 0.0000-  0.0039 = 23.9549  Versus  23.9589

Mass Balance = -3.9940E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3685 cm, Actual =  0.0921 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 71.5 %;  TMEAN = 270.7 K;  HDRY =  4.5959E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 360, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25856     0.25480     0.25343
Head (cm)          = 5.96746E+02 4.61248E+02 4.77761E+02
Water Flow (cm)    =-1.34497E-01 2.97270E-03 3.88355E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.9589+ 0.0000+ 0.0000 - 0.2384- 0.0000-  0.0039 = 23.7166  Versus  23.7199

Mass Balance = -3.2787E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.9538 cm, Actual =  0.2384 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 54.1 %;  TMEAN = 272.0 K;  HDRY =  8.4111E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 361, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.25708     0.25474     0.25343
Head (cm)          = 6.09232E+02 4.61942E+02 4.77761E+02
Water Flow (cm)    =-1.17836E-01 2.34939E-03 3.88355E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.7199+ 0.0000+ 0.0000 - 0.1201- 0.0000-  0.0039 = 23.5959  Versus  23.6016

Mass Balance = -5.6877E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.4802 cm, Actual =  0.1201 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.6 %;  TMEAN = 275.9 K;  HDRY =  5.7886E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 362, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    30.70000    91.50000
Water (cm3/cm3)    =     0.24959     0.25468     0.25343
Head (cm)          = 6.77377E+02 4.62636E+02 4.77761E+02
Water Flow (cm)    =-1.11597E-01 1.75343E-03 3.88355E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 23.6016+ 0.0000+ 0.0000 - 0.1714- 0.0000-  0.0039 = 23.4263  Versus  23.4310
```

```
Mass Balance = -4.7512E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.6857 cm, Actual =  0.1714 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.3 %;  TMEAN = 277.6 K;  HDRY =  6.9387E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 363, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.23697     0.25453     0.25343
Head (cm)         = 8.14505E+02 4.64468E+02 4.77761E+02
Water Flow (cm)   =-1.34619E-01 1.13965E-03 3.88355E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN  NEWSTOR          STORAGE
 23.4310+ 0.0000+ 0.0000 - 0.2621- 0.0000-  0.0039 = 23.1651  Versus  23.1696

Mass Balance = -4.5071E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  1.0483 cm, Actual =  0.2621 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 56.2 %;  TMEAN = 271.2 K;  HDRY =  7.8989E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 364, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.24346     0.25448     0.25343
Head (cm)         = 7.40080E+02 4.65037E+02 4.77761E+02
Water Flow (cm)   =-1.00592E-01 3.55960E-04 3.88355E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN  NEWSTOR          STORAGE
 23.1696+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0039 = 23.1657  Versus  23.1734

Mass Balance = -7.6523E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.0 %;  TMEAN = 267.3 K;  HDRY =  3.5867E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 365, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    30.70000    91.50000
Water (cm3/cm3)   =     0.24138     0.25445     0.25343
Head (cm)         = 7.62939E+02 4.65370E+02 4.77761E+02
Water Flow (cm)   =-6.07147E-02-3.54064E-05 3.88355E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 23.1734+ 0.0000+ 0.0000 - 0.0829- 0.0000-  0.0039 = 23.0866  Versus  23.0977

Mass Balance = -1.1095E-02 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.3317 cm, Actual =  0.0829 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 69.3 %;  TMEAN = 269.5 K;  HDRY =  5.0354E+05 cm;  DAYUBC =     0
1
```

UNSAT-H Version 2.03
SIMULATION SUMMARY

Title:
Muskogee LF Subtitle D Final Cover

Transpiration Scheme is:	=	1	
Potential Evapotranspiration	=	1.8318E+02	[cm]
Potential Transpiration	=	4.3246E+02	[cm]
Actual Transpiration	=	3.9417E+01	[cm]
Potential Evaporation	=	3.0027E+02	[cm]
Actual Evaporation	=	3.3072E+01	[cm]
Evaporation during Growth	=	1.4518E+01	[cm]
Total Runoff	=	1.8245E+01	[cm]
Total Infiltration	=	7.1315E+01	[cm]
Total Drainage at Base of Profile	=	1.4040E+00	[cm]
Total Applied Water	=	8.9560E+01	[cm]
Actual Rainfall	=	8.9560E+01	[cm]
Actual Irrigation	=	0.0000E+00	[cm]
Total Final Moisture Storage	=	2.3098E+01	[cm]
Mass Balance Error	=	-2.8770E+00	[cm]
Total Successful Time Steps	=	56469442	
Total Attempted Time Steps	=	56469442	
Total Time Step Reductions (DHMAX)	=	23089	
Total Changes in Surface Boundary	=	26577674	
Total Time Actually Simulated	=	3.6500E+02	[days]

Total water flow (cm) across different depths at the end of 3.6500E+02 days:

DEPTH	FLOW	DEPTH	FLOW	DEPTH	FLOW
0.000	3.8242E+01	2.500	3.8240E+01	7.000	2.0170E+01
10.500	1.0334E+01	13.500	3.0502E+00	16.500	-1.1462E+00
19.500	-9.6836E-01	23.000	-6.6754E-01	27.500	-1.9679E-01
30.250	1.5486E-01	30.550	1.7398E-01	30.650	1.7398E-01
32.850	3.3387E-01	37.500	6.6553E-01	42.500	9.0986E-01
47.500	1.0860E+00	52.500	1.2110E+00	57.500	1.2964E+00
62.500	1.3514E+00	67.500	1.3839E+00	72.500	1.4010E+00
77.500	1.4075E+00	82.500	1.4085E+00	87.500	1.4064E+00
90.750	1.4044E+00	91.500	1.4040E+00		

ET MONOLITHIC SOIL ALTERNATIVE FINAL COVER SYSTEM
UNSAT-H ANALYSIS

```
-------------------------------------------------------------------------------

                                Program DATAINH
                                 Version2.03

-------------------------------------------------------------------------------

 Input Filename: S:\Nevzat\WinUnsatH\project.inp
 Date Processed: 15-JUL-**
 Time Processed: 13:15: 9

-------------------------------------------------------------------------------
 Title:
 Muskogee AFC Alternative Final Cover
-------------------------------------------------------------------------------

 Options chosen include:

 IPLANT =   1        LOWER  =   1        NGRAV  =   1        ISWDIF =   1
 IHEAT  =   0        UPPERH =   0        LOWERH =   1
 NPRINT =   0        DAYEND = 365        NDAYS  = 365        NYEARS =   5
 IRAIN  =   1        ICONVH =   0
 NSURPE =   1        NFHOUR =   2        ITOPBC =   0        ET_OPT =   1
 ICLOUD =   0
 KOPT   =   4        KEST   =   3        IVAPOR =   1        SH_OPT =   1
 INMAX  =   2        INHMAX =   1
 HIRRI  =   1.00     HDRY   =  1.000E-06 HTOP   =   15.0     DHMAX  =   10.0
 DMAXBA =  1.000E-03 DELMAX =  0.250     DELMIN =  1.000E-04 STOPHR =   24.0
 OUTTIM =  0.250
 TORT   =  0.660     TSOIL  =   291.     VAPDIF =  0.240     QHTOP  =   0.00

 IVAPOR = 1:  This option allows vapor flow
 Saturated vapor density (g/cm3)
  of soil when soil temperature is
  a constant equal to TSOIL        =  1.521E-05
 100*MOLAR*GRAV/GASCON (K/cm)      =  2.123E-04
 VC (cm5/g/h)                      =  5.702E+02
 TGRAD  =   0.00     TSMEAN =   0.00     TSAMP  =   0.00     QHLEAK =   0.00
 WTF    =  0.500     RFACT  =   1.00     RAINIF =  1.000E-03 DHFACT =  0.100
 MATN   =   3        NPT    =  25

-------------------------------------------------------------------------------
 KOPT = 4:  van Genuchten functions for soil hydraulic properties

 THETA vs H, MAT 1,
      AIRINT =   0.0000                            THET =  0.40000
        THTR =  8.00000E-02                       ALPHA =  5.00000E-03
           N =   1.4800                               M =  0.32432
     K vs H, MAT 1,
      AIRINK =   0.0000                              SK =  0.18000
           A =  5.00000E-03                           N =   1.4800
           M =  0.32432                          KMODEL =   2.0000
        EPIT =  0.50000

 THETA vs H, MAT 2,
      AIRINT =   0.0000                            THET =  0.40000
        THTR =  0.15000                           ALPHA =  5.00000E-03
```

```
        N =   1.4800                                M =  0.32432
    K vs H, MAT 2,
     AIRINK =   0.0000                             SK =  7.20000E-02
          A =  5.00000E-03                          N =   1.4800
          M =  0.32432                         KMODEL =   2.0000
       EPIT =  0.50000

THETA vs H, MAT 3,
     AIRINT =   0.0000                           THET =  0.40000
       THTR =  0.15000                          ALPHA =  5.00000E-03
          N =   1.4800                              M =  0.32432
    K vs H, MAT 3,
     AIRINK =   0.0000                             SK =  7.20000E-02
          A =  5.00000E-03                          N =   1.4800
          M =  0.32432                         KMODEL =   2.0000
       EPIT =  0.50000
```

Surface node hydraulic properties

```
HIRRI =       1.0     , THETA = 0.4000, K =   1.5281E-01, C =  -6.0345E-05
HDRY  =     1.00E-06, THETA = 0.4000, K =   1.8000E-01, C =  -7.9592E-08
NDAY =    0
```

NODE	Z	MAT	HEAD	CONDUCTIVITY	CAPACITY	THETA	TEMP
1	0.00	1	1.0000E+04	6.8953E-08	-2.3395E-06	0.1289	291.0
2	5.00	1	1.0000E+04	6.8953E-08	-2.3395E-06	0.1289	291.0
3	9.00	1	1.0000E+04	6.8953E-08	-2.3395E-06	0.1289	291.0
4	12.00	1	1.0000E+04	6.8953E-08	-2.3395E-06	0.1289	291.0
5	15.00	1	1.0000E+04	6.8953E-08	-2.3395E-06	0.1289	291.0
6	18.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
7	21.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
8	25.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
9	30.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
10	35.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
11	40.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
12	50.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
13	60.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
14	70.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
15	80.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
16	85.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
17	88.00	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
18	91.50	2	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
19	92.00	3	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
20	96.00	3	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
21	100.00	3	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
22	110.00	3	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
23	115.00	3	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
24	118.00	3	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0
25	122.00	3	1.0000E+04	2.7581E-08	-1.8278E-06	0.1882	291.0

Total Initial Storage = 21.9812 cm

IPLANT = 1

LEAF= 1, NFROOT= 1, NUPTAK= 1, NFPET= 1, NSOW= 81, NHRVST=335

Total number of Growth Day - Leaf Area Index (LAI) data pairs = 5

Growth Day	LAI
0	2.000
81	4.500
320	4.500
335	3.500
364	2.000

BARE = 0.050

DAY	LAI	DAY	LAI	DAY	LAI	DAY	LAI	DAY	LAI	DAY	LAI
1	2.031	2	2.062	3	2.093	4	2.123	5	2.154	6	2.185
7	2.216	8	2.247	9	2.278	10	2.309	11	2.340	12	2.370
13	2.401	14	2.432	15	2.463	16	2.494	17	2.525	18	2.556
19	2.586	20	2.617	21	2.648	22	2.679	23	2.710	24	2.741
25	2.772	26	2.802	27	2.833	28	2.864	29	2.895	30	2.926
31	2.957	32	2.988	33	3.019	34	3.049	35	3.080	36	3.111
37	3.142	38	3.173	39	3.204	40	3.235	41	3.265	42	3.296
43	3.327	44	3.358	45	3.389	46	3.420	47	3.451	48	3.481
49	3.512	50	3.543	51	3.574	52	3.605	53	3.636	54	3.667
55	3.698	56	3.728	57	3.759	58	3.790	59	3.821	60	3.852
61	3.883	62	3.914	63	3.944	64	3.975	65	4.006	66	4.037
67	4.068	68	4.099	69	4.130	70	4.160	71	4.191	72	4.222
73	4.253	74	4.284	75	4.315	76	4.346	77	4.377	78	4.407
79	4.438	80	4.469	81	4.500	82	4.500	83	4.500	84	4.500
85	4.500	86	4.500	87	4.500	88	4.500	89	4.500	90	4.500
91	4.500	92	4.500	93	4.500	94	4.500	95	4.500	96	4.500
97	4.500	98	4.500	99	4.500	100	4.500	101	4.500	102	4.500
103	4.500	104	4.500	105	4.500	106	4.500	107	4.500	108	4.500
109	4.500	110	4.500	111	4.500	112	4.500	113	4.500	114	4.500
115	4.500	116	4.500	117	4.500	118	4.500	119	4.500	120	4.500
121	4.500	122	4.500	123	4.500	124	4.500	125	4.500	126	4.500
127	4.500	128	4.500	129	4.500	130	4.500	131	4.500	132	4.500
133	4.500	134	4.500	135	4.500	136	4.500	137	4.500	138	4.500
139	4.500	140	4.500	141	4.500	142	4.500	143	4.500	144	4.500
145	4.500	146	4.500	147	4.500	148	4.500	149	4.500	150	4.500
151	4.500	152	4.500	153	4.500	154	4.500	155	4.500	156	4.500
157	4.500	158	4.500	159	4.500	160	4.500	161	4.500	162	4.500
163	4.500	164	4.500	165	4.500	166	4.500	167	4.500	168	4.500
169	4.500	170	4.500	171	4.500	172	4.500	173	4.500	174	4.500
175	4.500	176	4.500	177	4.500	178	4.500	179	4.500	180	4.500
181	4.500	182	4.500	183	4.500	184	4.500	185	4.500	186	4.500
187	4.500	188	4.500	189	4.500	190	4.500	191	4.500	192	4.500
193	4.500	194	4.500	195	4.500	196	4.500	197	4.500	198	4.500
199	4.500	200	4.500	201	4.500	202	4.500	203	4.500	204	4.500
205	4.500	206	4.500	207	4.500	208	4.500	209	4.500	210	4.500
211	4.500	212	4.500	213	4.500	214	4.500	215	4.500	216	4.500
217	4.500	218	4.500	219	4.500	220	4.500	221	4.500	222	4.500
223	4.500	224	4.500	225	4.500	226	4.500	227	4.500	228	4.500
229	4.500	230	4.500	231	4.500	232	4.500	233	4.500	234	4.500
235	4.500	236	4.500	237	4.500	238	4.500	239	4.500	240	4.500
241	4.500	242	4.500	243	4.500	244	4.500	245	4.500	246	4.500

247	4.500	248	4.500	249	4.500	250	4.500	251	4.500	252	4.500
253	4.500	254	4.500	255	4.500	256	4.500	257	4.500	258	4.500
259	4.500	260	4.500	261	4.500	262	4.500	263	4.500	264	4.500
265	4.500	266	4.500	267	4.500	268	4.500	269	4.500	270	4.500
271	4.500	272	4.500	273	4.500	274	4.500	275	4.500	276	4.500
277	4.500	278	4.500	279	4.500	280	4.500	281	4.500	282	4.500
283	4.500	284	4.500	285	4.500	286	4.500	287	4.500	288	4.500
289	4.500	290	4.500	291	4.500	292	4.500	293	4.500	294	4.500
295	4.500	296	4.500	297	4.500	298	4.500	299	4.500	300	4.500
301	4.500	302	4.500	303	4.500	304	4.500	305	4.500	306	4.500
307	4.500	308	4.500	309	4.500	310	4.500	311	4.500	312	4.500
313	4.500	314	4.500	315	4.500	316	4.500	317	4.500	318	4.500
319	4.500	320	4.500	321	4.433	322	4.367	323	4.300	324	4.233
325	4.167	326	4.100	327	4.033	328	3.967	329	3.900	330	3.833
331	3.767	332	3.700	333	3.633	334	3.567	335	3.500	336	3.448
337	3.397	338	3.345	339	3.293	340	3.241	341	3.190	342	3.138
343	3.086	344	3.034	345	2.983	346	2.931	347	2.879	348	2.828
349	2.776	350	2.724	351	2.672	352	2.621	353	2.569	354	2.517
355	2.466	356	2.414	357	2.362	358	2.310	359	2.259	360	2.207
361	2.155	362	2.103	363	2.052	364	2.000	365	0.000		

NFROOT = 1: Negative exponential representation of root growth

AA (intersection of the curve at z=0 with abscissa) = 1.300
B1 (coefficient defining degree of curvature) = 0.13000
B2 (coefficient that determines the value of asymptote = 0.020

Root depth, density, and weight/node versus depth

DAY	MAX ROOT DEPTH	ROOT DENSITY (cm/cm)	NORMALIZED DENSITY (1/cm)
1	0.00	0.000	0.0000
1	5.00	0.699	0.1126
1	9.00	0.423	0.0682
1	12.00	0.293	0.0472
1	15.00	0.205	0.0330
1	18.00	0.145	0.0234
1	21.00	0.105	0.0169
1	25.00	0.070	0.0113
1	30.00	0.046	0.0075
1	35.00	0.034	0.0054
1	40.00	0.027	0.0044
1	50.00	0.022	0.0035

MXROOT (deepest node to which roots penetrate) = 12
NUPTAK = 1: Feddes et al. 1975 moisture dependent sink term

For Material No. 1

THETAW (wilting point moisture content) = 0.1203
THETAD (lower limit of optimum moisture content) = 0.1667
THETAN (upper limit of optimum moisture content) = 0.3988

For Material No. 2

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THETAW (wilting point moisture content)            =     0.1815
THETAD (lower limit of optimum moisture content) =     0.2177
THETAN (upper limit of optimum moisture content) =     0.3990

For Material No. 3

THETAW (wilting point moisture content)            =     0.1815
THETAD (lower limit of optimum moisture content) =     0.2177
THETAN (upper limit of optimum moisture content) =     0.3990
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NFHOUR = 2:  User subroutine for hourly PET distribution

  0.0100   0.0100   0.0100   0.0100   0.0100   0.0100   0.0150   0.0440
  0.0699   0.0911   0.1061   0.1139   0.1139   0.1061   0.0911   0.0699
  0.0440   0.0150   0.0100   0.0100   0.0100   0.0100   0.0100   0.0100
ET_OPT = 1 and IHEAT = 0:
PET calculated from meteorological data
using subroutine CALPEN

ALBEDO =  2.000E-01
   ALT =  7.040E+02 (m)
    ZU =  5.000E-01 (m)
   PMB =  1.000E+03 (mb)


ET_OPT = 1:  Meteorological Data
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IDAY	Temperature Max F	Temperature Min F	Temperature Dew F	Solar Rad ly/d	Wind Speed mph	Cloud Cover tenth	Prec. in
1.	29.	12.	18.6	225.	3.9	0.0	0.03
2.	24.	0.	8.9	268.	2.5	0.0	0.01
3.	36.	10.	20.3	273.	4.1	0.0	0.04
4.	48.	14.	25.1	275.	2.4	0.0	0.31
5.	56.	22.	26.8	283.	1.6	0.0	0.42
6.	57.	25.	29.5	245.	3.4	0.0	0.20
7.	43.	33.	31.3	153.	7.5	0.0	0.00
8.	49.	25.	27.3	286.	3.0	0.0	0.00
9.	45.	22.	26.9	285.	4.9	0.0	0.00
10.	45.	28.	30.0	150.	5.3	0.0	0.08
11.	41.	32.	35.1	90.	3.0	0.0	0.16
12.	43.	27.	36.2	69.	6.1	0.0	0.01
13.	48.	37.	39.6	25.	13.5	0.0	0.02
14.	50.	28.	31.4	292.	6.0	0.0	0.00
15.	51.	23.	27.4	269.	1.9	0.0	0.00
16.	37.	27.	29.0	61.	7.2	0.0	0.00
17.	35.	29.	28.9	84.	9.2	0.0	0.04
18.	46.	28.	26.4	205.	5.2	0.0	0.01
19.	33.	21.	17.0	269.	8.9	0.0	0.00
20.	36.	12.	13.2	293.	3.2	0.0	0.00
21.	49.	24.	24.0	253.	2.4	0.0	0.00
22.	54.	22.	26.8	314.	2.8	0.0	0.00

23.	55.	33.	35.6	159.	4.0	0.0	0.00
24.	51.	31.	29.0	456.	5.6	0.0	0.00
25.	50.	20.	22.0	334.	8.1	0.0	0.00
26.	57.	28.	32.4	326.	11.5	0.0	0.00
27.	39.	24.	24.5	221.	7.1	0.0	0.40
28.	43.	36.	37.5	23.	5.6	0.0	2.07
29.	46.	35.	36.0	92.	7.0	0.0	0.60
30.	54.	37.	31.2	270.	9.1	0.0	0.00
31.	50.	27.	22.0	352.	6.6	0.0	0.00
32.	54.	23.	25.0	324.	7.9	0.0	0.00
33.	44.	17.	16.9	857.	20.6	0.0	0.00
34.	58.	29.	30.3	884.	23.4	0.0	0.00
35.	57.	34.	30.5	950.	31.2	0.0	0.00
36.	62.	25.	28.6	936.	23.9	0.0	0.00
37.	62.	36.	35.0	989.	14.8	0.0	0.00
38.	66.	37.	48.4	1036.	0.0	0.0	0.00
39.	73.	61.	60.4	1201.	0.0	0.0	0.00
40.	69.	25.	26.7	1065.	0.0	0.0	0.00
41.	38.	20.	19.2	943.	13.2	0.0	0.00
42.	46.	26.	26.6	943.	22.5	0.0	0.00
43.	43.	38.	39.3	59.	6.5	0.0	0.01
44.	55.	42.	48.0	1055.	0.0	0.0	0.00
45.	65.	31.	50.6	1160.	0.0	0.0	0.00
46.	31.	29.	28.4	25.	5.8	0.0	0.00
47.	34.	25.	25.2	927.	33.4	0.0	0.15
48.	38.	19.	16.4	872.	20.8	0.0	0.05
49.	49.	21.	26.3	881.	24.0	0.0	0.02
50.	65.	34.	38.9	979.	25.7	0.0	0.00
51.	57.	37.	44.5	1029.	0.0	0.0	0.00
52.	46.	28.	28.8	993.	25.5	0.0	0.01
53.	48.	25.	26.2	972.	15.3	0.0	0.00
54.	44.	32.	36.9	955.	32.7	0.0	2.12
55.	65.	42.	46.3	1086.	0.0	0.0	0.00
56.	52.	36.	30.7	1072.	0.0	0.0	0.00
57.	65.	36.	37.1	1086.	0.0	0.0	0.00
58.	54.	31.	39.8	1103.	0.0	0.0	0.00
59.	31.	27.	27.8	950.	23.9	0.0	0.00
60.	43.	30.	34.5	107.	6.4	0.0	0.15
61.	47.	29.	36.7	161.	2.9	0.0	0.00
62.	53.	35.	36.2	272.	7.5	0.0	0.00
63.	58.	36.	32.0	466.	7.4	0.0	0.00
64.	56.	28.	31.0	470.	5.0	0.0	0.00
65.	56.	29.	29.2	332.	4.3	0.0	0.00
66.	61.	33.	31.3	433.	4.9	0.0	0.00
67.	55.	32.	32.0	290.	5.1	0.0	0.00
68.	61.	30.	28.1	484.	4.4	0.0	0.00
69.	65.	34.	31.8	489.	9.3	0.0	0.00
70.	64.	50.	42.9	123.	8.7	0.0	0.59
71.	59.	39.	42.0	420.	5.9	0.0	0.06
72.	73.	38.	35.6	517.	4.7	0.0	0.00
73.	66.	40.	45.8	216.	10.3	0.0	0.00
74.	53.	41.	41.9	73.	12.3	0.0	0.09
75.	52.	33.	29.5	378.	7.9	0.0	0.00
76.	54.	30.	28.6	420.	6.6	0.0	0.00
77.	50.	39.	32.9	188.	5.1	0.0	0.00
78.	55.	39.	34.6	323.	4.8	0.0	0.00

79.	62.	29.	31.2	544.	3.4	0.0	0.00
80.	72.	32.	32.8	454.	6.4	0.0	0.00
81.	76.	50.	42.2	437.	8.2	0.0	0.00
82.	74.	44.	45.0	439.	4.8	0.0	0.00
83.	59.	36.	28.1	376.	17.5	0.0	0.00
84.	45.	30.	20.4	277.	8.0	0.0	0.00
85.	48.	32.	17.2	463.	6.3	0.0	0.00
86.	50.	40.	26.4	183.	4.3	0.0	0.09
87.	45.	40.	39.8	76.	5.0	0.0	0.05
88.	50.	42.	42.5	123.	2.9	0.0	0.02
89.	65.	39.	42.7	513.	3.1	0.0	0.00
90.	62.	38.	38.7	460.	5.6	0.0	0.01
91.	69.	33.	36.8	263.	6.8	0.0	0.00
92.	73.	59.	57.4	109.	10.8	0.0	0.01
93.	87.	66.	64.5	336.	9.4	0.0	0.00
94.	89.	59.	64.4	503.	5.7	0.0	0.00
95.	80.	67.	67.3	236.	10.7	0.0	0.00
96.	84.	71.	63.0	223.	15.9	0.0	0.00
97.	84.	67.	46.6	594.	12.1	0.0	0.00
98.	86.	66.	63.6	425.	12.6	0.0	0.00
99.	86.	68.	64.5	700.	9.1	0.0	0.00
100.	80.	70.	65.8	163.	10.9	0.0	0.00
101.	75.	54.	43.7	609.	18.4	0.0	0.49
102.	68.	42.	41.3	349.	9.1	0.0	0.00
103.	79.	40.	47.0	612.	4.1	0.0	0.00
104.	72.	52.	57.9	234.	7.8	0.0	0.00
105.	74.	51.	53.2	622.	7.2	0.0	0.77
106.	63.	45.	39.8	469.	9.7	0.0	0.00
107.	58.	38.	31.1	655.	8.6	0.0	0.00
108.	67.	32.	35.0	586.	5.8	0.0	0.00
109.	70.	55.	51.9	287.	14.6	0.0	0.00
110.	76.	70.	64.7	203.	15.6	0.0	0.00
111.	74.	68.	63.4	162.	13.7	0.0	0.00
112.	79.	63.	61.7	150.	16.1	0.0	1.15
113.	70.	46.	41.5	638.	7.3	0.0	0.10
114.	70.	40.	41.8	657.	2.1	0.0	0.00
115.	80.	45.	46.5	665.	3.7	0.0	0.00
116.	84.	50.	50.6	640.	5.4	0.0	0.00
117.	82.	54.	50.6	657.	5.5	0.0	0.00
118.	82.	51.	53.7	626.	3.8	0.0	0.00
119.	82.	52.	52.4	661.	6.3	0.0	0.00
120.	81.	53.	52.3	535.	7.4	0.0	0.00
121.	84.	61.	59.8	620.	10.0	0.0	0.00
122.	81.	66.	62.9	494.	13.6	0.0	0.00
123.	82.	65.	63.2	483.	9.1	0.0	0.00
124.	80.	64.	62.5	356.	10.2	0.0	0.10
125.	76.	64.	63.1	390.	9.5	0.0	0.27
126.	77.	60.	62.1	353.	8.6	0.0	0.00
127.	76.	52.	52.9	579.	7.0	0.0	0.00
128.	81.	45.	51.8	694.	2.4	0.0	0.00
129.	84.	55.	59.2	680.	6.0	0.0	0.00
130.	81.	64.	62.6	327.	7.9	0.0	0.07
131.	80.	61.	63.8	273.	5.6	0.0	0.52
132.	81.	59.	60.1	693.	3.7	0.0	0.00
133.	84.	56.	62.7	604.	5.2	0.0	0.00
134.	85.	66.	64.6	636.	8.2	0.0	0.00

135.	86.	67.	63.2	683.	9.9	0.0	0.00
136.	86.	68.	67.7	490.	6.8	0.0	0.00
137.	85.	65.	69.3	465.	7.3	0.0	0.46
138.	82.	65.	65.5	499.	6.3	0.0	0.72
139.	81.	61.	65.9	462.	2.8	0.0	0.03
140.	80.	66.	67.3	372.	5.7	0.0	0.50
141.	67.	50.	49.5	369.	8.2	0.0	0.10
142.	77.	45.	45.5	718.	7.1	0.0	0.00
143.	82.	49.	50.2	699.	5.8	0.0	0.02
144.	69.	49.	42.4	656.	6.3	0.0	0.00
145.	72.	48.	46.6	660.	4.4	0.0	0.00
146.	82.	47.	53.7	676.	3.4	0.0	0.00
147.	87.	58.	63.1	532.	5.3	0.0	1.47
148.	84.	61.	63.3	712.	4.7	0.0	0.00
149.	73.	65.	66.2	116.	7.8	0.0	1.19
150.	75.	62.	64.9	256.	7.4	0.0	1.47
151.	68.	57.	58.3	187.	4.9	0.0	0.00
152.	81.	50.	58.5	700.	4.5	0.0	0.00
153.	78.	68.	57.3	710.	6.9	0.0	0.00
154.	88.	67.	67.9	481.	9.3	0.0	0.00
155.	88.	77.	71.6	549.	11.3	0.0	0.00
156.	87.	73.	70.6	491.	9.8	0.0	0.00
157.	87.	69.	67.9	643.	5.4	0.0	0.00
158.	89.	67.	68.6	639.	6.5	0.0	0.00
159.	88.	68.	70.4	579.	4.0	0.0	0.08
160.	88.	69.	70.0	630.	3.1	0.0	0.00
161.	89.	68.	70.2	629.	5.2	0.0	0.00
162.	90.	69.	68.9	718.	6.3	0.0	0.00
163.	90.	71.	68.5	712.	11.4	0.0	0.00
164.	90.	75.	72.1	559.	14.0	0.0	0.00
165.	88.	67.	71.0	278.	10.2	0.0	0.89
166.	88.	62.	61.5	710.	3.0	0.0	0.01
167.	90.	62.	60.7	737.	6.5	0.0	0.00
168.	89.	65.	61.7	608.	7.3	0.0	0.00
169.	90.	67.	63.9	726.	8.2	0.0	0.00
170.	90.	69.	66.8	691.	6.5	0.0	0.00
171.	85.	69.	69.0	480.	5.6	0.0	0.02
172.	80.	62.	64.8	419.	5.5	0.0	0.11
173.	84.	57.	58.8	661.	3.2	0.0	0.00
174.	88.	60.	61.8	700.	4.2	0.0	0.00
175.	90.	63.	63.9	704.	5.0	0.0	0.00
176.	89.	64.	63.9	704.	5.2	0.0	0.00
177.	88.	63.	64.7	663.	4.9	0.0	0.00
178.	91.	65.	67.1	652.	4.6	0.0	0.00
179.	76.	68.	67.2	193.	8.0	0.0	1.50
180.	84.	67.	68.3	472.	9.7	0.0	0.46
181.	85.	70.	70.2	517.	4.5	0.0	0.00
182.	88.	68.	71.4	647.	3.7	0.0	0.00
183.	89.	69.	70.0	676.	4.7	0.0	0.00
184.	90.	68.	70.4	616.	4.9	0.0	0.00
185.	96.	70.	71.2	677.	5.8	0.0	0.00
186.	91.	75.	72.8	474.	6.3	0.0	0.00
187.	97.	73.	74.3	698.	6.3	0.0	0.00
188.	96.	77.	73.6	703.	7.5	0.0	0.00
189.	97.	74.	72.2	701.	6.9	0.0	0.00
190.	98.	74.	72.0	706.	4.6	0.0	0.00

191.	97.	72.	72.7	649.	4.0	0.0	0.00
192.	97.	73.	73.9	678.	5.1	0.0	0.00
193.	101.	77.	73.4	646.	5.8	0.0	0.00
194.	82.	75.	72.3	299.	9.7	0.0	0.00
195.	86.	70.	65.0	516.	5.9	0.0	0.00
196.	87.	66.	67.0	451.	7.1	0.0	0.00
197.	94.	74.	73.6	510.	9.9	0.0	0.18
198.	98.	78.	75.0	664.	8.5	0.0	0.00
199.	98.	76.	74.6	663.	8.0	0.0	0.00
200.	97.	79.	73.7	667.	7.2	0.0	0.00
201.	95.	75.	71.4	665.	6.3	0.0	0.00
202.	100.	73.	71.6	674.	5.3	0.0	0.00
203.	100.	74.	70.5	686.	6.4	0.0	0.00
204.	100.	73.	70.3	666.	6.2	0.0	0.00
205.	100.	75.	73.3	656.	4.3	0.0	0.00
206.	99.	79.	72.7	603.	6.2	0.0	0.00
207.	97.	75.	73.8	513.	4.7	0.0	0.00
208.	95.	78.	73.8	410.	6.1	0.0	0.00
209.	97.	77.	73.5	553.	6.5	0.0	0.06
210.	95.	75.	74.9	579.	5.5	0.0	0.00
211.	100.	76.	73.0	628.	7.1	0.0	0.00
212.	99.	77.	71.3	654.	7.2	0.0	0.00
213.	99.	72.	69.8	660.	5.7	0.0	0.00
214.	97.	74.	71.9	631.	5.8	0.0	0.00
215.	97.	69.	68.6	642.	2.7	0.0	0.00
216.	101.	70.	69.0	649.	2.6	0.0	0.00
217.	101.	74.	70.4	651.	3.9	0.0	0.00
218.	98.	68.	66.2	641.	3.9	0.0	0.00
219.	97.	70.	70.3	609.	3.0	0.0	0.00
220.	98.	73.	70.0	555.	4.5	0.0	0.00
221.	104.	79.	68.7	595.	6.8	0.0	0.00
222.	98.	74.	71.6	505.	4.2	0.0	0.28
223.	88.	73.	74.1	335.	2.1	0.0	0.00
224.	94.	73.	73.4	495.	3.4	0.0	0.00
225.	96.	70.	66.7	597.	4.5	0.0	0.00
226.	95.	66.	63.0	637.	3.9	0.0	0.00
227.	95.	70.	68.0	419.	9.3	0.0	0.73
228.	91.	68.	68.1	585.	3.1	0.0	0.00
229.	93.	67.	69.1	590.	4.4	0.0	0.00
230.	93.	68.	69.7	581.	5.3	0.0	0.00
231.	92.	66.	59.7	627.	5.3	0.0	0.00
232.	98.	67.	65.6	557.	6.5	0.0	0.00
233.	96.	73.	67.6	570.	9.2	0.0	0.00
234.	96.	78.	68.3	585.	5.1	0.0	0.00
235.	90.	74.	69.5	218.	6.3	0.0	0.32
236.	92.	73.	68.0	388.	8.7	0.0	0.07
237.	97.	73.	70.4	395.	7.2	0.0	0.49
238.	92.	69.	70.3	533.	4.0	0.0	0.00
239.	94.	71.	70.8	606.	2.6	0.0	0.00
240.	93.	68.	70.0	591.	3.8	0.0	0.00
241.	90.	68.	68.3	555.	5.4	0.0	0.00
242.	86.	73.	69.5	492.	7.0	0.0	0.00
243.	89.	66.	65.9	492.	4.9	0.0	0.00
244.	90.	66.	67.5	571.	4.0	0.0	0.00
245.	92.	67.	68.6	581.	3.4	0.0	0.00
246.	94.	68.	68.9	495.	2.8	0.0	0.00

247.	91.	68.	69.3	382.	3.0	0.0	0.00
248.	88.	72.	71.4	243.	3.7	0.0	0.03
249.	88.	72.	70.7	402.	10.2	0.0	0.01
250.	91.	66.	70.3	380.	14.1	0.0	0.41
251.	77.	62.	64.4	213.	3.9	0.0	0.86
252.	79.	55.	56.2	529.	5.2	0.0	0.01
253.	82.	49.	53.8	588.	2.0	0.0	0.00
254.	84.	52.	56.8	569.	3.1	0.0	0.00
255.	86.	55.	58.7	544.	2.5	0.0	0.00
256.	88.	55.	60.4	552.	2.1	0.0	0.00
257.	88.	60.	64.4	402.	4.1	0.0	0.00
258.	76.	66.	65.4	187.	6.6	0.0	0.26
259.	77.	68.	68.4	144.	4.8	0.0	0.18
260.	84.	70.	69.9	232.	6.6	0.0	0.01
261.	77.	66.	67.6	252.	7.0	0.0	1.04
262.	81.	63.	61.1	479.	4.0	0.0	0.00
263.	77.	58.	62.9	210.	4.8	0.0	0.00
264.	80.	62.	65.6	315.	3.9	0.0	0.00
265.	85.	60.	66.2	405.	2.8	0.0	0.00
266.	82.	60.	61.3	437.	9.1	0.0	0.01
267.	69.	50.	47.9	418.	9.9	0.0	0.00
268.	71.	42.	45.3	527.	2.6	0.0	0.00
269.	77.	40.	48.6	515.	2.0	0.0	0.00
270.	78.	48.	51.4	490.	3.6	0.0	0.00
271.	80.	50.	53.8	484.	2.7	0.0	0.00
272.	77.	48.	51.0	498.	4.0	0.0	0.00
273.	78.	44.	49.5	500.	1.9	0.0	0.00
274.	80.	44.	49.9	493.	1.7	0.0	0.00
275.	81.	47.	51.4	486.	6.0	0.0	0.01
276.	82.	57.	55.6	436.	7.9	0.0	0.00
277.	83.	63.	63.4	378.	9.3	0.0	0.00
278.	73.	38.	48.8	167.	11.2	0.0	0.09
279.	68.	33.	38.0	483.	2.0	0.0	0.00
280.	69.	36.	40.5	466.	5.6	0.0	0.00
281.	76.	47.	48.9	445.	11.7	0.0	0.00
282.	73.	66.	61.2	126.	12.2	0.0	0.59
283.	75.	60.	63.4	27.	7.4	0.0	2.14
284.	62.	57.	58.7	57.	3.5	0.0	0.24
285.	73.	56.	58.7	313.	7.0	0.0	0.57
286.	69.	47.	51.5	263.	4.2	0.0	0.00
287.	71.	43.	44.3	407.	3.5	0.0	0.00
288.	73.	37.	44.3	271.	9.3	0.0	0.00
289.	66.	31.	34.8	449.	2.5	0.0	0.00
290.	70.	36.	37.5	436.	6.8	0.0	0.00
291.	75.	53.	47.2	405.	10.4	0.0	0.00
292.	68.	46.	52.5	184.	2.4	0.0	0.00
293.	82.	47.	57.0	370.	5.6	0.0	0.00
294.	80.	60.	59.4	384.	8.4	0.0	0.00
295.	80.	58.	62.8	245.	9.3	0.0	0.00
296.	85.	58.	61.2	336.	7.6	0.0	0.00
297.	72.	42.	44.9	398.	8.9	0.0	0.00
298.	67.	34.	29.8	408.	4.2	0.0	0.00
299.	67.	31.	30.8	398.	3.2	0.0	0.00
300.	65.	30.	30.8	400.	3.1	0.0	0.00
301.	70.	39.	34.6	380.	9.4	0.0	0.00
302.	75.	48.	40.5	333.	8.5	0.0	0.00

303.	73.	43.	41.2	378.	6.3	0.0	0.00
304.	71.	53.	49.8	220.	12.9	0.0	0.00
305.	78.	62.	60.5	148.	11.3	0.0	0.00
306.	69.	61.	62.8	86.	5.1	0.0	0.00
307.	64.	59.	61.4	46.	4.4	0.0	2.78
308.	74.	53.	59.3	214.	1.5	0.0	0.00
309.	75.	49.	55.0	233.	1.2	0.0	0.00
310.	77.	47.	53.5	294.	3.9	0.0	0.00
311.	78.	49.	48.3	337.	5.9	0.0	0.00
312.	62.	49.	46.9	224.	8.4	0.0	0.03
313.	58.	40.	40.2	236.	4.8	0.0	0.00
314.	71.	45.	45.2	332.	2.9	0.0	0.00
315.	71.	40.	46.6	315.	3.0	0.0	0.00
316.	68.	45.	47.4	218.	7.0	0.0	0.00
317.	72.	48.	53.2	225.	8.6	0.0	0.00
318.	72.	55.	54.8	226.	8.2	0.0	0.00
319.	72.	46.	51.0	275.	2.9	0.0	0.00
320.	69.	45.	50.9	139.	1.9	0.0	0.00
321.	67.	56.	53.2	104.	3.7	0.0	0.00
322.	74.	55.	57.1	222.	8.2	0.0	0.41
323.	61.	32.	34.0	254.	11.9	0.0	0.35
324.	56.	26.	26.2	308.	2.6	0.0	0.00
325.	59.	28.	29.5	252.	5.3	0.0	0.00
326.	67.	41.	42.4	283.	11.2	0.0	0.00
327.	73.	53.	55.3	122.	13.2	0.0	0.00
328.	59.	48.	41.7	60.	11.3	0.0	0.00
329.	70.	33.	37.5	294.	8.2	0.0	0.00
330.	63.	38.	37.1	81.	11.3	0.0	0.00
331.	39.	29.	21.2	162.	8.4	0.0	0.00
332.	30.	26.	25.8	55.	13.1	0.0	0.00
333.	34.	28.	28.5	51.	6.7	0.0	0.00
334.	57.	30.	32.6	291.	7.9	0.0	0.31
335.	62.	28.	37.4	199.	3.1	0.0	0.00
336.	71.	33.	44.3	280.	7.6	0.0	0.00
337.	62.	53.	54.8	71.	9.8	0.0	0.00
338.	75.	61.	60.6	155.	12.6	0.0	0.00
339.	75.	51.	53.6	95.	12.2	0.0	0.00
340.	66.	38.	39.6	140.	3.0	0.0	0.00
341.	67.	33.	43.0	206.	4.1	0.0	0.00
342.	53.	28.	27.4	257.	10.0	0.0	0.00
343.	55.	22.	23.4	288.	1.4	0.0	0.00
344.	56.	20.	25.1	285.	5.2	0.0	0.00
345.	51.	28.	35.3	141.	8.9	0.0	0.26
346.	52.	46.	48.7	31.	4.0	0.0	0.13
347.	49.	44.	45.0	54.	4.6	0.0	0.25
348.	48.	37.	40.7	111.	6.6	0.0	0.00
349.	49.	40.	42.2	52.	11.4	0.0	0.00
350.	53.	47.	49.3	16.	6.1	0.0	1.49
351.	57.	35.	37.8	276.	5.3	0.0	0.33
352.	66.	31.	35.5	277.	7.9	0.0	0.00
353.	50.	28.	23.5	284.	7.0	0.0	0.00
354.	61.	27.	28.2	275.	4.9	0.0	0.00
355.	63.	32.	33.2	268.	10.6	0.0	0.00
356.	60.	28.	36.6	268.	11.5	0.0	0.00
357.	43.	21.	14.7	279.	6.1	0.0	0.00
358.	42.	19.	16.1	289.	5.4	0.0	0.00

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 359.  39.  16.  19.1   261.    2.4    0.0   0.00
 360.  39.  21.  14.7   284.    6.5    0.0   0.00
 361.  51.  23.  26.0   233.    2.8    0.0   0.00
 362.  58.  22.  26.7   230.    4.0    0.0   0.00
 363.  37.  20.  14.2   275.    8.6    0.0   0.00
 364.  27.  16.  15.1    76.    3.3    0.0   0.00
 365.  38.  13.  16.4   266.    1.6    0.0   0.00
NFPET = 1:
          PET is partitioned into PT and PE according
          to the relationship developed by Ritchie
          (1972)
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DAY	PET	PTRANS	PEVAPO	DAY	PET	PTRANS	PEVAPO
1	0.0344	0.0000	0.0344	2	0.0446	0.0000	0.0446
3	0.0652	0.0000	0.0652	4	0.0920	0.0000	0.0920
5	0.1353	0.0000	0.1353	6	0.1549	0.0000	0.1549
7	0.1085	0.0000	0.1085	8	0.1473	0.0000	0.1473
9	0.1392	0.0000	0.1392	10	0.0714	0.0000	0.0714
11	0.0000	0.0000	0.0000	12	0.0000	0.0000	0.0000
13	0.0037	0.0000	0.0037	14	0.1895	0.0000	0.1895
15	0.1157	0.0000	0.1157	16	0.0000	0.0000	0.0000
17	0.0122	0.0000	0.0122	18	0.1497	0.0000	0.1497
19	0.2042	0.0000	0.2042	20	0.1231	0.0000	0.1231
21	0.1310	0.0000	0.1310	22	0.1736	0.0000	0.1736
23	0.0905	0.0000	0.0905	24	0.3505	0.0000	0.3505
25	0.3079	0.0000	0.3079	26	0.3789	0.0000	0.3789
27	0.1306	0.0000	0.1306	28	0.0000	0.0000	0.0000
29	0.0307	0.0000	0.0307	30	0.3811	0.0000	0.3811
31	0.3426	0.0000	0.3426	32	0.3257	0.0000	0.3257
33	0.8340	0.0000	0.8340	34	1.1620	0.0000	1.1620
35	1.5681	0.0000	1.5681	36	1.2792	0.0000	1.2792
37	1.1146	0.0000	1.1146	38	0.6816	0.0000	0.6816
39	1.0053	0.0000	1.0053	40	0.6911	0.0000	0.6911
41	0.6259	0.0000	0.6259	42	0.8859	0.0000	0.8859
43	0.0000	0.0000	0.0000	44	0.6556	0.0000	0.6556
45	0.7157	0.0000	0.7157	46	0.0000	0.0000	0.0000
47	0.6604	0.0000	0.6604	48	0.7685	0.0000	0.7685
49	0.8301	0.0000	0.8301	50	1.2925	0.0000	1.2925
51	0.6273	0.0000	0.6273	52	0.9353	0.0000	0.9353
53	0.8044	0.0000	0.8044	54	0.5666	0.0000	0.5666
55	0.7538	0.0000	0.7538	56	0.6519	0.0000	0.6519
57	0.7344	0.0000	0.7344	58	0.6304	0.0000	0.6304
59	0.4525	0.0000	0.4525	60	0.0000	0.0000	0.0000
61	0.0021	0.0000	0.0021	62	0.2246	0.0000	0.2246
63	0.4896	0.0000	0.4896	64	0.3410	0.0000	0.3410
65	0.2563	0.0000	0.2563	66	0.3918	0.0000	0.3918
67	0.2355	0.0000	0.2355	68	0.4158	0.0000	0.4158
69	0.6366	0.0000	0.6366	70	0.3189	0.0000	0.3189
71	0.3127	0.0000	0.3127	72	0.5490	0.0000	0.5490
73	0.2615	0.0000	0.2615	74	0.1037	0.0000	0.1037
75	0.3805	0.0000	0.3805	76	0.3753	0.0000	0.3753
77	0.1698	0.0000	0.1698	78	0.2764	0.0000	0.2764
79	0.4015	0.0000	0.4015	80	0.5375	0.0000	0.5375
81	0.7257	0.6894	0.0363	82	0.4540	0.4313	0.0227
83	0.8822	0.8381	0.0441	84	0.3375	0.3207	0.0169
85	0.4707	0.4471	0.0235	86	0.2076	0.1972	0.0104

87	0.0000	0.0000	0.0000	88	0.0020	0.0019	0.0001
89	0.3704	0.3519	0.0185	90	0.4033	0.3831	0.0202
91	0.3358	0.3190	0.0168	92	0.2821	0.2680	0.0141
93	0.6193	0.5884	0.0310	94	0.5844	0.5552	0.0292
95	0.3606	0.3425	0.0180	96	0.8724	0.8288	0.0436
97	1.4021	1.3320	0.0701	98	0.8415	0.7995	0.0421
99	0.9910	0.9415	0.0496	100	0.4049	0.3847	0.0202
101	1.4297	1.3582	0.0715	102	0.4977	0.4728	0.0249
103	0.5631	0.5349	0.0282	104	0.1902	0.1807	0.0095
105	0.6423	0.6102	0.0321	106	0.6165	0.5856	0.0308
107	0.7052	0.6699	0.0353	108	0.5406	0.5136	0.0270
109	0.5963	0.5665	0.0298	110	0.5313	0.5047	0.0266
111	0.3974	0.3775	0.0199	112	0.5262	0.4999	0.0263
113	0.7438	0.7066	0.0372	114	0.5061	0.4808	0.0253
115	0.6527	0.6201	0.0326	116	0.7484	0.7110	0.0374
117	0.7901	0.7506	0.0395	118	0.6231	0.5919	0.0312
119	0.7811	0.7421	0.0391	120	0.7122	0.6766	0.0356
121	0.9063	0.8610	0.0453	122	0.8571	0.8142	0.0429
123	0.6854	0.6511	0.0343	124	0.5626	0.5345	0.0281
125	0.4837	0.4595	0.0242	126	0.4056	0.3853	0.0203
127	0.6455	0.6132	0.0323	128	0.5944	0.5646	0.0297
129	0.7397	0.7027	0.0370	130	0.4770	0.4531	0.0238
131	0.2837	0.2695	0.0142	132	0.6780	0.6441	0.0339
133	0.5976	0.5678	0.0299	134	0.8391	0.7971	0.0420
135	1.0227	0.9716	0.0511	136	0.6221	0.5910	0.0311
137	0.5109	0.4854	0.0255	138	0.5629	0.5348	0.0281
139	0.3874	0.3680	0.0194	140	0.3751	0.3563	0.0188
141	0.4134	0.3928	0.0207	142	0.8201	0.7791	0.0410
143	0.7913	0.7517	0.0396	144	0.7289	0.6925	0.0364
145	0.6285	0.5971	0.0314	146	0.6186	0.5877	0.0309
147	0.5850	0.5558	0.0293	148	0.7391	0.7022	0.0370
149	0.0709	0.0674	0.0035	150	0.2189	0.2080	0.0109
151	0.1140	0.1083	0.0057	152	0.6301	0.5986	0.0315
153	0.9309	0.8844	0.0465	154	0.7048	0.6696	0.0352
155	0.9301	0.8836	0.0465	156	0.7459	0.7086	0.0373
157	0.7551	0.7173	0.0378	158	0.7739	0.7352	0.0387
159	0.6097	0.5792	0.0305	160	0.6518	0.6192	0.0326
161	0.7081	0.6727	0.0354	162	0.8855	0.8412	0.0443
163	1.1189	1.0630	0.0559	164	1.0209	0.9699	0.0510
165	0.4273	0.4059	0.0214	166	0.7487	0.7113	0.0374
167	0.9632	0.9151	0.0482	168	0.8810	0.8370	0.0441
169	1.0437	0.9916	0.0522	170	0.9056	0.8604	0.0453
171	0.5513	0.5237	0.0276	172	0.4140	0.3933	0.0207
173	0.6546	0.6219	0.0327	174	0.7641	0.7259	0.0382
175	0.8270	0.7857	0.0414	176	0.8353	0.7935	0.0418
177	0.7473	0.7099	0.0374	178	0.7491	0.7116	0.0375
179	0.2159	0.2051	0.0108	180	0.6179	0.5870	0.0309
181	0.5507	0.5232	0.0275	182	0.6576	0.6247	0.0329
183	0.7570	0.7192	0.0379	184	0.6957	0.6609	0.0348
185	0.8795	0.8355	0.0440	186	0.6555	0.6227	0.0328
187	0.9202	0.8742	0.0460	188	1.0349	0.9831	0.0517
189	1.0046	0.9543	0.0502	190	0.9197	0.8737	0.0460
191	0.7917	0.7521	0.0396	192	0.8609	0.8178	0.0430
193	0.9664	0.9181	0.0483	194	0.4335	0.4118	0.0217
195	0.6941	0.6594	0.0347	196	0.5936	0.5639	0.0297
197	0.8362	0.7944	0.0418	198	1.0559	1.0031	0.0528
199	1.0075	0.9571	0.0504	200	1.0264	0.9751	0.0513

201	0.9393	0.8923	0.0470	202	0.9369	0.8900	0.0468
203	1.0363	0.9845	0.0518	204	0.9943	0.9445	0.0497
205	0.8685	0.8251	0.0434	206	0.9519	0.9043	0.0476
207	0.6932	0.6585	0.0347	208	0.6550	0.6223	0.0328
209	0.8460	0.8037	0.0423	210	0.7537	0.7160	0.0377
211	0.9938	0.9441	0.0497	212	1.0591	1.0062	0.0530
213	0.9442	0.8970	0.0472	214	0.8850	0.8407	0.0442
215	0.7401	0.7031	0.0370	216	0.7783	0.7394	0.0389
217	0.8736	0.8299	0.0437	218	0.8200	0.7790	0.0410
219	0.7123	0.6767	0.0356	220	0.7677	0.7293	0.0384
221	1.1037	1.0485	0.0552	222	0.6909	0.6564	0.0345
223	0.3156	0.2998	0.0158	224	0.5781	0.5492	0.0289
225	0.7996	0.7596	0.0400	226	0.8013	0.7612	0.0401
227	0.8153	0.7745	0.0408	228	0.6433	0.6112	0.0322
229	0.6946	0.6599	0.0347	230	0.7213	0.6853	0.0361
231	0.8749	0.8311	0.0437	232	0.8671	0.8237	0.0434
233	1.0454	0.9931	0.0523	234	0.8848	0.8405	0.0442
235	0.4236	0.4024	0.0212	236	0.7541	0.7164	0.0377
237	0.7128	0.6771	0.0356	238	0.6166	0.5858	0.0308
239	0.6723	0.6387	0.0336	240	0.6731	0.6394	0.0337
241	0.6841	0.6499	0.0342	242	0.6660	0.6327	0.0333
243	0.6043	0.5741	0.0302	244	0.6399	0.6079	0.0320
245	0.6446	0.6124	0.0322	246	0.5561	0.5283	0.0278
247	0.4198	0.3988	0.0210	248	0.2844	0.2701	0.0142
249	0.6649	0.6317	0.0332	250	0.7054	0.6701	0.0353
251	0.1615	0.1535	0.0081	252	0.5604	0.5324	0.0280
253	0.5079	0.4825	0.0254	254	0.5406	0.5136	0.0270
255	0.5187	0.4927	0.0259	256	0.5131	0.4874	0.0257
257	0.4341	0.4124	0.0217	258	0.2004	0.1904	0.0100
259	0.1046	0.0994	0.0052	260	0.3088	0.2934	0.0154
261	0.2311	0.2195	0.0116	262	0.5095	0.4840	0.0255
263	0.1579	0.1500	0.0079	264	0.2702	0.2567	0.0135
265	0.3548	0.3370	0.0177	266	0.6048	0.5746	0.0302
267	0.5710	0.5424	0.0285	268	0.4115	0.3910	0.0206
269	0.3871	0.3678	0.0194	270	0.4552	0.4324	0.0228
271	0.4293	0.4079	0.0215	272	0.4714	0.4478	0.0236
273	0.3963	0.3765	0.0198	274	0.3929	0.3732	0.0196
275	0.5537	0.5260	0.0277	276	0.6461	0.6138	0.0323
277	0.5661	0.5378	0.0283	278	0.2359	0.2241	0.0118
279	0.3330	0.3163	0.0166	280	0.4341	0.4124	0.0217
281	0.6975	0.6626	0.0349	282	0.3427	0.3255	0.0171
283	0.0145	0.0138	0.0007	284	0.0000	0.0000	0.0000
285	0.3002	0.2852	0.0150	286	0.1890	0.1795	0.0094
287	0.3567	0.3388	0.0178	288	0.3780	0.3591	0.0189
289	0.3196	0.3037	0.0160	290	0.5014	0.4763	0.0251
291	0.7384	0.7015	0.0369	292	0.0683	0.0648	0.0034
293	0.3565	0.3386	0.0178	294	0.5466	0.5192	0.0273
295	0.3154	0.2997	0.0158	296	0.4782	0.4543	0.0239
297	0.5144	0.4887	0.0257	298	0.4111	0.3905	0.0206
299	0.3368	0.3199	0.0168	300	0.3168	0.3010	0.0158
301	0.6412	0.6091	0.0321	302	0.6391	0.6071	0.0320
303	0.4886	0.4641	0.0244	304	0.5330	0.5063	0.0266
305	0.3829	0.3638	0.0191	306	0.0000	0.0000	0.0000
307	0.0000	0.0000	0.0000	308	0.0963	0.0914	0.0048
309	0.1217	0.1156	0.0061	310	0.2510	0.2384	0.0125
311	0.4512	0.4286	0.0226	312	0.2730	0.2594	0.0137
313	0.1789	0.1700	0.0089	314	0.2793	0.2654	0.0140

315	0.2241	0.2129	0.0112	316	0.2495	0.2370	0.0125
317	0.2563	0.2435	0.0128	318	0.3105	0.2949	0.0155
319	0.1929	0.1832	0.0096	320	0.0373	0.0355	0.0019
321	0.0752	0.0714	0.0038	322	0.2803	0.2663	0.0140
323	0.4231	0.4020	0.0212	324	0.1968	0.1870	0.0098
325	0.2415	0.2294	0.0121	326	0.4572	0.4343	0.0229
327	0.3076	0.2922	0.0154	328	0.2844	0.2702	0.0142
329	0.4053	0.3851	0.0203	330	0.3241	0.3079	0.0162
331	0.2078	0.1974	0.0104	332	0.0000	0.0000	0.0000
333	0.0000	0.0000	0.0000	334	0.2953	0.2806	0.0148
335	0.0960	0.0912	0.0048	336	0.2655	0.0000	0.2655
337	0.0183	0.0000	0.0183	338	0.3385	0.0000	0.3385
339	0.3181	0.0000	0.3181	340	0.1046	0.0000	0.1046
341	0.1241	0.0000	0.1241	342	0.3445	0.0000	0.3445
343	0.1436	0.0000	0.1436	344	0.2246	0.0000	0.2246
345	0.0740	0.0000	0.0740	346	0.0000	0.0000	0.0000
347	0.0000	0.0000	0.0000	348	0.0000	0.0000	0.0000
349	0.0000	0.0000	0.0000	350	0.0000	0.0000	0.0000
351	0.2005	0.0000	0.2005	352	0.3478	0.0000	0.3478
353	0.3040	0.0000	0.3040	354	0.2643	0.0000	0.2643
355	0.4404	0.0000	0.4404	356	0.2832	0.0000	0.2832
357	0.2536	0.0000	0.2536	358	0.2110	0.0000	0.2110
359	0.0921	0.0000	0.0921	360	0.2384	0.0000	0.2384
361	0.1201	0.0000	0.1201	362	0.1714	0.0000	0.1714
363	0.2621	0.0000	0.2621	364	0.0000	0.0000	0.0000
365	0.0829	0.0000	0.0829				

```
Totals:  PET    = 148.7921
         PTRANS = 138.6167
         PEVAPO =  44.5650
```

IRAIN = 1

Rainfall/Irrigation Details

Day	Time (hr)	Amount (cm)	Application Type	Efficiency	Changes In Rate/Head
1	0.000	0.0762	1	1.000	2
	1.000	0.0000			
2	0.000	0.0254	1	1.000	2
	1.000	0.0000			
3	0.000	0.1016	1	1.000	2
	1.000	0.0000			
4	0.000	0.7874	1	1.000	2
	1.000	0.0000			
5	0.000	1.0000	1	1.000	3
	1.000	0.0668			
	2.000	0.0000			
6	0.000	0.5080	1	1.000	2
	1.000	0.0000			
10	0.000	0.2032	1	1.000	2
	1.000	0.0000			
11	0.000	0.4064	1	1.000	2
	1.000	0.0000			
12	0.000	0.0254	1	1.000	2
	1.000	0.0000			

13	0.000	0.0508	1	1.000	2
	1.000	0.0000			
17	0.000	0.1016	1	1.000	2
	1.000	0.0000			
18	0.000	0.0254	1	1.000	2
	1.000	0.0000			
27	0.000	1.0000	1	1.000	3
	1.000	0.0160			
	2.000	0.0000			
28	0.000	5.0000	1	1.000	3
	5.000	0.2578			
	6.000	0.0000			
29	0.000	1.0000	1	1.000	3
	1.000	0.5240			
	2.000	0.0000			
43	0.000	0.0254	1	1.000	2
	1.000	0.0000			
47	0.000	0.3810	1	1.000	2
	1.000	0.0000			
48	0.000	0.1270	1	1.000	2
	1.000	0.0000			
49	0.000	0.0508	1	1.000	2
	1.000	0.0000			
52	0.000	0.0254	1	1.000	2
	1.000	0.0000			
54	0.000	5.0000	1	1.000	3
	5.000	0.3848			
	6.000	0.0000			
60	0.000	0.3810	1	1.000	2
	1.000	0.0000			
70	0.000	1.0000	1	1.000	3
	1.000	0.4986			
	2.000	0.0000			
71	0.000	0.1524	1	1.000	2
	1.000	0.0000			
74	0.000	0.2286	1	1.000	2
	1.000	0.0000			
86	0.000	0.2286	1	1.000	2
	1.000	0.0000			
87	0.000	0.1270	1	1.000	2
	1.000	0.0000			
88	0.000	0.0508	1	1.000	2
	1.000	0.0000			
90	0.000	0.0254	1	1.000	2
	1.000	0.0000			
92	0.000	0.0254	1	1.000	2
	1.000	0.0000			
101	0.000	1.0000	1	1.000	3
	1.000	0.2446			
	2.000	0.0000			
105	0.000	1.0000	1	1.000	3
	1.000	0.9558			
	2.000	0.0000			
112	0.000	2.0000	1	1.000	3
	2.000	0.9210			
	3.000	0.0000			

113	0.000	0.2540	1	1.000	2
	1.000	0.0000			
124	0.000	0.2540	1	1.000	2
	1.000	0.0000			
125	0.000	0.6858	1	1.000	2
	1.000	0.0000			
130	0.000	0.1778	1	1.000	2
	1.000	0.0000			
131	0.000	1.0000	1	1.000	3
	1.000	0.3208			
	2.000	0.0000			
137	0.000	1.0000	1	1.000	3
	1.000	0.1684			
	2.000	0.0000			
138	0.000	1.0000	1	1.000	3
	1.000	0.8288			
	2.000	0.0000			
139	0.000	0.0762	1	1.000	2
	1.000	0.0000			
140	0.000	1.0000	1	1.000	3
	1.000	0.2700			
	2.000	0.0000			
141	0.000	0.2540	1	1.000	2
	1.000	0.0000			
143	0.000	0.0508	1	1.000	2
	1.000	0.0000			
147	0.000	3.0000	1	1.000	3
	3.000	0.7338			
	4.000	0.0000			
149	0.000	3.0000	1	1.000	3
	3.000	0.0226			
	4.000	0.0000			
150	0.000	3.0000	1	1.000	3
	3.000	0.7338			
	4.000	0.0000			
159	0.000	0.2032	1	1.000	2
	1.000	0.0000			
165	0.000	2.0000	1	1.000	3
	2.000	0.2606			
	3.000	0.0000			
166	0.000	0.0254	1	1.000	2
	1.000	0.0000			
171	0.000	0.0508	1	1.000	2
	1.000	0.0000			
172	0.000	0.2794	1	1.000	2
	1.000	0.0000			
179	0.000	3.0000	1	1.000	3
	3.000	0.8100			
	4.000	0.0000			
180	0.000	1.0000	1	1.000	3
	1.000	0.1684			
	2.000	0.0000			
197	0.000	0.4572	1	1.000	2
	1.000	0.0000			
209	0.000	0.1524	1	1.000	2
	1.000	0.0000			
222	0.000	0.7112	1	1.000	2

	1.000	0.0000			
227	0.000	1.0000	1	1.000	3
	1.000	0.8542			
	2.000	0.0000			
235	0.000	0.8128	1	1.000	2
	1.000	0.0000			
236	0.000	0.1778	1	1.000	2
	1.000	0.0000			
237	0.000	1.0000	1	1.000	3
	1.000	0.2446			
	2.000	0.0000			
248	0.000	0.0762	1	1.000	2
	1.000	0.0000			
249	0.000	0.0254	1	1.000	2
	1.000	0.0000			
250	0.000	1.0000	1	1.000	3
	1.000	0.0414			
	2.000	0.0000			
251	0.000	2.0000	1	1.000	3
	2.000	0.1844			
	3.000	0.0000			
252	0.000	0.0254	1	1.000	2
	1.000	0.0000			
258	0.000	0.6604	1	1.000	2
	1.000	0.0000			
259	0.000	0.4572	1	1.000	2
	1.000	0.0000			
260	0.000	0.0254	1	1.000	2
	1.000	0.0000			
261	0.000	2.0000	1	1.000	3
	2.000	0.6416			
	3.000	0.0000			
266	0.000	0.0254	1	1.000	2
	1.000	0.0000			
275	0.000	0.0254	1	1.000	2
	1.000	0.0000			
278	0.000	0.2286	1	1.000	2
	1.000	0.0000			
282	0.000	1.0000	1	1.000	3
	1.000	0.4986			
	2.000	0.0000			
283	0.000	5.0000	1	1.000	3
	5.000	0.4356			
	6.000	0.0000			
284	0.000	0.6096	1	1.000	2
	1.000	0.0000			
285	0.000	1.0000	1	1.000	3
	1.000	0.4478			
	2.000	0.0000			
307	0.000	7.0000	1	1.000	3
	7.000	0.0612			
	8.000	0.0000			
312	0.000	0.0762	1	1.000	2
	1.000	0.0000			
322	0.000	1.0000	1	1.000	3
	1.000	0.0414			
	2.000	0.0000			

323	0.000	0.8890	1	1.000	2
	1.000	0.0000			
334	0.000	0.7874	1	1.000	2
	1.000	0.0000			
345	0.000	0.6604	1	1.000	2
	1.000	0.0000			
346	0.000	0.3302	1	1.000	2
	1.000	0.0000			
347	0.000	0.6350	1	1.000	2
	1.000	0.0000			
350	0.000	3.0000	1	1.000	3
	3.000	0.7846			
	4.000	0.0000			
351	0.000	0.8382	1	1.000	2
	1.000	0.0000			

NWATER (number of days of rain/irrigation) = 87

Total Water Applied = 89.5604 cm

UNSAT-H Version 2.03
INITIAL CONDITIONS

Input Filename: S:\Nevzat\WinUnsatH\project.inp
Results Filename: S:\Nevzat\WinUnsatH\project.res
Date of Run: 15-JUL-**
Time of Run: 13:15:16
Title:
Muskogee AFC Alternative Final Cover

		Initial Conditions					Initial Conditions		
NODE	DEPTH (cm)	HEAD (cm)	THETA (vol.)	TEMP (K)	NODE	DEPTH (cm)	HEAD (cm)	THETA (vol.)	TEMP (K)
1	0.000E+00	5.035E+05	0.0875	0.00	2	5.000E+00	8.787E+02	0.2319	0.00
3	9.000E+00	8.557E+02	0.2337	0.00	4	1.200E+01	8.410E+02	0.2348	0.00
5	1.500E+01	8.288E+02	0.2358	0.00	6	1.800E+01	8.157E+02	0.2726	0.00
7	2.100E+01	8.025E+02	0.2734	0.00	8	2.500E+01	7.927E+02	0.2741	0.00
9	3.000E+01	7.914E+02	0.2741	0.00	10	3.500E+01	8.016E+02	0.2735	0.00
11	4.000E+01	8.244E+02	0.2720	0.00	12	5.000E+01	9.183E+02	0.2665	0.00
13	6.000E+01	1.097E+03	0.2577	0.00	14	7.000E+01	1.307E+03	0.2496	0.00
15	8.000E+01	1.406E+03	0.2463	0.00	16	8.500E+01	1.414E+03	0.2461	0.00
17	8.800E+01	1.411E+03	0.2462	0.00	18	9.150E+01	1.403E+03	0.2464	0.00
19	9.200E+01	1.401E+03	0.2465	0.00	20	9.600E+01	1.390E+03	0.2468	0.00
21	1.000E+02	1.378E+03	0.2472	0.00	22	1.100E+02	1.356E+03	0.2479	0.00
23	1.150E+02	1.350E+03	0.2481	0.00	24	1.180E+02	1.348E+03	0.2482	0.00
25	1.220E+02	1.347E+03	0.2482	0.00					

Initial Water Storage = 30.6291 cm

NOTE: There are no temperature data when plants are modelled.

DAILY SUMMARY: Day = 1, Simulated Time = 24.0000 hr

Node Number	=	2	12	25
Depth (cm)	=	5.00000	50.00000	122.00000
Water (cm3/cm3)	=	0.21792	0.26621	0.24818
Head (cm)	=	1.09598E+03	9.22806E+02	1.34811E+03
Water Flow (cm)	=	-5.78900E-02	1.66282E-02	3.72437E-04
Plant Sink (cm)	=	0.00000E+00	0.00000E+00	0.00000E+00

```
 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS     DRAIN    NEWSTOR            STORAGE
 30.6291+ 0.0762+ 0.0000 - 0.0340- 0.0000-  0.0004 = 30.6709  Versus  30.6716
```

Mass Balance = -6.5613E-04 cm; Time step attempts =14960 and successes =14960
Evaporation: Potential = 0.1375 cm, Actual = 0.0340 cm
Transpiration: Potential = 0.0000 cm, Actual = 0.0000 cm
RHMEAN = 92.6 %; TMEAN = 266.8 K; HDRY = 1.0584E+05 cm; DAYUBC = 0

```
DAILY SUMMARY:  Day =   2, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.21061     0.26597     0.24814
Head (cm)          = 1.23786E+03 9.27237E+02 1.34951E+03
Water Flow (cm)    =-7.62075E-02 1.54229E-02 3.71259E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.6716+ 0.0254+ 0.0000 - 0.0442- 0.0000-  0.0004 = 30.6524  Versus  30.6526

Mass Balance = -1.6975E-04 cm;  Time step attempts = 5466 and successes = 5466
  Evaporation:  Potential =  0.1786 cm, Actual =  0.0442 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 87.7 %;  TMEAN = 262.0 K;  HDRY =  1.8049E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =   3, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.21581     0.26572     0.24809
Head (cm)          = 1.13462E+03 9.31719E+02 1.35090E+03
Water Flow (cm)    =-3.43221E-02 1.43605E-02 3.70077E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.6526+ 0.1016+ 0.0000 - 0.0646- 0.0000-  0.0004 = 30.6893  Versus  30.6892

Mass Balance =  2.0981E-05 cm;  Time step attempts = 2176 and successes = 2176
  Evaporation:  Potential =  0.2608 cm, Actual =  0.0646 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 89.7 %;  TMEAN = 268.2 K;  HDRY =  1.4889E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =   4, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.25822     0.26547     0.24805
Head (cm)          = 5.99578E+02 9.36441E+02 1.35225E+03
Water Flow (cm)    = 3.81934E-01 1.34043E-02 3.68923E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.6892+ 0.7874+ 0.0000 - 0.0911- 0.0000-  0.0004 = 31.3852  Versus  31.3851

Mass Balance =  1.1635E-04 cm;  Time step attempts = 2261 and successes = 2261
  Evaporation:  Potential =  0.3681 cm, Actual =  0.0911 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 79.4 %;  TMEAN = 272.6 K;  HDRY =  3.1556E+05 cm;  DAYUBC =     0
```

```
-------------------------------------------------------------------------------

DAILY SUMMARY:  Day =    5, Simulated Time = 24.0000 hr
-------------
Node Number          =        2           12           25
Depth (cm)           =      5.00000    50.00000   122.00000
Water (cm3/cm3)      =      0.29227     0.26522     0.24801
Head (cm)            = 3.75956E+02 9.41072E+02 1.35351E+03
Water Flow (cm)      = 6.96660E-01 1.25274E-02 3.67843E-04
Plant Sink (cm)      = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 31.3851+ 1.0668+ 0.0000 - 0.1326- 0.0000-  0.0004 = 32.3188  Versus  32.3188

Mass Balance =  7.6294E-05 cm;  Time step attempts = 3307 and successes = 3307
  Evaporation:  Potential =  0.5414 cm, Actual =  0.1326 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 62.8 %;  TMEAN = 277.0 K;  HDRY =  6.3781E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day =    6, Simulated Time = 24.0000 hr
-------------
Node Number          =        2           12           25
Depth (cm)           =      5.00000    50.00000   122.00000
Water (cm3/cm3)      =      0.29695     0.26531     0.24797
Head (cm)            = 3.52613E+02 9.39477E+02 1.35477E+03
Water Flow (cm)      = 3.22762E-01 1.19654E-02 3.66771E-04
Plant Sink (cm)      = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 32.3188+ 0.5080+ 0.0000 - 0.1534- 0.0000-  0.0004 = 32.6730  Versus  32.6729

Mass Balance =  1.0300E-04 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.6197 cm, Actual =  0.1534 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 64.8 %;  TMEAN = 278.2 K;  HDRY =  5.9459E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day =    7, Simulated Time = 24.0000 hr
-------------
Node Number          =        2           12           25
Depth (cm)           =      5.00000    50.00000   122.00000
Water (cm3/cm3)      =      0.28493     0.26655     0.24792
Head (cm)            = 4.15527E+02 9.16598E+02 1.35603E+03
Water Flow (cm)      =-2.39829E-02 1.29068E-02 3.65703E-04
Plant Sink (cm)      = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 32.6729+ 0.0000+ 0.0000 - 0.1085- 0.0000-  0.0004 = 32.5640  Versus  32.5640

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
```

```
  Evaporation:  Potential =  0.4341 cm, Actual =  0.1085 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.6 %;  TMEAN = 276.5 K;  HDRY =  3.4736E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =   8, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    50.00000   122.00000
Water (cm3/cm3)   =    0.27315     0.26887     0.24789
Head (cm)         = 4.87893E+02 8.75740E+02 1.35720E+03
Water Flow (cm)   =-6.19010E-02 1.62747E-02 3.64696E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.5640+ 0.0000+ 0.0000 - 0.1473- 0.0000-  0.0004 = 32.4163  Versus  32.4163

Mass Balance = -7.6294E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.5893 cm, Actual =  0.1473 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 69.0 %;  TMEAN = 275.9 K;  HDRY =  5.0887E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =   9, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    50.00000   122.00000
Water (cm3/cm3)   =    0.26396     0.27132     0.24785
Head (cm)         = 5.53547E+02 8.35180E+02 1.35829E+03
Water Flow (cm)   =-7.29764E-02 2.07280E-02 3.63762E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.4163+ 0.0000+ 0.0000 - 0.1392- 0.0000-  0.0004 = 32.2767  Versus  32.2767

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.5570 cm, Actual =  0.1392 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.5 %;  TMEAN = 274.0 K;  HDRY =  3.4943E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  10, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =    5.00000    50.00000   122.00000
Water (cm3/cm3)   =    0.27160     0.27328     0.24782

Head (cm)         = 4.98342E+02 8.04507E+02 1.35922E+03
Water Flow (cm)   = 7.36384E-02 2.44425E-02 3.62949E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE

 32.2767+ 0.2032+ 0.0000 - 0.0707- 0.0000-  0.0004 = 32.4089  Versus  32.4087

Mass Balance =  2.0981E-04 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.2856 cm, Actual =  0.0707 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 78.1 %;  TMEAN = 275.7 K;  HDRY =  3.3921E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  11, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.28921     0.27469     0.24779
Head (cm)          = 3.92045E+02 7.83243E+02 1.36006E+03
Water Flow (cm)    = 2.80545E-01 2.66420E-02 3.62220E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE
 32.4087+ 0.4064+ 0.0000 - 0.0000- 0.0000-  0.0004 = 32.8147  Versus  32.8146

Mass Balance =  1.2970E-04 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 94.9 %;  TMEAN = 275.7 K;  HDRY =  7.2186E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  12, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.28558     0.27599     0.24777
Head (cm)          = 4.11916E+02 7.64223E+02 1.36078E+03
Water Flow (cm)    = 5.11988E-02 2.79439E-02 3.61581E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN   NEWSTOR           STORAGE
 32.8146+ 0.0254+ 0.0000 - 0.0000- 0.0000-  0.0004 = 32.8396  Versus  32.8395

Mass Balance =  9.1553E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = **** %;  TMEAN = 274.8 K;  HDRY = -6.1934E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  13, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
```

```
Water (cm3/cm3)    =     0.28440     0.27744     0.24775
Head (cm)          = 4.18568E+02 7.43712E+02 1.36138E+03
Water Flow (cm)    = 5.54572E-02 2.95232E-02 3.61040E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.8395+ 0.0508+ 0.0000 - 0.0037- 0.0000-  0.0004 = 32.8863  Versus  32.8862

Mass Balance =  9.1553E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0149 cm, Actual =  0.0037 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 89.9 %;  TMEAN = 279.0 K;  HDRY =  1.4591E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  14, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26896     0.27889     0.24773
Head (cm)          = 5.16719E+02 7.23977E+02 1.36187E+03
Water Flow (cm)    =-7.30080E-02 3.13621E-02 3.60580E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.8862+ 0.0000+ 0.0000 - 0.1895- 0.0000-  0.0004 = 32.6963  Versus  32.6963

Mass Balance = -3.8147E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.7582 cm, Actual =  0.1895 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 75.1 %;  TMEAN = 277.0 K;  HDRY =  3.9301E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  15, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26273     0.28011     0.24772
Head (cm)          = 5.63092E+02 7.07720E+02 1.36221E+03
Water Flow (cm)    =-7.38029E-02 3.28909E-02 3.60237E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.6963+ 0.0000+ 0.0000 - 0.1157- 0.0000-  0.0004 = 32.5802  Versus  32.5802

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.4628 cm, Actual =  0.1157 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 69.3 %;  TMEAN = 275.9 K;  HDRY =  5.0351E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  16, Simulated Time = 24.0000 hr
```

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-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.26489     0.28090     0.24772
Head (cm)         = 5.46490E+02 6.97465E+02 1.36240E+03
Water Flow (cm)   =-2.15382E-02 3.34125E-02 3.60021E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.5802+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 32.5799  Versus  32.5799

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 89.1 %;  TMEAN = 273.2 K;  HDRY =  1.5860E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  17, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.26947     0.28127     0.24772
Head (cm)         = 5.13099E+02 6.92756E+02 1.36243E+03
Water Flow (cm)   = 5.71209E-02 3.26715E-02 3.59938E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.5799+ 0.1016+ 0.0000 - 0.0121- 0.0000-  0.0004 = 32.6690  Versus  32.6690

Mass Balance =  1.1444E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0489 cm, Actual =  0.0121 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 88.7 %;  TMEAN = 273.2 K;  HDRY =  1.6392E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  18, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.25894     0.28141     0.24772
Head (cm)         = 5.93604E+02 6.90968E+02 1.36230E+03
Water Flow (cm)   =-3.99672E-02 3.11922E-02 3.59975E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.6690+ 0.0254+ 0.0000 - 0.1482- 0.0000-  0.0004 = 32.5459  Versus  32.5458

Mass Balance =  8.7738E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.5987 cm, Actual =  0.1482 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 66.6 %;  TMEAN = 275.9 K;  HDRY =  5.5728E+05 cm;  DAYUBC =     0

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```

```
DAILY SUMMARY:  Day =  19, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.24571     0.28148     0.24773
Head (cm)         = 7.16300E+02 6.90091E+02 1.36198E+03
Water Flow (cm)   =-9.62323E-02 2.96652E-02 3.60157E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 32.5458+ 0.0000+ 0.0000 - 0.2042- 0.0000-  0.0004 = 32.3412  Versus  32.3412

Mass Balance =  0.0000E+00 cm;  Time step attempts =  260 and successes =  260
  Evaporation:  Potential =  0.8170 cm, Actual =  0.2042 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 66.9 %;  TMEAN = 270.4 K;  HDRY =  5.5057E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  20, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.24054     0.28145     0.24775
Head (cm)         = 7.72416E+02 6.90495E+02 1.36147E+03
Water Flow (cm)   =-9.29740E-02 2.82134E-02 3.60493E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 32.3412+ 0.0000+ 0.0000 - 0.1231- 0.0000-  0.0004 = 32.2177  Versus  32.2177

Mass Balance = -3.8147E-06 cm;  Time step attempts =  144 and successes =  144
  Evaporation:  Potential =  0.4926 cm, Actual =  0.1231 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 64.3 %;  TMEAN = 268.7 K;  HDRY =  6.0445E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  21, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23445     0.28125     0.24777
Head (cm)         = 8.45918E+02 6.93000E+02 1.36075E+03
Water Flow (cm)   =-8.19779E-02 2.65956E-02 3.60993E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 32.2177+ 0.0000+ 0.0000 - 0.1310- 0.0000-  0.0004 = 32.0863  Versus  32.0863

Mass Balance =  0.0000E+00 cm;  Time step attempts =  176 and successes =  176
  Evaporation:  Potential =  0.5238 cm, Actual =  0.1310 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 61.7 %;  TMEAN = 275.7 K;  HDRY =  6.6173E+05 cm;  DAYUBC =     0
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  22, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.22591     0.28089     0.24780
Head (cm)         = 9.64513E+02 6.97622E+02 1.35982E+03
Water Flow (cm)   =-8.75746E-02 2.47189E-02 3.61666E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 32.0863+ 0.0000+ 0.0000 - 0.1736- 0.0000-  0.0004 = 31.9123  Versus  31.9123

Mass Balance =  0.0000E+00 cm;  Time step attempts =  430 and successes =  430
  Evaporation:  Potential =  0.6946 cm, Actual =  0.1736 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.2 %;  TMEAN = 276.5 K;  HDRY =  5.8689E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  23, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.22246     0.28040     0.24784
Head (cm)         = 1.01848E+03 7.03905E+02 1.35864E+03
Water Flow (cm)   =-8.52225E-02 2.26953E-02 3.62528E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 31.9123+ 0.0000+ 0.0000 - 0.0905- 0.0000-  0.0004 = 31.8215  Versus  31.8215

Mass Balance = -1.9073E-06 cm;  Time step attempts =  160 and successes =  160
  Evaporation:  Potential =  0.3621 cm, Actual =  0.0905 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 73.3 %;  TMEAN = 279.8 K;  HDRY =  4.2514E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  24, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.22045     0.27984     0.24786
Head (cm)         = 1.05186E+03 7.11278E+02 1.35788E+03
Water Flow (cm)   =-7.35878E-02 2.06741E-02 3.63455E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 31.8215+ 0.0000+ 0.0000 - 0.3505- 0.0000-  0.0004 = 31.4706  Versus  31.4697
```

```
Mass Balance =  9.0981E-04 cm;  Time step attempts =17108 and successes =17108
  Evaporation:  Potential =  1.4021 cm, Actual =  0.3505 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 63.6 %;  TMEAN = 278.2 K;  HDRY =  6.2118E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  25, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000     50.00000    122.00000
Water (cm3/cm3)   =     0.22488      0.27927      0.24790
Head (cm)         = 9.80169E+02 7.18811E+02 1.35686E+03
Water Flow (cm)   =-4.07441E-02 1.88426E-02 3.63913E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 31.4697+ 0.0000+ 0.0000 - 0.0595- 0.0000-  0.0004 = 31.4098  Versus  31.4109

Mass Balance = -1.0815E-03 cm;  Time step attempts =34318 and successes =34318
  Evaporation:  Potential =  1.2314 cm, Actual =  0.0595 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.3 %;  TMEAN = 274.8 K;  HDRY =  6.9394E+05 cm;  DAYUBC =  3446

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  26, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000     50.00000    122.00000
Water (cm3/cm3)   =     0.22664      0.27860      0.24796
Head (cm)         = 9.53513E+02 7.27885E+02 1.35502E+03
Water Flow (cm)   =-2.30898E-02 1.70160E-02 3.65225E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 31.4109+ 0.0000+ 0.0000 - 0.0127- 0.0000-  0.0004 = 31.3977  Versus  31.3976

Mass Balance =  1.4305E-04 cm;  Time step attempts = 1835 and successes = 1835
  Evaporation:  Potential =  1.5158 cm, Actual =  0.0127 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 68.6 %;  TMEAN = 279.0 K;  HDRY =  5.1683E+05 cm;  DAYUBC =  1809

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  27, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000     50.00000    122.00000
Water (cm3/cm3)   =     0.25798      0.27792      0.24803
Head (cm)         = 6.01581E+02 7.37126E+02 1.35291E+03
Water Flow (cm)   = 3.23733E-01 1.53136E-02 3.66838E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.3976+ 1.0142+ 0.0018 - 0.1279- 0.0000-  0.0004 = 32.2835  Versus  32.2837

Mass Balance = -1.9836E-04 cm;  Time step attempts = 5133 and successes = 5133
  Evaporation:  Potential =  0.5222 cm, Actual =  0.1279 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 76.1 %;  TMEAN = 272.9 K;  HDRY =  3.7449E+05 cm;  DAYUBC =    69
```

```
DAILY SUMMARY:  Day =  28, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.35335     0.28035     0.24811
Head (cm)          = 1.45671E+02 7.04654E+02 1.35042E+03
Water Flow (cm)    = 2.63291E+00 1.53595E-02 3.68772E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.2837+ 3.3019+ 1.9559 - 0.0000- 0.0000-  0.0004 = 35.5852  Versus  35.5852

Mass Balance =  1.5259E-05 cm;  Time step attempts = 2937 and successes = 2937
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 92.8 %;  TMEAN = 277.3 K;  HDRY =  1.0183E+05 cm;  DAYUBC =   616
```

```
DAILY SUMMARY:  Day =  29, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.35668     0.31339     0.24820
Head (cm)          = 1.36130E+02 3.92387E+02 1.34761E+03
Water Flow (cm)    = 9.89212E-01 8.54832E-02 3.70994E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 35.5852+ 1.0420+ 0.4820 - 0.0300- 0.0000-  0.0004 = 36.5968  Versus  36.5967

Mass Balance =  1.1826E-04 cm;  Time step attempts = 2175 and successes = 2175
  Evaporation:  Potential =  0.1226 cm, Actual =  0.0300 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 84.6 %;  TMEAN = 277.9 K;  HDRY =  2.2939E+05 cm;  DAYUBC =   917
```

```
DAILY SUMMARY:  Day =  30, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.32898     0.32691     0.24831
```

```
Head (cm)          = 2.22110E+02 3.09099E+02 1.34434E+03
Water Flow (cm)    =-1.85008E-01 2.50203E-01 3.73616E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 36.5967+ 0.0000+ 0.0000 - 0.3811- 0.0000-  0.0004 = 36.2152  Versus  36.2152

Mass Balance = -3.8147E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  1.5245 cm, Actual =  0.3811 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 58.8 %;  TMEAN = 280.7 K;  HDRY =  7.2878E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  31, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.31028     0.32580     0.24843
Head (cm)          = 2.92815E+02 3.15302E+02 1.34070E+03
Water Flow (cm)    =-2.10424E-01 2.26131E-01 3.76583E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 36.2152+ 0.0000+ 0.0000 - 0.3426- 0.0000-  0.0004 = 35.8722  Versus  35.8722

Mass Balance = -7.6294E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  1.3704 cm, Actual =  0.3426 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 52.9 %;  TMEAN = 276.8 K;  HDRY =  8.7361E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  32, Simulated Time = 24.0000 hr

-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.29433     0.32300     0.24856
Head (cm)          = 3.65506E+02 3.31402E+02 1.33669E+03
Water Flow (cm)    =-2.11795E-01 1.62776E-01 3.79901E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 35.8722+ 0.0000+ 0.0000 - 0.3257- 0.0000-  0.0004 = 35.5461  Versus  35.5461

Mass Balance = -1.9073E-05 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  1.3029 cm, Actual =  0.3257 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 59.6 %;  TMEAN = 276.8 K;  HDRY =  7.0964E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  33, Simulated Time = 24.0000 hr
```

```
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.28300     0.31990     0.24868
Head (cm)         = 4.26635E+02 3.50086E+02 1.33316E+03
Water Flow (cm)   =-2.22377E-01 1.20357E-01 3.83331E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 35.5461+ 0.0000+ 0.0000 - 0.7842- 0.0000-  0.0004 = 34.7616  Versus  34.7609

Mass Balance =  6.4850E-04 cm;  Time step attempts =30887 and successes =30887
  Evaporation:  Potential =  3.3361 cm, Actual =  0.7842 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 58.2 %;  TMEAN = 272.3 K;  HDRY =  7.4279E+05 cm;  DAYUBC =  4924

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  34, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.28580     0.31682     0.24884
Head (cm)         = 4.10657E+02 3.69557E+02 1.32843E+03
Water Flow (cm)   =-5.02221E-02 9.08838E-02 3.86873E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.7609+ 0.0000+ 0.0000 - 0.0369- 0.0000-  0.0004 = 34.7236  Versus  34.7236

Mass Balance =  3.8147E-06 cm;  Time step attempts =   703 and successes =   703
  Evaporation:  Potential =  4.6481 cm, Actual =  0.0369 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 61.0 %;  TMEAN = 279.5 K;  HDRY =  6.7727E+05 cm;  DAYUBC =   676

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  35, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.28536     0.31421     0.24901
Head (cm)         = 4.13155E+02 3.86848E+02 1.32342E+03
Water Flow (cm)   =-3.38977E-02 7.09950E-02 3.91176E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.7236+ 0.0000+ 0.0000 - 0.0367- 0.0000-  0.0004 = 34.6865  Versus  34.6863

Mass Balance =  1.4496E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  6.2724 cm, Actual =  0.0367 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 57.2 %;  TMEAN = 280.7 K;  HDRY =  7.6572E+05 cm;  DAYUBC =  4441

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```

```
DAILY SUMMARY:  Day =  36, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.28411     0.31214     0.24920
Head (cm)          = 4.20212E+02 4.01048E+02 1.31771E+03
Water Flow (cm)    =-2.95736E-02 5.89322E-02 3.96050E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 34.6863+ 0.0000+ 0.0000 - 0.0353- 0.0000-  0.0004 = 34.6507  Versus  34.6509

Mass Balance = -2.1362E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  5.1168 cm, Actual =  0.0353 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 57.1 %;  TMEAN = 279.5 K;  HDRY =  7.6758E+05 cm;  DAYUBC =  5082
```

```
DAILY SUMMARY:  Day =  37, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.28247     0.31045     0.24944
Head (cm)          = 4.29722E+02 4.13005E+02 1.31078E+03
Water Flow (cm)    =-2.85335E-02 5.12539E-02 4.01964E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 34.6509+ 0.0000+ 0.0000 - 0.0353- 0.0000-  0.0004 = 34.6152  Versus  34.6153

Mass Balance = -8.0109E-05 cm;  Time step attempts = 1051 and successes = 1051
  Evaporation:  Potential =  4.4585 cm, Actual =  0.0353 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 59.9 %;  TMEAN = 282.6 K;  HDRY =  7.0145E+05 cm;  DAYUBC =  1036
```

```
DAILY SUMMARY:  Day =  38, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.27776     0.30902     0.24973
Head (cm)          = 4.58137E+02 4.23434E+02 1.30237E+03
Water Flow (cm)    =-4.88195E-02 4.58019E-02 4.09193E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 34.6153+ 0.0000+ 0.0000 - 0.0525- 0.0000-  0.0004 = 34.5624  Versus  34.5624

Mass Balance = -5.3406E-05 cm;  Time step attempts = 1952 and successes = 1952
  Evaporation:  Potential =  2.7264 cm, Actual =  0.0525 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 89.7 %;  TMEAN = 284.0 K;  HDRY =  1.4970E+05 cm;  DAYUBC =  1908
---------------------------------------------------------------------------


DAILY SUMMARY:  Day =  39, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.27609     0.30781     0.25007
Head (cm)         = 4.68670E+02 4.32470E+02 1.29249E+03
Water Flow (cm)   =-4.33497E-02 4.16955E-02 4.17774E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.5624+ 0.0000+ 0.0000 - 0.0605- 0.0000-  0.0004 = 34.5016  Versus  34.5041

Mass Balance = -2.5253E-03 cm;  Time step attempts =17589 and successes =17589
  Evaporation:  Potential =  4.0214 cm, Actual =  0.0605 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 80.4 %;  TMEAN = 292.6 K;  HDRY =  2.9946E+05 cm;  DAYUBC =  4843
---------------------------------------------------------------------------


DAILY SUMMARY:  Day =  40, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.27588     0.30668     0.25049
Head (cm)         = 4.70039E+02 4.41043E+02 1.28067E+03
Water Flow (cm)   =-2.67972E-02 3.81364E-02 4.28416E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.5041+ 0.0000+ 0.0000 - 0.0387- 0.0000-  0.0004 = 34.4650  Versus  34.4692

Mass Balance = -4.2381E-03 cm;  Time step attempts =25086 and successes =25086
  Evaporation:  Potential =  2.7644 cm, Actual =  0.0387 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 46.8 %;  TMEAN = 281.5 K;  HDRY =  1.0421E+06 cm;  DAYUBC =  4854
---------------------------------------------------------------------------


DAILY SUMMARY:  Day =  41, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.27414     0.30553     0.25106
Head (cm)         = 4.81348E+02 4.49977E+02 1.26460E+03
Water Flow (cm)   =-2.71802E-02 3.46814E-02 4.43490E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.4692+ 0.0000+ 0.0000 - 0.0300- 0.0000-  0.0004 = 34.4387  Versus  34.4391
```

```
Mass Balance = -3.9673E-04 cm;  Time step attempts = 3504 and successes = 3504
  Evaporation:  Potential =  2.5036 cm, Actual =  0.0300 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 67.7 %;  TMEAN = 271.5 K;  HDRY =  5.3416E+05 cm;  DAYUBC =  3479
```

```
DAILY SUMMARY:  Day =  42, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.27247     0.30448     0.25177
Head (cm)         = 4.92428E+02 4.58347E+02 1.24518E+03
Water Flow (cm)   =-2.86412E-02 3.17952E-02 4.63038E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.4391+ 0.0000+ 0.0000 - 0.0355- 0.0000-  0.0005 = 34.4032  Versus  34.4033

Mass Balance = -8.3923E-05 cm;  Time step attempts = 1162 and successes = 1162
  Evaporation:  Potential =  3.5437 cm, Actual =  0.0355 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 69.7 %;  TMEAN = 275.4 K;  HDRY =  4.9511E+05 cm;  DAYUBC =  1139
```

```
DAILY SUMMARY:  Day =  43, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.24607     0.30350     0.25259
Head (cm)         = 7.12569E+02 4.66193E+02 1.22318E+03
Water Flow (cm)   =-1.47007E-01 2.93471E-02 4.87112E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.4033+ 0.0254+ 0.0000 - 0.0000- 0.0000-  0.0005 = 34.4282  Versus  34.4280

Mass Balance =  2.4796E-04 cm;  Time step attempts =25369 and successes =25369
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 95.7 %;  TMEAN = 277.9 K;  HDRY =  6.0702E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  44, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.24264     0.30253     0.25352
Head (cm)         = 7.49055E+02 4.74204E+02 1.19871E+03
Water Flow (cm)   =-1.67009E-01 2.70626E-02 5.16549E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.4280+ 0.0000+ 0.0000 - 0.4126- 0.0000-  0.0005 = 34.0148  Versus  34.0149

Mass Balance = -1.1063E-04 cm;  Time step attempts =11446 and successes =11446
  Evaporation:  Potential =  2.6223 cm, Actual =  0.4126 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 98.2 %;  TMEAN = 282.3 K;  HDRY =  2.4333E+04 cm;  DAYUBC =  3046
```

```
DAILY SUMMARY:  Day =  45, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.23002     0.30136     0.25459
Head (cm)          = 9.04880E+02 4.84004E+02 1.17170E+03
Water Flow (cm)    =-1.29843E-01 2.42410E-02 5.51668E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.0149+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0006 = 34.0143  Versus  34.0143

Mass Balance =  3.0518E-05 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  2.8630 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = **** %;  TMEAN = 282.0 K;  HDRY = -1.2593E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  46, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.23250     0.30005     0.25573
Head (cm)          = 8.71263E+02 4.95161E+02 1.14342E+03
Water Flow (cm)    =-1.13949E-01 2.08303E-02 5.92949E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.0143+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0006 = 34.0137  Versus  34.0137

Mass Balance =  0.0000E+00 cm;  Time step attempts =  364 and successes =  364
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 94.0 %;  TMEAN = 272.0 K;  HDRY =  8.5107E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  47, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24806     0.29879     0.25687
Head (cm)          = 6.92423E+02 5.06278E+02 1.11621E+03
```

```
Water Flow (cm)    = 6.96618E-02 1.75411E-02 6.38837E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.0137+ 0.3810+ 0.0000 - 0.5834- 0.0000-  0.0006 = 33.8107  Versus  33.8128

Mass Balance = -2.0943E-03 cm;  Time step attempts =23941 and successes =23941
  Evaporation:  Potential =  2.6417 cm, Actual =  0.5834 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 84.5 %;  TMEAN = 271.8 K;  HDRY =  2.3075E+05 cm;  DAYUBC =  3202

------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  48, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24343     0.29759     0.25810
Head (cm)          = 7.40374E+02 5.17019E+02 1.08785E+03
Water Flow (cm)    =-7.45915E-02 1.47473E-02 6.87786E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.8128+ 0.1270+ 0.0000 - 0.2332- 0.0000-  0.0007 = 33.7059  Versus  33.7092

Mass Balance = -3.2730E-03 cm;  Time step attempts =28317 and successes =28317
  Evaporation:  Potential =  3.0741 cm, Actual =  0.2332 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 61.6 %;  TMEAN = 271.2 K;  HDRY =  6.6480E+05 cm;  DAYUBC =  3215

------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  49, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24418     0.29657     0.25924
Head (cm)          = 7.32410E+02 5.26401E+02 1.06238E+03
Water Flow (cm)    =-3.79638E-02 1.26095E-02 7.40264E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.7092+ 0.0508+ 0.0000 - 0.0824- 0.0000-  0.0007 = 33.6768  Versus  33.6836

Mass Balance = -6.8321E-03 cm;  Time step attempts =45096 and successes =45096
  Evaporation:  Potential =  3.3203 cm, Actual =  0.0824 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm

RHMEAN = 71.5 %;  TMEAN = 274.8 K;  HDRY =  4.5964E+05 cm;  DAYUBC =  3949

------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  50, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2           12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24501     0.29551     0.26050
Head (cm)          = 7.23571E+02 5.36322E+02 1.03521E+03
Water Flow (cm)    =-2.51376E-02 1.10662E-02 8.00146E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.6836+ 0.0000+ 0.0000 - 0.0225- 0.0000-  0.0008 = 33.6603  Versus  33.6606

Mass Balance = -3.2806E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  5.1699 cm, Actual =  0.0225 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 68.1 %;  TMEAN = 282.9 K;  HDRY =  5.2566E+05 cm;  DAYUBC =  4084

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  51, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24345     0.29451     0.26176
Head (cm)          = 7.40195E+02 5.45858E+02 1.00902E+03
Water Flow (cm)    =-2.91749E-02 9.80799E-03 8.65267E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.6606+ 0.0000+ 0.0000 - 0.0178- 0.0000-  0.0009 = 33.6420  Versus  33.6419

Mass Balance =  8.3923E-05 cm;  Time step attempts = 1986 and successes = 1986
  Evaporation:  Potential =  2.5091 cm, Actual =  0.0178 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 91.4 %;  TMEAN = 281.5 K;  HDRY =  1.2308E+05 cm;  DAYUBC =  1919

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  52, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24361     0.29378     0.26287
Head (cm)          = 7.38478E+02 5.52951E+02 9.86606E+02
Water Flow (cm)    =-3.29326E-02 8.92421E-03 9.29505E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.6419+ 0.0254+ 0.0000 - 0.0743- 0.0000-  0.0009 = 33.5921  Versus  33.6007

Mass Balance = -8.6517E-03 cm;  Time step attempts =52225 and successes =52225
  Evaporation:  Potential =  3.7411 cm, Actual =  0.0743 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 73.1 %;  TMEAN = 275.9 K;  HDRY =  4.2865E+05 cm;  DAYUBC =  4532

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day =  53, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.24397     0.29294     0.26402
Head (cm)         = 7.34626E+02 5.61282E+02 9.63944E+02
Water Flow (cm)   =-2.24334E-02 8.04998E-03 9.95736E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.6007+ 0.0000+ 0.0000 - 0.0229- 0.0000-  0.0010 = 33.5768  Versus  33.5778

Mass Balance = -9.4986E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  3.2177 cm, Actual =  0.0229 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 67.3 %;  TMEAN = 275.7 K;  HDRY =  5.4240E+05 cm;  DAYUBC =  4579
```

```
DAILY SUMMARY:  Day =  54, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25

Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.33482     0.29533     0.26516
Head (cm)         = 2.02457E+02 5.38001E+02 9.42303E+02
Water Flow (cm)   = 2.17507E+00 1.00445E-02 1.06739E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.5778+ 3.7293+ 1.6555 - 0.5326- 0.0000-  0.0011 = 36.7735  Versus  36.7740

Mass Balance = -5.4550E-04 cm;  Time step attempts = 5919 and successes = 5919
  Evaporation:  Potential =  2.2663 cm, Actual =  0.5326 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 96.0 %;  TMEAN = 276.5 K;  HDRY =  5.6282E+04 cm;  DAYUBC =   805
```

```
DAILY SUMMARY:  Day =  55, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.28579     0.30655     0.26626
Head (cm)         = 4.10735E+02 4.42065E+02 9.21918E+02
Water Flow (cm)   =-3.90727E-01 5.28101E-02 1.14150E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 36.7740+ 0.0000+ 0.0000 - 0.7538- 0.0000-  0.0011 = 36.0190  Versus  36.0191

Mass Balance = -1.9073E-05 cm;  Time step attempts =  442 and successes =  442
  Evaporation:  Potential =  3.0153 cm, Actual =  0.7538 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 77.6 %;  TMEAN = 285.1 K;  HDRY =  3.4778E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  56, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.25863     0.31010     0.26731
Head (cm)          = 5.96125E+02 4.15594E+02 9.03025E+02
Water Flow (cm)    =-3.12020E-01 8.49101E-02 1.21652E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 36.0191+ 0.0000+ 0.0000 - 0.6519- 0.0000-  0.0012 = 35.3660  Versus  35.3660

Mass Balance = -1.9073E-05 cm;  Time step attempts = 2892 and successes = 2892
  Evaporation:  Potential =  2.6075 cm, Actual =  0.6519 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.8 %;  TMEAN = 279.8 K;  HDRY =  6.8096E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  57, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26204     0.30957     0.26826
Head (cm)          = 5.68478E+02 4.19441E+02 8.86367E+02
Water Flow (cm)    =-2.22251E-01 7.44138E-02 1.29011E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 35.3660+ 0.0000+ 0.0000 - 0.4615- 0.0000-  0.0013 = 34.9032  Versus  34.9020

Mass Balance =  1.2856E-03 cm;  Time step attempts =17279 and successes =17279
  Evaporation:  Potential =  2.9374 cm, Actual =  0.4615 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 61.5 %;  TMEAN = 283.4 K;  HDRY =  6.6580E+05 cm;  DAYUBC =  2611

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  58, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26420     0.30792     0.26920
Head (cm)          = 5.51750E+02 4.31662E+02 8.70243E+02
Water Flow (cm)    =-6.20121E-02 5.65573E-02 1.36304E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR            STORAGE
 34.9020+ 0.0000+ 0.0000 - 0.0337- 0.0000-  0.0014 = 34.8669  Versus  34.8669
```

```
Mass Balance =  6.4850E-05 cm;  Time step attempts = 2022 and successes = 2022
  Evaporation:  Potential =  2.5217 cm, Actual =  0.0337 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 90.6 %;  TMEAN = 279.0 K;  HDRY =  1.3578E+05 cm;  DAYUBC =  1969
```

```
DAILY SUMMARY:  Day =  59, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.26061     0.30620     0.27009
Head (cm)         = 5.79905E+02 4.44761E+02 8.55305E+02
Water Flow (cm)   =-7.31020E-02 4.27616E-02 1.43717E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.8669+ 0.0000+ 0.0000 - 0.0741- 0.0000-  0.0014 = 34.7914  Versus  34.7914

Mass Balance =  1.5259E-05 cm;  Time step attempts =  442 and successes =  442
  Evaporation:  Potential =  1.8100 cm, Actual =  0.0741 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 95.4 %;  TMEAN = 271.5 K;  HDRY =  6.4075E+04 cm;  DAYUBC =   410
```

```
DAILY SUMMARY:  Day =  60, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.26397     0.30467     0.27093
Head (cm)         = 5.53536E+02 4.56831E+02 8.41502E+02
Water Flow (cm)   =-4.13321E-02 3.36206E-02 1.50973E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.7914+ 0.3810+ 0.0000 - 0.0000- 0.0000-  0.0015 = 35.1708  Versus  35.1704

Mass Balance =  4.5395E-04 cm;  Time step attempts = 5093 and successes = 5093
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 92.7 %;  TMEAN = 275.7 K;  HDRY =  1.0327E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  61, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.26556     0.30330     0.27178
Head (cm)         = 5.41487E+02 4.67849E+02 8.27957E+02
Water Flow (cm)   =-1.35847E-02 2.74961E-02 1.58484E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 35.1704+ 0.0000+ 0.0000 - 0.0021- 0.0000-  0.0016 = 35.1667  Versus  35.1667

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0083 cm, Actual =  0.0021 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 95.3 %;  TMEAN = 276.5 K;  HDRY =  6.6547E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  62, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.24997     0.30212     0.27262
Head (cm)          = 6.73713E+02 4.77624E+02 8.14715E+02
Water Flow (cm)    =-9.29955E-02 2.32031E-02 1.66241E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 35.1667+ 0.0000+ 0.0000 - 0.2246- 0.0000-  0.0017 = 34.9405  Versus  34.9405

Mass Balance = -7.6294E-06 cm;  Time step attempts =  248 and successes =  248
  Evaporation:  Potential =  0.8982 cm, Actual =  0.2246 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 75.0 %;  TMEAN = 279.8 K;  HDRY =  3.9421E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  63, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.24295     0.30108     0.27344
Head (cm)          = 7.45645E+02 4.86314E+02 8.02005E+02
Water Flow (cm)    =-1.25224E-01 2.01833E-02 1.74271E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.9405+ 0.0000+ 0.0000 - 0.4896- 0.0000-  0.0017 = 34.4491  Versus  34.4487

Mass Balance =  4.1199E-04 cm;  Time step attempts =13640 and successes =13640
  Evaporation:  Potential =  1.9585 cm, Actual =  0.4896 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 57.4 %;  TMEAN = 281.5 K;  HDRY =  7.6038E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  64, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.24725     0.30014     0.27422
```

```
Head (cm)          = 7.00548E+02 4.94453E+02 7.90221E+02
Water Flow (cm)    =-6.51570E-02 1.77403E-02 1.82139E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.4487+ 0.0000+ 0.0000 - 0.0958- 0.0000-  0.0018 = 34.3511  Versus  34.3523

Mass Balance = -1.2283E-03 cm;  Time step attempts =25870 and successes =25870
  Evaporation:  Potential =  1.3641 cm, Actual =  0.0958 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 66.2 %;  TMEAN = 278.7 K;  HDRY =  5.6541E+05 cm;  DAYUBC =  4035

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DAILY SUMMARY:  Day =  65, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24920     0.29910     0.27503
Head (cm)          = 6.81156E+02 5.03542E+02 7.78130E+02
Water Flow (cm)    =-2.92819E-02 1.52608E-02 1.90339E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.3523+ 0.0000+ 0.0000 - 0.0221- 0.0000-  0.0019 = 34.3283  Versus  34.3287

Mass Balance = -3.8147E-04 cm;  Time step attempts =12591 and successes =12591
  Evaporation:  Potential =  1.0253 cm, Actual =  0.0221 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.6 %;  TMEAN = 279.0 K;  HDRY =  6.8577E+05 cm;  DAYUBC =  3366

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DAILY SUMMARY:  Day =  66, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.25002     0.29806     0.27586
Head (cm)          = 6.73294E+02 5.12766E+02 7.66076E+02
Water Flow (cm)    =-2.36376E-02 1.28215E-02 1.99304E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.3287+ 0.0000+ 0.0000 - 0.0210- 0.0000-  0.0020 = 34.3057  Versus  34.3062

Mass Balance = -4.3488E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  1.5673 cm, Actual =  0.0210 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 55.9 %;  TMEAN = 281.5 K;  HDRY =  7.9718E+05 cm;  DAYUBC =  3947

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DAILY SUMMARY:  Day =  67, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =        2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.25009     0.29708     0.27670
Head (cm)          = 6.72535E+02 5.21673E+02 7.54167E+02
Water Flow (cm)    =-2.26214E-02 1.08303E-02 2.08795E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 34.3062+ 0.0000+ 0.0000 - 0.0199- 0.0000-  0.0021 = 34.2842  Versus  34.2842

Mass Balance = -7.6294E-05 cm;  Time step attempts = 1566 and successes = 1566
  Evaporation:  Potential =  0.9421 cm, Actual =  0.0199 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.1 %;  TMEAN = 279.5 K;  HDRY =  5.8767E+05 cm;  DAYUBC =  1547

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DAILY SUMMARY:  Day =  68, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.25032     0.29623     0.27747
Head (cm)          = 6.70347E+02 5.29524E+02 7.43260E+02
Water Flow (cm)    =-2.05276E-02 9.33949E-03 2.18036E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 34.2842+ 0.0000+ 0.0000 - 0.0225- 0.0000-  0.0022 = 34.2595  Versus  34.2608

Mass Balance = -1.2589E-03 cm;  Time step attempts =12591 and successes =12591
  Evaporation:  Potential =  1.6632 cm, Actual =  0.0225 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 52.1 %;  TMEAN = 280.7 K;  HDRY =  8.9332E+05 cm;  DAYUBC =  3011

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  69, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.25028     0.29544     0.27825
Head (cm)          = 6.70749E+02 5.36983E+02 7.32629E+02
Water Flow (cm)    =-1.91573E-02 8.16493E-03 2.27600E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 34.2608+ 0.0000+ 0.0000 - 0.0193- 0.0000-  0.0023 = 34.2392  Versus  34.2397

Mass Balance = -4.8828E-04 cm;  Time step attempts = 4975 and successes = 4975
  Evaporation:  Potential =  2.5464 cm, Actual =  0.0193 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 52.1 %;  TMEAN = 282.9 K;  HDRY =  8.9255E+05 cm;  DAYUBC =  4963

-------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day =  70, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.28299     0.29476     0.27898
Head (cm)         = 4.26654E+02 5.43437E+02 7.22660E+02
Water Flow (cm)   = 5.54391E-01 7.28810E-03 2.37121E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN    NEWSTOR           STORAGE
 34.2397+ 1.4986+ 0.0000 - 0.3125- 0.0000-  0.0024 = 35.4234  Versus  35.4239

Mass Balance = -5.5313E-04 cm;  Time step attempts = 5340 and successes = 5340
  Evaporation:  Potential =  1.2756 cm, Actual =  0.3125 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.8 %;  TMEAN = 287.0 K;  HDRY =  6.8103E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  71, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.26856     0.29481     0.27969
Head (cm)         = 5.19573E+02 5.43018E+02 7.13200E+02
Water Flow (cm)   =-4.88067E-02 7.99287E-03 2.46682E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN    NEWSTOR           STORAGE
 35.4239+ 0.1524+ 0.0000 - 0.3095- 0.0000-  0.0025 = 35.2643  Versus  35.2644

Mass Balance = -9.9182E-05 cm;  Time step attempts = 2192 and successes = 2192
  Evaporation:  Potential =  1.2506 cm, Actual =  0.3095 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.7 %;  TMEAN = 282.6 K;  HDRY =  3.4503E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  72, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.24841     0.29545     0.28036
Head (cm)         = 6.88992E+02 5.36914E+02 7.04439E+02
Water Flow (cm)   =-1.64741E-01 1.16003E-02 2.56003E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN    NEWSTOR           STORAGE
 35.2644+ 0.0000+ 0.0000 - 0.5490- 0.0000-  0.0026 = 34.7128  Versus  34.7129

Mass Balance = -9.9182E-05 cm;  Time step attempts = 4174 and successes = 4174
  Evaporation:  Potential =  2.1961 cm, Actual =  0.5490 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 48.9 %;  TMEAN = 286.2 K;  HDRY =  9.8105E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  73, Simulated Time = 24.0000 hr
-------------
Node Number      =       2          12          25
Depth (cm)       =     5.00000    50.00000   122.00000
Water (cm3/cm3)  =     0.23906     0.29585     0.28099
Head (cm)        = 7.89519E+02 5.33163E+02 6.96347E+02
Water Flow (cm)  =-1.67186E-01 1.46425E-02 2.65033E-03
Plant Sink (cm)  = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 34.7129+ 0.0000+ 0.0000 - 0.2615- 0.0000-  0.0027 = 34.4488  Versus  34.4487

Mass Balance =  7.6294E-05 cm;  Time step attempts = 9173 and successes = 9173
  Evaporation:  Potential =  1.0460 cm, Actual =  0.2615 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.5 %;  TMEAN = 284.8 K;  HDRY =  3.4858E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  74, Simulated Time = 24.0000 hr
-------------
Node Number      =       2          12          25
Depth (cm)       =     5.00000    50.00000   122.00000
Water (cm3/cm3)  =     0.23510     0.29575     0.28156
Head (cm)        = 8.37585E+02 5.34034E+02 6.89113E+02
Water Flow (cm)  =-1.10113E-01 1.50489E-02 2.73514E-03
Plant Sink (cm)  = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 34.4487+ 0.2286+ 0.0000 - 0.1027- 0.0000-  0.0027 = 34.5719  Versus  34.5717

Mass Balance =  2.4033E-04 cm;  Time step attempts = 5110 and successes = 5110
  Evaporation:  Potential =  0.4149 cm, Actual =  0.1027 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 83.2 %;  TMEAN = 281.5 K;  HDRY =  2.5259E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  75, Simulated Time = 24.0000 hr
-------------
Node Number      =       2          12          25
Depth (cm)       =     5.00000    50.00000   122.00000
Water (cm3/cm3)  =     0.22878     0.29530     0.28210
Head (cm)        = 9.22418E+02 5.38361E+02 6.82314E+02
Water Flow (cm)  =-9.94823E-02 1.35130E-02 2.81777E-03
Plant Sink (cm)  = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 34.5717+ 0.0000+ 0.0000 - 0.3805- 0.0000-  0.0028 = 34.1884  Versus  34.1884
```

```
Mass Balance = -3.8147E-05 cm;  Time step attempts = 5220 and successes = 5220
  Evaporation:  Potential =  1.5218 cm, Actual =  0.3805 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 61.3 %;  TMEAN = 279.0 K;  HDRY =  6.6982E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  76, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23297     0.29470     0.28254
Head (cm)         = 8.65073E+02 5.44081E+02 6.76766E+02
Water Flow (cm)   =-7.32209E-02 1.13568E-02 2.89151E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.1884+ 0.0000+ 0.0000 - 0.1492- 0.0000-  0.0029 = 34.0363  Versus  34.0374

Mass Balance = -1.0910E-03 cm;  Time step attempts =25979 and successes =25979
  Evaporation:  Potential =  1.5011 cm, Actual =  0.1492 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.3 %;  TMEAN = 278.7 K;  HDRY =  6.9271E+05 cm;  DAYUBC =  3564
```

```
DAILY SUMMARY:  Day =  77, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23613     0.29393     0.28301
Head (cm)         = 8.24713E+02 5.51476E+02 6.71038E+02
Water Flow (cm)   =-3.13723E-02 9.11316E-03 2.96234E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.0374+ 0.0000+ 0.0000 - 0.0158- 0.0000-  0.0030 = 34.0186  Versus  34.0187

Mass Balance = -1.0681E-04 cm;  Time step attempts = 2365 and successes = 2365
  Evaporation:  Potential =  0.6794 cm, Actual =  0.0158 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.0 %;  TMEAN = 280.1 K;  HDRY =  5.9016E+05 cm;  DAYUBC =  2345
```

```
DAILY SUMMARY:  Day =  78, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23754     0.29315     0.28343
Head (cm)         = 8.07575E+02 5.59207E+02 6.65837E+02
Water Flow (cm)   =-2.38644E-02 7.01284E-03 3.03188E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.0187+ 0.0000+ 0.0000 - 0.0179- 0.0000-  0.0030 = 33.9978  Versus  33.9980

Mass Balance = -2.5177E-04 cm;  Time step attempts = 5094 and successes = 5094
  Evaporation:  Potential =  1.1055 cm, Actual =  0.0179 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 63.4 %;  TMEAN = 281.5 K;  HDRY =  6.2473E+05 cm;  DAYUBC =  2811
```

```
DAILY SUMMARY:  Day =  79, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23838     0.29239     0.28383
Head (cm)         = 7.97485E+02 5.66787E+02 6.61095E+02
Water Flow (cm)   =-2.08535E-02 5.26412E-03 3.09720E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.9980+ 0.0000+ 0.0000 - 0.0181- 0.0000-  0.0031 = 33.9768  Versus  33.9772

Mass Balance = -4.3106E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  1.6059 cm, Actual =  0.0181 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 58.8 %;  TMEAN = 280.7 K;  HDRY =  7.2878E+05 cm;  DAYUBC =  3959
```

```
DAILY SUMMARY:  Day =  80, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23900     0.29167     0.28420
Head (cm)         = 7.90266E+02 5.74044E+02 6.56668E+02
Water Flow (cm)   =-1.87482E-02 3.85641E-03 3.15965E-03
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.9772+ 0.0000+ 0.0000 - 0.0179- 0.0000-  0.0032 = 33.9562  Versus  33.9565

Mass Balance = -3.5095E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  2.1500 cm, Actual =  0.0179 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 49.6 %;  TMEAN = 284.3 K;  HDRY =  9.6041E+05 cm;  DAYUBC =  3463
```

```
DAILY SUMMARY:  Day =  81, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23914     0.29135     0.28432
Head (cm)         = 7.88593E+02 5.77389E+02 6.55185E+02
```

```
Water Flow (cm)    =-1.78333E-02 2.84707E-03 3.20040E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.9565+ 0.0000+ 0.0000 - 0.0145- 0.0000-  0.0032 = 33.9388  Versus  33.9487

Mass Balance = -9.8343E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1451 cm, Actual =  0.0145 cm
Transpiration:  Potential =  2.7576 cm, Actual =  0.0000 cm
RHMEAN = 48.5 %;  TMEAN = 290.4 K;  HDRY =  9.9280E+05 cm;  DAYUBC =  4573

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DAILY SUMMARY:  Day =  82, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.20925     0.29032     0.28444
Head (cm)          = 1.26691E+03 5.88105E+02 6.53811E+02
Water Flow (cm)    =-5.05469E-02 8.14929E-04 3.22126E-03
Plant Sink (cm)    = 3.78819E-02 5.95197E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.9487+ 0.0000+ 0.0000 - 0.0122- 0.4313-  0.0032 = 33.5020  Versus  33.5095

Mass Balance = -7.4425E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.0908 cm, Actual =  0.0122 cm
Transpiration:  Potential =  1.7250 cm, Actual =  0.4313 cm
RHMEAN = 61.3 %;  TMEAN = 288.2 K;  HDRY =  6.6988E+05 cm;  DAYUBC =  3488

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day =  83, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.14967     0.28844     0.28473
Head (cm)          = 4.76185E+03 6.08162E+02 6.50315E+02
Water Flow (cm)    =-4.71805E-02-3.10767E-03 3.25490E-03
Plant Sink (cm)    = 6.82038E-02 1.15671E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.5095+ 0.0000+ 0.0000 - 0.0127- 0.8137-  0.0033 = 32.6798  Versus  32.6813

Mass Balance = -1.4801E-03 cm;  Time step attempts =31452 and successes =31452
  Evaporation:  Potential =  0.1764 cm, Actual =  0.0127 cm
Transpiration:  Potential =  3.3524 cm, Actual =  0.8137 cm
RHMEAN = 48.5 %;  TMEAN = 281.8 K;  HDRY =  9.9144E+05 cm;  DAYUBC =  3849

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DAILY SUMMARY:  Day =  84, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
```

```
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.13934     0.28720     0.28494
Head (cm)           = 6.66801E+03 6.21900E+02 6.47883E+02
Water Flow (cm)     =-2.56512E-02-6.29377E-03 3.29997E-03
Plant Sink (cm)     = 1.46710E-02 4.42561E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.6813+ 0.0000+ 0.0000 - 0.0051- 0.2598-  0.0033 = 32.4131  Versus  32.4159

Mass Balance = -2.7390E-03 cm;  Time step attempts =53643 and successes =53643
  Evaporation:  Potential =  0.0675 cm, Actual =  0.0051 cm
Transpiration:  Potential =  1.2826 cm, Actual =  0.2598 cm
RHMEAN = 51.4 %;  TMEAN = 276.2 K;  HDRY =  9.1100E+05 cm;  DAYUBC =  3469
```

```
DAILY SUMMARY:  Day =  85, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12920     0.28581     0.28513
Head (cm)           = 9.86990E+03 6.37724E+02 6.45574E+02
Water Flow (cm)     =-1.30617E-02-8.38423E-03 3.33621E-03
Plant Sink (cm)     = 1.15885E-02 6.17129E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.4159+ 0.0000+ 0.0000 - 0.0086- 0.3072-  0.0033 = 32.0967  Versus  32.1006

Mass Balance = -3.8986E-03 cm;  Time step attempts =59865 and successes =59865
  Evaporation:  Potential =  0.0941 cm, Actual =  0.0086 cm
Transpiration:  Potential =  1.7886 cm, Actual =  0.3072 cm
RHMEAN = 41.1 %;  TMEAN = 277.6 K;  HDRY =  1.2170E+06 cm;  DAYUBC =  5400
```

```
DAILY SUMMARY:  Day =  86, Simulated Time = 24.0000 hr
-------------
Node Number         =        2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.13112     0.28464     0.28541
Head (cm)           = 9.10990E+03 6.51432E+02 6.42359E+02
Water Flow (cm)     =-7.12838E-03-9.92594E-03 3.37435E-03
Plant Sink (cm)     = 3.76314E-03 2.69462E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.1006+ 0.2286+ 0.0000 - 0.0103- 0.1213-  0.0034 = 32.1942  Versus  32.1951

Mass Balance = -8.5068E-04 cm;  Time step attempts = 8109 and successes = 8109
  Evaporation:  Potential =  0.0415 cm, Actual =  0.0103 cm
Transpiration:  Potential =  0.7888 cm, Actual =  0.1213 cm
RHMEAN = 49.6 %;  TMEAN = 280.4 K;  HDRY =  9.5991E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  87, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.14707     0.28376     0.28567
Head (cm)          = 5.15703E+03 6.61870E+02 6.39341E+02
Water Flow (cm)    =-4.89844E-03-1.02170E-02 3.42206E-03
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 32.1951+ 0.1270+ 0.0000 - 0.0000- 0.0000-  0.0034 = 32.3187  Versus  32.3186

Mass Balance =  5.3406E-05 cm;  Time step attempts = 3435 and successes = 3435
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 90.6 %;  TMEAN = 279.0 K;  HDRY =  1.3578E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  88, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.16022     0.28296     0.28590
Head (cm)          = 3.53764E+03 6.71646E+02 6.36651E+02
Water Flow (cm)    = 6.96324E-05-1.01918E-02 3.46588E-03
Plant Sink (cm)    = 1.27044E-04 2.65052E-06 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 32.3186+ 0.0508+ 0.0000 - 0.0001- 0.0016-  0.0035 = 32.3642  Versus  32.3648

Mass Balance = -6.0272E-04 cm;  Time step attempts = 5532 and successes = 5532
  Evaporation:  Potential =  0.0004 cm, Actual =  0.0001 cm
Transpiration:  Potential =  0.0078 cm, Actual =  0.0016 cm
RHMEAN = 88.1 %;  TMEAN = 280.9 K;  HDRY =  1.7350E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  89, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.14467     0.28170     0.28611
Head (cm)          = 5.56789E+03 6.87257E+02 6.34204E+02
Water Flow (cm)    =-3.62873E-04-1.10629E-02 3.50682E-03
Plant Sink (cm)    = 2.09666E-02 4.85624E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 32.3648+ 0.0000+ 0.0000 - 0.0185- 0.2860-  0.0035 = 32.0568  Versus  32.0568

Mass Balance = -7.6294E-06 cm;  Time step attempts =  852 and successes =  852
  Evaporation:  Potential =  0.0741 cm, Actual =  0.0185 cm
Transpiration:  Potential =  1.4074 cm, Actual =  0.2860 cm
RHMEAN = 71.8 %;  TMEAN = 284.3 K;  HDRY =  4.5453E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  90, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13536     0.28045     0.28629
Head (cm)         = 7.70977E+03 7.03283E+02 6.32149E+02
Water Flow (cm)   =-1.86185E-03-1.24616E-02 3.54217E-03
Plant Sink (cm)   = 1.40160E-02 5.23463E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.0568+ 0.0254+ 0.0000 - 0.0200- 0.2483-  0.0035 = 31.8104  Versus  31.8107

Mass Balance = -2.1553E-04 cm;  Time step attempts = 3046 and successes = 3046
  Evaporation:  Potential =  0.0807 cm, Actual =  0.0200 cm
Transpiration:  Potential =  1.5324 cm, Actual =  0.2483 cm
RHMEAN = 66.5 %;  TMEAN = 283.2 K;  HDRY =  5.6000E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  91, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13028     0.27931     0.28645
Head (cm)         = 9.42956E+03 7.18303E+02 6.30399E+02
Water Flow (cm)   =-1.44255E-03-1.35138E-02 3.57311E-03
Plant Sink (cm)   = 7.51284E-03 4.40236E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.8107+ 0.0000+ 0.0000 - 0.0168- 0.1735-  0.0036 = 31.6167  Versus  31.6168

Mass Balance = -9.5367E-06 cm;  Time step attempts =  789 and successes =  789
  Evaporation:  Potential =  0.0672 cm, Actual =  0.0168 cm
Transpiration:  Potential =  1.2759 cm, Actual =  0.1735 cm
RHMEAN = 59.8 %;  TMEAN = 283.7 K;  HDRY =  7.0524E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  92, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12814     0.27828     0.28657
Head (cm)         = 1.03267E+04 7.32224E+02 6.29022E+02
Water Flow (cm)   =-1.04788E-03-1.41485E-02 3.59814E-03
Plant Sink (cm)   = 4.51487E-03 3.66210E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.6168+ 0.0254+ 0.0000 - 0.0140- 0.1277-  0.0036 = 31.4969  Versus  31.4971

Mass Balance = -1.8311E-04 cm;  Time step attempts = 2539 and successes = 2539
  Evaporation:  Potential =  0.0564 cm, Actual =  0.0140 cm
```

```
Transpiration:  Potential =  1.0721 cm, Actual =  0.1277 cm
RHMEAN = 75.0 %;  TMEAN = 292.0 K;  HDRY =  3.9374E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  93, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12348     0.27684     0.28667
Head (cm)          = 1.27729E+04 7.52175E+02 6.27930E+02
Water Flow (cm)    =-6.77568E-04-1.52543E-02 3.61865E-03
Plant Sink (cm)    = 5.84221E-03 8.12040E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.4971+ 0.0000+ 0.0000 - 0.0310- 0.2380-  0.0036 = 31.2245  Versus  31.2245

Mass Balance =  7.6294E-06 cm;  Time step attempts = 1056 and successes = 1056
  Evaporation:  Potential =  0.1239 cm, Actual =  0.0310 cm
Transpiration:  Potential =  2.3535 cm, Actual =  0.2380 cm
RHMEAN = 68.0 %;  TMEAN = 297.9 K;  HDRY =  5.2825E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  94, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12160     0.27548     0.28673
Head (cm)          = 1.40102E+04 7.71561E+02 6.27162E+02
Water Flow (cm)    =-3.92964E-04-1.65782E-02 3.63396E-03
Plant Sink (cm)    = 2.28747E-03 7.66225E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.2245+ 0.0000+ 0.0000 - 0.0292- 0.1811-  0.0036 = 31.0106  Versus  31.0105

Mass Balance =  3.2425E-05 cm;  Time step attempts = 1817 and successes = 1817
  Evaporation:  Potential =  0.1169 cm, Actual =  0.0292 cm
Transpiration:  Potential =  2.2207 cm, Actual =  0.1811 cm
RHMEAN = 73.3 %;  TMEAN = 296.5 K;  HDRY =  4.2502E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day =  95, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12102     0.27446     0.28677
Head (cm)          = 1.44263E+04 7.86705E+02 6.26701E+02
Water Flow (cm)    =-2.64750E-04-1.71649E-02 3.64407E-03
Plant Sink (cm)    = 6.74017E-04 4.72762E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.0105+ 0.0000+ 0.0000 - 0.0180- 0.0987-  0.0036 = 30.8901  Versus  30.8901
```

```
Mass Balance =  1.7166E-05 cm;  Time step attempts = 1836 and successes = 1836
  Evaporation:  Potential =  0.0721 cm, Actual =  0.0180 cm
Transpiration:  Potential =  1.3702 cm, Actual =  0.0987 cm
RHMEAN = 81.9 %;  TMEAN = 296.2 K;  HDRY =  2.7302E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  96, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12036     0.27281     0.28678
Head (cm)         = 1.49241E+04 8.11764E+02 6.26582E+02
Water Flow (cm)   =-1.68003E-04-1.81889E-02 3.64893E-03
Plant Sink (cm)   = 5.89090E-04 1.14387E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.8901+ 0.0000+ 0.0000 - 0.0436- 0.2090-  0.0036 = 30.6339  Versus  30.6347

Mass Balance = -8.2016E-04 cm;  Time step attempts =13477 and successes =13477
  Evaporation:  Potential =  0.1745 cm, Actual =  0.0436 cm
Transpiration:  Potential =  3.3152 cm, Actual =  0.2090 cm
RHMEAN = 62.7 %;  TMEAN = 298.4 K;  HDRY =  6.3905E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  97, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11945     0.27055     0.28679
Head (cm)         = 1.56508E+04 8.47764E+02 6.26521E+02
Water Flow (cm)   =-8.71637E-05-2.07606E-02 3.64976E-03
Plant Sink (cm)   = 2.99600E-05 1.83827E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.6347+ 0.0000+ 0.0000 - 0.0473- 0.2712-  0.0036 = 30.3125  Versus  30.3169

Mass Balance = -4.4537E-03 cm;  Time step attempts =56089 and successes =56089
  Evaporation:  Potential =  0.2804 cm, Actual =  0.0473 cm
Transpiration:  Potential =  5.3278 cm, Actual =  0.2712 cm
RHMEAN = 37.9 %;  TMEAN = 297.3 K;  HDRY =  1.3282E+06 cm;  DAYUBC =  3962
```

```
DAILY SUMMARY:  Day =  98, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11825     0.26912     0.28678
Head (cm)         = 1.66907E+04 8.71593E+02 6.26635E+02
Water Flow (cm)   =-1.52874E-04-2.22680E-02 3.65004E-03
Plant Sink (cm)   = 0.00000E+00 1.10337E-03 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.3169+ 0.0000+ 0.0000 - 0.0000- 0.1396-  0.0037 = 30.1737  Versus  30.1737

Mass Balance =  0.0000E+00 cm;  Time step attempts =  103 and successes =  103
  Evaporation:  Potential =  0.1683 cm, Actual =  0.0000 cm
Transpiration:  Potential =  3.1978 cm, Actual =  0.1396 cm
RHMEAN = 67.1 %;  TMEAN = 297.6 K;  HDRY =  5.4756E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day =  99, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11740     0.26753     0.28674
Head (cm)          = 1.74938E+04 8.99035E+02 6.27036E+02
Water Flow (cm)    =-2.19715E-04-2.27330E-02 3.64570E-03
Plant Sink (cm)    = 0.00000E+00 1.29935E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.1737+ 0.0000+ 0.0000 - 0.0034- 0.1467-  0.0036 = 30.0199  Versus  30.0201

Mass Balance = -1.2016E-04 cm;  Time step attempts = 1475 and successes = 1475
  Evaporation:  Potential =  0.1982 cm, Actual =  0.0034 cm
Transpiration:  Potential =  3.7658 cm, Actual =  0.1467 cm
RHMEAN = 67.0 %;  TMEAN = 298.2 K;  HDRY =  5.4966E+05 cm;  DAYUBC =  1460
```

```
DAILY SUMMARY:  Day = 100, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11669     0.26673     0.28669
Head (cm)          = 1.82036E+04 9.13317E+02 6.27681E+02
Water Flow (cm)    =-2.73584E-04-2.25440E-02 3.63685E-03
Plant Sink (cm)    = 0.00000E+00 5.30893E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.0201+ 0.0000+ 0.0000 - 0.0006- 0.0559-  0.0036 = 29.9599  Versus  29.9599

Mass Balance = -4.3869E-05 cm;  Time step attempts =  948 and successes =  948
  Evaporation:  Potential =  0.0810 cm, Actual =  0.0006 cm
Transpiration:  Potential =  1.5386 cm, Actual =  0.0559 cm
RHMEAN = 74.4 %;  TMEAN = 297.0 K;  HDRY =  4.0514E+05 cm;  DAYUBC =   854
```

```
DAILY SUMMARY:  Day = 101, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15149     0.26472     0.28662
```

```
Head (cm)           = 4.50990E+03 9.50622E+02 6.28422E+02
Water Flow (cm)     = 7.43659E-02-2.31041E-02 3.62638E-03
Plant Sink (cm)     = 1.11254E-01 1.83707E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.9599+ 1.0718+ 0.1728 - 0.0701- 0.7311-  0.0036 = 30.2270  Versus  30.2283

Mass Balance = -1.3180E-03 cm;  Time step attempts =13250 and successes =13250
  Evaporation:  Potential =  0.2859 cm, Actual =  0.0701 cm
Transpiration:  Potential =  5.4329 cm, Actual =  0.7311 cm
RHMEAN = 48.7 %;  TMEAN = 291.2 K;  HDRY =  9.8604E+05 cm;  DAYUBC =  2880

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 102, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.13725     0.26392     0.28652
Head (cm)           = 7.18777E+03 9.65933E+02 6.29529E+02
Water Flow (cm)     = 5.33129E-03-2.34257E-02 3.61030E-03
Plant Sink (cm)     = 2.12081E-02 6.52571E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.2283+ 0.0000+ 0.0000 - 0.0249- 0.1658-  0.0036 = 30.0340  Versus  30.0340

Mass Balance =  0.0000E+00 cm;  Time step attempts = 1117 and successes = 1117
  Evaporation:  Potential =  0.0995 cm, Actual =  0.0249 cm
Transpiration:  Potential =  1.8913 cm, Actual =  0.1658 cm
RHMEAN = 61.5 %;  TMEAN = 285.9 K;  HDRY =  6.6719E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 103, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12799     0.26303     0.28641
Head (cm)           = 1.03955E+04 9.83255E+02 6.30835E+02
Water Flow (cm)     = 1.55021E-03-2.28076E-02 3.59059E-03
Plant Sink (cm)     = 1.19452E-02 7.38300E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.0340+ 0.0000+ 0.0000 - 0.0282- 0.1273-  0.0036 = 29.8749  Versus  29.8749

Mass Balance = -1.1444E-05 cm;  Time step attempts = 1338 and successes = 1338
  Evaporation:  Potential =  0.1126 cm, Actual =  0.0282 cm
Transpiration:  Potential =  2.1398 cm, Actual =  0.1273 cm
RHMEAN = 64.8 %;  TMEAN = 288.4 K;  HDRY =  5.9468E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 104, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =      2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12687     0.26263     0.28628
Head (cm)          = 1.09190E+04 9.91310E+02 6.32339E+02
Water Flow (cm)    = 6.52686E-04-2.20263E-02 3.56784E-03
Plant Sink (cm)    = 2.46247E-03 2.49386E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.8749+ 0.0000+ 0.0000 - 0.0095- 0.0348-  0.0036 = 29.8270  Versus  29.8270

Mass Balance =  3.8147E-06 cm;  Time step attempts =  332 and successes =  332
  Evaporation:  Potential =  0.0380 cm, Actual =  0.0095 cm
Transpiration:  Potential =  0.7228 cm, Actual =  0.0348 cm
RHMEAN = 87.1 %;  TMEAN = 289.8 K;  HDRY =  1.8918E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 105, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.22102     0.26168     0.28615
Head (cm)          = 1.04223E+03 1.01058E+03 6.33760E+02
Water Flow (cm)    = 5.22665E-01-2.15838E-02 3.54594E-03
Plant Sink (cm)    = 5.25277E-02 8.25308E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.8270+ 1.4166+ 0.5392 - 0.0315- 0.4352-  0.0035 = 30.7734  Versus  30.7748

Mass Balance = -1.3638E-03 cm;  Time step attempts =18060 and successes =18060
  Evaporation:  Potential =  0.1285 cm, Actual =  0.0315 cm
Transpiration:  Potential =  2.4407 cm, Actual =  0.4352 cm
RHMEAN = 72.9 %;  TMEAN = 290.1 K;  HDRY =  4.3325E+05 cm;  DAYUBC =  4962

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 106, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.17279     0.26078     0.28599
Head (cm)          = 2.59768E+03 1.02938E+03 6.35611E+02
Water Flow (cm)    = 4.49909E-02-2.16302E-02 3.51830E-03
Plant Sink (cm)    = 5.14428E-02 8.08262E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.7748+ 0.0000+ 0.0000 - 0.0308- 0.4662-  0.0035 = 30.2742  Versus  30.2742

Mass Balance = -5.7220E-06 cm;  Time step attempts = 1294 and successes = 1294
  Evaporation:  Potential =  0.1233 cm, Actual =  0.0308 cm
Transpiration:  Potential =  2.3425 cm, Actual =  0.4662 cm
RHMEAN = 60.2 %;  TMEAN = 285.4 K;  HDRY =  6.9554E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 107, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13836     0.25980     0.28582
Head (cm)         = 6.90527E+03 1.05025E+03 6.37631E+02
Water Flow (cm)   = 2.98411E-03-2.16707E-02 3.48781E-03
Plant Sink (cm)   = 3.99763E-02 9.24577E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.2742+ 0.0000+ 0.0000 - 0.0353- 0.3879-  0.0035 = 29.8476  Versus  29.8476

Mass Balance =  1.9073E-06 cm;  Time step attempts = 1812 and successes = 1812
  Evaporation:  Potential =  0.1410 cm, Actual =  0.0353 cm
Transpiration:  Potential =  2.6796 cm, Actual =  0.3879 cm
RHMEAN = 53.5 %;  TMEAN = 282.0 K;  HDRY =  8.5655E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 108, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12871     0.25907     0.28563
Head (cm)         = 1.00779E+04 1.06628E+03 6.39799E+02
Water Flow (cm)   =-7.34026E-04-2.15603E-02 3.45520E-03
Plant Sink (cm)   = 1.23573E-02 7.08826E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.8476+ 0.0000+ 0.0000 - 0.0270- 0.1659-  0.0035 = 29.6513  Versus  29.6513

Mass Balance =  0.0000E+00 cm;  Time step attempts = 1254 and successes = 1254
  Evaporation:  Potential =  0.1081 cm, Actual =  0.0270 cm
Transpiration:  Potential =  2.0543 cm, Actual =  0.1659 cm
RHMEAN = 58.9 %;  TMEAN = 282.9 K;  HDRY =  7.2567E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 109, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12377     0.25828     0.28543
Head (cm)         = 1.26016E+04 1.08385E+03 6.42099E+02
Water Flow (cm)   =-4.39154E-04-2.13546E-02 3.42084E-03
Plant Sink (cm)   = 6.06026E-03 7.81890E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.6513+ 0.0000+ 0.0000 - 0.0298- 0.1218-  0.0034 = 29.4962  Versus  29.4962

Mass Balance = -7.6294E-06 cm;  Time step attempts = 1047 and successes = 1047
  Evaporation:  Potential =  0.1193 cm, Actual =  0.0298 cm
Transpiration:  Potential =  2.2661 cm, Actual =  0.1218 cm
RHMEAN = 69.7 %;  TMEAN = 290.1 K;  HDRY =  4.9529E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 110, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12183     0.25760     0.28522
Head (cm)          = 1.38495E+04 1.09942E+03 6.44524E+02
Water Flow (cm)    =-2.59677E-04-2.11505E-02 3.38498E-03
Plant Sink (cm)    = 2.32940E-03 6.96552E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.4962+ 0.0000+ 0.0000 - 0.0266- 0.0804-  0.0034 = 29.3859  Versus  29.3859

Mass Balance =  5.7220E-06 cm;  Time step attempts = 1465 and successes = 1465
  Evaporation:  Potential =  0.1063 cm, Actual =  0.0266 cm
Transpiration:  Potential =  2.0188 cm, Actual =  0.0804 cm
RHMEAN = 76.5 %;  TMEAN = 295.9 K;  HDRY =  3.6803E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 111, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12108     0.25709     0.28501
Head (cm)          = 1.43814E+04 1.11109E+03 6.47068E+02
Water Flow (cm)    =-1.71216E-04-2.07841E-02 3.34782E-03
Plant Sink (cm)    = 8.39708E-04 5.21036E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.3859+ 0.0000+ 0.0000 - 0.0199- 0.0505-  0.0033 = 29.3122  Versus  29.3122

Mass Balance = -5.7220E-06 cm;  Time step attempts = 1921 and successes = 1921
  Evaporation:  Potential =  0.0795 cm, Actual =  0.0199 cm
Transpiration:  Potential =  1.5101 cm, Actual =  0.0505 cm
RHMEAN = 78.1 %;  TMEAN = 294.8 K;  HDRY =  3.3948E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 112, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24457     0.25646     0.28481
Head (cm)          = 7.28287E+02 1.12594E+03 6.49339E+02
Water Flow (cm)    = 9.82346E-01-2.05127E-02 3.31440E-03
Plant Sink (cm)    = 4.25978E-02 6.69290E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.3122+ 2.0788+ 0.8422 - 0.0255- 0.3915-  0.0033 = 30.9707  Versus  30.9727

Mass Balance = -2.0466E-03 cm;  Time step attempts =22358 and successes =22358
```

```
  Evaporation:  Potential =  0.1052 cm, Actual =  0.0255 cm
Transpiration:  Potential =  1.9997 cm, Actual =  0.3915 cm
RHMEAN = 73.8 %;  TMEAN = 294.8 K;  HDRY =  4.1700E+05 cm;  DAYUBC =  6479

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 113, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.20925     0.25556     0.28459
Head (cm)         = 1.26697E+03 1.14764E+03 6.51983E+02
Water Flow (cm)   = 1.76254E-01-2.05570E-02 3.27714E-03
Plant Sink (cm)   = 6.14510E-02 9.65508E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.9727+ 0.2540+ 0.0000 - 0.0368- 0.6109-  0.0033 = 30.5757  Versus  30.5762

Mass Balance = -4.8065E-04 cm;  Time step attempts = 7114 and successes = 7114
  Evaporation:  Potential =  0.1488 cm, Actual =  0.0368 cm
Transpiration:  Potential =  2.8265 cm, Actual =  0.6109 cm
RHMEAN = 55.9 %;  TMEAN = 287.6 K;  HDRY =  7.9775E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 114, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.17450     0.25498     0.28435
Head (cm)         = 2.49847E+03 1.16176E+03 6.54801E+02
Water Flow (cm)   = 9.91059E-03-2.04831E-02 3.23741E-03
Plant Sink (cm)   = 4.22340E-02 6.63573E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.5762+ 0.0000+ 0.0000 - 0.0253- 0.4265-  0.0032 = 30.1212  Versus  30.1212

Mass Balance =  1.9073E-06 cm;  Time step attempts = 1184 and successes = 1184
  Evaporation:  Potential =  0.1012 cm, Actual =  0.0253 cm
Transpiration:  Potential =  1.9232 cm, Actual =  0.4265 cm
RHMEAN = 62.6 %;  TMEAN = 285.9 K;  HDRY =  6.4209E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 115, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.14100     0.25423     0.28411
Head (cm)         = 6.29250E+03 1.18052E+03 6.57703E+02
Water Flow (cm)   =-3.74315E-03-2.03329E-02 3.19706E-03
Plant Sink (cm)   = 3.97551E-02 8.55787E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
```

```
 30.1212+ 0.0000+ 0.0000 - 0.0326- 0.4558-  0.0032 = 29.6295  Versus  29.6295

Mass Balance =  1.9073E-06 cm;  Time step attempts = 1614 and successes = 1614
  Evaporation:  Potential =  0.1305 cm, Actual =  0.0326 cm
Transpiration:  Potential =  2.4803 cm, Actual =  0.4558 cm
RHMEAN = 57.6 %;  TMEAN = 290.1 K;  HDRY =  7.5695E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 116, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12698     0.25339     0.28386
Head (cm)         = 1.08681E+04 1.20206E+03 6.60667E+02

Water Flow (cm)   =-2.12485E-03-2.03644E-02 3.15636E-03
Plant Sink (cm)   = 1.67960E-02 9.81225E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.6295+ 0.0000+ 0.0000 - 0.0374- 0.2844-  0.0032 = 29.3046  Versus  29.3046

Mass Balance = -7.6294E-06 cm;  Time step attempts = 1868 and successes = 1868
  Evaporation:  Potential =  0.1497 cm, Actual =  0.0374 cm
Transpiration:  Potential =  2.8438 cm, Actual =  0.2844 cm
RHMEAN = 57.4 %;  TMEAN = 292.6 K;  HDRY =  7.6090E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 117, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12225     0.25254     0.28361
Head (cm)         = 1.35609E+04 1.22458E+03 6.63699E+02
Water Flow (cm)   =-7.50490E-04-2.04392E-02 3.11545E-03
Plant Sink (cm)   = 5.58764E-03 1.03593E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.3046+ 0.0000+ 0.0000 - 0.0395- 0.1737-  0.0031 = 29.0883  Versus  29.0883

Mass Balance =  1.3351E-05 cm;  Time step attempts = 1702 and successes = 1702
  Evaporation:  Potential =  0.1580 cm, Actual =  0.0395 cm
Transpiration:  Potential =  3.0024 cm, Actual =  0.1737 cm
RHMEAN = 55.6 %;  TMEAN = 293.2 K;  HDRY =  8.0550E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 118, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12099     0.25192     0.28336
Head (cm)         = 1.44491E+04 1.24117E+03 6.66791E+02
```

```
Water Flow (cm)    =-3.31559E-04-2.03476E-02 3.07437E-03
Plant Sink (cm)    = 1.44518E-03 8.16980E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.0883+ 0.0000+ 0.0000 - 0.0312- 0.0944-  0.0031 = 28.9596  Versus  28.9596

Mass Balance =  3.2425E-05 cm;  Time step attempts = 2767 and successes = 2767
  Evaporation:  Potential =  0.1246 cm, Actual =  0.0312 cm
Transpiration:  Potential =  2.3678 cm, Actual =  0.0944 cm
RHMEAN = 65.0 %;  TMEAN = 292.3 K;  HDRY =  5.9033E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 119, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12038     0.25112     0.28311
Head (cm)          = 1.49043E+04 1.26308E+03 6.69751E+02
Water Flow (cm)    =-1.72078E-04-2.02519E-02 3.03434E-03
Plant Sink (cm)    = 5.40482E-04 1.02415E-03 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 28.9596+ 0.0000+ 0.0000 - 0.0391- 0.0915-  0.0030 = 28.8260  Versus  28.8267

Mass Balance = -6.8283E-04 cm;  Time step attempts =10491 and successes =10491
  Evaporation:  Potential =  0.1562 cm, Actual =  0.0391 cm
Transpiration:  Potential =  2.9682 cm, Actual =  0.0915 cm
RHMEAN = 61.1 %;  TMEAN = 292.6 K;  HDRY =  6.7459E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 120, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12012     0.25050     0.28299
Head (cm)          = 1.51139E+04 1.28028E+03 6.71245E+02
Water Flow (cm)    =-9.23643E-05-2.02822E-02 3.00252E-03
Plant Sink (cm)    = 4.03405E-05 9.33849E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 28.8267+ 0.0000+ 0.0000 - 0.0356- 0.0686-  0.0030 = 28.7195  Versus  28.7301

Mass Balance = -1.0601E-02 cm;  Time step attempts =70464 and successes =70464
  Evaporation:  Potential =  0.1424 cm, Actual =  0.0356 cm
Transpiration:  Potential =  2.7065 cm, Actual =  0.0686 cm
RHMEAN = 60.9 %;  TMEAN = 292.6 K;  HDRY =  6.7937E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 121, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
```

```
Depth (cm)          =    5.00000    50.00000   122.00000
Water (cm3/cm3)     =    0.11933     0.24968     0.28281
Head (cm)           = 1.57532E+04 1.30392E+03 6.73429E+02
Water Flow (cm)     =-9.11965E-05-2.04983E-02 2.98578E-03
Plant Sink (cm)     = 0.00000E+00 1.18829E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.7301+ 0.0000+ 0.0000 - 0.0112- 0.0762-  0.0030 = 28.6397  Versus  28.6466

Mass Balance = -6.8874E-03 cm;  Time step attempts =50313 and successes =50313
  Evaporation:  Potential =  0.1813 cm, Actual =  0.0112 cm
Transpiration:  Potential =  3.4439 cm, Actual =  0.0762 cm
RHMEAN = 66.0 %;  TMEAN = 295.7 K;  HDRY =  5.7002E+05 cm;  DAYUBC =  4998
```

```
DAILY SUMMARY:  Day = 122, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =    5.00000    50.00000   122.00000
Water (cm3/cm3)     =    0.11854     0.24889     0.28255
Head (cm)           = 1.64355E+04 1.32710E+03 6.76708E+02
Water Flow (cm)     =-1.38969E-04-2.05215E-02 2.94725E-03
Plant Sink (cm)     = 0.00000E+00 1.12379E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.6466+ 0.0000+ 0.0000 - 0.0020- 0.0645-  0.0029 = 28.5772  Versus  28.5772

Mass Balance = -4.7684E-05 cm;  Time step attempts =  705 and successes =  705
  Evaporation:  Potential =  0.1714 cm, Actual =  0.0020 cm
Transpiration:  Potential =  3.2570 cm, Actual =  0.0645 cm
RHMEAN = 70.9 %;  TMEAN = 296.2 K;  HDRY =  4.7140E+05 cm;  DAYUBC =   648
```

```
DAILY SUMMARY:  Day = 123, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =    5.00000    50.00000   122.00000
Water (cm3/cm3)     =    0.11780     0.24833     0.28228
Head (cm)           = 1.71072E+04 1.34362E+03 6.80001E+02
Water Flow (cm)     =-1.90803E-04-2.03330E-02 2.90637E-03
Plant Sink (cm)     = 0.00000E+00 8.98678E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.5772+ 0.0000+ 0.0000 - 0.0032- 0.0480-  0.0029 = 28.5232  Versus  28.5233

Mass Balance = -1.2207E-04 cm;  Time step attempts = 1313 and successes = 1313
  Evaporation:  Potential =  0.1371 cm, Actual =  0.0032 cm
Transpiration:  Potential =  2.6046 cm, Actual =  0.0480 cm
RHMEAN = 71.6 %;  TMEAN = 296.2 K;  HDRY =  4.5775E+05 cm;  DAYUBC =  1297
```

```
DAILY SUMMARY:  Day = 124, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12234     0.24793     0.28203
Head (cm)          = 1.35007E+04 1.35578E+03 6.83209E+02
Water Flow (cm)    = 1.90887E-05-1.99899E-02 2.86722E-03
Plant Sink (cm)    = 5.06501E-04 7.30287E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.5233+ 0.2540+ 0.0000 - 0.0278- 0.0396-  0.0029 = 28.7070  Versus  28.7074

Mass Balance = -3.6430E-04 cm;  Time step attempts = 8879 and successes = 8879
  Evaporation:  Potential =  0.1125 cm, Actual =  0.0278 cm
Transpiration:  Potential =  2.1379 cm, Actual =  0.0396 cm
RHMEAN = 73.4 %;  TMEAN = 295.4 K;  HDRY =  4.2426E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 125, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.18582     0.24761     0.28177
Head (cm)          = 1.96085E+03 1.36554E+03 6.86419E+02
Water Flow (cm)    = 5.23324E-02-1.95869E-02 2.82881E-03
Plant Sink (cm)    = 3.98050E-02 6.27843E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.7074+ 0.6304+ 0.0554 - 0.0239- 0.2218-  0.0028 = 29.0892  Versus  29.0897

Mass Balance = -4.9973E-04 cm;  Time step attempts =10612 and successes =10612
  Evaporation:  Potential =  0.0967 cm, Actual =  0.0239 cm
Transpiration:  Potential =  1.8380 cm, Actual =  0.2218 cm
RHMEAN = 79.8 %;  TMEAN = 294.3 K;  HDRY =  3.0910E+05 cm;  DAYUBC =  1185
```

```
DAILY SUMMARY:  Day = 126, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15675     0.24738     0.28150
Head (cm)          = 3.88356E+03 1.37275E+03 6.89817E+02
Water Flow (cm)    = 2.69853E-02-1.91358E-02 2.78875E-03
Plant Sink (cm)    = 3.21181E-02 5.31770E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.0897+ 0.0000+ 0.0000 - 0.0203- 0.1919-  0.0028 = 28.8747  Versus  28.8747

Mass Balance = -5.7220E-06 cm;  Time step attempts = 1119 and successes = 1119
  Evaporation:  Potential =  0.0811 cm, Actual =  0.0203 cm
Transpiration:  Potential =  1.5412 cm, Actual =  0.1919 cm
RHMEAN = 81.0 %;  TMEAN = 293.4 K;  HDRY =  2.8831E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 127, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.13341     0.24683     0.28123
Head (cm)          = 8.31150E+03 1.38993E+03 6.93243E+02
Water Flow (cm)    = 5.23179E-03-1.88665E-02 2.74915E-03
Plant Sink (cm)    = 2.62699E-02 8.46292E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN    NEWSTOR            STORAGE
 28.8747+ 0.0000+ 0.0000 - 0.0323- 0.1838-  0.0027 = 28.6559  Versus  28.6559

Mass Balance = -7.6294E-06 cm;  Time step attempts = 1647 and successes = 1647
  Evaporation:  Potential =  0.1291 cm, Actual =  0.0323 cm
Transpiration:  Potential =  2.4527 cm, Actual =  0.1838 cm
RHMEAN = 68.6 %;  TMEAN = 290.9 K;  HDRY =  5.1573E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 128, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12561     0.24637     0.28096
Head (cm)          = 1.15631E+04 1.40482E+03 6.96694E+02
Water Flow (cm)    = 6.94094E-04-1.87191E-02 2.70997E-03
Plant Sink (cm)    = 9.28154E-03 7.79302E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN    NEWSTOR            STORAGE
 28.6559+ 0.0000+ 0.0000 - 0.0297- 0.0906-  0.0027 = 28.5329  Versus  28.5328

Mass Balance =  1.3351E-05 cm;  Time step attempts = 1152 and successes = 1152
  Evaporation:  Potential =  0.1189 cm, Actual =  0.0297 cm
Transpiration:  Potential =  2.2586 cm, Actual =  0.0906 cm
RHMEAN = 68.3 %;  TMEAN = 290.4 K;  HDRY =  5.2286E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 129, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12190     0.24573     0.28069
Head (cm)          = 1.38008E+04 1.42544E+03 7.00171E+02
Water Flow (cm)    = 1.13803E-04-1.86225E-02 2.67122E-03
Plant Sink (cm)    = 4.21908E-03 9.69867E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS     DRAIN    NEWSTOR            STORAGE
 28.5328+ 0.0000+ 0.0000 - 0.0370- 0.0709-  0.0027 = 28.4223  Versus  28.4223

Mass Balance =  0.0000E+00 cm;  Time step attempts = 1724 and successes = 1724
  Evaporation:  Potential =  0.1479 cm, Actual =  0.0370 cm
```

```
Transpiration:  Potential =  2.8109 cm, Actual =  0.0709 cm
RHMEAN = 71.2 %;  TMEAN = 294.0 K;  HDRY =  4.6601E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 130, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12590     0.24544     0.28043
Head (cm)         = 1.14101E+04 1.43488E+03 7.03560E+02
Water Flow (cm)   = 3.44485E-04-1.84478E-02 2.63410E-03
Plant Sink (cm)   = 3.71578E-03 6.19131E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.4223+ 0.1778+ 0.0000 - 0.0236- 0.0470-  0.0026 = 28.5268  Versus  28.5274

Mass Balance = -5.5122E-04 cm;  Time step attempts = 6126 and successes = 6126
  Evaporation:  Potential =  0.0954 cm, Actual =  0.0236 cm
Transpiration:  Potential =  1.8125 cm, Actual =  0.0470 cm
RHMEAN = 72.5 %;  TMEAN = 295.7 K;  HDRY =  4.4154E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 131, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.22129     0.24537     0.28018
Head (cm)         = 1.03773E+03 1.43711E+03 7.06798E+02
Water Flow (cm)   = 3.33875E-01-1.80486E-02 2.59906E-03
Plant Sink (cm)   = 2.31993E-02 3.64505E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.5274+ 1.0148+ 0.3060 - 0.0139- 0.1677-  0.0026 = 29.3579  Versus  29.3591

Mass Balance = -1.1196E-03 cm;  Time step attempts =15606 and successes =15606
  Evaporation:  Potential =  0.0567 cm, Actual =  0.0139 cm
Transpiration:  Potential =  1.0780 cm, Actual =  0.1677 cm
RHMEAN = 80.4 %;  TMEAN = 294.5 K;  HDRY =  2.9934E+05 cm;  DAYUBC =  2936

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 132, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.16690     0.24480     0.27991
Head (cm)         = 2.98653E+03 1.45632E+03 7.10327E+02
Water Flow (cm)   = 5.40748E-02-1.77995E-02 2.56199E-03
Plant Sink (cm)   = 5.65796E-02 8.88971E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.3591+ 0.0000+ 0.0000 - 0.0339- 0.4412-  0.0026 = 28.8814  Versus  28.8814
```

```
Mass Balance =  1.9073E-05 cm;  Time step attempts = 1792 and successes = 1792
  Evaporation:  Potential =  0.1356 cm, Actual =  0.0339 cm
Transpiration:  Potential =  2.5764 cm, Actual =  0.4412 cm
RHMEAN = 72.2 %;  TMEAN = 294.3 K;  HDRY =  4.4650E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 133, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13948     0.24435     0.27964
Head (cm)         = 6.63476E+03 1.47158E+03 7.13882E+02
Water Flow (cm)   = 3.20528E-03-1.77265E-02 2.52516E-03
Plant Sink (cm)   = 3.29486E-02 7.83589E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 28.8814+ 0.0000+ 0.0000 - 0.0299- 0.2699-  0.0025 = 28.5791  Versus  28.5791

Mass Balance = -7.6294E-06 cm;  Time step attempts = 1402 and successes = 1402
  Evaporation:  Potential =  0.1195 cm, Actual =  0.0299 cm
Transpiration:  Potential =  2.2710 cm, Actual =  0.2699 cm
RHMEAN = 78.8 %;  TMEAN = 294.3 K;  HDRY =  3.2732E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 134, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12554     0.24362     0.27937
Head (cm)         = 1.15992E+04 1.49697E+03 7.17448E+02
Water Flow (cm)   =-3.09099E-04-1.77215E-02 2.48882E-03
Plant Sink (cm)   = 1.62866E-02 1.10014E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 28.5791+ 0.0000+ 0.0000 - 0.0420- 0.1798-  0.0025 = 28.3549  Versus  28.3549

Mass Balance = -3.8147E-06 cm;  Time step attempts = 2070 and successes = 2070
  Evaporation:  Potential =  0.1678 cm, Actual =  0.0420 cm
Transpiration:  Potential =  3.1884 cm, Actual =  0.1798 cm
RHMEAN = 70.4 %;  TMEAN = 297.3 K;  HDRY =  4.8077E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 135, Simulated Time = 24.0000 hr
-------------
Node Number       =      2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12128     0.24270     0.27911
Head (cm)         = 1.42381E+04 1.52951E+03 7.21021E+02
Water Flow (cm)   =-2.51828E-04-1.78875E-02 2.45308E-03
Plant Sink (cm)   = 4.86085E-03 1.34094E-03 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.3549+ 0.0000+ 0.0000 - 0.0511- 0.1052-  0.0025 = 28.1961  Versus  28.1961

Mass Balance =  5.7220E-06 cm;  Time step attempts = 2541 and successes = 2541
  Evaporation:  Potential =  0.2045 cm, Actual =  0.0511 cm
Transpiration:  Potential =  3.8863 cm, Actual =  0.1052 cm
RHMEAN = 65.2 %;  TMEAN = 297.9 K;  HDRY =  5.8719E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 136, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.12059     0.24234     0.27884
Head (cm)          = 1.47499E+04 1.54258E+03 7.24598E+02
Water Flow (cm)    =-1.23458E-04-1.78410E-02 2.41792E-03
Plant Sink (cm)    = 7.16015E-04 8.15605E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.1961+ 0.0000+ 0.0000 - 0.0311- 0.0425-  0.0024 = 28.1200  Versus  28.1200

Mass Balance =  1.1444E-05 cm;  Time step attempts = 4277 and successes = 4277
  Evaporation:  Potential =  0.1244 cm, Actual =  0.0311 cm
Transpiration:  Potential =  2.3638 cm, Actual =  0.0425 cm
RHMEAN = 74.4 %;  TMEAN = 298.2 K;  HDRY =  4.0602E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 137, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.20129     0.24211     0.27859
Head (cm)          = 1.45762E+03 1.55099E+03 7.27960E+02
Water Flow (cm)    = 1.29784E-01-1.75529E-02 2.38552E-03
Plant Sink (cm)    = 4.17816E-02 6.56467E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.1200+ 0.9580+ 0.2104 - 0.0250- 0.2485-  0.0024 = 28.8021  Versus  28.8030

Mass Balance = -9.8610E-04 cm;  Time step attempts =12682 and successes =12682
  Evaporation:  Potential =  0.1022 cm, Actual =  0.0250 cm
Transpiration:  Potential =  1.9414 cm, Actual =  0.2485 cm
RHMEAN = 83.4 %;  TMEAN = 297.0 K;  HDRY =  2.4906E+05 cm;  DAYUBC =  2545

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 138, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.24897     0.24180     0.27835
```

```
Head (cm)          = 6.83441E+02 1.56242E+03 7.31241E+02
Water Flow (cm)    = 1.14417E+00-1.72964E-02 2.35419E-03
Plant Sink (cm)    = 4.60345E-02 7.23288E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 28.8030+ 1.6896+ 0.1392 - 0.0276- 0.4221-  0.0024 = 30.0406  Versus  30.0421

Mass Balance = -1.4992E-03 cm;  Time step attempts =18261 and successes =18261
  Evaporation:  Potential =  0.1126 cm, Actual =  0.0276 cm
Transpiration:  Potential =  2.1390 cm, Actual =  0.4221 cm
RHMEAN = 77.3 %;  TMEAN = 296.2 K;  HDRY =  3.5370E+05 cm;  DAYUBC =  1104
```

```
DAILY SUMMARY:  Day = 139, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.22275     0.24171     0.27809
Head (cm)          = 1.01391E+03 1.56594E+03 7.34758E+02
Water Flow (cm)    = 9.62292E-02-1.69811E-02 2.32182E-03
Plant Sink (cm)    = 3.20024E-02 5.02818E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 30.0421+ 0.0762+ 0.0000 - 0.0192- 0.3138-  0.0023 = 29.7830  Versus  29.7834

Mass Balance = -4.1771E-04 cm;  Time step attempts = 6946 and successes = 6946
  Evaporation:  Potential =  0.0775 cm, Actual =  0.0192 cm
Transpiration:  Potential =  1.4720 cm, Actual =  0.3138 cm
RHMEAN = 84.8 %;  TMEAN = 294.8 K;  HDRY =  2.2653E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 140, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26453     0.24160     0.27784
Head (cm)          = 5.49211E+02 1.56972E+03 7.38261E+02
Water Flow (cm)    = 8.23959E-01-1.66164E-02 2.28970E-03
Plant Sink (cm)    = 3.06736E-02 4.81938E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS     DRAIN   NEWSTOR           STORAGE
 29.7834+ 1.2661+ 0.0039 - 0.0184- 0.3084-  0.0023 = 30.7204  Versus  30.7209

Mass Balance = -4.5395E-04 cm;  Time step attempts = 8383 and successes = 8383
  Evaporation:  Potential =  0.0750 cm, Actual =  0.0184 cm
Transpiration:  Potential =  1.4253 cm, Actual =  0.3084 cm
RHMEAN = 83.2 %;  TMEAN = 295.9 K;  HDRY =  2.5128E+05 cm;  DAYUBC =   202
```

```
DAILY SUMMARY:  Day = 141, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24959     0.24143     0.27758
Head (cm)          = 6.77408E+02 1.57625E+03 7.41768E+02
Water Flow (cm)    = 1.84426E-01-1.63199E-02 2.25821E-03
Plant Sink (cm)    = 3.41552E-02 5.36641E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.7209+ 0.2540+ 0.0000 - 0.0205- 0.3581-  0.0023 = 30.5940  Versus  30.5945

Mass Balance = -4.4250E-04 cm;  Time step attempts = 6348 and successes = 6348
  Evaporation:  Potential =  0.0827 cm, Actual =  0.0205 cm
Transpiration:  Potential =  1.5710 cm, Actual =  0.3581 cm
RHMEAN = 73.2 %;  TMEAN = 287.9 K;  HDRY =  4.2667E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 142, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.19828     0.24074     0.27732
Head (cm)          = 1.54012E+03 1.60235E+03 7.45390E+02
Water Flow (cm)    =-1.18597E-02-1.62689E-02 2.22626E-03
Plant Sink (cm)    = 6.84391E-02 1.07531E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.5945+ 0.0000+ 0.0000 - 0.0410- 0.7215-  0.0022 = 29.8297  Versus  29.8297

Mass Balance =  1.9073E-06 cm;  Time step attempts = 1445 and successes = 1445
  Evaporation:  Potential =  0.1640 cm, Actual =  0.0410 cm
Transpiration:  Potential =  3.1165 cm, Actual =  0.7215 cm
RHMEAN = 58.4 %;  TMEAN = 289.3 K;  HDRY =  7.3747E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 143, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15515     0.24014     0.27707
Head (cm)          = 4.05986E+03 1.62575E+03 7.48892E+02
Water Flow (cm)    =-1.47964E-02-1.63610E-02 2.19586E-03
Plant Sink (cm)    = 6.19232E-02 1.02710E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.8297+ 0.0508+ 0.0000 - 0.0392- 0.6765-  0.0022 = 29.1627  Versus  29.1632

Mass Balance = -5.1880E-04 cm;  Time step attempts = 6313 and successes = 6313
  Evaporation:  Potential =  0.1583 cm, Actual =  0.0392 cm
Transpiration:  Potential =  3.0068 cm, Actual =  0.6765 cm
RHMEAN = 59.4 %;  TMEAN = 291.8 K;  HDRY =  7.1289E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 144, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13286     0.23965     0.27681
Head (cm)         = 8.49334E+03 1.64532E+03 7.52507E+02
Water Flow (cm)   =-7.64325E-03-1.63441E-02 2.16511E-03
Plant Sink (cm)   = 2.89410E-02 9.55695E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 29.1632+ 0.0000+ 0.0000 - 0.0364- 0.4589-  0.0022 = 28.6658  Versus  28.6658

Mass Balance = -1.1444E-05 cm;  Time step attempts = 1901 and successes = 1901
  Evaporation:  Potential =  0.1458 cm, Actual =  0.0364 cm
Transpiration:  Potential =  2.7698 cm, Actual =  0.4589 cm
RHMEAN = 55.8 %;  TMEAN = 288.2 K;  HDRY =  7.9910E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 145, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12553     0.23930     0.27656
Head (cm)         = 1.16030E+04 1.65942E+03 7.56133E+02
Water Flow (cm)   =-2.22581E-03-1.62255E-02 2.13485E-03
Plant Sink (cm)   = 9.58080E-03 8.24119E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 28.6658+ 0.0000+ 0.0000 - 0.0314- 0.2463-  0.0021 = 28.3859  Versus  28.3859

Mass Balance = -5.7220E-06 cm;  Time step attempts = 1236 and successes = 1236
  Evaporation:  Potential =  0.1257 cm, Actual =  0.0314 cm
Transpiration:  Potential =  2.3885 cm, Actual =  0.2463 cm
RHMEAN = 62.8 %;  TMEAN = 288.7 K;  HDRY =  6.3737E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 146, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12242     0.23896     0.27630
Head (cm)         = 1.34484E+04 1.67305E+03 7.59757E+02
Water Flow (cm)   =-9.16299E-04-1.60588E-02 2.10511E-03
Plant Sink (cm)   = 3.92533E-03 8.11071E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR           STORAGE
 28.3859+ 0.0000+ 0.0000 - 0.0309- 0.1603-  0.0021 = 28.1926  Versus  28.1926

Mass Balance = -5.7220E-06 cm;  Time step attempts = 1148 and successes = 1148
  Evaporation:  Potential =  0.1237 cm, Actual =  0.0309 cm
Transpiration:  Potential =  2.3507 cm, Actual =  0.1603 cm
RHMEAN = 69.4 %;  TMEAN = 291.2 K;  HDRY =  5.0032E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 147, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26424     0.23868     0.27608
Head (cm)          = 5.51444E+02 1.68447E+03 7.62971E+02
Water Flow (cm)    = 1.55297E+00-1.59145E-02 2.07893E-03
Plant Sink (cm)    = 4.68656E-02 7.36346E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.1926+ 2.7651+ 0.9687 - 0.0281- 0.4773-  0.0021 = 30.4503  Versus  30.4520

Mass Balance = -1.7757E-03 cm;  Time step attempts =19508 and successes =19508
  Evaporation:  Potential =  0.1170 cm, Actual =  0.0281 cm
Transpiration:  Potential =  2.2230 cm, Actual =  0.4773 cm
RHMEAN = 73.7 %;  TMEAN = 295.7 K;  HDRY =  4.1877E+05 cm;  DAYUBC =  8760
```

```
DAILY SUMMARY:  Day = 148, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.21459     0.23820     0.27583
Head (cm)          = 1.15767E+03 1.70452E+03 7.66598E+02
Water Flow (cm)    = 2.46126E-02-1.58005E-02 2.05043E-03
Plant Sink (cm)    = 6.16804E-02 9.69113E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.4520+ 0.0000+ 0.0000 - 0.0370- 0.6471-  0.0021 = 29.7659  Versus  29.7659

Mass Balance = -3.8147E-06 cm;  Time step attempts =   983 and successes =   983
  Evaporation:  Potential =  0.1478 cm, Actual =  0.0370 cm
Transpiration:  Potential =  2.8087 cm, Actual =  0.6471 cm
RHMEAN = 74.2 %;  TMEAN = 295.7 K;  HDRY =  4.0968E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 149, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.31585     0.23857     0.27558
Head (cm)          = 2.70346E+02 1.68920E+03 7.70120E+02
Water Flow (cm)    = 1.80444E+00-1.54582E-02 2.02289E-03
Plant Sink (cm)    = 5.68178E-03 8.92712E-05 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.7659+ 2.5270+ 0.4956 - 0.0034- 0.0607-  0.0020 = 32.2269  Versus  32.2274
```

```
Mass Balance = -5.5695E-04 cm;  Time step attempts = 7882 and successes = 7882

  Evaporation:  Potential =  0.0142 cm, Actual =  0.0034 cm
Transpiration:  Potential =  0.2695 cm, Actual =  0.0607 cm
RHMEAN = 91.3 %;  TMEAN = 293.7 K;  HDRY =  1.2484E+05 cm;  DAYUBC =   952

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 150, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.34348     0.23869     0.27534
Head (cm)         = 1.75014E+02 1.68436E+03 7.73598E+02
Water Flow (cm)   = 1.82110E+00-1.49667E-02 1.99622E-03
Plant Sink (cm)   = 1.75292E-02 2.75526E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.2274+ 2.1021+ 1.6317 - 0.0105- 0.1957-  0.0020 = 34.1213  Versus  34.1220

Mass Balance = -6.7902E-04 cm;  Time step attempts =10706 and successes =10706
  Evaporation:  Potential =  0.0438 cm, Actual =  0.0105 cm
Transpiration:  Potential =  0.8318 cm, Actual =  0.1957 cm
RHMEAN = 88.9 %;  TMEAN = 293.4 K;  HDRY =  1.6116E+05 cm;  DAYUBC =  1308

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 151, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.32204     0.23895     0.27510
Head (cm)         = 2.46822E+02 1.67362E+03 7.77212E+02
Water Flow (cm)   = 1.01118E-01-1.45491E-02 1.96914E-03
Plant Sink (cm)   = 9.51504E-03 1.49499E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.1220+ 0.0000+ 0.0000 - 0.0057- 0.1080-  0.0020 = 34.0064  Versus  34.0064

Mass Balance =  7.6294E-06 cm;  Time step attempts = 1182 and successes = 1182
  Evaporation:  Potential =  0.0228 cm, Actual =  0.0057 cm
Transpiration:  Potential =  0.4333 cm, Actual =  0.1080 cm
RHMEAN = 86.8 %;  TMEAN = 290.1 K;  HDRY =  1.9340E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 152, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.28680     0.23960     0.27485
Head (cm)         = 4.05108E+02 1.64710E+03 7.80828E+02
Water Flow (cm)   =-2.17974E-02-1.40720E-02 1.94243E-03
Plant Sink (cm)   = 5.25827E-02 8.26172E-04 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 34.0064+ 0.0000+ 0.0000 - 0.0315- 0.5986-  0.0019 = 33.3743  Versus  33.3743

Mass Balance =  3.8147E-06 cm;  Time step attempts =  479 and successes =  479
  Evaporation:  Potential =  0.1260 cm, Actual =  0.0315 cm
Transpiration:  Potential =  2.3944 cm, Actual =  0.5986 cm
RHMEAN = 79.2 %;  TMEAN = 291.8 K;  HDRY =  3.2004E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 153, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24095     0.24207     0.27461
Head (cm)          = 7.67841E+02 1.55231E+03 7.84441E+02
Water Flow (cm)    =-7.74820E-02-1.26359E-02 1.91619E-03
Plant Sink (cm)    = 7.76867E-02 1.22060E-03 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 33.3743+ 0.0000+ 0.0000 - 0.0465- 0.8844-  0.0019 = 32.4414  Versus  32.4415

Mass Balance = -2.2888E-05 cm;  Time step attempts =  176 and successes =  176
  Evaporation:  Potential =  0.1862 cm, Actual =  0.0465 cm
Transpiration:  Potential =  3.5376 cm, Actual =  0.8844 cm
RHMEAN = 59.7 %;  TMEAN = 295.9 K;  HDRY =  7.0789E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 154, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.20651     0.24554     0.27437
Head (cm)          = 1.32861E+03 1.43177E+03 7.88051E+02
Water Flow (cm)    =-7.08753E-02-9.94239E-03 1.89042E-03
Plant Sink (cm)    = 5.88160E-02 9.24109E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.4415+ 0.0000+ 0.0000 - 0.0352- 0.6696-  0.0019 = 31.7348  Versus  31.7348

Mass Balance = -3.8147E-06 cm;  Time step attempts =  312 and successes =  312
  Evaporation:  Potential =  0.1410 cm, Actual =  0.0352 cm
Transpiration:  Potential =  2.6783 cm, Actual =  0.6696 cm
RHMEAN = 73.7 %;  TMEAN = 298.4 K;  HDRY =  4.1847E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 155, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15162     0.24803     0.27412
```

```
Head (cm)          = 4.49296E+03 1.35276E+03 7.91657E+02
Water Flow (cm)    =-4.39184E-02-7.23686E-03 1.86514E-03
Plant Sink (cm)    = 7.17049E-02 1.21949E-03 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.7348+ 0.0000+ 0.0000 - 0.0465- 0.8570-  0.0019 = 30.8294  Versus  30.8294

Mass Balance = -3.8147E-06 cm;  Time step attempts = 1463 and successes = 1463
  Evaporation:  Potential =  0.1860 cm, Actual =  0.0465 cm
Transpiration:  Potential =  3.5344 cm, Actual =  0.8570 cm
RHMEAN = 71.2 %;  TMEAN = 301.2 K;  HDRY =  4.6613E+05 cm;  DAYUBC =     0

-----------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 156, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.13191     0.24976     0.27389
Head (cm)          = 8.82266E+03 1.30157E+03 7.95259E+02
Water Flow (cm)    =-1.59931E-02-5.44958E-03 1.84031E-03
Plant Sink (cm)    = 2.72473E-02 9.77967E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.8294+ 0.0000+ 0.0000 - 0.0373- 0.5310-  0.0018 = 30.2593  Versus  30.2593

Mass Balance =  3.8147E-06 cm;  Time step attempts = 1802 and successes = 1802
  Evaporation:  Potential =  0.1492 cm, Actual =  0.0373 cm
Transpiration:  Potential =  2.8344 cm, Actual =  0.5310 cm
RHMEAN = 74.4 %;  TMEAN = 299.8 K;  HDRY =  4.0507E+05 cm;  DAYUBC =     0

-----------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 157, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12427     0.25062     0.27365
Head (cm)          = 1.23014E+04 1.27690E+03 7.98857E+02
Water Flow (cm)    =-4.05661E-03-4.57418E-03 1.81595E-03
Plant Sink (cm)    = 9.86169E-03 9.90038E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.2593+ 0.0000+ 0.0000 - 0.0378- 0.3897-  0.0018 = 29.8300  Versus  29.8301

Mass Balance = -3.4332E-05 cm;  Time step attempts = 1459 and successes = 1459
  Evaporation:  Potential =  0.1510 cm, Actual =  0.0378 cm
Transpiration:  Potential =  2.8693 cm, Actual =  0.3897 cm
RHMEAN = 72.6 %;  TMEAN = 298.7 K;  HDRY =  4.3979E+05 cm;  DAYUBC =     0

-----------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 158, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12152     0.25084     0.27341
Head (cm)          = 1.40673E+04 1.27091E+03 8.02447E+02
Water Flow (cm)    =-1.31590E-03-4.55011E-03 1.79204E-03
Plant Sink (cm)    = 3.37427E-03 1.01465E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.8301+ 0.0000+ 0.0000 - 0.0387- 0.2995-  0.0018 = 29.4901  Versus  29.4902

Mass Balance = -4.3869E-05 cm;  Time step attempts = 2164 and successes = 2164
  Evaporation:  Potential =  0.1548 cm, Actual =  0.0387 cm
Transpiration:  Potential =  2.9407 cm, Actual =  0.2995 cm
RHMEAN = 74.2 %;  TMEAN = 298.7 K;  HDRY =  4.0867E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 159, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12557     0.25085     0.27318
Head (cm)          = 1.15807E+04 1.27062E+03 8.05943E+02
Water Flow (cm)    =-2.22116E-04-4.93569E-03 1.76911E-03
Plant Sink (cm)    = 4.56633E-03 7.91413E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.4902+ 0.2032+ 0.0000 - 0.0302- 0.2051-  0.0018 = 29.4563  Versus  29.4565

Mass Balance = -1.4687E-04 cm;  Time step attempts = 4537 and successes = 4537
  Evaporation:  Potential =  0.1219 cm, Actual =  0.0302 cm
Transpiration:  Potential =  2.3169 cm, Actual =  0.2051 cm
RHMEAN = 78.7 %;  TMEAN = 298.7 K;  HDRY =  3.2909E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 160, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000

Water (cm3/cm3)    =     0.12385     0.25053     0.27295
Head (cm)          = 1.25492E+04 1.27959E+03 8.09510E+02
Water Flow (cm)    = 1.89349E-04-5.52817E-03 1.74616E-03
Plant Sink (cm)    = 5.38394E-03 8.54601E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.4565+ 0.0000+ 0.0000 - 0.0326- 0.1977-  0.0017 = 29.2244  Versus  29.2244

Mass Balance =  7.6294E-06 cm;  Time step attempts =  964 and successes =  964
  Evaporation:  Potential =  0.1304 cm, Actual =  0.0326 cm
Transpiration:  Potential =  2.4768 cm, Actual =  0.1977 cm
RHMEAN = 76.5 %;  TMEAN = 299.0 K;  HDRY =  3.6799E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 161, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12195     0.24995     0.27272
Head (cm)          = 1.37666E+04 1.29597E+03 8.13063E+02
Water Flow (cm)    = 1.03735E-04-6.33494E-03 1.72364E-03
Plant Sink (cm)    = 3.29641E-03 9.28428E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.2244+ 0.0000+ 0.0000 - 0.0354- 0.1785-  0.0017 = 29.0088  Versus  29.0088

Mass Balance =  1.9073E-05 cm;  Time step attempts =  886 and successes =  886
  Evaporation:  Potential =  0.1416 cm, Actual =  0.0354 cm
Transpiration:  Potential =  2.6908 cm, Actual =  0.1785 cm
RHMEAN = 76.9 %;  TMEAN = 299.0 K;  HDRY =  3.5917E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 162, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12072     0.24903     0.27250
Head (cm)          = 1.46481E+04 1.32290E+03 8.16598E+02
Water Flow (cm)    = 1.90131E-05-7.33898E-03 1.70160E-03
Plant Sink (cm)    = 1.59190E-03 1.16102E-03 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.0088+ 0.0000+ 0.0000 - 0.0443- 0.1840-  0.0017 = 28.7788  Versus  28.7789

Mass Balance = -2.8610E-05 cm;  Time step attempts = 2703 and successes = 2703
  Evaporation:  Potential =  0.1771 cm, Actual =  0.0443 cm
Transpiration:  Potential =  3.3649 cm, Actual =  0.1840 cm
RHMEAN = 71.5 %;  TMEAN = 299.5 K;  HDRY =  4.5902E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 163, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12026     0.24773     0.27230
Head (cm)          = 1.50024E+04 1.36194E+03 8.19719E+02
Water Flow (cm)    =-1.37723E-05-8.58222E-03 1.68108E-03
Plant Sink (cm)    = 3.90546E-04 1.46709E-03 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.7789+ 0.0000+ 0.0000 - 0.0559- 0.1912-  0.0017 = 28.5300  Versus  28.5319

Mass Balance = -1.8864E-03 cm;  Time step attempts =17621 and successes =17621
  Evaporation:  Potential =  0.2238 cm, Actual =  0.0559 cm
Transpiration:  Potential =  4.2519 cm, Actual =  0.1912 cm
```

```
RHMEAN = 68.5 %;  TMEAN = 300.1 K;  HDRY =  5.1897E+05 cm;  DAYUBC =     0
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 164, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.11982     0.24651     0.27214
Head (cm)          = 1.53496E+04 1.40020E+03 8.22193E+02
Water Flow (cm)    =-2.92815E-05-9.81524E-03 1.66461E-03
Plant Sink (cm)    = 0.00000E+00 1.33857E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.5319+ 0.0000+ 0.0000 - 0.0356- 0.1480-  0.0017 = 28.3467  Versus  28.3501

Mass Balance = -3.3817E-03 cm;  Time step attempts =53737 and successes =53737
  Evaporation:  Potential =  0.2042 cm, Actual =  0.0356 cm
Transpiration:  Potential =  3.8795 cm, Actual =  0.1480 cm
RHMEAN = 72.3 %;  TMEAN = 301.2 K;  HDRY =  4.4425E+05 cm;  DAYUBC =  5044
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 165, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.22917     0.24610     0.27195
Head (cm)          = 9.16802E+02 1.41339E+03 8.25222E+02
Water Flow (cm)    = 5.13646E-01-1.03974E-02 1.64906E-03
Plant Sink (cm)    = 3.45846E-02 5.43388E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.3501+ 1.5530+ 0.7075 - 0.0207- 0.2918-  0.0016 = 29.5889  Versus  29.5901

Mass Balance = -1.1787E-03 cm;  Time step attempts =19266 and successes =19266
  Evaporation:  Potential =  0.0855 cm, Actual =  0.0207 cm
Transpiration:  Potential =  1.6236 cm, Actual =  0.2918 cm
RHMEAN = 81.4 %;  TMEAN = 298.4 K;  HDRY =  2.8139E+05 cm;  DAYUBC =  4383
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 166, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =    5.00000    50.00000   122.00000
Water (cm3/cm3)    =    0.17344     0.24526     0.27174
Head (cm)          = 2.55971E+03 1.44096E+03 8.28522E+02
Water Flow (cm)    = 6.09155E-02-1.06895E-02 1.62974E-03
Plant Sink (cm)    = 6.18528E-02 9.71822E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.5901+ 0.0254+ 0.0000 - 0.0371- 0.5777-  0.0016 = 28.9992  Versus  28.9994
```

```
Mass Balance = -2.5940E-04 cm;  Time step attempts = 6303 and successes = 6303
  Evaporation:  Potential =  0.1497 cm, Actual =  0.0371 cm
Transpiration:  Potential =  2.8450 cm, Actual =  0.5777 cm
RHMEAN = 64.5 %;  TMEAN = 297.0 K;  HDRY =  6.0028E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 167, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13242     0.24414     0.27153
Head (cm)         = 8.64529E+03 1.47874E+03 8.31904E+02
Water Flow (cm)   = 2.69132E-03-1.12694E-02 1.61008E-03
Plant Sink (cm)   = 4.69275E-02 1.26293E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.9994+ 0.0000+ 0.0000 - 0.0482- 0.4892-  0.0016 = 28.4604  Versus  28.4604

Mass Balance = -1.9073E-06 cm;  Time step attempts = 2715 and successes = 2715
  Evaporation:  Potential =  0.1926 cm, Actual =  0.0482 cm
Transpiration:  Potential =  3.6603 cm, Actual =  0.4892 cm
RHMEAN = 60.9 %;  TMEAN = 297.6 K;  HDRY =  6.8006E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 168, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12360     0.24315     0.27132
Head (cm)         = 1.27009E+04 1.51326E+03 8.35249E+02
Water Flow (cm)   =-6.32383E-04-1.18224E-02 1.59094E-03
Plant Sink (cm)   = 1.08808E-02 1.15515E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.4604+ 0.0000+ 0.0000 - 0.0441- 0.2042-  0.0016 = 28.2106  Versus  28.2106

Mass Balance =  5.7220E-06 cm;  Time step attempts = 1769 and successes = 1769
  Evaporation:  Potential =  0.1762 cm, Actual =  0.0441 cm
Transpiration:  Potential =  3.3479 cm, Actual =  0.2042 cm
RHMEAN = 61.0 %;  TMEAN = 298.2 K;  HDRY =  6.7703E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 169, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12089     0.24199     0.27111
Head (cm)         = 1.45195E+04 1.55559E+03 8.38554E+02
Water Flow (cm)   =-2.41943E-04-1.23200E-02 1.57230E-03
Plant Sink (cm)   = 3.16828E-03 1.36851E-03 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.2106+ 0.0000+ 0.0000 - 0.0522- 0.1452-  0.0016 = 28.0116  Versus  28.0116

Mass Balance = -2.8610E-05 cm;  Time step attempts = 3014 and successes = 3014
  Evaporation:  Potential =  0.2087 cm, Actual =  0.0522 cm
Transpiration:  Potential =  3.9662 cm, Actual =  0.1452 cm
RHMEAN = 62.7 %;  TMEAN = 299.0 K;  HDRY =  6.4076E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 170, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12033     0.24103     0.27093
Head (cm)          = 1.49441E+04 1.59134E+03 8.41462E+02
Water Flow (cm)    =-9.97140E-05-1.27311E-02 1.55496E-03
Plant Sink (cm)    = 5.09413E-04 1.18743E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.0116+ 0.0000+ 0.0000 - 0.0453- 0.0925-  0.0016 = 27.8723  Versus  27.8736

Mass Balance = -1.2512E-03 cm;  Time step attempts =12085 and successes =12085
  Evaporation:  Potential =  0.1811 cm, Actual =  0.0453 cm
Transpiration:  Potential =  3.4414 cm, Actual =  0.0925 cm
RHMEAN = 66.8 %;  TMEAN = 299.5 K;  HDRY =  5.5254E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 171, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12027     0.24055     0.27075
Head (cm)          = 1.49898E+04 1.60990E+03 8.44464E+02
Water Flow (cm)    =-5.13245E-05-1.28435E-02 1.53961E-03
Plant Sink (cm)    = 6.26386E-05 7.15551E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.8736+ 0.0508+ 0.0000 - 0.0273- 0.0486-  0.0015 = 27.8470  Versus  27.8475

Mass Balance = -5.3787E-04 cm;  Time step attempts =13233 and successes =13233
  Evaporation:  Potential =  0.1103 cm, Actual =  0.0273 cm
Transpiration:  Potential =  2.0948 cm, Actual =  0.0486 cm
RHMEAN = 77.6 %;  TMEAN = 298.2 K;  HDRY =  3.4825E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 172, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12993     0.24024     0.27056
Head (cm)          = 9.56816E+03 1.62193E+03 8.47545E+02
```

```
Water Flow (cm)     = 6.86512E-04-1.26980E-02 1.52299E-03
Plant Sink (cm)     = 4.69805E-03 5.37371E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.8475+ 0.2794+ 0.0000 - 0.0205- 0.0555-  0.0015 = 28.0494  Versus  28.0497

Mass Balance = -3.0327E-04 cm;  Time step attempts = 6986 and successes = 6986
  Evaporation:  Potential =  0.0828 cm, Actual =  0.0205 cm
Transpiration:  Potential =  1.5731 cm, Actual =  0.0555 cm
RHMEAN = 81.8 %;  TMEAN = 294.8 K;  HDRY =  2.7607E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 173, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12634     0.23962     0.27037
Head (cm)           = 1.11854E+04 1.64656E+03 8.50702E+02
Water Flow (cm)     = 1.03727E-03-1.26343E-02 1.50617E-03
Plant Sink (cm)     = 9.50152E-03 8.58296E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.0497+ 0.0000+ 0.0000 - 0.0327- 0.0953-  0.0015 = 27.9202  Versus  27.9202

Mass Balance = -1.3351E-05 cm;  Time step attempts = 1342 and successes = 1342
  Evaporation:  Potential =  0.1309 cm, Actual =  0.0327 cm
Transpiration:  Potential =  2.4875 cm, Actual =  0.0953 cm
RHMEAN = 68.0 %;  TMEAN = 294.5 K;  HDRY =  5.2865E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 174, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12279     0.23887     0.27018
Head (cm)           = 1.32095E+04 1.67669E+03 8.53833E+02
Water Flow (cm)     = 4.59365E-04-1.27386E-02 1.48976E-03
Plant Sink (cm)     = 5.65882E-03 1.00185E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.9202+ 0.0000+ 0.0000 - 0.0382- 0.0829-  0.0015 = 27.7976  Versus  27.7976

Mass Balance = -5.7220E-06 cm;  Time step attempts =  982 and successes =  982
  Evaporation:  Potential =  0.1528 cm, Actual =  0.0382 cm
Transpiration:  Potential =  2.9036 cm, Actual =  0.0829 cm
RHMEAN = 67.3 %;  TMEAN = 296.5 K;  HDRY =  5.4331E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 175, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12108     0.23808     0.26999
Head (cm)          = 1.43820E+04 1.70976E+03 8.56939E+02
Water Flow (cm)    = 1.51531E-04-1.28871E-02 1.47370E-03
Plant Sink (cm)    = 2.33440E-03 1.08437E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.7976+ 0.0000+ 0.0000 - 0.0414- 0.0679-  0.0015 = 27.6868  Versus  27.6868

Mass Balance =  1.9073E-06 cm;  Time step attempts = 1676 and successes = 1676
  Evaporation:  Potential =  0.1654 cm, Actual =  0.0414 cm
Transpiration:  Potential =  3.1427 cm, Actual =  0.0679 cm
RHMEAN = 66.7 %;  TMEAN = 297.9 K;  HDRY =  5.5541E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 176, Simulated Time = 24.0000 hr
-------------

Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12043     0.23730     0.26981
Head (cm)          = 1.48681E+04 1.74278E+03 8.59994E+02
Water Flow (cm)    = 3.90895E-05-1.30223E-02 1.45806E-03
Plant Sink (cm)    = 6.93191E-04 1.09519E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.6868+ 0.0000+ 0.0000 - 0.0418- 0.0567-  0.0015 = 27.5869  Versus  27.5869

Mass Balance = -5.5313E-05 cm;  Time step attempts = 4913 and successes = 4913
  Evaporation:  Potential =  0.1671 cm, Actual =  0.0418 cm
Transpiration:  Potential =  3.1741 cm, Actual =  0.0567 cm
RHMEAN = 66.7 %;  TMEAN = 297.9 K;  HDRY =  5.5541E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 177, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12021     0.23667     0.26966
Head (cm)          = 1.50390E+04 1.77034E+03 8.62500E+02
Water Flow (cm)    = 1.93401E-06-1.30965E-02 1.44395E-03
Plant Sink (cm)    = 8.11823E-05 9.79760E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.5869+ 0.0000+ 0.0000 - 0.0374- 0.0452-  0.0014 = 27.5029  Versus  27.5052

Mass Balance = -2.2869E-03 cm;  Time step attempts =19154 and successes =19154
  Evaporation:  Potential =  0.1495 cm, Actual =  0.0374 cm
Transpiration:  Potential =  2.8396 cm, Actual =  0.0452 cm
RHMEAN = 70.6 %;  TMEAN = 297.3 K;  HDRY =  4.7625E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 178, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11975     0.23603     0.26954
Head (cm)          = 1.54061E+04 1.79909E+03 8.64480E+02
Water Flow (cm)    =-2.24956E-05-1.31830E-02 1.43323E-03
Plant Sink (cm)    = 0.00000E+00 9.82117E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.5052+ 0.0000+ 0.0000 - 0.0303- 0.0426-  0.0014 = 27.4309  Versus  27.4363

Mass Balance = -5.4379E-03 cm;  Time step attempts =64204 and successes =64204
  Evaporation:  Potential =  0.1498 cm, Actual =  0.0303 cm
Transpiration:  Potential =  2.8464 cm, Actual =  0.0426 cm
RHMEAN = 70.7 %;  TMEAN = 298.7 K;  HDRY =  4.7547E+05 cm;  DAYUBC =  4577

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 179, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.27091     0.23610     0.26940
Head (cm)          = 5.03087E+02 1.79594E+03 8.66821E+02
Water Flow (cm)    = 1.46899E+00-1.30602E-02 1.42358E-03
Plant Sink (cm)    = 1.72985E-02 2.71791E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.4363+ 2.7014+ 1.1086 - 0.0104- 0.1615-  0.0014 = 29.9644  Versus  29.9665

Mass Balance = -2.0485E-03 cm;  Time step attempts =29956 and successes =29956
  Evaporation:  Potential =  0.0432 cm, Actual =  0.0104 cm
Transpiration:  Potential =  0.8205 cm, Actual =  0.1615 cm
RHMEAN = 85.7 %;  TMEAN = 295.4 K;  HDRY =  2.1212E+05 cm;  DAYUBC =  9502

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 180, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.27622     0.23566     0.26923
Head (cm)          = 4.67850E+02 1.81588E+03 8.69731E+02
Water Flow (cm)    = 8.76874E-01-1.28159E-02 1.40994E-03
Plant Sink (cm)    = 5.05350E-02 7.93997E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.9665+ 1.1674+ 0.0010 - 0.0303- 0.5238-  0.0014 = 30.5784  Versus  30.5789

Mass Balance = -5.1498E-04 cm;  Time step attempts =10334 and successes =10334
  Evaporation:  Potential =  0.1236 cm, Actual =  0.0303 cm
Transpiration:  Potential =  2.3481 cm, Actual =  0.5238 cm
```

```
RHMEAN = 79.5 %;  TMEAN = 297.3 K;  HDRY =  3.1495E+05 cm;  DAYUBC =    41

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 181, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24001     0.23531     0.26905
Head (cm)          = 7.78475E+02 1.83220E+03 8.72762E+02
Water Flow (cm)    = 1.77548E-02-1.27183E-02 1.39542E-03
Plant Sink (cm)    = 4.59592E-02 7.22103E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.5789+ 0.0000+ 0.0000 - 0.0275- 0.4884-  0.0014 = 30.0615  Versus  30.0615

Mass Balance =  3.8147E-06 cm;  Time step attempts = 2222 and successes = 2222
  Evaporation:  Potential =  0.1101 cm, Actual =  0.0275 cm
Transpiration:  Potential =  2.0928 cm, Actual =  0.4884 cm
RHMEAN = 79.4 %;  TMEAN = 298.4 K;  HDRY =  3.1659E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 182, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.20157     0.23482     0.26887
Head (cm)          = 1.45043E+03 1.85493E+03 8.75783E+02
Water Flow (cm)    =-2.60862E-02-1.26430E-02 1.38110E-03
Plant Sink (cm)    = 5.48760E-02 8.62202E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.0615+ 0.0000+ 0.0000 - 0.0329- 0.5917-  0.0014 = 29.4355  Versus  29.4355

Mass Balance = -1.9073E-06 cm;  Time step attempts =  912 and successes =  912
  Evaporation:  Potential =  0.1315 cm, Actual =  0.0329 cm
Transpiration:  Potential =  2.4989 cm, Actual =  0.5917 cm
RHMEAN = 81.2 %;  TMEAN = 298.7 K;  HDRY =  2.8516E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 183, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15479     0.23423     0.26870
Head (cm)          = 4.10126E+03 1.88335E+03 8.78801E+02
Water Flow (cm)    =-2.49201E-02-1.26423E-02 1.36701E-03
Plant Sink (cm)    = 5.96788E-02 9.92547E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.4355+ 0.0000+ 0.0000 - 0.0379- 0.6689-  0.0014 = 28.7274  Versus  28.7274
```

```
Mass Balance =  9.5367E-06 cm;  Time step attempts = 1131 and successes = 1131
  Evaporation:  Potential =  0.1514 cm, Actual =  0.0379 cm
Transpiration:  Potential =  2.8766 cm, Actual =  0.6689 cm
RHMEAN = 75.3 %;  TMEAN = 299.3 K;  HDRY =  3.8921E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 184, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.13331     0.23373     0.26852
Head (cm)          = 8.34417E+03 1.90741E+03 8.81813E+02
Water Flow (cm)    =-1.07068E-02-1.26368E-02 1.35312E-03
Plant Sink (cm)    = 2.79033E-02 9.12113E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.7274+ 0.0000+ 0.0000 - 0.0348- 0.4630-  0.0014 = 28.2283  Versus  28.2283

Mass Balance = -5.7220E-06 cm;  Time step attempts = 1749 and successes = 1749
  Evaporation:  Potential =  0.1391 cm, Actual =  0.0348 cm
Transpiration:  Potential =  2.6435 cm, Actual =  0.4630 cm
RHMEAN = 76.3 %;  TMEAN = 299.3 K;  HDRY =  3.7158E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 185, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12371     0.23303     0.26835
Head (cm)          = 1.26328E+04 1.94271E+03 8.84819E+02
Water Flow (cm)    =-2.61343E-03-1.26603E-02 1.33945E-03
Plant Sink (cm)    = 1.15287E-02 1.15315E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.2283+ 0.0000+ 0.0000 - 0.0440- 0.3541-  0.0013 = 27.8289  Versus  27.8289

Mass Balance = -1.9073E-06 cm;  Time step attempts = 1837 and successes = 1837
  Evaporation:  Potential =  0.1759 cm, Actual =  0.0440 cm
Transpiration:  Potential =  3.3421 cm, Actual =  0.3541 cm
RHMEAN = 69.2 %;  TMEAN = 301.5 K;  HDRY =  5.0451E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 186, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12156     0.23263     0.26817
Head (cm)          = 1.40358E+04 1.96282E+03 8.87826E+02
Water Flow (cm)    =-8.09525E-04-1.26438E-02 1.32596E-03
Plant Sink (cm)    = 2.64665E-03 8.59474E-04 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.8289+ 0.0000+ 0.0000 - 0.0328- 0.1628-  0.0013 = 27.6320  Versus  27.6320

Mass Balance =  1.9073E-06 cm;  Time step attempts = 1927 and successes = 1927
  Evaporation:  Potential =  0.1311 cm, Actual =  0.0328 cm
Transpiration:  Potential =  2.4909 cm, Actual =  0.1628 cm
RHMEAN = 72.8 %;  TMEAN = 301.5 K;  HDRY =  4.3456E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 187, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12049     0.23191     0.26801
Head (cm)         = 1.48216E+04 2.00026E+03 8.90593E+02
Water Flow (cm)   =-3.47604E-04-1.26353E-02 1.31311E-03
Plant Sink (cm)   = 1.10634E-03 1.20658E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.6320+ 0.0000+ 0.0000 - 0.0460- 0.1545-  0.0013 = 27.4302  Versus  27.4309

Mass Balance = -6.7520E-04 cm;  Time step attempts = 8947 and successes = 8947
  Evaporation:  Potential =  0.1840 cm, Actual =  0.0460 cm
Transpiration:  Potential =  3.4969 cm, Actual =  0.1545 cm
RHMEAN = 71.9 %;  TMEAN = 302.6 K;  HDRY =  4.5238E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 188, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11999     0.23109     0.26796
Head (cm)         = 1.52156E+04 2.04399E+03 8.91624E+02
Water Flow (cm)   =-1.40362E-04-1.27817E-02 1.30339E-03
Plant Sink (cm)   = 1.31086E-04 1.35687E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.4309+ 0.0000+ 0.0000 - 0.0517- 0.1174-  0.0013 = 27.2604  Versus  27.2694

Mass Balance = -9.0199E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.2070 cm, Actual =  0.0517 cm
Transpiration:  Potential =  3.9325 cm, Actual =  0.1174 cm
RHMEAN = 67.2 %;  TMEAN = 303.4 K;  HDRY =  5.4446E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 189, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11909     0.23033     0.26780
```

```
Head (cm)          = 1.59490E+04 2.08574E+03 8.94292E+02
Water Flow (cm)    =-1.19125E-04-1.30304E-02 1.29746E-03
Plant Sink (cm)    = 0.00000E+00 1.31715E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.2694+ 0.0000+ 0.0000 - 0.0048- 0.0837-  0.0013 = 27.1796  Versus  27.1810

Mass Balance = -1.3809E-03 cm;  Time step attempts =16214 and successes =16214
  Evaporation:  Potential =  0.2009 cm, Actual =  0.0048 cm
Transpiration:  Potential =  3.8174 cm, Actual =  0.0837 cm
RHMEAN = 66.3 %;  TMEAN = 302.9 K;  HDRY =  5.6432E+05 cm;  DAYUBC =  4316

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 190, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11818     0.22971     0.26765
Head (cm)          = 1.67597E+04 2.12046E+03 8.97059E+02
Water Flow (cm)    =-1.65228E-04-1.30399E-02 1.28559E-03
Plant Sink (cm)    = 0.00000E+00 1.20583E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.1810+ 0.0000+ 0.0000 - 0.0047- 0.0607-  0.0013 = 27.1143  Versus  27.1154

Mass Balance = -1.0548E-03 cm;  Time step attempts =11330 and successes =11330
  Evaporation:  Potential =  0.1839 cm, Actual =  0.0047 cm
Transpiration:  Potential =  3.4948 cm, Actual =  0.0607 cm
RHMEAN = 64.8 %;  TMEAN = 303.2 K;  HDRY =  5.9364E+05 cm;  DAYUBC =  3020

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 191, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11737     0.22930     0.26747
Head (cm)          = 1.75200E+04 2.14434E+03 9.00071E+02
Water Flow (cm)    =-2.23268E-04-1.29421E-02 1.27283E-03
Plant Sink (cm)    = 0.00000E+00 1.03799E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.1154+ 0.0000+ 0.0000 - 0.0024- 0.0441-  0.0013 = 27.0676  Versus  27.0676

Mass Balance = -3.8147E-06 cm;  Time step attempts =  347 and successes =  347
  Evaporation:  Potential =  0.1583 cm, Actual =  0.0024 cm
Transpiration:  Potential =  3.0083 cm, Actual =  0.0441 cm
RHMEAN = 69.4 %;  TMEAN = 302.3 K;  HDRY =  5.0120E+05 cm;  DAYUBC =   301

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 192, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11664     0.22880     0.26730
Head (cm)          = 1.82550E+04 2.17365E+03 9.03079E+02
Water Flow (cm)    =-2.74751E-04-1.28343E-02 1.26022E-03
Plant Sink (cm)    = 0.00000E+00 1.12871E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.0676+ 0.0000+ 0.0000 - 0.0030- 0.0420-  0.0013 = 27.0214  Versus  27.0215

Mass Balance = -4.9591E-05 cm;  Time step attempts = 1148 and successes = 1148
  Evaporation:  Potential =  0.1722 cm, Actual =  0.0030 cm
Transpiration:  Potential =  3.2713 cm, Actual =  0.0420 cm
RHMEAN = 71.0 %;  TMEAN = 302.6 K;  HDRY =  4.6970E+05 cm;  DAYUBC =  1120

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 193, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11576     0.22812     0.26719
Head (cm)          = 1.92075E+04 2.21453E+03 9.05107E+02
Water Flow (cm)    =-3.26026E-04-1.28764E-02 1.25112E-03
Plant Sink (cm)    = 0.00000E+00 1.26705E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.0215+ 0.0000+ 0.0000 - 0.0073- 0.0419-  0.0013 = 26.9710  Versus  26.9754

Mass Balance = -4.3049E-03 cm;  Time step attempts =47465 and successes =47465
  Evaporation:  Potential =  0.1933 cm, Actual =  0.0073 cm
Transpiration:  Potential =  3.6722 cm, Actual =  0.0419 cm
RHMEAN = 62.0 %;  TMEAN = 304.8 K;  HDRY =  6.5517E+05 cm;  DAYUBC =  3427

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 194, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11500     0.22820     0.26702
Head (cm)          = 2.00931E+04 2.20960E+03 9.08142E+02
Water Flow (cm)    =-3.77223E-04-1.27035E-02 1.23936E-03
Plant Sink (cm)    = 0.00000E+00 5.68322E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.9754+ 0.0000+ 0.0000 - 0.0000- 0.0174-  0.0012 = 26.9567  Versus  26.9567

Mass Balance =  1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0867 cm, Actual =  0.0000 cm
Transpiration:  Potential =  1.6471 cm, Actual =  0.0174 cm
RHMEAN = 82.3 %;  TMEAN = 299.0 K;  HDRY =  2.6705E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 195, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11423     0.22788     0.26690
Head (cm)          = 2.10386E+04 2.22891E+03 9.10220E+02
Water Flow (cm)    =-4.15293E-04-1.25306E-02 1.23019E-03
Plant Sink (cm)    = 0.00000E+00 9.10092E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.9567+ 0.0000+ 0.0000 - 0.0066- 0.0266-  0.0012 = 26.9223  Versus  26.9264

Mass Balance = -4.0398E-03 cm;  Time step attempts =39316 and successes =39316
  Evaporation:  Potential =  0.1388 cm, Actual =  0.0066 cm
Transpiration:  Potential =  2.6376 cm, Actual =  0.0266 cm
RHMEAN = 66.0 %;  TMEAN = 298.7 K;  HDRY =  5.6975E+05 cm;  DAYUBC =  4884
```

```
DAILY SUMMARY:  Day = 196, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11356     0.22773     0.26674
Head (cm)          = 2.19317E+04 2.23811E+03 9.13253E+02
Water Flow (cm)    =-4.50996E-04-1.23677E-02 1.21872E-03
Plant Sink (cm)    = 0.00000E+00 7.78250E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.9264+ 0.0000+ 0.0000 - 0.0006- 0.0215-  0.0012 = 26.9030  Versus  26.9030

Mass Balance = -7.6294E-06 cm;  Time step attempts =  265 and successes =  265
  Evaporation:  Potential =  0.1187 cm, Actual =  0.0006 cm
Transpiration:  Potential =  2.2555 cm, Actual =  0.0215 cm
RHMEAN = 73.8 %;  TMEAN = 297.9 K;  HDRY =  4.1586E+05 cm;  DAYUBC =   162
```

```
DAILY SUMMARY:  Day = 197, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.13141     0.22726     0.26658
Head (cm)          = 9.00251E+03 2.26722E+03 9.16104E+02
Water Flow (cm)    = 7.33753E-04-1.22578E-02 1.20744E-03
Plant Sink (cm)    = 1.02023E-02 1.08548E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.9030+ 0.4572+ 0.0000 - 0.0414- 0.0744-  0.0012 = 27.2432  Versus  27.2437

Mass Balance = -5.0545E-04 cm;  Time step attempts =11753 and successes =11753
  Evaporation:  Potential =  0.1672 cm, Actual =  0.0414 cm
Transpiration:  Potential =  3.1777 cm, Actual =  0.0744 cm
RHMEAN = 72.5 %;  TMEAN = 302.0 K;  HDRY =  4.4133E+05 cm;  DAYUBC =     0
```

```
--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 198, Simulated Time = 24.0000 hr
 -------------
 Node Number         =       2           12           25
 Depth (cm)          =     5.00000    50.00000   122.00000
 Water (cm3/cm3)     =     0.12466     0.22653     0.26641
 Head (cm)           = 1.20792E+04 2.31402E+03 9.19163E+02
 Water Flow (cm)     = 1.09789E-03-1.22544E-02 1.19547E-03
 Plant Sink (cm)     = 1.45210E-02 1.38450E-03 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  27.2437+ 0.0000+ 0.0000 - 0.0528- 0.0995-  0.0012 = 27.0902  Versus  27.0902

 Mass Balance =  1.9073E-06 cm;  Time step attempts = 2116 and successes = 2116
   Evaporation:  Potential =  0.2112 cm, Actual =  0.0528 cm
 Transpiration:  Potential =  4.0126 cm, Actual =  0.0995 cm
 RHMEAN = 67.2 %;  TMEAN = 304.3 K;  HDRY =  5.4522E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 199, Simulated Time = 24.0000 hr
 -------------
 Node Number         =       2           12           25
 Depth (cm)          =     5.00000    50.00000   122.00000
 Water (cm3/cm3)     =     0.12171     0.22588     0.26624
 Head (cm)           = 1.39354E+04 2.35629E+03 9.22227E+02
 Water Flow (cm)     = 3.10227E-04-1.22733E-02 1.18363E-03
 Plant Sink (cm)     = 4.96033E-03 1.32093E-03 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  27.0902+ 0.0000+ 0.0000 - 0.0504- 0.0531-  0.0012 = 26.9855  Versus  26.9855

 Mass Balance = -7.6294E-06 cm;  Time step attempts = 1211 and successes = 1211
   Evaporation:  Potential =  0.2015 cm, Actual =  0.0504 cm
 Transpiration:  Potential =  3.8283 cm, Actual =  0.0531 cm
 RHMEAN = 68.3 %;  TMEAN = 303.7 K;  HDRY =  5.2164E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 200, Simulated Time = 24.0000 hr
 -------------
 Node Number         =       2           12           25
 Depth (cm)          =     5.00000    50.00000   122.00000
 Water (cm3/cm3)     =     0.12059     0.22524     0.26607
 Head (cm)           = 1.47446E+04 2.39991E+03 9.25299E+02
 Water Flow (cm)     = 8.31618E-05-1.22655E-02 1.17191E-03
 Plant Sink (cm)     = 1.51887E-03 1.34575E-03 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
  26.9855+ 0.0000+ 0.0000 - 0.0513- 0.0364-  0.0012 = 26.8966  Versus  26.8966

 Mass Balance = -2.0981E-05 cm;  Time step attempts = 3167 and successes = 3167
```

```
  Evaporation:  Potential =  0.2053 cm, Actual =  0.0513 cm
Transpiration:  Potential =  3.9003 cm, Actual =  0.0364 cm
RHMEAN = 64.5 %;  TMEAN = 304.3 K;  HDRY =  6.0147E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 201, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12026     0.22472     0.26593
Head (cm)         = 1.49998E+04 2.43544E+03 9.27965E+02
Water Flow (cm)   = 1.39341E-05-1.22339E-02 1.16099E-03
Plant Sink (cm)   = 2.61970E-04 1.23158E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.8966+ 0.0000+ 0.0000 - 0.0470- 0.0270-  0.0012 = 26.8215  Versus  26.8230

Mass Balance = -1.5697E-03 cm;  Time step attempts =13190 and successes =13190
  Evaporation:  Potential =  0.1879 cm, Actual =  0.0470 cm
Transpiration:  Potential =  3.5694 cm, Actual =  0.0270 cm
RHMEAN = 65.6 %;  TMEAN = 302.6 K;  HDRY =  5.7869E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 202, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11981     0.22422     0.26586
Head (cm)         = 1.53541E+04 2.47028E+03 9.29203E+02
Water Flow (cm)   =-1.35303E-05-1.22170E-02 1.15290E-03
Plant Sink (cm)   = 8.29827E-11 1.22838E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.8230+ 0.0000+ 0.0000 - 0.0462- 0.0249-  0.0012 = 26.7508  Versus  26.7601

Mass Balance = -9.3555E-03 cm;  Time step attempts =***** and successes =*****
  Evaporation:  Potential =  0.1874 cm, Actual =  0.0462 cm
Transpiration:  Potential =  3.5601 cm, Actual =  0.0249 cm
RHMEAN = 63.1 %;  TMEAN = 303.4 K;  HDRY =  6.3168E+05 cm;  DAYUBC =  1984
```

```
DAILY SUMMARY:  Day = 203, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11875     0.22357     0.26572
Head (cm)         = 1.62469E+04 2.51765E+03 9.31851E+02
Water Flow (cm)   =-9.08116E-05-1.22758E-02 1.14731E-03
Plant Sink (cm)   = 0.00000E+00 1.35880E-03 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.7601+ 0.0000+ 0.0000 - 0.0057- 0.0266-  0.0011 = 26.7267  Versus  26.7279

Mass Balance = -1.2016E-03 cm;  Time step attempts =23834 and successes =23834
  Evaporation:  Potential =  0.2073 cm, Actual =  0.0057 cm
Transpiration:  Potential =  3.9381 cm, Actual =  0.0266 cm
RHMEAN = 60.0 %;  TMEAN = 303.7 K;  HDRY =  7.0047E+05 cm;  DAYUBC =  4939
```

```
DAILY SUMMARY:  Day = 204, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11772     0.22302     0.26555
Head (cm)         = 1.71850E+04 2.55766E+03 9.34926E+02
Water Flow (cm)   =-1.76856E-04-1.22237E-02 1.13615E-03
Plant Sink (cm)   = 0.00000E+00 1.30362E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.7279+ 0.0000+ 0.0000 - 0.0047- 0.0246-  0.0011 = 26.6975  Versus  26.6975


Mass Balance = -6.1035E-05 cm;  Time step attempts = 1073 and successes = 1073
  Evaporation:  Potential =  0.1989 cm, Actual =  0.0047 cm
Transpiration:  Potential =  3.7782 cm, Actual =  0.0246 cm
RHMEAN = 60.5 %;  TMEAN = 303.4 K;  HDRY =  6.8878E+05 cm;  DAYUBC =  1055
```

```
DAILY SUMMARY:  Day = 205, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11681     0.22265     0.26539
Head (cm)         = 1.80881E+04 2.58570E+03 9.38012E+02
Water Flow (cm)   =-2.48807E-04-1.21322E-02 1.12497E-03
Plant Sink (cm)   = 0.00000E+00 1.13877E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6975+ 0.0000+ 0.0000 - 0.0032- 0.0208-  0.0011 = 26.6723  Versus  26.6724

Mass Balance = -2.4796E-05 cm;  Time step attempts =  813 and successes =  813
  Evaporation:  Potential =  0.1737 cm, Actual =  0.0032 cm
Transpiration:  Potential =  3.3004 cm, Actual =  0.0208 cm
RHMEAN = 64.6 %;  TMEAN = 304.0 K;  HDRY =  5.9844E+05 cm;  DAYUBC =   767
```

```
DAILY SUMMARY:  Day = 206, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11583     0.22213     0.26525
```

```
Head (cm)          = 1.91311E+04 2.62568E+03 9.40574E+02
Water Flow (cm)    =-3.11393E-04-1.20686E-02 1.11565E-03
Plant Sink (cm)    = 0.00000E+00 1.24812E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6724+ 0.0000+ 0.0000 - 0.0058- 0.0223-  0.0011 = 26.6432  Versus  26.6448

Mass Balance = -1.5831E-03 cm;  Time step attempts =23869 and successes =23869
  Evaporation:  Potential =  0.1904 cm, Actual =  0.0058 cm
Transpiration:  Potential =  3.6173 cm, Actual =  0.0223 cm
RHMEAN = 60.6 %;  TMEAN = 304.8 K;  HDRY =  6.8563E+05 cm;  DAYUBC =  1540

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 207, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11501     0.22199     0.26508
Head (cm)          = 2.00737E+04 2.63645E+03 9.43664E+02
Water Flow (cm)    =-3.65993E-04-1.19436E-02 1.10487E-03
Plant Sink (cm)    = 0.00000E+00 9.08883E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6448+ 0.0000+ 0.0000 - 0.0017- 0.0159-  0.0011 = 26.6261  Versus  26.6262

Mass Balance = -6.8665E-05 cm;  Time step attempts = 1091 and successes = 1091
  Evaporation:  Potential =  0.1386 cm, Actual =  0.0017 cm
Transpiration:  Potential =  2.6341 cm, Actual =  0.0159 cm
RHMEAN = 68.7 %;  TMEAN = 303.2 K;  HDRY =  5.1525E+05 cm;  DAYUBC =  1028

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 208, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11423     0.22189     0.26493
Head (cm)          = 2.10385E+04 2.64461E+03 9.46530E+02
Water Flow (cm)    =-4.07090E-04-1.17833E-02 1.09486E-03
Plant Sink (cm)    = 0.00000E+00 8.58842E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6262+ 0.0000+ 0.0000 - 0.0042- 0.0148-  0.0011 = 26.6060  Versus  26.6068

Mass Balance = -8.3923E-04 cm;  Time step attempts = 7423 and successes = 7423
  Evaporation:  Potential =  0.1310 cm, Actual =  0.0042 cm
Transpiration:  Potential =  2.4891 cm, Actual =  0.0148 cm
RHMEAN = 67.6 %;  TMEAN = 303.4 K;  HDRY =  5.3579E+05 cm;  DAYUBC =  1023

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 209, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11496     0.22152     0.26478
Head (cm)          = 2.01322E+04 2.67363E+03 9.49467E+02
Water Flow (cm)    =-3.95081E-04-1.16640E-02 1.08475E-03
Plant Sink (cm)    = 0.00000E+00 1.09815E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6068+ 0.1524+ 0.0000 - 0.0419- 0.0187-  0.0011 = 26.6976  Versus  26.6979

Mass Balance = -3.5095E-04 cm;  Time step attempts =11696 and successes =11696
  Evaporation:  Potential =  0.1692 cm, Actual =  0.0419 cm
Transpiration:  Potential =  3.2148 cm, Actual =  0.0187 cm
RHMEAN = 66.0 %;  TMEAN = 303.7 K;  HDRY =  5.6930E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 210, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11518     0.22128     0.26461
Head (cm)          = 1.98747E+04 2.69268E+03 9.52578E+02
Water Flow (cm)    =-3.59435E-04-1.15581E-02 1.07415E-03
Plant Sink (cm)    = 0.00000E+00 9.88176E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6979+ 0.0000+ 0.0000 - 0.0377- 0.0165-  0.0011 = 26.6426  Versus  26.6427

Mass Balance = -2.4796E-05 cm;  Time step attempts = 4265 and successes = 4265
  Evaporation:  Potential =  0.1507 cm, Actual =  0.0377 cm
Transpiration:  Potential =  2.8640 cm, Actual =  0.0165 cm
RHMEAN = 73.3 %;  TMEAN = 302.6 K;  HDRY =  4.2644E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 211, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11516     0.22074     0.26450
Head (cm)          = 1.98950E+04 2.73707E+03 9.54633E+02
Water Flow (cm)    =-3.47092E-04-1.14979E-02 1.06494E-03
Plant Sink (cm)    = 0.00000E+00 1.30300E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6427+ 0.0000+ 0.0000 - 0.0497- 0.0215-  0.0011 = 26.5705  Versus  26.5747

Mass Balance = -4.1943E-03 cm;  Time step attempts =32021 and successes =32021
  Evaporation:  Potential =  0.1988 cm, Actual =  0.0497 cm
Transpiration:  Potential =  3.7764 cm, Actual =  0.0215 cm
RHMEAN = 63.1 %;  TMEAN = 304.3 K;  HDRY =  6.3189E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 212, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11457     0.22014     0.26440
Head (cm)         = 2.06081E+04 2.78668E+03 9.56691E+02
Water Flow (cm)   =-3.56586E-04-1.15273E-02 1.05927E-03
Plant Sink (cm)   = 0.00000E+00 1.38866E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.5747+ 0.0000+ 0.0000 - 0.0256- 0.0224-  0.0011 = 26.5255  Versus  26.5309

Mass Balance = -5.3711E-03 cm;  Time step attempts =52535 and successes =52535
  Evaporation:  Potential =  0.2118 cm, Actual =  0.0256 cm
Transpiration:  Potential =  4.0247 cm, Actual =  0.0224 cm
RHMEAN = 59.7 %;  TMEAN = 304.3 K;  HDRY =  7.0617E+05 cm;  DAYUBC =  3313
```

```
DAILY SUMMARY:  Day = 213, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11363     0.21968     0.26424
Head (cm)         = 2.18384E+04 2.82593E+03 9.59774E+02
Water Flow (cm)   =-4.03760E-04-1.14952E-02 1.05016E-03
Plant Sink (cm)   = 0.00000E+00 1.23795E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.5309+ 0.0000+ 0.0000 - 0.0043- 0.0196-  0.0011 = 26.5059  Versus  26.5061

Mass Balance = -1.2207E-04 cm;  Time step attempts = 1964 and successes = 1964
  Evaporation:  Potential =  0.1888 cm, Actual =  0.0043 cm
Transpiration:  Potential =  3.5878 cm, Actual =  0.0196 cm
RHMEAN = 61.3 %;  TMEAN = 302.9 K;  HDRY =  6.6971E+05 cm;  DAYUBC =  1963
```

```
DAILY SUMMARY:  Day = 214, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11279     0.21930     0.26408
Head (cm)         = 2.30146E+04 2.85885E+03 9.62861E+02
Water Flow (cm)   =-4.46979E-04-1.14174E-02 1.04005E-03
Plant Sink (cm)   = 0.00000E+00 1.16034E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.5061+ 0.0000+ 0.0000 - 0.0030- 0.0181-  0.0010 = 26.4839  Versus  26.4841

Mass Balance = -1.6785E-04 cm;  Time step attempts = 1863 and successes = 1863
  Evaporation:  Potential =  0.1770 cm, Actual =  0.0030 cm
Transpiration:  Potential =  3.3629 cm, Actual =  0.0181 cm
RHMEAN = 65.6 %;  TMEAN = 302.9 K;  HDRY =  5.7743E+05 cm;  DAYUBC =  1837
```

```
DAILY SUMMARY:  Day = 215, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11193     0.21910     0.26393
Head (cm)          = 2.43216E+04 2.87668E+03 9.65598E+02
Water Flow (cm)    =-4.83881E-04-1.13293E-02 1.03118E-03
Plant Sink (cm)    = 0.00000E+00 9.70341E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.4841+ 0.0000+ 0.0000 - 0.0049- 0.0149-  0.0010 = 26.4632  Versus  26.4645

Mass Balance = -1.3466E-03 cm;  Time step attempts =15450 and successes =15450
  Evaporation:  Potential =  0.1480 cm, Actual =  0.0049 cm
Transpiration:  Potential =  2.8123 cm, Actual =  0.0149 cm
RHMEAN = 63.6 %;  TMEAN = 301.5 K;  HDRY =  6.1925E+05 cm;  DAYUBC =  1062
```

```
DAILY SUMMARY:  Day = 216, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11100     0.21882     0.26381
Head (cm)          = 2.58811E+04 2.90154E+03 9.67961E+02
Water Flow (cm)    =-5.20698E-04-1.12537E-02 1.02339E-03
Plant Sink (cm)    = 0.00000E+00 1.02049E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.4645+ 0.0000+ 0.0000 - 0.0058- 0.0156-  0.0010 = 26.4422  Versus  26.4447

Mass Balance = -2.5387E-03 cm;  Time step attempts =34023 and successes =34023
  Evaporation:  Potential =  0.1557 cm, Actual =  0.0058 cm
Transpiration:  Potential =  2.9576 cm, Actual =  0.0156 cm
RHMEAN = 59.8 %;  TMEAN = 302.9 K;  HDRY =  7.0510E+05 cm;  DAYUBC =  4000
```

```
DAILY SUMMARY:  Day = 217, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11003     0.21845     0.26366
Head (cm)          = 2.76480E+04 2.93505E+03 9.70967E+02
Water Flow (cm)    =-5.56512E-04-1.11704E-02 1.01421E-03
Plant Sink (cm)    = 0.00000E+00 1.14543E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.4447+ 0.0000+ 0.0000 - 0.0051- 0.0173-  0.0010 = 26.4213  Versus  26.4218

Mass Balance = -5.0926E-04 cm;  Time step attempts = 6418 and successes = 6418
```

```
  Evaporation:  Potential =  0.1747 cm, Actual =  0.0051 cm
 Transpiration:  Potential =  3.3197 cm, Actual =  0.0173 cm
 RHMEAN = 58.9 %;  TMEAN = 304.0 K;  HDRY =  7.2532E+05 cm;  DAYUBC =  1537

--------------------------------------------------------------------------------


 DAILY SUMMARY:  Day = 218, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    50.00000   122.00000
 Water (cm3/cm3)   =     0.10907     0.21814     0.26350
 Head (cm)         = 2.95833E+04 2.96281E+03 9.74027E+02
 Water Flow (cm)   =-5.89344E-04-1.10876E-02 1.00466E-03
 Plant Sink (cm)   = 0.00000E+00 1.07512E-03 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  26.4218+ 0.0000+ 0.0000 - 0.0049- 0.0160-  0.0010 = 26.3999  Versus  26.4002


 Mass Balance = -2.7847E-04 cm;  Time step attempts = 3703 and successes = 3703
   Evaporation:  Potential =  0.1640 cm, Actual =  0.0049 cm
 Transpiration:  Potential =  3.1159 cm, Actual =  0.0160 cm
 RHMEAN = 58.9 %;  TMEAN = 301.5 K;  HDRY =  7.2635E+05 cm;  DAYUBC =  3413

--------------------------------------------------------------------------------


 DAILY SUMMARY:  Day = 219, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    50.00000   122.00000
 Water (cm3/cm3)   =     0.10828     0.21798     0.26334
 Head (cm)         = 3.13368E+04 2.97773E+03 9.77178E+02
 Water Flow (cm)   =-6.16780E-04-1.09812E-02 9.94931E-04
 Plant Sink (cm)   = 0.00000E+00 9.33990E-04 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  26.4002+ 0.0000+ 0.0000 - 0.0022- 0.0138-  0.0010 = 26.3832  Versus  26.3833

 Mass Balance = -6.1035E-05 cm;  Time step attempts = 1163 and successes = 1163
   Evaporation:  Potential =  0.1425 cm, Actual =  0.0022 cm
 Transpiration:  Potential =  2.7069 cm, Actual =  0.0138 cm
 RHMEAN = 66.2 %;  TMEAN = 301.8 K;  HDRY =  5.6489E+05 cm;  DAYUBC =  1097

--------------------------------------------------------------------------------


 DAILY SUMMARY:  Day = 220, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    50.00000   122.00000
 Water (cm3/cm3)   =     0.10744     0.21771     0.26323
 Head (cm)         = 3.33774E+04 3.00350E+03 9.79435E+02
 Water Flow (cm)   =-6.40421E-04-1.09123E-02 9.87676E-04
 Plant Sink (cm)   = 0.00000E+00 1.00538E-03 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.3833+ 0.0000+ 0.0000 - 0.0057- 0.0147-  0.0010 = 26.3618  Versus  26.3646

Mass Balance = -2.8419E-03 cm;  Time step attempts =37596 and successes =37596
  Evaporation:  Potential =  0.1535 cm, Actual =  0.0057 cm
Transpiration:  Potential =  2.9172 cm, Actual =  0.0147 cm
RHMEAN = 61.7 %;  TMEAN = 302.9 K;  HDRY =  6.6088E+05 cm;  DAYUBC =  4753

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 221, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12           25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.10633     0.21697     0.26312
Head (cm)         = 3.63595E+04 3.07448E+03 9.81576E+02
Water Flow (cm)   =-6.70952E-04-1.09178E-02 9.81095E-04
Plant Sink (cm)   = 0.00000E+00 1.42870E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.3646+ 0.0000+ 0.0000 - 0.0084- 0.0207-  0.0010 = 26.3345  Versus  26.3373

Mass Balance = -2.8381E-03 cm;  Time step attempts =60628 and successes =60628
  Evaporation:  Potential =  0.2207 cm, Actual =  0.0084 cm
Transpiration:  Potential =  4.1939 cm, Actual =  0.0207 cm
RHMEAN = 49.5 %;  TMEAN = 306.2 K;  HDRY =  9.6246E+05 cm;  DAYUBC =  5566

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 222, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12           25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.15029     0.21686     0.26298
Head (cm)         = 4.67403E+03 3.08531E+03 9.84274E+02
Water Flow (cm)   = 6.12635E-03-1.08690E-02 9.73421E-04

Plant Sink (cm)   = 3.74175E-02 8.75994E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.3373+ 0.7112+ 0.0000 - 0.0342- 0.1810-  0.0010 = 26.8324  Versus  26.8337

Mass Balance = -1.3142E-03 cm;  Time step attempts =17972 and successes =17972
  Evaporation:  Potential =  0.1382 cm, Actual =  0.0342 cm
Transpiration:  Potential =  2.6254 cm, Actual =  0.1810 cm
RHMEAN = 64.0 %;  TMEAN = 303.2 K;  HDRY =  6.1114E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 223, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12           25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.14468     0.21722     0.26282
```

```
Head (cm)           = 5.56587E+03 3.05029E+03 9.87463E+02
Water Flow (cm)     = 6.86827E-03-1.06993E-02 9.64095E-04
Plant Sink (cm)     = 1.59775E-02 4.05758E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.8337+ 0.0000+ 0.0000 - 0.0158- 0.0790-  0.0010 = 26.7379  Versus  26.7379

Mass Balance = -3.8147E-06 cm;  Time step attempts =  847 and successes =  847
  Evaporation:  Potential =  0.0631 cm, Actual =  0.0158 cm
Transpiration:  Potential =  1.1994 cm, Actual =  0.0790 cm
RHMEAN = 81.9 %;  TMEAN = 300.1 K;  HDRY =  2.7336E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 224, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.13094     0.21722     0.26266
Head (cm)           = 9.17533E+03 3.05034E+03 9.90650E+02
Water Flow (cm)     = 3.12339E-03-1.05290E-02 9.54776E-04
Plant Sink (cm)     = 1.73060E-02 7.46843E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.7379+ 0.0000+ 0.0000 - 0.0289- 0.0923-  0.0010 = 26.6158  Versus  26.6158

Mass Balance = -5.7220E-06 cm;  Time step attempts = 1417 and successes = 1417
  Evaporation:  Potential =  0.1156 cm, Actual =  0.0289 cm
Transpiration:  Potential =  2.1966 cm, Actual =  0.0923 cm
RHMEAN = 73.1 %;  TMEAN = 301.8 K;  HDRY =  4.2926E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 225, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12340     0.21693     0.26250
Head (cm)           = 1.28260E+04 3.07839E+03 9.93834E+02
Water Flow (cm)     = 7.51257E-04-1.04302E-02 9.45582E-04
Plant Sink (cm)     = 8.88952E-03 1.02883E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6158+ 0.0000+ 0.0000 - 0.0400- 0.0579-  0.0009 = 26.5170  Versus  26.5170

Mass Balance = -1.9073E-06 cm;  Time step attempts = 1389 and successes = 1389
  Evaporation:  Potential =  0.1599 cm, Actual =  0.0400 cm
Transpiration:  Potential =  3.0385 cm, Actual =  0.0579 cm
RHMEAN = 59.8 %;  TMEAN = 301.5 K;  HDRY =  7.0395E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 226, Simulated Time = 24.0000 hr
-------------
```

```
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12113     0.21664     0.26235
Head (cm)         = 1.43482E+04 3.10631E+03 9.97022E+02
Water Flow (cm)   = 1.55027E-04-1.03615E-02 9.36499E-04
Plant Sink (cm)   = 2.60603E-03 1.02265E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.5170+ 0.0000+ 0.0000 - 0.0401- 0.0277-  0.0009 = 26.4482  Versus  26.4482

Mass Balance = -1.9073E-06 cm;  Time step attempts = 2057 and successes = 2057
  Evaporation:  Potential =  0.1603 cm, Actual =  0.0401 cm
Transpiration:  Potential =  3.0448 cm, Actual =  0.0277 cm
RHMEAN = 57.2 %;  TMEAN = 300.1 K;  HDRY =  7.6624E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 227, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.20468     0.21636     0.26221
Head (cm)         = 1.37200E+03 3.13482E+03 9.99876E+02
Water Flow (cm)   = 3.52195E-01-1.03023E-02 9.28391E-04
Plant Sink (cm)   = 6.66758E-02 1.01154E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.4482+ 1.3034+ 0.5508 - 0.0399- 0.4557-  0.0009 = 27.2550  Versus  27.2561

Mass Balance = -1.0586E-03 cm;  Time step attempts =15260 and successes =15260
  Evaporation:  Potential =  0.1631 cm, Actual =  0.0399 cm

Transpiration:  Potential =  3.0981 cm, Actual =  0.4557 cm
RHMEAN = 63.4 %;  TMEAN = 301.2 K;  HDRY =  6.2507E+05 cm;  DAYUBC =  4895

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 228, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.15661     0.21628     0.26205
Head (cm)         = 3.89815E+03 3.14259E+03 1.00307E+03
Water Flow (cm)   = 3.77400E-02-1.02163E-02 9.19578E-04
Plant Sink (cm)   = 5.15796E-02 8.10249E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.2561+ 0.0000+ 0.0000 - 0.0322- 0.3590-  0.0009 = 26.8640  Versus  26.8640

Mass Balance =  1.9073E-06 cm;  Time step attempts = 1673 and successes = 1673
  Evaporation:  Potential =  0.1287 cm, Actual =  0.0322 cm
Transpiration:  Potential =  2.4446 cm, Actual =  0.3590 cm
RHMEAN = 69.7 %;  TMEAN = 299.5 K;  HDRY =  4.9455E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 229, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13305     0.21613     0.26189
Head (cm)         = 8.43124E+03 3.15734E+03 1.00625E+03
Water Flow (cm)   = 1.99249E-03-1.01191E-02 9.10815E-04
Plant Sink (cm)   = 2.80219E-02 8.72008E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.8640+ 0.0000+ 0.0000 - 0.0347- 0.2060-  0.0009 = 26.6224  Versus  26.6224

Mass Balance = -1.3351E-05 cm;  Time step attempts = 1924 and successes = 1924
  Evaporation:  Potential =  0.1389 cm, Actual =  0.0347 cm
Transpiration:  Potential =  2.6395 cm, Actual =  0.2060 cm
RHMEAN = 70.9 %;  TMEAN = 299.8 K;  HDRY =  4.7128E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 230, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12461     0.21595     0.26174
Head (cm)         = 1.21066E+04 3.17575E+03 1.00944E+03
Water Flow (cm)   =-1.64123E-04-1.00349E-02 9.02166E-04
Plant Sink (cm)   = 1.01895E-02 9.01298E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.6224+ 0.0000+ 0.0000 - 0.0361- 0.0926-  0.0009 = 26.4929  Versus  26.4929

Mass Balance = -1.5259E-05 cm;  Time step attempts = 1494 and successes = 1494
  Evaporation:  Potential =  0.1443 cm, Actual =  0.0361 cm
Transpiration:  Potential =  2.7411 cm, Actual =  0.0926 cm
RHMEAN = 71.2 %;  TMEAN = 300.1 K;  HDRY =  4.6583E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 231, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12134     0.21558     0.26158
Head (cm)         = 1.41930E+04 3.21333E+03 1.01262E+03
Water Flow (cm)   =-1.59513E-04-9.97282E-03 8.93629E-04
Plant Sink (cm)   = 3.76949E-03 1.08447E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.4929+ 0.0000+ 0.0000 - 0.0437- 0.0510-  0.0009 = 26.3973  Versus  26.3973

Mass Balance =  5.7220E-06 cm;  Time step attempts = 2372 and successes = 2372
  Evaporation:  Potential =  0.1750 cm, Actual =  0.0437 cm
Transpiration:  Potential =  3.3246 cm, Actual =  0.0510 cm
```

```
RHMEAN = 53.6 %;  TMEAN = 299.3 K;  HDRY =  8.5417E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 232, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12046     0.21524     0.26144
Head (cm)         = 1.48499E+04 3.24906E+03 1.01565E+03
Water Flow (cm)   =-8.91897E-05-9.92654E-03 8.85378E-04
Plant Sink (cm)   = 8.80293E-04 1.06374E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.3973+ 0.0000+ 0.0000 - 0.0434- 0.0268-  0.0009 = 26.3263  Versus  26.3268

Mass Balance = -5.6648E-04 cm;  Time step attempts = 7854 and successes = 7854
  Evaporation:  Potential =  0.1734 cm, Actual =  0.0434 cm
Transpiration:  Potential =  3.2950 cm, Actual =  0.0268 cm
RHMEAN = 58.6 %;  TMEAN = 301.2 K;  HDRY =  7.3246E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 233, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12006     0.21465     0.26138
Head (cm)         = 1.51568E+04 3.31226E+03 1.01679E+03
Water Flow (cm)   =-4.82940E-05-9.91710E-03 8.79016E-04
Plant Sink (cm)   = 1.04118E-04 1.26570E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.3268+ 0.0000+ 0.0000 - 0.0523- 0.0221-  0.0009 = 26.2516  Versus  26.2586

Mass Balance = -7.0591E-03 cm;  Time step attempts =92705 and successes =92705
  Evaporation:  Potential =  0.2091 cm, Actual =  0.0523 cm
Transpiration:  Potential =  3.9724 cm, Actual =  0.0221 cm
RHMEAN = 58.9 %;  TMEAN = 302.3 K;  HDRY =  7.2602E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 234, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11903     0.21431     0.26129
Head (cm)         = 1.60025E+04 3.35007E+03 1.01877E+03
Water Flow (cm)   =-8.33346E-05-9.96734E-03 8.76819E-04
Plant Sink (cm)   = 0.00000E+00 1.05508E-03 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.2586+ 0.0000+ 0.0000 - 0.0113- 0.0164-  0.0009 = 26.2301  Versus  26.2343
```

```
Mass Balance = -4.1676E-03 cm;  Time step attempts =60472 and successes =60472
  Evaporation:  Potential =  0.1770 cm, Actual =  0.0113 cm
Transpiration:  Potential =  3.3622 cm, Actual =  0.0164 cm
RHMEAN = 55.9 %;  TMEAN = 303.7 K;  HDRY =  7.9777E+05 cm;  DAYUBC =  4300
```

```
DAILY SUMMARY:  Day = 235, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.18393     0.21452     0.26114
Head (cm)         = 2.03825E+03 3.32612E+03 1.02172E+03
Water Flow (cm)   = 4.06601E-02-9.87738E-03 8.69767E-04
Plant Sink (cm)   = 3.46842E-02 4.99306E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.2343+ 0.8068+ 0.0060 - 0.0210- 0.1707-  0.0009 = 26.8485  Versus  26.8491

Mass Balance = -6.0463E-04 cm;  Time step attempts =13132 and successes =13132
  Evaporation:  Potential =  0.0847 cm, Actual =  0.0210 cm
Transpiration:  Potential =  1.6096 cm, Actual =  0.1707 cm
RHMEAN = 67.6 %;  TMEAN = 300.9 K;  HDRY =  5.3764E+05 cm;  DAYUBC =    95
```

```
DAILY SUMMARY:  Day = 236, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.15516     0.21435     0.26100
Head (cm)         = 4.05826E+03 3.34520E+03 1.02480E+03
Water Flow (cm)   = 3.63705E-02-9.76736E-03 8.61918E-04
Plant Sink (cm)   = 5.91187E-02 8.89620E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.8491+ 0.1778+ 0.0000 - 0.0373- 0.3133-  0.0009 = 26.6755  Versus  26.6757

Mass Balance = -2.5368E-04 cm;  Time step attempts = 6507 and successes = 6507
  Evaporation:  Potential =  0.1508 cm, Actual =  0.0373 cm
Transpiration:  Potential =  2.8658 cm, Actual =  0.3133 cm
RHMEAN = 63.4 %;  TMEAN = 301.2 K;  HDRY =  6.2507E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 237, Simulated Time = 24.0000 hr
-------------
Node Number       =       2           12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.21093     0.21424     0.26086
Head (cm)         = 1.23124E+03 3.35737E+03 1.02772E+03
Water Flow (cm)   = 4.21028E-01-9.68911E-03 8.54479E-04
Plant Sink (cm)   = 5.82902E-02 8.28916E-04 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6757+ 1.0447+ 0.1999 - 0.0349- 0.4096-  0.0009 = 27.2751  Versus  27.2759

Mass Balance = -7.8201E-04 cm;  Time step attempts = 8911 and successes = 8911
  Evaporation:  Potential =  0.1426 cm, Actual =  0.0349 cm
Transpiration:  Potential =  2.7085 cm, Actual =  0.4096 cm
RHMEAN = 63.5 %;  TMEAN = 302.6 K;  HDRY =  6.2263E+05 cm;  DAYUBC =   319
```

```
DAILY SUMMARY:  Day = 238, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.16392     0.21422     0.26071
Head (cm)         = 3.21558E+03 3.35962E+03 1.03089E+03
Water Flow (cm)   = 3.45644E-02-9.59828E-03 8.46605E-04
Plant Sink (cm)   = 5.12241E-02 7.30158E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.2759+ 0.0000+ 0.0000 - 0.0308- 0.3849-  0.0008 = 26.8593  Versus  26.8593

Mass Balance =  0.0000E+00 cm;  Time step attempts = 1456 and successes = 1456
  Evaporation:  Potential =  0.1233 cm, Actual =  0.0308 cm
Transpiration:  Potential =  2.3432 cm, Actual =  0.3849 cm
RHMEAN = 72.6 %;  TMEAN = 300.1 K;  HDRY =  4.3936E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 239, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13609     0.21413     0.26056
Head (cm)         = 7.50311E+03 3.36989E+03 1.03407E+03
Water Flow (cm)   = 1.81774E-03-9.50811E-03 8.38773E-04
Plant Sink (cm)   = 3.28775E-02 7.94719E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.8593+ 0.0000+ 0.0000 - 0.0336- 0.2587-  0.0008 = 26.5662  Versus  26.5662

Mass Balance = -1.9073E-05 cm;  Time step attempts = 1695 and successes = 1695
  Evaporation:  Potential =  0.1345 cm, Actual =  0.0336 cm
Transpiration:  Potential =  2.5548 cm, Actual =  0.2587 cm
RHMEAN = 69.4 %;  TMEAN = 301.2 K;  HDRY =  5.0123E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 240, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12609     0.21403     0.26041
Head (cm)         = 1.13089E+04 3.38079E+03 1.03724E+03
```

```
Water Flow (cm)    =-4.78388E-04-9.42701E-03 8.31022E-04
Plant Sink (cm)    = 1.21534E-02 7.93258E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.5662+ 0.0000+ 0.0000 - 0.0337- 0.1169-  0.0008 = 26.4147  Versus  26.4148

Mass Balance = -2.0981E-05 cm;  Time step attempts = 1434 and successes = 1434
  Evaporation:  Potential =  0.1346 cm, Actual =  0.0337 cm
Transpiration:  Potential =  2.5576 cm, Actual =  0.1169 cm
RHMEAN = 71.9 %;  TMEAN = 300.1 K;  HDRY =  4.5259E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 241, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12233     0.21391     0.26026
Head (cm)          = 1.35093E+04 3.39359E+03 1.04043E+03
Water Flow (cm)    =-3.01859E-04-9.34988E-03 8.23362E-04
Plant Sink (cm)    = 4.51470E-03 8.03684E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.4148+ 0.0000+ 0.0000 - 0.0342- 0.0586-  0.0008 = 26.3211  Versus  26.3211

Mass Balance = -7.6294E-06 cm;  Time step attempts = 1211 and successes = 1211
  Evaporation:  Potential =  0.1368 cm, Actual =  0.0342 cm
Transpiration:  Potential =  2.5997 cm, Actual =  0.0586 cm
RHMEAN = 71.3 %;  TMEAN = 299.3 K;  HDRY =  4.6448E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 242, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12095     0.21382     0.26011
Head (cm)          = 1.44789E+04 3.40437E+03 1.04359E+03
Water Flow (cm)    =-1.69212E-04-9.27448E-03 8.15798E-04
Plant Sink (cm)    = 1.54562E-03 7.79877E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.3211+ 0.0000+ 0.0000 - 0.0333- 0.0318-  0.0008 = 26.2552  Versus  26.2552

Mass Balance = -4.7684E-05 cm;  Time step attempts = 2780 and successes = 2780
  Evaporation:  Potential =  0.1332 cm, Actual =  0.0333 cm
Transpiration:  Potential =  2.5308 cm, Actual =  0.0318 cm
RHMEAN = 72.9 %;  TMEAN = 299.5 K;  HDRY =  4.3246E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 243, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
```

```
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12044     0.21379     0.25997
Head (cm)           = 1.48629E+04 3.40762E+03 1.04653E+03
Water Flow (cm)     =-1.01430E-04-9.19646E-03 8.08629E-04
Plant Sink (cm)     = 4.44550E-04 7.06226E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.2552+ 0.0000+ 0.0000 - 0.0302- 0.0189-  0.0008 = 26.2053  Versus  26.2059

Mass Balance = -6.4850E-04 cm;  Time step attempts = 7190 and successes = 7190
  Evaporation:  Potential =  0.1209 cm, Actual =  0.0302 cm
Transpiration:  Potential =  2.2962 cm, Actual =  0.0189 cm
RHMEAN = 69.0 %;  TMEAN = 298.4 K;  HDRY =  5.0792E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 244, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12020     0.21372     0.25988
Head (cm)           = 1.50458E+04 3.41524E+03 1.04844E+03
Water Flow (cm)     =-6.47687E-05-9.13138E-03 8.02716E-04
Plant Sink (cm)     = 7.44189E-05 7.46753E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.2059+ 0.0000+ 0.0000 - 0.0320- 0.0150-  0.0008 = 26.1581  Versus  26.1621

Mass Balance = -4.0817E-03 cm;  Time step attempts =34709 and successes =34709
  Evaporation:  Potential =  0.1280 cm, Actual =  0.0320 cm
Transpiration:  Potential =  2.4318 cm, Actual =  0.0150 cm
RHMEAN = 71.6 %;  TMEAN = 298.7 K;  HDRY =  4.5761E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 245, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.11967     0.21365     0.25979
Head (cm)           = 1.54730E+04 3.42380E+03 1.05050E+03
Water Flow (cm)     =-6.06934E-05-9.08856E-03 7.98745E-04
Plant Sink (cm)     = 0.00000E+00 7.50677E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.1621+ 0.0000+ 0.0000 - 0.0209- 0.0130-  0.0008 = 26.1275  Versus  26.1320

Mass Balance = -4.4556E-03 cm;  Time step attempts =54901 and successes =54901
  Evaporation:  Potential =  0.1289 cm, Actual =  0.0209 cm
Transpiration:  Potential =  2.4496 cm, Actual =  0.0130 cm
RHMEAN = 70.8 %;  TMEAN = 299.5 K;  HDRY =  4.7233E+05 cm;  DAYUBC =  4177

--------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 246, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11884     0.21365     0.25968
Head (cm)         = 1.61698E+04 3.42393E+03 1.05282E+03
Water Flow (cm)   =-1.11686E-04-9.03736E-03 7.94074E-04
Plant Sink (cm)   = 0.00000E+00 6.46717E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.1320+ 0.0000+ 0.0000 - 0.0048- 0.0103-  0.0008 = 26.1161  Versus  26.1182

Mass Balance = -2.1648E-03 cm;  Time step attempts =22485 and successes =22485
  Evaporation:  Potential =  0.1112 cm, Actual =  0.0048 cm
Transpiration:  Potential =  2.1133 cm, Actual =  0.0103 cm
RHMEAN = 68.3 %;  TMEAN = 300.4 K;  HDRY =  5.2226E+05 cm;  DAYUBC =  1821
```

```
DAILY SUMMARY:  Day = 247, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11810     0.21381     0.25954
Head (cm)         = 1.68287E+04 3.40540E+03 1.05600E+03
Water Flow (cm)   =-1.70108E-04-8.94336E-03 7.87128E-04
Plant Sink (cm)   = 0.00000E+00 4.89497E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.1182+ 0.0000+ 0.0000 - 0.0019- 0.0074-  0.0008 = 26.1081  Versus  26.1081

Mass Balance = -1.5259E-05 cm;  Time step attempts =   343 and successes =   343
  Evaporation:  Potential =  0.0840 cm, Actual =  0.0019 cm
Transpiration:  Potential =  1.5952 cm, Actual =  0.0074 cm
RHMEAN = 72.5 %;  TMEAN = 299.5 K;  HDRY =  4.4130E+05 cm;  DAYUBC =   280
```

```
DAILY SUMMARY:  Day = 248, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11811     0.21409     0.25940
Head (cm)         = 1.68214E+04 3.37388E+03 1.05898E+03
Water Flow (cm)   =-1.92894E-04-8.83432E-03 7.80442E-04
Plant Sink (cm)   = 0.00000E+00 3.30429E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.1081+ 0.0762+ 0.0000 - 0.0141- 0.0049-  0.0008 = 26.1646  Versus  26.1650

Mass Balance = -3.6430E-04 cm;  Time step attempts =14974 and successes =14974
  Evaporation:  Potential =  0.0569 cm, Actual =  0.0141 cm
Transpiration:  Potential =  1.0806 cm, Actual =  0.0049 cm
RHMEAN = 76.3 %;  TMEAN = 299.8 K;  HDRY =  3.6994E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 249, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.11814     0.21394     0.25927
Head (cm)          = 1.67958E+04 3.39094E+03 1.06184E+03
Water Flow (cm)    =-1.86042E-04-8.75010E-03 7.73868E-04
Plant Sink (cm)    = 0.00000E+00 7.74293E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.1650+ 0.0254+ 0.0000 - 0.0329- 0.0111-  0.0008 = 26.1455  Versus  26.1463

Mass Balance = -7.5340E-04 cm;  Time step attempts =11155 and successes =11155
  Evaporation:  Potential =  0.1330 cm, Actual =  0.0329 cm
Transpiration:  Potential =  2.5267 cm, Actual =  0.0111 cm
RHMEAN = 74.7 %;  TMEAN = 299.8 K;  HDRY =  4.0068E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 250, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.17593     0.21374     0.25913
Head (cm)          = 2.41981E+03 3.41293E+03 1.06480E+03
Water Flow (cm)    = 4.92613E-02-8.70931E-03 7.67562E-04
Plant Sink (cm)    = 5.76839E-02 8.08762E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.1463+ 0.8326+ 0.2088 - 0.0346- 0.2877-  0.0008 = 26.6559  Versus  26.6563

Mass Balance = -4.4060E-04 cm;  Time step attempts =11907 and successes =11907
  Evaporation:  Potential =  0.1411 cm, Actual =  0.0346 cm
Transpiration:  Potential =  2.6804 cm, Actual =  0.2877 cm
RHMEAN = 77.2 %;  TMEAN = 299.0 K;  HDRY =  3.5476E+05 cm;  DAYUBC =  2597
```

```
DAILY SUMMARY:  Day = 251, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26346     0.21417     0.25902
Head (cm)          = 5.57446E+02 3.36503E+03 1.06734E+03
Water Flow (cm)    = 1.24025E+00-8.62706E-03 7.61851E-04
Plant Sink (cm)    = 1.30759E-02 1.84044E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.6563+ 1.8634+ 0.3210 - 0.0078- 0.1140-  0.0008 = 28.3971  Versus  28.3987

Mass Balance = -1.6289E-03 cm;  Time step attempts =21357 and successes =21357
  Evaporation:  Potential =  0.0323 cm, Actual =  0.0078 cm
```

```
Transpiration:  Potential =  0.6138 cm, Actual =  0.1140 cm
RHMEAN = 84.7 %;  TMEAN = 294.0 K;  HDRY =  2.2805E+05 cm;  DAYUBC =  3055
```

```
DAILY SUMMARY:  Day = 252, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.22181     0.21411     0.25888
Head (cm)          = 1.02910E+03 3.37148E+03 1.07042E+03
Water Flow (cm)    = 7.74022E-02-8.52945E-03 7.55446E-04
Plant Sink (cm)    = 4.62991E-02 6.55184E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.3987+ 0.0254+ 0.0000 - 0.0277- 0.4435-  0.0008 = 27.9521  Versus  27.9524

Mass Balance = -2.7466E-04 cm;  Time step attempts = 7188 and successes = 7188
  Evaporation:  Potential =  0.1121 cm, Actual =  0.0277 cm
Transpiration:  Potential =  2.1296 cm, Actual =  0.4435 cm
RHMEAN = 69.7 %;  TMEAN = 292.6 K;  HDRY =  4.9471E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 253, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.18842     0.21411     0.25874
Head (cm)          = 1.86072E+03 3.37160E+03 1.07359E+03
Water Flow (cm)    = 1.83273E-03-8.46499E-03 7.48669E-04
Plant Sink (cm)    = 4.23819E-02 5.99229E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.9524+ 0.0000+ 0.0000 - 0.0254- 0.4101-  0.0007 = 27.5161  Versus  27.5161

Mass Balance =  7.6294E-06 cm;  Time step attempts = 1348 and successes = 1348
  Evaporation:  Potential =  0.1016 cm, Actual =  0.0254 cm
Transpiration:  Potential =  1.9299 cm, Actual =  0.4101 cm
RHMEAN = 67.4 %;  TMEAN = 291.8 K;  HDRY =  5.4068E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 254, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15475     0.21407     0.25860
Head (cm)          = 4.10576E+03 3.37663E+03 1.07676E+03
Water Flow (cm)    =-9.43086E-03-8.40070E-03 7.41999E-04
Plant Sink (cm)    = 4.20743E-02 6.37418E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.5161+ 0.0000+ 0.0000 - 0.0270- 0.4257-  0.0007 = 27.0626  Versus  27.0626
```

```
Mass Balance =  0.0000E+00 cm;  Time step attempts = 1285 and successes = 1285
  Evaporation:  Potential =  0.1081 cm, Actual =  0.0270 cm
Transpiration:  Potential =  2.0544 cm, Actual =  0.4257 cm
RHMEAN = 68.9 %;  TMEAN = 293.2 K;  HDRY =  5.1119E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 255, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13684     0.21404     0.25845
Head (cm)         = 7.29577E+03 3.37931E+03 1.07992E+03
Water Flow (cm)   =-6.05094E-03-8.33924E-03 7.35415E-04
Plant Sink (cm)   = 2.28567E-02 6.10846E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.0626+ 0.0000+ 0.0000 - 0.0259- 0.2952-  0.0007 = 26.7408  Versus  26.7408

Mass Balance =  9.5367E-06 cm;  Time step attempts = 1293 and successes = 1293
  Evaporation:  Potential =  0.1037 cm, Actual =  0.0259 cm
Transpiration:  Potential =  1.9709 cm, Actual =  0.2952 cm
RHMEAN = 67.8 %;  TMEAN = 294.5 K;  HDRY =  5.3329E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 256, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12818     0.21402     0.25831
Head (cm)         = 1.03099E+04 3.38186E+03 1.08308E+03
Water Flow (cm)   =-2.49267E-03-8.27679E-03 7.28918E-04
Plant Sink (cm)   = 1.08594E-02 6.03836E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.7408+ 0.0000+ 0.0000 - 0.0257- 0.1806-  0.0007 = 26.5339  Versus  26.5339

Mass Balance = -7.6294E-06 cm;  Time step attempts = 1152 and successes = 1152
  Evaporation:  Potential =  0.1026 cm, Actual =  0.0257 cm
Transpiration:  Potential =  1.9497 cm, Actual =  0.1806 cm
RHMEAN = 69.5 %;  TMEAN = 295.1 K;  HDRY =  4.9862E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 257, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12453     0.21408     0.25817
Head (cm)         = 1.21523E+04 3.37492E+03 1.08624E+03
Water Flow (cm)   =-1.21440E-03-8.20796E-03 7.22500E-04
Plant Sink (cm)   = 4.63772E-03 5.11266E-04 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.5339+ 0.0000+ 0.0000 - 0.0217- 0.1015-  0.0007 = 26.4099  Versus  26.4099

Mass Balance = -3.8147E-06 cm;  Time step attempts =  807 and successes =  807
  Evaporation:  Potential =  0.0868 cm, Actual =  0.0217 cm
Transpiration:  Potential =  1.6497 cm, Actual =  0.1015 cm
RHMEAN = 73.3 %;  TMEAN = 296.5 K;  HDRY =  4.2502E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 258, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.19685     0.21440     0.25805
Head (cm)          = 1.58158E+03 3.34013E+03 1.08912E+03
Water Flow (cm)    = 6.74070E-02-8.11542E-03 7.16676E-04
Plant Sink (cm)    = 1.64492E-02 2.35027E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.4099+ 0.6604+ 0.0000 - 0.0099- 0.1096-  0.0007 = 26.9501  Versus  26.9506

Mass Balance = -4.6539E-04 cm;  Time step attempts =10030 and successes =10030
  Evaporation:  Potential =  0.0401 cm, Actual =  0.0099 cm
Transpiration:  Potential =  0.7617 cm, Actual =  0.1096 cm
RHMEAN = 83.4 %;  TMEAN = 294.8 K;  HDRY =  2.4902E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 259, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.21961     0.21481     0.25791
Head (cm)          = 1.06619E+03 3.29538E+03 1.09214E+03
Water Flow (cm)    = 2.68664E-01-7.99101E-03 7.10696E-04
Plant Sink (cm)    = 8.64297E-03 1.24041E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.9506+ 0.4572+ 0.0000 - 0.0052- 0.0698-  0.0007 = 27.3321  Versus  27.3323

Mass Balance = -2.5177E-04 cm;  Time step attempts = 7190 and successes = 7190
  Evaporation:  Potential =  0.0209 cm, Actual =  0.0052 cm
Transpiration:  Potential =  0.3975 cm, Actual =  0.0698 cm
RHMEAN = 87.7 %;  TMEAN = 295.7 K;  HDRY =  1.8050E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 260, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.19338     0.21496     0.25778
```

```
Head (cm)          = 1.68899E+03 3.27926E+03 1.09517E+03
Water Flow (cm)    = 7.22733E-02-7.88419E-03 7.04741E-04
Plant Sink (cm)    = 2.55137E-02 3.69254E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 27.3323+ 0.0254+ 0.0000 - 0.0153- 0.2226-  0.0007 = 27.1191  Versus  27.1193

Mass Balance = -2.1553E-04 cm;  Time step attempts = 5614 and successes = 5614
  Evaporation:  Potential =  0.0618 cm, Actual =  0.0153 cm
Transpiration:  Potential =  1.1735 cm, Actual =  0.2226 cm
RHMEAN = 79.8 %;  TMEAN = 298.2 K;  HDRY =  3.0846E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 261, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.28918     0.21520     0.25766
Head (cm)          = 3.92199E+02 3.25382E+03 1.09794E+03
Water Flow (cm)    = 1.72137E+00-7.79851E-03 6.99282E-04
Plant Sink (cm)    = 1.87060E-02 2.72369E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 27.1193+ 2.4629+ 0.1787 - 0.0112- 0.1834-  0.0007 = 29.3869  Versus  29.3877

Mass Balance = -8.2779E-04 cm;  Time step attempts =10595 and successes =10595
  Evaporation:  Potential =  0.0462 cm, Actual =  0.0112 cm
Transpiration:  Potential =  0.8781 cm, Actual =  0.1834 cm
RHMEAN = 88.2 %;  TMEAN = 295.1 K;  HDRY =  1.7238E+05 cm;  DAYUBC =   847

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 262, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.25159     0.21508     0.25752
Head (cm)          = 6.58346E+02 3.26591E+03 1.10109E+03
Water Flow (cm)    = 4.59067E-02-7.73663E-03 6.93290E-04
Plant Sink (cm)    = 4.25158E-02 6.20037E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.3877+ 0.0000+ 0.0000 - 0.0255- 0.4340-  0.0007 = 28.9275  Versus  28.9275

Mass Balance = -9.5367E-06 cm;  Time step attempts = 2868 and successes = 2868
  Evaporation:  Potential =  0.1019 cm, Actual =  0.0255 cm
Transpiration:  Potential =  1.9360 cm, Actual =  0.4340 cm
RHMEAN = 70.0 %;  TMEAN = 295.4 K;  HDRY =  4.8833E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 263, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =        2           12           25
Depth (cm)         =     5.00000     50.00000   122.00000
Water (cm3/cm3)    =     0.24102      0.21539     0.25739
Head (cm)          = 7.67073E+02 3.23380E+03 1.10424E+03
Water Flow (cm)    = 7.89087E-03-7.66557E-03 6.87305E-04
Plant Sink (cm)    = 1.31741E-02 1.92687E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 28.9275+ 0.0000+ 0.0000 - 0.0079- 0.1376-  0.0007 = 28.7814  Versus  28.7814

Mass Balance =  5.7220E-06 cm;  Time step attempts = 1355 and successes = 1355
  Evaporation:  Potential =  0.0316 cm, Actual =  0.0079 cm
Transpiration:  Potential =  0.5999 cm, Actual =  0.1376 cm
RHMEAN = 86.0 %;  TMEAN = 292.9 K;  HDRY =  2.0731E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 264, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000     50.00000   122.00000
Water (cm3/cm3)    =     0.22480      0.21554     0.25725
Head (cm)          = 9.81433E+02 3.21796E+03 1.10738E+03
Water Flow (cm)    =-3.92876E-03-7.57030E-03 6.81388E-04
Plant Sink (cm)    = 2.25485E-02 3.32018E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 28.7814+ 0.0000+ 0.0000 - 0.0135- 0.2387-  0.0007 = 28.5285  Versus  28.5285

Mass Balance =  1.9073E-06 cm;  Time step attempts =  600 and successes =  600
  Evaporation:  Potential =  0.0540 cm, Actual =  0.0135 cm
Transpiration:  Potential =  1.0268 cm, Actual =  0.2387 cm
RHMEAN = 83.9 %;  TMEAN = 294.8 K;  HDRY =  2.4002E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 265, Simulated Time = 24.0000 hr
-------------
Node Number        =        2           12           25
Depth (cm)         =     5.00000     50.00000   122.00000
Water (cm3/cm3)    =     0.20429      0.21558     0.25712
Head (cm)          = 1.38147E+03 3.21402E+03 1.11051E+03
Water Flow (cm)    =-1.44528E-02-7.50332E-03 6.75554E-04
Plant Sink (cm)    = 2.96050E-02 4.37132E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO    TRANS    DRAIN   NEWSTOR          STORAGE
 28.5285+ 0.0000+ 0.0000 - 0.0177- 0.3140-  0.0007 = 28.1961  Versus  28.1961

Mass Balance = -3.8147E-06 cm;  Time step attempts =  696 and successes =  696
  Evaporation:  Potential =  0.0710 cm, Actual =  0.0177 cm
Transpiration:  Potential =  1.3481 cm, Actual =  0.3140 cm
RHMEAN = 81.6 %;  TMEAN = 295.7 K;  HDRY =  2.7872E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 266, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.16827     0.21531     0.25699
Head (cm)          = 2.88870E+03 3.24226E+03 1.11353E+03
Water Flow (cm)    =-1.61223E-02-7.48181E-03 6.69998E-04
Plant Sink (cm)    = 4.99665E-02 7.35141E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.1961+ 0.0254+ 0.0000 - 0.0299- 0.5309-  0.0007 = 27.6600  Versus  27.6602

Mass Balance = -1.3733E-04 cm;  Time step attempts = 5934 and successes = 5934
  Evaporation:  Potential =  0.1210 cm, Actual =  0.0299 cm
Transpiration:  Potential =  2.2983 cm, Actual =  0.5309 cm
RHMEAN = 72.8 %;  TMEAN = 294.8 K;  HDRY =  4.3533E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 267, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.14214     0.21509     0.25686
Head (cm)          = 6.05430E+03 3.26516E+03 1.11665E+03
Water Flow (cm)    =-1.22742E-02-7.48074E-03 6.64304E-04
Plant Sink (cm)    = 3.40462E-02 6.96039E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.6602+ 0.0000+ 0.0000 - 0.0285- 0.4372-  0.0007 = 27.1938  Versus  27.1938

Mass Balance =  7.6294E-06 cm;  Time step attempts = 1382 and successes = 1382
  Evaporation:  Potential =  0.1142 cm, Actual =  0.0285 cm
Transpiration:  Potential =  2.1696 cm, Actual =  0.4372 cm
RHMEAN = 66.9 %;  TMEAN = 288.4 K;  HDRY =  5.5071E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 268, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.13312     0.21507     0.25672
Head (cm)          = 8.40823E+03 3.26740E+03 1.11976E+03
Water Flow (cm)    =-5.05599E-03-7.45269E-03 6.58695E-04
Plant Sink (cm)    = 1.26309E-02 4.99941E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.1938+ 0.0000+ 0.0000 - 0.0206- 0.2313-  0.0007 = 26.9413  Versus  26.9413

Mass Balance = -7.6294E-06 cm;  Time step attempts = 1015 and successes = 1015
  Evaporation:  Potential =  0.0823 cm, Actual =  0.0206 cm
Transpiration:  Potential =  1.5638 cm, Actual =  0.2313 cm
RHMEAN = 67.5 %;  TMEAN = 286.8 K;  HDRY =  5.3856E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 269, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12791     0.21507     0.25659
Head (cm)          = 1.04317E+04 3.26700E+03 1.12287E+03
Water Flow (cm)    =-2.56791E-03-7.40284E-03 6.53160E-04
Plant Sink (cm)    = 7.01299E-03 4.70178E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.9413+ 0.0000+ 0.0000 - 0.0194- 0.1656-  0.0007 = 26.7556  Versus  26.7556

Mass Balance =  7.6294E-06 cm;  Time step attempts =  789 and successes =  789
  Evaporation:  Potential =  0.0774 cm, Actual =  0.0194 cm
Transpiration:  Potential =  1.4711 cm, Actual =  0.1656 cm
RHMEAN = 71.0 %;  TMEAN = 287.9 K;  HDRY =  4.7031E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 270, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12420     0.21499     0.25646
Head (cm)          = 1.23466E+04 3.27571E+03 1.12597E+03
Water Flow (cm)    =-1.40853E-03-7.35974E-03 6.47696E-04
Plant Sink (cm)    = 4.59874E-03 5.52170E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.7556+ 0.0000+ 0.0000 - 0.0228- 0.1450-  0.0006 = 26.5872  Versus  26.5872

Mass Balance = -1.5259E-05 cm;  Time step attempts =  905 and successes =  905
  Evaporation:  Potential =  0.0910 cm, Actual =  0.0228 cm
Transpiration:  Potential =  1.7297 cm, Actual =  0.1450 cm
RHMEAN = 67.3 %;  TMEAN = 290.4 K;  HDRY =  5.4202E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 271, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12232     0.21494     0.25633
Head (cm)          = 1.35193E+04 3.28131E+03 1.12907E+03
Water Flow (cm)    =-8.06612E-04-7.32216E-03 6.42297E-04
Plant Sink (cm)    = 2.25236E-03 5.19779E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.5872+ 0.0000+ 0.0000 - 0.0215- 0.1027-  0.0006 = 26.4624  Versus  26.4624

Mass Balance =  7.6294E-06 cm;  Time step attempts = 1508 and successes = 1508
```

```
  Evaporation:  Potential =  0.0859 cm, Actual =  0.0215 cm
Transpiration:  Potential =  1.6314 cm, Actual =  0.1027 cm
RHMEAN = 68.5 %;  TMEAN = 291.5 K;  HDRY =  5.1815E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 272, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12119     0.21484     0.25620
Head (cm)         = 1.42996E+04 3.29240E+03 1.13212E+03
Water Flow (cm)   =-4.95427E-04-7.28673E-03 6.36994E-04
Plant Sink (cm)   = 1.22339E-03 5.69366E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.4624+ 0.0000+ 0.0000 - 0.0236- 0.0869-  0.0006 = 26.3513  Versus  26.3513

Mass Balance = -6.2943E-05 cm;  Time step attempts = 2940 and successes = 2940
  Evaporation:  Potential =  0.0943 cm, Actual =  0.0236 cm
Transpiration:  Potential =  1.7913 cm, Actual =  0.0869 cm
RHMEAN = 67.5 %;  TMEAN = 290.1 K;  HDRY =  5.3845E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 273, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12068     0.21482     0.25608
Head (cm)         = 1.46763E+04 3.29394E+03 1.13504E+03
Water Flow (cm)   =-3.23358E-04-7.24828E-03 6.31892E-04
Plant Sink (cm)   = 4.72221E-04 4.77880E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.3513+ 0.0000+ 0.0000 - 0.0198- 0.0582-  0.0006 = 26.2727  Versus  26.2730

Mass Balance = -3.2616E-04 cm;  Time step attempts = 4730 and successes = 4730
  Evaporation:  Potential =  0.0793 cm, Actual =  0.0198 cm
Transpiration:  Potential =  1.5061 cm, Actual =  0.0582 cm
RHMEAN = 67.3 %;  TMEAN = 289.3 K;  HDRY =  5.4213E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 274, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12038     0.21481     0.25597
Head (cm)         = 1.49050E+04 3.29553E+03 1.13764E+03
Water Flow (cm)   =-2.29595E-04-7.20556E-03 6.27237E-04
Plant Sink (cm)   = 1.89590E-04 4.73501E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
```

```
 26.2730+ 0.0000+ 0.0000 - 0.0196- 0.0479-  0.0006 = 26.2049  Versus  26.2061

Mass Balance = -1.1978E-03 cm;  Time step attempts =10498 and successes =10498
  Evaporation:  Potential =  0.0786 cm, Actual =  0.0196 cm
Transpiration:  Potential =  1.4929 cm, Actual =  0.0479 cm
RHMEAN = 66.0 %;  TMEAN = 289.8 K;  HDRY =  5.6861E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 275, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12022     0.21459     0.25588
Head (cm)         = 1.50302E+04 3.31930E+03 1.13983E+03
Water Flow (cm)   =-1.54711E-04-7.19119E-03 6.23356E-04
Plant Sink (cm)   = 4.98076E-05 6.58153E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.2061+ 0.0254+ 0.0000 - 0.0274- 0.0548-  0.0006 = 26.1486  Versus  26.1505

Mass Balance = -1.8692E-03 cm;  Time step attempts =23331 and successes =23331
  Evaporation:  Potential =  0.1107 cm, Actual =  0.0274 cm
Transpiration:  Potential =  2.1040 cm, Actual =  0.0548 cm
RHMEAN = 65.1 %;  TMEAN = 290.9 K;  HDRY =  5.8744E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 276, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11988     0.21429     0.25584
Head (cm)         = 1.53036E+04 3.35142E+03 1.14079E+03
Water Flow (cm)   =-1.02252E-04-7.20556E-03 6.20081E-04
Plant Sink (cm)   = 0.00000E+00 7.69880E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.1505+ 0.0000+ 0.0000 - 0.0323- 0.0521-  0.0006 = 26.0655  Versus  26.0718

Mass Balance = -6.3267E-03 cm;  Time step attempts =91164 and successes =91164
  Evaporation:  Potential =  0.1292 cm, Actual =  0.0323 cm
Transpiration:  Potential =  2.4553 cm, Actual =  0.0521 cm
RHMEAN = 63.0 %;  TMEAN = 294.0 K;  HDRY =  6.3405E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 277, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11917     0.21410     0.25571
Head (cm)         = 1.58874E+04 3.37330E+03 1.14392E+03
Water Flow (cm)   =-1.18427E-04-7.22341E-03 6.17282E-04
```

```
Plant Sink (cm)    = 0.00000E+00 6.69604E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.0718+ 0.0000+ 0.0000 - 0.0032- 0.0377-  0.0006 = 26.0303  Versus  26.0306

Mass Balance = -2.6131E-04 cm;  Time step attempts = 2378 and successes = 2378
  Evaporation:  Potential =  0.1132 cm, Actual =  0.0032 cm
Transpiration:  Potential =  2.1512 cm, Actual =  0.0377 cm
RHMEAN = 73.2 %;  TMEAN = 295.9 K;  HDRY =  4.2692E+05 cm;  DAYUBC =  1774

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 278, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12283     0.21427     0.25559
Head (cm)          = 1.31833E+04 3.35371E+03 1.14685E+03
Water Flow (cm)    = 5.77165E-05-7.17487E-03 6.12411E-04
Plant Sink (cm)    = 4.23530E-04 2.76158E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.0306+ 0.2286+ 0.0000 - 0.0117- 0.0158-  0.0006 = 26.2311  Versus  26.2313

Mass Balance = -2.1362E-04 cm;  Time step attempts = 8482 and successes = 8482
  Evaporation:  Potential =  0.0472 cm, Actual =  0.0117 cm
Transpiration:  Potential =  0.8965 cm, Actual =  0.0158 cm
RHMEAN = 79.2 %;  TMEAN = 286.2 K;  HDRY =  3.2031E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 279, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12352     0.21433     0.25547
Head (cm)          = 1.27478E+04 3.34691E+03 1.14992E+03
Water Flow (cm)    = 2.97047E-04-7.09983E-03 6.07438E-04
Plant Sink (cm)    = 1.85303E-03 3.95196E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 26.2313+ 0.0000+ 0.0000 - 0.0166- 0.0268-  0.0006 = 26.1873  Versus  26.1873

Mass Balance = -3.8147E-06 cm;  Time step attempts =  557 and successes =  557
  Evaporation:  Potential =  0.0666 cm, Actual =  0.0166 cm
Transpiration:  Potential =  1.2654 cm, Actual =  0.0268 cm
RHMEAN = 63.6 %;  TMEAN = 283.4 K;  HDRY =  6.1977E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 280, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
```

```
Water (cm3/cm3)     =     0.12263     0.21427     0.25534
Head (cm)           = 1.33099E+04 3.35387E+03 1.15298E+03
Water Flow (cm)     = 2.77892E-04-7.04999E-03 6.02533E-04
Plant Sink (cm)     = 2.23228E-03 5.15127E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.1873+ 0.0000+ 0.0000 - 0.0217- 0.0321-  0.0006 = 26.1329  Versus  26.1329

Mass Balance =  1.9073E-06 cm;  Time step attempts =  548 and successes =  548
  Evaporation:  Potential =  0.0868 cm, Actual =  0.0217 cm
Transpiration:  Potential =  1.6494 cm, Actual =  0.0321 cm
RHMEAN = 65.1 %;  TMEAN = 284.5 K;  HDRY =  5.8882E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 281, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12118     0.21390     0.25522
Head (cm)           = 1.43123E+04 3.39478E+03 1.15602E+03
Water Flow (cm)     = 1.45588E-04-7.04065E-03 5.97691E-04
Plant Sink (cm)     = 1.97517E-03 8.22260E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.1329+ 0.0000+ 0.0000 - 0.0349- 0.0400-  0.0006 = 26.0574  Versus  26.0574

Mass Balance =  5.7220E-06 cm;  Time step attempts = 1612 and successes = 1612
  Evaporation:  Potential =  0.1395 cm, Actual =  0.0349 cm
Transpiration:  Potential =  2.6505 cm, Actual =  0.0400 cm
RHMEAN = 64.8 %;  TMEAN = 289.5 K;  HDRY =  5.9414E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 282, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.22088     0.21395     0.25511
Head (cm)           = 1.04458E+03 3.39013E+03 1.15859E+03
Water Flow (cm)     = 3.53213E-01-7.02707E-03 5.93602E-04
Plant Sink (cm)     = 2.80250E-02 3.93894E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 26.0574+ 1.1959+ 0.3027 - 0.0168- 0.1972-  0.0006 = 27.0387  Versus  27.0395

Mass Balance = -7.9346E-04 cm;  Time step attempts =16179 and successes =16179
  Evaporation:  Potential =  0.0685 cm, Actual =  0.0168 cm
Transpiration:  Potential =  1.3022 cm, Actual =  0.1972 cm
RHMEAN = 76.1 %;  TMEAN = 294.0 K;  HDRY =  3.7383E+05 cm;  DAYUBC =  4489

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DAILY SUMMARY:  Day = 283, Simulated Time = 24.0000 hr
```

```
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.33227     0.21436     0.25502
Head (cm)          = 2.10928E+02 3.34447E+03 1.16077E+03
Water Flow (cm)    = 3.04354E+00-6.94605E-03 5.89996E-04
Plant Sink (cm)    = 1.14026E-03 1.61436E-05 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 27.0395+ 3.8036+ 1.6320 - 0.0007- 0.0118-  0.0006 = 30.8300  Versus  30.8320

Mass Balance = -1.9608E-03 cm;  Time step attempts =25334 and successes =25334
  Evaporation:  Potential =  0.0029 cm, Actual =  0.0007 cm
Transpiration:  Potential =  0.0552 cm, Actual =  0.0118 cm
RHMEAN = 87.4 %;  TMEAN = 292.9 K;  HDRY =  1.8457E+05 cm;  DAYUBC = 12324
```

```
DAILY SUMMARY:  Day = 284, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.32837     0.21477     0.25491
Head (cm)          = 2.24221E+02 3.29925E+03 1.16371E+03
Water Flow (cm)    = 6.37511E-01-6.82409E-03 5.85727E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.8320+ 0.6096+ 0.0000 - 0.0000- 0.0000-  0.0006 = 31.4410  Versus  31.4412

Mass Balance = -1.7166E-04 cm;  Time step attempts = 8441 and successes = 8441
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 97.3 %;  TMEAN = 288.4 K;  HDRY =  3.7054E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 285, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.33671     0.21482     0.25479
Head (cm)          = 1.96303E+02 3.29406E+03 1.16659E+03
Water Flow (cm)    = 1.12043E+00-6.73712E-03 5.81285E-04
Plant Sink (cm)    = 2.45498E-02 3.54371E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 31.4412+ 1.3033+ 0.1445 - 0.0147- 0.2717-  0.0006 = 32.4574  Versus  32.4578

Mass Balance = -3.5095E-04 cm;  Time step attempts = 8885 and successes = 8885
  Evaporation:  Potential =  0.0600 cm, Actual =  0.0147 cm
Transpiration:  Potential =  1.1407 cm, Actual =  0.2717 cm
RHMEAN = 82.4 %;  TMEAN = 291.2 K;  HDRY =  2.6565E+05 cm;  DAYUBC =   943
```

```
DAILY SUMMARY:  Day = 286, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.31594     0.21505     0.25467
Head (cm)         = 2.69982E+02 3.26946E+03 1.16961E+03
Water Flow (cm)   = 6.45011E-02-6.67134E-03 5.76739E-04
Plant Sink (cm)   = 1.57692E-02 2.28436E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.4578+ 0.0000+ 0.0000 - 0.0094- 0.1770-  0.0006 = 32.2708  Versus  32.2708

Mass Balance = -3.8147E-06 cm;  Time step attempts = 2227 and successes = 2227
  Evaporation:  Potential =  0.0378 cm, Actual =  0.0094 cm
Transpiration:  Potential =  0.7181 cm, Actual =  0.1770 cm
RHMEAN = 79.9 %;  TMEAN = 287.6 K;  HDRY =  3.0708E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 287, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.29444     0.21592     0.25455
Head (cm)         = 3.64962E+02 3.17887E+03 1.17263E+03
Water Flow (cm)   =-1.57025E-03-6.54331E-03 5.72214E-04
Plant Sink (cm)   = 2.97640E-02 4.36184E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.2708+ 0.0000+ 0.0000 - 0.0178- 0.3385-  0.0006 = 31.9139  Versus  31.9139

Mass Balance =  5.7220E-06 cm;  Time step attempts =  836 and successes =  836
  Evaporation:  Potential =  0.0713 cm, Actual =  0.0178 cm
Transpiration:  Potential =  1.3553 cm, Actual =  0.3385 cm
RHMEAN = 64.0 %;  TMEAN = 287.0 K;  HDRY =  6.1142E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 288, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.27515     0.21878     0.25443
Head (cm)         = 4.74774E+02 2.90488E+03 1.17563E+03
Water Flow (cm)   =-2.59688E-02-6.09023E-03 5.67754E-04
Plant Sink (cm)   = 3.15418E-02 4.86527E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.9139+ 0.0000+ 0.0000 - 0.0189- 0.3590-  0.0006 = 31.5354  Versus  31.5354

Mass Balance = -5.7220E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0756 cm, Actual =  0.0189 cm
Transpiration:  Potential =  1.4363 cm, Actual =  0.3590 cm
```

```
RHMEAN = 68.6 %;  TMEAN = 285.9 K;  HDRY =  5.1747E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 289, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26003     0.22325     0.25431
Head (cm)          = 5.84628E+02 2.54114E+03 1.17863E+03
Water Flow (cm)    =-3.04165E-02-5.02210E-03 5.63354E-04
Plant Sink (cm)    = 2.66735E-02 4.19091E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 31.5354+ 0.0000+ 0.0000 - 0.0160- 0.3037-  0.0006 = 31.2152  Versus  31.2152

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0639 cm, Actual =  0.0160 cm
Transpiration:  Potential =  1.2146 cm, Actual =  0.3037 cm
RHMEAN = 60.6 %;  TMEAN = 282.3 K;  HDRY =  6.8753E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 290, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.23568     0.22780     0.25419
Head (cm)          = 8.30354E+02 2.23416E+03 1.18162E+03
Water Flow (cm)    =-4.50130E-02-3.39306E-03 5.59008E-04
Plant Sink (cm)    = 4.18424E-02 6.57422E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 31.2152+ 0.0000+ 0.0000 - 0.0251- 0.4763-  0.0006 = 30.7132  Versus  30.7133

Mass Balance = -1.3351E-05 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.1003 cm, Actual =  0.0251 cm
Transpiration:  Potential =  1.9054 cm, Actual =  0.4763 cm
RHMEAN = 57.2 %;  TMEAN = 284.8 K;  HDRY =  7.6505E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 291, Simulated Time = 24.0000 hr
-------------
Node Number        =      2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.19529     0.23146     0.25407
Head (cm)          = 1.62867E+03 2.02381E+03 1.18460E+03
Water Flow (cm)    =-5.34549E-02-1.61034E-03 5.54714E-04
Plant Sink (cm)    = 6.16202E-02 9.68167E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.7133+ 0.0000+ 0.0000 - 0.0369- 0.7015-  0.0006 = 29.9743  Versus  29.9743
```

```
Mass Balance = -1.9073E-06 cm;  Time step attempts =  396 and successes =  396
  Evaporation:  Potential =  0.1477 cm, Actual =  0.0369 cm
Transpiration:  Potential =  2.8060 cm, Actual =  0.7015 cm
RHMEAN = 56.2 %;  TMEAN = 290.9 K;  HDRY =  7.9086E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 292, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.20011     0.23521     0.25396
Head (cm)         = 1.48932E+03 1.83664E+03 1.18758E+03
Water Flow (cm)   =-3.81245E-02 2.24727E-04 5.50471E-04
Plant Sink (cm)   = 5.69596E-03 8.94941E-05 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.9743+ 0.0000+ 0.0000 - 0.0034- 0.0648-  0.0006 = 29.9055  Versus  29.9055

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0137 cm, Actual =  0.0034 cm
Transpiration:  Potential =  0.2594 cm, Actual =  0.0648 cm
RHMEAN = 85.6 %;  TMEAN = 287.0 K;  HDRY =  2.1259E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 293, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.18025     0.23782     0.25384
Head (cm)         = 2.20229E+03 1.72056E+03 1.19055E+03
Water Flow (cm)   =-3.27070E-02 1.96532E-03 5.46279E-04
Plant Sink (cm)   = 2.97476E-02 4.67389E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.9055+ 0.0000+ 0.0000 - 0.0178- 0.3386-  0.0005 = 29.5485  Versus  29.5485

Mass Balance =  0.0000E+00 cm;  Time step attempts =  378 and successes =  378
  Evaporation:  Potential =  0.0713 cm, Actual =  0.0178 cm
Transpiration:  Potential =  1.3546 cm, Actual =  0.3386 cm
RHMEAN = 77.8 %;  TMEAN = 291.2 K;  HDRY =  3.4484E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 294, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.14981     0.23939     0.25372
Head (cm)         = 4.74164E+03 1.65550E+03 1.19352E+03
Water Flow (cm)   =-2.37145E-02 3.06481E-03 5.42135E-04
Plant Sink (cm)   = 3.94784E-02 7.16616E-04 0.00000E+00
```

```
 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.5485+ 0.0000+ 0.0000 - 0.0273- 0.4916-  0.0005 = 29.0290  Versus  29.0290

Mass Balance =  0.0000E+00 cm;  Time step attempts = 1045 and successes = 1045
  Evaporation:  Potential =  0.1093 cm, Actual =  0.0273 cm
Transpiration:  Potential =  2.0769 cm, Actual =  0.4916 cm
RHMEAN = 70.5 %;  TMEAN = 294.3 K;  HDRY =  4.7883E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 295, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.14107     0.24063     0.25361
Head (cm)          = 6.27907E+03 1.60677E+03 1.19648E+03
Water Flow (cm)    =-1.27387E-02 3.68624E-03 5.38041E-04
Plant Sink (cm)    = 1.42262E-02 4.13576E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.0290+ 0.0000+ 0.0000 - 0.0158- 0.2392-  0.0005 = 28.7735  Versus  28.7735

Mass Balance = -1.9073E-06 cm;  Time step attempts =  789 and successes =  789
  Evaporation:  Potential =  0.0631 cm, Actual =  0.0158 cm
Transpiration:  Potential =  1.1986 cm, Actual =  0.2392 cm
RHMEAN = 81.6 %;  TMEAN = 293.7 K;  HDRY =  2.7855E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 296, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.13085     0.24116     0.25350
Head (cm)          = 9.20952E+03 1.58639E+03 1.19943E+03
Water Flow (cm)    =-6.61481E-03 3.92143E-03 5.33997E-04
Plant Sink (cm)    = 1.30782E-02 6.26938E-04 0.00000E+00

 PRESTOR    INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.7735+ 0.0000+ 0.0000 - 0.0239- 0.2989-  0.0005 = 28.4501  Versus  28.4501

Mass Balance = -1.9073E-06 cm;  Time step attempts = 1117 and successes = 1117
  Evaporation:  Potential =  0.0956 cm, Actual =  0.0239 cm
Transpiration:  Potential =  1.8170 cm, Actual =  0.2989 cm
RHMEAN = 71.4 %;  TMEAN = 295.1 K;  HDRY =  4.6185E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 297, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12522     0.24126     0.25338
Head (cm)          = 1.17713E+04 1.58269E+03 1.20237E+03
```

```
Water Flow (cm)    =-2.94707E-03 3.70295E-03 5.30003E-04
Plant Sink (cm)    = 6.90742E-03 6.74515E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.4501+ 0.0000+ 0.0000 - 0.0257- 0.2520-  0.0005 = 28.1718  Versus  28.1718

Mass Balance = -1.9073E-06 cm;  Time step attempts = 1094 and successes = 1094
  Evaporation:  Potential =  0.1029 cm, Actual =  0.0257 cm
Transpiration:  Potential =  1.9549 cm, Actual =  0.2520 cm
RHMEAN = 65.4 %;  TMEAN = 287.0 K;  HDRY =  5.8172E+05 cm;  DAYUBC =     0
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 298, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12299     0.24122     0.25327
Head (cm)          = 1.30839E+04 1.58432E+03 1.20531E+03
Water Flow (cm)    =-1.51583E-03 3.27594E-03 5.26059E-04
Plant Sink (cm)    = 2.77569E-03 5.38985E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.1718+ 0.0000+ 0.0000 - 0.0206- 0.1652-  0.0005 = 27.9855  Versus  27.9855

Mass Balance =  3.8147E-06 cm;  Time step attempts = 1148 and successes = 1148
  Evaporation:  Potential =  0.0822 cm, Actual =  0.0206 cm
Transpiration:  Potential =  1.5621 cm, Actual =  0.1652 cm
RHMEAN = 46.6 %;  TMEAN = 283.4 K;  HDRY =  1.0464E+06 cm;  DAYUBC =     0
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 299, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.12191     0.24108     0.25316
Head (cm)          = 1.37920E+04 1.58936E+03 1.20824E+03
Water Flow (cm)    =-9.73897E-04 2.79704E-03 5.22161E-04
Plant Sink (cm)    = 1.30809E-03 4.41564E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.9855+ 0.0000+ 0.0000 - 0.0168- 0.1180-  0.0005 = 27.8501  Versus  27.8501

Mass Balance =  0.0000E+00 cm;  Time step attempts = 1745 and successes = 1745
  Evaporation:  Potential =  0.0674 cm, Actual =  0.0168 cm
Transpiration:  Potential =  1.2797 cm, Actual =  0.1180 cm
RHMEAN = 51.1 %;  TMEAN = 282.6 K;  HDRY =  9.2099E+05 cm;  DAYUBC =     0
--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 300, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
```

```
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12125     0.24085     0.25304
Head (cm)           = 1.42585E+04 1.59838E+03 1.21116E+03
Water Flow (cm)     =-6.98142E-04 2.28469E-03 5.18313E-04
Plant Sink (cm)     = 7.44067E-04 4.15432E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.8501+ 0.0000+ 0.0000 - 0.0158- 0.1003-  0.0005 = 27.7334  Versus  27.7335

Mass Balance = -4.7684E-05 cm;  Time step attempts = 2578 and successes = 2578
  Evaporation:  Potential =  0.0634 cm, Actual =  0.0158 cm
Transpiration:  Potential =  1.2040 cm, Actual =  0.1003 cm
RHMEAN = 53.9 %;  TMEAN = 281.8 K;  HDRY =  8.4799E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 301, Simulated Time = 24.0000 hr
-------------
Node Number         =       2           12           25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12053     0.24008     0.25296
Head (cm)           = 1.47934E+04 1.62810E+03 1.21342E+03
Water Flow (cm)     =-4.43375E-04 1.56412E-03 5.14880E-04
Plant Sink (cm)     = 6.74891E-04 8.40666E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.7335+ 0.0000+ 0.0000 - 0.0321- 0.1770-  0.0005 = 27.5239  Versus  27.5246

Mass Balance = -7.5531E-04 cm;  Time step attempts =13621 and successes =13621
  Evaporation:  Potential =  0.1282 cm, Actual =  0.0321 cm
Transpiration:  Potential =  2.4364 cm, Actual =  0.1770 cm
RHMEAN = 48.7 %;  TMEAN = 285.7 K;  HDRY =  9.8559E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 302, Simulated Time = 24.0000 hr
-------------
Node Number         =       2           12           25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.12010     0.23933     0.25292
Head (cm)           = 1.51259E+04 1.65821E+03 1.21435E+03
Water Flow (cm)     =-2.41426E-04 7.26084E-04 5.12502E-04
Plant Sink (cm)     = 1.25565E-04 8.37921E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.5246+ 0.0000+ 0.0000 - 0.0320- 0.1486-  0.0005 = 27.3436  Versus  27.3453

Mass Balance = -1.7910E-03 cm;  Time step attempts =75994 and successes =75994
  Evaporation:  Potential =  0.1278 cm, Actual =  0.0320 cm
Transpiration:  Potential =  2.4285 cm, Actual =  0.1486 cm
RHMEAN = 47.9 %;  TMEAN = 289.5 K;  HDRY =  1.0097E+06 cm;  DAYUBC =     0

-------------------------------------------------------------------------------
```

```
DAILY SUMMARY:  Day = 303, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11914     0.23872     0.25286
Head (cm)         = 1.59113E+04 1.68317E+03 1.21601E+03
Water Flow (cm)   =-1.96278E-04 1.29788E-04 5.11588E-04
Plant Sink (cm)   = 0.00000E+00 6.40584E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.3453+ 0.0000+ 0.0000 - 0.0118- 0.1010-  0.0005 = 27.2320  Versus  27.2335

Mass Balance = -1.5240E-03 cm;  Time step attempts =54742 and successes =54742
  Evaporation:  Potential =  0.0977 cm, Actual =  0.0118 cm
Transpiration:  Potential =  1.8566 cm, Actual =  0.1010 cm
RHMEAN = 55.3 %;  TMEAN = 287.6 K;  HDRY =  8.1282E+05 cm;  DAYUBC =  5076

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 304, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11819     0.23791     0.25275
Head (cm)         = 1.67469E+04 1.71678E+03 1.21893E+03
Water Flow (cm)   =-2.32401E-04-5.46218E-04 5.08266E-04
Plant Sink (cm)   = 0.00000E+00 6.98808E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.2335+ 0.0000+ 0.0000 - 0.0018- 0.0998-  0.0005 = 27.1315  Versus  27.1315

Mass Balance = -9.5367E-06 cm;  Time step attempts =  817 and successes =  817
  Evaporation:  Potential =  0.1066 cm, Actual =  0.0018 cm
Transpiration:  Potential =  2.0253 cm, Actual =  0.0998 cm
RHMEAN = 65.8 %;  TMEAN = 289.8 K;  HDRY =  5.7344E+05 cm;  DAYUBC =   738

-------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 305, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.11746     0.23730     0.25264
Head (cm)         = 1.74402E+04 1.74300E+03 1.22181E+03
Water Flow (cm)   =-2.67939E-04-1.15298E-03 5.04574E-04
Plant Sink (cm)   = 0.00000E+00 5.02057E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.1315+ 0.0000+ 0.0000 - 0.0009- 0.0660-  0.0005 = 27.0640  Versus  27.0641

Mass Balance = -4.0054E-05 cm;  Time step attempts =  823 and successes =  823
  Evaporation:  Potential =  0.0766 cm, Actual =  0.0009 cm
Transpiration:  Potential =  1.4551 cm, Actual =  0.0660 cm
RHMEAN = 73.2 %;  TMEAN = 294.3 K;  HDRY =  4.2807E+05 cm;  DAYUBC =   739
```

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-------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 306, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    50.00000   122.00000
 Water (cm3/cm3)    =     0.11688     0.23719     0.25253
 Head (cm)          = 1.80135E+04 1.74774E+03 1.22468E+03
 Water Flow (cm)    =-3.07431E-04-1.45814E-03 5.00967E-04
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  27.0641+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0005 = 27.0636  Versus  27.0636

 Mass Balance =  0.0000E+00 cm;  Time step attempts =    96 and successes =   96
   Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 93.0 %;  TMEAN = 291.5 K;  HDRY =  9.9725E+04 cm;  DAYUBC =     0

-------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 307, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    50.00000   122.00000
 Water (cm3/cm3)    =     0.32265     0.23711     0.25246
 Head (cm)          = 2.44589E+02 1.75115E+03 1.22664E+03
 Water Flow (cm)    = 2.87406E+00-1.54093E-03 4.98332E-04
 Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  27.0636+ 4.3828+ 2.6784 - 0.0000- 0.0000-  0.0005 = 31.4459  Versus  31.4472

 Mass Balance = -1.3142E-03 cm;  Time step attempts =29266 and successes =29266
   Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 99.7 %;  TMEAN = 289.5 K;  HDRY =  4.5820E+03 cm;  DAYUBC = 18715

-------------------------------------------------------------------------------

 DAILY SUMMARY:  Day = 308, Simulated Time = 24.0000 hr
 -------------
 Node Number        =       2          12          25
 Depth (cm)         =     5.00000    50.00000   122.00000
 Water (cm3/cm3)    =     0.29879     0.23688     0.25235
 Head (cm)          = 3.43786E+02 1.76114E+03 1.22950E+03
 Water Flow (cm)    = 1.26127E-01-1.68435E-03 4.94971E-04
 Plant Sink (cm)    = 8.03227E-03 1.26202E-04 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  31.4472+ 0.0000+ 0.0000 - 0.0048- 0.0914-  0.0005 = 31.3504  Versus  31.3504

 Mass Balance =  7.6294E-06 cm;  Time step attempts =   690 and successes =  690
   Evaporation:  Potential =  0.0193 cm, Actual =  0.0048 cm
```

```
Transpiration:  Potential =  0.3658 cm, Actual =  0.0914 cm
RHMEAN = 86.9 %;  TMEAN = 290.7 K;  HDRY =  1.9254E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 309, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.28442     0.23666     0.25225
Head (cm)          = 4.18447E+02 1.77096E+03 1.23234E+03
Water Flow (cm)    = 4.88517E-02-1.86867E-03 4.91473E-04
Plant Sink (cm)    = 1.01571E-02 1.59588E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.3504+ 0.0000+ 0.0000 - 0.0061- 0.1156-  0.0005 = 31.2282  Versus  31.2282

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0243 cm, Actual =  0.0061 cm
Transpiration:  Potential =  0.4625 cm, Actual =  0.1156 cm
RHMEAN = 78.9 %;  TMEAN = 289.8 K;  HDRY =  3.2513E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 310, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26791     0.23644     0.25214
Head (cm)          = 5.24219E+02 1.78063E+03 1.23515E+03
Water Flow (cm)    = 8.73315E-03-2.04387E-03 4.88044E-04
Plant Sink (cm)    = 2.09441E-02 3.29070E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.2282+ 0.0000+ 0.0000 - 0.0125- 0.2384-  0.0005 = 30.9767  Versus  30.9767

Mass Balance = -5.7220E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0502 cm, Actual =  0.0125 cm
Transpiration:  Potential =  0.9537 cm, Actual =  0.2384 cm
RHMEAN = 74.9 %;  TMEAN = 289.8 K;  HDRY =  3.9616E+05 cm;  DAYUBC =     0

-------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 311, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24396     0.23629     0.25204
Head (cm)          = 7.34711E+02 1.78726E+03 1.23793E+03
Water Flow (cm)    =-2.52884E-02-2.17753E-03 4.84676E-04
Plant Sink (cm)    = 3.76489E-02 5.91534E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.9767+ 0.0000+ 0.0000 - 0.0226- 0.4286-  0.0005 = 30.5251  Versus  30.5251
```

```
Mass Balance = -9.5367E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  0.0902 cm, Actual =  0.0226 cm
Transpiration:  Potential =  1.7144 cm, Actual =  0.4286 cm
RHMEAN = 59.4 %;  TMEAN = 290.7 K;  HDRY =  7.1452E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 312, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23681     0.23673     0.25194
Head (cm)         = 8.16420E+02 1.76785E+03 1.24060E+03
Water Flow (cm)   = 1.01979E-02-2.07153E-03 4.81470E-04
Plant Sink (cm)   = 2.25540E-02 3.54365E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.5251+ 0.0762+ 0.0000 - 0.0135- 0.2568-  0.0005 = 30.3306  Versus  30.3306

Mass Balance = -8.3923E-05 cm;  Time step attempts = 2096 and successes = 2096
  Evaporation:  Potential =  0.0546 cm, Actual =  0.0135 cm
Transpiration:  Potential =  1.0374 cm, Actual =  0.2568 cm
RHMEAN = 74.0 %;  TMEAN = 286.2 K;  HDRY =  4.1295E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 313, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.22822     0.23753     0.25184
Head (cm)         = 9.30365E+02 1.73285E+03 1.24333E+03
Water Flow (cm)   =-1.52823E-02-1.64315E-03 4.78221E-04
Plant Sink (cm)   = 1.49331E-02 2.34627E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.3306+ 0.0000+ 0.0000 - 0.0089- 0.1700-  0.0005 = 30.1512  Versus  30.1512

Mass Balance = -1.9073E-06 cm;  Time step attempts =    96 and successes =    96
  Evaporation:  Potential =  0.0358 cm, Actual =  0.0089 cm
Transpiration:  Potential =  0.6800 cm, Actual =  0.1700 cm
RHMEAN = 72.8 %;  TMEAN = 282.6 K;  HDRY =  4.3557E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 314, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.21392     0.23831     0.25174
Head (cm)         = 1.17071E+03 1.70017E+03 1.24604E+03
Water Flow (cm)   =-2.23819E-02-1.11382E-03 4.75030E-04
Plant Sink (cm)   = 2.33110E-02 3.66259E-04 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.1512+ 0.0000+ 0.0000 - 0.0140- 0.2654-  0.0005 = 29.8714  Versus  29.8714

Mass Balance = -5.7220E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0559 cm, Actual =  0.0140 cm
Transpiration:  Potential =  1.0615 cm, Actual =  0.2654 cm
RHMEAN = 63.9 %;  TMEAN = 287.6 K;  HDRY =  6.1356E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 315, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.20339     0.23913     0.25164
Head (cm)          = 1.40369E+03 1.66639E+03 1.24871E+03
Water Flow (cm)    =-2.28220E-02-5.99569E-04 4.71899E-04
Plant Sink (cm)    = 1.87005E-02 2.93819E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.8714+ 0.0000+ 0.0000 - 0.0112- 0.2129-  0.0005 = 29.6468  Versus  29.6468

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0448 cm, Actual =  0.0112 cm
Transpiration:  Potential =  0.8516 cm, Actual =  0.2129 cm
RHMEAN = 73.2 %;  TMEAN = 286.2 K;  HDRY =  4.2765E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 316, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.19069     0.23981     0.25154
Head (cm)          = 1.77904E+03 1.63869E+03 1.25136E+03
Water Flow (cm)    =-2.24515E-02-1.33364E-04 4.68828E-04
Plant Sink (cm)    = 2.08185E-02 3.27098E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.6468+ 0.0000+ 0.0000 - 0.0125- 0.2370-  0.0005 = 29.3969  Versus  29.3969

Mass Balance =  0.0000E+00 cm;  Time step attempts =  204 and successes =  204
  Evaporation:  Potential =  0.0499 cm, Actual =  0.0125 cm
Transpiration:  Potential =  0.9480 cm, Actual =  0.2370 cm
RHMEAN = 72.8 %;  TMEAN = 286.8 K;  HDRY =  4.3547E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 317, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.17713     0.24036     0.25145
```

```
Head (cm)          = 2.35657E+03 1.61729E+03 1.25398E+03
Water Flow (cm)    =-2.10844E-02 2.10831E-04 4.65816E-04
Plant Sink (cm)    = 2.13860E-02 3.36013E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.3969+ 0.0000+ 0.0000 - 0.0128- 0.2435-  0.0005 = 29.1402  Versus  29.1402

Mass Balance = -5.7220E-06 cm;  Time step attempts =  296 and successes =  296
  Evaporation:  Potential =  0.0513 cm, Actual =  0.0128 cm
Transpiration:  Potential =  0.9738 cm, Actual =  0.2435 cm
RHMEAN = 79.3 %;  TMEAN = 288.7 K;  HDRY =  3.1857E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 318, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15956     0.24068     0.25135
Head (cm)          = 3.59968E+03 1.60485E+03 1.25657E+03
Water Flow (cm)    =-1.81821E-02 3.98481E-04 4.62866E-04
Plant Sink (cm)    = 2.47265E-02 4.07056E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.1402+ 0.0000+ 0.0000 - 0.0155- 0.2896-  0.0005 = 28.8346  Versus  28.8346

Mass Balance = -1.9073E-06 cm;  Time step attempts =  569 and successes =  569
  Evaporation:  Potential =  0.0621 cm, Actual =  0.0155 cm
Transpiration:  Potential =  1.1797 cm, Actual =  0.2896 cm
RHMEAN = 74.5 %;  TMEAN = 290.7 K;  HDRY =  4.0292E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 319, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15259     0.24101     0.25126
Head (cm)          = 4.36777E+03 1.59204E+03 1.25912E+03
Water Flow (cm)    =-1.35100E-02 4.98894E-04 4.59975E-04
Plant Sink (cm)    = 1.23979E-02 2.52871E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.8346+ 0.0000+ 0.0000 - 0.0096- 0.1662-  0.0005 = 28.6583  Versus  28.6583

Mass Balance =  1.9073E-06 cm;  Time step attempts =  426 and successes =  426
  Evaporation:  Potential =  0.0386 cm, Actual =  0.0096 cm
Transpiration:  Potential =  0.7329 cm, Actual =  0.1662 cm
RHMEAN = 75.9 %;  TMEAN = 288.2 K;  HDRY =  3.7753E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 320, Simulated Time = 24.0000 hr
-------------
```

```
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15424     0.24144     0.25117
Head (cm)          = 4.16512E+03 1.57590E+03 1.26165E+03
Water Flow (cm)    =-1.08756E-02 6.46804E-04 4.57140E-04
Plant Sink (cm)    = 2.23217E-03 4.89570E-05 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.6583+ 0.0000+ 0.0000 - 0.0019- 0.0312-  0.0005 = 28.6248  Versus  28.6248

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0075 cm, Actual =  0.0019 cm
Transpiration:  Potential =  0.1419 cm, Actual =  0.0312 cm
RHMEAN = 81.0 %;  TMEAN = 287.0 K;  HDRY =  2.8924E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 321, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15279     0.24172     0.25108
Head (cm)          = 4.34198E+03 1.56527E+03 1.26415E+03
Water Flow (cm)    =-9.77812E-03 7.74623E-04 4.54358E-04
Plant Sink (cm)    = 4.49595E-03 9.85389E-05 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.6248+ 0.0000+ 0.0000 - 0.0038- 0.0625-  0.0005 = 28.5580  Versus  28.5580

Mass Balance = -3.8147E-06 cm;  Time step attempts =  160 and successes =  160
  Evaporation:  Potential =  0.0150 cm, Actual =  0.0038 cm
Transpiration:  Potential =  0.2856 cm, Actual =  0.0625 cm
RHMEAN = 75.4 %;  TMEAN = 289.5 K;  HDRY =  3.8754E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 322, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.21858     0.24165     0.25099
Head (cm)          = 1.08421E+03 1.56806E+03 1.26650E+03
Water Flow (cm)    = 2.76622E-01 6.96917E-04 4.51752E-04
Plant Sink (cm)    = 2.29264E-02 3.60216E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.5580+ 0.8605+ 0.1809 - 0.0137- 0.2610-  0.0005 = 29.1433  Versus  29.1436

Mass Balance = -2.9373E-04 cm;  Time step attempts = 5788 and successes = 5788
  Evaporation:  Potential =  0.0561 cm, Actual =  0.0137 cm
Transpiration:  Potential =  1.0653 cm, Actual =  0.2610 cm
RHMEAN = 78.0 %;  TMEAN = 291.2 K;  HDRY =  3.4017E+05 cm;  DAYUBC =   582
```

```
DAILY SUMMARY:  Day = 323, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.24088     0.24130     0.25091
Head (cm)         = 7.68619E+02 1.58129E+03 1.26885E+03
Water Flow (cm)   = 5.64072E-01 3.61947E-04 4.49176E-04
Plant Sink (cm)   = 3.49560E-02 5.49223E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.1436+ 0.8890+ 0.0000 - 0.0209- 0.3979-  0.0004 = 29.6133  Versus  29.6134

Mass Balance = -4.3869E-05 cm;  Time step attempts = 2951 and successes = 2951
  Evaporation:  Potential =  0.0846 cm, Actual =  0.0209 cm
Transpiration:  Potential =  1.6078 cm, Actual =  0.3979 cm
RHMEAN = 63.1 %;  TMEAN = 281.2 K;  HDRY =  6.3139E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 324, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.22270     0.24117     0.25082
Head (cm)         = 1.01463E+03 1.58608E+03 1.27126E+03
Water Flow (cm)   = 4.64660E-02 3.54897E-05 4.46558E-04
Plant Sink (cm)   = 1.64243E-02 2.58056E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.6134+ 0.0000+ 0.0000 - 0.0098- 0.1870-  0.0004 = 29.4161  Versus  29.4161

Mass Balance = -1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0394 cm, Actual =  0.0098 cm
Transpiration:  Potential =  0.7479 cm, Actual =  0.1870 cm
RHMEAN = 57.0 %;  TMEAN = 278.2 K;  HDRY =  7.7126E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 325, Simulated Time = 24.0000 hr
-------------
Node Number       =        2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.20650     0.24094     0.25074
Head (cm)         = 1.32881E+03 1.59504E+03 1.27364E+03
Water Flow (cm)   = 7.96343E-03-2.11825E-04 4.43989E-04
Plant Sink (cm)   = 2.01514E-02 3.16615E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.4161+ 0.0000+ 0.0000 - 0.0121- 0.2294-  0.0004 = 29.1742  Versus  29.1742

Mass Balance = -1.9073E-06 cm;  Time step attempts =  112 and successes =  112
  Evaporation:  Potential =  0.0483 cm, Actual =  0.0121 cm
Transpiration:  Potential =  0.9176 cm, Actual =  0.2294 cm
RHMEAN = 59.2 %;  TMEAN = 279.5 K;  HDRY =  7.1968E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 326, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.17689     0.24037     0.25066
Head (cm)          = 2.36867E+03 1.61676E+03 1.27598E+03
Water Flow (cm)    =-1.03211E-02-6.14733E-04 4.41472E-04
Plant Sink (cm)    = 3.81520E-02 5.99440E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 29.1742+ 0.0000+ 0.0000 - 0.0229- 0.4343-  0.0004 = 28.7165  Versus  28.7165

Mass Balance =  0.0000E+00 cm;  Time step attempts =  475 and successes =  475
  Evaporation:  Potential =  0.0914 cm, Actual =  0.0229 cm
Transpiration:  Potential =  1.7373 cm, Actual =  0.4343 cm
RHMEAN = 66.2 %;  TMEAN = 285.4 K;  HDRY =  5.6475E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 327, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15987     0.23997     0.25057
Head (cm)          = 3.57038E+03 1.63248E+03 1.27830E+03
Water Flow (cm)    =-1.27634E-02-1.04487E-03 4.39005E-04
Plant Sink (cm)    = 2.45811E-02 4.03297E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 28.7165+ 0.0000+ 0.0000 - 0.0154- 0.2873-  0.0004 = 28.4134  Versus  28.4134

Mass Balance =  1.3351E-05 cm;  Time step attempts =  569 and successes =  569
  Evaporation:  Potential =  0.0615 cm, Actual =  0.0154 cm
Transpiration:  Potential =  1.1688 cm, Actual =  0.2873 cm
RHMEAN = 77.1 %;  TMEAN = 290.4 K;  HDRY =  3.5660E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 328, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.14785     0.23958     0.25049
Head (cm)          = 5.03331E+03 1.64801E+03 1.28059E+03
Water Flow (cm)    =-8.74414E-03-1.36858E-03 4.36588E-04
Plant Sink (cm)    = 1.69942E-02 3.72866E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 28.4134+ 0.0000+ 0.0000 - 0.0142- 0.2352-  0.0004 = 28.1636  Versus  28.1636

Mass Balance = -3.8147E-06 cm;  Time step attempts =  691 and successes =  691
```

```
  Evaporation:  Potential =  0.0569 cm, Actual =  0.0142 cm
Transpiration:  Potential =  1.0806 cm, Actual =  0.2352 cm
RHMEAN = 65.7 %;  TMEAN = 285.1 K;  HDRY =  5.7608E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 329, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13560     0.23902     0.25041
Head (cm)         = 7.64284E+03 1.67081E+03 1.28284E+03
Water Flow (cm)   =-5.00548E-03-1.72866E-03 4.34219E-04
Plant Sink (cm)   = 1.52148E-02 5.31457E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 28.1636+ 0.0000+ 0.0000 - 0.0203- 0.2681-  0.0004 = 27.8748  Versus  27.8748

Mass Balance =  3.8147E-06 cm;  Time step attempts = 1015 and successes = 1015
  Evaporation:  Potential =  0.0811 cm, Actual =  0.0203 cm
Transpiration:  Potential =  1.5403 cm, Actual =  0.2681 cm
RHMEAN = 60.3 %;  TMEAN = 284.0 K;  HDRY =  6.9338E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 330, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.13004     0.23855     0.25033
Head (cm)         = 9.52588E+03 1.69009E+03 1.28507E+03
Water Flow (cm)   =-2.77135E-03-2.08593E-03 4.31898E-04
Plant Sink (cm)   = 7.21283E-03 4.24928E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 27.8748+ 0.0000+ 0.0000 - 0.0162- 0.1684-  0.0004 = 27.6898  Versus  27.6897

Mass Balance =  5.7220E-06 cm;  Time step attempts =  789 and successes =  789
  Evaporation:  Potential =  0.0648 cm, Actual =  0.0162 cm
Transpiration:  Potential =  1.2315 cm, Actual =  0.1684 cm
RHMEAN = 61.5 %;  TMEAN = 283.4 K;  HDRY =  6.6580E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 331, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12783     0.23822     0.25026
Head (cm)         = 1.04687E+04 1.70354E+03 1.28727E+03
Water Flow (cm)   =-1.85611E-03-2.32369E-03 4.29622E-04
Plant Sink (cm)   = 3.22952E-03 2.72409E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
```

```
 27.6897+ 0.0000+ 0.0000 - 0.0104- 0.0923-  0.0004 = 27.5866  Versus  27.5866

Mass Balance =  3.8147E-06 cm;  Time step attempts =  491 and successes =  491
  Evaporation:  Potential =  0.0416 cm, Actual =  0.0104 cm
Transpiration:  Potential =  0.7895 cm, Actual =  0.0923 cm
RHMEAN = 60.6 %;  TMEAN = 274.3 K;  HDRY =  6.8619E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 332, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12863     0.23817     0.25018
Head (cm)         = 1.01133E+04 1.70580E+03 1.28943E+03
Water Flow (cm)   =-1.61657E-03-2.39318E-03 4.27396E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.5866+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 27.5862  Versus  27.5862

Mass Balance = -3.8147E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 91.7 %;  TMEAN = 270.9 K;  HDRY =  1.1831E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 333, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.12937     0.23812     0.25011
Head (cm)         = 9.79905E+03 1.70814E+03 1.29156E+03
Water Flow (cm)   =-1.64331E-03-2.36748E-03 4.25217E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.5862+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 27.5858  Versus  27.5858

Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 90.8 %;  TMEAN = 272.6 K;  HDRY =  1.3263E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------

DAILY SUMMARY:  Day = 334, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.19841     0.23768     0.25004
Head (cm)         = 1.53634E+03 1.72660E+03 1.29351E+03
Water Flow (cm)   = 9.94003E-02-2.48913E-03 4.23239E-04
```

```
Plant Sink (cm)    = 2.43605E-02 3.83348E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.5858+ 0.7194+ 0.0679 - 0.0146- 0.2239-  0.0004 = 28.0663  Versus  28.0666

Mass Balance = -3.2616E-04 cm;  Time step attempts = 8914 and successes = 8914
  Evaporation:  Potential =  0.0591 cm, Actual =  0.0146 cm
Transpiration:  Potential =  1.1222 cm, Actual =  0.2239 cm
RHMEAN = 66.6 %;  TMEAN = 279.5 K;  HDRY =  5.5622E+05 cm;  DAYUBC =  1295
```

```
DAILY SUMMARY:  Day = 335, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.18520     0.23749     0.24997
Head (cm)          = 1.98556E+03 1.73453E+03 1.29559E+03
Water Flow (cm)    = 6.06096E-02-2.65035E-03 4.21144E-04
Plant Sink (cm)    = 8.01104E-03 1.25868E-04 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.0666+ 0.0000+ 0.0000 - 0.0048- 0.0784-  0.0004 = 27.9830  Versus  27.9830

Mass Balance =  0.0000E+00 cm;  Time step attempts =  411 and successes =  411
  Evaporation:  Potential =  0.0192 cm, Actual =  0.0048 cm
Transpiration:  Potential =  0.3648 cm, Actual =  0.0784 cm
RHMEAN = 75.7 %;  TMEAN = 280.4 K;  HDRY =  3.8214E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 336, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.17723     0.23747     0.24993
Head (cm)          = 2.35136E+03 1.73579E+03 1.29656E+03
Water Flow (cm)    = 2.91083E-02-2.66955E-03 4.19375E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.9830+ 0.0000+ 0.0000 - 0.2655- 0.0000-  0.0004 = 27.7171  Versus  27.7188

Mass Balance = -1.7700E-03 cm;  Time step attempts =61892 and successes =61892
  Evaporation:  Potential =  1.0621 cm, Actual =  0.2655 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 76.1 %;  TMEAN = 284.3 K;  HDRY =  3.7493E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 337, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
```

```
Water (cm3/cm3)     =     0.17252     0.23741     0.24986
Head (cm)           = 2.61407E+03 1.73830E+03 1.29850E+03
Water Flow (cm)     = 1.45058E-02-2.65371E-03 4.18226E-04
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.7188+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 27.7184  Versus  27.7186

Mass Balance = -1.6975E-04 cm;  Time step attempts = 2595 and successes = 2595
  Evaporation:  Potential =  0.0734 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 91.2 %;  TMEAN = 287.3 K;  HDRY =  1.2674E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 338, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.16933     0.23736     0.24981
Head (cm)           = 2.81676E+03 1.74039E+03 1.30010E+03
Water Flow (cm)     = 8.67969E-03-2.63615E-03 4.16605E-04
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.7186+ 0.0000+ 0.0000 - 0.0175- 0.0000-  0.0004 = 27.7006  Versus  27.7018

Mass Balance = -1.1578E-03 cm;  Time step attempts =36919 and successes =36919
  Evaporation:  Potential =  1.3539 cm, Actual =  0.0175 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 78.3 %;  TMEAN = 293.2 K;  HDRY =  3.3486E+05 cm;  DAYUBC =  4558

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 339, Simulated Time = 24.0000 hr
-------------
Node Number         =       2          12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.16686     0.23730     0.24975
Head (cm)           = 2.98924E+03 1.74283E+03 1.30192E+03
Water Flow (cm)     = 5.58278E-03-2.62113E-03 4.14838E-04
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.7018+ 0.0000+ 0.0000 - 0.0082- 0.0000-  0.0004 = 27.6932  Versus  27.6936

Mass Balance = -4.0245E-04 cm;  Time step attempts =12591 and successes =12591
  Evaporation:  Potential =  1.2723 cm, Actual =  0.0082 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 72.7 %;  TMEAN = 290.4 K;  HDRY =  4.3702E+05 cm;  DAYUBC =  3374

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 340, Simulated Time = 24.0000 hr
```

```
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    50.00000   122.00000
 Water (cm3/cm3)   =     0.16475     0.23725     0.24969
 Head (cm)         = 3.14941E+03 1.74496E+03 1.30349E+03
 Water Flow (cm)   = 3.52947E-03-2.61064E-03 4.13258E-04
 Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  27.6936+ 0.0000+ 0.0000 - 0.0087- 0.0000-  0.0004 = 27.6845  Versus  27.6848

 Mass Balance = -3.1662E-04 cm;  Time step attempts =33731 and successes =33731
   Evaporation:  Potential =  0.4185 cm, Actual =  0.0087 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 64.1 %;  TMEAN = 284.3 K;  HDRY =  6.1043E+05 cm;  DAYUBC =  3686

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 DAILY SUMMARY:  Day = 341, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    50.00000   122.00000
 Water (cm3/cm3)   =     0.16312     0.23719     0.24962
 Head (cm)         = 3.28128E+03 1.74760E+03 1.30542E+03
 Water Flow (cm)   = 2.11835E-03-2.60143E-03 4.11407E-04
 Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  27.6848+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 27.6844  Versus  27.6844

 Mass Balance =  0.0000E+00 cm;  Time step attempts =   96 and successes =   96
   Evaporation:  Potential =  0.4965 cm, Actual =  0.0000 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 77.8 %;  TMEAN = 283.2 K;  HDRY =  3.4344E+05 cm;  DAYUBC =     0

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 DAILY SUMMARY:  Day = 342, Simulated Time = 24.0000 hr
 -------------
 Node Number       =       2          12          25
 Depth (cm)        =     5.00000    50.00000   122.00000
 Water (cm3/cm3)   =     0.16162     0.23714     0.24957
 Head (cm)         = 3.41081E+03 1.74990E+03 1.30710E+03
 Water Flow (cm)   = 1.05698E-03-2.59525E-03 4.09763E-04
 Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

  PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
  27.6844+ 0.0000+ 0.0000 - 0.0119- 0.0000-  0.0004 = 27.6720  Versus  27.6727

 Mass Balance = -6.1035E-04 cm;  Time step attempts =22587 and successes =22587
   Evaporation:  Potential =  1.3779 cm, Actual =  0.0119 cm
 Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
 RHMEAN = 60.8 %;  TMEAN = 277.9 K;  HDRY =  6.8150E+05 cm;  DAYUBC =  3756

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```

```
DAILY SUMMARY:  Day = 343, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.16021     0.23708     0.24951
Head (cm)          = 3.53807E+03 1.75229E+03 1.30882E+03
Water Flow (cm)    = 1.34990E-04-2.59049E-03 4.08100E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.6727+ 0.0000+ 0.0000 - 0.0074- 0.0000-  0.0004 = 27.6649  Versus  27.6652

Mass Balance = -3.0899E-04 cm;  Time step attempts =12591 and successes =12591
  Evaporation:  Potential =  0.5743 cm, Actual =  0.0074 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 55.9 %;  TMEAN = 276.8 K;  HDRY =  7.9680E+05 cm;  DAYUBC =  2744

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DAILY SUMMARY:  Day = 344, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.15905     0.23703     0.24945
Head (cm)          = 3.64865E+03 1.75479E+03 1.31061E+03
Water Flow (cm)    =-5.55225E-04-2.58650E-03 4.06367E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.6652+ 0.0000+ 0.0000 - 0.0046- 0.0000-  0.0004 = 27.6602  Versus  27.6603

Mass Balance = -1.2207E-04 cm;  Time step attempts = 1559 and successes = 1559
  Evaporation:  Potential =  0.8985 cm, Actual =  0.0046 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.9 %;  TMEAN = 276.5 K;  HDRY =  6.7873E+05 cm;  DAYUBC =  1521

------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 345, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.20205     0.23697     0.24939
Head (cm)          = 1.43792E+03 1.75719E+03 1.31232E+03
Water Flow (cm)    = 9.85603E-02-2.58394E-03 4.04743E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 27.6603+ 0.6604+ 0.0000 - 0.0733- 0.0000-  0.0004 = 28.2470  Versus  28.2472

Mass Balance = -2.0981E-04 cm;  Time step attempts = 5796 and successes = 5796
  Evaporation:  Potential =  0.2961 cm, Actual =  0.0733 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
```

```
RHMEAN = 85.5 %;  TMEAN = 277.3 K;  HDRY =  2.1495E+05 cm;  DAYUBC =     0

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DAILY SUMMARY:  Day = 346, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.22142     0.23692     0.24933
Head (cm)          = 1.03566E+03 1.75963E+03 1.31404E+03
Water Flow (cm)    = 1.86809E-01-2.58198E-03 4.03104E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.2472+ 0.3302+ 0.0000 - 0.0000- 0.0000-  0.0004 = 28.5770  Versus  28.5772

Mass Balance = -1.4687E-04 cm;  Time step attempts = 2615 and successes = 2615
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 98.9 %;  TMEAN = 282.6 K;  HDRY =  1.4559E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 347, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24893     0.23686     0.24927
Head (cm)          = 6.83867E+02 1.76199E+03 1.31573E+03
Water Flow (cm)    = 4.48607E-01-2.58036E-03 4.01509E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 28.5772+ 0.6350+ 0.0000 - 0.0000- 0.0000-  0.0004 = 29.2118  Versus  29.2119

Mass Balance = -1.4496E-04 cm;  Time step attempts = 6032 and successes = 6032
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 94.8 %;  TMEAN = 281.2 K;  HDRY =  7.3844E+04 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 348, Simulated Time = 24.0000 hr
-------------
Node Number        =       2           12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.23723     0.23681     0.24921
Head (cm)          = 8.11259E+02 1.76441E+03 1.31748E+03
Water Flow (cm)    = 8.56206E-02-2.57853E-03 3.99863E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.2119+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 29.2115  Versus  29.2115
```

```
Mass Balance = -1.9073E-06 cm;  Time step attempts =  444 and successes =  444
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 93.6 %;  TMEAN = 279.0 K;  HDRY =  9.0333E+04 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 349, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.23145     0.23675     0.24915
Head (cm)          = 8.85274E+02 1.76678E+03 1.31921E+03
Water Flow (cm)    = 4.20373E-02-2.57669E-03 3.98243E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.2115+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 29.2111  Versus  29.2111

Mass Balance =  1.9073E-06 cm;  Time step attempts =   96 and successes =   96
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 92.0 %;  TMEAN = 280.1 K;  HDRY =  1.1449E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 350, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.33129     0.23670     0.24910
Head (cm)          = 2.14219E+02 1.76897E+03 1.32079E+03
Water Flow (cm)    = 2.25161E+00-2.57498E-03 3.96758E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 29.2111+ 2.9460+ 0.8386 - 0.0000- 0.0000-  0.0004 = 32.1567  Versus  32.1572

Mass Balance = -4.5013E-04 cm;  Time step attempts = 4365 and successes = 4365
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 97.6 %;  TMEAN = 283.2 K;  HDRY =  3.3848E+04 cm;  DAYUBC =   826
```

```
DAILY SUMMARY:  Day = 351, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.32711     0.23679     0.24904
Head (cm)          = 2.28609E+02 1.76508E+03 1.32240E+03
Water Flow (cm)    = 6.27459E-01-2.55267E-03 3.95275E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00
```

```
 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.1572+ 0.7947+ 0.0435 - 0.1985- 0.0000-  0.0004 = 32.7531  Versus  32.7533

Mass Balance = -2.1744E-04 cm;  Time step attempts = 5491 and successes = 5491
  Evaporation:  Potential =  0.8018 cm, Actual =  0.1985 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 74.1 %;  TMEAN = 280.9 K;  HDRY =  4.1098E+05 cm;  DAYUBC =   441

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DAILY SUMMARY:  Day = 352, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.29808     0.23895     0.24899
Head (cm)          = 3.47174E+02 1.67349E+03 1.32408E+03
Water Flow (cm)    =-1.40435E-01-1.91169E-03 3.93733E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.7533+ 0.0000+ 0.0000 - 0.3478- 0.0000-  0.0004 = 32.4051  Versus  32.4051

Mass Balance = -1.5259E-05 cm;  Time step attempts =  183 and successes =  183
  Evaporation:  Potential =  1.3912 cm, Actual =  0.3478 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 62.2 %;  TMEAN = 282.3 K;  HDRY =  6.5133E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 353, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.27771     0.24491     0.24893
Head (cm)          = 4.58453E+02 1.45252E+03 1.32573E+03
Water Flow (cm)    =-1.56933E-01 1.36366E-03 3.92214E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.4051+ 0.0000+ 0.0000 - 0.3040- 0.0000-  0.0004 = 32.1007  Versus  32.1007

Mass Balance = -2.2888E-05 cm;  Time step attempts =  112 and successes =  112
  Evaporation:  Potential =  1.2161 cm, Actual =  0.3040 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 55.1 %;  TMEAN = 277.0 K;  HDRY =  8.1676E+05 cm;  DAYUBC =     0

--------------------------------------------------------------------------------


DAILY SUMMARY:  Day = 354, Simulated Time = 24.0000 hr
-------------
Node Number        =       2          12          25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.26197     0.25210     0.24888
Head (cm)          = 5.69084E+02 1.23633E+03 1.32737E+03
```

```
Water Flow (cm)    =-1.47545E-01 7.77413E-03 3.90720E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 32.1007+ 0.0000+ 0.0000 - 0.2643- 0.0000-  0.0004 = 31.8360  Versus  31.8360

Mass Balance = -5.7220E-06 cm;  Time step attempts =  208 and successes =  208
  Evaporation:  Potential =  1.0572 cm, Actual =  0.2643 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 55.2 %;  TMEAN = 279.8 K;  HDRY =  8.1379E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 355, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.24090     0.25819     0.24882
Head (cm)          = 7.68377E+02 1.08585E+03 1.32896E+03
Water Flow (cm)    =-1.64699E-01 1.53792E-02 3.89258E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.8360+ 0.0000+ 0.0000 - 0.4404- 0.0000-  0.0004 = 31.3952  Versus  31.3953

Mass Balance = -6.8665E-05 cm;  Time step attempts = 1793 and successes = 1793
  Evaporation:  Potential =  1.7618 cm, Actual =  0.4404 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 59.1 %;  TMEAN = 281.8 K;  HDRY =  7.2201E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 356, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12           25
Depth (cm)         =     5.00000    50.00000   122.00000
Water (cm3/cm3)    =     0.22994     0.26249     0.24877
Head (cm)          = 9.06028E+02 9.94067E+02 1.33049E+03
Water Flow (cm)    =-1.69275E-01 2.19179E-02 3.87850E-04
Plant Sink (cm)    = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.3953+ 0.0000+ 0.0000 - 0.2832- 0.0000-  0.0004 = 31.1117  Versus  31.1118

Mass Balance = -1.3924E-04 cm;  Time step attempts = 3014 and successes = 3014
  Evaporation:  Potential =  1.1328 cm, Actual =  0.2832 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 76.1 %;  TMEAN = 279.8 K;  HDRY =  3.7365E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 357, Simulated Time = 24.0000 hr
-------------
Node Number        =        2          12           25
```

```
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.22811     0.26515     0.24873
Head (cm)           = 9.31935E+02 9.42339E+02 1.33166E+03
Water Flow (cm)     =-1.21570E-01 2.61100E-02 3.86614E-04
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 31.1118+ 0.0000+ 0.0000 - 0.2536- 0.0000-  0.0004 = 30.8578  Versus  30.8579

Mass Balance = -1.5068E-04 cm;  Time step attempts =13126 and successes =13126
  Evaporation:  Potential =  1.0145 cm, Actual =  0.2536 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 50.1 %;  TMEAN = 273.2 K;  HDRY =  9.4659E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 358, Simulated Time = 24.0000 hr
-------------
Node Number         =        2           12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.23293     0.26648     0.24869
Head (cm)           = 8.65520E+02 9.17973E+02 1.33284E+03
Water Flow (cm)     =-5.62108E-02 2.76312E-02 3.85661E-04
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.8579+ 0.0000+ 0.0000 - 0.0861- 0.0000-  0.0004 = 30.7714  Versus  30.7698

Mass Balance =  1.6365E-03 cm;  Time step attempts =31460 and successes =31460
  Evaporation:  Potential =  0.8438 cm, Actual =  0.0861 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 56.3 %;  TMEAN = 272.3 K;  HDRY =  7.8801E+05 cm;  DAYUBC =  4123
```

```
DAILY SUMMARY:  Day = 359, Simulated Time = 24.0000 hr
-------------
Node Number         =        2           12          25
Depth (cm)          =     5.00000    50.00000   122.00000
Water (cm3/cm3)     =     0.23472     0.26716     0.24864
Head (cm)           = 8.42465E+02 9.05720E+02 1.33437E+03
Water Flow (cm)     =-2.61356E-02 2.73555E-02 3.84407E-04
Plant Sink (cm)     = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR          STORAGE
 30.7698+ 0.0000+ 0.0000 - 0.0137- 0.0000-  0.0004 = 30.7557  Versus  30.7558

Mass Balance = -3.2425E-05 cm;  Time step attempts = 1090 and successes = 1090
  Evaporation:  Potential =  0.3685 cm, Actual =  0.0137 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 71.5 %;  TMEAN = 270.7 K;  HDRY =  4.5959E+05 cm;  DAYUBC =  1051
```

```
DAILY SUMMARY:  Day = 360, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23540     0.26731     0.24860
Head (cm)         = 8.33858E+02 9.02953E+02 1.33567E+03
Water Flow (cm)   =-1.93708E-02 2.60475E-02 3.83248E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.7558+ 0.0000+ 0.0000 - 0.0207- 0.0000-  0.0004 = 30.7347  Versus  30.7325

Mass Balance =  2.2011E-03 cm;  Time step attempts =32583 and successes =32583
  Evaporation:  Potential =  0.9538 cm, Actual =  0.0207 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 54.1 %;  TMEAN = 272.0 K;  HDRY =  8.4111E+05 cm;  DAYUBC =  3283
```

```
DAILY SUMMARY:  Day = 361, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23525     0.26727     0.24855
Head (cm)         = 8.35781E+02 9.03744E+02 1.33717E+03
Water Flow (cm)   =-1.65602E-02 2.41968E-02 3.81931E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.7325+ 0.0000+ 0.0000 - 0.0144- 0.0000-  0.0004 = 30.7177  Versus  30.7178

Mass Balance = -8.3923E-05 cm;  Time step attempts = 1763 and successes = 1763
  Evaporation:  Potential =  0.4802 cm, Actual =  0.0144 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 65.6 %;  TMEAN = 275.9 K;  HDRY =  5.7886E+05 cm;  DAYUBC =  1729
```

```
DAILY SUMMARY:  Day = 362, Simulated Time = 24.0000 hr
-------------
Node Number       =       2          12          25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23498     0.26712     0.24850
Head (cm)         = 8.39176E+02 9.06454E+02 1.33855E+03
Water Flow (cm)   =-1.51478E-02 2.23436E-02 3.80719E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.7178+ 0.0000+ 0.0000 - 0.0179- 0.0000-  0.0004 = 30.6996  Versus  30.7016

Mass Balance = -2.0580E-03 cm;  Time step attempts =17589 and successes =17589
  Evaporation:  Potential =  0.6857 cm, Actual =  0.0179 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 60.3 %;  TMEAN = 277.6 K;  HDRY =  6.9387E+05 cm;  DAYUBC =  3196
```

```
DAILY SUMMARY:  Day = 363, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23456     0.26690     0.24845
Head (cm)         = 8.44445E+02 9.10265E+02 1.33997E+03
Water Flow (cm)   =-1.38181E-02 2.05021E-02 3.79473E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.7016+ 0.0000+ 0.0000 - 0.0167- 0.0000-  0.0004 = 30.6845  Versus  30.6850

Mass Balance = -4.8256E-04 cm;  Time step attempts = 7593 and successes = 7593
  Evaporation:  Potential =  1.0483 cm, Actual =  0.0167 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 56.2 %;  TMEAN = 271.2 K;  HDRY =  7.8989E+05 cm;  DAYUBC =  2651
```

```
DAILY SUMMARY:  Day = 364, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23295     0.26680     0.24843
Head (cm)         = 8.65245E+02 9.12165E+02 1.34055E+03
Water Flow (cm)   =-1.62426E-02 1.89465E-02 3.78407E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.6850+ 0.0000+ 0.0000 - 0.0000- 0.0000-  0.0004 = 30.6846  Versus  30.6905

Mass Balance = -5.8079E-03 cm;  Time step attempts =81374 and successes =81374
  Evaporation:  Potential =  0.0000 cm, Actual =  0.0000 cm
Transpiration:  Potential =  0.0000 cm, Actual =  0.0000 cm
RHMEAN = 77.0 %;  TMEAN = 267.3 K;  HDRY =  3.5867E+05 cm;  DAYUBC =     0
```

```
DAILY SUMMARY:  Day = 365, Simulated Time = 24.0000 hr
-------------
Node Number       =        2           12           25
Depth (cm)        =     5.00000    50.00000   122.00000
Water (cm3/cm3)   =     0.23195     0.26659     0.24841
Head (cm)         = 8.78565E+02 9.15958E+02 1.34129E+03
Water Flow (cm)   =-2.20775E-02 1.78685E-02 3.78144E-04
Plant Sink (cm)   = 0.00000E+00 0.00000E+00 0.00000E+00

 PRESTOR   INFIL  RUNOFF    EVAPO   TRANS    DRAIN   NEWSTOR           STORAGE
 30.6905+ 0.0000+ 0.0000 - 0.0471- 0.0000-  0.0004 = 30.6430  Versus  30.6454

Mass Balance = -2.4109E-03 cm;  Time step attempts =46475 and successes =46475
  Evaporation:  Potential =  0.3317 cm, Actual =  0.0471 cm
```

Transpiration: Potential = 0.0000 cm, Actual = 0.0000 cm
RHMEAN = 69.3 %; TMEAN = 269.5 K; HDRY = 5.0354E+05 cm; DAYUBC = 3466
1

UNSAT-H Version 2.03
SIMULATION SUMMARY

Title:
Muskogee AFC Alternative Final Cover

Transpiration Scheme is:	=	1	
Potential Evapotranspiration	=	1.8318E+02	[cm]
Potential Transpiration	=	5.5447E+02	[cm]
Actual Transpiration	=	5.0138E+01	[cm]
Potential Evaporation	=	1.7826E+02	[cm]
Actual Evaporation	=	2.0543E+01	[cm]
Evaporation during Growth	=	5.8760E+00	[cm]
Total Runoff	=	1.8631E+01	[cm]
Total Infiltration	=	7.0929E+01	[cm]
Total Drainage at Base of Profile	=	4.7357E-01	[cm]
Total Applied Water	=	8.9560E+01	[cm]
Actual Rainfall	=	8.9560E+01	[cm]
Actual Irrigation	=	0.0000E+00	[cm]
Total Final Moisture Storage	=	3.0645E+01	[cm]
Mass Balance Error	=	-2.4141E-01	[cm]
Total Successful Time Steps	=	3792940	
Total Attempted Time Steps	=	3792940	
Total Time Step Reductions (DHMAX)	=	5994	
Total Changes in Surface Boundary	=	369002	
Total Time Actually Simulated	=	3.6500E+02	[days]

Total water flow (cm) across different depths at the end of 3.6500E+02 days:

DEPTH	FLOW	DEPTH	FLOW	DEPTH	FLOW
0.000	5.0386E+01	2.500	5.0388E+01	7.000	3.1715E+01
10.500	2.3062E+01	13.500	1.7996E+01	16.500	1.4468E+01
19.500	1.1913E+01	23.000	9.6498E+00	27.500	7.5851E+00
32.500	5.9489E+00	37.500	4.4827E+00	45.000	2.1859E+00
55.000	3.3955E-01	65.000	3.8104E-01	75.000	4.1270E-01
82.500	4.2959E-01	86.500	4.3685E-01	89.750	4.4230E-01
91.750	4.4503E-01	94.000	4.4823E-01	98.000	4.5303E-01
105.000	4.6003E-01	112.500	4.6645E-01	116.500	4.6948E-01
120.000	4.7203E-01	122.000	4.7357E-01		

APPENDIX C

DAILY CLIMATOLOGICAL DATA SUMMARY

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

January 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	29	12	20.7	18.6	45	0	94	86	91	0.03	29.85	30.51	SSW	3.9	12.8	9.43	31.9	32.0	32	32
2	24	0	12.7	8.9	53	0	95	68	85	0.01	30.02	30.68	N	2.5	7.0	11.23	32.0	31.9	32	32
3	36	10	23.0	20.3	42	0	98	77	89	0.04	29.72	30.38	SSW	4.1	14.4	11.43	32.0	31.9	32	32
4	48	14	29.4	25.1	34	0	97	58	85	0.31	29.51	30.16	ESE	2.4	11.9	11.51	32.0	31.9	32	32
5	56	22	35.7	26.8	26	0	98	31	75	0.42	29.47	30.12	SW	1.6	12.1	11.84	32.0	32.0	32	32
6	57	25	39.3	29.5	24	0	95	38	71	0.20	29.24	29.88	SSW	3.4	13.4	10.24	32.0	32.0	32	32
7	43	33	38.0	31.3	27	0	90	65	77	0.00	29.40	30.05	N	7.5	22.8	6.39	32.1	32.1	32	32
8	49	25	35.1	27.3	28	0	98	40	76	0.00	29.55	30.20	WNW	3.0	14.5	11.97	32.2	32.1	32	32
9	45	22	33.1	26.9	32	0	97	58	79	0.00	29.65	30.31	ESE	4.9	13.4	11.95	32.2	32.1	32	32
10	45*	28*	36.1*	30.0*	29*	0*	96*	62*	79*	0.08*	29.54*	30.20*	SSE*	5.3*	14.7*	6.30*	32.2*	32.1*	32*	32*
11	41	32	36.8	35.1	28	0	98	87	94	0.16	29.46	30.11	S	3.0	10.4	3.78	32.3	32.1	32	32
12	43*	27*	36.9*	36.2*	30*	0*	100*	93*	97*	0.01*	29.52*	30.17*	SSE*	6.1*	21.8*	2.87*	32.5*	32.2*	32*	32*
13	48	37	41.6	39.6	23	0	96	89	93	0.02	29.25	29.90	SSE	13.5	29.3	1.05	34.7	32.4	34	32
14	50	28	41.4	31.4	26	0	93	44	69	0.00	29.37	30.02	WNW	6.0	18.2	12.24	37.7	37.6	44	34
15	51	23	34.8	27.4	28	0	98	40	78	0.00	29.58	30.24	WSW	1.9	9.9	11.26	36.0	36.8	43	34
16	37*	27*	33.1*	29.0*	33*	0*	98*	72*	85*	0.00*	29.61*	30.26*	NNE*	7.2*	19.5*	2.56*	35.1*	35.1*	36*	34*
17	35	29	31.8	28.9	33	0	98	82	89	0.04	29.60	30.25	N	9.2	18.7	3.52	35.0	34.7	36	34
18	46	28	34.8	26.4	28	0	88	44	72	0.01	29.45	30.10	N	5.2	19.6	8.60	36.1	36.1	42	34
19	33*	21*	28.5*	17.0*	38*	0*	86*	40*	63*	0.00*	29.61*	30.26*	NNW*	8.9*	26.0*	11.26*	35.1*	34.9*	37*	34*
20	36	12	24.2	13.2	41	0	94	34	65	0.00	29.69	30.34	SE	3.2	11.1	12.28	33.3	33.2	34	33
21	49	24	32.9	24.0	29	0	97	40	72	0.00	29.73	30.38	SSW	2.4	13.4	10.61	33.0	33.5	35	33
22	54	22	34.8	26.8	27	0	98	38	77	0.00	29.71	30.37	S	2.8	11.2	13.14	33.8	35.4	41	33
23	55	33	43.0	35.6	21	0	95	51	76	0.00	29.61	30.26	S	4.0	13.1	6.67	36.5	37.9	43	34
24	51*	31*	41.9*	29.0*	24*	0*	89*	33*	63*	0.00*	29.69*	30.34*	N *	5.5*	19.1*	11.38*	38.9	40.6	46	37
25	50*	20*	36.1*	22.0*	30*	0*	91*	24*	61*	0.00*	29.67*	30.32*	SSE*	8.1*	26.1*	13.98*	36.3*	37.3*	42*	34*
26	57	28	45.9	32.4	22	0	86	37	61	0.00	29.44	30.09	N	11.5	30.4	13.64	40.0	41.6	49	38
27	39	24	32.0	24.5	33	0	95	50	75	0.40	29.67	30.33	N	7.1	17.3	9.25	36.7	36.9	39	35
28	43	36	38.6	37.5	26	0	99	88	96	2.07	29.37	30.02	NNE	5.6	14.6	0.96	38.5	38.7	40	37
29	46	35	39.4	36.0	24	0	99	73	88	0.60	28.99	29.63	SW	7.0	20.2	3.85	39.5	40.2	43	38
30	54	37	44.3	31.2	20	0	81	39	61	0.00	29.00	29.64	WNW	9.1	31.0	11.29	39.1*	39.6*	46*	35*
31	50	27	41.1	22.0	26	0	91	18	51	0.00	29.45	30.10	NW	6.6	21.3	14.73	39.5	40.3	47	37
	45*	25*	34.7*	27.4*	<-- Monthly Averages -->						29.53*	30.18*	N *	5.6*	31.0*	9.07*	34.8*	35.1*	38*	34*

Temperature - Highest: 57*
Lowest: 0*

Rainfall: Monthly Total: 4.40 in.
Greatest 24 Hr: 2.07 in.

Degree Days - Total HDD: 930*
Total CDD: 0*

Humidity - Highest: 100*
Lowest: 18*

Number of Days With:
Tmax ≥ 90: 0*
Tmax ≤ 32: 2*
Tmin ≤ 32: 25*
Tmin ≤ 0: 1*
Rainfall ≥ 0.01 inch: 15*
Rainfall ≥ 0.10 inch: 7*
Avg Wind Speed ≥ 10 mph: 2*
Max Wind Speed ≥ 30 mph: 2*

* Denotes incomplete record

Postscript generated on Monday, March 05, 2001 at 21:02

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

February 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND DIR	SPEED (mph) AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	54*	23*	39.6*	25.0*	26*	0*	97*	27*	60*	0.00*	29.63*	30.29*	N *	7.9*	26.3*	13.55*	37.6*	38.9*	44*	35*
2	44	17	29.3	16.9	34	0	83	37	61	0.00	29.74	30.39	S	6.0	20.6	14.95	35.9	36.1	40	34
3	58	29	43.4	30.3	21	0	88	39	62	0.00	29.46	30.11	S	6.5	23.4	9.16	37.0	37.3	43	34
4	57	34	46.5	30.5	19	0	90	28	57	0.00	29.56	30.22	NW	6.3	31.2	15.27	39.8	41.3	48	37
5	62	25	43.0	28.6	22	0	98	28	63	0.00	29.44	30.09	S	6.0	23.9	15.14	39.2	40.2	48	35
6	62*	36*	48.3*	35.0*	16*	0*	84*	39*	62*	0.00*	29.30*	29.94*	NNE*	5.2*	14.8*	13.84*	41.4*	43.1*	52*	36*
7	66	37	53.7	48.4	14	0	95	63	83	0.00	29.25	29.89	S	8.9	28.0	4.06	43.4	45.6	51	40
8	73	61	66.1	60.4	0	2	92	69	82	0.00	29.17	29.82	S	14.4	43.8	5.79	50.3	54.4	59	50
9	69	25	33.0	26.7	18	0	93	68	77	0.42	29.45	30.11	NW	12.1	32.0	3.97	44.6	45.0	57	38
10	38	20	27.4	19.2	36	0	95	46	72	0.00	29.77	30.43	ESE	3.9	13.2	13.88	39.5	38.5	45	36
11	46	26	37.7	26.6	29	0	95	42	66	0.00	29.60	30.25	SE	9.8	22.5	11.51	39.5	38.7	43	36
12	43	38	41.0	39.5	24	0	99	85	94	0.01	29.56	30.21	ESE	6.6	16.7	2.84	41.5	41.5	44	40
13	55	42	48.4	48.0	16	0	100	97	99	0.46	29.43	30.08	SSE	5.2	14.4	2.56	44.2	45.3	49	43
14	65	31	51.8	50.6	17	0	100	91	96	0.44	29.27	29.92	SSW	9.5	22.9	1.83	48.6	50.9	55	45
15	31	29	30.0	28.4	35	0	97	91	94	0.00	29.39	30.04	N	5.8	18.5	1.16	40.8	39.5	45	37
16	34	25	30.8	25.2	35	0	94	64	80	0.15	29.68	30.33	N	13.1	33.4	7.98	38.8	37.3	41	36
17	38	19	26.9	16.4	37	0	91	40	66	0.05	29.95	30.61	N	6.8	20.8	16.49	36.4	35.6	39	34
18	49	21	35.0	26.3	30	0	96	46	72	0.02	29.74	30.40	S	6.1	24.0	11.47	36.9	36.8	41	34
19	65	34	49.6	38.9	16	0	97	47	68	0.00	29.40	30.05	S	9.8	25.7	16.02	41.0	42.2	51	35
20	57	37	47.6	44.5	18	0	100	71	90	0.00	29.45	30.10	N	6.5	20.9	4.47	43.1	44.6	49	40
21	46	28	36.5	28.8	28	0	95	55	75	0.01	29.57	30.22	NNE	11.6	25.5	2.85	41.6	41.5	45	37
22	48	25	33.9	26.3	29	0	95	45	76	0.00	29.57	30.22	NNW	5.7	15.3	17.31	40.7	40.7	50	36
23	44	32	37.9	36.9	27	0	99	92	96	2.12	29.36	30.00	ESE	9.6	32.7	0.92	40.0	39.6	41	39
24	65	42	54.9	46.3	11	0	99	38	77	0.57	28.95	29.59	SW	14.7	39.5	7.15	45.5	46.8	53	41
25	52	36	43.4	30.7	21	0	86	44	62	0.00	29.52	30.17	NE	6.2	21.9	17.53	44.9	45.7	53	40
26	65	36	49.4	37.1	14	0	92	40	66	0.00	29.58	30.23	ESE	4.9	15.4	14.38	45.5	46.6	55	41
27	54	31	45.1	39.8	22	0	95	52	83	0.19	29.53	30.18	N	8.9	27.1	2.61	46.2	47.1	49	42
28	31	27	29.4	27.8	36	0	96	91	94	0.00	29.57	30.22	N *	NA	NA	1.76	39.8	38.2	42	37
	53*	31*	41.4*	33.6*	<-- Monthly Averages -->						29.50*	30.15*	N *	8.1*	43.8*	8.91*	41.6*	42.1*	48*	38*

Temperature - Highest: 73*
Lowest: 17*

Rainfall: Monthly Total: 4.44 in.
Greatest 24 Hr: 2.12 in.

Degree Days - Total HDD: 653*
Total CDD: 2*

Humidity - Highest: 100*
Lowest: 27*

Number of Days With:
Tmax ≥ 90: 0*
Tmax ≤ 32: 2*
Tmin ≤ 32: 17*
Tmin ≤ 0: 0*
Rainfall ≥ 0.01 inch: 11*
Rainfall ≥ 0.10 inch: 7*
Avg Wind Speed ≥ 10 mph: 5*
Max Wind Speed ≥ 30 mph: 6*

* Denotes incomplete record

Postscript generated on Tuesday, March 27, 2001 at 1:11

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

March 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	43	30	36.5	34.5	29	0	98	86	93	0.15	29.31	29.96	SW *	NA	NA	4.48	40.3	NA	NA	NA
2	47	29	38.9	36.7	27	0	99	78	92	0.00	29.21	29.86	NNE	2.9	9.6	6.74	41.8	NA	NA	NA
3	53	35	43.9	36.2	21	0	99	47	76	0.00	29.13	29.77	N	7.5	18.9	11.39	43.2	NA	NA	NA
4	58	36	46.4	32.0	18	0	83	27	61	0.00	29.42	30.07	NNW	7.4	22.7	19.50	44.2	NA	NA	NA
5	56	28	41.3	31.0	23	0	95	38	69	0.00	29.68	30.34	N	5.0	16.1	19.69	44.4	NA	NA	NA
6	56	29	42.0	29.2	22	0	98	31	65	0.00	29.63	30.28	NE	4.3	12.4	13.91	43.9	NA	NA	NA
7	61	33	47.0	31.3	18	0	90	31	57	0.00	29.55	30.21	N	4.9	13.0	18.12	46.0	NA	NA	NA
8	55	32	43.3	32.0	21	0	96	34	68	0.00	29.48	30.13	NNE	5.1	16.5	12.15	45.3	NA	NA	NA
9	61	30	44.4	28.1	19	0	85	28	56	0.00	29.46	30.11	ESE	4.4	13.8	20.27	45.3	NA	NA	NA
10	65	34	51.2	31.8	16	0	92	25	52	0.00	29.26	29.91	SSE	9.3	27.3	20.46	46.4	NA	NA	NA
11	64	50	53.6	42.9	8	0	96	39	70	0.59	29.16	29.80	SE	8.7	32.6	5.13	48.2	NA	NA	NA
12	59	39	50.3	42.0	16	0	99	40	77	0.06	29.11	29.75	NW	5.9	35.0	17.60	49.9	NA	NA	NA
13	73	38	54.9	35.6	9	0	96	19	56	0.00	29.28	29.92	W	4.7	21.0	21.65	48.7	NA	NA	NA
14	66	40	55.4	45.8	12	0	93	56	71	0.00	29.04	29.68	S	10.3	27.4	9.05	49.4	NA	NA	NA
15	53	41	47.0	41.9	18	0	97	63	83	0.09	28.91	29.55	WSW	12.3	34.8	3.06	48.4	NA	NA	NA
16	52	33	41.8	29.5	22	0	92	36	63	0.00	29.44	30.09	NNW	7.9	29.7	15.82	46.1	NA	NA	NA
17	54	30	42.4	28.6	23	0	94	26	62	0.00	29.62	30.28	NE	6.6	20.1	17.57	45.4	NA	NA	NA
18	50	39	44.0	32.9	21	0	92	49	66	0.00	29.63	30.28	NE	5.1	15.7	7.85	45.6	NA	NA	NA
19	55	39	46.8	34.6	18	0	92	42	65	0.00	29.59	30.25	NW	4.8	15.1	13.52	46.6	NA	NA	NA
20	62	29	46.1	31.2	20	0	99	27	63	0.00	29.53	30.19	NNE	3.4	17.6	22.78	47.1	NA	NA	NA
21	72*	32*	52.0*	32.8*	13*	0*	97*	20*	56*	0.00*	29.43*	30.08*	SE *	5.0*	19.0*	17.20*	48.3*	53.8*	57*	50*
22	76	50	62.7	42.2	2	0	70	33	48	0.00	29.29	29.94	NNE	8.2	27.4	18.30	52.2	53.5	62	47
23	74	44	59.8	45.0	6	0	86	40	60	0.00	29.35	30.00	NNE	4.8	14.2	18.39	53.9	55.7	63	48
24	59	36	45.5	28.1	17	0	85	25	54	0.00	29.62	30.27	NNE	17.5	37.0	15.76	51.2	51.0	57	45
25	45	30	38.5	20.4	28	0	77	27	50	0.00	29.72	30.38	N	8.0	21.3	11.58	46.1	44.3	49	40
26	48	32	40.5	17.2	25	0	58	22	40	0.00	29.69	30.35	NNE	6.3	16.2	19.37	47.5	46.3	54	40
27	50	40	43.2	26.4	20	0	93	29	54	0.09	29.57	30.23	S	4.3	16.4	7.67	47.5	46.3	50	44
28	45	40	42.1	39.8	23	0	96	87	91	0.05	29.34	29.98	ESE	5.0	14.6	3.19	46.3	45.6	47	44
29	50	42	45.6	42.5	19	0	95	75	89	0.02	29.21	29.85	N	2.9	9.5	5.14	47.3	47.2	50	45
30	65	39	52.3	42.7	13	0	99	41	73	0.00	29.20	29.84	SW	3.1	14.1	21.46	51.2	52.2	62	44
31	62	38	51.8	38.7	15	0	98	24	66	0.01	29.30	29.95	NNW	5.6	23.7	19.24	52.1	53.3	60	48
	58*	36*	46.8*	34.3*	<-- Monthly Averages -->						29.39*	30.04*	NNE*	6.4*	37.0*	14.13*	47.1*	49.9*	55*	45*

Temperature - Highest: 76*
Lowest: 28*

Rainfall: Monthly Total: 1.06 in.
Greatest 24 Hr: 0.59 in.

Degree Days - Total HDD: 561*
Total CDD: 0*

Humidity - Highest: 99*
Lowest: 19*

Number of Days With:

Tmax ≥ 90: 0*
Tmax ≤ 32: 0*
Tmin ≤ 32: 11*
Tmin ≤ 0: 0*

Rainfall ≥ 0.01 inch: 8*
Rainfall ≥ 0.10 inch: 2*
Avg Wind Speed ≥ 10 mph: 3*
Max Wind Speed ≥ 30 mph: 4*

* Denotes incomplete record

Postscript generated on Monday, April 23, 2001 at 1:05

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

April 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F)				DEG DAYS		HUMIDITY (%)			RAIN (in)	PRESSURE (in)		WIND SPEED (mph)			SOLAR (MJ/m2)	4" SOIL TEMPERATURES			
	MAX	MIN	AVG	DEWPT	HDD	CDD	MAX	MIN	AVG		STN	MSL	DIR	AVG	MAX		SOD	BARE	MAX	MIN
1	69	33	53.0	36.8	14	0	94	21	60	0.00	29.24	29.89	SSE	6.8	26.4	11.03	49.4	49.5	55	43
2	73	59	64.6	57.4	0	1	95	57	78	0.01	29.08	29.72	SSE	10.8	24.4	4.56	53.5	55.3	60	52
3	87	66	74.5	64.5	0	12	93	45	73	0.00	29.12	29.76	SSE	9.4	25.0	14.06	59.4	62.8	69	58
4	89	59	73.8	64.4	0	9	99	43	76	0.00	29.27	29.92	SSE	5.7	21.6	21.08	62.6	66.6	75	59
5	80	67	73.7	67.3	0	9	92	65	81	0.00	29.28	29.93	S	10.7	22.0	9.88	63.5	67.4	70	65
6	84	71	75.7	63.0	0	13	82	46	66	0.00	29.13	29.77	S	15.9	40.8	9.34	64.0	67.6	71	65
7	84	67	74.5	46.6	0	10	88	15	43	0.00	29.18	29.82	SW	12.1	33.7	24.86	64.5	69.7	78	63
8	86	66	75.5	63.6	0	11	93	44	68	0.00	29.18	29.82	S	12.6	33.2	17.79	65.0	70.5	78	65
9	86*	68*	76.8*	64.5*	0*	12*	85*	49*	67*	0.00*	29.14*	29.79*	S *	11.5*	29.3*	19.52*	66.8	72.9	81	66
10	80	70	73.9	65.8	0	10	86	65	76	0.00	29.05	29.70	S	10.9	31.0	6.81	65.8	70.7	74	69
11	75	54	68.6	43.7	0	0	94	19	47	0.49	28.94	29.58	SW	18.4	45.5	25.49	64.0	66.9	69	60
12	68*	42*	56.3*	41.3*	10*	0*	95*	36*	60*	0.00*	29.34*	29.98*	N *	3.3*	14.6*	19.66*	60.4*	61.2*	69*	53*
13	79	40	61.4	47.0	6	0	99	30	66	0.00	29.40	30.05	S	4.1	17.9	25.61	61.2	63.5	75	53
14	72	52	62.7	57.9	3	0	97	68	85	0.00	29.26	29.91	SSE	7.8	26.0	9.81	61.1	63.6	69	59
15	74	51	64.4	53.2	2	0	98	35	70	0.77	29.34	29.99	N	7.2	41.3	26.05	63.4	65.7	72	60
16	63	45	53.2	39.8	11	0	94	40	62	0.00	29.61	30.27	NNE	9.7	28.7	19.63	59.4	58.9	65	54
17	58	38	47.0	31.1	17	0	95	38	55	0.00	29.82	30.47	N	8.6	24.4	27.41	57.5	54.6	62	48
18	67	32	52.6	35.0	15	0	99	24	59	0.00	29.62	30.27	S	5.8	25.2	24.54	57.1	55.1	64	47
19	70	55	64.2	51.9	3	0	77	50	65	0.00	29.23	29.88	S	14.6	38.4	12.01	59.3	58.3	62	53
20	76	70	72.4	64.7	0	8	82	71	77	0.00	29.15	29.80	SSW	15.6	33.4	8.51	62.8	64.5	67	61
21	74	68	71.2	63.4	0	6	82	69	76	0.00	29.28	29.93	S	13.7	31.5	6.79	63.8	65.9	68	65
22	79	63	71.3	61.7	0	6	92	54	72	1.15	29.23	29.88	SSE	16.1	39.4	6.28	63.2	65.1	68	62
23	70	46	57.7	41.5	7	0	94	32	57	0.10	29.45	30.10	NW	7.3	27.4	26.71	62.0	63.0	69	57
24	70	40	55.7	41.8	10	0	98	27	66	0.00	29.65	30.31	ESE	2.1	12.9	27.52	60.6	61.2	71	52
25	80	45	62.8	46.5	2	0	98	24	63	0.00	29.57	30.22	SW	3.7	16.3	27.83	61.3	62.7	72	54
26	84*	50*	68.3*	50.6*	0*	2*	96*	28*	59*	0.00*	29.48*	30.13*	SSW*	5.4*	19.6*	26.80*	63.2*	64.7*	73*	56*
27	82	54	69.8	50.6	0	3	90	31	54	0.00	29.49	30.14	SW	5.5	19.9	27.49	65.0	66.3	74	58
28	82	51	67.2	53.7	0	2	98	33	67	0.00	29.52	30.17	SSE	3.8	18.9	26.21	65.0	67.5	77	58
29	82	52	68.3	52.4	0	2	98	28	62	0.00	29.52	30.18	S	6.3	25.7	27.66	65.5	69.7	80	60
30	81	53	68.3	52.3	0	2	94	30	61	0.00	29.44	30.09	S	7.4	27.3	22.40	64.6	69.6	78	61
	77*	54*	66.0*	52.5*	<-- Monthly Averages -->						29.33*	29.98*	S *	9.1*	45.5*	18.77*	61.8*	64.0*	71*	58*

Temperature - Highest: 89*
Lowest: 32*

Rainfall: Monthly Total: 2.52 in.
Greatest 24 Hr: 1.15 in.

Degree Days - Total HDD: 100*
Total CDD: 117*

Humidity - Highest: 99*
Lowest: 15*

Number of Days With:

Tmax ≥ 90:	0*	Rainfall ≥ 0.01 inch:	5*
Tmax ≤ 32:	0*	Rainfall ≥ 0.10 inch:	4*
Tmin ≤ 32:	1*	Avg Wind Speed ≥ 10 mph:	12*
Tmin ≤ 0:	0*	Max Wind Speed ≥ 30 mph:	10*

* Denotes incomplete record

Postscript generated on Monday, May 21, 2001 at 16:43

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

May 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND DIR	SPEED (mph) AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	84	61	72.7	59.8	0	7	81	44	65	0.00	29.26	29.91	S	10.0	27.9	25.96	66.6	72.5	83	63
2	81	66	73.0	62.9	0	9	85	55	72	0.00	29.18	29.82	SSE	13.6	33.3	20.69	68.0	73.5	81	67
3	82	65	73.5	63.2	0	8	90	52	71	0.00	29.37	30.02	S	9.1	25.2	20.22	68.9	74.8	82	69
4	80	64	71.2	62.5	0	7	92	51	75	0.10	29.33	29.98	SE	10.2	26.8	14.92	67.3	72.8	79	68
5	76	64	68.8	63.1	0	5	96	63	83	0.27	29.22	29.87	S	9.5	29.1	16.32	68.1	70.1	75	67
6	77	60	69.3	62.1	0	4	94	63	78	0.00	29.23	29.87	SSE	8.6	23.2	14.79	68.2	69.4	74	66
7	76	52	64.7	52.9	1	0	95	30	69	0.00	29.51	30.17	NNE	7.0	23.6	24.23	67.5	70.2	80	63
8	81	45	64.4	51.8	2	0	99	34	69	0.00	29.56	30.21	SE	2.4	12.4	29.06	66.2	71.6	85	59
9	84	55	70.7	59.2	0	4	98	41	70	0.00	29.42	30.07	S	6.0	19.1	28.46	68.7	75.2	86	65
10	81	64	71.6	62.6	0	7	87	55	74	0.07	29.31	29.96	S	7.9	24.4	13.70	68.2	72.5	76	69
11	80	61	68.0	63.8	0	6	99	68	87	0.52	29.39	30.04	S	5.6	24.1	11.45	68.0	69.7	76	66
12	81	59	69.5	60.1	0	5	99	39	76	0.00	29.55	30.20	E	3.7	13.5	29.00	69.5	71.5	81	64
13	84	56	71.5	62.7	0	5	99	50	76	0.00	29.52	30.17	S	5.2	16.9	25.30	70.0	72.3	81	64
14	85	66	76.0	64.6	0	11	87	51	69	0.00	29.42	30.07	S	8.2	22.8	26.64	72.2	75.9	85	68
15	86	67	77.0	63.2	0	12	86	45	64	0.00	29.22	29.87	S	9.9	27.3	28.61	73.3	78.5	88	70
16	86*	68*	77.2*	67.7*	0*	12*	85*	61*	73*	0.00*	29.08*	29.73*	S *	7.7*	20.5*	23.69*	75.1*	80.4*	90*	72*
17	85	65	76.9	69.3	0	10	95	63	78	0.46	29.12	29.76	S	7.3	23.9	19.45	75.8	81.0	87	75
18	82	65	71.6	65.5	0	8	97	55	83	0.72	29.18	29.83	WNW	6.3	25.8	20.88	73.1	76.1	82	71
19	81	61	71.5	65.9	0	6	99	58	84	0.03	29.25	29.89	ESE	2.8	9.7	19.33	73.3	75.2	82	69
20	80	66	71.3	67.3	0	8	98	76	88	0.50	28.96	29.61	S	5.7	19.1	15.57	73.2	74.4	79	71
21	67	50	60.1	49.5	6	0	98	42	70	0.10	29.22	29.86	NNW	8.2	30.3	15.44	67.9	67.7	73	63
22	77	45	63.6	45.5	4	0	97	26	58	0.00	29.32	29.96	WSW	7.1	27.4	30.08	66.3	65.5	74	57
23	82	49	67.2	50.2	0	0	98	25	61	0.02	29.19	29.84	WNW	5.8	28.7	29.26	69.4	67.7	75	59
24	69	49	60.0	42.4	6	0	78	38	53	0.00	29.30	29.95	NW	6.3	25.2	27.45	68.2	65.6	72	59
25	72	48	60.3	46.6	5	0	95	38	64	0.00	29.39	30.04	W	4.4	18.9	27.62	68.0	66.0	76	57
26	82	47	66.1	53.7	0	0	99	37	69	0.00	29.28	29.93	WSW	3.4	16.3	28.32	69.7	70.4	83	59
27	87	58	70.6	63.1	0	7	98	43	80	1.47	29.16	29.80	S	5.3	50.3	22.26	72.1	74.4	87	66
28	84	61	72.5	63.3	0	7	97	47	75	0.00	29.18	29.83	NNE	4.7	28.9	29.81	73.3	74.5	83	67
29	73	65	68.8	66.2	0	4	98	82	92	1.19	29.26	29.91	SE	7.8	25.0	4.84	70.2	70.8	74	69
30	75	62	67.7	64.9	0	4	98	79	91	1.47	29.23	29.88	S	7.4	28.0	10.73	68.9	69.5	74	66
31	68	57	64.1	58.3	2	0	99	72	82	0.00	29.26	29.90	NW	4.9	16.6	7.81	67.5	67.6	70	65
	80*	59*	69.4*	59.8*	<-- Monthly Averages -->						29.29*	29.93*	S *	6.8*	50.3*	21.35*	69.8*	72.2*	80*	66*

Temperature - Highest: 87*
Lowest: 45*

Degree Days - Total HDD: 26*
Total CDD: 157*

Rainfall: Monthly Total: 6.92 in.
Greatest 24 Hr: 1.47 in.

Humidity - Highest: 99*
Lowest: 25*

Number of Days With:

Tmax ≥ 90:	0*	Rainfall ≥ 0.01 inch:	13*
Tmax ≤ 32:	0*	Rainfall ≥ 0.10 inch:	10*
Tmin ≤ 32:	0*	Avg Wind Speed ≥ 10 mph:	3*
Tmin ≤ 0:	0*	Max Wind Speed ≥ 30 mph:	3*

* Denotes incomplete record

Postscript generated on Monday, June 25, 2001 at 9:16

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

June 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND DIR	SPEED (mph) AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	81	50	67.2	58.5	0	1	99	48	76	0.00	29.22	29.87	SSW	4.5	16.2	29.31	69.1	69.3	79	60
2	78	68	72.0	57.3	0	8	86	38	61	0.00	29.14	29.78	NNE	6.9	21.0	29.72	73.0	73.2	80	68
3	88	67	78.5	67.9	0	12	87	56	71	0.00	28.97	29.62	SSE	9.3	26.3	20.16	73.6	74.1	80	69
4	88	77	81.3	71.6	0	17	84	60	73	0.00	29.03	29.67	S	11.3	26.6	22.97	75.9	76.6	82	73
5	87	73	79.5	70.6	0	15	88	58	75	0.00	29.21	29.86	SSE	9.8	27.4	20.54	76.2	76.7	82	73
6	87	69	78.1	67.9	0	13	90	48	72	0.00	29.28	29.92	SE	5.4	16.5	26.92	77.9	78.2	85	72
7	89	67	78.6	68.6	0	13	98	49	74	0.00	29.32	29.97	NE	6.5	18.9	26.74	78.3	78.1	84	73
8	88	68	77.3	70.4	0	13	98	52	81	0.08	29.35	30.00	ENE	4.0	23.9	24.26	79.2	79.3	87	73
9	88	69	77.8	70.0	0	14	98	52	79	0.00	29.30	29.95	NNE	3.1	11.4	26.40	80.1	80.8	89	74
10	89	68	78.5	70.2	0	13	98	55	77	0.00	29.24	29.88	S	5.2	19.7	26.33	79.7	81.6	90	74
11	90	69	79.7	68.9	0	15	94	47	72	0.00	29.20	29.84	S	6.3	19.2	30.05	79.9	83.2	93	75
12	90	71	81.2	68.5	0	15	86	49	67	0.00	29.09	29.74	SSE	11.4	26.9	29.80	79.8	83.8	92	76
13	90	75	82.5	72.1	0	17	81	60	71	0.00	29.02	29.66	SSE	14.0	38.0	23.41	80.0	84.3	90	79
14	88	67	77.2	71.0	0	12	96	62	82	0.89	29.08	29.72	S	10.2	30.5	11.66	78.2	81.4	87	76
15	88	62	74.2	61.5	0	10	99	34	70	0.01	29.36	30.01	WSW	3.0	10.2	29.75	77.5	79.0	88	71
16	90	62	77.0	60.7	0	11	91	34	60	0.00	29.48	30.13	SSE	6.5	18.7	30.87	77.3	78.3	87	71
17	89	65	78.3	61.7	0	12	86	31	59	0.00	29.49	30.14	S	7.3	22.7	25.46	77.6	78.1	86	72
18	90	67	79.0	63.9	0	13	82	42	62	0.00	29.39	30.04	S	8.2	24.6	30.40	77.8	80.2	90	71
19	90	69	79.6	66.8	0	14	89	43	67	0.00	29.41	30.06	S	6.5	21.4	28.94	78.8	83.0	93	74
20	85	69	76.7	69.0	0	12	96	58	78	0.02	29.47	30.12	E	5.6	25.2	20.10	78.0	80.6	84	77
21	80	62	73.0	64.8	0	6	96	50	77	0.11	29.44	30.09	N	5.5	29.0	17.53	77.2	78.8	82	76
22	84	57	71.9	58.8	0	6	99	36	69	0.00	29.43	30.08	NNE	3.2	17.0	27.68	76.4	78.1	85	71
23	88	60	75.1	61.8	0	9	98	39	67	0.00	29.39	30.04	SSE	4.2	14.9	29.30	77.7	81.1	90	73
24	90	63	77.4	63.9	0	11	97	40	67	0.00	29.42	30.07	SSW	5.0	20.6	29.46	78.7	83.3	91	76
25	89	64	77.7	63.9	0	11	96	40	66	0.00	29.44	30.10	S	5.2	21.9	29.47	79.0	84.1	91	77
26	88	63	77.4	64.7	0	11	95	41	68	0.00	29.48	30.13	SSE	4.9	17.6	27.75	79.0	84.3	91	78
27	91	65	78.8	67.1	0	13	97	42	70	0.00	29.49	30.14	SSE	4.6	16.5	27.31	79.7	85.0	92	78
28	76	68	71.4	67.2	0	7	95	73	87	1.50	29.43	30.08	SE	8.0	30.2	8.09	75.3	78.7	85	76
29	84	67	74.5	68.3	0	10	96	65	82	0.46	29.34	29.98	SE	9.7	24.9	19.75	75.2	76.6	83	72
30	85	70	76.8	70.2	0	12	96	60	81	0.00	29.31	29.96	SSE	4.5	16.1	21.63	78.5	79.9	86	75
	87	66	76.9	66.3	<-- Monthly Averages -->						29.31	29.96	SSE	6.7	38.0	25.06	77.5	79.7	87	73

Temperature - Highest: 91
Lowest: 50

Rainfall: Monthly Total: 3.07 in.
Greatest 24 Hr: 1.50 in.

Degree Days - Total HDD: 0
Total CDD: 348

Humidity - Highest: 99
Lowest: 31

Number of Days With:

Tmax ≥ 90:	8	Rainfall ≥ 0.01 inch:	7
Tmax ≤ 32:	0	Rainfall ≥ 0.10 inch:	4
Tmin ≤ 32:	0	Avg Wind Speed ≥ 10 mph:	4
Tmin ≤ 0:	0	Max Wind Speed ≥ 30 mph:	3

* Denotes incomplete record

Postscript generated on Wednesday, July 25, 2001 at 3:40

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

July 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	88	68	78.9	71.4	0	13	99	54	80	0.00	29.38	30.03	E	3.7	13.8	27.11	80.0	81.8	89	75
2	89	69	79.6	70.0	0	14	99	50	75	0.00	29.44	30.09	S	4.7	16.9	28.30	80.8	82.6	89	77
3	90	68	80.7	70.4	0	14	98	51	73	0.00	29.44	30.09	S	4.9	16.3	25.80	80.6	82.1	88	76
4	96	70	84.7	71.2	0	18	97	39	67	0.00	29.39	30.04	SSW	5.8	18.8	28.34	81.7	83.2	90	77
5	91	75	82.9	72.8	0	18	94	54	72	0.00	29.35	30.00	ESE	6.3	21.1	19.84	81.4	82.5	88	78
6	97	73	85.2	74.3	0	20	97	47	72	0.00	29.33	29.98	S	6.3	19.2	29.23	82.4	84.7	91	79
7	96	77	86.4	73.6	0	22	87	42	67	0.00	29.34	29.99	S	7.5	19.5	29.43	83.2	86.5	92	81
8	97	74	86.1	72.2	0	20	91	41	66	0.00	29.33	29.98	SSW	6.9	20.5	29.37	83.3	87.0	92	82
9	98	74	85.3	72.0	0	21	90	39	67	0.00	29.28	29.93	SSE	4.6	14.3	29.56	83.8	87.8	93	83
10	97	72	84.8	72.7	0	20	95	40	70	0.00	29.23	29.88	SSE	4.0	19.9	27.19	83.8	87.8	92	83
11	97	73	86.3	73.9	0	20	94	47	69	0.00	29.21	29.86	SSE	5.1	17.8	28.41	84.8	88.1	93	84
12	101	77	88.2	73.4	0	24	82	38	63	0.00	29.22	29.87	S	5.8	18.9	27.05	85.3	88.5	93	84
13	82	75	78.4	72.3	0	14	92	74	82	0.00	29.34	29.99	NNE	9.7	20.1	12.52	82.2	86.0	89	84
14	86	70	77.7	65.0	0	13	88	45	67	0.00	29.35	30.00	ESE	5.9	17.3	21.62	81.5	84.4	87	82
15	87	66	77.2	67.0	0	12	95	56	72	0.00	29.26	29.91	SE	7.1	21.7	18.90	80.1	83.3	86	81
16	94	74	82.6	73.6	0	19	93	56	75	0.18	29.22	29.87	SSE	9.9	23.3	21.35	81.2	83.1	86	81
17	98	78	88.0	75.0	0	23	88	47	67	0.00	29.26	29.91	S	8.5	22.4	27.82	83.7	85.3	91	81
18	98	76	88.0	74.6	0	22	89	45	66	0.00	29.27	29.92	S	8.0	20.1	27.75	84.5	87.2	92	83
19	97	79	87.7	73.7	0	23	85	45	65	0.00	29.31	29.95	S	7.2	18.9	27.91	85.0	88.1	92	84
20	95	75	85.0	71.4	0	20	89	44	66	0.00	29.30	29.95	SSE	6.3	19.8	27.85	84.7	88.2	92	84
21	100	73	86.8	71.6	0	22	91	38	63	0.00	29.23	29.87	S	5.3	17.7	28.24	84.7	88.3	93	84
22	100	74	88.5	70.5	0	22	89	36	58	0.00	29.18	29.82	S	6.4	18.0	28.74	85.2	88.9	93	85
23	100	73	88.2	70.3	0	21	87	36	58	0.00	29.20	29.84	SSE	6.2	17.8	27.90	85.2	89.0	93	85
24	100	75	87.5	73.3	0	22	94	39	66	0.00	29.21	29.85	SSE	4.3	17.1	27.48	85.9	89.6	94	86
25	99	79	88.0	72.7	0	24	84	40	62	0.00	29.20	29.85	SSE	6.2	32.9	25.25	86.3	90.1	94	87
26	97	75	84.9	73.8	0	21	95	44	71	0.00	29.28	29.92	ESE	4.7	13.4	21.47	85.7	89.4	93	86
27	95	78	85.0	73.8	0	21	89	46	71	0.00	29.33	29.98	SSE	6.1	20.5	17.16	85.0	88.7	91	86
28	97	77	83.7	73.5	0	22	92	44	73	0.06	29.35	29.99	SSE	6.5	28.6	23.17	84.7	88.3	92	85
29	95	75	84.9	74.9	0	20	98	50	74	0.00	29.29	29.94	S	5.5	16.9	24.26	84.7	87.7	91	85
30	100	76	87.9	73.0	0	23	92	40	64	0.00	29.28	29.93	S	7.1	21.9	26.31	84.8	88.3	92	85
31	99	77	88.1	71.3	0	23	86	37	60	0.00	29.35	30.00	S	7.2	20.5	27.40	85.1	89.0	93	85
	95	74	84.7	72.2	<-- Monthly Averages -->						29.30	29.94	S	6.2	32.9	25.57	83.6	86.6	91	83

Temperature - Highest: 101
Lowest: 66

Rainfall: Monthly Total: 0.24 in.
Greatest 24 Hr: 0.18 in.

Degree Days - Total HDD: 0
Total CDD: 610

Humidity - Highest: 99
Lowest: 36

Number of Days With:

Tmax ≥ 90:	26	Rainfall ≥ 0.01 inch:	2
Tmax ≤ 32:	0	Rainfall ≥ 0.10 inch:	1
Tmin ≤ 32:	0	Avg Wind Speed ≥ 10 mph:	0
Tmin ≤ 0:	0	Max Wind Speed ≥ 30 mph:	1

* Denotes incomplete record

Postscript generated on Thursday, August 23, 2001 at 16:50

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

August 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F)				DEG DAYS		HUMIDITY (%)			RAIN (in)	PRESSURE (in)		WIND SPEED (mph)			SOLAR (MJ/m2)	4" SOIL TEMPERATURES			
	MAX	MIN	AVG	DEWPT	HDD	CDD	MAX	MIN	AVG		STN	MSL	DIR	AVG	MAX		SOD	BARE	MAX	MIN
1	99	72	87.9	69.8	0	20	92	34	58	0.00	29.45	30.10	SSE	5.7	16.2	27.65	85.2	89.3	94	85
2	97	74	86.3	71.9	0	21	88	40	64	0.00	29.49	30.14	SSE	5.8	17.9	26.43	85.8	89.9	94	86
3	97	69	83.8	68.6	0	18	95	33	64	0.00	29.41	30.06	ENE	2.7	14.1	26.90	84.8	89.3	94	85
4	101	70	85.6	69.0	0	20	94	30	63	0.00	29.32	29.97	ESE	2.6	12.3	27.19	85.2	89.6	94	85
5	101	74	87.3	70.4	0	23	91	30	61	0.00	29.35	30.00	E	3.9	11.4	27.26	86.0	90.3	95	86
6	98	68	84.6	66.2	0	18	94	29	58	0.00	29.42	30.07	SE	3.9	16.1	26.84	85.2	89.8	94	86
7	97	70	84.0	70.3	0	19	95	40	67	0.00	29.42	30.07	E	3.0	17.9	25.48	85.5	89.9	94	86
8	98	73	86.4	70.0	0	20	92	38	61	0.00	29.32	29.97	S	4.5	19.0	23.24	85.4	89.7	93	86
9	104	79	90.0	68.7	0	26	73	26	52	0.00	29.27	29.91	S	6.8	18.0	24.91	85.6	89.7	94	86
10	98	74	82.9	71.6	0	21	96	40	72	0.28	29.32	29.97	E	4.2	24.0	21.16	85.3	89.2	93	86
11	88	73	79.7	74.1	0	16	99	61	84	0.00	29.36	30.01	NE	2.1	12.0	14.01	83.8	85.7	88	84
12	94	73	81.8	73.4	0	19	97	46	78	0.00	29.41	30.06	N	3.4	15.5	20.74	84.9	85.9	91	82
13	96	70	82.4	66.7	0	18	96	29	63	0.00	29.46	30.11	NE	4.5	20.6	24.98	84.0	86.5	92	82
14	95	66	80.9	63.0	0	15	93	28	59	0.00	29.37	30.02	SSE	3.9	15.4	26.68	83.3	87.0	93	82
15	95	70	79.5	68.0	0	17	96	43	71	0.73	29.21	29.85	SSE	9.3	32.8	17.56	81.4	85.4	89	82
16	91	68	78.1	68.1	0	15	99	37	76	0.00	29.35	30.00	ENE	3.1	11.2	24.50	81.8	83.0	88	79
17	93	67	78.6	69.1	0	15	98	38	76	0.00	29.40	30.05	SSW	4.4	22.7	24.69	82.2	83.9	92	78
18	93	68	80.5	69.7	0	16	98	44	73	0.00	29.30	29.95	SSW	5.3	16.2	24.33	82.6	85.7	93	80
19	92	66	79.5	59.7	0	14	84	33	53	0.00	29.29	29.94	ENE	5.3	14.4	26.25	82.1	86.5	93	80
20	98	67	82.8	65.6	0	17	88	32	60	0.00	29.29	29.94	S	6.5	21.6	23.31	81.3	86.0	92	81
21	96	73	85.3	67.6	0	19	83	36	57	0.00	29.30	29.95	S	9.2	26.7	23.85	81.8	86.4	91	82
22	96*	78*	86.3*	68.3*	0*	22*	77*	37*	57*	0.00*	29.30*	29.95*	S *	9.4*	24.5*	22.00*	82.0*	86.6*	91*	83*
23	90	74	81.6	69.5	0	17	95	52	68	0.32	29.30	29.95	S	6.3	27.2	9.11	80.5	83.8	86	81
24	92	73	82.3	68.0	0	17	86	46	63	0.07	29.26	29.91	SSE	8.7	26.2	16.25	79.4	80.5	84	78
25	97	73	84.1	70.4	0	20	95	45	66	0.49	29.25	29.90	S	7.2	26.6	16.53	79.9	82.1	88	77
26	92	69	79.3	70.3	0	16	94	48	76	0.00	29.34	29.99	SSW	4.0	17.1	22.32	81.1	82.2	89	77
27	94	71	80.8	70.8	0	17	97	42	74	0.00	29.30	29.94	SE	2.6	9.6	25.39	82.4	84.7	94	78
28	93	68	81.2	70.0	0	16	98	40	72	0.00	29.30	29.95	S	3.8	15.4	24.74	82.1	86.3	94	79
29	90	68	79.2	68.3	0	14	98	46	72	0.00	29.29	29.94	S	5.4	21.7	23.24	81.2	86.1	92	80
30	86	73	77.7	69.5	0	14	90	62	76	0.00	29.25	29.90	S	7.0	23.6	20.60	80.7	85.5	91	81
31	89	66	77.7	65.9	0	12	95	46	69	0.00	29.25	29.90	NE	4.9	14.6	20.62	80.5	85.0	91	80
	95*	71*	82.5*	68.8*	<-- Monthly Averages -->						29.33*	29.98*	S *	5.1*	32.8*	22.86*	83.0*	86.5*	92*	82*

Temperature - Highest: 104*
Lowest: 66*

Degree Days - Total HDD: 0*
Total CDD: 553*

Rainfall: Monthly Total: 1.89 in.
Greatest 24 Hr: 0.73 in.

Humidity - Highest: 99*
Lowest: 26*

Number of Days With:

Tmax ≥ 90:	28*	Rainfall ≥ 0.01 inch:	5*
Tmax ≤ 32:	0*	Rainfall ≥ 0.10 inch:	4*
Tmin ≤ 32:	0*	Avg Wind Speed ≥ 10 mph:	0*
Tmin ≤ 0:	0*	Max Wind Speed ≥ 30 mph:	1*

* Denotes incomplete record

Postscript generated on Friday, September 28, 2001 at 19:26

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

September 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	90	66	77.5	67.5	0	13	93	46	73	0.00	29.25	29.90	ESE	4.0	14.1	23.91	80.8	85.9	93	80
2	92	67	78.5	68.6	0	15	98	42	75	0.00	29.20	29.85	SE	3.4	13.5	24.31	80.9	86.5	93	80
3	94	68	80.0	68.9	0	16	98	35	72	0.00	29.23	29.87	E	2.8	13.4	20.72	81.0	86.5	92	81
4	91	68	79.8	69.3	0	15	95	45	73	0.00	29.32	29.97	ESE	3.0	12.9	16.01	80.7	85.7	90	81
5	88	72	76.5	71.4	0	15	97	55	85	0.03	29.34	29.99	ESE	3.7	19.1	10.19	79.9	83.8	88	82
6	88	72	79.0	70.7	0	15	97	53	77	0.01	29.22	29.87	S	10.2	26.1	16.85	79.5	82.7	87	79
7	91	66	79.9	70.3	0	14	93	43	74	0.41	29.01	29.65	S	14.1	46.8	15.93	79.3	82.8	87	80
8	77	62	69.2	64.4	0	4	99	69	85	0.86	29.13	29.78	ESE	3.9	22.4	8.91	76.0	76.8	80	73
9	79	55	68.2	56.2	0	2	99	31	69	0.01	29.38	30.03	NNW	5.2	18.5	22.14	76.3	75.0	80	71
10	82	49	65.3	53.8	0	0	99	33	73	0.00	29.57	30.22	SE	2.0	13.7	24.64	73.8	72.7	81	65
11	84	52	67.0	56.8	0	3	100	39	74	0.00	29.52	30.17	ESE	3.1	12.1	23.83	73.5	73.3	81	66
12	86	55	69.0	58.7	0	5	99	36	74	0.00	29.43	30.08	ESE	2.5	11.6	22.79	74.0	75.1	85	67
13	88	55	70.7	60.4	0	6	99	36	75	0.00	29.43	30.08	SE	2.1	11.3	23.10	74.4	77.0	86	69
14	88	60	73.5	64.4	0	9	99	46	76	0.00	29.39	30.04	ESE	4.1	12.7	16.82	74.8	78.2	86	71
15	76	66	70.5	65.4	0	6	99	65	84	0.26	29.37	30.02	SSE	6.6	25.5	7.81	74.3	75.9	79	73
16	77	68	71.6	68.4	0	7	98	78	90	0.18	29.35	30.00	ESE	4.8	12.8	6.02	74.3	74.7	78	72
17	84	70	74.7	69.9	0	12	94	62	86	0.01	29.30	29.95	S	6.6	15.8	9.71	75.6	76.3	81	73
18	77	66	71.4	67.6	0	7	98	75	88	1.04	29.20	29.84	SW	7.0	29.6	10.54	74.7	75.2	78	72
19	81	63	69.6	61.1	0	7	94	49	76	0.00	29.31	29.95	N	4.0	17.8	20.04	75.0	74.5	81	70
20	77	58	67.0	62.9	0	3	99	67	87	0.00	29.32	29.97	SSE	4.8	35.6	8.80	72.8	71.5	76	68
21	80	62	70.2	65.6	0	6	98	64	86	0.00	29.38	30.03	ESE	3.9	12.9	13.20	73.7	73.1	79	69
22	85	60	70.6	66.2	0	7	100	58	88	0.00	29.37	30.02	SE	2.8	11.0	16.97	74.0	74.5	82	68
23	82	60	70.2	61.3	0	6	99	52	75	0.01	29.38	30.03	N	9.1	28.3	18.30	74.4	73.1	78	69
24	69	50	60.8	47.9	5	0	88	43	64	0.00	29.57	30.23	NNE	9.9	21.8	17.51	72.7	69.0	75	66
25	71	42	55.5	45.3	9	0	98	34	73	0.00	29.57	30.22	NNE	2.6	11.8	22.05	69.0	67.5	77	60
26	77	40	58.1	48.6	7	0	99	38	76	0.00	29.49	30.14	SSE	2.0	12.2	21.56	67.6	67.9	78	60
27	78	48	62.3	51.4	2	0	99	30	73	0.00	29.43	30.08	SSE	3.6	16.6	20.50	67.3	68.4	75	62
28	80*	50*	63.8*	53.8*	0*	0*	99*	37*	75*	0.00*	29.44*	30.09*	ESE*	2.7*	14.0*	20.27*	67.5*	69.9*	77*	64*
29	77	48	61.6	51.0	2	0	98	37	72	0.00	29.53	30.18	E	4.0	14.7	20.85	66.9	69.6	76	64
30	78	44	59.7	49.5	4	0	99	35	75	0.00	29.61	30.26	ESE	1.9	10.8	20.94	66.1	69.0	76	63
	82*	59*	69.7*	61.2*	<-- Monthly Averages -->						29.37*	30.02*	ESE*	4.7*	46.8*	17.51*	74.4*	75.7*	82*	71*

Temperature - Highest: 94* Lowest: 40*	Degree Days - Total HDD: 29* Total CDD: 194*	Number of Days With: Tmax ≥ 90: 5* Rainfall ≥ 0.01 inch: 10* Tmax ≤ 32: 0* Rainfall ≥ 0.10 inch: 5* Tmin ≤ 32: 0* Avg Wind Speed ≥ 10 mph: 2* Tmin ≤ 0: 0* Max Wind Speed ≥ 30 mph: 2*
Rainfall: Monthly Total: 2.82 in. Greatest 24 Hr: 1.04 in.	Humidity - Highest: 100* Lowest: 30*	

* Denotes incomplete record

Postscript generated on Monday, November 05, 2001 at 16:20

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

October 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	80	44	60.8	49.9	3	0	100	29	74	0.00	29.54	30.19	SW	1.7	10.4	20.64	65.9	69.0	76	63
2	81	47	64.6	51.4	1	0	99	36	67	0.01	29.41	30.06	S	6.0	25.3	20.33	65.8	68.5	74	64
3	82	57	68.7	55.6	0	4	83	45	64	0.00	29.34	29.99	S	7.9	23.7	18.26	66.8	69.5	74	66
4	83	63	73.6	63.4	0	8	81	57	71	0.00	29.25	29.89	S	9.3	25.2	15.82	68.3	70.9	75	68
5	73	38	55.5	48.8	9	0	97	49	79	0.09	29.40	30.05	N	11.2	32.4	7.00	66.2	67.5	72	62
6	68	33	49.2	38.0	14	0	100	27	72	0.00	29.59	30.24	SE	2.0	12.5	20.21	62.1	62.8	69	58
7	69	36	53.0	40.5	12	0	100	33	68	0.00	29.55	30.20	SSE	5.6	23.3	19.51	61.1	62.9	68	58
8	76	47	63.9	48.9	3	0	87	46	59	0.00	29.43	30.08	SSE	11.7	27.9	18.65	62.4	64.6	69	60
9	73	66	68.9	61.2	0	5	99	55	78	0.59	29.31	29.96	SSE	12.2	36.0	5.26	64.8	66.8	68	66
10	75	60	65.5	63.4	0	2	99	79	93	2.14	29.31	29.95	S	7.4	32.4	1.14	65.8	66.3	68	64
11	62	57	59.5	58.7	6	0	100	94	97	0.24	29.27	29.91	N	3.5	13.3	2.37	64.5	63.8	65	63
12	73	56	62.8	58.7	1	0	100	56	88	0.57	29.12	29.77	SE	7.0	32.4	13.11	64.8	64.8	68	62
13	69	47	58.4	51.5	7	0	99	34	81	0.00	28.98	29.62	WNW	4.2	21.4	11.00	64.3	63.9	67	61
14	71	43	55.9	44.3	8	0	99	30	70	0.00	29.30	29.94	ESE	3.5	14.7	17.06	62.0	61.0	66	57
15	73	37	52.3	44.3	10	0	95	45	76	0.00	29.49	30.14	N	9.3	41.4	11.33	60.6	58.7	62	55
16	66	31	47.2	34.8	16	0	99	23	71	0.00	29.75	30.41	WNW	2.5	14.2	18.81	58.0	55.6	62	50
17	70	36	53.0	37.5	12	0	99	26	62	0.00	29.58	30.23	S	6.8	22.8	18.27	57.4	55.2	61	50
18	75	53	62.0	47.2	1	0	80	40	59	0.00	29.32	29.97	S	10.4	35.4	16.96	58.9	57.4	62	53
19	68	46	56.4	52.5	8	0	100	71	87	0.00	29.33	29.97	SSW	2.4	11.2	7.69	59.5	58.7	63	55
20	82	47	63.5	57.0	1	0	100	50	82	0.00	29.31	29.96	S	5.6	23.3	15.48	60.8	60.9	67	56
21	80	60	68.2	59.4	0	5	91	52	75	0.00	29.32	29.97	SSE	8.4	23.3	16.06	63.0	63.9	68	60
22	80	58	69.5	62.8	0	4	95	59	80	0.00	29.15	29.79	S	9.3	28.0	10.27	63.4	64.2	68	61
23	85	58	73.4	61.2	0	7	94	32	70	0.00	28.89	29.53	S	7.6	24.3	14.06	65.3	66.8	71	64
24	72	42	64.5	44.9	8	0	88	16	55	0.00	29.06	29.71	NNW	8.9	30.8	16.68	63.8	64.0	67	59
25	67	34	49.1	29.8	14	0	98	11	59	0.00	29.61	30.27	N	4.2	22.6	17.07	59.1	57.2	62	54
26	67	31	48.6	30.8	16	0	99	19	59	0.00	29.80	30.45	NE	3.2	15.2	16.65	57.2	55.2	61	50
27	65	30	46.8	30.8	17	0	98	20	61	0.00	29.81	30.47	SE	3.1	12.7	16.73	56.1	54.3	60	49
28	70	39	56.0	34.6	10	0	86	25	47	0.00	29.68	30.33	S	9.4	25.5	15.93	56.1	54.9	60	51
29	75	48	59.3	40.5	4	0	85	36	51	0.00	29.71	30.37	S	8.5	25.3	13.95	57.1	57.0	62	53
30	73	43	57.8	41.2	7	0	89	29	58	0.00	29.64	30.29	S	6.3	21.1	15.82	57.1	57.5	63	53
31	71	53	63.0	49.8	3	0	76	52	62	0.00	29.34	29.99	S	12.9	30.7	9.19	57.9	58.6	62	55
	73	46	59.7	48.2	<-- Monthly Averages -->						29.41	30.05	S	6.8	41.4	14.24	61.8	62.0	66	58

Temperature - Highest: 85
Lowest: 30

Degree Days - Total HDD: 193
Total CDD: 35

Rainfall: Monthly Total: 3.64 in.
Greatest 24 Hr: 2.14 in.

Humidity - Highest: 100
Lowest: 11

Number of Days With:

Tmax ≥ 90:	0	Rainfall ≥ 0.01 inch:	6
Tmax ≤ 32:	0	Rainfall ≥ 0.10 inch:	4
Tmin ≤ 32:	3	Avg Wind Speed ≥ 10 mph:	5
Tmin ≤ 0:	0	Max Wind Speed ≥ 30 mph:	8

* Denotes incomplete record

Postscript generated on Wednesday, December 05, 2001 at 23:09

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

November 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	78	62	70.2	60.5	0	5	89	55	72	0.00	29.22	29.87	S	11.3	28.5	6.21	60.6	62.3	65	60
2	69	61	65.1	62.8	0	0	97	85	92	0.00	29.44	30.09	ENE	5.1	17.1	3.61	61.2	62.5	64	61
3	64	59	62.1	61.4	4	0	100	92	98	2.78	29.64	30.29	E	4.4	24.9	1.93	61.5	62.2	63	62
4	74	53	62.3	59.3	2	0	100	63	91	0.00	29.68	30.33	NE	1.5	8.7	8.97	61.9	62.6	66	60
5	75*	49*	58.7*	55.0*	3*	0*	100*	55*	90*	0.00*	29.58*	30.23*	ESE*	1.2*	7.2*	9.77*	61.6*	62.4*	68*	59*
6	77	47	60.6	53.5	3	0	100	48	80	0.00	29.54	30.19	SSE	3.9	15.4	12.32	60.9	61.1	65	57
7	78	49	62.0	48.3	2	0	98	31	66	0.00	29.52	30.17	S	5.9	21.1	14.09	60.3	60.0	64	57
8	62	49	54.6	46.9	9	0	94	59	76	0.03	29.67	30.32	N	8.4	29.1	9.37	59.1	57.8	60	56
9	58	40	50.0	40.2	16	0	87	52	70	0.00	29.77	30.43	SSW	4.8	18.0	9.86	57.9	55.6	59	52
10	71	45	55.9	45.2	7	0	96	37	71	0.00	29.59	30.25	SW	2.9	10.9	13.89	58.5	57.5	63	54
11	71	40	54.0	46.6	10	0	100	44	80	0.00	29.58	30.23	ESE	3.0	12.9	13.18	57.4	56.3	62	52
12	68	45	57.8	47.4	8	0	95	49	70	0.00	29.59	30.24	SE	7.0	17.3	9.14	57.6	56.6	60	54
13	72	48	61.3	53.2	5	0	96	58	76	0.00	29.50	30.15	SSE	8.6	23.4	9.43	58.3	57.9	62	55
14	72	55	62.5	54.8	1	0	92	57	77	0.00	29.46	30.11	SSE	8.2	19.0	9.46	59.5	59.5	63	57
15	72	46	57.2	51.0	6	0	100	50	82	0.00	29.52	30.17	E	2.9	11.3	11.50	58.7	58.4	63	54
16	69	45	56.2	50.9	8	0	100	53	84	0.00	29.61	30.26	SSE	1.9	8.6	5.83	58.0	57.1	61	54
17	67	56	60.5	53.2	3	0	94	56	78	0.00	29.62	30.28	SSE	3.7	11.2	4.35	59.2	59.1	61	57
18	74	55	64.0	57.1	0	0	96	56	79	0.41	29.44	30.09	S	8.2	29.3	9.29	59.8	60.4	64	58
19	61	32	48.2	34.0	18	0	97	28	61	0.35	29.65	30.31	N	11.9	37.1	10.65	57.9	56.2	62	49
20	56	26	40.0	26.2	24	0	98	22	64	0.00	29.63	30.28	SSW	2.6	9.6	12.88	53.1	48.5	54	44
21	59	28	43.9	29.5	22	0	94	33	61	0.00	29.35	30.00	S	5.3	20.6	10.56	51.6	47.0	51	43
22	67	41	54.2	42.4	11	0	84	47	65	0.00	29.11	29.75	SSE	11.2	28.3	11.85	52.7	49.6	55	45
23	73	53	63.9	55.3	2	0	88	57	74	0.00	28.76	29.39	S	13.2	39.4	5.10	56.0	56.0	59	52
24	59	48	54.6	41.7	11	0	85	47	63	0.00	28.94	29.58	W	11.3	34.7	2.49	55.0	53.0	56	51
25	70	33	52.9	37.5	14	0	99	29	62	0.00	29.27	29.92	SSE	8.2	26.3	12.31	53.3	50.5	55	46
26	63	38	56.5	37.1	14	0	71	32	49	0.00	29.15	29.80	S	11.3	26.0	3.41	54.3	52.2	54	50
27	39	29	33.6	21.2	31	0	96	47	62	0.00	29.52	30.17	NW	8.4	20.8	6.80	51.1	45.6	49	43
28	30	26	28.1	25.8	37	0	98	73	91	0.00	29.56	30.22	N	13.1	24.9	2.31	49.4	42.5	43	42
29	34	28	31.1	28.5	34	0	96	86	90	0.00	29.32	29.97	N	6.7	21.4	2.15	49.0	41.3	42	41
30	57	30	40.9	32.6	21	0	97	45	75	0.31	29.24	29.88	SW	7.9	22.7	12.17	48.6	42.6	48	39
	65*	44*	54.1*	45.3*	<-- Monthly Averages -->						29.45*	30.10*	SSE*	6.8*	39.4*	8.49*	56.8*	55.1*	59*	52*

Temperature - Highest: 78*
Lowest: 26*

Rainfall: Monthly Total: 3.88 in.
Greatest 24 Hr: 2.78 in.

Degree Days - Total HDD: 326*
Total CDD: 5*

Humidity - Highest: 100*
Lowest: 22*

Number of Days With:

Tmax ≥ 90:	0*	Rainfall ≥ 0.01 inch:	5*
Tmax ≤ 32:	1*	Rainfall ≥ 0.10 inch:	4*
Tmin ≤ 32:	7*	Avg Wind Speed ≥ 10 mph:	7*
Tmin ≤ 0:	0*	Max Wind Speed ≥ 30 mph:	3*

Postscript generated on Sunday, January 06, 2002 at 21:42

* Denotes incomplete record

MESONET CLIMATOLOGICAL DATA SUMMARY
(BIXB) Bixby
Latitude: 35-57-44

December 2001
Nearest City: 2.0 NE Bixby
Longitude: 95-51-57

Time Zone: Midnight-Midnight CST
County: Tulsa
Elevation: 604 feet

DAY	TEMPERATURE (°F) MAX	MIN	AVG	DEWPT	DEG DAYS HDD	CDD	HUMIDITY (%) MAX	MIN	AVG	RAIN (in)	PRESSURE (in) STN	MSL	WIND SPEED (mph) DIR	AVG	MAX	SOLAR (MJ/m2)	4" SOIL TEMPERATURES SOD	BARE	MAX	MIN
1	62	28	43.0	37.4	20	0	99	48	84	0.00	29.49	30.14	SSE	3.1	16.6	8.35	48.0	44.0	49	40
2	71	33	53.7	44.3	13	0	100	42	74	0.00	29.48	30.13	S	7.6	23.8	11.73	49.1	47.0	53	41
3	62	53	58.5	54.8	8	0	92	77	87	0.00	29.42	30.07	S	9.8	23.1	2.96	52.0	52.1	54	49
4	75	61	67.0	60.6	0	3	95	56	81	0.00	29.37	30.02	S	12.6	31.3	6.48	55.3	57.5	61	54
5	75	51	66.3	53.6	2	0	86	35	65	0.00	29.38	30.03	S	12.2	29.4	3.98	56.8	58.8	62	56
6	66	38	50.4	39.6	13	0	95	39	69	0.00	29.44	30.09	SW	3.0	14.4	5.87	54.0	53.1	56	50
7	67	33	50.6	43.0	15	0	100	49	78	0.00	29.28	29.93	NNW	4.1	19.1	8.64	52.3	50.5	55	46
8	53	28	43.6	27.4	25	0	92	27	55	0.00	29.60	30.25	N	10.0	28.0	10.78	51.5	48.7	52	45
9	55	22	34.6	23.4	27	0	98	21	70	0.00	29.59	30.24	ESE	1.4	8.8	12.05	47.8	44.0	49	41
10	56	20	37.4	25.1	27	0	96	30	66	0.00	29.44	30.09	SE	5.2	16.9	11.92	46.3	42.5	46	40
11	51	28	41.7	35.3	25	0	97	53	80	0.26	29.39	30.04	SSE	8.9	21.3	5.92	46.7	42.9	46	40
12	52	46	49.4	48.7	16	0	99	92	98	0.13	29.23	29.88	SE	4.0	15.6	1.31	49.1	47.9	50	46
13	49	44	46.6	45.0	19	0	98	84	94	0.25	29.33	29.98	NE	4.6	15.7	2.24	50.0	49.0	50	48
14	48	37	42.7	40.7	23	0	98	80	93	0.00	29.28	29.93	SE	6.6	16.9	4.66	49.4	47.7	50	45
15	49	40	45.5	42.2	20	0	94	78	88	0.00	29.36	30.01	SE	11.4	24.8	2.18	48.2	45.4	47	44
16	53	47	49.8	49.3	15	0	100	93	98	1.49	29.33	29.97	N	6.1	22.3	0.68	49.6	48.7	50	47
17	57	35	46.6	37.8	19	0	97	36	74	0.33	29.36	30.01	NW	5.3	15.9	11.56	49.8	49.3	53	46
18	66	31	48.6	35.5	17	0	99	30	65	0.00	29.23	29.87	S	7.9	31.6	11.59	47.9	45.6	50	41
19	50	28	39.8	23.5	26	0	91	15	58	0.00	29.55	30.20	NW	7.0	29.6	11.88	47.4	44.2	47	41
20	61	27	41.5	28.2	21	0	92	31	63	0.00	29.61	30.26	S	4.9	19.8	11.50	45.3	42.0	47	39
21	63	32	47.4	33.2	18	0	90	32	61	0.00	29.45	30.10	SSE	10.6	29.4	11.22	45.9	43.0	48	39
22	60	28	48.8	36.6	21	0	96	38	65	0.00	29.25	29.90	S	11.5	33.4	11.22	48.1	47.4	51	43
23	43	21	33.1	14.7	33	0	94	17	53	0.00	29.56	30.21	NW	6.1	24.9	11.69	44.3	40.6	43	39
24	42	19	30.3	16.1	34	0	90	33	58	0.00	29.61	30.27	NW	5.4	20.0	12.11	41.7	37.8	39	37
25	39	16	27.0	19.1	37	0	95	38	74	0.00	29.53	30.18	ESE	2.4	8.6	10.93	40.9	36.9	37	36
26	39	21	28.9	14.7	35	0	80	33	57	0.00	29.45	30.10	NW	6.5	22.8	11.89	40.5	36.1	37	36
27	51	23	35.4	26.0	28	0	98	42	71	0.00	29.27	29.92	SW	2.8	12.7	9.76	40.5	36.4	38	35
28	58	22	37.4	26.7	25	0	98	31	70	0.00	29.17	29.82	SSW	4.0	24.7	9.64	40.5	37.4	40	36
29	37	20	27.3	14.2	37	0	81	40	58	0.00	29.60	30.25	N	8.6	29.6	11.50	40.3	36.6	38	36
30	27	16	22.1	15.1	43	0	93	56	75	0.00	29.74	30.39	NNE	3.3	12.7	3.18	38.3	35.4	36	35
31	38	13	24.2	16.4	39	0	96	38	75	0.00	29.69	30.35	NNE	1.6	10.9	11.15	37.3	34.3	35	34
	54	31	42.6	33.2	<- Monthly Averages ->						29.43	30.08	S	6.4	33.4	8.41	46.9	44.6	47	42

Temperature - Highest: 75
Lowest: 13

Degree Days - Total HDD: 701
Total CDD: 3

Number of Days With:
Tmax ≥ 90: 0
Tmax ≤ 32: 1
Tmin ≤ 32: 19
Tmin ≤ 0: 0
Rainfall ≥ 0.01 inch: 5
Rainfall ≥ 0.10 inch: 5
Avg Wind Speed ≥ 10 mph: 6
Max Wind Speed ≥ 30 mph: 3

Rainfall: Monthly Total: 2.46 in.
Greatest 24 Hr: 1.49 in.

Humidity - Highest: 100
Lowest: 15

* Denotes incomplete record

Postscript generated on Monday, February 04, 2002 at 20:33

MUSKOGEE COMMUNITY RECYCLING AND DISPOSAL FACILITY
MUSKOGEE COUNTY, OKLAHOMA
ODEQ PERMIT NO. 3551020

TIER I PERMIT MODIFICATION

ALTERNATIVE FINAL COVER QUALITY ASSURANCE/ QUALITY CONTROL PLAN

Prepared for

Waste Management of Oklahoma, Inc.

Approved October 18, 2008

Revised October 2023

LICENSED PROFESSIONAL ENGINEER
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24456
OKLAHOMA

10/13/2023

Prepared by

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WCG Project No. 0086-364-11-19

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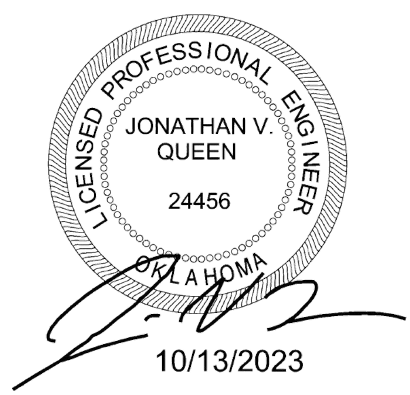

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TABLE

1 INTRODUCTION

1.1 Purpose

This Quality Assurance/Quality Control (QA/QC) Plan has been prepared to provide the Owner, Design Engineer, Construction Quality Assurance Professional of Record, and the Contractor the means to govern the construction quality of the Evapotranspiration (ET) monolithic soil alternative final cover system for the Muskogee Community Recycling and Disposal Facility (RDF). This plan has been prepared consistent with OAC 252:515 and the plan addresses the soil components of the ET monolithic soil alternative final cover system.

This QA/QC Plan is divided into the following parts:

- Section 1 – Introduction
- Section 2 – Construction Quality Assurance for Earthwork
- Section 3 – Documentation

1.2 Definitions

Whenever the terms listed below are used, the intent and meaning shall be interpreted as indicated.

ASTM

American Society for Testing and Materials.

Construction Quality Assurance (CQA)

A planned system of activities that provides the Owner and permitting agency assurance that the facility was constructed as specified in the design (EPA, 1986). Construction quality assurance includes observations and evaluations of materials, and workmanship necessary to determine and document the quality of the constructed facility. Construction quality assurance (CQA) refers to measures taken by the CQA organization to assess if the installer or contractor is in compliance with the plans and specifications for a project.

Construction Quality Assurance Professional of Record (POR)

The POR is an authorized representative of the Owner and has overall responsibility for construction quality assurance and confirming that the facility was constructed in general accordance with plans and specifications approved by the permitting agency. The POR must be registered as a Professional Engineer in Oklahoma and experienced in geotechnical testing and its interpretations. Experience and education should include geotechnical engineering, engineering geology, soil mechanics, geotechnical laboratory testing, construction quality assurance, and quality control testing, and hydrogeology. The POR must show competency and experience in certifying like installations, and be approved by the permitting agency, and be presently employed by or practicing as a geotechnical engineer in a recognized geotechnical/environmental engineering organization. The credentials of the POR must meet or exceed the minimum requirements of the permitting agency.

The POR may also be known in applicable regulations and guidelines as the CQA Engineer, Resident Project Representative, or the Geotechnical Professional (GP).

Construction Quality Assurance (CQA) Monitors

These are representatives of the POR who work under direct supervision of the POR. The CQA monitor is responsible for quality assurance monitoring and performing onsite tests and observations. The CQA monitor is on site full-time during construction and reports directly to the POR. Field observations, testing, or other activities associated with CQA may be performed by the CQA monitor(s) on behalf of the POR.

Contract Documents

These are the official set of documents issued by the Owner. The documents include bidding requirements, contract forms, contract conditions, specifications, contract drawings, addenda, and contract modifications.

Contract Specifications

These are the qualitative requirements for products, materials, and workmanship upon which the contract is based.

Contractor

This is the person or persons, firm, partnership, corporation, or any combination, private or public, who, as an independent contractor, has entered into a contract with the Owner, and who is referred to throughout the contract documents by singular number and masculine gender.

Design Engineer

These individuals or firms are responsible for the design and preparation of the project construction drawings and specifications. Also referred to as "designer" or "engineer."

Earthwork

This is a construction activity involving the use of soil materials as defined in the construction specifications and Section 2 of this plan.

Nonconformance

This is a deficiency in characteristic, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate. Examples of non-conformances include, but are not limited to, physical defects, test failures, and inadequate documentation.

Operator

This is the organization that operates the disposal unit (Waste Management of Oklahoma, Inc.).

Operator's Representative

This is the person that is an official representative of the operator responsible for planning, organizing, and controlling the design and construction activities.

Quality Assurance

This is a planned and systematic pattern of procedures and documentation to ensure that items of work or services meet the requirements of the contract documents. Quality assurance includes quality control. Quality assurance will be performed by the POR and CQA monitor.

Quality Control

These actions provide a means to measure and regulate the characteristics of an item or service to comply with the requirements of the contract documents. Quality control will be performed by the contractor.

Final Cover Certification Report (FCCR)

Construction report for the final cover system prepared and sealed by the POR and submitted to the ODEQ.

2 CONSTRUCTION QUALITY ASSURANCE FOR EARTHWORK

2.1 Introduction

This section of the QA/QC Plan addresses the construction of the soil components of the ET monolithic soil alternative final cover system and outlines the program to be implemented with regard to materials selection and evaluation, laboratory test requirements, field test requirements and treatment of problems.

The scope of earthwork and related construction quality assurance includes the following elements:

- Intermediate Cover Layer
- Vegetation Support Layer
- Vegetation Layer

2.2 Earthwork Construction

The following paragraphs describe general construction procedures to be used for various earthwork components of the ET monolithic soil alternative final cover system.

2.2.1 Intermediate Cover Layer

After the landfill reaches the permitted grade in each area to receive final cover, operational cover soils will be placed according to the facility operation plan. Twelve inches (min) of soil will be placed by the owner over the completed waste fill prior to installing the ET monolithic soil alternative final cover system.

The contractor will re-work the cover soils (or intermediate cover layer) to provide a smooth, uniformly graded surface upon completion. The intermediate cover layer soil shall be free of rocks and any irreducible material greater than 2 inches in diameter. The intermediate cover layer soil shall be free of clods greater than 4 inches in diameter.

QA/QC for preparation of the intermediate cover layer will be performed under the supervision of the CQA personnel. QA/QC procedures to be performed during preparation of the intermediate cover layer will include observation of the final grading of the intermediate cover layer. Upon completion of intermediate cover layer grading activities, the POR will determine that the intermediate cover layer has been prepared to provide a uniform surface. Visual examination of the intermediate cover layer preparation by the CQA monitor will generally be sufficient to evaluate its suitability as a foundation for the overlying vegetation support layer soils.

The CQA monitor will approve the prepared intermediate cover layer prior to the placement of the vegetation support layer. Approval will be based on a review of test information, if applicable, and CQA monitoring of the intermediate cover layer preparation.

Surveying will be performed to verify that the completed intermediate cover layer is a minimum 12 inches thick. The intermediate cover layer will be probed on a 100-foot grid to verify that a minimum 12-inch-thick soil layer is present at each location. This survey will only verify that a minimum 12-inch-thick soil layer is in place, not the total thickness of the intermediate cover layer. As an option to the intermediate cover layer thickness verification, the vegetation support layer may be installed as a 36-inch-thick, single-lift soil layer installed per the Section 2.2.2 requirements.

2.2.2 Vegetation Support Layer

The vegetation support layer will consist of a minimum 24-inch-thick soil layer (measured perpendicular to the intermediate cover layer surface) that will extend along the top and sideslopes of the landfill. The vegetation support layer material will consist of relatively homogeneous clay, silty clay, sandy clay, or clayey sand. Material used for the vegetation support layer shall classify as CL, CH, ML, SM, or SC according to the Unified Soil Classification System (USCS). The soil will be free of debris and rocks greater than 2-inches in diameter. The vegetation support layer soil shall be free of clods greater than 4 inches in diameter. The vegetation support layer material should be placed in one 24-inch lift. The material will be compacted by "tracking-in" the material by 2 to 4 passes of the low pressure earth moving equipment. The earth moving equipment used to place this layer will exert a ground pressure of 16 psi or less.

The vegetation support layer will be placed as single lift and compacted to a density that is between 75 and 85 percent of the maximum dry density determined by standard Proctor (ASTM D 698) at a moisture content less than the optimum moisture content.

Overcompacted vegetative support layer soil will be disked or ripped (or any other method approved by the POR) and recompacted to a density that is between 75 and 85 percent of the maximum dry density. If a density test fails (i.e., density is less than 75 percent or more than 85 percent of the maximum dry density), additional tests may be performed to delineate the overcompacted or undercompacted area. The area to be re-worked will encompass the area between passing density tests.

The testing and survey requirements for the vegetation support layer are listed in Table 2-1. Sufficient testing of the borrow area soils will be completed, as needed, to verify that the soils to be used will be classified as CL, CH, ML, SM, or SC according to the USCS.

The vegetation support layer construction will be conducted in a systematic and timely fashion. Delays will be avoided in completion of the vegetation support layer and construction of the overlying vegetation layer.

Placement of the vegetative support layer will cease during rainfall events to prevent overcompaction. Before proceeding with the construction after a rainfall event greater than 0.5 inches, the contractor will complete at a minimum, a 10-foot by 10-foot test pad (which will be part of the approved ET monolithic soil alternative final cover system after testing is completed) to verify that overcompaction will not occur as construction continues. Test pad results will be reported in the Final Cover Construction Report (FCCR). Compaction requirements will be verified by a minimum of 2 field density tests for the test pad area.

2.2.3 Vegetation Layer

The soil vegetation layer will be placed over the vegetation support layer. This layer consists of soil capable of supporting vegetative growth. The soil is placed in one lift (12-inch minimum thickness) over the entire surface of the final cover system and is compacted in place with a dozer (ground pressure of 16 psi or less). The surface of the vegetation layer should be graded to achieve the desired final grades and disked parallel to the proposed contours, in preparation for seeding and to prevent excessive loss due to heavy rainfall.

The soil cover should be placed under the continuous observation of QA/QC personnel to determine that the minimum thickness is applied and that no damage occurs to other structures (e.g., gas system components) installed in the final cover.

Placement of the vegetation layer will cease during rainfall events to prevent overcompaction of the vegetation layer. This layer will not be reworked after a rainfall event until the CQA monitor confirms that the soil can be effectively disked. To prevent erosion, the CQA monitor will ensure that the procedures detailed in the Vegetation Plan (Appendix E) are followed.

Surveying will be performed to observe that the finished vegetation support layer has been constructed to a minimum thickness of 12 inches (refer to the Table 2-1 for additional information). Waste Management of Oklahoma, Inc., will notify the ODEQ of the source of the soil for this layer at least two weeks prior to construction.

2.2.4 Establishment of Vegetation

Vegetation will be established consistent with the specifications listed in the Site's ~~Approval~~ Vegetation Plan (refer to Appendix E). Final approval of the ET monolithic soil alternative final cover system will occur after Waste Management of Oklahoma, Inc., submits documentation to the ODEQ that demonstrates that vegetation has been established over at least 95 percent of the cover system with no bare areas larger than 1 square foot.

2.3 Survey and Final Topography

Upon completion of the installation of the ET monolithic soil alternative final cover system, a final topographic survey of the cover is to be completed by a qualified land surveyor. The final topographic map should be included in the FCCR and should include all final contours, location of gas vents, gas monitoring wells, groundwater monitoring wells, drainage structures, fences and gates, access roads and all other pertinent site features.

A final cover system thickness drawing showing thicknesses for each layer (i.e., intermediate cover layer, vegetation support layer and vegetation layer) and thickness of each layer at each of the survey measurement grid points will be provided. Coordinates defining the perimeter of the final cover system will be called out on one of the final drawings.

2.4 Construction Testing

2.4.1 Standard Operating Procedures

CQA monitors will perform field and laboratory tests in accordance with applicable standards specified in the project technical specifications. Standard operating procedures for soil testing will be prepared that describe test procedures and methods used by site testing personnel for the following ASTM test methods. In some instances the standard operating procedure will be prepared or modified by the POR during construction.

The following test standards apply as called out in this manual and in the technical specifications:

Standard	Test Description
ASTM D 698	Moisture-density relations of soils and soil-aggregate mixtures, using 5-½ lb hammer and 12-inch drop
ASTM D 2922	Density of soil and soil-aggregate in place by nuclear methods (shallow depth)
ASTM D 2487	Classification of soils for engineering purposes
ASTM D 2488	Description and identification of soils (visual-manual procedure)

2.4.2 Test Frequencies

The test frequencies for vegetation support layer are listed in the following table. Additional testing must be conducted whenever work or materials are suspect, marginal, or of poor quality. Additional testing may also be performed to provide additional data for engineering evaluation. The minimum number of tests is interpreted to mean minimum number of passing tests, and any tests that do not meet the requirements will not contribute to the total number of tests performed to satisfy the minimum test frequency.

Table 2-1
Recommended Tests and Observations
for the Vegetation Support Layer

Parameter	Frequency	Test Method
Moisture density relationship (includes Atterberg Limits, No. 200 sieve, and permeability)	1 for each soil type	ASTM D 698
Soil Classification	1 per soil type	ASTM D 2487 and 2488
Field Density and Moisture	3 tests per acre	ASTM D 2922 and ASTM D 2216 or ASTM D 3017
Thickness Verification[1]	A 100-foot grid will be established by a registered Oklahoma surveyor.	Top of intermediate cover layer, top of vegetation support layer, and top of vegetation layer will be surveyed to verify thickness of vegetation support layer and vegetation layer.

[1] Refer to Section 2.2.1 for additional intermediate cover layer survey requirements.

2.5 Reporting

The POR on behalf of the Owner shall submit to the ODEQ a FCCR for approval of each final cover area. Section 3 describes the documentation requirements.

3 DOCUMENTATION

The QA/QC Plan depends on thorough monitoring and documentation of all construction activities. Therefore, the POR and CQA monitor will document that all quality assurance requirements have been addressed and satisfied. Documentation will consist of daily recordkeeping, testing and installation reports, nonconformance reports (if necessary), progress reports, photographic records, design and specification revisions, to be included in the FCCR. Standard report forms will be provided by the POR prior to construction.

3.1 Preparation of FCCR

The POR, on behalf of the Owner, shall submit to the ODEQ an FCCR for approval of each final cover area. The construction methods and test procedures documented in the FCCR will be consistent with this QA/QC Plan.

At a minimum, the FCCR will contain the following:

- A summary of all construction activities
- A summary of all laboratory and field test results
- Sampling and testing location drawings
- A description of significant construction problems and the resolution of these problems
- As-built record drawings
- A statement of compliance with the construction contract documents and design intent, signed, and stamped by a professional engineer(s) registered in the state of Oklahoma.

The as-built record drawings will accurately site the constructed location of all work items. All surveying and base maps required for the development of the record drawings will be prepared by the surveyor. The POR must review and verify that as-builts are correct. As-builts will be included in the FCCR.

It is understood that the ET monolithic soil alternative final cover system will not be approved until the vegetation layer meets the specifications listed in Section 2.2.4.

APPENDIX E

VEGETATION PLAN

Includes pages E-1 through E-6

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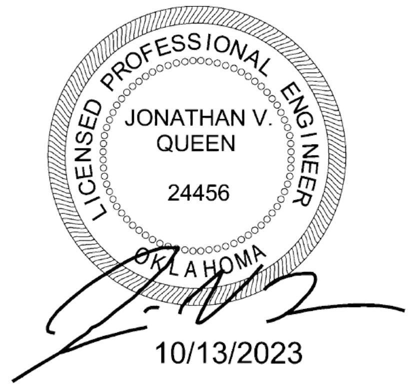
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LIST OF TABLES

1 INTRODUCTION

The purpose of this vegetation plan is to set forth the procedures to be used in establishing interim and permanent vegetation at the Muskogee Recycling and Disposal Facility located in Muskogee County, Oklahoma. The site operates under Oklahoma Department of Environmental Quality (ODEQ) permit number 3551020.

This Vegetation Plan was developed using the ODEQ regulations pursuant to OAC 252:515-19-54.

2 VEGETATION PLAN – INTERIM

2.1 Seeding Area

This section has been developed to address the seeding of portions of the site that (1) have not received final cover and (2) will remain undisturbed for more than 90 days. As final cover is constructed these areas will be sealed upon completion of the alternate final cover system according to this plan.

2.2 Interim Vegetation Establishment

Table 2-1 lists typical seeding mixtures that will be used for the site during each season. Also included is Table 2-2, which lists Limitations on Noxious Weed Seeds. Similar mixtures and application rates may also be used. It is understood that a variety of application rates and types of seed mixtures will produce adequate vegetative cover. The seeding mixture listed in Table 2-1 is only provided for a reference. The seed may be applied to the landfill slopes by various typical application methods such as hydromulch or seed drilling. Fertilizer will be applied to the seeded area, as needed. However, the following typical application method will be used.

- Additional soil will be added to the sideslopes, as needed, and the soil will be processed using a disc to prepare the soil for seeding.
- Fertilizer will be applied using a commercial spreader at a rate of approximately 150 pounds per acre (lb/acre) and the soil will be simultaneously disked using a disc-harrow. The fertilizer rate may vary, however, an initial rate of 10 (nitrogen) -20 (phosphate) -10 (potassium) may be used.
- The seed mixture will then be applied using a commercial spreader and the area simultaneously disked using a disc harrow.

- After discing the seeded area, hay will be mulched at a rate of approximately 3 bales (1,000 lbs each) per acre. To further minimize erosion potential and facilitate moisture retention, the hay will then be “crimped” using a roller to integrate the hay into the soil.

Maintenance of the interim vegetation will consist of protection, replanting, maintaining existing grades, and repair of erosion damage. Protection will include limiting site traffic or other uses immediately after seeding is completed.

In addition, water and fertilizer will be applied to the seeded areas to facilitate the establishment of vegetation during the months of May through September. Areas that have recently been seeded will be watered until vegetation is established. Typically, water will be applied to these areas on a weekly basis. Water will be obtained from an on-site source (i.e., pond). Both a primary and secondary water source will be identified so that water will be available, as needed. Typical water sources may include local contractors and area municipalities. Fertilizer will be applied at least every two months, or as needed to establish vegetation. The typical nutrient mixture will be 10-20-10, unless site-specific soil tests are performed which indicate a need for a different nutrient mixture. Manufactures recommendations regarding the application of fertilizer will be followed.

After vegetation is established in an area it will be inspected on a monthly basis during the active life of the site. The vegetation cover will be capable of self-regeneration and will require no maintenance. If bare spots develop, then the area will be re-seeded and maintained (e.g., watered and fertilized) as noted above until the vegetation is re-established.

2.3 Dust Control Plan

The main source of dust created at the site is from the site entrance road. Water will be applied to the entrance road on a daily basis or as needed to control dust. Other areas of the site will also be watered, as needed, to control dust. The site manager will routinely inspect the site to identify and control sources of dust.

Table 2-1
Typical Seeding Mixtures[1]

Spring/Summer Planting Season
(Optimal Time for Planting-April 1 through May 30)

Spring Seeding Mixture	Minimum Percent Pure Live Seed Required	Pounds Per Live Seeds Required Per Acre
Common Bermuda Grass	85	12
Blue Stem	65	4
Side Oats Grama	65	6
Rye	85	4
	Total	**26**

Fall/Winter Planting Season
(Optimal Time for Planting-September 1 through February 15)

Fall Seeding Mixture	Minimum Percent Pure Live Seed Required	Pounds Per Live Seeds Required Per Acre
Winter Wheat	75	40
Fescue or Rye	85	15
	Total	**55**

[1] The mixtures shown in Table 2-1 are for reference purposes only. Other mixtures may also be used.

Table 2-2

Oklahoma Department of Agriculture, Food, and Forestry
OAC 35:30-25-4. Limitations on Noxious Weed Seeds[1]

Noxious Weed Seed	Limitations of Noxious Weed Seed (Number of Seeds per Pound)
Bindweed, Field (Convolvulus arvensis)	Prohibited
Yerba De Tajo (Eclipta alba)	Prohibited
Red Horned Poppy (Claucium corniculatum)	Prohibited
Knapweed, Russian (Centaurea picris)	Prohibited
Musk Thistle (Carduus nutans L.)	Prohibited
Nutgrass (Cyperus rotundus)	Prohibited
Scotch Thistle (Onoprodum acanthium)	Prohibited
Serrated Tussock (Nassella trichotoma)	Prohibited
Sicklepod (cassia obtusifolia)	Prohibited
Thistle, Canada (Cirsium arvense)	Prohibited
Whitetop or Hoary Cress (Cardaria draba)	Prohibited
Wild Oat [Avena fatus, Avena sterilis, and other wild noncultivated Avena spp., (In Wheat Only)]	Prohibited
Cockebur (Xanthium spp.)	3 per lb.
Jointed Goatgrass (Aegilops cylindrica)	5 per lb.
Moonflower or Giant Morningglory (Calonyction muricatum)	5 per lb.
Ballonvine (Cardiospermum halicacbum)	9 per lb.
Sericea Lespedeza (Lespedeza Cuneata)	9 per lb.
Wild Oat (Avena fatua, Avena sterilis, and other wild noncultivated Avena spp., Except in Wheat)	9 per lb.
Wild Buckwheat (Polygonum convolvulus)	18 per lb.
Onion, Wild or Garlic (Allium spp.)	18 per lb.
Wild Morningglory (Ipomoea spp.)	27 per lb.
Bindweed, Hedge (Convolvulus sepium)	27 per lb.
Johnsongrass (Sorghum halepense) (Except: Johnsongrass will be permitted in Yellow bluestem, Caucasian bluestem, and chaffy grasses not to exceed 300 per lb.)	45 per lb.
Quackgrass (Agrophyron repens)	45 per lb.
Blueweed, Texas (Helianthus ciliaris)	45 per lb.
Wild Mustard (Brassica spp.)	45 per lb.
Corncockle (Agrostemma githago)	45 per lb.
Plantain, Bracted (Plantago aristata)	45 per lb.
Giant Foxtail (Setaria faberi)	54 per lb.
Dodder (Cuscuta spp.)	90 per lb.
Darnel (Lolium temulentum)	90 per lb.
Dock (Rumex spp.)	90 per lb.
Horsenettle (Solanum carolinense)	90 per lb.
Nightshade, Purple (Solanum elaeagnifolium)	90 per lb.
Plantain, Buckhorn (Plantago lanceolata)	90 per lb.
Sorrel, Sheep or Red (Rumex acetosella)	90 per lb.
Cheat or Chess (Bromus secalinus)	200 per lb.
Sum total noxious weeds (Subject to above limitations) (Except in Yellow bluestem, Caucasian bluestem, and chaffy grasses, the sum total noxious weeds shall not exceed 500 per lb.)	200 per lb.

[1] It is unlawful to sell, offer for sale, or expose for sale any agricultural or vegetable seed in Oklahoma if the noxious weed seed per pound is in excess of the following limitations.

3 VEGETATION PLAN – FINAL COVER AREAS

This section has been developed to address the establishment of vegetation on the portions of the landfill, which have received final cover. Permanent vegetation will be established in disposal areas that have reached final grades and completed the installation of a final cover system.

Permanent vegetation will be established using the typical seeding mixtures and application methods discussed in Section 2. Currently the eastern slope of the eastern landfill unit has approximately 3 acres of established final cover. For future areas that will receive final cover, the initial seeding event will occur as follows:

- For final cover that is constructed in the winter, the initial seeding event will consist of a Fall/Winter seed mix, followed by permanent vegetation using a Spring/Summer seeding mixture.
- For final cover that is constructed in the spring, the initial seeding event will consist of a Spring/Summer seed mix, followed by permanent vegetation using a Fall/Winter seeding mixture.

This plan has been developed to be consistent with OAC 252:515-19-54 (i.e., permanent vegetation will be established during the first growing season after closure).

Maintenance of the permanent vegetation will typically consist of protection, replanting, maintaining existing grades, repair of erosion damage, and mowing. After the seeds have sprouted, Waste Management of Oklahoma, Inc., will inspect the slopes for areas with no grass or with thin grass. These areas will be reseeded, watered, and fertilized to establish an acceptable permanent vegetation layer. The maintenance procedures listed in Section 2 will be followed. If there are areas where establishing vegetation is unsuccessful an alternative plan will be developed.

MUSKOGEE COMMUNITY
RECYCLING AND DISPOSAL FACILITY
MUSKOGEE COUNTY, OKLAHOMA
ODEQ PERMIT NO. 3551020

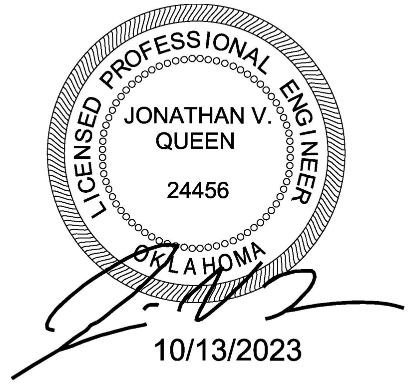
APPENDIX K

QUALITY ASSURANCE/QUALITY CONTROL PLAN FOR LINER AND LEACHATE COLLECTION SYSTEM INSTALLATION AND TESTING

Prepared for

Waste Management of Oklahoma, Inc.

October 2023



10/13/2023

Prepared by

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WCG Project No. 0086-364-11-19

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TABLES

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1 INTRODUCTION

1.1 Purpose

This Quality Assurance/Quality Control (QA/QC) Plan provides the procedures to govern the construction quality of landfill liners in accordance with OAC 252:515, as promulgated by the Oklahoma Department of Environmental Quality (ODEQ) and the EPA Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities (EPA/600/R-93182, September 1993). The QA/QC Plan, together with the construction drawings and specifications, addresses the soils and geosynthetics components of the liner and leachate collection system in accordance with OAC 252:515-11 and 252:515-13.

This QA/QC Plan is divided into the following parts:

- Section 1 – Introduction
- Section 2 – Construction Quality Assurance for Earthwork
- Section 3 – Construction Quality Assurance for Geosynthetics
- Section 4 – Construction Quality Assurance for Piping
- Section 5 – Construction Quality Assurance for Drainage Material
- Section 6 – Documentation

1.2 Definitions

Whenever the terms listed below are used, the intent and meaning will be interpreted as indicated.

ASTM

The American Society for Testing and Materials

Construction Quality Assurance (CQA)

A planned system of activities that provides the Operator and permitting agency assurance that the facility was constructed as specified in the design. Construction quality assurance includes observations and evaluations of materials, and workmanship necessary to determine and document the quality of the constructed facility. Construction quality assurance (CQA) refers to measures taken by the CQA organization to assess if the installer or contractor is in compliance with the plans and specifications for a project.

Construction Quality Assurance Professional of Record (POR)

The POR is an authorized representative of the Operator and has overall responsibility for construction quality assurance that confirms that the facility was constructed in accordance with plans and specifications approved by the permitting agency. The POR must be registered as a Professional Engineer in Oklahoma and experienced in geotechnical testing and its interpretations. Experience and education must include geotechnical engineering, engineering geology, soil mechanics, geotechnical laboratory testing, construction quality assurance and quality control testing, and hydrogeology. The POR must show competency and experience in certifying like installations, and be approved by the permitting agency, and be presently employed by or practicing as a geotechnical engineer in a recognized geotechnical/environmental engineering organization. POR or his designated representative will be on-site during all liner system construction.

The POR may also be known in applicable regulations and guidelines as the CQA Engineer, Resident Project Representative, or the Geotechnical Professional (GP).

Construction Quality Assurance (CQA) Monitors

These are representatives of the POR who work under direct supervision of the POR. The CQA monitor is responsible for quality assurance monitoring and performing onsite tests and observations. Field observations, testing, or other activities associated with CQA may be performed by the CQA monitor(s) on behalf of the POR.

Contract Documents

These are the official set of documents issued by the Operator. The documents include bidding requirements, contract forms, contract conditions, specifications, contract drawings, addenda, and contract modifications.

Contract Specifications

These are the qualitative requirements for products, materials, and workmanship upon which the contract is based.

Contractor

This is the person or persons, firm, partnership, corporation, or any combination, private or public, who, as an independent contractor, has entered into a contract with the Operator, and who is referred to throughout the contract documents by singular number and masculine gender.

Design Engineer

These individuals or firms are responsible for the design and preparation of the project construction drawings and specifications. Also referred to as "designer" or "engineer."

Earthwork

This is a construction activity involving the use of soil materials as defined in the construction specifications and Section 2 of this plan.

Film Tear Bond (FTB)

A failure in the geomembrane sheet material on either side of the seam and not within the seam itself.

Geomembrane Liner (GM)

This is a synthetic lining material, also referred to as geomembrane, membrane liner, or sheet. The term Flexible Membrane Liner (FML) is also used for GM.

Geosynthetic Clay Liner (GCL)

This is a composite lining material consisting of bentonite adhered to a covering geosynthetic material.

Geosynthetics Contractor

This individual is also referred to as the "contractor" or "installer" and is the person or firm responsible for geosynthetic construction. This definition applies to any person installing FML, GCL, geotextile, or geocomposite, even if not his primary function.

Independent Testing Laboratory

A laboratory that is independent of ownership or control by the permittee or any party to the construction of the liner system or the manufacturer of the liner system products used.

Liner Installation and Testing Plan (LIT)

Certification report for the composite liner, prepared and sealed by the POR, that is submitted to ODEQ for approval.

Manufacturing Quality Assurance (MQA)

A planned system of activities that provides assurance that the raw materials were constructed (manufactured) as specified.

Manufacturing Quality Control (MQC)

A planned system of inspection that is used to directly monitor and control the manufacture of a material.

Municipal Solid Waste Landfill Regulations (MSWLR)

The state regulations for which management of solid waste is regulated. For Oklahoma, it is the Title 252 Department of Environmental Quality Chapter 515 Management of Solid Waste Regulations.

Nonconformance

This is a deficiency in characteristic, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate. Examples of non-conformances include, but are not limited to, physical defects, test failures, and inadequate documentation.

Operator

The organization that will operate the disposal unit.

Operator's Representative

The official representative of the operator responsible for planning, organizing, and managing the construction activities.

Organics

Organic matter is material that may be capable of decay (e.g., plant material), the product of decay, or both.

Permittee's Representative

This is the person that is an official representative of the permittee responsible for planning, organizing, and controlling the design and construction activities.

Panel

This is a unit area of the FML which will be seamed in the field.

Quality Assurance (QA)

This is a planned and systematic pattern of procedures and documentation to ensure that items of work or services meet the requirements of the contract documents. Quality assurance includes quality control. Quality assurance will be performed by the POR and CQA monitor.

Quality Control (QC)

These actions provide a means to measure and regulate the characteristics of an item or service to comply with the requirements of the contract documents. Quality control will be performed by the contractor.

1.3 Meetings

To facilitate construction and to define construction goals and activities, coordination between the Design Engineer, Owner, Operator, POR, CQA Monitor, and Contractor is essential. To meet this objective, meetings will be held prior to and throughout the construction process. Per OAC 252:515-11-5, ODEQ shall be notified at least 48 hours in advance of the Pre-construction Meeting and at least two weeks before liner system construction begins. The pre-construction notification will (1) define the area to be constructed and (2) include the names of the contractors, and the QA and QC officials. The notification will also include pre-construction test information.

2 CONSTRUCTION QUALITY ASSURANCE FOR EARTHWORK

2.1 Introduction

This section of the Quality Assurance/Quality Control (QA/QC) Plan addresses the construction of the earthwork components of the liner system and outlines the QA/QC Plan program to be implemented with regard to materials selection and evaluation, laboratory test requirements, field test requirements, and treatment of problems.

The landfill is designed to include a Subtitle D composite liner for the undeveloped liner area. The liner system for the undeveloped area will consist of a 2-foot-thick compacted clay liner and a 60-mil-thick high density polyethylene (HDPE) Flexible Membrane Liner (FML). An alternative liner option is also available for the which consists of replacing the 2 foot compacted clay layer with a geosynthetic clay liner (GCL) and a 1-foot-thick compacted clay layer ($k \leq 1x10^{-7}$ cm/s). Refer to Section 3 of this QA/QC Plan for more information regarding the Construction Quality Assurance for the FML and GCL.

2.2 Earthwork Construction

The following paragraphs describe general construction procedures to be used for various earthwork components within the landfill. The earthwork construction specifications will be developed based on the material and construction procedures outlined in this section of the QA/QC Plan for each specific liner construction.

2.2.1 Subgrade

Subgrade refers to a surface which is exposed after stripping topsoil or excavating to establish the grade directly beneath the composite liner. The subgrade must be constructed to allow for the composite liner to conform to the permitted Top of Liner Plan.

Prior to beginning liner construction, the subgrade area will be stripped to a depth sufficient to remove all loose surface soils or soft zones within the exposed excavation. The upper 6 inches of the subgrade will be compacted to a minimum of 90 percent of the maximum dry density as determined by the Standard Proctor (ASTM D698), unless the subgrade is part of the perimeter berm. Perimeter berm soils shall be compacted to 95 percent of the maximum dry density. The liner subgrade area will be proof rolled with heavy, rubber tired construction equipment to detect unstable areas. Unstable areas will be undercut to firm material and backfilled with suitable compacted general fill. The subgrade will also be scarified prior to placement of the first lift of clay liner.

Subgrade voids and cracks are expected to be minor. However, the subgrade will be re-worked as necessary to provide a foundation suitable for soil liner placement. Visual examination of the subgrade preparation by the CQA monitor will generally be sufficient to evaluate its suitability as a foundation for the subgrade. The CQA monitor may find that physical testing is necessary to evaluate the prepared subgrade or general fill placed in large voids.

The POR will approve the prepared subgrade prior to the placement of soil liner or general fill. Approval will be based on a review of test information, if applicable, and CQA monitoring of the subgrade preparation.

2.2.2 General Fill

General fill material placed below the floor of the composite liner will be placed in uniform lifts to an elevation of subgrade minus 1 foot and proof-rolled with a heavy, rubber tired construction equipment to detect unstable areas. Unstable areas will be undercut to firm material and backfilled with suitable compacted general fill. The remaining 1 foot will be placed in uniform lifts that do not exceed 9 inches in loose thickness and are compacted to at least 90 percent of the maximum dry density as determined by the Standard Proctor (ASTM D698) at a moisture content equal to or greater than the optimum moisture content.

General fill material placed as part of the perimeter berm will be placed in uniform lifts that do not exceed 9 inches in loose thickness and are compacted to at least 95 percent of the maximum dry density as determined by the Standard Proctor (ASTM D698) at a moisture content equal to or greater than the optimum moisture content.

General fill material will be relatively homogeneous clay, silty clay, sandy clay, or clayey sand. The material shall classified as CL, CH, ML, SM, or SC according to the Unified Soil Classification System (USCS). General fill shall be tested to determine the USCS classification at a frequency of 1 per 50,000 cy. The general fill material interface strength parameters will be verified by the Design Engineer prior to construction by review of existing data or completion of additional testing to verify the assumed strength parameter values utilized in the site slope stability analysis. The analysis was developed using peak strength values and a factor of safety of 1.5 (long-term condition), 1.3 (short-term condition), and 1.15 (seismic condition). If test results differ from assumed values, the analysis will be updated to meet these minimum factor of safety values and the additional analysis will be placed in the Site Operating Record.

2.2.3 Soil Liner

The soil liner will consist of a minimum 2-foot-thick (or 1-foot minimum thickness if the GCL alternative liner system is used) compacted clay liner (measured perpendicular to the subgrade surface) that will extend along the floor and side slopes of the landfill. The soil liner will be constructed in continuous, single, compacted lifts (6 inches thick) parallel to the floor and sideslope subgrades with a permeability of $1x10^{-7}$ cm/s or less.

Surveying will be performed to verify that the excavation/bottom of clay liner grades is to the lines and grades specified in the design with a vertical tolerance of -0.2 feet to +0.0 feet to ensure that the clay liner will achieve a 2-foot minimum thickness (or 1-foot minimum thickness if the GCL alternative liner system is used).

2.2.3.1 Soil Liner Material

Adequate clayey soil liner material will be available from landfill excavations and/or onsite borrow sources. The liner soil will be free of debris, rock greater than 1 inch in diameter, vegetative matter, frozen materials, foreign objects, and organics. Laboratory tests will verify that materials are adequate to meet the compacted clay liner requirements prior to liner construction. As necessary, an off-site borrow source can be used for soil liner and protective cover construction. Representative samples from onsite and/or offsite borrow sources will be subject to the minimum pre-construction testing program shown in Table 2-1.

Table 2-1
Pre-Construction Testing Schedule for Soil Liner Material

Test	Method Used	Frequency[4]
Soil Classification	ASTM D2487	1 per 10,000 cy
Particle Size Analysis (including % passing No. 200 Sieve)	ASTM D422 or ASTM D1140	1 per 10,000 cy
Atterberg Limits	ASTM D4318	1 per 10,000 cy
Moisture Content	ASTM D2216 or ASTM D4643	1 per 10,000 cy
Standard Proctor Test or Modified Proctor Test[3]	ASTM D698, if light weight compactor is to be used	1 per 10,000 cy
	ASTM D1557, if heavy weight compactor is to be used	
Hydraulic Conductivity[1]	ASTM D5084[2]	1 per 10,000 cy

[1] Conduct this test on remolded sample that is compacted to 95% of the maximum dry density and at the optimum moisture content, as determined from the Standard Proctor test or compacted to 90% and at optimum moisture content for Modified Proctor test. Allow 1% tolerance for both dry density and moisture content. The sample fabricated with lower-bound density and moisture should represent worst case conditions for hydraulic conductivity results.
[2] Testing procedures in Appendix VII of the Corps of Engineers Manual EM 1110-2-1906, November 30, 1970, Laboratory Soils Testing, is an alternative method.
[3] Soil types or blends proposed for control using alternative moisture-density acceptance criteria shall be tested by both Standard and Modified Proctor methods, along with their corresponding hydraulic conductivity tests.
[4] 1 per 10,000 cubic yard (cy) or a minimum of 1 test per source or soil type, whichever is greater. Cubic yard to be calculated from in-place volumes of certified liner construction. The calculated number of tests shall be rounded up to the nearest whole number.

The Proctor moisture-density curves shall be developed for each type of soil determined suitable as soil liner material and shall be used during the construction phase as a performance reference for compaction and moisture control. However, if soil types vary substantially and cannot or will not be segregated, representative blends of the soil types anticipated to be utilized for soil liner construction should also be sampled and tested. Separate but equivalent portions of the sample should be used if both Standard and Modified Proctor tests are to be performed for a given soil type or soil blend. Samples should not be oven-dried nor dried back more than two to three percent drier than necessary to obtain the desired test point. The zero air voids line shall be computed and included along with the Proctor curves, indicating the specific gravity value used.

An alternative moisture-density acceptance criteria may be established for a particular soil type or blend using both the Standard and Modified Proctor relationships. In this case, both tests must be run for that soil, and an acceptable range of moisture and density may be defined as shown in Figure 2-1. This approach will allow a rational method for accepting or disapproving compaction results when more than one type of compactor or compaction effort is used or when variations in Proctor relationships make choosing the most appropriate curve difficult. The acceptable moisture-density range shall be determined by the POR.

As a general rule, pre-construction tests will be performed at a frequency not less than one test series for every 10,000 cubic yards of soil to be used in soil liner construction, unless soil types are limited and easily distinguished. As soil is usually made available subsequent to excavation during soil liner construction, additional pre-construction samples should be taken and tests performed when soils vary, or when the initial pre-construction test results appear inappropriate or questionable. If and when the same borrow source is utilized for the soil supply of more than one soil liner area, results from previous tests may be used to supplement the pre-construction data.

Soils used in soil liners will have the following minimum values verified by testing in a soil laboratory prior to liner construction.

Table 2-2
Required Soil Liner Material Properties

Test[1]	Specification
Coefficient of Permeability (Remolded Sample)	1.0×10^{-7} cm/s or less (see Note 2)
Plasticity Index	≥ 10
Liquid Limit, percent	≥ 24
Percent Passing No. 200 Mesh Sieve	≥ 30
Percent Retained on #4 Sieve	≤ 20

[1] Testing will be performed in accordance with the test methods included in Section 2.3.
[2] Coefficient of permeability for 1-foot-thick soil liner for the GCL alternative liner system will be less than or equal to 1×10^{-7} cm/s.

2.2.3.2 Liner Construction

The soil liner material will be placed in maximum 9-inch-thick loose lifts to produce compacted lift thickness of approximately 6 inches. The material will be compacted to a minimum of 95 percent of the maximum dry density determined by Standard Proctor (ASTM D698), or 90 percent of the maximum dry density as determined by the Modified Proctor (ASTM D1557) at a moisture content equal to or greater than the optimum moisture content.

The soil liner must be compacted with a pad/tamping-foot. The lift thickness will be controlled so that there is total penetration through the loose lift under compaction into the top of the previously compacted lift; therefore, the lift thickness must not be greater than the pad or prong length. Use of pad/tamping-foot or prong-foot rollers will provide sufficient roughening of liner lifts surface for bonding between lifts. These procedures are necessary to achieve adequate bonding between lifts and reduce seepage pathways. Adequate cleaning devices must be in place and maintained on the compaction roller so that the prongs or pad feet do not become clogged with clay soils to the point that they cannot achieve full penetration during initial compaction. The footed roller is necessary to achieve this bonding and to reduce the individual clods and achieve a blending of the soil matrix through its kneading action. In addition to the kneading action, weight of the compaction equipment is important. Multiple passes are recommended for a vehicle with front and rear drums. The soil liner will not be compacted with a bulldozer or any track-mobilized equipment unless it is used to pull a pad-footed roller.

Water shall be applied as necessary to the material and worked evenly into the material with the compaction equipment. Water used for the soil liner must be clean and not contaminated by waste or any objectionable material. Collected onsite stormwater may be utilized if it has not come into contact with the solid waste.

Soil liner construction should not be conducted in adverse weather conditions (heavy rain, freezing temperatures, etc.).

The soil liner will be visually inspected to evaluate its integrity during and after construction. CQA testing of the soil liner will also be performed as the soil liner is being constructed. Testing of the soil liner is addressed in Section 2.3. Sections of compacted soil liner which do not pass both the density and moisture requirements will be reworked with additional passes of the compactor until the section in question passes. All field density and moisture test results will be incorporated into the LIT Report.

Hydraulic conductivity samples will be obtained by pushing a sampler through the constructed clay liner. The sample from each test location will be sealed and transported to the laboratory. Two samples may be collected at each sample location and labeled the "A" and "B" sample. The sampling holes (e.g., samples for hydraulic conductivity) will be backfilled with bentonite or a bentonite/clay liner soil material mixture consisting of at least 20 percent bentonite.

If the integrity of the "A" sample appears to have been compromised during the transportation of the sample prior to testing, the "B" sample may be tested. In addition, if an "A" sample hydraulic conductivity test does not comply with the minimum allowable value, the "B" sample collected at the same location may be tested to determine compliance with the hydraulic conductivity requirements if during testing of the "A" sample, the ASTM D5084 or EM 1110-2-1906 procedure was not followed or the permeameter malfunctioned.

The POR will provide a detailed justification of the use of the "B" sample, if applicable, in the LIT Report.

If the "B" sample passes, the area will be considered in compliance. If the "B" sample fails (or sample "A" fails in such a way that there is not an option to use the "B" sample), the test interval will be considered unsatisfactory for the area bounded by passing test locations (but not extending past a satisfactory test location). Additional tests may be taken to further define the unsatisfactory area. The area defined unsatisfactory will be reworked and retested in accordance with this section.

Furthermore, if it is determined that the "B" sample may not be used to replace the "A" sample result, then the test interval will be considered unsatisfactory for the area bounded by passing test locations (but not extending past a satisfactory test location).

Once the exact area is determined, the constructed liner lifts will be scarified to the bottom of the lift that did not pass the hydraulic conductivity test, and reconstructed. Reconstructed liner area is subject to the testing frequencies listed in Table 2-3. Additionally, each lift of the reconstructed liner area will be tested for hydraulic conductivity. Reconstruction activities, including additional testing and surveying, will be incorporated into the LIT Report.

The finished surface of the final lift of soil liner must be rolled with a smooth, steel-wheeled roller to obtain a hard, uniform, and smooth surface. The surface of the final lift of soil liner will then be inspected by the CQA monitor. All undesired materials will be removed from the liner surface, including removing rocks, cobbles, roots and other foreign objects over one inch in diameter, as well as all surface rocks regardless of size if FML and/or GCL is to be laid on top. Any voids created by removing undesired materials will be backfilled with liner material to the density specifications outlined for liner construction and tested at the discretion of the CQA monitor.

Surveying will be performed to verify that the finished top of liner grade is to the lines and grades specified in the design with a vertical tolerance of -0.0 feet to +0.2 feet to ensure that the clay liner achieves a 2 foot minimum thickness (or 1-foot minimum thickness if the GCL alternative liner system is used).

The POR will submit to the ODEQ a LIT Report for approval of each soil liner area.

The soil liner will be prevented from losing moisture, protected from desiccation cracking, frost damage, or damage from equipment prior to placement of the GCL and FML. Preserving and protecting the installed soil liner will be dependent on the earthwork contractor's means and methods and is subject to POR approval.

2.2.4 Leachate Collection/Protective Cover

The leachate collection layer consists of a 12-inch-thick soil layer with a permeability of $1x10^{-3}$ cm/s or greater and less than 5% fines (passing no 200 sieve). The protective cover layer consists of an additional 12-inch-thick leachate collection layer.

The leachate collection/protective cover material will consist of soil materials that have not previously come in contact with solid waste and do not contain materials detrimental to the underlying geosynthetics. The leachate collection/protective cover material will be free of organics, foreign objects, or other deleterious materials. The physical characteristics of the leachate collection/protective cover material will be evaluated through visual observation and laboratory testing during construction. Leachate collection/protective cover (soil) material will be tested for permeability and fines at one test per 100,000 square feet. Additional testing during construction will be at the discretion of the CQA monitor.

The leachate collection/protective cover material will be placed using any low ground pressure equipment as outlined in Section 3.6. The leachate collection/protective cover material will be placed by spreading in front of the spreading equipment with a minimum of 12 inches of soil between the spreading equipment and the installed geosynthetics. Under no circumstances will the construction equipment come in direct contact with the installed geosynthetics.

Surveying will be performed to ensure that the leachate collection/protective cover material achieved a 2-foot minimum thickness.

During construction the CQA monitor will:

- Verify that grade control is performed prior to work.
- Verify that underlying geosynthetic installations are not damaged during placement operations or by survey grade controls. Mark damaged geosynthetics and verify that damage is repaired.
- Verify that the cover soil for sideslopes is pushed from the toe up the slope.
- Monitor haul road thickness over geosynthetic installations and verify that equipment hauling and materials placement meet equipment specifications (see Section 3.7).
- The POR will coordinate with the project surveyor to perform a thickness verification survey of the leachate collection/protective cover materials upon completion of placement operations. Verify corrective action measures as determined by the verification survey.

2.2.5 Anchor Trench Backfill

The anchor trench backfill material for geosynthetic anchoring will be placed in uniform lifts which do not exceed 12 inches in loose thickness and will be compacted by reasonable means. Tests may be taken at the discretion of the CQA monitor to evaluate the quality of the backfill. The test results will not be required as part of the LIT Report.

2.3 Construction Testing

2.3.1 Testing Procedures

Testing and evaluation of the soil liner during construction will be in accordance with the ODEQ Municipal Solid Waste Landfill Regulations (MSWLR). The construction methods and test procedures documented in the LIT report (see Section 6) will be consistent with this QA/QC Plan and the MSWLR.

CQA monitors will perform field and laboratory tests in accordance with applicable standards outlined in the specifications. The following test standards apply:

Standard	Test Description
ASTM D698	Moisture-density relations of soils and soil-aggregate mixtures, using 5½-lb rammer and 12-inch drop
ASTM D1557	Moisture-density relations of soils and soil-aggregate mixtures using 10-lb rammer and 18-inch drop
ASTM D422	Particle size analysis of soils
ASTM D6938	Density and water content of soil and soil aggregate in place by nuclear methods
ASTM D2216	Laboratory determination of water (moisture) content of soil and rock by mass

Standard	Test Description
ASTM D5084	Hydraulic conductivity of saturated porous materials
ASTM D4318	Liquid limit, plastic limit, and plasticity index of soils
ASTM D1140	Amount of material in soils finer than No. 200 sieve
ASTM D2487	Classification of soils for engineering purposes
EM 1110-2-1906	US Army Corps of Engineers permeability test
ASTM D2488	Description and identification of soils (visual-manual procedure)
ASTM D2937	Density of soil in place by the drive-cylinder method
ASTM D2167	Density and unit weight of soil in place by the rubber balloon method
ASTM D1556	Density and unit weight of soil in place by the sand-cone method
ASTM D4643	Determination of water (moisture) content of soil by the microwave oven method
ASTM D1587	Thin-walled tube sampling of soils for geotechnical purposes

2.3.2 Test Frequencies

OAC 252:515-11-32, 33, 34, 36, & 37 establish the required tests, frequencies, and properties for the earthwork construction quality assurance. The pre-construction testing schedule for soil liner material is listed on Table 2-1. The testing frequencies for the earthwork are listed in Table 2-3 and establish a minimum number of required tests. Additional testing must be conducted whenever work or materials are suspect, marginal, or of poor quality. Additional testing may also be performed to provide additional data for engineering evaluation. Any retests performed as a result of a failing test do not contribute to the total number of tests performed to satisfy the minimum test frequency.

Table 2-3
Minimum Earthwork Construction Testing Frequencies

Test (ASTM No.)	Subgrade	General Fill[(2)]	Soil Liner Construction	Leachate Collection/ Protective Cover
Moisture/Density of Soil In-Place (D6938)[(5)]	3 per acre for upper 6 inches only	3 per acre per 6-inch lift[(1)]	3 per acre per 6-inch lift[(4)]	N/A
Visual Classification (D2488)	N/A	Continual during placement	Continual during placement	Continual during placement
Hydraulic Conductivity (D2434, D5084, or Corps of Engineers EM 1110-2-1906, Appendix VII)	N/A	N/A	2 per acre for top 12 inches of bottom liner; 1 per acre for top 12 inches of sidewall liner with $k \leq 1x10^{-7}$ cm/s[(6, 7)]	Only applicable for 12 inch or 24 inch leachate collection/protective cover material with $k \geq 1x10^{-3}$ cm/s. The frequency shall be 1/100,000 sf.
Survey/Thickness Verification[(3)]	100-foot square grid points with a vertical tolerance of -0.2 feet to 0.0 feet on the top of subgrade (bottom of clay) surface	100-foot square grid points with a vertical tolerance of -0.2 feet to 0.0 feet on the top of general fill (bottom of clay) surface	100-foot square grid points with a vertical tolerance of 0.0 feet to +0.2 feet on the top of soil liner surface, minimum 2 reference points, minimum thickness required	100-foot square grid points with a minimum of 2 reference points, minimum thickness required

1 General fill material placed below the floor of the composite liner will be placed in uniform lifts to an elevation of subgrade minus 1 foot and proof-rolled with a heavy, rubber tired construction equipment to detect unstable areas. Unstable areas will be undercut to firm material and backfilled with suitable compacted general fill. The remaining 1 foot will be placed in uniform lifts that do not exceed 9 inches in loose thickness and are compacted to at least 90 percent of standard Proctor (ASTM D698) at a moisture content equal to or greater than the optimum moisture content.

2 General fill material will be relatively homogeneous clay, silty clay, sandy clay, or clayey sand. The material shall classify as CL, CH, ML, SM, or SC according to the Unified Soil Classification System (USCS). General fill shall be tested at a frequency of 1 per 50,000 cy.

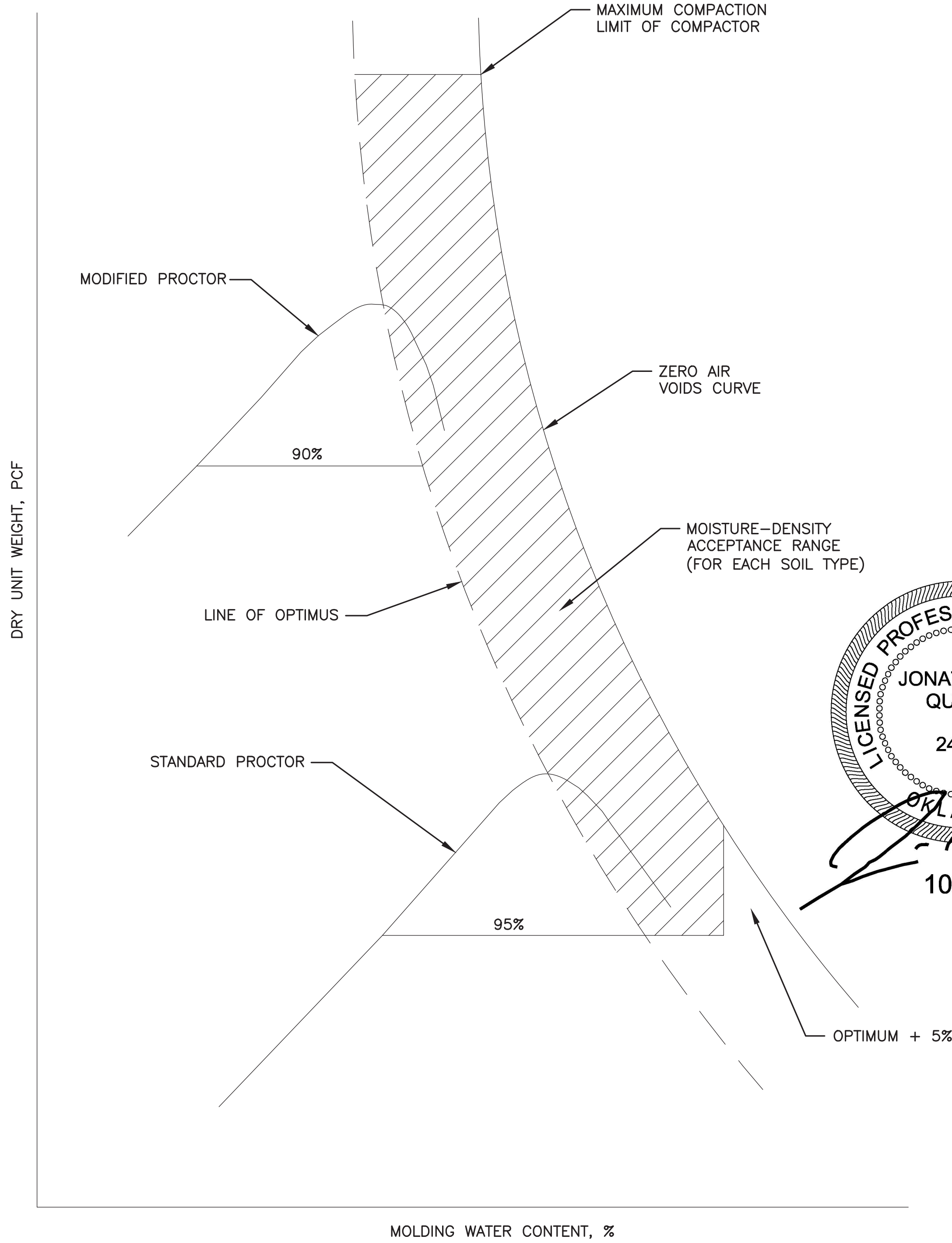
3 Surveying to be completed by a registered Oklahoma surveyor. The thickness verification will be supplemented by additional points deemed necessary by the POR, such as breaks in grade and at the leachate piping and sump locations. The selected grid should be the same for both beginning and finished elevations of the soil liner so that the minimum liner thickness can be verified.

4 A minimum of two tests shall be performed on the bottom and one on sideslope areas.

5 To include the conventional oven drying method (ASTM D2216) performed on every 10 samples.

6 In-situ samples shall be retrieved in accordance with ASTM D1587.

7 Hydraulic conductivity for 1-foot-thick compacted clay component of GCL alternative liner system will be $k \leq 1.0x10^{-7}$ cm/s at frequency listed.



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O:\0086\364\EXPANSION 2022\APPENDIX K\FIGURE 2-1.dwg, jpuhr, 1:1

TIER III PERMIT MODIFICATION
ACCEPTABLE ZONE FOR SOIL LINER
MOISTURE/DENSITY CONTROL

MUSKOGEE COMMUNITY RDF
MUSKOGEE COUNTY, OKLAHOMA

Weaver Consultants Group

DRAWN BY: JBP	DATE: 10/2023	FILE: 0086-364-11
REVIEWED BY: JVQ	CAD: FIGURE 2-1.dwg	FIGURE 2-1

3 CONSTRUCTION QUALITY ASSURANCE FOR GEOSYNTHETICS

3.1 Introduction

This section of the QA/QC Plan addresses the construction of the geosynthetic components of the liner and leachate collection systems and outlines the QA/QC Plan program to be implemented with regard to materials selection and evaluation, laboratory test requirements, field test requirements, and treatment of problems.

The overall goal of the geosynthetics quality assurance program is to assure that proper construction techniques and procedures are used and the geosynthetic contractor implements his quality control plan in accordance with this QA/QC Plan. The quality assurance program is intended to identify and define problems that may occur during construction and to observe that these problems are avoided and/or corrected before construction is complete.

3.2 Geosynthetics Quality Assurance

3.2.1 General

The composite liner system provides the primary means for preventing leachate infiltration into groundwater. A GCL and/or geomembrane is a component of the composite liner. Proper geosynthetic installation is a crucial work element, which greatly affects the performance of the composite liner system. Construction quality control for the geosynthetic installation will be performed by the geosynthetic installation contractor. Construction quality assurance for the geosynthetic installation will be performed by the POR to assure the geosynthetics is constructed as specified in the design. Construction must be conducted in accordance with the procedures outlined in this QA/QC Plan. To monitor compliance, a quality assurance program will include the following:

- A review of the manufacturer’s quality control testing
- Material conformance testing by an independent third party laboratory
- Field and construction testing
- Construction monitoring

Conformance testing refers to material testing performed by an independent third party laboratory that takes place prior to material installation. Field and construction testing includes testing that occurs during geosynthetics installation.

Quality assurance testing will be conducted in accordance with this QA/QC Plan. Field testing will be observed by the CQA monitor. Documentation must meet the requirements of this QA/QC Plan.

3.3 Geomembrane

The composite liner system will include a 60-mil HDPE geomembrane. The geomembrane will be smooth on both sides on the liner floor and textured on both sides on the liner sideslopes. Geomembrane liner will conform to the current specifications found in Geosynthetic Research Institute (GRI) Test Method GM-13. Required quality control tests for the geomembrane are included in Table 3-1 and required material properties for the geomembrane are included in Table 3-2.

3.3.1 Delivery

Upon delivery of FML, the CQA monitor will observe that:

- The geomembrane is delivered in rolls and is not folded. Folded geomembrane is not acceptable because the highly crystalline structure of the geomembrane will be damaged if it is folded. Any evidence of folding (other than from the manufacturing process) or other shipping damage is cause for rejection of the material.
- Equipment used to unload and store the rolls or pallets does not damage the geomembrane.
- The geomembrane is stored in an acceptable location in accordance with the manufacturer's specifications and stacked not more than 5 rolls high. The geomembrane is protected from puncture, dirt, grease, water, moisture, mud, mechanical abrasions, excessive heat, or other damage.
- All manufacturing documentation required by the specifications outlined in this QA/QC Plan has been received and reviewed for compliance prior to shipment of FML to the site. This documentation will be included in the LIT Report.
- The geosynthetics receipt log form has been completed for all materials received.

Damaged geomembrane will be rejected and removed from the site or stored at a location separate from accepted geomembrane. Geomembrane that does not have proper manufacturer's documentation must be stored at a separate location until all documentation has been received, reviewed, and accepted.

3.3.2 Conformance Testing

The geomembrane material and its components will be tested accordance with Table 3-1 by the supplier/manufacturer. A certificate of analysis will be submitted as part of the quality control documentation.

A third party independent lab will test the material components. A sample will be obtained for every resin lot of material supplied of geomembrane installed. The material will be sampled at the site by the CQA monitor or independent third-party representation. The samples will be forwarded to the independent third-party laboratory for the following conformance tests:

- Specific gravity/density (ASTM D1505 or alternate ASTM D792, if approved by the POR)
- Carbon black content (ASTM D4218)
- Carbon black dispersion (ASTM D5596)
- Thickness (ASTM D5199 for smooth FML and for textured FML use ASTM D5994 or alternate ASTM D1593 if approved by POR)
- Tensile properties (ASTM D6693/Type IV, ASTM D638 may be used upon approval by POR)

The density of the geomembrane must be greater than 0.94 g/cc; the carbon black content must be between 2 percent and 3 percent; and recycled or reclaimed material must not be used in the manufacturing process.

The design engineer may require additional test procedures and will inform the third party laboratory in writing. The POR must review all test results and report any nonconformance to the design engineer prior to product installation. Refer to Table 3-2 for a complete listing of the material requirements for both smooth and textured geomembranes that will be used for the Subtitle D composite liner.

Sampling Procedure. Samples will be taken across the entire roll width. Unless otherwise specified, samples will be approximately 15 inches long by the roll width. The CQA monitor must mark the machine direction and the manufacturer's roll identification number on the sample. The CQA monitor or independent third-party representation must also assign a conformance test number to the sample and mark the sample with that number.

Table 3-1
Required Testing for 60-mil-thick Smooth and Textured (Both Sides) HDPE Geomembranes[1]

Test	Type of Test	Standard Test Method	Frequency of Testing (Minimum)
Resin	Specific Gravity/Density	ASTM D792, Method A or ASTM D1505	Every resin lot
	Melt Flow Index	ASTM D1238	Every resin lot
Manufacturer's Quality Control	Thickness	ASTM D5199 (smooth) or ASTM D5994[2] (textured)	Per Roll of Geomembrane
	Specific Gravity/Density	ASTM D1505/D792	Per 200,000 pounds
	Carbon Black Content	ASTM D4218	Per 20,000 pounds
	Carbon Black Dispersion	ASTM D5596	Per 45,000 pounds
	Tensile Properties	ASTM D6693 / Type IV (ASTM D638 may be used as an alternative upon POR's approval)	Per 20,000 pounds
	Tear Resistance	ASTM D1004	Per 45,000 pounds
	Puncture Resistance	ASTM D4833	Per 45,000 pounds
	Stress Crack Resistance	ASTM D5397	Per GRI-GM 10
	Oxidative Induction Time	ASTM D3895 or ASTM D5885	Per 200,000 pounds
	Oven Aging @ 85°C	ASTM D5721	Per each formulation
	Standard OIT (min. avg.) - % retained after 90 days	ASTM D3895	Per each formulation
	UV Resistance[3]	ASTM D7238	Per each formulation
	High Pressure OIT (min. avg.) - % retained after 1,600 hours	ASTM D5885	
	Asperity Height	ASTM D7466	Every 2nd roll[4]

[1] All tests will conform to the minimum requirements set forth by GRI testing standard GM13 and will meet manufacturer's standards. Required values for the parameters are listed in Table 3-2.
[2] ASTM D1593 may also be used for thickness of textured geomembrane at the option of the POR.
[3] 20 hours of UV cycle at 75°C followed by 4 hours condensation at 60°C.
[4] Measurement side will be alternated for double-sided textured sheet. This testing is specified for textured geomembrane only.

3.3.3 Geomembrane Installation

Surface Preparation. Prior to any geomembrane installation, the installed soil liner or GCL will be inspected by the CQA and geosynthetics contractor. ODEQ shall be notified at least 48 hours before installation of the geomembrane. The POR or CQA monitor must observe the following:

- All lines and grades for the soil liner or GCL have been verified by the surveyor and accepted by the contractor for geosynthetic installation. The POR or his representative, the owner, and geosynthetic installer will certify and accept in writing the finished final lift of the soil liner.
- The soil liner or GCL has been prepared in accordance with the earthwork construction plans and specifications as outlined in Section 2.

- The soil liner or GCL surface is free of surface irregularities and protrusions. The soil liner will be rolled and compacted to ensure a clean surface.
- The soil liner or GCL surface does not contain stones or other objects that could damage the geomembrane and underlying soil liner or GCL . The surface of the soil liner or GCL will be smooth and free of foreign and organic material, sharp objects, exposed soil, aggregate particles greater than 1 inch (or less if recommended by the geosynthetic manufacturer), surface rocks, or other deleterious material.
- The anchor trench dimensions have been checked, and the trenches are free of sharp objects and stones.
- There are no excessively soft areas in the soil liner that could result in geomembrane damage.
- The geomembrane will not be placed over soil liner or GCL during inclement weather such as rain or high winds.
- The soil liner or GCL is not saturated, and no standing water is present above the soil liner or GCL .
- The soil liner has not desiccated (e.g., areas with desiccation cracks).
- All construction stakes and hubs have been removed and the resultant holes have been backfilled. There are no rocks, debris, or any other objects on the soil liner or GCL surface.
- The geosynthetics contractor has certified in writing that the soil liner or GCL surface on which the geomembrane will be installed is acceptable.

Panel Placement. Prior to the installation of the geomembrane, the contractor must submit drawings showing the panel layout, indicating panel identification number, both fabricated (if applicable) and field seams, as well as details not conforming to the drawings.

The CQA monitor must maintain an up-to-date panel layout drawing showing panel numbers that are keyed to roll numbers on the placement log. The panel layout drawing will also include seam numbers and destructive test locations.

During panel placement, the POR or CQA monitor must:

- Observe that geomembrane is placed in direct and uniform contact with the underlying soil liner or GCL .
- Record roll numbers, panel numbers, and dimensions on the panel or seam logs. Measure and record thickness of leading edge of each panel at 5-foot maximum intervals. No single thickness measurement can be less than 10 percent below the required nominal thickness.

Table 3-2
Minimum Required Properties of 60-mil-thick Smooth and Textured (Both Sides) HDPE Geomembranes

Property	Test Method	Minimum Required Property[8]	
		Smooth	Textured
Thickness, mils Minimum average Lowest individual reading Lowest individual of 8 of 10 readings	ASTM D5199 (smooth) ASTM D5994 (textured)	60 54 NA	57 51 54
Density, g/cc	ASTM D1505/D792	0.940	0.940
Asperity Height, mils[9]	ASTM D7466	NA	16
Tensile Properties[1] 1. Yield Strength, lb/in 2. Break Strength, lb/in 3. Yield Elongation, % 4. Break Elongation, %	ASTM D6693 (Type IV Specimen @ 2 in/min) (ASTM D638 may be used as an alternative upon approval by POR)	126 228 12 700	126 90 12 100
Tear Resistance, lb	ASTM D1004	42	42
Puncture Resistance, lb	ASTM D4833	108	100
Stress Crack Resistance[2], hrs	ASTM D5397	500	500
Carbon Black Content[3], %	ASTM D4218	2.0 – 3.0	2.0 – 3.0
Carbon Black Dispersion[4], Category	ASTM D5596	1 or 2 and 3	1 or 2 and 3
Oxidative Induction Time (OIT)[5] (Minimum Average) Standard OIT, minutes High Pressure OIT, minutes	ASTM D8117 ASTM D5885	100 400	100 400
Oven Aging at 85°C Standard OIT – % retained after 90 days High Pressure OIT – % retained after 90 days	ASTM D5721 ASTM D8117 ASTM D5885	55 80	55 80
UV Resistance[6] High Pressure OIT[7] – % retained after 1600 hrs	ASTM D5885	50	50
Seam Properties (4 out of 5 specimens, 5th specimen can be as low as 80% per GRI-GM19) 1. Shear Strength, lb/in 2. Peel Strength, lb/in	ASTM D6392	120 91 & FTB (78, Extrusion Weld)	120 91 & FTB (78, Extrusion Weld)

1 Machine direction (MD) and cross machine direction (XMD) average values will be on the basis of 5 test specimens each direction. Yield elongation is calculated using a gauge length of 1.3 inches; break elongation is calculated using a gauge length of 2.0 inches.
2 The yield stress used to calculate the applied load for the Single Point Notched Constant Tensile Load (SP-NCTL) test will be the mean value via MQC testing.
3 Other methods such as ASTM D4218 or microwave methods are acceptable if an appropriate correlation can be established.
4 Carbon black dispersion for 10 different views in Categories 1 and 2 and 1 in Category 3.
5 The manufacturer has the option to select either one of the OIT methods listed to evaluate the antioxidant content in the geomembrane.
6 The condition of the test will be 20 hr UV cycle at 75ºC followed by 4 hr. condensation at 60ºC.
7 UV resistance is based on percent retained value regardless of the original HP-OIT value.
8 Minimum required properties are based on GRI-GM13, except for the seam properties which are based on GRI-GM19.
9 Of 10 readings, 8 out of 10 must be ≥ 14 mils, and lowest individual reading must be ≥ 12 mils.

- Observe the sheet surface as it is deployed and record all panel defects and repair of the defects (panel rejected, patch installed, extradite placed over the defect, etc.) on the repair sheet. All repairs must be made in accordance with the specifications as outlined in Section 3.3.5 and located on a repair drawing.

- Observe that support equipment is not allowed on the geomembrane during handling (see Section 3.7 also).

- Observe that the surface beneath the geomembrane has not deteriorated since previous acceptance.

- Observe that there are no stones, construction debris, or other items beneath the geomembrane that could cause damage to the geomembrane.

- Observe that the geomembrane is not dragged across a surface that could damage the material. If the geomembrane is dragged across an unprotected surface, the geomembrane must be inspected for scratches and repaired or rejected, as necessary.

- Record weather conditions including temperature, wind, and humidity. The geomembrane must not be deployed in the presence of excess moisture (fog, dew, mist, or wind, etc.). In addition, geomembrane will not be placed when standing water or frost is on the ground, unless this requirement is waived by the design engineer and ODEQ and according to GRI GM9. Most federal and state environmental regulations call for special procedures for field seaming of geomembranes when sheet temperatures are less than 32°F. This standard practice is meant to give procedure guidance for seaming of geomembranes at sheet temperatures down to 5°F. Excessive wind is that which can lift and move the geomembrane panels.

- Observe that people working on the geomembrane do not smoke, wear shoes that could damage the liner, or engage in activities that could damage the liner.

- Observe that the method used to deploy the sheet minimizes wrinkles but does not cause bridging and that the sheets are anchored to prevent movement by the wind (the contractor is responsible for any damage to or from windblown geomembrane). Excessive wrinkles will be walked-out or removed at the discretion of the CQA monitor.

- Observe that no more panels are deployed than can be seamed on the same day.

- Observe that there are no horizontal seams on side slopes, and the textured material extends a minimum of approximately 5 feet out past the toe of the slope where textured geomembrane is used.

The CQA monitor must inform both the contractor and the POR of the above conditions.

Field Seaming. The contractor must provide the POR with a seam and panel layout drawing and update this drawing daily as the job proceeds. No panels will be seamed until the panel layout drawing has been accepted by the POR. A seam numbering system must provide a unique number for each seam and be agreed to by the POR and contractor prior to the start of seaming operations. One procedure is to identify the seam by adjacent panels. For example, the seam located between Panels 306 and 401 would be Seam No. 306/401.

Prior to geomembrane welding, each welder and welding apparatus (both wedge and extrusion welders), must be tested, at a minimum, at daily start-up and at midday break, or any break that the seaming machine is stopped more than 30 minutes to determine if the equipment is functioning properly. The LIT Report will include the names for each seamer and the time and the temperatures for each seaming apparatus used each day. One trial weld will be taken prior to the start of work. The trial weld sample must be 3 feet long and 12 inches wide, with the seam centered lengthwise. The minimum number of specimens per trial weld test must be two coupons for shear and two coupons for peel. Both the inner and outer welds of dual track fusion welds must be tested for each peel test coupon (or additional coupons will be required). Trial weld samples must comply with "Passing Criteria for Welds" included in Section 3.3.4 – Construction Testing. The CQA monitor must observe all welding operations, quantitative testing of each trial weld for peel and shear, and recording of the results on the trial weld form. The trial weld be completed under conditions similar to those under which the panels will be welded. Regarding the locus-of-break patterns of the different seaming methods in shear and peel, the following are unacceptable break codes per their description in ASTM D6392 and GRI-GM19:

Hot Wedge: AD and AD-Brk>25%

Extrusion Fillet: AD1, AD2, AD-WLD (unless strength is achieved)

Additionally, there will be no apparent weld separation (i.e., greater than 1/8 inch). The third party strength tests must meet the manufacturer's specifications for the sample sheets, or the percentage of the manufacturer's parent sheet strength as determined by the manufacturer. For dual-track fusion welds, both sides (the inner and outer weld) must meet the minimum requirements for a satisfactory peel test. If, at any time, the CQA monitor believes that an owner or welding apparatus is not functioning properly, a weld test must be performed. If there are wide changes in temperature (±30° Fahrenheit), humidity, or wind speed, the test weld will be repeated. The test weld must be allowed to cool to ambient temperature before testing. If a welded area fails the shear or peel test, the length of the non-passing weld will be identified at a 10-foot interval and the failed area will be patched. Patching will performed by placing additional geomembrane over the failed area or removing the failed area geomembrane weld and patching it with additional geomembrane per POR's direction. Welding for patches must comply with the welding passing criteria requirements outlined in this section.

Construction quality assurance documentation of trial seam procedures will include, at a minimum, the following:

- Documentation that trial seams are performed by each welder and welding apparatus prior to commencement of welding and prior to commencement of the second half of the workday.
- The welder, the welding apparatus number, time, date, ambient air temperature, and welding machine temperatures.

During geomembrane welding operations, the CQA monitor must observe the following:

- The contractor has the number of welding apparatuses and spare parts necessary to perform the work.
- Equipment used for welding will not damage the geomembrane.
- The extrusion welder is purged prior to beginning a weld until all the heat-degraded extradite is removed (extrusion welding only).
- Seam grinding has been completed less than one hour before seam welding, and the upper sheet is beveled (extrusion welding only).
- The ambient temperature, measured 6 inches above the geomembrane surface, is no less than 32° Fahrenheit unless more stringent limits are required by the manufacturer.
- The end of old welds, more than 5 minutes old, are ground to expose new material before restarting a weld (extrusion welding only).
- The contact surfaces of the sheets are clean, free of dust, grease, dirt, debris, and moisture prior to welding.
- The weld is free of dust, rocks, and other debris.
- The seams are overlapped a minimum of 3 inches for extrusion and hot-wedge welding, or in accordance with manufacturer's recommendations, whichever is more stringent. Panels will be overlapped (shingled) in the downgrade direction.
- No solvents or adhesives are present in the seam area.
- The procedure used to temporarily hold the panels together does not damage the panels and does not preclude CQA testing.
- The panels are being welded in accordance with the plans and specifications that will be developed in accordance with this section for each liner construction. Seams will be oriented parallel to the line of maximum slope with no horizontal seams on side slopes. In corners and odd-shaped geometric locations, the number of field seams will be minimized.

- There is no free moisture in the weld area.
- Measure surface sheet temperature every two hours.
- Observe that at the end of each day or installation segment, all unseamed edges are anchored with sandbags or other approved device. Penetration anchors will not be used to secure the geomembrane.

3.3.4 Construction Testing

Nondestructive Seam Testing. The purpose of nondestructive testing is to detect discontinuities or holes in the seam. It also indicates whether a seam is continuous and non-leaking. Nondestructive tests for geomembrane include vacuum testing and air pressure testing. Nondestructive testing must be performed over the entire length of the seam.

Nondestructive testing is performed entirely by the contractor. The CQA monitor's responsibility is to document the date, time and location of seaming and testing, and to observe and document that testing was performed in compliance with this section and document any seam defects and their repairs.

Nondestructive testing procedures are described below.

- For welds tested by vacuum method, the weld is placed under suction utilizing a vacuum box made of rigid housing with a transparent viewing window, a soft neoprene rubber gasket attached to the open bottom perimeter, a vacuum gauge on the inside, and a valve assembly attached to the vacuum hose connection. The box is placed over a seam section, which has been thoroughly saturated with a soapy water solution (1 oz. soap to 1 gallon water). The rubber gasket on the bottom perimeter of the box must fit snugly against the soaped seam section of the liner, to ensure a leak-tight seal. The vacuum pump is energized, and the vacuum box pressure is reduced to approximately 3 to 5 psi gauge. Any pinholes, porosity or non-bonded areas are detected by the appearance of soap bubbles in the vicinity of the defect. Dwell time must not be less than ten seconds.
- Air pressure testing is used to test double seams with an enclosed air space. Both ends of the air channel will be sealed. The pressure feed device, usually a needle equipped with a pressure gauge, is inserted into the channel. Air is then pumped into the channel to a minimum pressure of 30 psi or ½ psi per mil of geomembrane thickness, whichever is greater. The air chamber must sustain the pressure for five minutes without losing more than 4 psi. Following a passed pressure test, the opposite end of the tested seam must be punctured to release the air. The pressure gauge must return to zero; if not, a blockage is most likely present in the seam channel. Locate the blockage and test the seam on both sides of the blockage. The penetration holes must be sealed after testing.

During nondestructive testing, the CQA monitor must perform the following work:

- Review technical specifications regarding test procedures.
- Observe that equipment operators are fully trained and qualified to perform their work.
- Observe that test equipment meets project specifications that will be developed in accordance with this QA/QC Plan for each liner construction.
- Observe that the entire length of each seam is tested in accordance with the specifications outlined in this section.
- Observe all continuity testing and record results on the appropriate log.
- Observe that all testing is completed in accordance with the specifications outlined in this section.
- Identify the failed areas by marking the area with a waterproof marker compatible with the geomembrane and inform the contractor of any required repairs, then record the repair area on the repair log.
- Observe that all repairs are completed and tested in accordance with the project specifications outlined in this section and Section 3.3.5.
- Record all completed and tested repairs on the repair log and the repair drawing.

Destructive Seam Testing. Destructive seam tests for geomembrane seams will be performed at intervals of at least one test per 500 linear feet. A destructive testing will also be performed for individual repairs (or additional seaming for the failed seams) of more than 10 feet of seaming. The CQA monitor must perform additional tests if he suspects a seam does not meet specification requirements outlined in this section. Reasons for performing additional tests may include, but are not limited to the following:

- Wrinkling in seam area
- Non-uniform weld
- Excess crystallinity
- Suspect seaming equipment or techniques
- Weld contamination
- Insufficient overlap
- Adverse weather conditions
- Possibility of moisture, dust, dirt, debris, and other foreign material in the seam
- Failing tests

There are two types of destructive testing required for the geomembrane installation: peel adhesion (peel) and bonded seam strength (shear) in accordance with ASTM D6392. The purpose of peel and shear tests is to evaluate seam strength and to evaluate long-term performance. Shear strength measures the continuity of tensile strength through the seam and into the parent material. Peel strength determines weld quality. Test welds must be allowed to cool naturally to ambient temperature prior to testing.

The CQA monitor selects locations where seam samples will be cut for laboratory testing. Select these locations as follows:

- A minimum of one random test within each 500 feet of seam length. This is an average frequency for the entire installation; individual samples may be taken at greater or lesser intervals.
- Sample locations will not be disclosed to the contractor prior to completion of the seam.
- A maximum frequency must be agreed to by the contractor, POR, and the Operator at the preconstruction meeting. However, if the number of failed samples exceeds 5 percent of the tested samples, this frequency may be increased at the discretion of the POR. Samples taken as the result of failed tests do not count toward the total number of required tests.

Sampling Procedures. The contractor will remove samples at locations identified by the CQA monitor. The CQA monitor must:

- Observe sample cutting.
- Mark each sample with an identifying number, which contains the seam number and destructive test number.
- Record sample location on the panel layout drawing and destructive seam log.
- Record the sample location, weather conditions, and reason sample was taken (e.g., random sample, visual appearance, result of a previous failure, etc.).

For each destructive test obtain one sample approximately 45 inches long by 12 inches wide, with the weld centered along the length. Cut two 1-inch-wide coupons from each end of the sample. The contractor must test two of these coupons in shear and two in peel (one shear and one peel from each end) using a tensiometer capable of quantitatively measuring the seam strengths. For double wedge welding, both sides of the air channel will be tested in peel. The CQA monitor must observe the tests and record the results on the destructive seam test log. A geomembrane seam sample passes the field testing when the break is Film Tear Bond (FTB) and the seam strength meets the required strength values for peel and shear given previously for trial seams under field seaming and below for third party laboratory testing. As previously discussed, both welds have to pass for dual-track welds. Also, it is recommended that additional samples be obtained as discussed in the following paragraph if there is apparent separation of the weld (i.e., greater than 1/8 inch) during peel testing.

If one or both of the 1-inch specimens fail in either peel or shear, the contractor can, at his discretion: (1) reconstruct the entire seam between passed test locations, or (2) take two additional test samples 10 feet or more in either direction from the point of the failed test and repeat this procedure. For tracking purposes the additional samples will be identified by assigning an identifying letter to the initial destructive test sample number (e.g., DS-6A and B). Only satisfactory tests count toward the required minimum number, and additional tests (i.e., A and B) count as one test, if passing. If the second set of tests pass, the contractor can reconstruct or cap-strip the seam between the two passed test locations. If subsequent tests fail, the sampling and testing procedure is repeated until the length of the poor quality seam is established. Repeated failures indicate that either the seaming equipment or operator is not performing properly, and appropriate corrective action must be taken immediately.

If the field test coupons are satisfactory, divide the remaining sample into three parts: one 12-inch by 12-inch section for the contractor, one 12-inch by 16-inch section for the third party laboratory for testing, and one 12-inch by 12-inch section for the operator to archive. The laboratory sample will be shipped to the third party laboratory for over-night delivery and next day testing.

If the laboratory test fails in either peel or shear, the contractor must either reconstruct the entire seam between passing test locations or recover additional samples at least 10 feet on either side of the failed sample for retesting. Sample size and disposition must be as described in the preceding paragraph. This process is repeated until passed tests bracket the failed seam section. All seams must be bounded by locations from which passing laboratory tests have been taken. Laboratory testing governs seam acceptance. In no case can field testing of repaired seams be used for final acceptance.

Third Party Laboratory Testing. Destructive samples must be shipped to the third party laboratory for seam testing. Testing for each sample will include 5 bonded seam shear strength tests and 5 peel adhesion tests (10 for dual-track welds). For dual-track welds each peel test specimen (coupon) will be tested on both sides of the air channel (i.e., the inner and outer welds). At least four of the five specimens tested in peel and shear will meet the minimum strength requirements. The minimum peel strength and the minimum shear strength values must meet the passing criteria listed below. Additionally, 4 out of 5 of the peel test coupons must have no greater than 25 percent seam separation. For dual-track welds if either weld exhibits greater than 25 percent separation or does not meet the required strength, that coupon is considered out of compliance and two out of compliance coupons cause the weld to fail. The third party laboratory must provide test results within 24 hours, in writing or via telephone, to the CQA monitor. Certified test results are to be provided within 5 days. The CQA monitor must immediately notify the POR in the event of a calibration discrepancy or failed test results.

Passing Criteria for Welds. Passing criteria are established by Geosynthetic Research Institute GRI Test Method GM19 for geomembranes. A passing extrusion or fusion welded seam will be achieved when the following values are tested. The following values listed for shear and peel strengths are for 4 out of 5 test specimens (the 5th specimen can be as low as 80 percent of the listed values). Elongation measurements will be omitted for field testing.

- Shear strength (lb/in) 120
- Shear elongation at break (%) 50
- Peel strength (lb/in) 91 (78, Extrusion Weld) & FTB
- Peel separation (%) 25

A passing extrusion or fusion welded seam will be achieved in peel when:

- Yield strength for 4 of 5 specimens (10 tests for dual-track welds) is not less than the above minimum peel strength value and the average of all 5 specimens is not less than the minimum value.
- No greater than 25 percent of the seam width peels (separates) at any point for 4 of 5 specimens (both inner and outer welds for dual-track welds).

A passing extrusion or fusion weld will be achieved in shear when:

- Yield strength for 4 of 5 specimens is not less than the above minimum shear strength value and the average for all 5 specimens is not less than the minimum value.
- Yield strain for 4 out of 5 specimens is at least 25 percent.
- Break strain for 4 out of 5 specimens is at least 50 percent.

3.3.5 Repairs

Any portion of the geomembrane with a detected flaw, or which fails a nondestructive or destructive test, or where destructive tests were cut, or where nondestructive tests left cuts or holes, must be repaired in accordance with the specific liner construction specifications and consistent with all the applicable parts (e.g., material requirement, installation, testing, etc.) of this section. The CQA monitor must locate and record all repairs on the repair sheet and panel layout drawing. Repair techniques include the following:

- Patching – used to repair large holes, tears, large panel defects, undispersed raw materials, contamination by foreign matter, and destructive sample locations.
- Extrusion – used to repair small defects in the panels and seams. In general, this procedure will be used for defects less than -inch in the largest dimension.
- Capping – used to repair failed welds or to cover seams where welds or bonded sections cannot be nondestructively tested.
- Removal – used to replace areas with large defects where the preceding methods are not appropriate. Also used to remove excess material (wrinkles, fishmouths, intersections, etc.) from the installed geomembrane. Areas of removal will be patched or capped.

Repair procedures include the following:

- Abrade geomembrane surfaces to be repaired (extrusion welds only) no more than one hour prior to the repair.
- Clean and dry all surfaces at the time of repair.
- Extend patches or caps at least 6 inches beyond the edge of the defect, and round all corners of material to be patched and the patches to a radius of at least 3 inches. Bevel the top edges of patches prior to extrusion welding.
- Testing of repaired seams consistent with Section 3.3.4 – Construction Testing.

3.3.6 Wrinkles

During placement of cover materials over the geomembrane, temperature changes or creep can cause wrinkles to develop in the geomembrane. Any wrinkles which can fold over must be repaired either by cutting out excess material or, if possible, by allowing the liner to contract by temperature reduction. In no case can material be placed over the geomembrane, which could result in the geomembrane folding. The CQA monitor must monitor geomembrane for wrinkles and notify the contractor if wrinkles are being covered by soil. The CQA monitor is then responsible for documenting corrective action to remove the wrinkles.

3.3.7 Folded Material

All folded geomembrane must be removed. Remnant folds evident after deployment of the roll, which are due to manufacturing process, are acceptable.

3.3.8 Geomembrane Anchor Trench

The geomembrane anchor trench will be left open until seaming is completed. Expansion and contraction of the geomembrane will be accounted for in the liner placement. Prior to backfilling, the depth of penetration of the geomembrane into the anchor trench must be verified by the CQA monitor. The anchor trench will be filled in the morning when temperatures are coolest to reduce bridging of the geomembrane.

3.3.9 Geomembrane Acceptance

The contractor retains all ownership and responsibility for the geomembrane until acceptance by the Operator. In the event the contractor is responsible for placing cover over the geomembrane, the contractor retains all ownership and responsibility for the geomembrane until all required documentation is complete, and the cover material is placed. After panels are placed, seamed, tested successfully, and any repairs are made, the completed installation will be walked by the Operator's and contractor's representatives. Any damage or defect found during this inspection will be repaired properly by the installer. The installation will not be accepted until it meets the requirements of both representatives. In addition, the geomembrane will be accepted by the POR only when the following has been completed:

- The installation is finished.
- All seams have been inspected and verified to be acceptable.
- All required laboratory and field tests have been completed and reviewed.
- All required contractor-supplied documentation has been received and reviewed.
- All as-built record drawings have been completed and verified by the POR. The as-built drawings show the true panel dimensions, the location of all seams, trenches, pipes, appurtenances, and repairs.
- Acceptance of the LIT Report by ODEQ.

3.3.10 Bridging

Bridging must be removed.

3.4 Geotextiles

Geotextiles will be used to prevent clogging of drainage materials and as a cushion to protect the geomembrane. The main usage of geotextiles will be enveloping drainage stone used for chimney drains in the leachate collection system (LCS).

Geotextiles for the LCS will meet the design requirements set forth in Table 3-3 of this QA/QC Plan.

3.4.1 Delivery

During delivery the CQA monitor must observe the following:

- Equipment used to unload the rolls will not damage the geotextile.
- Rolls are wrapped in impermeable and opaque protection covers.
- Care is used when unloading the rolls.
- All documentation required by this QA/QC Plan and the specifications has been received and reviewed for compliance with this QA/QC Plan.
- Each roll is marked or tagged with the manufacturer's name, project identification, lot number, roll number, and roll dimensions.
- Materials are stored in a location that will protect the rolls from precipitation, mud, dirt, dust, puncture, cutting, or any other damaging or deleterious conditions.

Any damaged rolls must be rejected and removed from the site or stored at a location separate from accepted rolls, designated by the Operator. All rolls which do not have proper manufacturer's documentation must also be stored at a separate location until all documentation has been received and approved.

3.4.2 Testing

The geotextile manufacturer will conduct manufacturer quality control (MQC) testing and certify that the materials delivered to the site comply with project specifications outlined in this QA/QC Plan. The material certification will be reviewed by the POR and approved for the project prior to acceptance of any of the material. The MQC testing will include the following tests with at least one test for each 100,000 square feet of geotextile delivered.

- Grab tensile strength/elongation (ASTM D4632)
- Mass per unit area (ASTM D5261)
- Puncture strength (ASTM D6241)
- Trapezoidal tear strength (ASTM D4533)
- Permittivity (ASTM D4491)
- Apparent opening size (ASTM D4751)

Where optional procedures are noted in the test method, the specification requirements of this QA/QC Plan prevail. The POR will review all test results and report any nonconformance. Geotextile testing will conform to current specifications found in GRI Test Method GT13a.

Table 3-3
Required Testing and Properties of Geotextile[1]

Responsible Party	Material	Test	Standard	Required Property[2, 3]
Manufacturer	Geotextile	Unit Weight	ASTM D5261	8 oz/sy
		Apparent Opening Size	ASTM D4751	0.024 in (max)
		Grab Strength	ASTM D4632	158 lb
		Tear Strength	ASTM D4533	56 lb
		Puncture Strength	ASTM D6241	320 lb
		Permittivity	ASTM D4491	0.02 s^{-1}

1 The minimum testing frequency will be one test sample per 100,000 square feet.
2 All values listed are minimum except apparent opening size is maximum.
3 Required properties are based on GRI-GT13a, Class 2, Elongation ≥ 50%.

3.4.3 Geotextile Installation

Surface Preparation. Prior to geotextile installation, the CQA monitor must observe the following:

- All lines and grades have been verified by the surveyor.
- The supporting surface does not contain stones that could damage the geotextile or the underlying geomembrane.
- There are no excessively soft areas that could result in damage to the geotextile, or other components of the liner system.
- Construction stakes and hubs have been removed.

Geotextile Placement. During geotextile placement, the CQA monitor must:

- Observe the geotextile as it is deployed, and record all defects and disposition of the defects (panel rejected, patch installed, etc.). Repairs are to be made in accordance with the specifications outlined in Section 3.4.4.
- Observe that equipment used does not damage the geotextile by handling, equipment transit, leakage of hydrocarbons, or other means.
- Observe that people working on the geotextile do not smoke, wear shoes that could damage the geotextile, or engage in activities that could damage the geotextile.
- Observe that the geotextile is securely anchored in an anchor trench.
- Observe that the geotextiles are anchored to prevent movement by the wind.

- Observe that the panels are overlapped a minimum of six inches.
- Examine the geotextile after installation to ensure that no potentially harmful foreign objects are present.
- Observe that seams (where required) are continuously sewn or thermal bonded in accordance with the manufacturer's recommendations and the project specifications outlined in this QA/QC Plan.

The CQA monitor must inform both the contractor and POR if the above conditions are not met.

3.4.4 Repairs

Repair procedures include:

- Patching – used to repair large holes, tears, large defects, and destructive sample locations.
- Removal – used to replace areas with large defects where the preceding method is not appropriate.

Holes, tears, and defects must be repaired in the following manner. Soil or other material which may have penetrated the defect must be removed completely prior to repair. If located on a slope, the defect must be patched using the same type of geotextile and double-seamed into place. Should any tear, hole, or defect exceed 30 percent of the width of the roll, the roll will be cut off and the defect removed or the roll removed and replaced. If the defect is not located on a slope, the patch must be made using the same type of material seamed into place with a minimum of 24 inches overlap in all directions. Seams will be either thermal bonded or sewn in accordance with the manufacturer's recommendations.

3.5 Geosynthetic Clay Liner (GCL)

An alternative composite liner system consisting of a 1-foot-thick compacted clay liner ($k \leq 1x10^{-7}$ cm/s) overlain by a Geosynthetic Clay Liner (GCL) may be utilized in lieu of the 2-foot-thick compacted clay liner. Material properties based on Geosynthetic Research Institute recommendations described in GRI-GCL3 have been included in Table 3-5 – Required Properties for Reinforced GCL Materials. The GCL used for the alternative liner system will meet or exceed the required properties. Only Reinforced GCL will be utilized. Unreinforced GCL will not be utilized.

3.5.1 Delivery

The GCL will be labeled and shipped in rolls, which are wrapped individually in relatively impermeable and opaque protective covers. GCL must be rolled by the manufacturer in a fashion to prevent collapse during transit. The GCL rolls must be stored above ground (i.e., wooden pallets) and covered with a waterproof tarpaulin.

A dedicated storage area will be selected at the job site or at an alternate offsite area per owner's direction. The selected area will be level, dry, and well drained. Rolls will be stored in a manner that prevents sliding or rolling from the stacks. Rolls should be stacked no higher than three rolls to protect the integrity of roll cores and ensure safe material handling. Stored GCL materials will be covered with a plastic sheet or tarpaulin until it is installed. The integrity and legibility of the labels will be preserved during storage.

Visual inspection of each GCL roll will be made during unloading to identify any packaging that has been damaged. Rolls with damaged packaging will be marked and set aside for further inspection. The packaging will be repaired, for acceptable GCL rolls, prior to being placed in storage. If necessary, the party responsible for unloading the GCL will contact the manufacturer prior to shipment to ascertain the suitability of the proposed unloading methods and equipment.

3.5.2 Conformance Testing

A reinforced GCL which consists of bentonite encapsulated between two geotextiles, one nonwoven and one woven, which are needle punched together will be used for liner sideslopes. Unreinforced GCL will not be utilized. The GCL materials and its components will be tested in accordance with Table 3-4 by the supplier/GCL manufacturer and a third party independent laboratory and will have the required values listed in Table 3-5. A certificate of analysis for each GCL roll will be submitted as part of the quality control documentation. Manufacturer hydraulic conductivity testing of GCL seams must be performed by using a flow box or other suitable device per adjoining material and type. Hydraulic conductivity value must be equal to or less than the specified hydraulic conductivity value for the GCL ($5x10^{-9}$ cm/s). The manufacturer will provide recommended seaming procedures and supporting test (flow box or other suitable device). The manufacturer will provide documentation showing the GCL seams are no more permeable than the GCL itself at a confining pressure anticipated in the field.

The manufacturer will provide inspection reports demonstrating that needle-punched nonwoven geotextile were inspected using metal detectors for the presence of broken needles and were found to be needle free.

The POR will review the manufacturer's certification (quality control certificate) and verify that the GCL meets the values given in the plan or specifications for those tests listed in Table 3-4. Required quality control documentation will be submitted to the POR prior to shipment of GCL to the site. Requirements for GCL materials are listed in Table 3-5.

Table 3-4
Required Testing for GCL Materials[4]

Responsible Party	Test	Type of Test	Standard Test Method	Frequency of Testing
Supplier or GCL Manufacturer	Bentonite[1]	Free Swell	ASTM D5890	per 50 tons (minimum of 1 test for each construction event)
		Fluid Loss	ASTM D5891	
	Geotextile	Mass/Unit Area	ASTM D5261	per 25,000 sy
GCL Manufacturer	GCL Product	Bentonite Mass/Unit Area	ASTM D5993	per 5,000 sy
		Bentonite Moisture Content	ASTM D5993	
		Tensile Strength	ASTM D6768	per 25,000 sy
		Peel Strength	ASTM D6496	per 5,000 sy
		Permeability[2]	ASTM D5887	per 30,000 sy
		Lap Joint Permeability	Flow box or other suitable device	per GCL adjoining material and lap type[3]
Independent Laboratory (Conformance Testing)	GCL Product	Bentonite Mass/Unit Area	ASTM D5993	per 100,000 sf
		Permeability	ASTM D5887	

[1] Tests to be performed on bentonite before incorporation into GCL.
[2] Report last 20 permeability values, ending on production date of supplied GCL.
[3] May also be done as conformance testing.
[4] Testing requirements based on current GRI-GCL3.

Table 3-5
Required Properties for Reinforced GCL Materials

Property	Required Values [1]
	Reinforced GCL
Free Swell (milliliter/2g)	24 (minimum)
Fluid Loss (milliliters)	18 (maximum)
Geotextile Mass per Unit Area (oz/yd^2) • Nonwoven • Woven	 5.8 (minimum) 3.0 (minimum)
Bentonite Mass per Unit Area[2] (lb/sf)	0.75 (minimum)
Bentonite Moisture Content	35 (maximum)
Tensile Strength (lb/in)	23 (minimum)
Peel Strength[3] (lb/in)	2.1 (minimum)
GCL Permeability (cm/s)[4]	$5x10^{-9}$ (maximum)
Lab Joint Permeability (cm/s)[5,6]	$5x10^{-9}$ (maximum)

[1] Manufacturer will demonstrate that the above listed values will be met prior to shipment in accordance with Table 3-5. Required values are based on current GRI-GCL3 standards.
[2] Bentonite mass per unit area of GCL must be reported at zero percent moisture content for the finished product.
[3] Value is required for GCL and geotextile.
[4] Permeability is listed for the finished product at a gradient of 1.0.
[5] Minimum overlap is 2 feet. The values listed are minimum dry bentonite amount for 1 foot of overlap. Manufacturer specified value will be used if it is higher.
[6] Manufacturer will provide certification that seams are no more permeable than the GCL material under similar normal stress conditions.

3.5.3 GCL Installation

Installation of GCL will have continuous on-site monitoring during construction by the POR or his designated representative. The installer will provide a panel layout plan, which will be reviewed by the POR prior to any material deployment. The POR must review field conditions and approve revised panel layout plan if the field conditions vary from the original plan layout.

Surface Preparation

The surface of subgrade for the GCL installation will be stable. It will be smooth and free of foreign and organic material, sharp objects, exposed soil or aggregate particles greater than 3/4 inch (or less if recommended by the manufacturer), or other deleterious materials. Standing water or excessive water on the soil liner will not be allowed. Prior to GCL installation, the POR will verify the following:

- The grades below the GCL have been verified and accepted by the GCL contractor.
- Required documentation for constructed layers and soil liner preparation below the GCL have been completed and are acceptable.

- The supporting surface has been rolled to provide a smooth surface and does not contain materials, which could damage the GCL or adjacent layer. The soil liner will be rolled with a smooth-drum compactor. Protrusions extending more than 1 inch (or less if recommended by the manufacturer) from the soil liner surface, as well as all surface rocks, will be removed.

Deployment

Equipment used to deploy GCL over soil must not cause excessive rutting of the soil liner. Construction equipment (other than low contact pressure rubber-tired vehicles such as ATVs or golf carts) on the GCL will not be allowed. Deployed GCL panels should contain no folds or excessive slack. Generators, gasoline or solvent cans, tools, or supplies must not be stored directly on GCL and will be placed on scrap FML (rub sheet). Installation personnel must not smoke or wear damaging shoes when working on GCL.

GCL seams will be constructed overlapping their adjacent edges. GCL seams will be constructed per manufacturer's directions. GCL on sideslopes must not be unrolled in a direction perpendicular to the direction of the slope. GCL should be anchored temporarily (e.g., sandbags) at the top of the slope to prevent wrinkles and folds.

Horizontal seams will only be allowed on the slopes under one of the following conditions:

- 2 feet of overlap with horizontal seams being staggered.
- 1 foot of overlap with the underlying panel having a 1-foot runout anchored with 6 inches of either compacted clay liner or subgrade.

The POR or his designated representative will observe the GCL as it is deployed for even bentonite distribution, thin spots, or other panel defects. Defects and the disposition of the defects (panel rejected, patch installed, etc.) will be recorded. Repairs are to be made in accordance with the specifications at the discretion of the POR. The POR will verify that only panels that can be covered on the same day with a FML are deployed and that the GCL panels are not placed during wet, rainy weather or impending rain. In accordance with the construction specifications, the POR will also verify the following:

- Proper GCL deployment techniques.
- Proper overlap during deployment.
- Seams between GCL panels are constructed per manufacturer's recommendations.
- The bentonite does not exceed the specified amount of hydration prior to covering.

- Defects are patched and overlapped properly.
- On sideslopes, the GCL is anchored at the top and then unrolled.
- Observe that no debris is trapped beneath or within the GCL.
- Observe that broken needle pieces do not exist within needle-punched GCL.
- Observe that wind speed is less than 40 miles per hour unless a lower wind speed is recommended by the manufacturer.

The POR will observe the GCL for premature hydration visually and by walking over the GCL to locate soft spots. GCL that has prematurely hydrated according to the specifications will be removed and replaced with new GCL. These observations will be documented in the LIT.

The CQA monitor will verify that GCL (or overlying geosynthetics) are not displaced or damaged while overlying materials are being placed.

GCL Anchor Trench

The GCL anchor trench will be left open to allow installation of FML. Temporary anchoring will be provided until the placement of FML by using sandbags as discussed in Section 3.5.3.2. Slightly rounded corners will be provided in anchor trenches where the GCL enters the trench so as to avoid sharp bends in the GCL. No loose soil (e.g., excessive water content) will be allowed to underlie the anchored components of liner system. Backfilling of soil will be in accordance with Section 2.2.5.

Patching

Torn or otherwise damaged GCL (with no loss of bentonite from the GCL) must be patched with the same type of GCL. The GCL patch must extend at least 12 inches beyond the damaged area and must be bonded to the main GCL to avoid shifting during backfilling. If the GCL damage includes loss of bentonite, the patch must consist of full GCL extending at least 12 inches beyond the damaged area. Lapping procedures must be the same as specified for original laps of GCL panels.

3.6 Equipment on Geosynthetic Materials

Construction equipment on the liner system will be minimized to reduce the potential for liner puncture. The CQA monitor will verify that small equipment such as generators are placed on scrap liner material (rub sheets) above geosynthetic materials in the liner system. Aggregate drainage layers and/or protective cover will be placed using low ground pressure equipment. The CQA monitor will verify that the geosynthetics are not displaced while the soil layers are being placed.

Unless otherwise specified by the POR, all lifts of protective soil material placed over geosynthetics will conform with the following guidelines.

Equipment Ground Pressure (psi)	Minimum Lift Thickness (in)
<5.0	12
5.1 – 8.0	18
8.1 – 16.0	24
>16.0	36

No equipment will be left running and unattended over the lined area.

3.7 Reporting

The POR will submit to the ODEQ a LIT Report for approval of the flexible membrane liner, leachate collection system and protective cover. Section 6 describes the documentation requirements.

4 CONSTRUCTION QUALITY ASSURANCE FOR PIPING

4.1 Introduction

This section describes CQA procedures for the installation of HDPE pipe for the leachate collection system used for the composite liner. This plan stresses careful documentation during the quality assurance process, from the selection of materials through installation.

The goal of the pipe quality assurance program is to assure that proper construction techniques and procedures are used, and that the project is built in accordance with the project construction drawings and specifications that will be developed in accordance with this QA/QC Plan for each liner construction. The following specifications apply to the leachate collection system piping:

- Minimum internal diameter = 5.845 inches for leachate collection pipe and nominal diameter of 18 inches for riser pipe
- Standard dimension ratio = 17
- Perforation hole diameter = minimum 0.5 inches and no greater than 0.5 inches (if slotted pipe is used, standard slot width = 0.125 inches)
- Perforation spacing = two (2) rows drilled at an angle between 45° and 60° from vertical.

The quality assurance program is intended to identify and define problems that may occur during construction and to observe that these problems are corrected before construction is complete. A construction report, prepared after project completion, will document that the constructed facility meets design standards and specifications.

4.2 Pipe and Fittings

4.2.1 General

Construction must be conducted in accordance with the project construction drawings and specifications for each liner constructed. To monitor compliance, a quality assurance program will be implemented that includes: (1) a review of the manufacturer's quality control testing, (2) material conformance testing, and (3) construction monitoring. Conformance testing refers to testing by an independent third party laboratory that will take place prior to material installation on materials delivered to the site.

4.2.2 Delivery

The CQA monitor will observe:

- That upon delivery, the pipe and pipe fittings are in compliance with the requirements of the construction specifications that will be developed in accordance with this QA/QC Plan for each liner construction.
- That a storage location is selected in which the pipe and pipe fittings are protected from excessive heat, cold, construction traffic, hazardous chemicals, and solvents. If the pipe and pipe fittings are stored at a location where other construction materials are present, the CQA monitor will assure that stacking or insertion of the other construction materials onto or into the pipe and pipe fitting is prohibited. The CQA monitor will periodically examine the storage area to observe that the pipe fittings are undamaged, and have been protected.
- That upon transporting pipe and fittings from the storage location to the construction site, the contractor will use pliable straps, slings, or rope to lift the pipe. Steel cables or chains will not be allowed to transport or lift the pipe.
- That the contractor will provide that a pipe greater than 20 feet in length will be lifted with at least two support points. The contractor will not drop, impact, or bump into the pipe, particularly at the pipe ends. Pipe and fitting ends must be cleaned of all dirt, debris, oil, or any other contaminant which may prohibit making a sound joint.

The CQA monitor will document all activities associated with the handling and storage of this material in order to maintain compliance with this portion of the CQA plan.

4.2.3 Conformance Testing

Prior to the installation of pipe, the pipe manufacturer will provide to the Operator and the POR a quality control certificate for each lot or batch of pipe provided. The quality control certificate will be signed by a responsible party employed by the pipe manufacturer, such as the quality control manager. The quality control certificate and documentation will include:

- A description of the pipe delivered to the project, including but not limited to the strength classification, diameter, perforations, and production lot.
- Properties sheet including, at a minimum, all specified properties, measured using test methods indicated in the specifications that will be developed in accordance with this QA/QC Plan for each liner construction, or equivalent.

- A certification that property values given in the properties sheet are minimum values and are guaranteed by the pipe manufacturer.
- A list of quantities and descriptions of materials other than the base resin which comprise the pipe.
- The sampling procedure and results of testing for actual samples manufactured in the same lot as the pipe delivered to the project.

The CQA monitor will observe that:

- The property values certified by the pipe manufacturer meet all of the specifications that will be developed in accordance with this QA/QC Plan for each liner construction.
- The measurements of properties by the pipe manufacturer are properly documented and that the test methods used are acceptable.
- Verification that the quality control certificates have been provided at the specified frequency for all lots or batches of pipe, and that each certificate identifies the pipe lot/batch related to it.
- The certified properties meet the specifications that will be developed in accordance with this QA/QC Plan for each liner construction.

4.2.4 Pipe and Fitting Installation

Surface Preparation. Prior to pipe installation, the CQA monitor must observe the following:

- All lines and grades have been verified by the contractor and project surveyor.
- The pipe trenches are swept clean of any deleterious material which may damage the pipe, geosynthetic or may clog the pipe.
- Pipe perforations for leachate collection system are drilled in the pipe outside of the drainage trench where the pipe is to be laid. The drill cuttings must be completely removed from the pipe prior to being placed in the drainage trench.
- Pipe perforations are to the correct size and spacing according to the project specifications that will be developed in accordance with this QA/QC Plan for each liner construction. Perforations can be either factory installed slots or factory predrilled holes or field drilled holes.

Pipe and Fitting Placement. During pipe and fitting installation, the CQA monitor will:

- Observe all pipe, pipe fittings, and joints as the pipe is being laid. The CQA monitor will observe that pipes and fittings are not broken, cracked, or otherwise damaged or unsatisfactory. Prior to fusing (if fusion welding is utilized), the pipe installer will provide for a fusion surface area which is clean and free of moisture, dust, dirt, debris of any kind, and foreign material.

- If fusion welding is utilized, verify welder credentials and that the procedure is consistent with the pipe manufacturer's recommendations.
- Observe that the pipe and fittings are being constructed in accordance with specifications that will be developed in accordance with this QA/QC Plan for each liner construction and accepted practices.
- Observe that the people and equipment utilized to install the pipe do not damage the pipe or any other component of the liner system.

5 CONSTRUCTION QUALITY ASSURANCE FOR DRAINAGE MATERIAL

5.1 Drainage Aggregate

The drainage aggregates that are placed in the leachate collection trench will have a hydraulic conductivity of at least $1x10^{-2}$ cm/s. The granular drainage material should be tested by the supplier for gradation (ASTM D422) and hydraulic conductivity (ASTM D5084) at the supply source at a minimum of 1 test per 5,000 cubic yards. The material shall be free of organics, foreign objects, or other deleterious materials. The physical characteristics of the material shall be evaluated through visual observation and laboratory testing before construction, and visual observations during construction. The material may be tested during construction at the discretion of the CQA monitor.

5.2 Installation

The drainage aggregate will be placed on top of a geotextile that overlies the geomembrane using low ground pressure equipment as outlined in Section 3.6. The drainage aggregate shall be placed by spreading a minimum of 12 inches of material in front of the spreading equipment. Under no circumstances shall the construction equipment come in direct contact with the installed geosynthetics.

During construction, the CQA monitor will:

- Verify that underlying geosynthetic installations are not damaged during placement operations, or mark damaged geosynthetics and verify that damage is repaired.
- Monitor haul road thickness over geosynthetic installations and verify that equipment hauling and materials placement meet equipment specifications.

6 DOCUMENTATION

Documentation will consist of daily recordkeeping, testing and installation reports, nonconformance reports (if necessary), progress reports, photographic records, design and specification revisions, and a Liner Installation and Testing (LIT) Plan as required by OAC 252:515-11-6.

6.1 Daily Record of Construction Progress

The daily field report will summarize ongoing construction activities and will include the following:

- Date, project name, project number, and location
- Weather
- Summary of daily construction activities
- Equipment list
- Items discussed and names of parties involved in discussions
- A brief description of tests and observations
- Areas of nonconformance and any corrective actions
- Summary of materials received
- Record of site visitors
- Signature of the CQA monitor
- Signature of the POR

6.2 Observation and Test Data Sheets

Observation and test data sheets should include the following information:

- Date, project name, and location
- Test equipment calibrations, if applicable
- A summary of test results identified as passing, failing, or in the event of a failed test, retest.

- Signature of the CQA monitor
- Signature of the POR

6.3 Photographs

Construction activities may be photographed by the CQA monitor. Photographs will include any significant problems encountered and corrective actions taken, as well as document construction progress. The photographer should document the subject of the photograph, either on the back of the picture, or in a photograph log.

6.4 Design and Specification Changes

Design and specification changes may be required during construction. Design and specification changes will only be made with written agreement of the ODEQ, design engineer, owner, and contractor. These changes will be made by change order to the contract.

6.5 LIT Report

The POR will submit an LIT Report documenting the construction of the composite liner and leachate collection systems to the ODEQ for approval.

The POR will provide an engineer's certification that the composite liner and leachate collection systems were constructed in accordance with the approved construction drawings and specifications. QA/QC documentation will be included in the LIT Report.

The LIT Report shall be submitted to the ODEQ within 30 days after completion of each phase of composite liner placement. Consistent with OAC 252:515-11-7, the LIT Report shall be placed in the site operating record, and waste shall not be placed within the new phase of composite liner until ODEQ approves the LIT and provides written authorization to commence disposal .

At a minimum, the LIT Report will contain:

- A summary of construction activities.
- A summary of conformance testing.
- A summary of laboratory and field test results.
- Sampling and testing location drawings.
- A summary of repairs and their locations.

- Changes from the construction drawings and specifications and the justification for these changes.
- As-built record drawings.
- A map that shows locations of system components tied to at least two permanent monuments.
- The results of the initial leachate collection pipe clean-out.
- The method for phased tie-in of leachate collection pipes.
- A statement of compliance with the construction contract documents and design intent, signed and sealed by a professional engineer registered in the State of Oklahoma.