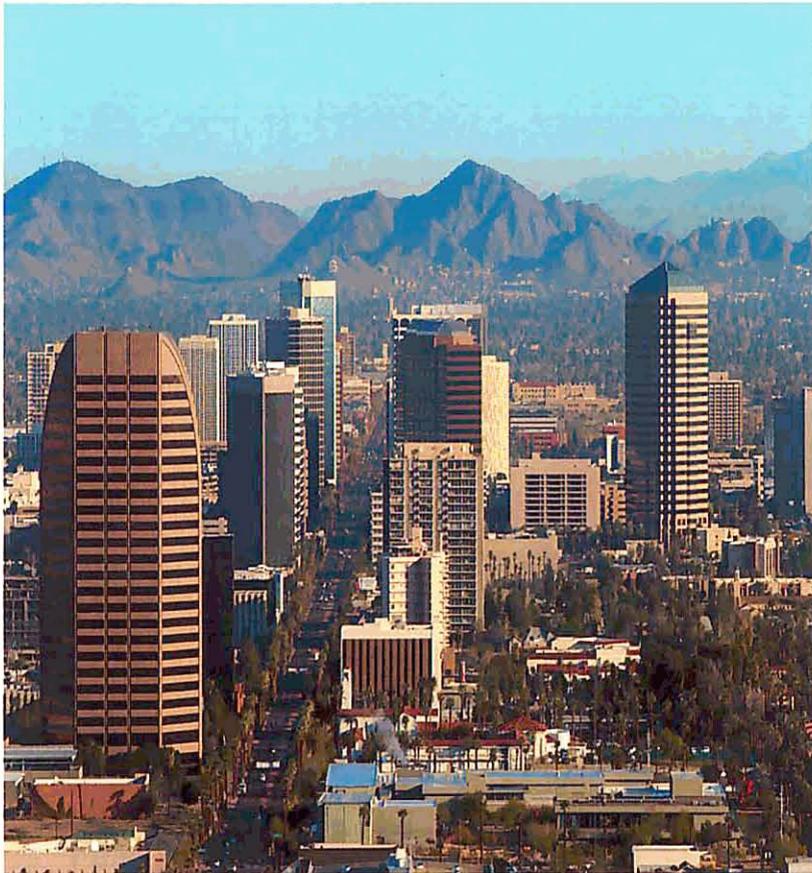


**HYDROLOGIC STUDY REPORT**  
**FOR**  
**METRO PHOENIX AREA DRAINAGE MASTER STUDY/PLAN**  
**FCD CONTRACT 2004 C040**  
**October 2006**  
**(Volume 3 of 3)**



*Prepared for:*

**Flood Control District of  
Maricopa County**



*And*

**City of Phoenix**



*Prepared by:*

**WOOD/PATEL**

*In Association With:*



# HYDROLOGIC STUDY REPORT

FOR

## METRO PHOENIX AREA DRAINAGE MASTER STUDY/PLAN

CONTRACT FCD 2004C040

October 2006

WP #052349

(Volume 3 of 3)

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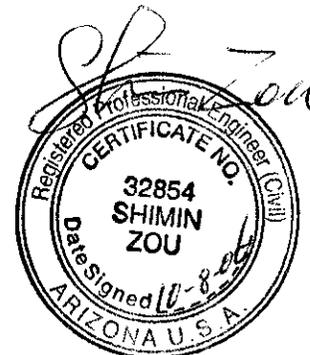
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W:\2005Projects\052349\_Metro Phoenix ADMS\Hydrology\Report\Report\052349 Metro Phoenix ADMS-P Report 10-8-06 Final.doc



**APPENDIX E**

**HEC-1 Model Output File for the 25-Year, 24-Hour Storm**

```

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   JUN 1998
*   VERSION 4.1
*
* RUN DATE 11JUL06 TIME 08:26:49
*
*****

```

```

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

```

```

X X XXXXXXX XXXXX X
X X X X X XX
X X X X X 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 -AMSK- 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

HEC-1 INPUT

```

1
LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID Project ID: METRO ADMS/P - Major Basin: 01 - Return Period: 25 Years
2 ID METRO PHOENIX ADMS/P - FCD2004C040: Wood/Patel in association with EEC
3 ID 25-Year 24-Hour Storm
4 ID SCS Type II Precipitation Distribution
5 ID Green and Ampt Loss Method
6 ID Clark Unit Hydrograph
7 ID Future Land Use Conditions
8 ID Model Name: FW24BASE.DAT, June 2006
9 ID
10 ID *****
11 ID Important Notes:
12 ID 1) Peak flow for each subbasin may not concentrate on one single point,
13 ID for illustration purposes, it is assumed that the concentration point
14 ID is located on the hydrologic low point of the subbasin;
15 ID 2) Surface flow diversions may occur at several locations along one of the
16 ID subbasin downstream boundaries. For simplicity, one split flow is
17 ID modeled for each subbasin to one direction;
18 ID 3) A fixed flow split ratio for most of the subbasin is used for all
19 ID frequencies except some of the subbasins along Grand Canal.
20 ID 4) Some subbasins have multiple pipes to one direction, a composite storm
21 ID drain pipe may have been used to model these conditions;
22 ID 5) Some subbasins have multiple detention/retention basins, an equivalent
23 ID detention/retention basin may have been used to model these conditions;
24 ID 6) Surface flow routing may occur at multiple streets and as sheet flow,
25 ID a composite channel cross section is used to represent the streets
26 ID flow conveyance.
27 ID
28 ID *****
29 ID HEC-1 ELEMENT NOMENCLATURE
30 ID
31 ID SUB-BASIN HYDROGRAPH:
32 ID Example: "80c" is the hydrograph from subbasin 80c
33 ID
34 ID SUB-BASIN FLOW DIVERSION:
35 ID Example: "D80cS" is the south component of diversion in Subbasin 80c
36 ID
37 ID PIPE FLOW DIVERSION:
38 ID Example: "80cP" is the pipe flow from Subbasin 80c
39 ID
40 ID PIPE FLOW ROUTING:
41 ID Example: "P80cS" is the south component of pipe routing from Subbasin 80c
42 ID
43 ID CHANNEL ROUTE:
44 ID Example: "R80cS" is the south component of surface flow routing from 80c
45 ID
46 ID STORAGE ROUTE:
47 ID Example: "S80c" is the storage routing in Subbasin 80c
48 ID

```

49 ID HYDROGRAPH COMBINE:  
 50 ID Example: "C80c" is the combined flow in Subbasin 80c  
 51 ID  
 52 ID HYDROGRAPH RETRIEVAL:  
 53 ID Example: "B80c" is the retrieved flow from Subbasin 80c  
 54 ID  
 55 ID "DUMMY" COMBINE:

HEC-1 INPUT

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

56 ID Example: "NUL80C" is the dummy hydrograph combining to free up a HEC-1  
 57 ID computational path.  
 58 ID \*\*\*\*\*  
 59 ID  
 60 IT 5 2000  
 61 IN 15  
 62 IO 5

\*DIAGRAM

\*  
 63 JD 3.02 0.01  
 64 PC 0.000 0.002 0.005 0.008 0.011 0.014 0.017 0.020 0.023 0.026  
 65 PC 0.029 0.032 0.035 0.038 0.041 0.044 0.048 0.052 0.056 0.060  
 66 PC 0.064 0.068 0.072 0.076 0.080 0.085 0.090 0.095 0.100 0.105  
 67 PC 0.110 0.115 0.120 0.126 0.133 0.140 0.147 0.155 0.163 0.172  
 68 PC 0.181 0.191 0.203 0.218 0.236 0.257 0.283 0.307 0.332 0.357  
 69 PC 0.735 0.758 0.776 0.791 0.804 0.815 0.825 0.834 0.842 0.849  
 70 PC 0.856 0.863 0.869 0.875 0.881 0.887 0.893 0.898 0.903 0.908  
 71 PC 0.913 0.918 0.922 0.926 0.930 0.934 0.938 0.942 0.946 0.950  
 72 PC 0.953 0.956 0.959 0.962 0.965 0.968 0.971 0.974 0.977 0.980  
 73 PC 0.983 0.986 0.989 0.992 0.995 0.998 1.000  
 74 JD 2.839 10  
 75 JD 2.718 30  
 76 JD 2.597 60  
 77 JD 2.555 90  
 \*

78 KK 64c BASIN  
 79 BA 0.264  
 80 KM Subbasin at NEC(northeast corner) of Northern Ave. & Central Ave.  
 81 LG 1.00 0.24 4.55 0.41 20  
 82 UC 0.879 0.669  
 83 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 84 UA 100  
 \*

85 KK D64cW DIVERT  
 86 KM Divert 68% of surface flow to south.  
 87 DT D64cS  
 88 DI 0 100 1000 10000  
 89 DQ 0 68 678 6776  
 \*

90 KK R64cW ROUTE  
 91 KM Route surface flow west from Subbasin 64c to Subbasin 68c.  
 92 RS 5 FLOW -1  
 93 RC 0.050 0.016 0.050 2640 0.0045  
 94 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 95 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

96 KK 68c BASIN  
 97 KM Subbasin at NEC corner of Northern Ave. & 7th Ave.  
 98 BA 0.434  
 99 LG 1.68 0.25 4.60 0.39 18  
 100 UC 0.922 0.604  
 101 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 102 UA 100  
 \*

103 KK C68c COMBINE  
 104 KM Combine hydrographs 68c and R64cW at Northern and Central Avenues.  
 105 HC 2 0.70  
 \*

106 KK D68c DIVERT  
 107 KM Divert 41 cfs into pipe (south).  
 108 DT D68cP  
 109 DI 0 41 1000 10000  
 110 DQ 0 41 41 41  
 \*

111	KK	D68cW	DIVERT																	
112	KM	Divert surface flow to south.																		
113	DT	D68cS																		
114	DI	0	100	1000	10000															
115	DQ	0	46	458	4576															
	*																			
116	KK	R68cW	ROUTE																	
117	KM	Route surface flow west from Subbasin 68c to Subbasin 72c.																		
118	RS	4	FLOW	-1																
119	RC	0.050	0.016	0.050	2640	0.0023														
120	RX	0	1.85	74	181.3	188.7	296	368.15	370											
121	RY	3	1	0.5	0	0	0.5	1	3											
	*																			
122	KK	72c	BASIN																	
123	KM	Subbasin at NEC corner of Northern Ave. & 15th Ave.																		
124	BA	0.542																		
125	LG	1.94	0.25	4.80	0.35	13														
126	UC	1.335	1.032																	
127	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0									
128	UA	100																		
	*																			
129	KK	C72c	COMBINE																	
130	KM	Combine hydrographs 72c and R68cW at Northern and 15th Avenues.																		
131	HC	2	1.24																	
	*																			

HEC-1 INPUT

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

132	KK	D72c	DIVERT																	
133	KM	Divert 90 cfs into pipe (south).																		
134	DT	D72cP																		
135	DI	0	90	1000	10000															
136	DQ	0	90	90	90															
	*																			
137	KK	D72cW	DIVERT																	
138	KM	Divert 90% surface flow to south.																		
139	DT	D72cS																		
140	DI	0	100	1000	10000															
141	DQ	0	90	900	9000															
	*																			
142	KK	R72cW	ROUTE																	
143	KM	Route surface flow west from Subbasin 72c to Subbasin 76c.																		
144	RS	9	FLOW	-1																
145	RC	0.050	0.016	0.050	2640	0.0008														
146	RX	0	2.05	82	200.9	209.1	328	407.95	410											
147	RY	3	1	0.5	0	0	0.5	1	3											
	*																			
148	KK	76C	BASIN																	
149	KM	Subbasin at NEC corner of Northern Ave. & 19th Ave.																		
150	BA	0.602																		
151	LG	0.77	0.19	6.60	0.17	18														
152	UC	0.862	0.551																	
153	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0									
154	UA	100																		
	*																			
155	KK	C76c	COMBINE																	
156	KM	Combine hydrographs 76c and R72cW at Northern and 19th Avenues.																		
157	HC	2	1.84																	
	*																			
158	KK	D76cP	DIVERT																	
159	KM	Divert 39 (68% of 58) cfs into 19th Ave pipe (south).																		
160	DT	D76c																		
161	DI	0	39	100	1000	10000														
162	DQ	0	0	61	961	9961														
	*																			
163	KK	84c	BASIN																	
164	KM	Subbasin at NWC(northwest corner) of Northern Ave. & 23rd Ave.																		
165	BA	0.467																		
166	LG	0.24	0.25	6.00	0.23	42														
167	UC	1.058	0.960																	
168	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0									
169	UA	100																		
	*																			

HEC-1 INPUT

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

170 KK D84cE DIVERT  
171 KM Divert surface flow to south.  
172 DT D84cS  
173 DI 0 100 1000 10000  
174 DQ 0 77 768 7682  
\*

175 KK R84cE ROUTE  
176 KM Route surface flow east from Subbasin 84c to Subbasin 80c.  
177 RS 4 FLOW -1  
178 RC 0.050 0.016 0.050 2640 0.0008  
179 RX 0 0.5 20 49 51 80 99.5 100  
180 RY 3 1 0.5 0 0 0.5 1 3  
\*

181 KK 80c BASIN  
182 KM Subbasin at NEC corner of Northern Ave. & 15th Ave.  
183 BA 0.661  
184 LG 0.83 0.25 5.20 0.33 33  
185 UC 0.964 0.639  
186 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
187 UA 100  
\*

188 KK S80c STORAGE  
189 KM Online Local Retention Basin, 4 ac-ft.  
190 RS 1 STOR 0  
191 SV 0 1 2.6 4.3 11  
192 SE 0 1 2 3 5  
193 SS 3 100 2.7 1.5  
\*

194 KK C80c COMBINE  
195 KM Combine hydrographs 80c and R84cE at Northern and 19th Avenues.  
196 HC 2 1.13  
\*

197 KK D80cP DIVERT  
198 KM Divert 19 (32% of 58) cfs into 19th Ave pipe (south).  
199 DT D80c  
200 DI 0 19 100 1000 10000  
201 DQ 0 0 81 981 9981  
\*

202 KK C76cP COMBINE  
203 KM Combine hydrographs into Storm Drain at Northern and 19th Avenues.  
204 HC 2 2.97  
\*

HEC-1 INPUT

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

205 KK P76cS ROUTE  
206 KM Route pipe flow from Northern/19th Ave. to Glendale/19th Ave.  
207 RK 5300 0.0044 0.015 CIRC 3.50  
\*

208 KK D76eP1 DIVERT  
209 KM Divert 32% of pipe flow to 80e from 80c.  
210 DT D80eP1  
211 DI 0 100 1000 10000  
212 DQ 0 32 320 3200  
\*

213 KK 56e BASIN  
214 KM Subbasin at NEC of Glendale Ave. & 12th St.  
215 BA 0.176  
216 LG 1.72 0.24 4.35 0.47 18  
217 UC 0.723 0.498  
218 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
219 UA 100  
\*

220 KK D56eW DIVERT  
221 KM Divert surface flow to south.  
222 DT D56eS  
223 DI 0 100 1000 10000  
224 DQ 0 53 525 5253  
\*

225 KK R56eW ROUTE  
226 KM Route surface flow west from Subbasin 56e to Subbasin 60e.

227	RS	6	FLOW	-1						
228	RC	0.050	0.016	0.050	2640	0.0053				
229	RX	0	1.75	70	171.5	178.5	280	348.25	350	
230	RY	3	1	0.5	0	0	0.5	1	3	
	*									

231	KK	60e	BASIN							
232	KM	Subbasin at NEC of Glendale Ave. & 7th St.								
233	BA	0.406								
234	LG	1.35	0.25	4.45	0.45	21				
235	UC	1.008	0.775							
236	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	97.0
237	UA	100								
	*									

238	KK	C60e	COMBINE							
239	KM	Combine hydrographs 60e and R56eW.								
240	HC	2	0.58							
	*									

HEC-1 INPUT

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

241	KK	D60e	DIVERT							
242	KM	Divert 75 cfs into pipe (south).								
243	DT	D60eP								
244	DI	0	75	1000	10000					
245	DQ	0	75	75	75					
	*									

246	KK	D60eW	DIVERT							
247	KM	Divert surface flow to south.								
248	DT	D60eS								
249	DI	0	100	1000	10000					
250	DQ	0	34	342	3420					
	*									

251	KK	R60eW	ROUTE							
252	KM	Route surface flow west from Subbasin 60e to Subbasin 64e.								
253	RS	6	FLOW	-1						
254	RC	0.050	0.016	0.050	2640	0.0038				
255	RX	0	3.85	154	377.3	392.7	616	766.15	770	
256	RY	3	1	0.5	0	0	0.5	1	3	
	*									

257	KK	64e	BASIN							
258	KM	Subbasin at NEC of Glendale Ave. & Central Ave.								
259	BA	0.502								
260	LG	1.59	0.25	4.70	0.36	15				
261	UC	1.129	0.867							
262	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	97.0
263	UA	100								
	*									

264	KK	B64cS	RETRIEVE							
265	KM	Retrieve diverted surface flow from D64cS.								
266	DR	D64cS								
	*									

267	KK	R64cS	ROUTE							
268	KM	Route surface flow south from Subbasin 64c to Subbasin 64e.								
269	RS	6	FLOW	-1						
270	RC	0.050	0.016	0.050	5280	0.0072				
271	RX	0	1.8	72	176.4	183.6	288	358.2	360	
272	RY	3	1	0.5	0	0	0.5	1	3	
	*									

273	KK	C64e	COMBINE							
274	KM	Combine hydrographs 64e, R64cS, and R60eW.								
275	HC	3	1.35							
	*									

HEC-1 INPUT

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

276	KK	D64eW	DIVERT							
277	KM	Divert surface flow to south.								
278	DT	D64eS								
279	DI	0	100	1000	10000					
280	DQ	0	50	500	5000					
	*									

281	KK	R64eW	ROUTE							
282	KM	Route surface flow west from Subbasin 64e to Subbasin 68e.								

283	RS	3	FLOW	-1							
284	RC	0.050	0.016	0.050	2640	0.0034					
285	RX	0	1.55	62	151.9	158.1	248	308.45	310		
286	RY	3	1	0.5	0	0	0.5	1	3		
	*										

287	KK	68e	BASIN								
288	KM	Subbasin at NEC of Glendale Ave. & 7th Ave.									
289	BA	0.496									
290	LG	1.58	0.25	4.80	0.35	14					
291	UC	1.169	0.908								
292	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
293	UA	100									
	*										

294	KK	B68cP RETRIEVE									
295	KM	Retrieve diverted pipe flow from D68cP.									
296	DR	D68cP									
	*										

297	KK	P68cS ROUTE									
298	KM	Route pipe flow from Northern/7th Ave. to Glendale/7th Ave.									
299	RK	5300	0.0033	0.015		CIRC	3.25				
	*										

300	KK	B68cS RETRIEVE									
301	KM	Retrieve diverted surface flow from D68cS.									
302	DR	D68cS									
	*										

303	KK	R68cS ROUTE									
304	KM	Route surface flow south from Subbasin 68c to Subbasin 68e.									
305	RS	6	FLOW	-1							
306	RC	0.050	0.016	0.050	5280	0.0066					
307	RX	0	1.05	42	102.9	107.1	168	208.95	210		
308	RY	3	1	0.5	0	0	0.5	1	3		
	*										

309	KK	C68cS COMBINE									
310	KM	Combine hydrographs R68cS and P68cS.									
311	HC	2	0.70								
	*										

HEC-1 INPUT

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

312	KK	C68e COMBINE									
313	KM	Combine hydrographs 68e, C68cS, and R64eW.									
314	HC	3	2.28								
	*										

315	KK	D68e DIVERT									
316	KM	Divert 63 cfs into pipe (south).									
317	DT	D68eP									
318	DI	0	63	1000	10000						
319	DQ	0	63	63	63						
	*										

320	KK	D68eW DIVERT									
321	KM	Divert surface flow to south.									
322	DT	D68eS									
323	DI	0	100	1000	10000						
324	DQ	0	54	539	5391						
	*										

325	KK	R68eW ROUTE									
326	KM	Route surface flow west from Subbasin 68e to Subbasin 72e.									
327	RS	3	FLOW	-1							
328	RC	0.050	0.016	0.050	2640	0.0019					
329	RX	0	1.55	62	151.9	158.1	248	308.45	310		
330	RY	3	1	0.5	0	0	0.5	1	3		
	*										

331	KK	72e BASIN									
332	KM	Subbasin at NEC of Glendale Ave. & 15th Ave.									
333	BA	0.499									
334	LG	1.62	0.25	4.80	0.35	19					
335	UC	1.154	0.892								
336	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
337	UA	100									
	*										

338	KK	B72cP RETRIEVE									
339	KM	Retrieve diverted pipe flow from D72cP.									
340	DR	D72cP									

\*  
 341 KK P72cS ROUTE  
 342 KM Route pipe flow from Northern/15th Ave. to Glendale/15th Ave.  
 343 RK 5300 0.0052 0.015 CIRC 4.00  
 \*  
 344 KK B72cS RETRIEVE  
 345 KM Retrieve diverted surface flow from D72cS.  
 346 DR D72cS  
 \*

HEC-1 INPUT

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

347 KK R72cS ROUTE  
 348 KM Route surface flow south from Subbasin 72c to Subbasin 72e.  
 349 RS 6 FLOW -1  
 350 RC 0.050 0.016 0.050 5280 0.0055  
 351 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 352 RY 3 1 0.5 0 0 0.5 1 3  
 \*

353 KK C72cS COMBINE  
 354 KM Combine hydrographs R72cS and P72cS.  
 355 HC 2 1.24  
 \*

356 KK C72e COMBINE  
 357 KM Combine hydrographs 72e, C72cS, and R68eW.  
 358 HC 3 3.32  
 \*

359 KK D72e DIVERT  
 360 KM Divert 195 cfs into pipe (south).  
 361 DT D72eP  
 362 DI 0 100 195 10000  
 363 DQ 0 100 195 195  
 \*

364 KK D72eW DIVERT  
 365 KM Divert 90% surface flow to south.  
 366 DT D72eS  
 367 DI 0 100 1000 10000  
 368 DQ 0 90 900 9000  
 \*

369 KK R72eW ROUTE  
 370 KM Route surface flow west from Subbasin 72e to Subbasin 76e.  
 371 RS 9 FLOW -1  
 372 RC 0.050 0.016 0.050 2640 0.0004  
 373 RX 0 1.65 66 161.7 168.3 264 328.35 330  
 374 RY 3 1 0.5 0 0 0.5 1 3  
 \*

375 KK 76e BASIN  
 376 KM Subbasin at NEC of Glendale Ave. & 19th Ave.  
 377 BA 0.499  
 378 LG 1.17 0.25 5.20 0.30 22  
 379 UC 1.058 0.704  
 380 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 381 UA 100  
 \*

HEC-1 INPUT

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

382 KK B76c RETRIEVE  
 383 KM Retrieve diverted surface flow from D76c.  
 384 DR D76c  
 \*

385 KK R76cS ROUTE  
 386 KM Route surface flow south from Subbasin 76c to Subbasin 76e.  
 387 RS 5 FLOW -1  
 388 RC 0.050 0.016 0.050 5280 0.0036  
 389 RX 0 1 40 98 102 160 199 200  
 390 RY 3 1 0.5 0 0 0.5 1 3  
 \*

391 KK C76e COMBINE  
 392 KM Combine hydrographs 76e, R72eW, D76eP1, and R76cS.  
 393 HC 4 4.42  
 \*

394 KK D76eP DIVERT  
 395 KM Divert 21 (27% of 76) cfs into 19th Ave pipe (south).  
 396 DT D76e  
 397 DI 0 21 100 1000 10000  
 398 DQ 0 0 79 979 9979  
 \*

399 KK BD84cS RETRIEVE  
 400 KM Retrieve diverted surface flow from D84cS.  
 401 DR D84cS  
 \*

402 KK R84cS ROUTE  
 403 KM Route surface flow south from Subbasin 84c to Subbasin 84e.  
 404 RS 4 FLOW -1  
 405 RC 0.050 0.016 0.050 5280 0.0042  
 406 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 407 RY 3 1 0.5 0 0 0.5 1 3  
 \*

408 KK 84e BASIN  
 409 KM Subbasin at NWC of Glendale Ave. & 23rd Ave.  
 410 BA 0.214  
 411 LG 1.19 0.15 7.30 0.13 23  
 412 UC 1.072 1.165  
 413 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 414 UA 100  
 \*

415 KK C84e COMBINE  
 416 KM Combine hydrographs 84e and R84cS.  
 417 HC 2 0.68  
 \*

HEC-1 INPUT

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

418 KK D84eE DIVERT  
 419 KM Divert surface flow to south.  
 420 DT D84eS  
 421 DI 0 100 1000 10000  
 422 DQ 0 39 395 3950  
 \*

423 KK R84eE ROUTE  
 424 KM Route surface flow east from Subbasin 84e to Subbasin 80e.  
 425 RS 6 FLOW -1  
 426 RC 0.050 0.016 0.050 2640 0.0005  
 427 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 428 RY 3 1 0.5 0 0 0.5 1 3  
 \*

429 KK 80e BASIN  
 430 KM Subbasin at NWC of Glendale Ave. & 19th Ave.  
 431 BA 0.494  
 432 LG 0.74 0.25 6.00 0.22 23  
 433 UC 0.976 0.648  
 434 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 435 UA 100  
 \*

436 KK B80eP1 RETRIEVE  
 437 KM Retrieve diverted pipe flow from D80eP1.  
 438 DR D80eP1  
 \*

439 KK BD80c RETRIEVE  
 440 KM Retrieve diverted surface flow from D80c.  
 441 DR D80c  
 \*

442 KK R80cS ROUTE  
 443 KM Route surface flow south from Subbasin 80c to Subbasin 80e.  
 444 RS 4 FLOW -1  
 445 RC 0.050 0.016 0.050 5280 0.0036  
 446 RX 0 1 40 98 102 160 199 200  
 447 RY 3 1 0.5 0 0 0.5 1 3  
 \*

448 KK C80e COMBINE  
 449 KM Combine hydrographs 80e, R84eE, R80cS, and D80eP1.  
 450 HC 4 1.84  
 \*

451 KK D80eP DIVERT  
 452 KM Divert 55 (73% of 76) cfs into 19th Ave pipe (south).  
 453 DT D80e  
 454 DI 0 55 100 1000 10000  
 455 DQ 0 0 45 945 9945  
 \*

HEC-1 INPUT

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

456 KK C76eP COMBINE  
 457 KM Combine hydrographs D80eP and D76eP into 19th Ave pipe.  
 458 HC 2 6.26  
 \*

459 KK P76eS ROUTE  
 460 KM Route pipe flow from Glendale/19th Ave. to Bethany/19th Ave.  
 461 RK 5300 0.0037 0.015 CIRC 4.00  
 \*

462 KK D76gP1 DIVERT  
 463 KM Divert 73% of pipe flow to 80g from 80e.  
 464 DT D80gP1  
 465 DI 0 100 1000 10000  
 466 DQ 0 73 730 7300  
 \*

467 KK 76g BASIN  
 468 KM Subbasin at NWC of Bethany Home & 15th Ave.  
 469 BA 0.501  
 470 LG 1.08 0.25 5.60 0.26 28  
 471 UC 0.968 0.637  
 472 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 473 UA 100  
 \*

474 KK BD76e RETRIEVE  
 475 KM Retrieve diverted surface flow from D76e.  
 476 DR D76e  
 \*

477 KK R76eS ROUTE  
 478 KM Route surface flow south from Subbasin 76e to Subbasin 76g.  
 479 RS 5 FLOW -1  
 480 RC 0.050 0.016 0.050 5280 0.0040  
 481 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 482 RY 3 1 0.5 0 0 0.5 1 3  
 \*

483 KK C76g COMBINE  
 484 KM Combine hydrographs 76g, R76eS, and D76gP1.  
 485 HC 3 4.92  
 \*

486 KK D76g1 DIVERT  
 487 KM Divert 48 cfs into pipe (15th Ave).  
 488 DT D76gP2  
 489 DI 0 48 1000 10000  
 490 DQ 0 48 48 48  
 \*

HEC-1 INPUT

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

491 KK D76g DIVERT  
 492 KM Divert 57 (75% of 76) cfs into 19th Ave pipe (south).  
 493 DT D76gP  
 494 DI 0 57 100 1000 10000  
 495 DQ 0 57 57 57 57  
 \*

496 KK D76gE DIVERT  
 497 KM Divert surface flow to south.  
 498 DT D76gS  
 499 DI 0 100 1000 10000  
 500 DQ 0 70 700 7000  
 \*

501 KK R76gE ROUTE  
 502 KM Route surface flow east from Subbasin 76g to Subbasin 72g.  
 503 RS 3 FLOW -1  
 504 RC 0.050 0.016 0.050 1000 0.0008  
 505 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 506 RY 3 1 0.5 0 0 0.5 1 3

```

*
507 KK B76gP2 RETRIEVE
508 KM Retrieve diverted pipe flow from D76gP2.
509 DR D76gP2
*

510 KK C76gE COMBINE
511 KM Combine hydrographs D76gP2 and R76gE.
512 HC 2 4.92
*

513 KK 54g BASIN
514 KM Subbasin at NEC of Bethany Home & 16th St.
515 BA 0.247
516 LG 0.95 0.25 4.65 0.39 26
517 UC 0.644 0.491
518 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
519 UA 100
*

520 KK D54gW DIVERT
521 KM Divert surface flow to south.
522 DT D54gS
523 DI 0 100 1000 10000
524 DQ 0 40 405 4050
*

525 KK R54gW ROUTE
526 KM Route surface flow west from Subbasin 54g to Subbasin 56g.
527 RS 4 FLOW -1
528 RC 0.050 0.016 0.050 2636 0.0030
529 RX 0 1.95 78 191.1 198.9 312 388.05 390
530 RY 3 1 0.5 0 0 0.5 1 3
*

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HEC-1 INPUT

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

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531 KK 56g BASIN
532 KM Subbasin at NEC of Bethany Home & 12th St.
533 BA 0.500
534 LG 1.70 0.25 4.35 0.47 23
535 UC 0.956 0.722
536 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
537 UA 100
*

538 KK B56eS RETRIEVE
539 KM Retrieve diverted surface flow from D56eS.
540 DR D56eS
*

541 KK R56eS ROUTE
542 KM Route surface flow south from Subbasin 56e to Subbasin 56g.
543 RS 6 FLOW -1
544 RC 0.050 0.016 0.050 5280 0.0106
545 RX 0 1.8 72 176.4 183.6 288 358.2 360
546 RY 3 1 0.5 0 0 0.5 1 3
*

547 KK C56g COMBINE
548 KM Combine hydrographs 56g, R56eS, and R54gW.
549 HC 3 0.92
*

550 KK D56g DIVERT
551 KM Divert 130 cfs into pipe (south).
552 DT D56gP
553 DI 0 100 130 10000
554 DQ 0 100 130 130
*

555 KK D56gW DIVERT
556 KM Divert surface flow to south.
557 DT D56gS
558 DI 0 100 1000 10000
559 DQ 0 56 561 5614
*

560 KK R56gW ROUTE
561 KM Route surface flow west from Subbasin 56g to Subbasin 60g.
562 RS 5 FLOW -1
563 RC 0.050 0.016 0.050 2636 0.0030
564 RX 0 1.9 76 186.2 193.8 304 378.1 380

```

565 RY 3 1 0.5 0 0 0.5 1 3

HEC-1 INPUT

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

566 KK 60g BASIN
567 KM Subbasin at NEC of Bethany Home & 7th St.
568 BA 0.500
569 LG 1.51 0.25 4.65 0.39 25
570 UC 0.989 0.751
571 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
572 UA 100

573 KK B60eP RETRIEVE
574 KM Retrieve diverted pipe flow from D60eP.
575 DR D60eP

576 KK P60eS ROUTE
577 KM Route pipe flow from Glendale/7th St. to Bethany/7th St.
578 RK 5300 0.0074 0.015 CIRC 3.50

579 KK B60eS RETRIEVE
580 KM Retrieve diverted surface flow from D60eS.
581 DR D60eS

582 KK R60eS ROUTE
583 KM Route surface flow south from Subbasin 60e to Subbasin 60g.
584 RS 6 FLOW -1
585 RC 0.050 0.016 0.050 5280 0.0091
586 RX 0 1.55 62 151.9 158.1 248 308.45 310
587 RY 3 1 0.5 0 0 0.5 1 3

588 KK C60eS COMBINE
589 KM Combine hydrographs R60eS and P60eS.
590 HC 2 0.58

591 KK C60g COMBINE
592 KM Combine hydrographs 60g, R56gW, and C60eS.
593 HC 3 1.83

594 KK D60g DIVERT
595 KM Divert 124 cfs into pipe (south).
596 DT D60gP
597 DI 0 100 124 10000
598 DQ 0 100 124 124

HEC-1 INPUT

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

599 KK D60gW DIVERT
600 KM Divert surface flow to south.
601 DT D60gS
602 DI 0 100 1000 10000
603 DQ 0 47 470 4701

604 KK R60gW ROUTE
605 KM Route surface flow west from Subbasin 60g to Subbasin 64g.
606 RS 3 FLOW -1
607 RC 0.050 0.016 0.050 2640 0.0023
608 RX 0 2.05 82 200.9 209.1 328 407.95 410
609 RY 3 1 0.5 0 0 0.5 1 3

610 KK 64g BASIN
611 KM Subbasin at NEC of Bethany Home & Central Ave.
612 BA 0.502
613 LG 1.76 0.25 4.80 0.36 20
614 UC 1.105 0.847
615 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
616 UA 100

617 KK B64eS RETRIEVE
618 KM Retrieve diverted surface flow from D64eS.

619 DR D64eS  
\*  
620 KK R64eS ROUTE  
621 KM Route surface flow south from Subbasin 64e to Subbasin 64g.  
622 RS 6 FLOW -1  
623 RC 0.050 0.016 0.050 5280 0.0076  
624 RX 0 1.75 70 171.5 178.5 280 348.25 350  
625 RY 3 1 0.5 0 0 0.5 1 3  
\*

626 KK C64g COMBINE  
627 KM Combine hydrographs 64g, R60gW, and R64eS.  
628 HC 3 3.10  
\*

629 KK D64g DIVERT  
630 KM Divert 153 cfs into pipe.  
631 DT D64gP  
632 DI 0 100 153 10000  
633 DQ 0 100 153 153  
\*

HEC-1 INPUT

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

634 KK D64gW DIVERT  
635 KM Divert surface flow to south.  
636 DT D64gS  
637 DI 0 100 1000 10000  
638 DQ 0 48 480 4800  
\*

639 KK R64gW ROUTE  
640 KM Route surface flow west from Subbasin 64g to Subbasin 68g.  
641 RS 3 FLOW -1  
642 RC 0.050 0.016 0.050 2640 0.0019  
643 RX 0 1.3 52 127.4 132.6 208 258.7 260  
644 RY 3 1 0.5 0 0 0.5 1 3  
\*

645 KK 68g BASIN  
646 KM Subbasin at NEC of Bethany Home & 7th Ave.  
647 BA 0.502  
648 LG 1.98 0.25 4.80 0.36 17  
649 UC 1.246 0.968  
650 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
651 UA 100  
\*

652 KK B68eP RETRIEVE  
653 KM Retrieve diverted pipe flow from D68eP.  
654 DR D68eP  
\*

655 KK P68eS ROUTE  
656 KM Route pipe flow from Glendale/7th Ave. to Bethany/7th Ave.  
657 RK 5300 0.0052 0.015 CIRC 3.50  
\*

658 KK B68eS RETRIEVE  
659 KM Retrieve diverted surface flow from D68eS.  
660 DR D68eS  
\*

661 KK R68eS ROUTE  
662 KM Route surface flow south from Subbasin 68e to Subbasin 68g.  
663 RS 3 FLOW -1  
664 RC 0.050 0.016 0.050 5280 0.0063  
665 RX 0 1.3 52 127.4 132.6 208 258.7 260  
666 RY 3 1 0.5 0 0 0.5 1 3  
\*

667 KK C68eS COMBINE  
668 KM Combine hydrographs R68eS and P68eS.  
669 HC 2 2.28  
\*

HEC-1 INPUT

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

670 KK C68g COMBINE  
671 KM Combine hydrographs 68g, C68eS, and R64gW.  
672 HC 3 4.53

```

*
673 KK D68g DIVERT
674 KM Divert 82 cfs into pipe.
675 DT D68gP
676 DI 0 82 1000 10000
677 DQ 0 82 82 82
*

678 KK D68gW DIVERT
679 KM Divert surface flow to south.
680 DT D68gS
681 DI 0 100 1000 10000
682 DQ 0 56 560 5600
*

683 KK R68gW ROUTE
684 KM Route surface flow west from Subbasin 68g to Subbasin 72g.
685 RS 4 FLOW -1
686 RC 0.050 0.016 0.050 2640 0.0008
687 RX 0 1.05 42 102.9 107.1 168 208.95 210
688 RY 3 1 0.5 0 0 0.5 1 3
*

689 KK 72g BASIN
690 KM Subbasin at NEC of Bethany Home & 15th Ave.
691 BA 0.500
692 LG 1.30 0.25 5.60 0.27 20
693 UC 1.184 0.916
694 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
695 UA 100
*

696 KK B72eP RETRIEVE
697 KM Retrieve diverted pipe flow from D72eP.
698 DR D72eP
*

699 KK P72eS ROUTE
700 KM Route pipe flow from Glendale/15th Ave. to Bethany/15th Ave.
701 RK 5300 0.0058 0.015 CIRC 5.25
*

702 KK B72eS RETRIEVE
703 KM Retrieve diverted surface flow from D72eS.
704 DR D72eS
*

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

705 KK R72eS ROUTE
706 KM Route surface flow south from Subbasin 72e to Subbasin 72g.
707 RS 5 FLOW -1
708 RC 0.050 0.016 0.050 5280 0.0047
709 RX 0 1.75 70 171.5 178.5 280 348.25 350
710 RY 3 1 0.5 0 0 0.5 1 3
*

711 KK C72eS COMBINE
712 KM Combine hydrographs R72eS and P72eS.
713 HC 2 3.32
*

714 KK C72g COMBINE
715 KM Combine hydrographs 72g, C72eS, and R68gW.
716 HC 3 6.07
*

717 KK CC72g COMBINE
718 KM Combine hydrographs C72g and C76gE.
719 HC 2 7.67
*

720 KK D72g DIVERT
721 KM Divert 178 cfs into pipe.
722 DT D72gP
723 DI 0 100 178 10000
724 DQ 0 100 178 178
*

725 KK R72gS ROUTE
726 KM Route surface flow south from Subbasin 72g to Subbasin 72i.
727 RS 3 FLOW -1
728 RC 0.050 0.016 0.050 5280 0.0040

```

729	RX	0	1.3	52	127.4	132.6	208	258.7	260
730	RY	3	1	0.5	0	0	0.5	1	3
	*								
731	KK BD72gP RETRIEVE								
732	KM Retrieve diverted pipe flow from D72gP.								
733	DR D72gP								
	*								
734	KK P72gS ROUTE								
735	KM Route pipe flow from Bethany/15th Ave. to Camelback/15th Ave.								
736	RK	5300	0.0024	0.015		CIRC	6.00		
	*								
737	KK C72gS COMBINE								
738	KM Combine hydrographs R72gS and P72gS.								
739	HC	2	7.67						
	*								

1

HEC-1 INPUT

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

740	KK 84g BASIN									
741	KM Subbasin at NWC of Bethany Home & 23rd Ave.									
742	BA 0.214									
743	LG	0.61	0.25	4.80	0.36	27				
744	UC	0.971	1.038							
745	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
746	UA	100								97.0
	*									

747	KK B84eS RETRIEVE									
748	KM Retrieve diverted surface flow from D84eS.									
749	DR D84eS									
	*									

750	KK R84eS ROUTE									
751	KM Route surface flow south from Subbasin 84e to Subbasin 84g.									
752	RS	6	FLOW	-1						
753	RC	0.050	0.016	0.050	5280	0.0042				
754	RX	0	1	40	98	102	160	199	200	
755	RY	3	1	0.5	0	0	0.5	1	3	
	*									

756	KK C84g COMBINE									
757	KM Combine hydrographs 84g and R84eS.									
758	HC	2	0.90							
	*									

759	KK D84gE DIVERT									
760	KM Divert surface flow to south.									
761	DT D84gS									
762	DI	0	100	1000	10000					
763	DQ	0	47	474	4742					
	*									

764	KK R84gE ROUTE									
765	KM Route surface flow east from Subbasin 84g to Subbasin 80g.									
766	RS	6	FLOW	-1						
767	RC	0.050	0.016	0.050	2640	0.0005				
768	RX	0	1.4	56	137.2	142.8	224	278.6	280	
769	RY	3	1	0.5	0	0	0.5	1	3	
	*									

770	KK 80g BASIN									
771	KM Subbasin at NWC of Bethany Home & 19th Ave.									
772	BA 0.496									
773	LG	0.89	0.25	4.80	0.39	23				
774	UC	1.099	0.737							
775	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
776	UA	100								97.0
	*									

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HEC-1 INPUT

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

777	KK BD80e RETRIEVE									
778	KM Retrieve diverted surface flow from D80e.									
779	DR D80e									
	*									

780	KK R80eS ROUTE									
781	KM Route surface flow south from Subbasin 80e to Subbasin 80g.									
782	RS	3	FLOW	-1						



839 UC 1.119 0.857  
 840 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 841 UA 100  
 \*  
 842 KK C72i COMBINE  
 843 KM Combine hydrographs 72i, C72gS, and D76iP2.  
 844 HC 3 8.68  
 \*  
 845 KK D72iP DIVERT  
 846 KM Divert flow into pipe.  
 847 KM Total Pipe flow is 258 cfs  
 848 DT D72i  
 849 DI 0 258 1000 10000  
 850 DQ 0 0 742 9742  
 \*

HEC-1 INPUT

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

851 KK D72iP2 DIVERT  
 852 KM Divert flow into pipe.  
 853 KM Flow of pipe 2 to west is 32, flow of pipe 1 to south is 226 cfs  
 854 DT D72iP1  
 855 DI 0 258 300  
 856 DQ 0 226 226  
 \*

857 KK P72iW ROUTE  
 858 KM Route pipe flow from Camelback/15th Ave. to Camelback/19th Ave.  
 859 RK 2600 0.0030 0.015 CIRC 4.0  
 \*

860 KK BD76i1 RETRIEVE  
 861 KM Retrieve diverted flow from D76i1.  
 862 DR D76i1  
 \*

863 KK CC76i COMBINE  
 864 KM Combine hydrographs D76i1, and P72iW.  
 865 HC 2 5.92  
 \*

866 KK D76iP DIVERT  
 867 KM Divert 78 (74% of 106) cfs flow into pipe.  
 868 DT D76i  
 869 DI 0 78 100 1000 10000  
 870 DQ 0 0 22 922 9922  
 \*  
 \*

871 KK BD84gS RETRIEVE  
 872 KM Retrieve diverted surface flow from D84gS.  
 873 DR D84gS  
 \*

874 KK R84gS ROUTE  
 875 KM Route surface flow south from Subbasin 84g to Subbasin 84i.  
 876 RS 6 FLOW -1  
 877 RC 0.050 0.016 0.050 5280 0.0038  
 878 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 879 RY 3 1 0.5 0 0 0.5 1 3  
 \*

880 KK 84i BASIN  
 881 KM Subbasin at NWC of Camelback Rd. & 23rd Ave.  
 882 BA 0.211  
 883 LG 0.99 0.25 5.20 0.31 27  
 884 UC 1.076 1.187  
 885 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 886 UA 100  
 \*

HEC-1 INPUT

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

887 KK C84i COMBINE  
 888 KM Combine hydrographs 84i and R84gS.  
 889 HC 2 1.11  
 \*

890 KK S84i STORAGE  
 891 KM Online Regional Retention Basin - Phase A Basin of 24th Ave & Camelback Rd.

892	RS	1	STOR	0					
893	SV	0	8	17	22	27	32	50	
894	SE	0	2	4	5	6	7	9	
895	SS	7	100	2.7	1.5				

896 KK D84iE DIVERT  
 897 KM Divert surface flow to south.  
 898 DT D84iS  
 899 DI 0 100 1000 10000  
 900 DQ 0 39 387 3873  
 \*

901 KK R84iE ROUTE  
 902 KM Route surface flow east from Subbasin 84i to Subbasin 80i.  
 903 RS 9 FLOW -1  
 904 RC 0.050 0.016 0.050 2640 0.0015  
 905 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 906 RY 3 1 0.5 0 0 0.5 1 3  
 \*

907 KK 80i BASIN  
 908 KM Subbasin at NWC of Camelback Rd. & 19th Ave.  
 909 BA 0.494  
 910 LG 0.47 0.25 5.70 0.24 23  
 911 UC 0.968 0.642  
 912 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 913 UA 100  
 \*

914 KK BD80g RETRIEVE  
 915 KM Retrieve diverted flow from D80g.  
 916 DR D80g  
 \*

917 KK S80g STORAGE  
 918 KM Online Regional Detention Basin, 0.9 ac-ft.  
 919 RS 1 STOR 0  
 920 SV 0 0.2 0.5 0.9 1.4 3.0  
 921 SE 0 1 2 3 4 5  
 922 SL 0 0.785 0.62 0.5  
 923 SS 3 300 2.7 1.5  
 \*

HEC-1 INPUT

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

924 KK R80gS ROUTE  
 925 KM Route surface flow south from Subbasin 80g to Subbasin 80i.  
 926 RS 3 FLOW -1  
 927 RC 0.050 0.016 0.050 5280 0.0034  
 928 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 929 RY 3 1 0.5 0 0 0.5 1 3  
 \*

930 KK B80iP1 RETRIEVE  
 931 KM Retrieve diverted pipe flow from D80iP1.  
 932 DR D80iP1  
 \*

933 KK C80i COMBINE  
 934 KM Combine hydrographs 80i,R84E,R80gS, and D80iP1.  
 935 HC 4 3.25  
 \*

936 KK D80iP DIVERT  
 937 KM Divert 28 (26% of 106) cfs into pipe.  
 938 DT D80i  
 939 DI 0 28 100 1000 10000  
 940 DQ 0 0 72 972 9972  
 \*

941 KK C76iP COMBINE  
 942 KM Combine hydrographs D80iP and D76iP.  
 943 HC 2 9.18  
 \*

944 KK P76iS ROUTE  
 945 KM Route pipe flow from Camelback/19th Ave. to Grand Canal/19th Ave.  
 946 RK 3500 0.0039 0.015 CIRC 4.50  
 \*

947 KK D76kP1 DIVERT  
 948 KM Divert 26% of pipe flow from 80i to 80k.  
 949 DT D80kP1

950	DI	0	100	1000	10000						
951	DQ	0	26	260	2600						
	*										
952	KK	76k	BASIN								
953	KM	Subbasin at NEC of Grand Canal & 19th Ave.									
954	BA	0.317									
955	LG	0.55	0.15	7.00	0.14	28					
956	UC	0.801	0.503								
957	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
958	UA	100									
	*										

1

HEC-1 INPUT

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

959	KK	BD76i	RETRIEVE								
960	KM	Retrieve diverted surface flow from D76i.									
961	DR	D76i									
	*										
962	KK	D76iS	DIVERT								
963	KM	Divert surface flow to east.									
964	DT	D76iE									
965	DI	0	100	1000	10000						
966	DQ	0	32	320	3200						
	*										
967	KK	R76iS	ROUTE								
968	KM	Route surface flow south from Subbasin 76i to Subbasin 76k.									
969	RS	3	FLOW	-1							
970	RC	0.050	0.016	0.050	3500	0.0038					
971	RX	0	0.75	30	73.5	76.5	120	149.25	150		
972	RY	3	1	0.5	0	0	0.5	1	3		
	*										
973	KK	C76k	COMBINE								
974	KM	Combine hydrographs D76kP1, R76iS, and 76k.									
975	HC	3	5.74								
	*										

976	KK	D76kP2	DIVERT								
977	KM	Divert flow into pipe.									
978	KM	Pipe flow to east is 32 cfs									
979	DT	D76k1									
980	DI	0	32	100	1000	10000					
981	DQ	0	0	68	968	9968					
	*										
982	KK	54i	BASIN								
983	KM	Subbasin at NEC of Camelback Rd. & 16th St.									
984	BA	0.192									
985	LG	1.22	0.25	4.80	0.39	33					
986	UC	0.825	0.868								
987	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
988	UA	100									
	*										

989	KK	BD54gS	RETRIEVE								
990	KM	Retrieve diverted surface flow from D54gS.									
991	DR	D54gS									
	*										
992	KK	R54gS	ROUTE								
993	KM	Route surface flow south from Subbasin 54g to Subbasin 54i.									
994	RS	6	FLOW	-1							
995	RC	0.050	0.016	0.050	5280	0.0072					
996	RX	0	0.75	30	73.5	76.5	120	149.25	150		
997	RY	3	1	0.5	0	0	0.5	1	3		
	*										

1

HEC-1 INPUT

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

998	KK	C54i	COMBINE								
999	KM	Combine hydrographs 54i and R54gS.									
1000	HC	2	0.44								
	*										
1001	KK	D54i	DIVERT								
1002	KM	Divert 68 cfs into pipe.									
1003	DT	D54iP									
1004	DI	0	68	1000	10000						
1005	DQ	0	68	68	68						

```

*
1006 KK D54iW DIVERT
1007 KM Divert surface flow to south.
1008 DT D54iS
1009 DI 0 100 1000 10000
1010 DQ 0 37 372 3722
*

1011 KK R54iW ROUTE
1012 KM Route surface flow west from Subbasin 54i to Subbasin 56i.
1013 RS 6 FLOW -1
1014 RC 0.050 0.016 0.050 2636 0.0015
1015 RX 0 1.6 64 156.8 163.2 256 318.4 320
1016 RY 3 1 0.5 0 0 0.5 1 3
*

1017 KK 56i BASIN
1018 KM Subbasin at NEC of Camelback Rd. & 12th St.
1019 BA 0.500
1020 LG 1.20 0.25 4.80 0.37 28
1021 UC 0.913 0.687
1022 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1023 UA 100
*

1024 KK BD56gP RETRIEVE
1025 KM Retrieve diverted pipe flow from D56gP.
1026 DR D56gP
*

1027 KK P56gS ROUTE
1028 KM Route pipe flow from Bethany/12th St. to Camelback/12th St.
1029 RK 5300 0.0058 0.015 CIRC 4.50
*

1030 KK BD56gS RETRIEVE
1031 KM Retrieve diverted surface flow from D56gS.
1032 DR D56gS
*

```

HEC-1 INPUT

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

1033 KK R56gS ROUTE
1034 KM Route surface flow south from Subbasin 56g to Subbasin 56i.
1035 RS 6 FLOW -1
1036 RC 0.050 0.016 0.050 5280 0.0072
1037 RX 0 1.3 52 127.4 132.6 208 258.7 260
1038 RY 3 1 0.5 0 0 0.5 1 3
*

1039 KK C56gS COMBINE
1040 KM Combine hydrographs R56gS and P56gS.
1041 HC 2 0.92
*

1042 KK C56i COMBINE
1043 KM Combine hydrographs 56i, C56gS, and R54iW.
1044 HC 3 1.62
*

1045 KK D56i DIVERT
1046 KM Divert 204 cfs into pipe.
1047 DT D56iP
1048 DI 0 100 204 10000
1049 DQ 0 100 204 204
*

1050 KK D56iW DIVERT
1051 KM Divert surface flow to south.
1052 DT D56iS
1053 DI 0 100 1000 10000
1054 DQ 0 49 488 4881
*

1055 KK R56iW ROUTE
1056 KM Route surface flow west from Subbasin 56i to Subbasin 60i.
1057 RS 9 FLOW -1
1058 RC 0.050 0.016 0.050 2636 0.0015
1059 RX 0 2.4 96 235.2 244.8 384 477.6 480
1060 RY 3 1 0.5 0 0 0.5 1 3
*

1061 KK 60i BASIN

```

1062 KM Subbasin at NEC of Camelback Rd. & 7th St.  
 1063 BA 0.500  
 1064 LG 0.78 0.25 4.80 0.37 33  
 1065 UC 0.895 0.672  
 1066 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1067 UA 100  
 \*

HEC-1 INPUT

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

1068 KK BD60gP RETRIEVE  
 1069 KM Retrieve diverted pipe flow from D60gP.  
 1070 DR D60gP  
 \*

1071 KK P60gS ROUTE  
 1072 KM Route pipe flow from Bethany/7th St. to Camelback/7th St.  
 1073 RK 5300 0.0053 0.015 CIRC 4.50  
 \*

1074 KK BD60gS RETRIEVE  
 1075 KM Retrieve diverted surface flow from D60gS.  
 1076 DR D60gS  
 \*

1077 KK R60gS ROUTE  
 1078 KM Route surface flow south from Subbasin 60g to Subbasin 60i.  
 1079 RS 5 FLOW -1  
 1080 RC 0.050 0.016 0.050 5280 0.0064  
 1081 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 1082 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1083 KK C60gS COMBINE  
 1084 KM Combine hydrographs R60gS and P60gS.  
 1085 HC 2 1.83  
 \*

1086 KK C60i COMBINE  
 1087 KM Combine hydrographs 60i, C60gS, and R56iW.  
 1088 HC 3 3.02  
 \*

1089 KK D60i DIVERT  
 1090 KM Divert 211 cfs into pipe.  
 1091 KM Total flow for two pipes is 211 cfs  
 1092 DT D60iP  
 1093 DI 0 100 211 10000  
 1094 DQ 0 100 211 211  
 \*

1095 KK D60iW DIVERT  
 1096 KM Divert surface flow to south.  
 1097 DT D60iS  
 1098 DI 0 100 1000 10000  
 1099 DQ 0 59 592 5916  
 \*

1100 KK R60iW ROUTE  
 1101 KM Route surface flow west from Subbasin 60i to Subbasin 64i.  
 1102 RS 4 FLOW -1  
 1103 RC 0.050 0.016 0.050 2640 0.0015  
 1104 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1105 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1106 KK BD64gP RETRIEVE  
 1107 KM Retrieve diverted pipe flow from D64gP.  
 1108 DR D64gP  
 \*

1109 KK P64gS ROUTE  
 1110 KM Route pipe flow from Bethany/Central Ave. to Camelback/Central Ave.  
 1111 RK 5300 0.0046 0.015 CIRC 5.00  
 \*

1112 KK BD64gS RETRIEVE  
 1113 KM Retrieve diverted surface flow from D64gS.  
 1114 DR D64gS  
 \*

1115 KK R64gS ROUTE  
 1116 KM Route surface flow south from Subbasin 64g to Subbasin 64i.  
 1117 RS 5 FLOW -1  
 1118 RC 0.050 0.016 0.050 5280 0.0061  
 1119 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 1120 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1121 KK C64gS COMBINE  
 1122 KM Combine hydrographs R64gS and P64gS.  
 1123 HC 2 3.10  
 \*

1124 KK 64i BASIN  
 1125 KM Subbasin at NEC of Camelback Rd. & Central Ave.  
 1126 BA 0.499  
 1127 LG 1.40 0.25 4.80 0.37 32  
 1128 UC 1.021 0.778  
 1129 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1130 UA 100  
 \*

1131 KK C64i COMBINE  
 1132 KM Combine hydrographs 64i, C64gS, and R60iW.  
 1133 HC 3 4.79  
 \*

1134 KK D64i DIVERT  
 1135 KM Divert 214 cfs into pipe.  
 1136 DT D64iP  
 1137 DI 0 100 214 10000  
 1138 DQ 0 100 214 214  
 \*

HEC-1 INPUT

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

1139 KK D64iW DIVERT  
 1140 KM Divert surface flow to south.  
 1141 DT D64iS  
 1142 DI 0 100 1000 10000  
 1143 DQ 0 61 610 6098  
 \*

1144 KK R64iW ROUTE  
 1145 KM Route surface flow west from Subbasin 64i to Subbasin 68i.  
 1146 RS 6 FLOW -1  
 1147 RC 0.050 0.016 0.050 2640 0.0010  
 1148 RX 0 1.6 64 156.8 163.2 256 318.4 320  
 1149 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1150 KK 68i BASIN  
 1151 KM Subbasin at NEC of Camelback Rd. & 7th Ave.  
 1152 BA 0.500  
 1153 LG 1.78 0.25 4.80 0.36 23  
 1154 UC 1.276 0.995  
 1155 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1156 UA 100  
 \*

1157 KK BD68gP RETRIEVE  
 1158 KM Retrieve diverted pipe flow from D68gP.  
 1159 DR D68gP  
 \*

1160 KK P68gS ROUTE  
 1161 KM Route pipe flow from Bethany/7th Ave. to Camelback/7th Ave.  
 1162 RK 5300 0.0043 0.015 CIRC 4.00  
 \*

1163 KK BD68gS RETRIEVE  
 1164 KM Retrieve diverted surface flow from D68gS.  
 1165 DR D68gS  
 \*

1166 KK R68gS ROUTE  
 1167 KM Route surface flow south from Subbasin 68g to Subbasin 68i.  
 1168 RS 4 FLOW -1  
 1169 RC 0.050 0.016 0.050 5280 0.0045  
 1170 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 1171 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1172 KK C68gS COMBINE  
 1173 KM Combine hydrographs R68gS and P68gS.  
 1174 HC 2 4.53  
 \*

HEC-1 INPUT

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

1175 KK C68i COMBINE  
 1176 KM Combine hydrographs 68i, C68gS, and R64iW.  
 1177 HC 3 6.72  
 \*

1178 KK BD72i RETRIEVE  
 1179 KM Retrieve diverted surface flow from D72i.  
 1180 DR D72i  
 \*

1181 KK B76iE RETRIEVE  
 1182 KM Retrieve diverted surface flow from D76iE.  
 1183 DR D76iE  
 \*

1184 KK R76iE ROUTE  
 1185 KM Route surface flow east from Subbasin 76i to Subbasin 72i.  
 1186 RS 4 FLOW -1  
 1187 RC 0.050 0.016 0.050 2640 0.0008  
 1188 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 1189 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1190 KK CC72i COMBINE  
 1191 KM Combine hydrographs R76iE and D72i.  
 1192 HC 2 8.68  
 \*

1193 KK D72iE DIVERT  
 1194 KM Divert surface flow to south.  
 1195 DT D72iS  
 1196 DI 0 100 1000 10000  
 1197 DQ 0 70 700 7000  
 \*

1198 KK R72iE ROUTE  
 1199 KM Route surface flow east from Subbasin 72i to Subbasin 68i.  
 1200 RS 5 FLOW -1  
 1201 RC 0.050 0.016 0.050 2640 0.0008  
 1202 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1203 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1204 KK CC68i COMBINE  
 1205 KM Combine hydrographs C68i and R72iE.  
 1206 HC 2 10.87  
 \*

1207 KK D68i DIVERT  
 1208 KM Divert 99 cfs into pipe.  
 1209 DT D68iP  
 1210 DI 0 99 1000 10000  
 1211 DQ 0 99 99 99  
 \*

HEC-1 INPUT

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

1212 KK R68iS ROUTE  
 1213 KM Route surface flow south from Subbasin 68i to Subbasin 68k.  
 1214 RS 3 FLOW -1  
 1215 RC 0.050 0.016 0.050 2000 0.0030  
 1216 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1217 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1218 KK BD68iP RETRIEVE  
 1219 KM Retrieve diverted pipe flow from D68iP.  
 1220 DR D68iP  
 \*

1221 KK P68iS ROUTE  
 1222 KM Route pipe flow from Camelback/7th Ave. to Grand Canal/7th Ave.  
 1223 RK 2400 0.0034 0.015 CIRC 4.50  
 \*

1224 KK C68iS COMBINE  
 1225 KM Combine hydrographs R68iS and P68iS.  
 1226 HC 2 10.87  
 \*

1227 KK 36i BASIN  
 1228 KM Subbasin at NEC of Camelback Rd. & 32nd St.  
 1229 BA 0.339  
 1230 LG 0.95 0.24 3.95 0.57 19  
 1231 UC 0.923 0.764  
 1232 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1233 UA 100  
 \*

1234 KK D36i DIVERT  
 1235 KM Divert 41 cfs into pipe.  
 1236 DT D36iP  
 1237 DI 0 41 1000 10000  
 1238 DQ 0 41 41 41  
 \*

1239 KK D36iW DIVERT  
 1240 KM Divert 84% surface flow to south.  
 1241 DT D36iS  
 1242 DI 0 100 1000 10000  
 1243 DQ 0 84 836 8357  
 \*

1244 KK R36iW ROUTE  
 1245 KM Route surface flow west from Subbasin 36i to Subbasin 40i.  
 1246 RS 5 FLOW -1  
 1247 RC 0.050 0.016 0.050 2610 0.0077  
 1248 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 1249 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1250 KK 40i BASIN  
 1251 KM Subbasin at NEC of Camelback Rd. & 28th St.  
 1252 BA 0.224  
 1253 LG 2.53 0.25 4.10 0.58 26  
 1254 UC 0.775 0.691  
 1255 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1256 UA 100  
 \*

1257 KK S40i STORAGE  
 1258 KM Online local Retention Basin, 11 ac-ft.  
 1259 RS 1 STOR 0  
 1260 SV 0 2.4 6.1 10.5 15.3  
 1261 SE 0 1 2 3 4  
 1262 SS 3 50 2.7 1.5  
 \*

1263 KK C40i COMBINE  
 1264 KM Combine hydrographs 40i and R36iW.  
 1265 HC 2 0.56  
 \*

1266 KK D40iW DIVERT  
 1267 KM Divert surface flow to south.  
 1268 DT D40iS  
 1269 DI 0 100 1000 10000  
 1270 DQ 0 76 759 7592  
 \*

1271 KK R40iW ROUTE  
 1272 KM Route surface flow west from Subbasin 40i to Subbasin 44i.  
 1273 RS 5 FLOW -1  
 1274 RC 0.050 0.016 0.050 2715 0.0059  
 1275 RX 0 0.5 20 49 51 80 99.5 100  
 1276 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1277 KK 44i BASIN  
 1278 KM Subbasin at NEC of Camelback Rd. & 24th St.  
 1279 BA 0.349  
 1280 LG 1.92 0.25 4.35 0.50 23  
 1281 UC 0.967 0.899  
 1282 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1283 UA 100  
 \*

1284	KK	42i	BASIN																	
1285	KM	Subbasin north of Biltmore & 28th St.																		
1286	BA	0.269																		
1287	LG	1.07	0.25	4.00	0.64	5														
1288	UC	0.770	0.585																	
1289	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0									
1290	UA	100																		
	*																			

1

HEC-1 INPUT

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

1291	KK	R42iW	ROUTE																	
1292	KM	Route surface flow west from Subbasin 42i to Subbasin 44i.																		
1293	RS	3	FLOW	-1																
1294	RC	0.050	0.016	0.050	2715	0.0059														
1295	RX	0	0.8	32	78.4	81.6	128	159.2	160											
1296	RY	3	1	0.5	0	0	0.5	1	3											
	*																			

1297	KK	C44i	COMBINE																	
1298	KM	Combine hydrographs 44i, R42iW, and R40iW.																		
1299	HC	3	1.18																	
	*																			

1300	KK	D44i	DIVERT																	
1301	KM	Divert 48 cfs into pipe.																		
1302	DT	D44iP																		
1303	DI	0	48	1000	10000															
1304	DQ	0	48	48	48															
	*																			

1305	KK	D44iW	DIVERT																	
1306	KM	Divert surface flow to south.																		
1307	DT	D44iS																		
1308	DI	0	100	1000	10000															
1309	DQ	0	50	496	4957															
	*																			

1310	KK	R44iW	ROUTE																	
1311	KM	Route surface flow west from Subbasin 44i to Subbasin 48i.																		
1312	RS	3	FLOW	-1																
1313	RC	0.050	0.016	0.050	2640	0.0053														
1314	RX	0	0.8	32	78.4	81.6	128	159.2	160											
1315	RY	3	1	0.5	0	0	0.5	1	3											
	*																			

1316	KK	48i	BASIN																	
1317	KM	Subbasin at NEC of Camelback Rd. & 20th St.																		
1318	BA	0.535																		
1319	LG	1.55	0.25	4.35	0.45	11														
1320	UC	1.059	0.849																	
1321	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0									
1322	UA	100																		
	*																			

1323	KK	C48i	COMBINE																	
1324	KM	Combine hydrographs 48i and R44iW.																		
1325	HC	2	1.72																	
	*																			

1

HEC-1 INPUT

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

1326	KK	D48i	DIVERT																	
1327	KM	Divert 47 cfs into pipe.																		
1328	DT	D48iP																		
1329	DI	0	47	1000	10000															
1330	DQ	0	47	47	47															
	*																			

1331	KK	D48iW	DIVERT																	
1332	KM	Divert surface flow to south.																		
1333	DT	D48iS																		
1334	DI	0	100	1000	10000															
1335	DQ	0	49	487	4872															
	*																			

1336	KK	R48iW	ROUTE																	
1337	KM	Route surface flow west from Subbasin 48i to Subbasin 52i.																		
1338	RS	3	FLOW	-1																
1339	RC	0.050	0.016	0.050	1660	0.0036														
1340	RX	0	1.35	54	132.3	137.7	216	268.65	270											
1341	RY	3	1	0.5	0	0	0.5	1	3											
	*																			

```

*
1342 KK BD48iP RETRIEVE
1343 KM Retrieve diverted pipe flow from D48iP.
1344 DR D48iP
*
1345 KK P48iW ROUTE
1346 KM Route pipe flow from Camelback/20th St. to Camelback/SR51.
1347 RK 1550 0.0043 0.015 CIRC 3.3
*
1348 KK C48iW COMBINE
1349 KM Combine hydrographs P48iW and R48iW.
1350 HC 2 1.72
*
1351 KK 52g BASIN
1352 KM Subbasin at NEC of Bethany Home & SR51.
1353 BA 0.265
1354 LG 1.71 0.25 4.15 0.51 13
1355 UC 0.735 0.459
1356 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1357 UA 100
*
1358 KK R52gS ROUTE
1359 KM Route surface flow south from Subbasin 52g to Subbasin 52i.
1360 RS 6 FLOW -1
1361 RC 0.050 0.016 0.050 5280 0.0087
1362 RX 0 1.8 72 176.4 183.6 288 358.2 360
1363 RY 3 1 0.5 0 0 0.5 1 3
*

```

HEC-1 INPUT

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

```

1364 KK 52i BASIN
1365 KM Subbasin at NEC of Camelback Rd. & SR51.
1366 BA 0.309
1367 LG 1.29 0.25 4.70 0.37 22
1368 UC 0.903 0.801
1369 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1370 UA 100
*

```

```

1371 KK C52i COMBINE
1372 KM Combine hydrographs 52i, R52gS, and C48iW.
1373 HC 3 2.29
*

```

```

1374 KK E52i DIVERT
1375 KM Divert flow into pipe for routing through offline detention basin.
1376 KM Pipe flow = 95 cfs
1377 DT DB52i
1378 DI 0 95 1000 10000
1379 DQ 0 0 905 9905
*

```

```

1380 KK BDB52iRETRIEVE
1381 KM Retrieve diverted surface flow from DB52i.
1382 DR DB52i
*

```

```

1383 KK S52i STORAGE
1384 KM Offline Regional Detention Basin, 27 ac-ft.
1385 RS 1 STOR 0
1386 SV 0 1 5 12 21 27 33
1387 SE 0 4 8 12 16 18 20
1388 SQ 0 43 60 74 86 91 860
*

```

```

1389 KK CC52i COMBINE
1390 KM Combine hydrographs B52i and S52i.
1391 HC 2 2.29
*

```

```

1392 KK D52i DIVERT
1393 KM Divert 95 cfs into pipe.
1394 DT D52iP
1395 DI 0 95 1000 10000
1396 DQ 0 95 95 95
*

```

```

1397 KK R52iS ROUTE

```

1398 KM Route surface flow south from Subbasin 52i to Subbasin 52k.  
 1399 RS 4 FLOW -1  
 1400 RC 0.050 0.016 0.050 5280 0.0038  
 1401 RX 0 0.5 20 49 51 80 99.5 100  
 1402 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1403 KK BD521P RETRIEVE  
 1404 KM Retrieve diverted pipe flow from D521P.  
 1405 DR D521P  
 \*  
 1406 KK P521S ROUTE  
 1407 KM Route pipe flow from Camelback/SR51. to Indian School/SR51.  
 1408 RK 5250 0.0031 0.015 CIRC 4.50  
 \*

1409 KK C521S COMBINE  
 1410 KM Combine hydrographs R521S and P521S.  
 1411 HC 2 2.29  
 \*

1412 KK 24k BASIN  
 1413 KM Subbasin at NEC of Indian School Rd. & 44th St.  
 1414 BA 0.192  
 1415 LG 0.60 0.25 4.60 0.40 23  
 1416 UC 0.692 0.553  
 1417 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1418 UA 100  
 \*

1419 KK D24kW DIVERT  
 1420 KM Divert surface flow to south.  
 1421 DT D24kS  
 1422 DI 0 100 1000 10000  
 1423 DQ 0 50 502 5018  
 \*

1424 KK R24kW ROUTE  
 1425 KM Route surface flow west from Subbasin 24k to Subbasin 28k.  
 1426 RS 4 FLOW -1  
 1427 RC 0.050 0.016 0.050 2640 0.0045  
 1428 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1429 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1430 KK ARC40 INFLOW  
 1431 KM Inflow from Arcadia area from 40th Street through storm drain system.  
 1432 KM Maximum flow 47 cfs.  
 1433 IN 60  
 1434 BA 0.1  
 1435 QI 0.0 0.1 0.2 0.5 1 1 1 1 1 1  
 1436 QI 1 1 2 47 16 5 2 1 1 1  
 1437 QI 1 1 0.5 0.1 0.0  
 \*

HEC-1 INPUT

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

1438 KK PARC40 ROUTE  
 1439 KM Route pipe flow from Arcadia to Indian School/40th St.  
 1440 RK 5400 0.0050 0.015 CIRC 4.00  
 \*

1441 KK 28k BASIN  
 1442 KM Subbasin at NEC of Indian School Rd. & 40th St.  
 1443 BA 0.428  
 1444 LG 1.19 0.25 4.60 0.40 22  
 1445 UC 0.937 0.710  
 1446 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1447 UA 100  
 \*

1448 KK C28k COMBINE  
 1449 KM Combine hydrographs 28k, PARC40, and R24kW.  
 1450 HC 3 0.72  
 \*

1451 KK D28k DIVERT  
 1452 KM Divert 131 cfs into pipe.  
 1453 DT D28kP

1454	DI	0	131	1000	10000						
1455	DQ	0	131	131	131						
	*										
1456	KK	D28kW	DIVERT								
1457	KM	Divert surface flow to south.									
1458	DT	D28kS									
1459	DI	0	100	1000	10000						
1460	DQ	0	42	424	4242						
	*										
1461	KK	R28kW	ROUTE								
1462	KM	Route surface flow west from Subbasin 28k to Subbasin 32k.									
1463	RS	4	FLOW	-1							
1464	RC	0.050	0.016	0.050	2640	0.0038					
1465	RX	0	1.85	74	181.3	188.7	296	368.15	370		
1466	RY	3	1	0.5	0	0	0.5	1	3		
	*										
1467	KK	32k	BASIN								
1468	KM	Subbasin at NEC of Indian School Rd. & 36th St.									
1469	BA	0.506									
1470	LG	1.88	0.25	4.50	0.43	21					
1471	UC	1.063	0.808								
1472	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
1473	UA	100									
	*										

HEC-1 INPUT

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

1474	KK	C32k	COMBINE								
1475	KM	Combine hydrographs 32k and R28kW.									
1476	HC	2	1.23								
	*										
1477	KK	D32k	DIVERT								
1478	KM	Divert 45 cfs into 48" pipe.									
1479	DT	D32kP									
1480	DI	0	45	1000	10000						
1481	DQ	0	45	45	45						
	*										
1482	KK	D32kW	DIVERT								
1483	KM	Divert surface flow to south.									
1484	DT	D32kS									
1485	DI	0	100	1000	10000						
1486	DQ	0	46	457	4571						
	*										
1487	KK	R32kW	ROUTE								
1488	KM	Route surface flow west from Subbasin 32k to Subbasin 36k.									
1489	RS	3	FLOW	-1							
1490	RC	0.050	0.016	0.050	2640	0.0045					
1491	RX	0	1.85	74	181.3	188.7	296	368.15	370		
1492	RY	3	1	0.5	0	0	0.5	1	3		
	*										
1493	KK	36k	BASIN								
1494	KM	Subbasin at NEC of Indian School Rd. & 32nd St.									
1495	BA	0.508									
1496	LG	1.39	0.25	4.65	0.39	24					
1497	UC	0.976	0.733								
1498	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
1499	UA	100									
	*										

1500	KK	BD36iP	RETRIEVE								
1501	KM	Retrieve diverted pipe flow from D36iP.									
1502	DR	D36iP									
	*										
1503	KK	P36iS	ROUTE								
1504	KM	Route pipe flow from Camelback/32nd St. to Indian School/32nd St.									
1505	RK	5350	0.0050	0.015		CIRC	3.0				
	*										
1506	KK	BD36iS	RETRIEVE								
1507	KM	Retrieve diverted surface flow from D36iS.									
1508	DR	D36iS									
	*										

HEC-1 INPUT

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

1509 KK R36iS ROUTE  
 1510 KM Route surface flow south from Subbasin 36i to Subbasin 36k.  
 1511 RS 6 FLOW -1  
 1512 RC 0.050 0.016 0.050 5280 0.0080  
 1513 RX 0 2.05 82 200.9 209.1 328 407.95 410  
 1514 RY 3 1 0.5 0 0 0.5 1 3

1515 KK C36iS COMBINE  
 1516 KM Combine hydrographs R36iS and P36iS.  
 1517 HC 2 0.34  
 \*

1518 KK C36k COMBINE  
 1519 KM Combine hydrographs 36k, C36iS, and R32kW.  
 1520 HC 3 2.07  
 \*

1521 KK D36k DIVERT  
 1522 KM Divert 59 cfs into pipe.  
 1523 DT D36kP  
 1524 DI 0 59 1000 10000  
 1525 DQ 0 59 59 59  
 \*

1526 KK D36kW DIVERT  
 1527 KM Divert surface flow to south.  
 1528 DT D36kS  
 1529 DI 0 100 1000 10000  
 1530 DQ 0 44 439 4394  
 \*

1531 KK R36kW ROUTE  
 1532 KM Route surface flow west from Subbasin 36k to Subbasin 40k.  
 1533 RS 3 FLOW -1  
 1534 RC 0.050 0.016 0.050 2640 0.0045  
 1535 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1536 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1537 KK BD40iS RETRIEVE  
 1538 KM Retrieve diverted surface flow from D40iS.  
 1539 DR D40iS  
 \*

1540 KK R40iS ROUTE  
 1541 KM Route surface flow south from Subbasin 40i to Subbasin 40k.  
 1542 RS 8 FLOW -1  
 1543 RC 0.050 0.016 0.050 5280 0.0068  
 1544 RX 0 1 40 98 102 160 199 200  
 1545 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1546 KK 40k BASIN  
 1547 KM Subbasin at NEC of Indian School Rd. & 28th St.  
 1548 BA 0.504  
 1549 LG 1.14 0.25 4.80 0.37 24  
 1550 UC 1.025 0.778  
 1551 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1552 UA 100  
 \*

1553 KK C40k COMBINE  
 1554 KM Combine hydrographs 40k, R40iS, and R36kW.  
 1555 HC 3 2.80  
 \*

1556 KK D40k DIVERT  
 1557 KM Divert 29 cfs into pipe.  
 1558 DT D40kP  
 1559 DI 0 29 100 1000 10000  
 1560 DQ 0 29 29 29 29  
 \*

1561 KK D40kW DIVERT  
 1562 KM Divert surface flow to south.  
 1563 DT D40kS  
 1564 DI 0 100 1000 10000  
 1565 DQ 0 42 421 4206  
 \*

1566 KK R40kW ROUTE

1567 KM Route surface flow west from Subbasin 40k to Subbasin 44k.  
 1568 RS 3 FLOW -1  
 1569 RC 0.050 0.016 0.050 2640 0.0053  
 1570 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1571 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1572 KK 44k BASIN  
 1573 KM Subbasin at NEC of Indian School Rd. & 24th St.  
 1574 BA 0.508  
 1575 LG 1.00 0.25 4.80 0.38 32  
 1576 UC 0.945 0.707  
 1577 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1578 UA 100  
 \*

1579 KK BD44iP RETRIEVE  
 1580 KM Retrieve diverted pipe flow from D44iP.  
 1581 DR D44iP  
 \*

HEC-1 INPUT

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

1582 KK P44iS ROUTE  
 1583 KM Route pipe flow from Camelback/24th St. to Indian School/24th St.  
 1584 RK 5300 0.0030 0.015 CIRC 3.50  
 \*

1585 KK BD44iS RETRIEVE  
 1586 KM Retrieve diverted surface flow from D44iS.  
 1587 DR D44iS  
 \*

1588 KK R44iS ROUTE  
 1589 KM Route surface flow south from Subbasin 44i to Subbasin 44k.  
 1590 RS 5 FLOW -1  
 1591 RC 0.050 0.016 0.050 5280 0.0064  
 1592 RX 0 0.5 20 49 51 80 99.5 100  
 1593 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1594 KK C44iS COMBINE  
 1595 KM Combine hydrographs R44iS and P44iS.  
 1596 HC 2 1.18  
 \*

1597 KK C44k COMBINE  
 1598 KM Combine hydrographs 44k, C44iS, and R40kW.  
 1599 HC 3 3.93  
 \*

1600 KK D44k DIVERT  
 1601 KM Divert 71 cfs into pipe.  
 1602 DT D44kP  
 1603 DI 0 71 1000 10000  
 1604 DQ 0 71 71 71  
 \*

1605 KK D44kW DIVERT  
 1606 KM Divert surface flow to south.  
 1607 DT D44kS  
 1608 DI 0 100 1000 10000  
 1609 DQ 0 38 380 3797  
 \*

1610 KK R44kW ROUTE  
 1611 KM Route surface flow west from Subbasin 44k to Subbasin 48k.  
 1612 RS 2 FLOW -1  
 1613 RC 0.050 0.016 0.050 2640 0.0045  
 1614 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1615 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1616 KK 48k BASIN  
 1617 KM Subbasin at NEC of Indian School Rd. & 20th St.  
 1618 BA 0.500  
 1619 LG 0.82 0.25 4.80 0.38 41  
 1620 UC 0.968 0.733  
 1621 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1622 UA 100

```

*
1623 KK S48k STORAGE
1624 KM Online Local Retention Basin, 2 ac-ft.
1625 RS 1 STOR 0
1626 SV 0 0.8 2 4
1627 SE 0 2 4 6
1628 SS 4 100 2.7 1.5
*

1629 KK BD48iS RETRIEVE
1630 KM Retrieve diverted surface flow from D48iS.
1631 DR D48iS
*

1632 KK R48iS ROUTE
1633 KM Route surface flow south from Subbasin 48i to Subbasin 48k.
1634 RS 6 FLOW -1
1635 RC 0.050 0.016 0.050 5280 0.0053
1636 RX 0 0.8 32 78.4 81.6 128 159.2 160
1637 RY 3 1 0.5 0 0 0.5 1 3
*

1638 KK C48k COMBINE
1639 KM Combine hydrographs S48k, R48iS, and R44kW.
1640 HC 3 4.96
*

1641 KK D48kW DIVERT
1642 KM Divert surface flow to south.
1643 DT D48kS
1644 DI 0 100 1000 10000
1645 DQ 0 45 448 4475
*

1646 KK R48kW ROUTE
1647 KM Route surface flow west from Subbasin 48k to Subbasin 52k.
1648 RS 2 FLOW -1
1649 RC 0.050 0.016 0.050 1625 0.0049
1650 RX 0 1.4 56 137.2 142.8 224 278.6 280
1651 RY 3 1 0.5 0 0 0.5 1 3
*

```

HEC-1 INPUT

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

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1652 KK 52k BASIN
1653 KM Subbasin at NEC of Indian School Rd. & SR51
1654 BA 0.295
1655 LG 0.59 0.25 4.80 0.37 31
1656 UC 1.000 0.921
1657 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1658 UA 100
*

1659 KK C52k COMBINE
1660 KM Combine hydrographs 52k, C52iS, and R48kW.
1661 HC 3 5.83
*

1662 KK D52k DIVERT
1663 KM Divert 201 cfs into pipe.
1664 DT D52kP
1665 DI 0 100 201 10000
1666 DQ 0 100 201 201
*

1667 KK D52kW DIVERT
1668 KM Divert surface flow to south.
1669 DT D52kS
1670 DI 0 100 1000 10000
1671 DQ 0 45 451 4513
*

1672 KK R52kW ROUTE
1673 KM Route surface flow west from Subbasin 52k to Subbasin 54k.
1674 RS 1 FLOW -1
1675 RC 0.050 0.016 0.050 1100 0.0026
1676 RX 0 0.8 32 78.4 81.6 128 159.2 160
1677 RY 3 1 0.5 0 0 0.5 1 3
*

1678 KK BD54iP RETRIEVE
1679 KM Retrieve diverted pipe flow from D54iP.
1680 DR D54iP

```

\*  
 1681 KK P54iS ROUTE  
 1682 KM Route pipe flow from Camelback/16th St. to Indian School/16th St.  
 1683 RK 5800 0.0030 0.015 CIRC 4.0  
 \*

1684 KK BD54iS RETRIEVE  
 1685 KM Retrieve diverted surface flow from D54iS.  
 1686 DR D54iS  
 \*

HEC-1 INPUT

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

1687 KK R54iS ROUTE  
 1688 KM Route surface flow south from Subbasin 54i to Subbasin 54k.  
 1689 RS 9 FLOW -1  
 1690 RC 0.050 0.016 0.050 5800 0.0034  
 1691 RX 0 0.5 20 49 51 80 99.5 100  
 1692 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1693 KK C54iS COMBINE  
 1694 KM Combine hydrographs R54iS and P54iS.  
 1695 HC 2 0.44  
 \*

1696 KK 54k BASIN  
 1697 KM Subbasin at NEC of Grand Canal & 16th St.  
 1698 BA 0.245  
 1699 LG 0.33 0.24 4.80 0.38 39  
 1700 UC 0.994 0.974  
 1701 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1702 UA 100  
 \*

1703 KK C54k COMBINE  
 1704 KM Combine hydrographs 54k, C54iS, and R52kW.  
 1705 HC 3 1.18  
 \*

1706 KK D54k DIVERT  
 1707 KM Divert 124 cfs into pipe.  
 1708 DT D54kP  
 1709 DI 0 100 124 10000  
 1710 DQ 0 100 124 124  
 \*

1711 KK D54kW DIVERT  
 1712 KM Divert surface flow to south.  
 1713 DT D54ks  
 1714 DI 0 37 118 382 658 1241  
 1715 DQ 0 0 40 207 393 800  
 \*

1716 KK R54kW ROUTE  
 1717 KM Route surface flow west from Subbasin 54k to Subbasin 56k.  
 1718 RS 7 FLOW -1  
 1719 RC 0.050 0.016 0.050 3500 0.0005  
 1720 RX 0 1.6 64 156.8 163.2 256 318.4 320  
 1721 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

1722 KK BD56iP RETRIEVE  
 1723 KM Retrieve diverted pipe flow from D56iP.  
 1724 DR D56iP  
 \*

1725 KK P56iS ROUTE  
 1726 KM Route pipe flow from Camelback/12th St. to Grand Canal/12th St.  
 1727 RK 3400 0.0031 0.015 CIRC 6.0  
 \*

1728 KK BD56iS RETRIEVE  
 1729 KM Retrieve diverted surface flow from D56iS.  
 1730 DR D56iS  
 \*

1731 KK R56iS ROUTE  
 1732 KM Route surface flow south from Subbasin 56i to Subbasin 56k.

1733	RS	9	FLOW	-1														
1734	RC	0.050	0.016	0.050	4200	0.0052												
1735	RX	0	1.05	42	102.9	107.1	168	208.95	210									
1736	RY	3	1	0.5	0	0	0.5	1	3									
	*																	
1737	KK	C56iS COMBINE																
1738	KM	Combine hydrographs R56iS and P56iS.																
1739	HC	2	1.62															
	*																	
1740	KK	56k	BASIN															
1741	KM	Subbasin at NEC of Grand Canal & 12th St.																
1742	BA	0.423																
1743	LG	0.90	0.24	4.80	0.38	34												
1744	UC	0.927	0.595															
1745	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0							
1746	UA	100																
	*																	
1747	KK	C56k COMBINE																
1748	KM	Combine hydrographs 56k, C56iS, and R54kW.																
1749	HC	3	2.78															
	*																	
1750	KK	BD60iP RETRIEVE																
1751	KM	Retrieve diverted pipe flow from D60iP.																
1752	DR	D60iP																
	*																	
1753	KK	D60iP1 DIVERT																
1754	KM	Divert flow into pipe.																
1755	KM	Total flow for two pipes is 211 cfs, and 143 cfs going to east (P2)																
1756	DT	D60iP2																
1757	DI	0	211	220														
1758	DQ	0	143	143														
	*																	

HEC-1 INPUT

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

1759	KK	P60iS1 ROUTE																
1760	KM	Route pipe flow from Camelback/7th St. to Grand Canal/7th St.																
1761	RK	2600	0.0031	0.015			CIRC	6.0										
	*																	
1762	KK	B60iP2 RETRIEVE																
1763	KM	Retrieve diverted pipe flow from D60iP2.																
1764	DR	D60iP2																
	*																	
1765	KK	P60iS2 ROUTE																
1766	KM	Route pipe flow from Camelback/12th St. to Grand Canal/12th St.																
1767	RK	2600	0.0031	0.015			CIRC	7.0										
	*																	
1768	KK	BD60iS RETRIEVE																
1769	KM	Retrieve diverted surface flow from D60iS.																
1770	DR	D60iS																
	*																	
1771	KK	R60iS ROUTE																
1772	KM	Route surface flow south from Subbasin 60i to Subbasin 60k.																
1773	RS	3	FLOW	-1														
1774	RC	0.050	0.016	0.050	3000	0.0047												
1775	RX	0	1.3	52	127.4	132.6	208	258.7	260									
1776	RY	3	1	0.5	0	0	0.5	1	3									
	*																	
1777	KK	C60iS COMBINE																
1778	KM	Combine hydrographs R60iS and P60iS.																
1779	HC	3	3.02															
	*																	
1780	KK	60k	BASIN															
1781	KM	Subbasin at NEC of Grand Canal & 7th St.																
1782	BA	0.266																
1783	LG	0.46	0.24	4.80	0.37	36												
1784	UC	0.875	0.657															
1785	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0							
1786	UA	100																
	*																	
1787	KK	C60k COMBINE																
1788	KM	Combine hydrographs 60k and C60iS.																

1789 HC 2 3.29  
 \*  
 1790 KK D60kP DIVERT  
 1791 KM Divert flow into pipe.  
 1792 KM Total pipe flow is 284 (P1 = 159, P2 = 125)cfs  
 1793 DT D60k  
 1794 DI 0 100 135 1000 10000  
 1795 DQ 0 0 0 865 9865  
 \*

HEC-1 INPUT

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

1796 KK D60kP1 DIVERT  
 1797 KM Divert flow into pipe.  
 1798 KM Flow for P1 = 10.0 cfs going east for storms greater than 2-year  
 1799 KM Minimum flow to east to keep the model working  
 1800 DT D60kP2  
 1801 DI 0 135 300  
 1802 DQ 0 125 290  
 \*

1803 KK P60kE ROUTE  
 1804 KM Route pipe flow from Grand Canal/7th St. to Grand Canal/12th St.  
 1805 RK 3000 0.0030 0.015 CIRC 7.0  
 \*

1806 KK CC56k COMBINE  
 1807 KM Combine hydrographs C56k and P60kE.  
 1808 HC 2 4.46  
 \*

1809 KK D56k DIVERT  
 1810 KM Divert 303 cfs into pipe.  
 1811 DT D56kP  
 1812 DI 0 100 303 10000  
 1813 DQ 0 100 303 303  
 \*

1814 KK D56kW DIVERT  
 1815 KM Divert surface flow to south.  
 1816 DT D56kS  
 1817 DI 0 73 124 325 649 1102  
 1818 DQ 0 0 24 157 393 734  
 \*

1819 KK R56kW ROUTE  
 1820 KM Route surface flow west from Subbasin 56k to Subbasin 60k.  
 1821 RS 5 FLOW -1  
 1822 RC 0.050 0.016 0.050 3000 0.0006  
 1823 RX 0 0.85 34 83.3 86.7 136 169.15 170  
 1824 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1825 KK BD60k RETRIEVE  
 1826 KM Retrieve diverted surface flow from D60k.  
 1827 DR D60k  
 \*

1828 KK CC60k COMBINE  
 1829 KM Combine hydrographs D60k and R56kW.  
 1830 HC 2 4.46  
 \*

HEC-1 INPUT

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

1831 KK D60kW DIVERT  
 1832 KM Divert surface flow to south.  
 1833 DT D60kS  
 1834 DI 0 49 106 362 554 788 1067  
 1835 DQ 0 0 36 235 390 583 814  
 \*

1836 KK R60kW ROUTE  
 1837 KM Route surface flow west from Subbasin 60k to Subbasin 64k.  
 1838 RS 6 FLOW -1  
 1839 RC 0.050 0.016 0.050 2800 0.0007  
 1840 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1841 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1842 KK 64k BASIN

1843 KM Subbasin at NEC of Grand Canal & Central Ave.  
 1844 BA 0.206  
 1845 LG 1.25 0.14 7.60 0.12 31  
 1846 UC 0.759 0.481  
 1847 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1848 UA 100  
 \*

1849 KK BD64iS RETRIEVE  
 1850 KM Retrieve diverted surface flow from D64iS.  
 1851 DR D64iS  
 \*

1852 KK R64iS ROUTE  
 1853 KM Route surface flow south from Subbasin 64i to Subbasin 64k.  
 1854 RS 3 FLOW -1  
 1855 RC 0.050 0.016 0.050 2130 0.0047  
 1856 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 1857 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1858 KK C64k COMBINE  
 1859 KM Combine hydrographs 64k, R64iS, and R60kW.  
 1860 HC 3 6.43  
 \*

1861 KK S64k STORAGE  
 1862 KM Online Regional Retention Basin, 12 ac-ft.  
 1863 RS 1 STOR 0  
 1864 SV 0 12 149  
 1865 SE 0 0.5 2.5  
 1866 SS 0.5 500 2.7 1.5  
 \*

1

HEC-1 INPUT

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

1867 KK BD64iP RETRIEVE  
 1868 KM Retrieve diverted pipe flow from D64iP.  
 1869 DR D64iP  
 \*

1870 KK P64iS ROUTE  
 1871 KM Route pipe flow from Camelback/Central Ave. to Grand Canal/Central Ave.  
 1872 RK 2000 0.0034 0.015 CIRC 6.0  
 \*

1873 KK CC64k COMBINE  
 1874 KM Combine hydrographs P64iS and S64i.  
 1875 HC 2 6.43  
 \*

1876 KK D64k DIVERT  
 1877 KM Divert 214 cfs into pipe.  
 1878 DT D64kP  
 1879 DI 0 100 214 10000  
 1880 DQ 0 100 214 214  
 \*

1881 KK D64kW DIVERT  
 1882 KM Divert surface flow to south.  
 1883 DT D64kS  
 1884 DI 0 138 214 344 519 1004  
 1885 DQ 0 0 38 125 251 617  
 \*

1886 KK R64kW ROUTE  
 1887 KM Route surface flow west from Subbasin 64k to Subbasin 68k.  
 1888 RS 3 FLOW -1  
 1889 RC 0.050 0.016 0.050 2800 0.0008  
 1890 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 1891 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1892 KK 68k BASIN  
 1893 KM Subbasin at NEC of Grand Canal & 7th Ave.  
 1894 BA 0.204  
 1895 LG 0.79 0.14 8.40 0.09 26  
 1896 UC 0.804 0.496  
 1897 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1898 UA 100  
 \*

1899 KK C68k COMBINE  
 1900 KM Combine hydrographs 68k, C68iS, and R64kW.

1901 HC 3 12.71  
\*

HEC-1 INPUT

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

1902 KK D68k DIVERT  
1903 KM Divert 114 cfs into pipe.  
1904 DT D68kP  
1905 DI 0 100 114 10000  
1906 DQ 0 100 114 114  
\*

1907 KK D68kW DIVERT  
1908 KM Divert surface flow to south.  
1909 DT D68kS  
1910 DI 0 49 105 209 352 747 1283  
1911 DQ 0 0 35 113 225 542 977  
\*

1912 KK R68kW ROUTE  
1913 KM Route surface flow west from Subbasin 68k to Subbasin 72k.  
1914 RS 4 FLOW -1  
1915 RC 0.050 0.016 0.050 3000 0.0007  
1916 RX 0 1.1 44 107.8 112.2 176 218.9 220  
1917 RY 3 1 0.5 0 0 0.5 1 3  
\*

1918 KK 72k BASIN  
1919 KM Subbasin at NEC of Grand Canal & 15th Ave.  
1920 BA 0.281  
1921 LG 0.66 0.14 8.40 0.09 27  
1922 UC 0.871 0.553  
1923 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
1924 UA 100  
\*

1925 KK S72k STORAGE  
1926 KM Online Local Retention Basin, 6 ac-ft.  
1927 RS 1 STOR 0  
1928 SV 0 6 12  
1929 SE 0 1 2  
1930 SS 1 400 2.7 1.5  
\*

1931 KK B72iP1 RETRIEVE  
1932 KM Retrieve diverted pipe flow from D72iP1.  
1933 DR D72iP1  
\*

1934 KK P72iS ROUTE  
1935 KM Route pipe flow from Camelback/15th Ave. to Grand Canal/15th Ave.  
1936 RK 3300 0.0024 0.015 CIRC 6.0  
\*

HEC-1 INPUT

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

1937 KK BD72iS RETRIEVE  
1938 KM Retrieve diverted surface flow from D72iS.  
1939 DR D72iS  
\*

1940 KK R72iS ROUTE  
1941 KM Route surface flow south from Subbasin 72i to Subbasin 72k.  
1942 RS 3 FLOW -1  
1943 RC 0.050 0.016 0.050 2900 0.0028  
1944 RX 0 1.05 42 102.9 107.1 168 208.95 210  
1945 RY 3 1 0.5 0 0 0.5 1 3  
\*

1946 KK C72iS COMBINE  
1947 KM Combine hydrographs P72iS and R72iS.  
1948 HC 2 8.68  
\*

1949 KK C72k COMBINE  
1950 KM Combine hydrographs S72k, C72iS, and R68kW.  
1951 HC 3 12.99  
\*

1952 KK CC72k COMBINE  
1953 KM Combine hydrographs D76kP2 and C72k.  
1954 HC 2 12.99

```

*
1955 KK D72k DIVERT
1956 KM Divert 281 cfs into pipe.
1957 DT D72kP
1958 DI 0 100 281 10000
1959 DQ 0 100 281 281
*

1960 KK D72kW DIVERT
1961 KM Divert surface flow to south.
1962 DT D72kS
1963 DI 0 51 99 186 460 860 1108
1964 DQ 0 0 29 95 314 642 847
*

1965 KK R72kW ROUTE
1966 KM Route surface flow west from Subbasin 72k to Subbasin 76k.
1967 RS 6 FLOW -1
1968 RC 0.050 0.016 0.050 2800 0.0004
1969 RX 0 1.1 44 107.8 112.2 176 218.9 220
1970 RY 3 1 0.5 0 0 0.5 1 3
*

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HEC-1 INPUT

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

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1971 KK B76k1 RETRIEVE
1972 KM Retrieve diverted surface flow from D76k1.
1973 DR D76k1
*

1974 KK CC76k COMBINE
1975 KM Combine hydrographs D76k1 and R72kW.
1976 HC 2 13.31
*

1977 KK D76k DIVERT
1978 KM Divert flow 43 (41% of 106) cfs into pipe.
1979 DT D76kP
1980 DI 0 43 100 1000 10000
1981 DQ 0 43 43 43 43
*

1982 KK D76kW DIVERT
1983 KM Divert surface flow to south.
1984 DT D76kS
1985 DI 0 28 132 348 669 1096
1986 DQ 0 0 76 253 519 877
*

1987 KK R76kW ROUTE
1988 KM Route surface flow west from Subbasin 76k to Subbasin 80k.
1989 RS 9 FLOW -1
1990 RC 0.050 0.016 0.050 3500 0.0003
1991 RX 0 1.35 54 132.3 137.7 216 268.65 270
1992 RY 3 1 0.5 0 0 0.5 1 3
*

1993 KK 80k BASIN
1994 KM Subbasin at NEC of Grand Canal & 23rd Ave.
1995 BA 0.428
1996 LG 0.47 0.15 8.40 0.09 26
1997 UC 0.899 0.592
1998 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1999 UA 100
*

2000 KK BD80i RETRIEVE
2001 KM Retrieve diverted surface flow from D80i.
2002 DR D80i
*

2003 KK R80iS ROUTE
2004 KM Route surface flow south from Subbasin 80i to Subbasin 80k.
2005 RS 2 FLOW -1
2006 RC 0.050 0.016 0.050 3500 0.0038
2007 RX 0 0.75 30 73.5 76.5 120 149.25 150
2008 RY 3 1 0.5 0 0 0.5 1 3
*

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HEC-1 INPUT

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

2009 KK B80kP1 RETRIEVE  
2010 KM Retrieve diverted pipe flow from D80kP1.  
2011 DR D80kP1  
\*

2012 KK C80k COMBINE  
2013 KM Combine hydrographs 80k,R80iS, and D80kP1.  
2014 HC 3 3.68  
\*

2015 KK D80k DIVERT  
2016 KM Divert 63 (59% of 106) cfs into pipe.  
2017 DT D80kP  
2018 DI 0 63 100 1000 10000  
2019 DQ 0 63 63 63 63  
\*

2020 KK CC80k COMBINE  
2021 KM Combine hydrographs R76kW and D80k.  
2022 HC 2 4.68  
\*

2023 KK D80kW DIVERT  
2024 KM Divert surface flow to south.  
2025 DT D80kS  
2026 DI 0 152 286 833 1526  
2027 DQ 0 0 41 316 721  
\*

2028 KK R80kW ROUTE  
2029 KM Route surface flow west from Subbasin 80k to Subbasin 84k.  
2030 RS 2 FLOW -1  
2031 RC 0.050 0.016 0.050 1500 0.0010  
2032 RX 0 1.85 74 181.3 188.7 296 368.15 370  
2033 RY 3 1 0.5 0 0 0.5 1 3  
\*

2034 KK 84k BASIN  
2035 KM Subbasin at NWC of Grand Canal & 23rd Ave.  
2036 BA 0.311  
2037 LG 0.57 0.15 8.40 0.09 35  
2038 UC 1.115 1.154  
2039 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2040 UA 100  
\*

2041 KK BD84iS RETRIEVE  
2042 KM Retrieve diverted surface flow from D84iS.  
2043 DR D84iS  
\*

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

2044 KK R84iS ROUTE  
2045 KM Route surface flow south from Subbasin 84i to Subbasin 84k.  
2046 RS 9 FLOW -1  
2047 RC 0.050 0.016 0.050 6900 0.0029  
2048 RX 0 0.75 30 73.5 76.5 120 149.25 150  
2049 RY 3 1 0.5 0 0 0.5 1 3  
\*

2050 KK C84k COMBINE  
2051 KM Combine hydrographs 84k, R84iS, and R80kW.  
2052 HC 3 4.99  
\*

2053 KK R84kS ROUTE  
2054 KM Route surface flow south from Subbasin 84k to Subbasin 84m.  
2055 RS 3 FLOW -1  
2056 RC 0.050 0.016 0.050 4570 0.0035  
2057 RX 0 0.5 20 49 51 80 99.5 100  
2058 RY 3 1 0.5 0 0 0.5 1 3  
\*

2059 KK 84m BASIN  
2060 KM Subbasin at NWC of Thomas Rd. & 23rd Ave.  
2061 BA 0.209  
2062 LG 0.24 0.15 9.70 0.06 24  
2063 UC 0.920 0.940  
2064 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2065 UA 100  
\*

2066 KK C84m COMBINE

2067 KM Combine hydrographs 84m and R84kS.  
 2068 HC 2 5.20  
 \*

2069 KK I17 BASIN  
 2070 KM Subbasin for I-17 from GC to ACDC.  
 2071 BA 0.293  
 2072 LG 0.10 0.25 4.80 0.25 99  
 2073 UC 0.698 0.691  
 2074 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2075 UA 100  
 \*

2076 KK D84m DIVERT  
 2077 KM Divert 249 cfs into pipe.  
 2078 DT D84mP  
 2079 DI 0 100 249 10000  
 2080 DQ 0 100 249 249  
 \*

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

2081 KK CC84m COMBINE  
 2082 KM Combine hydrographs C84m and D84m.  
 2083 HC 2 5.49  
 \*

2084 KK D84mE DIVERT  
 2085 KM Divert surface flow to south.  
 2086 DT D84mS  
 2087 DI 0 100 1000 10000  
 2088 DQ 0 38 384 3841  
 \*

2089 KK R84mE ROUTE  
 2090 KM Route surface flow east from Subbasin 84m to Subbasin 80m.  
 2091 RS 3 FLOW -1  
 2092 RC 0.050 0.016 0.050 2540 0.0008  
 2093 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2094 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2095 KK 80m BASIN  
 2096 KM Subbasin at NWC of Thomas Rd. & 19th Ave.  
 2097 BA 0.541  
 2098 LG 0.46 0.15 8.40 0.09 26  
 2099 UC 0.881 0.584  
 2100 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2101 UA 100  
 \*

2102 KK BD80kS RETRIEVE  
 2103 KM Retrieve diverted surface flow from D80kS.  
 2104 DR D80kS  
 \*

2105 KK R80kS ROUTE  
 2106 KM Route surface flow south from Subbasin 80k to Subbasin 80m.  
 2107 RS 3 FLOW -1  
 2108 RC 0.050 0.016 0.050 5900 0.0037  
 2109 RX 0 1 40 98 102 160 199 200  
 2110 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2111 KK C80m COMBINE  
 2112 KM Combine hydrographs R84mE, R80kS, and 80m.  
 2113 HC 3 6.03  
 \*

2114 KK D80mE DIVERT  
 2115 KM Divert surface flow to south.  
 2116 DT D80mS  
 2117 DI 0 100 1000 10000  
 2118 DQ 0 58 576 5763  
 \*

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

2119 KK R80mE ROUTE  
 2120 KM Route surface flow east from Subbasin 80m to Subbasin 76m.  
 2121 RS 3 FLOW -1  
 2122 RC 0.050 0.016 0.050 2640 0.0008

2123	RX	0	0.8	32	78.4	81.6	128	159.2	160		
2124	RY	3	1	0.5	0	0	0.5	1	3		
	*										
2125	KK	761	BASIN								
2126	KM	Subbasin at NEC of Indian School Rd. & 19th Ave.									
2127	BA	0.183									
2128	LG	0.66	0.15	8.80	0.07	22					
2129	UC	0.584	0.298								
2130	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
2131	UA	100									
	*										
2132	KK	BD80kP RETRIEVE									
2133	KM	Retrieve diverted pipe flow from D80kP.									
2134	DR	D80kP									
	*										
2135	KK	BD76kP RETRIEVE									
2136	KM	Retrieve diverted pipe flow from D76kP.									
2137	DR	D76kP									
	*										
2138	KK	C76kP COMBINE									
2139	KM	Combine hydrographs D76kP and D80kP.									
2140	HC	2	17.25								
	*										
2141	KK	P76kS ROUTE									
2142	KM	Route pipe flow from Subbasin 80k to Indian School/19th Ave.									
2143	RK	1600	0.0039	0.015	CIRC	4.5					
	*										
2144	KK	BD76kS RETRIEVE									
2145	KM	Retrieve diverted surface flow from D76kS.									
2146	DR	D76kS									
	*										
2147	KK	R76kS ROUTE									
2148	KM	Route surface flow south from Subbasin 76k to Subbasin 76l.									
2149	RS	1	FLOW	-1							
2150	RC	0.050	0.016	0.050	1700	0.0050					
2151	RX	0	1	40	98	102	160	199	200		
2152	RY	3	1	0.5	0	0	0.5	1	3		
	*										
			HEC-1 INPUT								
LINE	ID	.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10									
2153	KK	C76kS COMBINE									
2154	KM	Combine hydrographs P76kS and R76kS.									
2155	HC	2	4.68								
	*										
2156	KK	C76l COMBINE									
2157	KM	Combine hydrographs 76l and C76kS.									
2158	HC	2	4.86								
	*										
2159	KK	D76l DIVERT									
2160	KM	Divert 156 cfs into pipe.									
2161	DT	D76lP									
2162	DI	0	100	156	10000						
2163	DQ	0	100	156	156						
	*										
2164	KK	R76lS ROUTE									
2165	KM	Route surface flow south from Subbasin 76l to Subbasin 76m.									
2166	RS	3	FLOW	-1							
2167	RC	0.050	0.016	0.050	5280	0.0034					
2168	RX	0	1	40	98	102	160	199	200		
2169	RY	3	1	0.5	0	0	0.5	1	3		
	*										
2170	KK	BD76lP RETRIEVE									
2171	KM	Retrieve diverted pipe flow from D76lP.									
2172	DR	D76lP									
	*										
2173	KK	P76lS ROUTE									
2174	KM	Route pipe flow from Indian School/19th Ave. to Thomas/19th Ave.									
2175	RK	5300	0.0037	0.015	CIRC	5.25					
	*										
2176	KK	C76lS COMBINE									

2177 KM Combine hydrographs R761S and P761S.  
 2178 HC 2 4.86  
 \*

2179 KK 76m BASIN  
 2180 KM Subbasin at NWC of Thomas Rd. & 15th Ave.  
 2181 BA 0.492  
 2182 LG 0.60 0.15 8.80 0.07 24  
 2183 UC 0.883 0.581  
 2184 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2185 UA 100  
 \*

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

2186 KK S76m STORAGE  
 2187 KM Online Local Retention Basin, 0.5 ac-ft.  
 2188 RS 1 STOR 0  
 2189 SV 0 0.47 2.27  
 2190 SE 0 2 4  
 2191 SS 2 100 2.7 1.5  
 \*

2192 KK C76m COMBINE  
 2193 KM Combine hydrographs R80mE, S76m, and C761S.  
 2194 HC 3 6.71  
 \*

2195 KK D76mP DIVERT  
 2196 KM Divert flow into pipe.  
 2197 KM Total Pipe flow = 191 cfs (32 cfs to east, 159 cfs to south)  
 2198 DT D76m  
 2199 DI 0 100 191 1000 10000  
 2200 DQ 0 0 0 809 9809  
 \*

2201 KK D76mP1 DIVERT  
 2202 KM Divert flow into pipe.  
 2203 KM Total Pipe flow = 191 cfs (32 cfs to east, 159 cfs to south)  
 2204 DT D76mP2  
 2205 DI 0 191 200  
 2206 DQ 0 32 34  
 \*

2207 KK 721 BASIN  
 2208 KM Subbasin at NWC of Indian School Rd. & 7th Ave.  
 2209 BA 0.215  
 2210 LG 1.24 0.15 8.80 0.07 26  
 2211 UC 1.030 0.925  
 2212 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2213 UA 100  
 \*

2214 KK BD72kP RETRIEVE  
 2215 KM Retrieve diverted pipe flow from D72kP.  
 2216 DR D72kP  
 \*

2217 KK P72kS ROUTE  
 2218 KM Route pipe flow from Grand Canal/15th Ave. to Indian School/15th Ave.  
 2219 RK 2850 0.0031 0.015 CIRC 6.75  
 \*

2220 KK BD72kS RETRIEVE  
 2221 KM Retrieve diverted surface flow from D72kS.  
 2222 DR D72kS  
 \*

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HEC-1 INPUT

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

2223 KK R72kS ROUTE  
 2224 KM Route surface flow south from Subbasin 72k to Subbasin 721.  
 2225 RS 2 FLOW -1  
 2226 RC 0.050 0.016 0.050 2900 0.0034  
 2227 RX 0 0.5 20 49 51 80 99.5 100  
 2228 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2229 KK C72kS COMBINE  
 2230 KM Combine hydrographs R72kS and P72kS.  
 2231 HC 2 12.99  
 \*

```

2232 KK C721 COMBINE
2233 KM Combine hydrographs 721 and C72kS.
2234 HC 2 13.21
*

2235 KK D721 DIVERT
2236 KM Divert 305 cfs into pipe.
2237 DT D721P
2238 DI 0 100 305 10000
2239 DQ 0 100 305 305
*

2240 KK R721S ROUTE
2241 KM Route surface flow south from Subbasin 721 to Subbasin 72m.
2242 RS 3 FLOW -1
2243 RC 0.050 0.016 0.050 5280 0.0030
2244 RX 0 1.05 42 102.9 107.1 168 208.95 210
2245 RY 3 1 0.5 0 0 0.5 1 3
*

2246 KK BD721P RETRIEVE
2247 KM Retrieve diverted pipe flow from D721P.
2248 DR D721P
*

2249 KK P721S ROUTE
2250 KM Route pipe flow from Indian School/15th Ave. to Thomas/15th Ave.
2251 RK 5280 0.0045 0.015 CIRC 6.50
*

2252 KK C721S COMBINE
2253 KM Combine hydrographs R721S and P721S.
2254 HC 2 13.21
*

2255 KK 72m BASIN
2256 KM Subbasin at NWC of Thomas Rd. & 15th Ave.
2257 BA 0.468
2258 LG 0.31 0.15 8.80 0.08 27
2259 UC 0.985 0.726
2260 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
HEC-1 INPUT

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

2261 UA 100
*

2262 KK C72m COMBINE
2263 KM Combine hydrographs 72m, C721S, and D76mP1.
2264 HC 3 13.67
*

2265 KK 601 BASIN
2266 KM Subbasin at NEC of Indian School Rd. & 7th St.
2267 BA 0.234
2268 LG 0.37 0.25 4.80 0.37 30
2269 UC 0.892 0.655
2270 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
2271 UA 100
*

2272 KK B60kP2 RETRIEVE
2273 KM Retrieve diverted pipe flow from D60kP2.
2274 DR D60kP2
*

2275 KK P60kS ROUTE
2276 KM Route pipe flow from Grand Canal/7th St. to Indian School/7th St.
2277 RK 2750 0.0030 0.015 CIRC 4.50
*

2278 KK BD60kS RETRIEVE
2279 KM Retrieve diverted surface flow from D60kS.
2280 DR D60kS
*

2281 KK R60kS ROUTE
2282 KM Route surface flow south from Subbasin 60k to Subbasin 601.
2283 RS 2 FLOW -1
2284 RC 0.050 0.016 0.050 1855 0.0054
2285 RX 0 0.5 20 49 51 80 99.5 100
2286 RY 3 1 0.5 0 0 0.5 1 3
*

```

2287 KK C60kS COMBINE  
 2288 KM Combine hydrographs R60kS and P60kS.  
 2289 HC 2 4.46  
 \*

2290 KK C601 COMBINE  
 2291 KM Combine hydrographs C60kS and 601.  
 2292 HC 2 4.69  
 \*

HEC-1 INPUT

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

2293 KK D601 DIVERT  
 2294 KM Divert 93 cfs into pipe.  
 2295 DT D601P  
 2296 DI 0 93 1000 10000  
 2297 DQ 0 93 93 93  
 \*

2298 KK D601W DIVERT  
 2299 KM Divert surface flow to south.  
 2300 DT D601S  
 2301 DI 0 100 1000 10000  
 2302 DQ 0 73 727 7275  
 \*

2303 KK R601W ROUTE  
 2304 KM Route surface flow west from Subbasin 601 to Subbasin 641.  
 2305 RS 5 FLOW -1  
 2306 RC 0.050 0.016 0.050 2640 0.0008  
 2307 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 2308 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2309 KK 641 BASIN  
 2310 KM Subbasin at NEC of Indian School Rd. & Central Ave.  
 2311 BA 0.295  
 2312 LG 1.36 0.15 8.00 0.11 21  
 2313 UC 1.238 0.963  
 2314 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2315 UA 100  
 \*

2316 KK BD64kS RETRIEVE  
 2317 KM Retrieve diverted surface flow from D64kS.  
 2318 DR D64kS  
 \*

2319 KK R64kS ROUTE  
 2320 KM Route surface flow south from Subbasin 64k to Subbasin 641.  
 2321 RS 2 FLOW -1  
 2322 RC 0.050 0.016 0.050 2780 0.0043  
 2323 RX 0 0.5 20 49 51 80 99.5 100  
 2324 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2325 KK C641 COMBINE  
 2326 KM Combine hydrographs 641, R64kS, and R601W.  
 2327 HC 3 6.96  
 \*

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

2328 KK S641 STORAGE  
 2329 KM Online Regional Retention Basin, 35 ac-ft.  
 2330 RS 1 STOR 0  
 2331 SV 0 35 92  
 2332 SE 0 2 4  
 2333 SS 2 900 2.7 1.5  
 \*

2334 KK BD64kP RETRIEVE  
 2335 KM Retrieve diverted pipe flow from D64kP.  
 2336 DR D64kP  
 \*

2337 KK P64kS ROUTE  
 2338 KM Route pipe flow from Grand Canal/Central Ave. to Indian School/Central Ave.  
 2339 RK 3300 0.0034 0.015 CIRC 6.00  
 \*

2340 KK CC641 COMBINE

2341	KM	Combine hydrographs S641 and P64kS.
2342	HC	2 6.96
	*	
2343	KK	D641 DIVERT
2344	KM	Divert 303 cfs into pipe.
2345	DT	D641P
2346	DI	0 100 303 10000
2347	DQ	0 100 303 303
	*	
2348	KK	D641W DIVERT
2349	KM	Divert surface flow to south.
2350	DT	D641S
2351	DI	0 100 1000 10000
2352	DQ	0 86 856 8565
	*	
2353	KK	R641W ROUTE
2354	KM	Route surface flow west from Subbasin 641 to Subbasin 681.
2355	RS	5 FLOW -1
2356	RC	0.050 0.016 0.050 2980 0.0004
2357	RX	0 0.5 20 49 51 80 99.5 100
2358	RY	3 1 0.5 0 0 0.5 1 3
	*	
2359	KK	681 BASIN
2360	KM	Subbasin at NEC of Indian School Rd. & 7th Ave.
2361	BA	0.317
2362	LG	0.59 0.15 8.80 0.07 26
2363	UC	1.032 0.848
2364	UA	0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
2365	UA	100
	*	

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LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
2366	KK BD68kP RETRIEVE
2367	KM Retrieve diverted pipe flow from D68kP.
2368	DR D68kP
	*
2369	KK P68kS ROUTE
2370	KM Route pipe flow from Grand Canal/7th Ave. to Indian School/7th Ave.
2371	RK 2900 0.0034 0.015 CIRC 4.75
	*
2372	KK BD68kS RETRIEVE
2373	KM Retrieve diverted surface flow from D68kS.
2374	DR D68kS
	*
2375	KK R68kS ROUTE
2376	KM Route surface flow south from Subbasin 68k to Subbasin 681.
2377	RS 2 FLOW -1
2378	RC 0.050 0.016 0.050 3290 0.0036
2379	RX 0 0.5 20 49 51 80 99.5 100
2380	RY 3 1 0.5 0 0 0.5 1 3
	*
2381	KK C68kS COMBINE
2382	KM Combine hydrographs R68kS and P68kS.
2383	HC 2 12.71
	*
2384	KK C681 COMBINE
2385	KM Combine hydrographs 681, C68kS, and R641W.
2386	HC 3 13.56
	*
2387	KK D681 DIVERT
2388	KM Divert 114 cfs into pipe.
2389	DT D681P
2390	DI 0 100 114 10000
2391	DQ 0 100 114 114
	*
2392	KK R681S ROUTE
2393	KM Route surface flow south from Subbasin 681 to Subbasin 68m.
2394	RS 4 FLOW -1
2395	RC 0.050 0.016 0.050 5235 0.0027
2396	RX 0 1.3 52 127.4 132.6 208 258.7 260
2397	RY 3 1 0.5 0 0 0.5 1 3
	*

2398 KK BD681P RETRIEVE  
 2399 KM Retrieve diverted pipe flow from D681P.  
 2400 DR D681P  
 \*

HEC-1 INPUT

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

2401 KK P681S ROUTE  
 2402 KM Route pipe flow from Indian School/7th Ave. to Thomas/7th Ave.  
 2403 RK 5300 0.0034 0.015 CIRC 4.75  
 \*

2404 KK C681S COMBINE  
 2405 KM Combine hydrographs R681S and P681S.  
 2406 HC 2 13.56  
 \*

2407 KK 24m BASIN  
 2408 KM Subbasin at NEC of Thomas Rd. & 44th St.  
 2409 BA 0.502  
 2410 LG 1.65 0.25 4.80 0.38 24  
 2411 UC 1.028 0.782  
 2412 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2413 UA 100  
 \*

2414 KK S24m STORAGE  
 2415 KM Online Local Retention Basin, 0.5 ac-ft.  
 2416 RS 1 STOR 0  
 2417 SV 0 0.5 1.2  
 2418 SE 0 2 4  
 2419 SS 2 100 2.7 1.5  
 \*

2420 KK BD24kS RETRIEVE  
 2421 KM Retrieve diverted surface flow from D24kS.  
 2422 DR D24kS  
 \*

2423 KK R24kS ROUTE  
 2424 KM Route surface flow south from Subbasin 24k to Subbasin 24m.  
 2425 RS 6 FLOW -1  
 2426 RC 0.050 0.016 0.050 5280 0.0087  
 2427 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 2428 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2429 KK C24m COMBINE  
 2430 KM Combine hydrographs S24m and R24kS.  
 2431 HC 2 0.69  
 \*

2432 KK D24mW DIVERT  
 2433 KM Divert surface flow to south.  
 2434 DT D24mS  
 2435 DI 0 100 1000 10000  
 2436 DQ 0 43 428 4278  
 \*

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

2437 KK R24mW ROUTE  
 2438 KM Route surface flow west from Subbasin 24m to Subbasin 28m.  
 2439 RS 3 FLOW -1  
 2440 RC 0.050 0.016 0.050 2840 0.0045  
 2441 RX 0 1.8 72 176.4 183.6 288 358.2 360  
 2442 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2443 KK 28m BASIN  
 2444 KM Subbasin at NEC of Thomas Rd. & 40th St.  
 2445 BA 0.508  
 2446 LG 1.85 0.25 4.80 0.36 22  
 2447 UC 1.062 0.805  
 2448 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2449 UA 100  
 \*

2450 KK BD28kP RETRIEVE  
 2451 KM Retrieve diverted pipe flow from D28kP.  
 2452 DR D28kP

\*  
 2453 KK P28kS ROUTE  
 2454 KM Route pipe flow from Indian School/40th St. to Thomas/40th St.  
 2455 RK 5300 0.0059 0.015 CIRC 4.50  
 \*

2456 KK BD28kS RETRIEVE  
 2457 KM Retrieve diverted surface flow from D28kS.  
 2458 DR D28kS  
 \*

2459 KK R28kS ROUTE  
 2460 KM Route surface flow south from Subbasin 28k to Subbasin 28m.  
 2461 RS 6 FLOW -1  
 2462 RC 0.050 0.016 0.050 5280 0.0076  
 2463 RX 0 1 40 98 102 160 199 200  
 2464 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2465 KK C28kS COMBINE  
 2466 KM Combine hydrographs R28kS and P28kS.  
 2467 HC 2 0.72  
 \*

2468 KK C28m COMBINE  
 2469 KM Combine hydrographs 28m, C28kS, and R24mW.  
 2470 HC 3 1.73  
 \*

HEC-1 INPUT

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

2471 KK D28m DIVERT  
 2472 KM Divert 211 cfs into pipe.  
 2473 DT D28mP  
 2474 DI 0 100 211 10000  
 2475 DQ 0 100 211 211  
 \*

2476 KK D28mW DIVERT  
 2477 KM Divert surface flow to south.  
 2478 DT D28mS  
 2479 DI 0 100 1000 10000  
 2480 DQ 0 44 443 4427  
 \*

2481 KK R28mW ROUTE  
 2482 KM Route surface flow west from Subbasin 28m to Subbasin 32m.  
 2483 RS 3 FLOW -1  
 2484 RC 0.050 0.016 0.050 2640 0.0038  
 2485 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2486 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2487 KK 32m BASIN  
 2488 KM Subbasin at NEC of Thomas Rd. & 36th St.  
 2489 BA 0.514  
 2490 LG 1.32 0.25 4.80 0.36 27  
 2491 UC 0.970 0.723  
 2492 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2493 UA 100  
 \*

2494 KK S32m STORAGE  
 2495 KM Online Local Retention Basin, 0.6 ac-ft.  
 2496 RS 1 STOR 0  
 2497 SV 0 0.2 0.6 1.2  
 2498 SE 0 2 4 6  
 2499 SS 4 50 2.7 1.5  
 \*

2500 KK BD32kP RETRIEVE  
 2501 KM Retrieve diverted pipe flow from D32kP.  
 2502 DR D32kP  
 \*

2503 KK P32kS ROUTE  
 2504 KM Route pipe flow from Indian School/36th St. to Thomas/36th St.  
 2505 RK 5400 0.0044 0.015 CIRC 4.00  
 \*

HEC-1 INPUT

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

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2506 KK BD32kS RETRIEVE
2507 KM Retrieve diverted surface flow from D32kS.
2508 DR D32kS
*

2509 KK R32kS ROUTE
2510 KM Route surface flow south from Subbasin 32k to Subbasin 32m.
2511 RS 6 FLOW -1
2512 RC 0.050 0.016 0.050 5280 0.0076
2513 RX 0 1.05 42 102.9 107.1 168 208.95 210
2514 RY 3 1 0.5 0 0 0.5 1 3
*

2515 KK C32kS COMBINE
2516 KM Combine hydrographs R32kS and P32kS.
2517 HC 2 1.23
*

2518 KK C32m COMBINE
2519 KM Combine hydrographs S32m, C32kS, and R28mW.
2520 HC 3 2.75
*

2521 KK D32m DIVERT
2522 KM Divert 66 cfs into 54" pipe.
2523 DT D32mP
2524 DI 0 66 1000 10000
2525 DQ 0 66 66 66
*

2526 KK D32mW DIVERT
2527 KM Divert surface flow to south.
2528 DT D32mS
2529 DI 0 100 1000 10000
2530 DQ 0 43 430 4300
*

2531 KK R32mW ROUTE
2532 KM Route surface flow west from Subbasin 32m to Subbasin 36m.
2533 RS 2 FLOW -1
2534 RC 0.050 0.016 0.050 2640 0.0023
2535 RX 0 1.35 54 132.3 137.7 216 268.65 270
2536 RY 3 1 0.5 0 0 0.5 1 3
*

2537 KK 36m BASIN
2538 KM Subbasin at NEC of Thomas Rd. & 32nd St.
2539 BA 0.514
2540 LG 1.59 0.25 4.80 0.36 25
2541 UC 1.086 0.820
2542 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
2543 UA 100
*

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

2544 KK BD36kP RETRIEVE
2545 KM Retrieve diverted pipe flow from D36kP.
2546 DR D36kP
*

2547 KK P36kS ROUTE
2548 KM Route pipe flow from Indian School/32nd St. to Thomas/32nd St.
2549 RK 5300 0.0046 0.015 CIRC 3.50
*

2550 KK BD36kS RETRIEVE
2551 KM Retrieve diverted surface flow from D36kS.
2552 DR D36kS
*

2553 KK R36kS ROUTE
2554 KM Route surface flow south from Subbasin 36k to Subbasin 36m.
2555 RS 3 FLOW -1
2556 RC 0.050 0.016 0.050 5280 0.0068
2557 RX 0 0.8 32 78.4 81.6 128 159.2 160
2558 RY 3 1 0.5 0 0 0.5 1 3
*

2559 KK C36kS COMBINE
2560 KM Combine hydrographs R36kS and P36kS.
2561 HC 2 2.07
*

```

2562 KK C36m COMBINE  
 2563 KM Combine hydrographs 36m, C36kS, and R32mW.  
 2564 HC 3 4.11  
 \*  
 2565 KK D36m DIVERT  
 2566 KM Divert 114 cfs into pipe.  
 2567 DT D36mP  
 2568 DI 0 100 114 10000  
 2569 DQ 0 100 114 114  
 \*  
 2570 KK D36mW DIVERT  
 2571 KM Divert surface flow to south.  
 2572 DT D36mS  
 2573 DI 0 100 1000 10000  
 2574 DQ 0 48 480 4800  
 \*  
 2575 KK R36mW ROUTE  
 2576 KM Route surface flow west from Subbasin 36m to Subbasin 40m.  
 2577 RS 2 FLOW -1  
 2578 RC 0.050 0.016 0.050 2640 0.0045  
 2579 RX 0 1.9 76 186.2 193.8 304 378.1 380  
 2580 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

2581 KK 40m BASIN  
 2582 KM Subbasin at NEC of Thomas Rd. & 28th St.  
 2583 BA 0.511  
 2584 LG 0.85 0.25 4.80 0.36 29  
 2585 UC 0.923 0.686  
 2586 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2587 UA 100  
 \*

2588 KK BD40kP RETRIEVE  
 2589 KM Retrieve diverted pipe flow from D40kP.  
 2590 DR D40kP  
 \*

2591 KK P40kS ROUTE  
 2592 KM Route pipe flow from Indian School/28th St. to Thomas/28th St.  
 2593 RK 5400 0.0041 0.015 CIRC 3.0  
 \*

2594 KK BD40kS RETRIEVE  
 2595 KM Retrieve diverted surface flow from D40kS.  
 2596 DR D40kS  
 \*

2597 KK R40kS ROUTE  
 2598 KM Route surface flow south from Subbasin 40k to Subbasin 40m.  
 2599 RS 5 FLOW -1  
 2600 RC 0.050 0.016 0.050 5280 0.0068  
 2601 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 2602 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2603 KK C40kS COMBINE  
 2604 KM Combine hydrographs R40kS and P40kS.  
 2605 HC 2 2.80  
 \*

2606 KK C40m COMBINE  
 2607 KM Combine hydrographs 40m, C40kS, and R36mW.  
 2608 HC 3 5.35  
 \*

2609 KK D40m DIVERT  
 2610 KM Divert 66 cfs flow into pipe.  
 2611 DT D40mP  
 2612 DI 0 66 500 1000  
 2613 DQ 0 66 66 66  
 \*

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

2614 KK D40mW DIVERT

```

2615      KM      Divert surface flow to south.
2616      DT      D40mS
2617      DI          0      100      1000      10000
2618      DQ          0      43      430      4300
          *

2619      KK      R40mW  ROUTE
2620      KM      Route surface flow west from Subbasin 40m to Subbasin 44m.
2621      RS          3      FLOW      -1
2622      RC      0.050  0.016  0.050  2640  0.0045
2623      RX          0      1.9      76  186.2  193.8      304  378.1      380
2624      RY          3      1      0.5      0      0      0.5      1      3
          *

2625      KK          44m  BASIN
2626      KM      Subbasin at NEC of Thomas Rd. & 24th St.
2627      BA      0.504
2628      LG          1.28  0.25  4.80  0.37  27
2629      UC          1.014  0.768
2630      UA          0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
2631      UA          100
          *

2632      KK      BD44kP RETRIEVE
2633      KM      Retrieve diverted pipe flow from D44kP.
2634      DR      D44kP
          *

2635      KK      P44kS  ROUTE
2636      KM      Route pipe flow from Indian School/24th St. to Thomas/24th St.
2637      RK      5300  0.0033  0.015      CIRC  4.00
          *

2638      KK      BD44kS RETRIEVE
2639      KM      Retrieve diverted surface flow from D44kS.
2640      DR      D44kS
          *

2641      KK      R44kS  ROUTE
2642      KM      Route surface flow south from Subbasin 44k to Subbasin 44m.
2643      RS          3      FLOW      -1
2644      RC      0.050  0.016  0.050  5280  0.0064
2645      RX          0      0.75  30  73.5  76.5      120  149.25  150
2646      RY          3      1      0.5      0      0      0.5      1      3
          *

2647      KK      C44kS COMBINE
2648      KM      Combine hydrographs R44kS and P44kS.
2649      HC          2      3.93
          *

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

2650      KK      C44m COMBINE
2651      KM      Combine hydrographs 44m, C44kS, and R40mW.
2652      HC          3      6.98
          *

2653      KK      D44m DIVERT
2654      KM      Divert 124 cfs into pipe.
2655      DT      D44mP
2656      DI          0      100      124  10000
2657      DQ          0      100      124  124
          *

2658      KK      D44mW DIVERT
2659      KM      Divert surface flow to south.
2660      DT      D44mS
2661      DI          0      100      1000  10000
2662      DQ          0      42      424  4242
          *

2663      KK      R44mW  ROUTE
2664      KM      Route surface flow west from Subbasin 44m to Subbasin 48m.
2665      RS          2      FLOW      -1
2666      RC      0.050  0.016  0.050  2700  0.0023
2667      RX          0      2.1      84  205.8  214.2      336  417.9  420
2668      RY          3      1      0.5      0      0      0.5      1      3
          *

2669      KK          24o  BASIN
2670      KM      Subbasin at NEC of McDowell Rd. & 44th St.
2671      BA      0.504
2672      LG          1.13  0.25  4.80  0.37  30

```

2673 UC 1.025 0.777  
 2674 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2675 UA 100  
 \*

2676 KK BD24mS RETRIEVE  
 2677 KM Retrieve diverted surface flow from D24mS.  
 2678 DR D24mS  
 \*

2679 KK R24mS ROUTE  
 2680 KM Route surface flow south from Subbasin 24m to Subbasin 24o.  
 2681 RS 5 FLOW -1  
 2682 RC 0.050 0.016 0.050 5280 0.0061  
 2683 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2684 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

2685 KK C24o COMBINE  
 2686 KM Combine hydrographs 24o and R24mS.  
 2687 HC 2 1.20  
 \*

2688 KK D24o DIVERT  
 2689 KM Divert 48 cfs into pipe.  
 2690 DT D24oP  
 2691 DI 0 48 1000 10000  
 2692 DQ 0 48 48 48  
 \*

2693 KK D24oW DIVERT  
 2694 KM Divert surface flow to south.  
 2695 DT D24oS  
 2696 DI 0 100 1000 10000  
 2697 DQ 0 38 378 3782  
 \*

2698 KK R24oW ROUTE  
 2699 KM Route surface flow west from Subbasin 24o to Subbasin 28o.  
 2700 RS 2 FLOW -1  
 2701 RC 0.050 0.016 0.050 2640 0.0053  
 2702 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 2703 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2704 KK 28o BASIN  
 2705 KM Subbasin at NEC of McDowell Rd. & 40th St.  
 2706 BA 0.500  
 2707 LG 1.64 0.25 4.80 0.36 23  
 2708 UC 1.139 0.878  
 2709 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2710 UA 100  
 \*

2711 KK BD28mP RETRIEVE  
 2712 KM Retrieve diverted pipe flow from D28mP.  
 2713 DR D28mP  
 \*

2714 KK P28mS ROUTE  
 2715 KM Route pipe flow from Thomas/40th St. to McDowell/40th St.  
 2716 RK 5280 0.0033 0.015 CTIRC 6.00  
 \*

2717 KK BD28mS RETRIEVE  
 2718 KM Retrieve diverted surface flow from D28mS.  
 2719 DR D28mS  
 \*

HEC-1 INPUT

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

2720 KK R28mS ROUTE  
 2721 KM Route surface flow south from Subbasin 28m to Subbasin 28o.  
 2722 RS 5 FLOW -1  
 2723 RC 0.050 0.016 0.050 5280 0.0061  
 2724 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 2725 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2726 KK C28mS COMBINE

2727 KM Combine hydrographs R28mS and P28mS.  
2728 HC 2 1.73  
\*

2729 KK C28o COMBINE  
2730 KM Combine hydrographs 28o, C28mS, and R24oW.  
2731 HC 3 2.73  
\*

2732 KK D28o DIVERT  
2733 KM Divert 367 cfs into pipe.  
2734 DT D28oP  
2735 DI 0 100 367 10000  
2736 DQ 0 100 367 367  
\*

2737 KK D28oW DIVERT  
2738 KM Divert surface flow to south.  
2739 DT D28oS  
2740 DI 0 100 1000 10000  
2741 DQ 0 42 419 4194  
\*

2742 KK R28oW ROUTE  
2743 KM Route surface flow west from Subbasin 28o to Subbasin 32o.  
2744 RS 3 FLOW -1  
2745 RC 0.050 0.016 0.050 2640 0.0038  
2746 RX 0 1.85 74 181.3 188.7 296 368.15 370  
2747 RY 3 1 0.5 0 0 0.5 1 3  
\*

2748 KK 32o BASIN  
2749 KM Subbasin at NEC of McDowell Rd. & 36th St.  
2750 BA 0.500  
2751 LG 1.19 0.25 4.80 0.37 26  
2752 UC 1.026 0.782  
2753 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2754 UA 100  
\*

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

2755 KK BD32mS RETRIEVE  
2756 KM Retrieve diverted surface flow from D32mS.  
2757 DR D32mS  
\*

2758 KK R32mS ROUTE  
2759 KM Route surface flow south from Subbasin 32m to Subbasin 32o.  
2760 RS 3 FLOW -1  
2761 RC 0.050 0.016 0.050 5280 0.0061  
2762 RX 0 1 40 98 102 160 199 200  
2763 RY 3 1 0.5 0 0 0.5 1 3  
\*

2764 KK BD32mP RETRIEVE  
2765 KM Retrieve diverted pipe flow from D32mP.  
2766 DR D32mP  
\*

2767 KK P32mS ROUTE  
2768 KM Route pipe flow from Thomas/36th St. to McDowell/36nd St.  
2769 RK 5280 0.0060 0.015 CIRC 4.5  
\*

2770 KK C32mS COMBINE  
2771 KM Combine hydrographs P32mW and R32mS.  
2772 HC 2 2.75  
\*

2773 KK C32o COMBINE  
2774 KM Combine hydrographs 32o, C32mS, and R28oW.  
2775 HC 3 4.25  
\*

2776 KK D32o DIVERT  
2777 KM Divert 160 cfs flow into 72" pipe (south).  
2778 DT D32oP  
2779 DI 0 160 1000 10000  
2780 DQ 0 160 160 160  
\*

2781 KK D32oW DIVERT  
2782 KM Divert surface flow to south.

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2783 DT D32oS
2784 DI 0 100 1000 10000
2785 DQ 0 44 442 4415
*

2786 KK R32oW ROUTE
2787 KM Route surface flow west from Subbasin 32o to Subbasin 36o.
2788 RS 3 FLOW -1
2789 RC 0.050 0.016 0.050 2640 0.0030
2790 RX 0 0.8 32 78.4 81.6 128 159.2 160
2791 RY 3 1 0.5 0 0 0.5 1 3
*

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HEC-1 INPUT

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

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2792 KK 36o BASIN
2793 KM Subbasin at NEC of McDowell Rd. & 32nd St.
2794 BA 0.500
2795 LG 0.66 0.25 4.80 0.36 24
2796 UC 0.968 0.732
2797 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
2798 UA 100
*

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2799 KK BD36mP RETRIEVE
2800 KM Retrieve diverted pipe flow from D36mP.
2801 DR D36mP
*

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```

2802 KK P36mS ROUTE
2803 KM Route pipe flow from Thomas/32nd St. to McDowell/32nd St.
2804 RK 5300 0.0045 0.015 CIRC 4.50
*

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```

2805 KK BD36mS RETRIEVE
2806 KM Retrieve diverted surface flow from D36mS.
2807 DR D36mS
*

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2808 KK R36mS ROUTE
2809 KM Route surface flow south from Subbasin 36m to Subbasin 36o.
2810 RS 4 FLOW -1
2811 RC 0.050 0.016 0.050 5280 0.0057
2812 RX 0 1.25 50 122.5 127.5 200 248.75 250
2813 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

2814 KK C36mS COMBINE
2815 KM Combine hydrographs R36mS and P36mS.
2816 HC 2 4.11
*

```

```

2817 KK C36o COMBINE
2818 KM Combine hydrographs 36o, C36mS, and R32oW.
2819 HC 3 6.12
*

```

```

2820 KK D36o DIVERT
2821 KM Divert 139 cfs into pipe.
2822 DT D36oP
2823 DI 0 100 139 10000
2824 DQ 0 100 139 139
*

```

HEC-1 INPUT

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

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2825 KK D36oW DIVERT
2826 KM Divert surface flow to south.
2827 DT D36oS
2828 DI 0 100 1000 10000
2829 DQ 0 43 430 4300
*

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```

2830 KK R36oW ROUTE
2831 KM Route surface flow west from Subbasin 36o to Subbasin 40o.
2832 RS 3 FLOW -1
2833 RC 0.050 0.016 0.050 2000 0.0022
2834 RX 0 1.65 66 161.7 168.3 264 328.35 330
2835 RY 3 1 0.5 0 0 0.5 1 3
*

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2836 KK B40mP RETRIEVE

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2837 KM Retrieve diverted pipe flow from D40mP.  
2838 DR D40mP  
\*

2839 KK P40mS ROUTE  
2840 KM Route pipe flow from Thomas/28th St. to McDowell/28th St.  
2841 RK 3800 0.0041 0.015 CIRC 4.50  
\*

2842 KK BD40mS RETRIEVE  
2843 KM Retrieve diverted surface flow from D40mS.  
2844 DR D40mS  
\*

2845 KK R40mS ROUTE  
2846 KM Route surface flow south from Subbasin 40m to Subbasin 40o.  
2847 RS 5 FLOW -1  
2848 RC 0.050 0.016 0.050 4900 0.0053  
2849 RX 0 1.55 62 151.9 158.1 248 308.45 310  
2850 RY 3 1 0.5 0 0 0.5 1 3  
\*

2851 KK C40mS COMBINE  
2852 KM Combine hydrographs R40mS and P40mS.  
2853 HC 2 5.35  
\*

2854 KK 40o BASIN  
2855 KM Subbasin at NEC of Grand Canal & 28th St.  
2856 BA 0.465  
2857 LG 1.13 0.24 4.80 0.36 23  
2858 UC 0.996 0.694  
2859 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2860 UA 100  
\*

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

2861 KK C40o COMBINE  
2862 KM Combine hydrographs 40o, C40mS, and R36oW.  
2863 HC 3 7.82  
\*

2864 KK D40o DIVERT  
2865 KM Divert 70 cfs into pipe.  
2866 DT D40oP  
2867 DI 0 70 1000 10000  
2868 DQ 0 70 70 70  
\*

2869 KK D40oW DIVERT  
2870 KM Divert surface flow to south.  
2871 DT D40oS  
2872 DI 0 51 224 454 788 1511  
2873 DQ 0 0 85 225 441 927  
\*

2874 KK R40oW ROUTE  
2875 KM Route surface flow west from Subbasin 40o to Subbasin 44o.  
2876 RS 6 FLOW -1  
2877 RC 0.050 0.016 0.050 3500 0.0012  
2878 RX 0 1.35 54 132.3 137.7 216 268.65 270  
2879 RY 3 1 0.5 0 0 0.5 1 3  
\*

2880 KK 44o BASIN  
2881 KM Subbasin at NEC of Grand Canal & 24th St.  
2882 BA 0.229  
2883 LG 1.41 0.24 4.80 0.36 21  
2884 UC 0.926 0.665  
2885 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2886 UA 100  
\*

2887 KK BD44mP RETRIEVE  
2888 KM Retrieve diverted pipe flow from D44mP.  
2889 DR D44mP  
\*

2890 KK P44mS ROUTE  
2891 KM Route pipe flow from Thomas/24th St to McDowell/24th St.  
2892 RK 1150 0.0030 0.015 CIRC 5.0  
\*

2893 KK BD44mS RETRIEVE  
 2894 KM Retrieve diverted surface flow from D44mS.  
 2895 DR D44mS  
 \*

HEC-1 INPUT

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

2896 KK R44mS ROUTE  
 2897 KM Route surface flow south from Subbasin 44m to Subbasin 44o.  
 2898 RS 2 FLOW -1  
 2899 RC 0.050 0.016 0.050 2400 0.0058  
 2900 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2901 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2902 KK C44mS COMBINE  
 2903 KM Combine hydrographs R44mS and P44mS.  
 2904 HC 2 6.98  
 \*

2905 KK C44o COMBINE  
 2906 KM Combine hydrographs 44o, C44mS, and R40oW.  
 2907 HC 3 9.68  
 \*

2908 KK D44o DIVERT  
 2909 KM Divert 124 cfs into pipe.  
 2910 DT D44oP  
 2911 DI 0 100 124 10000  
 2912 DQ 0 100 124 124  
 \*

2913 KK D44oW DIVERT  
 2914 KM Divert surface flow to south.  
 2915 DT D44oS  
 2916 DI 0 27 198 433 769 1484  
 2917 DQ 0 0 119 299 561 1124  
 \*

2918 KK R44oW ROUTE  
 2919 KM Route surface flow west from Subbasin 44o to Subbasin 48m.  
 2920 RS 8 FLOW -1  
 2921 RC 0.050 0.016 0.050 4000 0.0006  
 2922 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2923 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2924 KK C44mW COMBINE  
 2925 KM Combine hydrographs R44mW and R44oW.  
 2926 HC 2 9.68  
 \*

2927 KK 48m BASIN  
 2928 KM Subbasin at NEC of Grand Canal & 20th St.  
 2929 BA 0.481  
 2930 LG 1.04 0.24 4.80 0.36 26  
 2931 UC 0.971 0.662  
 2932 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2933 UA 100  
 \*

HEC-1 INPUT

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

2934 KK BD48kS RETRIEVE  
 2935 KM Retrieve diverted surface flow from D48kS.  
 2936 DR D48kS  
 \*

2937 KK R48kS ROUTE  
 2938 KM Route surface flow south from Subbasin 48k to Subbasin 48m.  
 2939 RS 3 FLOW -1  
 2940 RC 0.050 0.016 0.050 4500 0.0048  
 2941 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2942 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2943 KK C48m COMBINE  
 2944 KM Combine hydrographs 48m, C44mW, and R48kS.  
 2945 HC 3 11.19  
 \*

2946 KK BD52kP RETRIEVE

```

2947      KM   Retrieve diverted pipe flow from D52kP.
2948      DR   D52kP
          *

2949      KK   P52kS  ROUTE
2950      KM   Route pipe flow from Indian School/SR51 to Grand Canal/SR51.
2951      RK   4500 0.0030 0.015          CIRC 6.0
          *

2952      KK   BD52kS RETRIEVE
2953      KM   Retrieve diverted surface flow from D52kS.
2954      DR   D52kS
          *

2955      KK   R52kS  ROUTE
2956      KM   Route surface flow south from Subbasin 52k to Subbasin 52m.
2957      RS   2     FLOW      -1
2958      RC   0.050 0.016 0.050 2600 0.0046
2959      RX   0     0.75   30   73.5 76.5 120 149.25 150
2960      RY   3     1     0.5   0     0   0.5 1     3
          *

2961      KK   C52kS COMBINE
2962      KM   Combine hydrographs R52kS and P52kS.
2963      HC   2     5.83
          *

2964      KK   52m  BASIN
2965      KM   Subbasin at NEC of Grand Canal & SR51.
2966      BA   0.177
2967      LG   0.54 0.23 4.80 0.35 16
2968      UC   0.728 0.452
2969      UA   0     5.0   16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
2970      UA   100
          *

          HEC-1 INPUT

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

2971      KK   C52m COMBINE
2972      KM   Combine hydrographs 52m and C52kS.
2973      HC   2     6.01
          *

2974      KK   CC52m COMBINE
2975      KM   Combine hydrographs C52m and C48m.
2976      HC   2     12.24
          *

2977      KK   D52m DIVERT
2978      KM   Divert 364 cfs into pipe.
2979      KM   Pipe flow along 52m to south
2980      DT   D52mP
2981      DI   0     100   364 10000
2982      DQ   0     100   364 364
          *

2983      KK   D52mW DIVERT
2984      KM   Total split flow of 48m and 52m, 10% to west
2985      DT   D52mS
2986      DI   0     100   1000 10000
2987      DQ   0     90    900 9000
          *

2988      KK   R52mW ROUTE
2989      KM   Route surface flow west from Subbasin 52m to Subbasin 54m.
2990      RS   2     FLOW      -1
2991      RC   0.050 0.016 0.050 2650 0.0066
2992      RX   0     0.3   12   29.4 30.6 48 59.7 60
2993      RY   3     1     0.5   0     0   0.5 1     3
          *

2994      KK   54m  BASIN
2995      KM   Subbasin at NEC of Thomas Rd. & 16th St.
2996      BA   0.271
2997      LG   0.56 0.25 4.80 0.37 31
2998      UC   0.734 0.439
2999      UA   0     5.0   16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
3000      UA   100
          *

3001      KK   BD54kP RETRIEVE
3002      KM   Retrieve diverted pipe flow from D54kP.
3003      DR   D54kP
          *

```

3004 KK P54kS ROUTE  
 3005 KM Route pipe flow from Grand Canal/16th St. to Thomas/16th St.  
 3006 RK 5000 0.0030 0.015 CIRC 5.0  
 \*

HEC-1 INPUT

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

3007 KK BD54kS RETRIEVE  
 3008 KM Retrieve diverted surface flow from D54kS.  
 3009 DR D54kS  
 \*

3010 KK R54kS ROUTE  
 3011 KM Route surface flow south from Subbasin 54k to Subbasin 54m.  
 3012 RS 3 FLOW -1  
 3013 RC 0.050 0.016 0.050 4500 0.0057  
 3014 RX 0 0.5 20 49 51 80 99.5 100  
 3015 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3016 KK C54kS COMBINE  
 3017 KM Combine hydrographs R54kS and P54kS.  
 3018 HC 2 1.18  
 \*

3019 KK C54m COMBINE  
 3020 KM Combine hydrographs 54m, C54kS, and R52mW.  
 3021 HC 3 1.66  
 \*

3022 KK D54m DIVERT  
 3023 KM Divert 124 cfs into pipe.  
 3024 DT D54mP  
 3025 DI 0 100 124 10000  
 3026 DQ 0 100 124 124  
 \*

3027 KK D54mW DIVERT  
 3028 KM Divert surface flow to south.  
 3029 DT D54mS  
 3030 DI 0 100 1000 10000  
 3031 DQ 0 40 400 4000  
 \*

3032 KK R54mW ROUTE  
 3033 KM Route surface flow west from Subbasin 54m to Subbasin 56m.  
 3034 RS 2 FLOW -1  
 3035 RC 0.050 0.016 0.050 2640 0.0030  
 3036 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3037 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3038 KK 56m BASIN  
 3039 KM Subbasin at NEC of Thomas Rd. & 12th St.  
 3040 BA 0.576  
 3041 LG 0.86 0.25 4.90 0.36 26  
 3042 UC 1.237 0.958  
 3043 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3044 UA 100  
 \*

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

3045 KK BD56kP RETRIEVE  
 3046 KM Retrieve diverted pipe flow from D56kP.  
 3047 DR D56kP  
 \*

3048 KK P56kS ROUTE  
 3049 KM Route pipe flow from Grand Canal/12th St. to Thomas/12th St.  
 3050 RK 7350 0.0030 0.015 CIRC 7.0  
 \*

3051 KK BD56kS RETRIEVE  
 3052 KM Retrieve diverted surface flow from D56kS.  
 3053 DR D56kS  
 \*

3054 KK R56kS ROUTE  
 3055 KM Route surface flow south from Subbasin 56k to Subbasin 56m.  
 3056 RS 5 FLOW -1

3057	RC	0.050	0.016	0.050	6070	0.0033				
3058	RX	0	0.5	20	49	51	80	99.5	100	
3059	RY	3	1	0.5	0	0	0.5	1	3	
	*									
3060	KK	C56kS COMBINE								
3061	KM	Combine hydrographs R56kS and P56kS.								
3062	HC	2	4.46							
	*									
3063	KK	C56m COMBINE								
3064	KM	Combine hydrographs 56m, C56kS, and R54mW.								
3065	HC	3	5.50							
	*									
3066	KK	D56m DIVERT								
3067	KM	Divert 433 cfs into pipe.								
3068	DT	D56mP								
3069	DI	0	100	433	10000					
3070	DQ	0	100	433	433					
	*									
3071	KK	D56mW DIVERT								
3072	KM	Divert surface flow to south.								
3073	DT	D56mS								
3074	DI	0	100	1000	10000					
3075	DQ	0	39	389	3892					
	*									
3076	KK	R56mW ROUTE								
3077	KM	Route surface flow west from Subbasin 56m to Subbasin 60m.								
3078	RS	3	FLOW	-1						
3079	RC	0.050	0.016	0.050	2640	0.0023				
3080	RX	0	1.8	72	176.4	183.6	288	358.2	360	
3081	RY	3	1	0.5	0	0	0.5	1	3	
	*									

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HEC-1 INPUT

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

3082	KK	60m BASIN									
3083	KM	Subbasin at NEC of Thomas Rd. & 7th St.									
3084	BA	0.500									
3085	LG	0.84	0.25	5.80	0.25	16					
3086	UC	1.187	0.919								
3087	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3088	UA	100									
	*										
3089	KK	BD601P RETRIEVE									
3090	KM	Retrieve diverted pipe flow from D601P.									
3091	DR	D601P									
	*										
3092	KK	P601S ROUTE									
3093	KM	Route pipe flow from Indian School/7th St. to Thomas/7th St.									
3094	RK	5300	0.0030	0.015		CIRC	4.50				
	*										
3095	KK	BD601S RETRIEVE									
3096	KM	Retrieve diverted surface flow from D601S.									
3097	DR	D601S									
	*										
3098	KK	R601S ROUTE									
3099	KM	Route surface flow south from Subbasin 601 to Subbasin 60m.									
3100	RS	5	FLOW	-1							
3101	RC	0.050	0.016	0.050	5280	0.0038					
3102	RX	0	1.3	52	127.4	132.6	208	258.7	260		
3103	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3104	KK	C601S COMBINE									
3105	KM	Combine hydrographs R601S and P601S.									
3106	HC	2	4.69								
	*										
3107	KK	C60m COMBINE									
3108	KM	Combine hydrographs 60m, C601S, and R56mW.									
3109	HC	3	6.24								
	*										
3110	KK	D60m DIVERT									
3111	KM	Divert 124 cfs into pipe.									
3112	DT	D60mP									

3113 DI 0 100 124 10000  
 3114 DQ 0 100 124 124  
 \*

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

3115 KK D60mW DIVERT  
 3116 KM Divert surface flow to south.  
 3117 DT D60mS  
 3118 DI 0 100 1000 10000  
 3119 DQ 0 52 520 5199  
 \*

3120 KK R60mW ROUTE  
 3121 KM Route surface flow west from Subbasin 60m to Subbasin 64m.  
 3122 RS 4 FLOW -1  
 3123 RC 0.050 0.016 0.050 2640 0.0008  
 3124 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 3125 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3126 KK 64m BASIN  
 3127 KM Subbasin at NEC of Thomas Rd. & Central Ave.  
 3128 BA 0.500  
 3129 LG 0.29 0.15 8.40 0.09 49  
 3130 UC 1.060 0.810  
 3131 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3132 UA 100  
 \*

3133 KK BD641P RETRIEVE  
 3134 KM Retrieve diverted pipe flow from D641P.  
 3135 DR D641P  
 \*

3136 KK P641S ROUTE  
 3137 KM Route pipe flow from Indian School/Central Ave. to Thomas/Central Ave.  
 3138 RK 5280 0.0030 0.015 CIRC 7.00  
 \*

3139 KK BD641S RETRIEVE  
 3140 KM Retrieve diverted surface flow from D641S.  
 3141 DR D641S  
 \*

3142 KK R641S ROUTE  
 3143 KM Route surface flow south from Subbasin 641 to Subbasin 64m.  
 3144 RS 8 FLOW -1  
 3145 RC 0.050 0.016 0.050 5280 0.0030  
 3146 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 3147 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3148 KK C641S COMBINE  
 3149 KM Combine hydrographs R641S and P641S.  
 3150 HC 2 6.96  
 \*

HEC-1 INPUT

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

3151 KK 68m BASIN  
 3152 KM Subbasin at NEC of Thomas Rd. & 7th Ave.  
 3153 BA 0.550  
 3154 LG 0.14 0.15 8.80 0.08 57  
 3155 UC 1.073 0.790  
 3156 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3157 UA 100  
 \*

3158 KK D68mP2 DIVERT  
 3159 KM Divert flow into pipe.  
 3160 KM pipe flow to east = 34 cfs  
 3161 DT D68m  
 3162 DI 0 34 100 1000 10000  
 3163 DQ 0 0 66 966 9966  
 \*

3164 KK C64m COMBINE  
 3165 KM Combine hydrographs 64m, C641S, D68mP2, and R60mW.  
 3166 HC 4 9.55  
 \*

```

3167      KK      D64m  DIVERT
3168      KM      Divert 399 cfs into pipe.
3169      DT      D64mP
3170      DI          0      100      399      10000
3171      DQ          0      100      399      399
          *

3172      KK      D64mW  DIVERT
3173      KM      Divert surface flow to south.
3174      DT      D64mS
3175      DI          0      100      1000      10000
3176      DQ          0      62      618      6176
          *

3177      KK      R64mW  ROUTE
3178      KM      Route surface flow west from Subbasin 64m to Subbasin 68m.
3179      RS          5      FLOW      -1
3180      RC      0.050  0.016  0.050  2640  0.0010
3181      RX          0      1.3      52      127.4  132.6      208  258.7      260
3182      RY          3      1      0.5      0      0      0.5      1      3
          *

3183      KK      BD68m  RETRIEVE
3184      KM      Retrieve diverted surface flow from D68m.
3185      DR      D68m
          *

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

```

3186      KK      C68m  COMBINE
3187      KM      Combine hydrographs C681S, D68m, and R64mW.
3188      HC          3      16.15
          *

3189      KK      D68m2  DIVERT
3190      KM      Divert 144 cfs into pipe.
3191      DT      D68mP
3192      DI          0      100      144      10000
3193      DQ          0      100      144      144
          *

3194      KK      D68mW  DIVERT
3195      KM      Divert surface flow to south.
3196      DT      D68mS
3197      DI          0      100      1000      10000
3198      DQ          0      83      830      8300
          *

3199      KK      R68mW  ROUTE
3200      KM      Route surface flow west from Subbasin 68m to Subbasin 72m.
3201      RS          5      FLOW      -1
3202      RC      0.050  0.016  0.050  2640  0.0008
3203      RX          0      1.05      42      102.9  107.1      168  208.95      210
3204      RY          3      1      0.5      0      0      0.5      1      3
          *

3205      KK      CC72m  COMBINE
3206      KM      Combine hydrographs C72m and R68mW.
3207      HC          2      17.12
          *

3208      KK      D72m  DIVERT
3209      KM      Divert 308 cfs into pipe.
3210      DT      D72mP
3211      DI          0      100      308      10000
3212      DQ          0      100      308      308
          *

3213      KK      R72mS  ROUTE
3214      KM      Route surface flow south from Subbasin 72m to Subbasin 72o.
3215      RS          6      FLOW      -1
3216      RC      0.050  0.016  0.050  6900  0.0020
3217      RX          0      1.25      50      122.5  127.5      200  248.75      250
3218      RY          3      1      0.5      0      0      0.5      1      3
          *

3219      KK      BD72mP  RETRIEVE
3220      KM      Retrieve diverted pipe flow from D72mP.
3221      DR      D72mP
          *

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

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3222      KK  P72mS  ROUTE
3223      KM  Route pipe flow from Thomas/15th Ave. to I-10/15th Ave.
3224      RK  6900 0.0030 0.015          CIRC  7.0
          *

3225      KK  C72mS  COMBINE
3226      KM  Combine hydrographs R72mS and P72mS.
3227      HC  2  17.12
          *

3228      KK  BD24oS  RETRIEVE
3229      KM  Retrieve diverted surface flow from D24oS.
3230      DR  D24oS
          *

3231      KK  R24oS  ROUTE
3232      KM  Route surface flow south from Subbasin 24o to Subbasin 28p.
3233      RS  3  FLOW  -1
3234      RC  0.050 0.016 0.050 3500 0.0081
3235      RX  0  1  40  98  102  160  199  200
3236      RY  3  1  0.5  0  0  0.5  1  3
          *

3237      KK  BD28oP  RETRIEVE
3238      KM  Retrieve diverted pipe flow from D28oP.
3239      DR  D28oP
          *

3240      KK  P28oS  ROUTE
3241      KM  Route pipe flow from McDowell/40th St. to Loop 202/40th St.
3242      RK  2500 0.0044 0.015          CIRC  7.00
          *

3243      KK  BD28oS  RETRIEVE
3244      KM  Retrieve diverted surface flow from D28oS.
3245      DR  D28oS
          *

3246      KK  R28oS  ROUTE
3247      KM  Route surface flow south from Subbasin 28o to Subbasin 28p.
3248      RS  2  FLOW  -1
3249      RC  0.050 0.016 0.050 2800 0.0112
3250      RX  0  1.25  50  122.5  127.5  200  248.75  250
3251      RY  3  1  0.5  0  0  0.5  1  3
          *

3252      KK  C28oS  COMBINE
3253      KM  Combine hydrographs R28oS and P28oS.
3254      HC  2  2.73
          *

```

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

```

3255      KK  C28p  COMBINE
3256      KM  Combine hydrographs C28oS and R24oS.
3257      HC  2  2.73
          *

3258      KK  28p  BASIN
3259      KM  Subbasin at NEC of Loop 202 & 40th St.
3260      BA  0.372
3261      LG  1.02 0.25  4.80  0.36  26
3262      UC  0.893 0.646
3263      UA  0  5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
3264      UA  100
          *

3265      KK  S28p  STORAGE
3266      KM  Online Local Retention Basin, 0.8 ac-ft.
3267      RS  1  STOR  0
3268      SV  0  0.2  0.8  1.5
3269      SE  0  2  4  6
3270      SS  4  100  2.7  1.5
          *

3271      KK  CC28p  COMBINE
3272      KM  Combine hydrographs C28p and S28p.
3273      HC  2  3.11
          *

3274      KK  D28p  DIVERT
3275      KM  Divert flow into pipe.
3276      KM  Total pipe flow = 279 cfs (201 cfs to south, 68 cfs to east)

```

3277	DT	D28pP									
3278	DI	0	100	279	10000						
3279	DQ	0	100	279	279						
	*										
3280	KK	R28pW	ROUTE								
3281	KM	Route	surface flow west from Subbasin 28p to Subbasin 32p.								
3282	RS	3	FLOW	-1							
3283	RC	0.050	0.016	0.050	2640	0.0030					
3284	RX	0	0.8	32	78.4	81.6	128	159.2	160		
3285	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3286	KK	32p	BASIN								
3287	KM	Subbasin	at NEC of Loop 202 & 36th St.								
3288	BA	0.234									
3289	LG	0.28	0.25	4.80	0.33	3					
3290	UC	1.105	0.900								
3291	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3292	UA	100									
	*										

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

3293	KK	BD32oS	RETRIEVE								
3294	KM	Retrieve	diverted surface flow from D32oS.								
3295	DR	D32oS									
	*										
3296	KK	R32oS	ROUTE								
3297	KM	Route	surface flow south from Subbasin 32o to Subbasin 32p.								
3298	RS	2	FLOW	-1							
3299	RC	0.050	0.016	0.050	2540	0.0071					
3300	RX	0	0.5	20	49	51	80	99.5	100		
3301	RY	3	1	0.5	0	0	0.5	1	3		
	*										

3302	KK	C32p	COMBINE								
3303	KM	Combine	hydrographs 32p and R32oS.								
3304	HC	2	4.49								
	*										

3305	KK	S32p	STORAGE								
3306	KM	Online	Regional Detention Basin, 57 ac-ft.								
3307	RS	1	STOR	0							
3308	SV	0	3.5	13.8	32.9	57.4	83.7				
3309	SE	0	2	4	6	8	10				
3310	SL	2	12.56	0.62	0.5						
3311	SS	8	20	2.7	1.5						
	*										

3312	KK	BD32oP	RETRIEVE								
3313	KM	Retrieve	diverted pipe flow from D32oP.								
3314	DR	D32oP									
	*										

3315	KK	P32oS	ROUTE								
3316	KM	Route	pipe flow from McDowell/36th St. to SR202L/36th ST.								
3317	RK	2500	0.0060	0.015		CIRC	6.0				
	*										

3318	KK	CC32p	COMBINE								
3319	KM	Combine	hydrographs P32oS, R28pW and S32p.								
3320	HC	3	4.86								
	*										

3321	KK	D32pW	DIVERT								
3322	KM	Divert	flow to pipe.								
3323	DT	D32pS									
3324	DI	0	100	1000	10000						
3325	DQ	0	10	150	600						
	*										

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

3326	KK	D32p	DIVERT								
3327	KM	Divert	379 cfs into pipe.								
3328	DT	D32pP									
3329	DI	0	100	379	1000	10000					
3330	DQ	0	100	379	379	379					
	*										

3331 KK R32pW ROUTE  
 3332 KM Route surface flow west from Subbasin 32p to Subbasin 36p.  
 3333 RS 3 FLOW -1  
 3334 RC 0.050 0.016 0.050 2700 0.0022  
 3335 RX 0 0.5 20 49 51 80 99.5 100  
 3336 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3337 KK BD32pP RETRIEVE  
 3338 KM Retrieve diverted pipe flow from D32pP.  
 3339 DR D32pP  
 \*

3340 KK P32pW ROUTE  
 3341 KM Route pipe flow from Loop 202/36th St. to Loop 202/32nd St.  
 3342 RK 2750 0.0047 0.015 CIRC 7.0  
 \*

3343 KK C32pW COMBINE  
 3344 KM Combine hydrographs R32pW and P32pW.  
 3345 HC 2 4.86  
 \*

3346 KK 28q BASIN  
 3347 KM Subbasin at NEC of Grand Canal & 40th St.  
 3348 BA 0.318  
 3349 LG 0.35 0.25 4.80 0.39 42  
 3350 UC 0.730 0.448  
 3351 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3352 UA 100  
 \*

3353 KK S28q STORAGE  
 3354 KM Online Local Retention Basin, 0.3 ac-ft.  
 3355 RS 1 STOR 0  
 3356 SV 0 0.3 0.8  
 3357 SE 0 2 4  
 3358 SS 2 100 2.7 1.5  
 \*

3359 KK BD28pP RETRIEVE  
 3360 KM Retrieve diverted pipe flow from D28pP.  
 3361 DR D28pP  
 \*

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

3362 KK D28pP1 DIVERT  
 3363 KM Divert flow into pipe.  
 3364 DT D28pP2  
 3365 DI 0 279 300  
 3366 DQ 0 68 75  
 \*

3367 KK P28pS ROUTE  
 3368 KM Route pipe flow from Loop 202/40th St. to Grand Canal/40th St.  
 3369 RK 2700 0.0030 0.015 CIRC 6.00  
 \*

3370 KK C28q COMBINE  
 3371 KM Combine hydrographs P28pS and S28q.  
 3372 HC 2 0.82  
 \*

3373 KK D28q DIVERT  
 3374 KM Divert flow into pipe.  
 3375 KM Total pipe flow = 340 cfs (32 cfs to east, 308 cfs to south)  
 3376 DT D28qP  
 3377 DI 0 100 340 10000  
 3378 DQ 0 100 340 340  
 \*

3379 KK D28qW DIVERT  
 3380 KM Divert surface flow to south.  
 3381 DT D28qS  
 3382 DI 0 14 72 203 550 1348  
 3383 DQ 0 0 41 144 430 1103  
 \*

3384 KK R28qW ROUTE  
 3385 KM Route surface flow west from Subbasin 28q to Subbasin 32q.  
 3386 RS 9 FLOW -1  
 3387 RC 0.050 0.016 0.050 3500 0.0003  
 3388 RX 0 0.75 30 73.5 76.5 120 149.25 150

3389	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3390	KK	32q	BASIN								
3391	KM	Subbasin at NEC of Grand Canal & 36th St.									
3392	BA	0.175									
3393	LG	0.25	0.21	4.80	0.32	6					
3394	UC	0.968	0.757								
3395	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3396	UA	100									
	*										

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

3397	KK	BD32pS RETRIEVE									
3398	KM	Retrieve diverted surface flow from D32pS.									
3399	DR	D32pS									
	*										

3400	KK	C32q COMBINE									
3401	KM	Combine hydrographs 32q, D32pS, and R28qW.									
3402	HC	3	0.99								
	*										

3403	KK	S32q STORAGE									
3404	KM	Online Regional Detention Basin, 92 ac-ft.									
3405	RS	1	STOR	0							
3406	SV	0	10	24	41	59	80	92	110		
3407	SE	0	4	8	12	16	20	22	24		
3408	SL	1.5	7.068	0.62	0.5						
3409	SS	22	750	2.7	1.5						
	*										

3410	KK	D32qP DIVERT									
3411	KM	Divert surface flow to southwest.									
3412	KM	Basin bleed-off pipe flow = 32 cfs									
3413	DT	D32q									
3414	DI	0	32	100	1000	10000					
3415	DQ	0	0	68	968	9968					
	*										

3416	KK	P32qW ROUTE									
3417	KM	Route pipe flow from Subbasin 32q to Detention Basin in 36p.									
3418	RK	800	0.0031	0.015	CIRC	3.0					
	*										

3419	KK	C32pqW COMBINE									
3420	KM	Combine hydrographs C32pW and P32qW.									
3421	HC	2	4.86								
	*										

3422	KK	36p	BASIN								
3423	KM	Subbasin at NEC of Grand Canal and Loop 202									
3424	BA	0.186									
3425	LG	0.72	0.22	4.80	0.36	23					
3426	UC	0.800	0.566								
3427	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3428	UA	100									
	*										

3429	KK	BD36oS RETRIEVE									
3430	KM	Retrieve diverted surface flow from D36oS.									
3431	DR	D36oS									
	*										

1

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

3432	KK	R36oS ROUTE									
3433	KM	Route surface flow south from Subbasin 36o to 36p.									
3434	RS	3	FLOW	-1							
3435	RC	0.050	0.016	0.050	2500	0.0063					
3436	RX	0	0.75	30	73.5	76.5	120	149.25	150		
3437	RY	3	1	0.5	0	0	0.5	1	3		
	*										

3438	KK	C36p COMBINE									
3439	KM	Combine hydrographs 36p, C32pqW, and R36oS.									
3440	HC	3	6.91								
	*										

3441	KK	E36p DIVERT									
3442	KM	Divert flow into detention basin 40p and 36q, (Bypass 613 cfs pipe flow).									

3443 DT DB36p  
3444 DI 0 100 613 1000 10000  
3445 DQ 0 0 0 387 9387  
\*

3446 KK BDB36pRETRIEVE  
3447 KM Retrieve diverted flow from DB36p for offline detention.  
3448 DR DB36p  
\*

3449 KK S36p STORAGE  
3450 KM Offline Detention basins within 40p and 36q receive flows from subbasin  
3451 KM 36p. They are treated as one detention basin, 68 ac-ft.  
3452 RS 1 STOR 0  
3453 SV 0 10 22 37 55 68 84  
3454 SE 0 4 8 12 16 18 20  
3455 SL 2 12.56 0.62 0.5  
3456 SS 18 200 2.7 1.5  
\*

3457 KK BD36oP RETRIEVE  
3458 KM Retrieve diverted pipe flow from D36oP.  
3459 DR D36oP  
\*

3460 KK P36oS ROUTE  
3461 KM Route pipe flow from 32nd st/McDowell to subbasin 36p.  
3462 RK 900 0.0038 0.015 CIRC 5.00  
\*

3463 KK CC36p COMBINE  
3464 KM Combine hydrographs E36p, P36oS, and S36p.  
3465 HC 3 6.91  
\*

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

3466 KK D36p DIVERT  
3467 KM Divert 613 cfs into pipe (139 cfs to south, 474 cfs to west).  
3468 DT D36pP  
3469 DI 0 100 613 1000 10000  
3470 DQ 0 100 613 613 613  
\*

3471 KK R36pW ROUTE  
3472 KM Route surface flow west from Subbasin 36p to 40p.  
3473 RS 2 FLOW -1  
3474 RC 0.050 0.016 0.050 2640 0.0024  
3475 RX 0 0.75 30 73.5 76.5 120 149.25 150  
3476 RY 3 1 0.5 0 0 0.5 1 3  
\*

3477 KK BD36pP RETRIEVE  
3478 KM Retrieve diverted pipe flow from D36pP.  
3479 DR D36pP  
\*

3480 KK D36pP1 DIVERT  
3481 KM Divert flow into pipe (south).  
3482 DT D36pP2  
3483 DI 0 613 620  
3484 DQ 0 139 140  
\*

3485 KK P36pW ROUTE  
3486 KM Route pipe flow from offline detention basin to subbasin 40p.  
3487 RK 2700 0.0036 0.015 CIRC 8.0  
\*

3488 KK C36pW COMBINE  
3489 KM Combine hydrographs R36pW and P36pW.  
3490 HC 2 6.91  
\*

3491 KK 40p BASIN  
3492 KM Subbasin at NEC of Loop 202 and 28th St  
3493 BA 0.222  
3494 LG 1.05 0.13 7.00 0.14 22  
3495 UC 0.849 0.566  
3496 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3497 UA 100  
\*

3498 KK BD40oP RETRIEVE

3499 KM Retrieve diverted pipe flow from D40oP.  
3500 DR D40oP  
\*

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

3501 KK P40oS ROUTE  
3502 KM Route pipe flow from 28th st/Grand Canal to subbasin 40p.  
3503 RK 2800 0.0041 0.015 CIRC 5.00  
\*

3504 KK BD40oS RETRIEVE  
3505 KM Retrieve diverted surface flow from D40oS.  
3506 DR D40oS  
\*

3507 KK R40oS ROUTE  
3508 KM Route surface flow south from Subbasin 40o to 40p.  
3509 RS 3 FLOW -1  
3510 RC 0.050 0.016 0.050 2500 0.0072  
3511 RX 0 1.3 52 127.4 132.6 208 258.7 260  
3512 RY 3 1 0.5 0 0 0.5 1 3  
\*

3513 KK C40oS COMBINE  
3514 KM Combine hydrographs R40oS and P40oS.  
3515 HC 2 7.82  
\*

3516 KK C40p COMBINE  
3517 KM Combine hydrographs 40p and C40oS.  
3518 HC 3 8.83  
\*

3519 KK D40p DIVERT  
3520 KM Divert 785 cfs to 9'x9' box (west).  
3521 DT D40pP  
3522 DI 0 100 785 10000  
3523 DQ 0 100 785 785  
\*

3524 KK R40pW ROUTE  
3525 KM Route surface flow west from Subbasin 40p to 44p.  
3526 RS 4 FLOW -1  
3527 RC 0.050 0.016 0.050 2640 0.0023  
3528 RX 0 1 40 98 102 160 199 200  
3529 RY 3 1 0.5 0 0 0.5 1 3  
\*

3530 KK BD40pP RETRIEVE  
3531 KM Retrieve diverted pipe flow from D40pP.  
3532 DR D40pP  
\*

3533 KK P40pW ROUTE  
3534 KM Route pipe flow from 28th st/I-10 to subbasin 44p.  
3535 KM 9'x9' box equals to D =10' pipe  
3536 RK 2640 0.0030 0.015 CIRC 10.0  
\*

HEC-1 INPUT

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

3537 KK C40pW COMBINE  
3538 KM Combine hydrographs R40oW and P40pW.  
3539 HC 2 8.83  
\*

3540 KK 44p BASIN  
3541 KM NEC corner of Loop 202 and 24th St  
3542 BA 0.407  
3543 LG 0.56 0.15 7.00 0.14 25  
3544 UC 1.055 0.809  
3545 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3546 UA 100  
\*

3547 KK BD44oP RETRIEVE  
3548 KM Retrieve diverted pipe flow from D44oP.  
3549 DR D44oP  
\*

3550 KK P44oS ROUTE

3551 KM Route pipe flow from 24th st/Grand Canal to subbasin 44p.  
3552 RK 5650 0.0030 0.015 CIRC 5.00  
\*  
3553 KK BD44oS RETRIEVE  
3554 KM Retrieve diverted surface flow from D44oS.  
3555 DR D44oS  
\*  
3556 KK R44oS ROUTE  
3557 KM Route surface flow south from Subbasin 44o to 44p.  
3558 RS 3 FLOW -1  
3559 RC 0.050 0.016 0.050 4230 0.0033  
3560 RX 0 1 40 98 102 160 199 200  
3561 RY 3 1 0.5 0 0 0.5 1 3  
\*  
3562 KK C44oS COMBINE  
3563 KM Combine hydrographs R44oS and P44oS.  
3564 HC 2 9.68  
\*  
3565 KK C44p COMBINE  
3566 KM Combine hydrographs C44oS, C40pW, and 44p.  
3567 HC 3 11.10  
\*  
3568 KK D44p DIVERT  
3569 KM Divert 1344 cfs into pipe (124 cfs to south, 1220 cfs to west).  
3570 DT D44pP  
3571 DI 0 100 1344 10000  
3572 DQ 0 100 1344 1344  
\*

HEC-1 INPUT

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

3573 KK R44pW ROUTE  
3574 KM Route surface flow west from Subbasin 44p to 48o.  
3575 RS 3 FLOW -1  
3576 RC 0.050 0.016 0.050 2640 0.0015  
3577 RX 0 0.8 32 78.4 81.6 128 159.2 160  
3578 RY 3 1 0.5 0 0 0.5 1 3  
\*  
3579 KK BD44pP RETRIEVE  
3580 KM Retrieve diverted pipe flow from D44pP.  
3581 DR D44pP  
\*  
3582 KK D44pP1 DIVERT  
3583 KM Divert flow into pipe (south).  
3584 DT D44pP2  
3585 DI 0 1344 1500  
3586 DQ 0 124 138  
\*  
3587 KK P44pW ROUTE  
3588 KM Route pipe flow from 24th st/McDowell to subbasin 48o.  
3589 KM 11'x10' box approximately equals to 12' pipe  
3590 RK 2100 0.0030 0.015 CIRC 12.0  
\*  
3591 KK C44pW COMBINE  
3592 KM Combine hydrographs R44pW and P44pW.  
3593 HC 2 11.10  
\*  
3594 KK 48o BASIN  
3595 KM Subbasin at NEC of Loop 202 and SR51  
3596 BA 0.676  
3597 LG 0.74 0.17 6.80 0.16 23  
3598 UC 1.076 0.664  
3599 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3600 UA 100  
\*  
3601 KK BD52mS RETRIEVE  
3602 KM Retrieve diverted surface flow from D52mS.  
3603 DR D52mS  
\*  
3604 KK R52mS ROUTE  
3605 KM Route surface flow south from Subbasin 52m to 48o.  
3606 RS 3 FLOW -1

3607	RC	0.050	0.016	0.050	7000	0.0026				
3608	RX	0	0.5	20	49	51	80	99.5	100	
3609	RY	3	1	0.5	0	0	0.5	1	3	

HEC-1 INPUT

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

3610	KK	BD52mP	RETRIEVE							
3611	KM	Retrieve diverted pipe flow from D52mP.								
3612	DR	D52mP								
	*									
3613	KK	P52mS	ROUTE							
3614	KM	Route pipe flow from subbasin 52m to subbasin 48o.								
3615	RK	8600	0.0030	0.015			CIRC	7.50		
	*									
3616	KK	C52mS	COMBINE							
3617	KM	Combine hydrographs R52mS and P52mS.								
3618	HC	2	12.24							
	*									
3619	KK	C48o	COMBINE							
3620	KM	Combine hydrographs C52mS, C44pW, and 48o.								
3621	HC	3	14.34							
	*									
3622	KK	E48o	DIVERT							
3623	KM	Divert 2573 cfs into ADOT East Tunnel 21' pipe at Moreland St.								
3624	DT	DB48o								
3625	DI	0	100	1000	2573	10000				
3626	DQ	0	0	0	0	7427				
	*									
3627	KK	BDB48o	RETRIEVE							
3628	KM	Retrieve diverted flow from DB48o for detention.								
3629	DR	DB48o								
	*									
3630	KK	S48o	STORAGE							
3631	KM	Excess flood water at ADOT East Tunnel going west								
3632	KM	through McDowell Rd after ponding, online detention basin 35 ac-ft.								
3633	RS	1	STOR	0						
3634	SV	0	6	35	81					
3635	SE	0	2	4	6					
3636	SL	0.5	7.07	0.62	0.5					
3637	SS	4	50	2.7	1.5					
	*									
3638	KK	CC48o	COMBINE							
3639	KM	Combine hydrographs E48o and S48o.								
3640	HC	2	14.34							
	*									
3641	KK	D48o	DIVERT							
3642	KM	Divert 2573 cfs into ADOT East tunnel 21' pipe at Moreland St.								
3643	DT	D48oPT								
3644	DI	0	100	2573	5000	10000				
3645	DQ	0	100	2573	2573	2573				
	*									

HEC-1 INPUT

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

3646	KK	R48oW	ROUTE							
3647	KM	Route surface flow west from Subbasin 48o to 52o.								
3648	KM	Excess flow routing to west through McDowell Rd.								
3649	RS	3	FLOW	-1						
3650	RC	0.050	0.016	0.050	2640	0.0015				
3651	RX	0	0.5	20	49	51	80	99.5	100	
3652	RY	3	1	0.5	0	0	0.5	1	3	
	*									
3653	KK	52o	BASIN							
3654	KM	Subbasin at NEC of I-10 and 16th St								
3655	BA	0.645								
3656	LG	0.42	0.25	5.80	0.23	28				
3657	UC	1.119	0.799							
3658	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
3659	UA	100								
	*									
3660	KK	BD54mP	RETRIEVE							

3661 KM Retrieve diverted pipe flow from D54mP.  
3662 DR D54mP  
\*

3663 KK P54mS ROUTE  
3664 KM Route pipe flow from 16th st/Thomas to subbasin 52o.  
3665 RK 6350 0.0030 0.015 CIRC 5.00  
\*

3666 KK BD54mS RETRIEVE  
3667 KM Retrieve diverted surface flow from D54mS.  
3668 DR D54mS  
\*

3669 KK R54mS ROUTE  
3670 KM Route surface flow south from Subbasin 54m to 52o.  
3671 RS 6 FLOW -1  
3672 RC 0.050 0.016 0.050 6845 0.0029  
3673 RX 0 0.5 20 49 51 80 99.5 100  
3674 RY 3 1 0.5 0 0 0.5 1 3  
\*

3675 KK C54mS COMBINE  
3676 KM Combine hydrographs R54mS and P54mS.  
3677 HC 2 1.66  
\*

3678 KK C52o COMBINE  
3679 KM Combine hydrographs C54mS, R48oW, and 52o.  
3680 HC 3 2.30  
\*

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

3681 KK D52o DIVERT  
3682 KM Divert 517 cfs into pipe to West Tunnel.  
3683 KM 72" SD at 19th St and 72" SD at 16th St, Q = 211+306 = 517 cfs  
3684 DT D52oP  
3685 DI 0 100 517 10000  
3686 DQ 0 100 517 517  
\*

3687 KK R52oW ROUTE  
3688 KM Route surface flow west from Subbasin 52o to 56o.  
3689 RS 6 FLOW -1  
3690 RC 0.050 0.016 0.050 2640 0.0015  
3691 RX 0 1.6 64 156.8 163.2 256 318.4 320  
3692 RY 3 1 0.5 0 0 0.5 1 3  
\*

3693 KK BD52oP RETRIEVE  
3694 KM Retrieve diverted pipe flow from D52oP.  
3695 DR D52oP  
\*

3696 KK P52oW ROUTE  
3697 KM Route pipe flow from 16th st/McDowell to subbasin 56o.  
3698 RK 2700 0.0031 0.015 CIRC 7.5  
\*

3699 KK C52oW COMBINE  
3700 KM Combine hydrographs R52oW and P52oW.  
3701 HC 2 2.30  
\*

3702 KK 56o BASIN  
3703 KM Subbasin at NEC of I-10 and 12th St  
3704 BA 0.638  
3705 LG 0.29 0.25 5.00 0.33 24  
3706 UC 1.217 0.896  
3707 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3708 UA 100  
\*

3709 KK BD56mP RETRIEVE  
3710 KM Retrieve diverted pipe flow from D56mP.  
3711 DR D56mP  
\*

3712 KK P56mS ROUTE  
3713 KM Route pipe flow from 12th st/Thomas to subbasin 56o.  
3714 RK 6450 0.0030 0.015 CIRC 8.00  
\*

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

3715 KK BD56mS RETRIEVE  
 3716 KM Retrieve diverted surface flow from D56mS.  
 3717 DR D56mS  
 \*

3718 KK R56mS ROUTE  
 3719 KM Route surface flow south from Subbasin 56m to 56o.  
 3720 RS 7 FLOW -1  
 3721 RC 0.050 0.016 0.050 6770 0.0024  
 3722 RX 0 1.1 44 107.8 112.2 176 218.9 220  
 3723 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3724 KK C56mS COMBINE  
 3725 KM Combine hydrographs R56mS and P56mS.  
 3726 HC 2 5.50  
 \*

3727 KK C56o COMBINE  
 3728 KM Combine hydrographs C56mS, C52oW, and 56o.  
 3729 HC 3 6.79  
 \*

3730 KK D56o DIVERT  
 3731 KM Divert flow into West Tunnel (517 cfs from U/S).  
 3732 KM 10'x6' RCB at 12th St. Q = 433+517 = 950 cfs.  
 3733 DT D56oP  
 3734 DI 0 100 1000 10000  
 3735 DQ 0 100 950 950  
 \*

3736 KK R56oW ROUTE  
 3737 KM Route surface flow west from Subbasin 56o to 60o.  
 3738 RS 3 FLOW -1  
 3739 RC 0.050 0.016 0.050 2640 0.0023  
 3740 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 3741 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3742 KK BD56oP RETRIEVE  
 3743 KM Retrieve diverted pipe flow from D56oP.  
 3744 DR D56oP  
 \*

3745 KK P56oW ROUTE  
 3746 KM Route pipe flow from 12th st/McDowell to subbasin 60o.  
 3747 KM 10'x10' box approximately equals to 11.5' pipe  
 3748 RK 2700 0.0030 0.015 CIRC 11.5  
 \*

HEC-1 INPUT

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

3749 KK C56oW COMBINE  
 3750 KM Combine hydrographs R56oW and P56oW.  
 3751 HC 2 6.79  
 \*

3752 KK 60o BASIN  
 3753 KM Subbasin at NEC of I-10 and 7th St  
 3754 BA 0.640  
 3755 LG 1.22 0.25 5.30 0.31 32  
 3756 UC 1.275 0.946  
 3757 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3758 UA 100  
 \*

3759 KK BD60mP RETRIEVE  
 3760 KM Retrieve diverted pipe flow from D60mP.  
 3761 DR D60mP  
 \*

3762 KK P60mS ROUTE  
 3763 KM Route pipe flow from 7th st/Thomas to subbasin 60o.  
 3764 RK 6200 0.0030 0.015 CIRC 5.00  
 \*

3765 KK BD60mS RETRIEVE  
 3766 KM Retrieve diverted surface flow from D60mS.  
 3767 DR D60mS  
 \*

3768 KK R60mS ROUTE  
 3769 KM Route surface flow south from Subbasin 60m to 60o.  
 3770 RS 6 FLOW -1  
 3771 RC 0.050 0.016 0.050 6720 0.0024  
 3772 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 3773 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3774 KK C60mS COMBINE  
 3775 KM Combine hydrographs R60mS and P60mS.  
 3776 HC 2 6.24  
 \*

3777 KK C60o COMBINE  
 3778 KM Combine hydrographs C60mS, C56oW, and 60o.  
 3779 HC 3 8.16  
 \*

3780 KK D60o DIVERT  
 3781 KM Divert flow into West ADOT Tunnel (950 cfs U/S).  
 3782 KM 84" at 7th St and 60" at 10th St, Q = 435+376 = 811+950= 1761 cfs.  
 3783 DT D60oPT  
 3784 DI 0 100 1761 10000  
 3785 DQ 0 100 1761 1761  
 \*

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

3786 KK R60oW ROUTE  
 3787 KM Route surface flow west from Subbasin 60o to 64o.  
 3788 RS 6 FLOW -1  
 3789 RC 0.050 0.016 0.050 2640 0.0015  
 3790 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3791 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3792 KK 64o BASIN  
 3793 KM Subbasin at NEC of I-10 and Central  
 3794 BA 0.651  
 3795 LG 1.21 0.25 5.80 0.25 44  
 3796 UC 1.330 0.950  
 3797 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3798 UA 100  
 \*

3799 KK S64o STORAGE  
 3800 KM Online Detention Basin 1 ac-ft.  
 3801 RS 1 STOR 0  
 3802 SV 0 0.25 1 3  
 3803 SE 0 2 4 6  
 3804 SQ 0 8 11 600  
 \*

3805 KK BD64mP RETRIEVE  
 3806 KM Retrieve diverted pipe flow from D64mP.  
 3807 DR D64mP  
 \*

3808 KK P64mS ROUTE  
 3809 KM Route pipe flow from Central/Thomas to subbasin 64o.  
 3810 RK 6450 0.0025 0.015 CIRC 8.00  
 \*

3811 KK BD64mS RETRIEVE  
 3812 KM Retrieve diverted surface flow from D64mS.  
 3813 DR D64mS  
 \*

3814 KK R64mS ROUTE  
 3815 KM Route surface flow south from Subbasin 64m to 64o.  
 3816 RS 8 FLOW -1  
 3817 RC 0.050 0.016 0.050 6860 0.0020  
 3818 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3819 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3820 KK C64mS COMBINE  
 3821 KM Combine hydrographs R64mS and P64mS.  
 3822 HC 2 9.55  
 \*

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

```

3823      KK      C64o COMBINE
3824      KM      Combine flows of C64mS, S64o,and R60oW
3825      HC      3  12.13
          *

3826      KK      D64o DIVERT
3827      KM      Divert flow to ADOT West Tunnel (south).
3828      KM      96" SD at Central and 8'x7' RCB at 3rd Ave. Q =535+500=1035 cfs.
3829      DT      D64oPT
3830      DI      0    100    1035    2000    10000
3831      DQ      0    100    1035    1035    1035
          *

3832      KK      R64oW ROUTE
3833      KM      Route surface flow west from Subbasin 64o to 68o.
3834      RS      2    FLOW    -1
3835      RC      0.050  0.016  0.050  2640  0.0015
3836      RX      0    1.05    42    102.9  107.1    168  208.95  210
3837      RY      3    1    0.5    0    0    0.5    1    3
          *

3838      KK      68o BASIN
3839      KM      Subbasin at NEC of I-10 & 7th Ave.
3840      BA      0.688
3841      LG      0.21  0.17    6.80  0.16    25
3842      UC      1.244  0.854
3843      UA      0    5.0    16.0  30.0    65.0  77.0    84.0  90.0  94.0  97.0
3844      UA      100
          *

3845      KK      S68o STORAGE
3846      KM      Online Local Retention Basin, 13 ac-ft.
3847      RS      1    STOR    0
3848      SV      0    4    13    25
3849      SE      0    2    4    6
3850      SS      4    100    2.7    1.5
          *

3851      KK      BD68mP RETRIEVE
3852      KM      Retrieve diverted pipe flow from D68mP.
3853      DR      D68mP
          *

3854      KK      P68mS ROUTE
3855      KM      Route pipe flow from Thomas/7th Ave. to I-10/7th Ave.
3856      RK      6800  0.002  0.015    CIRC    4.0
          *

3857      KK      BD68mS RETRIEVE
3858      KM      Retrieve diverted surface flow from D68mS.
3859      DR      D68mS
          *

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

3860      KK      R68mS ROUTE
3861      KM      Route surface flow south from Subbasin 68m to Subbasin 68o.
3862      RS      7    FLOW    -1
3863      RC      0.050  0.016  0.050  6780  0.0021
3864      RX      0    1.3    52    127.4  132.6    208  258.7  260
3865      RY      3    1    0.5    0    0    0.5    1    3
          *

3866      KK      C68mS COMBINE
3867      KM      Combine hydrographs R68mS and P68mS.
3868      HC      2  16.15
          *

3869      KK      C68o COMBINE
3870      KM      Combine hydrographs S68o, C68mS, and R64oW.
3871      HC      3  16.84
          *

3872      KK      D68o DIVERT
3873      KM      Divert flow into ADOT west Tunnel storm water interceptor 14'
3874      KM      96" SD at 7th Ave and 96" SD at 3rd Ave. Q = 433 + 510 = 943 cfs
3875      DT      D68oPT
3876      DI      0    100    943    2000    10000
3877      DQ      0    100    943    943    943
          *

3878      KK      R60oW ROUTE

```

3879 KM Route surface flow west from Subbasin 68o to 72o.  
 3880 RS 6 FLOW -1  
 3881 RC 0.050 0.016 0.050 2640 0.0015  
 3882 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3883 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3884 KK 72o BASIN  
 3885 KM Subbasin at NEC of I-10 & 15th Ave.  
 3886 BA 0.662  
 3887 LG 0.41 0.15 8.80 0.08 12  
 3888 UC 1.164 0.758  
 3889 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3890 UA 100  
 \*

3891 KK C72o COMBINE  
 3892 KM Combine hydrographs 72o, R68oW, and C72mS  
 3893 HC 3 17.78  
 \*

3894 KK D72o DIVERT  
 3895 KM Diver 433 cfs into storm drain  
 3896 DT D72oP  
 3897 DI 0 100 433 1000 10000  
 3898 DQ 0 100 433 433 433  
 \*

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

3899 KK S72o STORAGE  
 3900 KM ADOT West Tunnel Inlet Basin - Online Regional Detention Basin.  
 3901 RS 1 STOR 0  
 3902 SV 0 0.2 2 3 4.3 6.2 8.9 50  
 3903 SE 0 2 6 8 10 12 14 16  
 3904 SQ 0 50 250 380 530 1148 2156 3703  
 \*

3905 KK D72oPT DIVERT  
 3906 KM Divert flow into West Tunnel  
 3907 DT D72o1  
 3908 DI 0 50 250 380 530 1148 2156 3703  
 3909 DQ 0 0 0 0 0 458 1296 2763  
 \*

3910 KK PT72oE ROUTE  
 3911 KM 14' pipe to ADOT West Tunnel from I-10/15th Ave. to I-10/7th Ave.  
 3912 RK 2600 0.0030 0.015 CIRC 14.0  
 \*

3913 KK B68oPT RETRIEVE  
 3914 KM Retrieve diverted pipe flow from D68oPT.  
 3915 DR D68oPT  
 \*

3916 KK CPT68o COMBINE  
 3917 KM Combine hydrographs PT72oE and D68oPT in the North Tunnel.  
 3918 HC 2 18.47  
 \*

3919 KK PT68oE ROUTE  
 3920 KM Route pipe flow from I-10/7th Ave. to I-10/Central Ave.  
 3921 RK 850 0.0030 0.015 CIRC 14.0  
 \*

3922 KK BD72o1 RETRIEVE  
 3923 KM Retrieve diverted surface flow from D72o1.  
 3924 DR D72o1  
 \*

3925 KK D72oE DIVERT  
 3926 KM Divert flow overtopping West Tunnel Inlet Basin east and west,  
 3927 KM East flow into I-10 depressed segment  
 3928 DT D72oW  
 3929 DI 0 100 458 1296 2763  
 3930 DQ 0 0 0 0 382  
 \*

3931 KK S-110 STORAGE  
 3932 KM Routing through I-10 depressed segment as a detention basin  
 3933 KM Flood water within the depressed area is pumped into ADOT  
 3934 KM West Tunnel. Two Pump Stations with total flow = 350 cfs, 1252 ac-ft.  
 3935 RS 1 STOR 0  
 3936 SV 0 10 62 160 287 602 997 1252 1539

LINE	ID	1	2	3	4	5	6	7	8	9	10
3937	SE	0	1	4	8	12	20	28	32	36	
3938	SQ	0	50	175	350	350	350	350	350	4820	
	*										
3939	KK	B64oPT RETRIEVE									
3940	KM	Retrieve diverted pipe flow from D64oPT.									
3941	DR	D64oPT									
	*										
3942	KK	B60oPT RETRIEVE									
3943	KM	Retrieve diverted pipe flow from D60oPT.									
3944	DR	D60oPT									
	*										
3945	KK	PT60oW ROUTE									
3946	KM	Route pipe flow from 7th st/I-10 to 3rd st/I-10, subbasin 64o.									
3947	RK	2800	0.0030	0.015			CIRC	14.0			
	*										
3948	KK	C-WT COMBINE									
3949	KM	Total flow into ADOT west tunnel at 3rd st/I-10,									
3950	KM	Combine hydrographs S-I10, PT68oE, PT60oW, and D64oPT.									
3951	HC	4	21.04								
	*										
3952	KK	PT64o ROUTE									
3953	KM	Route ADOT West Tunnel flow from 3rd st/I-10 through subbasin 64q.									
3954	RK	3800	0.002	0.015			CIRC	21.0			
	*										
3955	KK	DN 64o DIVERT									
3956	KM	Divert all flow to West Tunnel ( to free up a HEC-1 hydrograph path).									
3957	DT	DPT64o									
3958	DI	0	100	1000	10000						
3959	DQ	0	100	1000	10000						
	*										
3960	KK	36q BASIN									
3961	KM	Subbasin at NEC of Van Buren and 32nd St									
3962	BA	0.267									
3963	LG	0.26	0.15	9.70	0.06	25					
3964	UC	0.764	0.573								
3965	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3966	UA	100									
	*										
3967	KK	BD32q RETRIEVE									
3968	KM	Retrieve diverted surface flow from D32q.									
3969	DR	D32q									
	*										

LINE	ID	1	2	3	4	5	6	7	8	9	10
3970	KK	R32qS ROUTE									
3971	KM	Route surface flow west from Subbasin 32q to 36q.									
3972	RS	3	FLOW	-1							
3973	RC	0.050	0.016	0.050	3600	0.0044					
3974	RK	0	0.5	20	49	51	80	99.5	100		
3975	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3976	KK	B36pP2 RETRIEVE									
3977	KM	Retrieve diverted pipe flow from D36pP2.									
3978	DR	D36pP2									
	*										
3979	KK	P36pS ROUTE									
3980	KM	Route pipe flow from 32nd st/SR-202 to subbasin 36q.									
3981	KM	Pipe size needs check									
3982	RK	4500	0.0036	0.015			CIRC	5.0			
	*										
3983	KK	C36q COMBINE									
3984	KM	Combine hydrographs D32pS, R28qW, and 36q.									
3985	HC	3	1.56								
	*										
3986	KK	D36q DIVERT									
3987	KM	Divert 295 cfs into pipe (south).									
3988	DT	D36qP									

3989 DI 0 100 295 10000  
 3990 DQ 0 100 295 295  
 \*

3991 KK D36qW DIVERT  
 3992 KM Divert 43% of surface flow south.  
 3993 DT D36qS  
 3994 DI 0 100 1000 10000  
 3995 DQ 0 43 428 4276  
 \*

3996 KK R36qW ROUTE  
 3997 KM Route surface flow west from Subbasin 36q to 40q.  
 3998 RS 5 FLOW -1  
 3999 RC 0.050 0.016 0.050 2640 0.0023  
 4000 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 4001 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4002 KK 40q BASIN  
 4003 KM Subbasin at NEC of Van Buren and 28th St  
 4004 BA 0.349  
 4005 LG 0.31 0.15 9.70 0.06 29  
 4006 UC 0.836 0.610  
 4007 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4008 UA 100  
 \*

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

4009 KK C40q COMBINE  
 4010 KM Combine hydrographs R36qW and 40q.  
 4011 HC 2 1.91  
 \*

4012 KK D40q DIVERT  
 4013 KM Divert 32 cfs into pipe (west).  
 4014 DT D40qP  
 4015 DI 0 32 1000 10000  
 4016 DQ 0 32 32 32  
 \*

4017 KK D40qW DIVERT  
 4018 KM Divert 61% of surface flow to south.  
 4019 DT D40qS  
 4020 DI 0 100 1000 10000  
 4021 DQ 0 61 608 6077  
 \*

4022 KK R40qW ROUTE  
 4023 KM Route surface flow west from Subbasin 40q to 44q.  
 4024 RS 5 FLOW -1  
 4025 RC 0.050 0.016 0.050 2640 0.0015  
 4026 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 4027 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4028 KK BD40qP RETRIEVE  
 4029 KM Retrieve diverted pipe flow from D40qP.  
 4030 DR D40qP  
 \*

4031 KK P40qW ROUTE  
 4032 KM Route pipe flow from 28th st/Van Buren to subbasin 44q.  
 4033 RK 2700 0.0031 0.015 CIRC 3.0  
 \*

4034 KK C40qW COMBINE  
 4035 KM Combine hydrographs R40qW and P40qW.  
 4036 HC 2 1.91  
 \*

4037 KK 44q BASIN  
 4038 KM Subbasin at NEC of Van Bure24th St  
 4039 BA 0.359  
 4040 LG 0.33 0.15 9.70 0.06 49  
 4041 UC 0.854 0.661  
 4042 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4043 UA 100  
 \*

HEC-1 INPUT

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

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4044      KK  B44pP2 RETRIEVE
4045      KM  Retrieve diverted pipe flow from D44pP2.
4046      DR  D44pP2
          *

4047      KK  P44pS  ROUTE
4048      KM  Route pipe flow from 24th st/McDowell to subbasin 44q.
4049      RK  3700 0.0030 0.015          CIRC 5.00
          *

4050      KK  C44q COMBINE
4051      KM  Combine hydrographs C40qW, 44q, and P44pS.
4052      HC  3 2.57
          *

4053      KK  D44q DIVERT
4054      KM  Divert 201 cfs into pipe (south).
4055      DT  D44qP
4056      DI  0 100 201 10000
4057      DQ  0 100 201 201
          *

4058      KK  D44qW DIVERT
4059      KM  Divert 62% of surface flow to south.
4060      DT  D44qS
4061      DI  0 100 1000 10000
4062      DQ  0 62 621 6211
          *

4063      KK  R44qW ROUTE
4064      KM  Route surface flow west from Subbasin 44q to 48q.
4065      RS  3 FLOW -1
4066      RC  0.050 0.016 0.050 2500 0.0018
4067      RX  0 0.8 32 78.4 81.6 128 159.2 160
4068      RY  3 1 0.5 0 0 0.5 1 3
          *

4069      KK  48q BASIN
4070      KM  Subbasin at NEC of Van Buren and I-10
4071      BA  0.300
4072      LG  0.25 0.15 9.70 0.06 24
4073      UC  0.954 0.769
4074      UA  0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4075      UA  100
          *

4076      KK  C48q COMBINE
4077      KM  Combine hydrographs R44qW and 48q.
4078      HC  2 2.87
          *

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

```

4079      KK  DB48q DIVERT
4080      KM  Divert flow into East ADOT Tunnel.
4081      KM  78" SD at Pierce St and 96" SD at Taylor St. Q = 245+368=613 cfs.
4082      DT  D48qPT
4083      DI  0 100 613 1000 10000
4084      DQ  0 100 613 613 613
          *

4085      KK  S48q STORAGE
4086      KM  Online detention basin, 5 ac-ft.
4087      RS  1 STOR 0
4088      SV  0 2 4 5.2 8
4089      SE  0 2 4 5 7
4090      SQ  0 30 43 48 438
          *

4091      KK  D48qW DIVERT
4092      KM  Divert 59% of flow to south.
4093      DT  D48qS
4094      DI  0 100 1000 10000
4095      DQ  0 59 590 5900
          *

4096      KK  R48qW ROUTE
4097      KM  Route surface flow west from Subbasin 48q to 52q.
4098      RS  2 FLOW -1
4099      RC  0.050 0.016 0.050 3050 0.0020
4100      RX  0 0.8 32 78.4 81.6 128 159.2 160
4101      RY  3 1 0.5 0 0 0.5 1 3
          *

```

4102 KK 52q BASIN  
 4103 KM Subbasin at NEC of Van Buren and 16th St  
 4104 BA 0.394  
 4105 LG 0.43 0.15 8.80 0.08 35  
 4106 UC 1.060 0.812  
 4107 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4108 UA 100  
 \*

4109 KK C52q COMBINE  
 4110 KM Combine hydrographs D48qW and 52q.  
 4111 HC 2 0.39  
 \*

4112 KK D52q DIVERT  
 4113 KM Divert 191 cfs into pipe (south).  
 4114 DT D52qP  
 4115 DI 0 100 191 10000  
 4116 DQ 0 100 191 191  
 \*

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

4117 KK D52qW DIVERT  
 4118 KM Divert 51% of surface flow to south.  
 4119 DT D52qS  
 4120 DI 0 100 1000 10000  
 4121 DQ 0 51 510 5100  
 \*

4122 KK R52qW ROUTE  
 4123 KM Route surface flow west from Subbasin 52q to 56q.  
 4124 RS 7 FLOW -1  
 4125 RC 0.050 0.016 0.050 2640 0.0015  
 4126 RX 0 1.6 64 156.8 163.2 256 318.4 320  
 4127 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4128 KK 56q BASIN  
 4129 KM Subbasin at NEC of Van Buren and 12th St  
 4130 BA 0.354  
 4131 LG 0.24 0.25 6.00 0.21 22  
 4132 UC 1.046 0.742  
 4133 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4134 UA 100  
 \*

4135 KK C56q COMBINE  
 4136 KM Combine hydrographs R52qW and 56q.  
 4137 HC 2 0.75  
 \*

4138 KK D56q DIVERT  
 4139 KM Divert 68 cfs into pipe (south).  
 4140 DT D56qP  
 4141 DI 0 68 1000 10000  
 4142 DQ 0 68 68 68  
 \*

4143 KK D56qW DIVERT  
 4144 KM Divert 33% of surface flow to south.  
 4145 DT D56qS  
 4146 DI 0 100 1000 10000  
 4147 DQ 0 33 330 3300  
 \*

4148 KK R56qW ROUTE  
 4149 KM Route surface flow west from Subbasin 56q to 60q.  
 4150 RS 5 FLOW -1  
 4151 RC 0.050 0.016 0.050 2640 0.0015  
 4152 RX 0 2.1 84 205.8 214.2 336 417.9 420  
 4153 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

4154 KK 60q BASIN  
 4155 KM Subbasin at NEC of Van Buren and 7th St  
 4156 BA 0.353  
 4157 LG 0.24 0.25 5.00 0.33 23  
 4158 UC 1.005 0.597

4159	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
4160	UA	100									
	*										
4161	KK	C60q COMBINE									
4162	KM	Combine hydrographs R56qW and 60q.									
4163	HC	2	1.10								
	*										
4164	KK	D60q DIVERT									
4165	KM	Divert 281 cfs into pipe (south).									
4166	DT	D60qP									
4167	DI	0	100	281	10000						
4168	DQ	0	100	281	281						
	*										
4169	KK	D60qW DIVERT									
4170	KM	Divert 28% of surface flow to south.									
4171	DT	D60qS									
4172	DI	0	100	1000	10000						
4173	DQ	0	28	280	2800						
	*										
4174	KK	R60qW ROUTE									
4175	KM	Route surface flow west from Subbasin 60q to 64q.									
4176	RS	6	FLOW	-1							
4177	RC	0.050	0.016	0.050	2640	0.0015					
4178	RX	0	1.55	62	151.9	158.1	248	308.45	310		
4179	RY	3	1	0.5	0	0	0.5	1	3		
	*										
4180	KK	64q BASIN									
4181	KM	Subbasin at NEC of Van Buren and Central									
4182	BA	0.405									
4183	LG	0.17	0.17	6.80	0.17	42					
4184	UC	1.011	0.545								
4185	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
4186	UA	100									
	*										
4187	KK	C64q COMBINE									
4188	KM	Combine flows of 64q, R60qW, and DN_64o.									
4189	HC	3	1.51								
	*										

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LINE	ID	.....1	.....2	.....3	.....4	.....5	.....6	.....7	.....8	.....9	.....10
4190	KK	D64q DIVERT									
4191	KM	Divert 0.0 cfs into West Tunnel.									
4192	KM	Assuming the storm drain is not connected to West Tunnel.									
4193	DT	D64qPT									
4194	DI	0	100	1000	10000						
4195	DQ	0	0	0	0						
	*										
4196	KK	D64q1 DIVERT									
4197	KM	Divert 68 cfs into storm drain to west).									
4198	DT	D64qP									
4199	DI	0	68	1000	10000						
4200	DQ	0	68	68	68						
	*										
4201	KK	D64qW DIVERT									
4202	KM	Divert 33% of surface flow to south.									
4203	DT	D64qS									
4204	DI	0	100	1000	10000						
4205	DQ	0	33	330	3300						
	*										
4206	KK	R64qW ROUTE									
4207	KM	Route surface flow west from Subbasin 64q to 68q.									
4208	RS	4	FLOW	-1							
4209	RC	0.050	0.016	0.050	2300	0.0009					
4210	RX	0	1.35	54	132.3	137.7	216	268.65	270		
4211	RY	3	1	0.5	0	0	0.5	1	3		
	*										
4212	KK	BD64qP RETRIEVE									
4213	KM	Retrieve diverted pipe flow from D64qP.									
4214	DR	D64qP									
	*										
4215	KK	P64qW ROUTE									
4216	KM	Route pipe flow from Central/Van Buren to subbasin 68q.									

4217 RK 2650 0.0030 0.015 CIRC 4.0  
 \*  
 4218 KK C64qW COMBINE  
 4219 KM Combine hydrographs R64qW and P64qW.  
 4220 HC 2 1.51  
 \*  
 4221 KK 68q BASIN  
 4222 KM Subbasin at NEC of Van Buren and 7th Ave  
 4223 BA 0.295  
 4224 LG 0.18 0.23 6.20 0.22 36  
 4225 UC 0.942 0.540  
 4226 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4227 UA 100  
 \*

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

4228 KK C68q COMBINE  
 4229 KM Combine hydrographs C64qW and 68q.  
 4230 HC 2 1.80  
 \*  
 4231 KK D68q DIVERT  
 4232 KM Divert 68 cfs into pipe (west).  
 4233 DT D68qP  
 4234 DI 0 68 1000 10000  
 4235 DQ 0 68 68 68  
 \*  
 4236 KK D68qW DIVERT  
 4237 KM Divert 33% of surface flow to south.  
 4238 DT D68qS  
 4239 DI 0 100 1000 10000  
 4240 DQ 0 33 330 3300  
 \*  
 4241 KK R68qW ROUTE  
 4242 KM Route surface flow west from Subbasin 68q to 72q.  
 4243 RS 3 FLOW -1  
 4244 RC 0.050 0.016 0.050 2640 0.0015  
 4245 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 4246 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4247 KK BD68qP RETRIEVE  
 4248 KM Retrieve diverted pipe flow from D68qP.  
 4249 DR D68qP  
 \*

4250 KK P68qW ROUTE  
 4251 KM Route pipe flow from 7th ave/Van Buren to subbasin 72q.  
 4252 RK 3500 0.0030 0.015 CIRC 4.0  
 \*

4253 KK C68qW COMBINE  
 4254 KM Combine hydrographs R68qW and P68qW.  
 4255 HC 2 1.80  
 \*

4256 KK 72q BASIN  
 4257 KM Subbasin at NEC of Van Buren and 15th Ave  
 4258 BA 0.329  
 4259 LG 0.19 0.15 8.40 0.09 29  
 4260 UC 1.017 0.600  
 4261 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4262 UA 100  
 \*

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

4263 KK B72oP RETRIEVE  
 4264 KM Retrieve diverted pipe flow from D72oP.  
 4265 DR D72oP  
 \*

4266 KK P72oS ROUTE  
 4267 KM Route pipe flow from 15th ave/Thomas to subbasin 72q.  
 4268 RK 3700 0.0030 0.015 CIRC 8.00  
 \*

4269 KK C72q COMBINE  
4270 KM Combine hydrographs C68qW, 72q, and P72oS.  
4271 HC 3 3.13  
\*

4272 KK D72q DIVERT  
4273 KM Divert 662 cfs into two pipes (229 cfs for east, 433 for west).  
4274 DT D72qP  
4275 DI 0 100 662 10000  
4276 DQ 0 100 662 662  
\*

4277 KK D72qW DIVERT  
4278 KM Divert 33% of surface flow to south.  
4279 DT D72qS  
4280 DI 0 100 1000 10000  
4281 DQ 0 33 330 3300  
\*

4282 KK R72qW ROUTE  
4283 KM Route surface flow west from Subbasin 72q to 76q.  
4284 RS 4 FLOW -1  
4285 RC 0.050 0.016 0.050 3000 0.0015  
4286 RX 0 1.85 74 181.3 188.7 296 368.15 370  
4287 RY 3 1 0.5 0 0 0.5 1 3  
\*

4288 KK 80o BASIN  
4289 KM Subbasin at NEC of McDowell and 19th Ave  
4290 BA 0.542  
4291 LG 0.46 0.15 9.70 0.06 33  
4292 UC 0.782 0.424  
4293 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
4294 UA 100  
\*

4295 KK BD84mP RETRIEVE  
4296 KM Retrieve diverted pipe flow from D84mP.  
4297 DR D84mP  
\*

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

4298 KK P84mS ROUTE  
4299 KM Route pipe flow from I-17/Thomas to subbasin 80o.  
4300 RK 1800 0.0030 0.015 CIRC 6.50  
\*

4301 KK BD84mS RETRIEVE  
4302 KM Retrieve diverted surface flow from D84mS.  
4303 DR D84mS  
\*

4304 KK R84mS ROUTE  
4305 KM Route surface flow south from Subbasin 84m to 80o.  
4306 RS 3 FLOW -1  
4307 RC 0.050 0.016 0.050 6000 0.004  
4308 RX 0 0.75 30 73.5 76.5 120 149.25 150  
4309 RY 3 1 0.5 0 0 0.5 1 3  
\*

4310 KK C84mS COMBINE  
4311 KM Combine hydrographs R84mS and P84mS.  
4312 HC 2 5.49  
\*

4313 KK BD80mS RETRIEVE  
4314 KM Retrieve diverted surface flow from D80mS.  
4315 DR D80mS  
\*

4316 KK R80mS ROUTE  
4317 KM Route surface flow south from Subbasin 80m to 80o.  
4318 RS 2 FLOW -1  
4319 RC 0.050 0.016 0.050 3500 0.0065  
4320 RX 0 0.5 20 49 51 80 99.5 100  
4321 RY 3 1 0.5 0 0 0.5 1 3  
\*

4322 KK C80o COMBINE  
4323 KM Combine hydrographs R80mS, C84mS, and 80o.  
4324 HC 3 6.58  
\*

4325 KK E80o DIVERT  
 4326 KM By-pass 249 cfs and the remaining flow diverted into offline detention.  
 4327 DT DB80o  
 4328 DI 0 100 249 1000 10000  
 4329 DQ 0 0 0 751 9751  
 \*

4330 KK BDB80oRETRIEVE  
 4331 KM Retrieve diverted flow from DB80 for offline detention.  
 4332 DR DB80o  
 \*

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

4333 KK S80o STORAGE  
 4334 KM Offline Regional Detention Basin, 18 ac-ft.  
 4335 RS 1 STOR 0  
 4336 SV 0 2.7 6.2 10.1 14.3 17.7 24.3  
 4337 SE 0 2 4 6 8 9.5 12  
 4338 SQ 0 15 26 34 55 120 1400  
 \*

4339 KK CC80o COMBINE  
 4340 KM Combine hydrographs S80o and E80o.  
 4341 HC 2 6.58  
 \*

4342 KK D80o DIVERT  
 4343 KM Divert 249 cfs into pipe (south).  
 4344 DT D80oP  
 4345 DI 0 100 249 10000  
 4346 DQ 0 100 249 249  
 \*

4347 KK R80oS ROUTE  
 4348 KM Route surface flow south from Subbasin 80o to 80p.  
 4349 RS 3 FLOW -1  
 4350 RC 0.050 0.016 0.050 4000 0.0037  
 4351 RX 0 1.5 60 147 153 240 298.5 300  
 4352 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4353 KK 76o BASIN  
 4354 KM Subbasin at NEC of I-10 and 19th Ave  
 4355 BA 0.673  
 4356 LG 0.17 0.15 8.80 0.08 26  
 4357 UC 1.106 0.755  
 4358 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4359 UA 100  
 \*

4360 KK BD76m RETRIEVE  
 4361 KM Retrieve diverted surface flow from D76m.  
 4362 DR D76m  
 \*

4363 KK R76mS ROUTE  
 4364 KM Route surface flow south from Subbasin 76m to 76o.  
 4365 RS 3 FLOW -1  
 4366 RC 0.050 0.016 0.050 6900 0.0023  
 4367 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4368 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

4369 KK B76mP2 RETRIEVE  
 4370 KM Retrieve diverted pipe flow from D76mP2.  
 4371 DR D76mP2  
 \*

4372 KK P76mS ROUTE  
 4373 KM Route pipe flow from 19th ave/THomas to subbasin 76o.  
 4374 RK 7000 0.0030 0.015 CIRC 5.50  
 \*

4375 KK C76mS COMBINE  
 4376 KM Combine hydrographs R76mS and P76mS.  
 4377 HC 2 6.71  
 \*

4378 KK BD72oW RETRIEVE

```

4379      KM   Retrieve diverted surface flow from D72oW.
4380      DR   D72oW
          *

4381      KK   R72oW  ROUTE
4382      KM   Route surface flow west from Subbasin 72o to 76o.
4383      RS   2    FLOW    -1
4384      RC   0.050 0.016 0.050 2800 0.0007
4385      RX   0    0.8    32   78.4  81.6    128  159.2  160
4386      RY   3    1    0.5    0    0    0.5    1    3
          *

4387      KK   C76o COMBINE
4388      KM   Combine flows of 76o, C76mS, R80oS, and R72oW
4389      HC   4    7.92
          *

4390      KK   D76oP  DIVERT
4391      KM   Divert 229 cfs into pipe (south).
4392      DT   D76o
4393      DI   0    100    229  10000
4394      DQ   0    0    0    9771
          *

4395      KK   P76oS  ROUTE
4396      KM   Route pipe flow from 19th ave/Thomas to subbasin 76q.
4397      RK   4000 0.0031 0.015    CIRC  6.25
          *

4398      KK   BD76o RETRIEVE
4399      KM   Retrieve diverted surface flow from D76o.
4400      DR   D76o
          *

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

```

4401      KK   D76oS  DIVERT
4402      KM   Divert 10% of surface flow to west.
4403      DT   D76oW
4404      DI   0    100    1000  10000
4405      DQ   0    10    100   1000
          *

4406      KK   R76oS  ROUTE
4407      KM   Route surface flow south from Subbasin 76o to 76q.
4408      RS   2    FLOW    -1
4409      RC   0.050 0.016 0.050 4000 0.0022
4410      RX   0    1.05  42   102.9  107.1    168  208.95  210
4411      RY   3    1    0.5    0    0    0.5    1    3
          *

4412      KK   C76oS COMBINE
4413      KM   Combine hydrographs R76oS and P76oS.
4414      HC   2    7.92
          *

4415      KK   76q  BASIN
4416      KM   Subbasin at NEC of Van Buren and UPRR
4417      BA   0.396
4418      LG   0.19  0.13  10.10  0.05    39
4419      UC   0.856 0.468
4420      UA   0    5.0   16.0  30.0   65.0   77.0   84.0   90.0   94.0   97.0
4421      UA   100
          *

4422      KK   C76q COMBINE
4423      KM   Combine hydrographs 76q, R72qW, and C76oS.
4424      HC   3    11.45
          *

4425      KK   D76q  DIVERT
4426      KM   Divert 229 cfs into pipe (south).
4427      DT   D76qP
4428      DI   0    100    229  10000
4429      DQ   0    100    229   229
          *

4430      KK   D76qW  DIVERT
4431      KM   Divert 52% of surface flow to south.
4432      DT   D76qS
4433      DI   0    100    1000  10000
4434      DQ   0    52    520   5200
          *

```

4435 KK R76qW ROUTE  
 4436 KM Route surface flow west from Subbasin 76q to 80q.  
 4437 RS 2 FLOW -1  
 4438 RC 0.050 0.016 0.050 2300 0.0009  
 4439 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4440 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

4441 KK 80p BASIN  
 4442 KM Subbasin at NEC of I-10 and I-17  
 4443 BA 0.397  
 4444 LG 0.14 0.15 8.00 0.11 55  
 4445 UC 0.746 0.467  
 4446 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4447 UA 100  
 \*

4448 KK BD76oW RETRIEVE  
 4449 KM Retrieve diverted surface flow from D76oW.  
 4450 DR D76oW  
 \*

4451 KK R76oW ROUTE  
 4452 KM Route surface flow west from Subbasin 76o to 80p.  
 4453 RS 2 FLOW -1  
 4454 RC 0.050 0.016 0.050 2200 0.0036  
 4455 RX 0 1.8 72 176.4 183.6 288 358.2 360  
 4456 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4457 KK C80p COMBINE  
 4458 KM Combine flows of 80P and R76oW  
 4459 HC 2 8.32  
 \*

4460 KK S80p STORAGE  
 4461 KM Online Regional Detention Basin, 6 ac-ft.  
 4462 RS 1 STOR 0  
 4463 SV 0 1.9 3.8 5.7 7.8 10  
 4464 SE 0 2 4 6 8 10  
 4465 SQ 0 2 3 4 400 1100  
 \*

4466 KK BD80oP RETRIEVE  
 4467 KM Retrieve diverted pipe flow from D80oP.  
 4468 DR D80oP  
 \*

4469 KK P80oS ROUTE  
 4470 KM Route pipe flow from subbasin 80o to subbasin 80p along I-17.  
 4471 RK 5900 0.0030 0.015 CIRC 6.50  
 \*

4472 KK CC80p COMBINE  
 4473 KM Combine hydrographs P80oS and S80p.  
 4474 HC 2 8.32  
 \*

HEC-1 INPUT

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

4475 KK D80p DIVERT  
 4476 KM Divert 249 cfs into pipe (south).  
 4477 DT D80pP  
 4478 DI 0 100 249 10000  
 4479 DQ 0 100 249 249  
 \*

4480 KK R80pS ROUTE  
 4481 KM Route surface flow south from Subbasin 80p to 80q.  
 4482 RS 8 FLOW -1  
 4483 RC 0.050 0.016 0.050 6200 0.0019  
 4484 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 4485 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4486 KK BD80pP RETRIEVE  
 4487 KM Retrieve diverted pipe flow from D80pP.  
 4488 DR D80pP  
 \*

4489 KK P80pS ROUTE  
4490 KM Route pipe flow from I-17/I-10 to subbasin 80q.  
4491 RK 6200 0.0030 0.015 CIRC 6.50  
\*

4492 KK C80pS COMBINE  
4493 KM Combine hydrographs R36oS and P36oS.  
4494 HC 2 8.32  
\*

4495 KK 80q BASIN  
4496 KM Subbasin at NEC of UPRR and I-17  
4497 BA 0.497  
4498 LG 0.20 0.15 9.70 0.06 31  
4499 UC 1.160 0.841  
4500 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
4501 UA 100  
\*

4502 KK C80q COMBINE  
4503 KM Combine flows of 80q, C80pS, and R76qW  
4504 HC 3 12.34  
\*

4505 KK 28s BASIN  
4506 KM Subbasin at NEC of UPRR and 40th St  
4507 BA 0.164  
4508 LG 0.15 0.23 5.80 0.25 42  
4509 UC 0.636 0.360  
4510 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
4511 UA 100  
\*

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

4512 KK BD28qP RETRIEVE  
4513 KM Retrieve diverted pipe flow from D28qP.  
4514 DR D28qP  
\*

4515 KK D28qP1 DIVERT  
4516 KM Divert 32 cfs into pipe (east).  
4517 DT D28qP2  
4518 DI 0 340 1000  
4519 DQ 0 32 32  
\*

4520 KK P28qS ROUTE  
4521 KM Route pipe flow from 40th st/Grand Canal to subbasin 28s.  
4522 RK 2500 0.0031 0.015 CIRC 7.00  
\*

4523 KK BD28qS RETRIEVE  
4524 KM Retrieve diverted surface flow from D28qS.  
4525 DR D28qS  
\*

4526 KK R28qS ROUTE  
4527 KM Route surface flow south from Subbasin 28q to 28s.  
4528 RS 1 FLOW -1  
4529 RC 0.050 0.016 0.050 1240 0.0065  
4530 RX 0 0.8 32 78.4 81.6 128 159.2 160  
4531 RY 3 1 0.5 0 0 0.5 1 3  
\*

4532 KK C28qS COMBINE  
4533 KM Combine hydrographs R28qS and P28qS.  
4534 HC 2 0.82  
\*

4535 KK C28s COMBINE  
4536 KM Combine hydrographs C28qS and 28s.  
4537 HC 2 0.98  
\*

4538 KK D28s DIVERT  
4539 KM Divert 492 cfs into pipe (south).  
4540 DT D28sP  
4541 DI 0 100 492 10000  
4542 DQ 0 100 492 492  
\*

4543 KK D28sW DIVERT  
4544 KM Divert 43% of surface flow to south.

4545 DT D28sS  
 4546 DI 0 100 1000 10000  
 4547 DQ 0 43 434 4340  
 \*

HEC-1 INPUT

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

4548 KK R28sW ROUTE  
 4549 KM Route surface flow west from Subbasin 28s to 32s.  
 4550 RS 5 FLOW -1  
 4551 RC 0.050 0.016 0.050 2640 0.0023  
 4552 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4553 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4554 KK 32s BASIN  
 4555 KM Subbasin at NEC of UPRR and 36th St  
 4556 BA 0.336  
 4557 LG 0.52 0.15 8.00 0.11 48  
 4558 UC 0.917 0.714  
 4559 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4560 UA 100  
 \*

4561 KK C32s COMBINE  
 4562 KM Combine hydrographs 32s and R28sW.  
 4563 HC 2 1.32  
 \*

4564 KK S32s STORAGE  
 4565 KM Regional online retention basin, 16 ac-ft.  
 4566 RS 1 STOR 0  
 4567 SV 0 0.9 2.2 3.9 6.1 8.8 16 21.2  
 4568 SE 0 2 4 6 8 10 14 16  
 4569 SS 14 100 2.7 1.5  
 \*

4570 KK D32s DIVERT  
 4571 KM Divert 48 cfs into pipe (west).  
 4572 DT D32sP  
 4573 DI 0 48 1000 10000  
 4574 DQ 0 48 48 48  
 \*

4575 KK R32sW ROUTE  
 4576 KM Route surface flow west from Subbasin 32s to 36s.  
 4577 RS 4 FLOW -1  
 4578 RC 0.050 0.016 0.050 2640 0.0015  
 4579 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 4580 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4581 KK BD32sP RETRIEVE  
 4582 KM Retrieve diverted pipe flow from D32sP.  
 4583 DR D32sP  
 \*

HEC-1 INPUT

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

4584 KK P32sW ROUTE  
 4585 KM Route pipe flow from subbasin 32s to subbasin 36s.  
 4586 RK 2650 0.0030 0.015 CIRC 3.5  
 \*

4587 KK C32sW COMBINE  
 4588 KM Combine hydrographs R32sW and P32sW.  
 4589 HC 2 1.32  
 \*

4590 KK 36s BASIN  
 4591 KM Subbasin at NEC of UPRR and 32nd St  
 4592 BA 0.241  
 4593 LG 0.19 0.13 10.10 0.05 34  
 4594 UC 0.826 0.535  
 4595 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4596 UA 100  
 \*

4597 KK BD36qP RETRIEVE  
 4598 KM Retrieve diverted pipe flow from D36qP.  
 4599 DR D36qP  
 \*

4600 KK P36qS ROUTE  
 4601 KM Route pipe flow from 32nd st/Van Buren to subbasin 36s.  
 4602 RK 2500 0.0065 0.015 CIRC 6.00  
 \*

4603 KK BD36qS RETRIEVE  
 4604 KM Retrieve diverted surface flow from D36qS.  
 4605 DR D36qS  
 \*

4606 KK R36qS ROUTE  
 4607 KM Route surface flow south from Subbasin 36q to 36s.  
 4608 RS 4 FLOW -1  
 4609 RC 0.050 0.016 0.050 2530 0.0032  
 4610 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4611 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4612 KK C36qS COMBINE  
 4613 KM Combine hydrographs R36qS and P36qS.  
 4614 HC 2 1.56  
 \*

4615 KK C36s COMBINE  
 4616 KM Combine hydrographs C36qS, 36s, and C32sW.  
 4617 HC 3 2.30  
 \*

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

4618 KK D36s DIVERT  
 4619 KM Divert 303 cfs into pipe (south).  
 4620 DT D36sP  
 4621 DI 0 100 303 10000  
 4622 DQ 0 100 303 303  
 \*

4623 KK R36sW ROUTE  
 4624 KM Route surface flow west from Subbasin 36s to 40s.  
 4625 RS 2 FLOW -1  
 4626 RC 0.050 0.016 0.050 2640 0.0015  
 4627 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4628 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4629 KK 40s BASIN  
 4630 KM Subbasin at NEC of UPRR and 28th St  
 4631 BA 0.244  
 4632 LG 0.15 0.13 10.10 0.05 48  
 4633 UC 0.844 0.544  
 4634 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4635 UA 100  
 \*

4636 KK BD40qS RETRIEVE  
 4637 KM Retrieve diverted surface flow from D40qS.  
 4638 DR D40qS  
 \*

4639 KK R40qS ROUTE  
 4640 KM Route surface flow south from Subbasin 40q to 40s.  
 4641 RS 3 FLOW -1  
 4642 RC 0.050 0.016 0.050 2540 0.0024  
 4643 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 4644 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4645 KK C40s COMBINE  
 4646 KM Combine hydrographs R40qS, 40s, and R36sW.  
 4647 HC 3 2.89  
 \*

4648 KK D40s DIVERT  
 4649 KM Divert 68 cfs into pipe (west).  
 4650 DT D40sP  
 4651 DI 0 68 1000 10000  
 4652 DQ 0 68 68 68  
 \*

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

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4653      KK  R40sW  ROUTE
4654      KM  Route surface flow west from Subbasin 40s to 44s.
4655      RS  2      FLOW      -1
4656      RC  0.050  0.016  0.050  2640  0.0015
4657      RX  0      1.1    44    107.8  112.2  176  218.9  220
4658      RY  3      1      0.5    0      0      0.5  1      3
*

4659      KK  BD40sP RETRIEVE
4660      KM  Retrieve diverted pipe flow from D40sP.
4661      DR  D40sP
*

4662      KK  P40sW  ROUTE
4663      KM  Route pipe flow from subbasin 40s to subbasin 44s.
4664      RK  2800  0.0030  0.015  CIRC  4.0
*

4665      KK  C40sW COMBINE
4666      KM  Combine hydrographs R40sW and P40sW.
4667      HC  2      2.89
*

4668      KK  44s  BASIN
4669      KM  Subbasin at NEC of UPRR and 24th St
4670      BA  0.240
4671      LG  0.16  0.13  10.10  0.05  44
4672      UC  0.933  0.614
4673      UA  0      5.0   16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
4674      UA  100
*

4675      KK  BD44qP RETRIEVE
4676      KM  Retrieve diverted pipe flow from D44qP.
4677      DR  D44qP
*

4678      KK  P44qS  ROUTE
4679      KM  Route pipe flow from 24th st/Van Buren to subbasin 44s.
4680      RK  2500  0.0030  0.015  CIRC  6.00
*

4681      KK  BD44qS RETRIEVE
4682      KM  Retrieve diverted surface flow from D44qS.
4683      DR  D44qS
*

4684      KK  R44qS  ROUTE
4685      KM  Route surface flow south from Subbasin 44q to 44s.
4686      RS  3      FLOW      -1
4687      RC  0.050  0.016  0.050  2550  0.0016
4688      RX  0      0.75  30    73.5  76.5  120  149.25  150
4689      RY  3      1      0.5    0      0      0.5  1      3
*

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

4690      KK  C44qS COMBINE
4691      KM  Combine hydrographs R44qS and P44qS.
4692      HC  2      2.57
*

4693      KK  C44s COMBINE
4694      KM  Combine hydrographs C44qS, 44s, and C40sW.
4695      HC  3      3.79
*

4696      KK  D44s  DIVERT
4697      KM  Divert 201 cfs into pipe (south).
4698      DT  D44sP
4699      DI  0      100   201  10000
4700      DQ  0      100   201  201
*

4701      KK  R44sW  ROUTE
4702      KM  Route surface flow west from Subbasin 44s to 48s.
4703      RS  3      FLOW      -1
4704      RC  0.050  0.016  0.050  2400  0.0017
4705      RX  0      1.1    44    107.8  112.2  176  218.9  220
4706      RY  3      1      0.5    0      0      0.5  1      3
*

4707      KK  48s  BASIN
4708      KM  Subbasin at NEC of UPRR and I-10

```

4709 BA 0.212  
 4710 LG 0.15 0.15 9.70 0.06 49  
 4711 UC 0.813 0.529  
 4712 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4713 UA 100  
 \*

4714 KK BD48qS RETRIEVE  
 4715 KM Retrieve diverted flow from D48qS.  
 4716 DR D48qS  
 \*

4717 KK R48qS ROUTE  
 4718 KM Route surface flow south from Subbasin 48q to 48s.  
 4719 RS 2 FLOW -1  
 4720 RC 0.050 0.016 0.050 2550 0.0016  
 4721 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4722 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4723 KK C48s COMBINE  
 4724 KM Combine hydrographs R48qS, 48s, and R44sW.  
 4725 HC 3 4.31  
 \*

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

4726 KK DB48s DIVERT  
 4727 KM Divert flow into East Tunnel.  
 4728 KM 102" SD at Admas St and 96" SD at Madison St. Q =600+468=1068 cfs  
 4729 DT D48sPT  
 4730 DI 0 100 1068 10000  
 4731 DQ 0 100 1068 1068  
 \*

4732 KK S48s STORAGE  
 4733 KM Regional online detention basin, 0.6 ac-ft.  
 4734 RS 1 STOR 0  
 4735 SV 0 0.6 2  
 4736 SE 0 1 3  
 4737 SQ 0 24 290  
 \*

4738 KK R48sW ROUTE  
 4739 KM Route surface flow west from Subbasin 48s to 52s.  
 4740 RS 6 FLOW -1  
 4741 RC 0.050 0.016 0.050 3000 0.0014  
 4742 RX 0 0.9 36 88.2 91.8 144 179.1 180  
 4743 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4744 KK 52s BASIN  
 4745 KM Subbasin at NEC of UPRR and 16th St  
 4746 BA 0.265  
 4747 LG 0.17 0.13 10.10 0.05 44  
 4748 UC 0.879 0.571  
 4749 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4750 UA 100  
 \*

4751 KK BD52qP RETRIEVE  
 4752 KM Retrieve diverted pipe flow from D52qP.  
 4753 DR D52qP  
 \*

4754 KK P52qS ROUTE  
 4755 KM Route pipe flow from subbasin 52q to subbasin 52s.  
 4756 RK 2500 0.0139 0.015 CIRC 4.42  
 \*

4757 KK BD52qS RETRIEVE  
 4758 KM Retrieve diverted surface flow from D52qS.  
 4759 DR D52qS  
 \*

4760 KK R52qS ROUTE  
 4761 KM Route surface flow south from Subbasin 52q to 52s.  
 4762 RS 5 FLOW -1  
 4763 RC 0.050 0.016 0.050 2500 0.0024  
 4764 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 4765 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
4766	KK C52qS COMBINE
4767	KM Combine hydrographs R52qS and P52qS.
4768	HC 2 0.39
	*
4769	KK C52s COMBINE
4770	KM Combine hydrographs C52s, C52qS, and R48sW.
4771	HC 3 0.66
	*
4772	KK D52s DIVERT
4773	KM Divert 191 cfs into pipe (south).
4774	DT D52sP
4775	DI 0 100 191 10000
4776	DQ 0 100 191 191
	*
4777	KK R52sW ROUTE
4778	KM Route surface flow west from Subbasin 52s to 56s.
4779	RS 5 FLOW -1
4780	RC 0.050 0.016 0.050 2640 0.0015
4781	RX 0 0.8 32 78.4 81.6 128 159.2 160
4782	RY 3 1 0.5 0 0 0.5 1 3
	*
4783	KK 56s BASIN
4784	KM Subbasin at NEC of UPRR and 12th St
4785	BA 0.255
4786	LG 0.18 0.10 11.20 0.03 39
4787	UC 0.869 0.542
4788	UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4789	UA 100
	*
4790	KK BD56qP RETRIEVE
4791	KM Retrieve diverted pipe flow from D56qP.
4792	DR D56qP
	*
4793	KK P56qS ROUTE
4794	KM Route pipe flow from 12th st/Van Buren to subbasin 56s.
4795	RK 2600 0.0030 0.015 CIRC 4.00
	*
4796	KK BD56qS RETRIEVE
4797	KM Retrieve diverted surface flow from D56qS.
4798	DR D56qS
	*

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LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
4799	KK R56qS ROUTE
4800	KM Route surface flow south from Subbasin 56q to 56s.
4801	RS 5 FLOW -1
4802	RC 0.050 0.016 0.050 2500 0.0024
4803	RX 0 1.25 50 122.5 127.5 200 248.75 250
4804	RY 3 1 0.5 0 0 0.5 1 3
	*
4805	KK C56qS COMBINE
4806	KM Combine hydrographs R56qS and P56qS.
4807	HC 2 0.75
	*
4808	KK C56s COMBINE
4809	KM Combine hydrographs C56qS, 56s, and R52sW.
4810	HC 3 1.27
	*
4811	KK D56s DIVERT
4812	KM Divert 201 cfs into pipe (south).
4813	DT D56sP
4814	DI 0 100 201 10000
4815	DQ 0 100 201 201
	*
4816	KK D56sW DIVERT
4817	KM Divert 15% of surface flow to south.
4818	DT D56sS
4819	DI 0 100 1000 10000
4820	DQ 0 15 150 1500

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*
4821 KK R56sW ROUTE
4822 KM Route surface flow west from Subbasin 56s to 60s.
4823 RS 3 FLOW -1
4824 RC 0.050 0.016 0.050 2640 0.0015
4825 RX 0 0.8 32 78.4 81.6 128 159.2 160
4826 RY 3 1 0.5 0 0 0.5 1 3
*
4827 KK 60s BASIN
4828 KM Subbasin at NEC of UPRR and 7th St
4829 BA 0.253
4830 LG 0.14 0.13 10.10 0.05 55
4831 UC 0.721 0.457
4832 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4833 UA 100
*

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

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4834 KK BD60qP RETRIEVE
4835 KM Retrieve diverted pipe flow from D60qP.
4836 DR D60qP
*
4837 KK P60qS ROUTE
4838 KM Route pipe flow from subbasin 60q to subbasin 60s.
4839 RK 2600 0.0031 0.015 CIRC 6.75
*
4840 KK BD60qS RETRIEVE
4841 KM Retrieve diverted surface flow from D60qS.
4842 DR D60qS
*
4843 KK R60qS ROUTE
4844 KM Route surface flow south from Subbasin 60q to 60s.
4845 RS 6 FLOW -1
4846 RC 0.050 0.016 0.050 2600 0.0037
4847 RX 0 1.25 50 122.5 127.5 200 248.75 250
4848 RY 3 1 0.5 0 0 0.5 1 3
*
4849 KK C60qS COMBINE
4850 KM Combine hydrographs R60qS and P60qS.
4851 HC 2 1.10
*
4852 KK C60s COMBINE
4853 KM Combine flows of 60s, c60qS, and R56sW
4854 HC 3 1.87
*
4855 KK D60s DIVERT
4856 KM Divert 217 cfs into pipe (west).
4857 DT D60sP
4858 DI 0 100 217 10000
4859 DQ 0 100 217 217
*
4860 KK D60sW DIVERT
4861 KM Divert 28% of surface flow to south.
4862 DT D60sS
4863 DI 0 100 1000 10000
4864 DQ 0 28 280 2800
*
4865 KK R60sW ROUTE
4866 KM Route surface flow west from Subbasin 60s to 64s.
4867 RS 3 FLOW -1
4868 RC 0.050 0.016 0.050 2640 0.0008
4869 RX 0 0.8 32 78.4 81.6 128 159.2 160
4870 RY 3 1 0.5 0 0 0.5 1 3
*

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

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4871 KK BD60sP RETRIEVE
4872 KM Retrieve diverted pipe flow from D60sP.
4873 DR D60sP
*

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4874 KK P60sW ROUTE
4875 KM Route pipe flow from subbasin 60s to subbasin 64s.
4876 RK 1150 0.0030 0.015 CIRC 6.2
*

4877 KK C60sW COMBINE
4878 KM Combine hydrographs R60sW and P60sW.
4879 HC 2 1.87
*

4880 KK 64s BASIN
4881 KM Subbasin at NEC of UPRR and Central
4882 BA 0.258
4883 LG 0.11 0.15 9.70 0.07 65
4884 UC 0.750 0.462
4885 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4886 UA 100
*

4887 KK BD64qS RETRIEVE
4888 KM Retrieve diverted surface flow from D64qS.
4889 DR D64qS
*

4890 KK R64qS ROUTE
4891 KM Route surface flow south from Subbasin 64q to 64s.
4892 RS 3 FLOW -1
4893 RC 0.050 0.016 0.050 2480 0.0032
4894 RX 0 1.55 62 151.9 158.1 248 308.45 310
4895 RY 3 1 0.5 0 0 0.5 1 3
*

4896 KK C64s COMBINE
4897 KM Combine flows of 64s, R64qS, and C60sW
4898 HC 3 2.54
*

4899 KK D64s DIVERT
4900 KM Divert 0.0 cfs into West Tunnel.
4901 KM Assuming no connection to ADOT West Tunnel.
4902 DT D64sPT
4903 DI 0 100 1000 10000
4904 DQ 0 0 0 0
*

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

4905 KK D64s1 DIVERT
4906 KM Divert 327 cfs into storm drain.
4907 KM 600 cfs for two pipes combined but limited by D/S pipe capacity.
4908 DT D64sP
4909 DI 0 100 327 1000 10000
4910 DQ 0 100 327 327 327
*

4911 KK D64sW DIVERT
4912 KM Divert 42% of surface flow to south.
4913 DT D64sS
4914 DI 0 100 1000 10000
4915 DQ 0 42 420 4200
*

4916 KK R64sW ROUTE
4917 KM Route surface flow west from Subbasin 64s to 68s.
4918 RS 3 FLOW -1
4919 RC 0.050 0.016 0.050 2280 0.0026
4920 RX 0 1.3 52 127.4 132.6 208 258.7 260
4921 RY 3 1 0.5 0 0 0.5 1 3
*

4922 KK 68s BASIN
4923 KM Subbasin at NEC of UPRR and 7th Ave
4924 BA 0.236
4925 LG 0.12 0.25 5.20 0.35 60
4926 UC 0.780 0.492
4927 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4928 UA 100
*

4929 KK BD68qS RETRIEVE
4930 KM Retrieve diverted surface flow from D68qS.
4931 DR D68qS
*

```

4932 KK R68qS ROUTE  
 4933 KM Route surface flow south from Subbasin 68q to 68s.  
 4934 RS 3 FLOW -1  
 4935 RC 0.050 0.016 0.050 2800 0.0024  
 4936 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 4937 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4938 KK C68s COMBINE  
 4939 KM Combine hydrographs 68s,R68qS, and R64sW  
 4940 HC 3 3.07  
 \*

HEC-1 INPUT

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

4941 KK D68s DIVERT  
 4942 KM Divert 124 cfs into pipe (south).  
 4943 DT D68sP  
 4944 DI 0 100 124 10000  
 4945 DQ 0 100 124 124  
 \*

4946 KK D68sW DIVERT  
 4947 KM Divert 28% of surface flow to south.  
 4948 DT D68sS  
 4949 DI 0 100 1000 10000  
 4950 DQ 0 28 280 2800  
 \*

4951 KK R68sW ROUTE  
 4952 KM Route surface flow west from Subbasin 68s to 72s.  
 4953 RS 3 FLOW -1  
 4954 RC 0.050 0.016 0.050 2640 0.0015  
 4955 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 4956 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4957 KK 72s BASIN  
 4958 KM Subbasin at NEC of UPRR and 15th Ave  
 4959 BA 0.283  
 4960 LG 0.16 0.15 9.70 0.06 35  
 4961 UC 0.822 0.501  
 4962 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4963 UA 100  
 \*

4964 KK BD72qP RETRIEVE  
 4965 KM Retrieve diverted pipe flow from D72qP.  
 4966 KM Total pipe flow = 662 cfs  
 4967 DR D72qP  
 \*

4968 KK D72qP1 DIVERT  
 4969 KM Divert flow into pipe (south).  
 4970 DT D72qP2  
 4971 DI 0 662 700  
 4972 DQ 0 229 242  
 \*

4973 KK P72qS1 ROUTE  
 4974 KM Route pipe flow from 15th ave/Van Buren to subbasin 72s.  
 4975 RK 3000 0.0030 0.015 CIRC 8.00  
 \*

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

4976 KK B72qP2 RETRIEVE  
 4977 KM Retrieve diverted pipe flow from D72qP2.  
 4978 DR D72qP2  
 \*

4979 KK P72qS2 ROUTE  
 4980 KM Route pipe flow from subbasin 72q to subbasin 72s.  
 4981 RK 3000 0.0031 0.015 CIRC 6.3  
 \*

4982 KK BD72qS RETRIEVE  
 4983 KM Retrieve diverted surface flow from D72qS.  
 4984 DR D72qS  
 \*

4985 KK R72qS ROUTE  
 4986 KM Route surface flow south from Subbasin 72q to 72s.  
 4987 RS 4 FLOW -1  
 4988 RC 0.050 0.016 0.050 3000 0.0024  
 4989 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 4990 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4991 KK C72qS COMBINE  
 4992 KM Combine hydrographs R72qS, P72qS2, and P72qS1.  
 4993 HC 3 3.13  
 \*

4994 KK C72s COMBINE  
 4995 KM Combine flows of C72qS, 72s, and R68sW  
 4996 HC 3 4.68  
 \*

4997 KK D72s DIVERT  
 4998 KM Divert 662 cfs into pipe (433 cfs + 229 cfs) (south).  
 4999 DT D72sP  
 5000 DI 0 100 662 10000  
 5001 DQ 0 100 662 662  
 \*

5002 KK D72sW DIVERT  
 5003 KM Divert 40% of surface flow to south.  
 5004 DT D72sS  
 5005 DI 0 100 1000 10000  
 5006 DQ 0 40 400 4000  
 \*

5007 KK R72sW ROUTE  
 5008 KM Route surface flow west from Subbasin 72s to 76s.  
 5009 RS 4 FLOW -1  
 5010 RC 0.050 0.016 0.050 2640 0.0008  
 5011 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5012 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

5013 KK 76s BASIN  
 5014 KM Subbasin at NEC of UPRR and 19th Ave  
 5015 BA 0.279  
 5016 LG 0.11 0.15 9.70 0.07 54  
 5017 UC 0.839 0.496  
 5018 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5019 UA 100  
 \*

5020 KK S76s STORAGE  
 5021 KM Online Retention Basin, 0.7 ac-ft.  
 5022 RS 1 STOR 0  
 5023 SV 0 0.7 2  
 5024 SE 0 2 4  
 5025 SS 2 100 2.7 1.5  
 \*

5026 KK BD76qP RETRIEVE  
 5027 KM Retrieve diverted pipe flow from D76qP.  
 5028 DR D76qP  
 \*

5029 KK P76qS ROUTE  
 5030 KM Route pipe flow from 19th ave/Van Buren to subbasin 76s.  
 5031 RK 2200 0.0031 0.015 CIRC 6.25  
 \*

5032 KK BD76qS RETRIEVE  
 5033 KM Retrieve diverted surface flow from D76qS.  
 5034 DR D76qS  
 \*

5035 KK R76qS ROUTE  
 5036 KM Route surface flow south from Subbasin 76q to 76s.  
 5037 RS 2 FLOW -1  
 5038 RC 0.050 0.016 0.050 2480 0.0032  
 5039 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 5040 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5041 KK C76qS COMBINE  
 5042 KM Combine hydrographs P76qS and R76qS.

5043 HC 2 11.45  
\*  
5044 KK C76s COMBINE  
5045 KM Combine hydrographs S76s, C76qS, and R72sW.  
5046 HC 3 13.28  
\*

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

5047 KK D76s DIVERT  
5048 KM Divert 204 cfs into pipe (south).  
5049 DT D76sP  
5050 DI 0 100 204 10000  
5051 DQ 0 100 204 204  
\*  
5052 KK D76sW DIVERT  
5053 KM Divert 22% of surface flow to south.  
5054 DT D76sS  
5055 DI 0 100 1000 10000  
5056 DQ 0 22 220 2200  
\*  
5057 KK R76sW ROUTE  
5058 KM Route surface flow west from Subbasin 76s to 80q.  
5059 RS 3 FLOW -1  
5060 RC 0.050 0.016 0.050 2290 0.0009  
5061 RX 0 1.25 50 122.5 127.5 200 248.75 250  
5062 RY 3 1 0.5 0 0 0.5 1 3  
\*

5063 KK CC80q COMBINE  
5064 KM CCombine flows of C80q and R76sW  
5065 HC 2 14.17  
\*

5066 KK D80q DIVERT  
5067 KM Divert 364 cfs into pipe (south).  
5068 DT D80qP  
5069 DI 0 100 364 10000  
5070 DQ 0 100 364 364  
\*

5071 KK D80qS DIVERT  
5072 KM Divert 100% of surface flow to west because of the SPRR.  
5073 DT D80qW  
5074 DI 0 100 1000 10000  
5075 DQ 0 100 1000 10000  
\*

5076 KK R80qS ROUTE  
5077 KM Route surface flow south from Subbasin 80q to 80t.  
5078 RS 2 FLOW -1  
5079 RC 0.050 0.016 0.050 2900 0.0042  
5080 RX 0 0.75 30 73.5 76.5 120 149.25 150  
5081 RY 3 1 0.5 0 0 0.5 1 3  
\*

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

5082 KK BD80qP RETRIEVE  
5083 KM Retrieve diverted pipe flow from D80qP.  
5084 DR D80qP  
\*

5085 KK P80qS ROUTE  
5086 KM Route pipe flow from SPRR/I-17 to subbasin 80t.  
5087 RK 2700 0.0030 0.015 CIRC 7.50  
\*

5088 KK C80qS COMBINE  
5089 KM Combine hydrographs R80qS and P80qS.  
5090 HC 2 14.17  
\*

5091 KK 52t BASIN  
5092 KM Subbasin at NEC of Buckeye and 16th St  
5093 BA 0.297  
5094 LG 0.15 0.15 8.00 0.11 42  
5095 UC 0.960 0.603  
5096 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0

```

5097      UA      100
          *

5098      KK      S52t STORAGE
5099      KM      Online Retention Basin, 4 ac-ft.
5100      RS      1      STOR      0
5101      SV      0      1.6      4      7
5102      SE      0      2      4      6
5103      SS      4      100      2.7      1.5
          *

5104      KK      BD52sP RETRIEVE
5105      KM      Retrieve diverted pipe flow from D52sP.
5106      DR      D52sP
          *

5107      KK      P52sS ROUTE
5108      KM      Route pipe flow from 16th st/SPRR to subbasin 52t.
5109      RK      2850 0.0139 0.015      CIRC      4.42
          *

5110      KK      C52t COMBINE
5111      KM      Combine hydrographs S52t and P52sS.
5112      HC      2      0.96
          *

5113      KK      D52t DIVERT
5114      KM      Divert 281 cfs into pipe (south).
5115      DT      D52tP
5116      DI      0      100      281      10000
5117      DQ      0      100      281      281
          *

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

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5118      KK      D52tW DIVERT
5119      KM      Divert 41% of surface flow to south.
5120      DT      D52tS
5121      DI      0      100      1000      10000
5122      DQ      0      41      410      4100
          *

5123      KK      R52tW ROUTE
5124      KM      Route surface flow west from Subbasin 52t to 56t.
5125      RS      3      FLOW      -1
5126      RC      0.050 0.016 0.050      2640 0.0023
5127      RX      0      0.5      20      49      51      80      99.5      100
5128      RY      3      1      0.5      0      0      0.5      1      3
          *

5129      KK      56t BASIN
5130      KM      Subbasin at NEC of Buckeye and 12th St
5131      BA      0.179
5132      LG      0.12 0.15 8.80 0.08 57
5133      UC      0.836 0.663
5134      UA      0      5.0      16.0      30.0      65.0      77.0      84.0      90.0      94.0      97.0
5135      UA      100
          *

5136      KK      BD56sP RETRIEVE
5137      KM      Retrieve diverted pipe flow from D56sP.
5138      DR      D56sP
          *

5139      KK      P56sS ROUTE
5140      KM      Route pipe flow from subbasin 56s to subbasin 56t.
5141      RK      2900 0.0030 0.015      CIRC      6.00
          *

5142      KK      BD56sS RETRIEVE
5143      KM      Retrieve diverted surface flow from D56sS.
5144      DR      D56sS
          *

5145      KK      R56sS ROUTE
5146      KM      Route surface flow south from Subbasin 56s to 56t.
5147      RS      6      FLOW      -1
5148      RC      0.050 0.016 0.050      2900 0.0030
5149      RX      0      1.3      52      127.4      132.6      208      258.7      260
5150      RY      3      1      0.5      0      0      0.5      1      3
          *

5151      KK      C56sS COMBINE
5152      KM      Combine hydrographs R56sS and P56sS.

```

5153 HC 2 1.27

\*

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

5154 KK C56t COMBINE  
5155 KM Combine hydrographs 56t, R52tW, and C56sS.  
5156 HC 3 1.74  
\*

5157 KK D56t DIVERT  
5158 KM Divert 612 cfs into pipe (south).  
5159 DT D56tP  
5160 DI 0 100 612 10000  
5161 DQ 0 100 612 612  
\*

5162 KK D56tW DIVERT  
5163 KM Divert 35% of surface flow to south.  
5164 DT D56tS  
5165 DI 0 100 1000 10000  
5166 DQ 0 35 350 3500  
\*

5167 KK R56tW ROUTE  
5168 KM Route surface flow west from Subbasin 56t to 60t.  
5169 RS 2 FLOW -1  
5170 RC 0.050 0.016 0.050 2640 0.0023  
5171 RX 0 0.5 20 49 51 80 99.5 100  
5172 RY 3 1 0.5 0 0 0.5 1 3  
\*

5173 KK 60t BASIN  
5174 KM Subbasin at NEC of Buckeye and 7th St  
5175 BA 0.328  
5176 LG 0.17 0.15 8.00 0.11 42  
5177 UC 0.990 0.674  
5178 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5179 UA 100  
\*

5180 KK S60t STORAGE  
5181 KM Online Retention Basin, 0.7 ac-ft.  
5182 RS 1 STOR 0  
5183 SV 0 0.3 0.7 1.3  
5184 SE 0 2 4 6  
5185 SS 4 100 2.7 1.5  
\*

5186 KK BD60sS RETRIEVE  
5187 KM Retrieve diverted surface flow from D60sS.  
5188 DR D60sS  
\*

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

5189 KK R60sS ROUTE  
5190 KM Route surface flow south from Subbasin 60s to 60t.  
5191 RS 3 FLOW -1  
5192 RC 0.050 0.016 0.050 2900 0.0035  
5193 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5194 RY 3 1 0.5 0 0 0.5 1 3  
\*

5195 KK C60t COMBINE  
5196 KM Combine hydrographs R60sS, S60t and R56tW.  
5197 HC 3 2.68  
\*

5198 KK D60tW DIVERT  
5199 KM Divert 27% of surface flow to south.  
5200 DT D60tS  
5201 DI 0 100 1000 10000  
5202 DQ 0 27 270 2700  
\*

5203 KK R60tW ROUTE  
5204 KM Route surface flow west from Subbasin 60t to 64t.  
5205 RS 3 FLOW -1  
5206 RC 0.050 0.016 0.050 2640 0.0023  
5207 RX 0 0.75 30 73.5 76.5 120 149.25 150  
5208 RY 3 1 0.5 0 0 0.5 1 3

\*  
 5209 KK 64t BASIN  
 5210 KM Subbasin at NEC of Buckeye and Central  
 5211 BA 0.271  
 5212 LG 0.15 0.21 6.40 0.21 49  
 5213 UC 0.924 0.585  
 5214 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5215 UA 100  
 \*

5216 KK BD64sP RETRIEVE  
 5217 KM Retrieve diverted pipe flow from D64sP.  
 5218 DR D64sP  
 \*

5219 KK P64sS ROUTE  
 5220 KM Route pipe flow from subbasin 64s to subbasin 64t.  
 5221 KM Two pipes equivalent D = 10'  
 5222 RK 2800 0.0035 0.015 CIRC 10.0  
 \*

5223 KK BD64sS RETRIEVE  
 5224 KM Retrieve diverted surface flow from D64sS.  
 5225 DR D64sS  
 \*

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

5226 KK R64sS ROUTE  
 5227 KM Route surface flow south from Subbasin 64s to 64t.  
 5228 RS 3 FLOW -1  
 5229 RC 0.050 0.016 0.050 2900 0.0035  
 5230 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5231 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5232 KK C64sS COMBINE  
 5233 KM Combine hydrographs R64sS and P64sS.  
 5234 HC 2 2.54  
 \*

5235 KK C64t COMBINE  
 5236 KM Combine flows of 64t, C64sS, and R60tW  
 5237 HC 3 3.61  
 \*

5238 KK D64t DIVERT  
 5239 KM Divert 0.0 cfs into ADOT West Tunnel (assuming no connection).  
 5240 DT D64tPT  
 5241 DI 0 100 1000 10000  
 5242 DQ 0 0 0 0  
 \*

5243 KK D64t1 DIVERT  
 5244 KM Divert 375 (327+48) cfs into pipes (south).  
 5245 DT D64tP  
 5246 DI 0 100 375 10000  
 5247 DQ 0 100 375 375  
 \*

5248 KK D64tW DIVERT  
 5249 KM Divert 44% of surface flow to south.  
 5250 DT D64tS  
 5251 DI 0 100 1000 10000  
 5252 DQ 0 44 440 4400  
 \*

5253 KK R64tW ROUTE  
 5254 KM Route surface flow west from Subbasin 64t to 68t.  
 5255 RS 3 FLOW -1  
 5256 RC 0.050 0.016 0.050 2640 0.0023  
 5257 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5258 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5259 KK 68t BASIN  
 5260 KM Subbasin at NEC of Buckeye and 7th Ave  
 5261 BA 0.251  
 5262 LG 0.20 0.15 8.80 0.08 33  
 5263 UC 0.809 0.527  
 5264 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5265 UA 100  
 \*

```

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

5266      KK  BD68sP RETRIEVE
5267      KM  Retrieve diverted pipe flow from D68sP.
5268      DR  D68sP
          *

5269      KK  P68sS  ROUTE
5270      KM  Route pipe flow from 7th ave/SPRR to subbasin 68t.
5271      RK  2500  0.0030  0.015          CIRC  5.00
          *

5272      KK  BD68sS RETRIEVE
5273      KM  Retrieve diverted surface flow from D68sS.
5274      DR  D68sS
          *

5275      KK  R68sS  ROUTE
5276      KM  Route surface flow south from Subbasin 68s to 68t.
5277      RS  3  FLOW  -1
5278      RC  0.050  0.016  0.050  2600  0.0035
5279      RX  0  1.3  52  127.4  132.6  208  258.7  260
5280      RY  3  1  0.5  0  0  0.5  1  3
          *

5281      KK  C68sS COMBINE
5282      KM  Combine hydrographs R68sS and P68sS.
5283      HC  2  3.07
          *

5284      KK  C68t COMBINE
5285      KM  Combine flows of 68t, C68sS, and R64tW
5286      HC  3  4.39
          *

5287      KK  D68t  DIVERT
5288      KM  Divert 124 cfs into pipe (south).
5289      DT  D68tP
5290      DI  0  100  124  10000
5291      DQ  0  100  124  124
          *

5292      KK  D68tW  DIVERT
5293      KM  Divert 46% of surface flow to south.
5294      DT  D68tS
5295      DI  0  100  1000  10000
5296      DQ  0  46  460  4600
          *

5297      KK  R68tW  ROUTE
5298      KM  Route surface flow west from Subbasin 68t to 72t.
5299      RS  2  FLOW  -1
5300      RC  0.050  0.016  0.050  2640  0.0023
5301      RX  0  1.05  42  102.9  107.1  168  208.95  210
5302      RY  3  1  0.5  0  0  0.5  1  3
          *

```

```

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

5303      KK  72t  BASIN
5304      KM  Subbasin at NEC of Buckeye and 15th Ave
5305      BA  0.222
5306      LG  0.21  0.15  9.70  0.06  31
5307      UC  0.880  0.727
5308      UA  0  5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
5309      UA  100
          *

5310      KK  BD72sS RETRIEVE
5311      KM  Retrieve diverted surface flow from D72sS.
5312      DR  D72sS
          *

5313      KK  R72sS  ROUTE
5314      KM  Route surface flow south from Subbasin 72s to 72t.
5315      RS  2  FLOW  -1
5316      RC  0.050  0.016  0.050  2400  0.0051
5317      RX  0  1.05  42  102.9  107.1  168  208.95  210
5318      RY  3  1  0.5  0  0  0.5  1  3
          *

```

5319 KK BD72sP RETRIEVE  
5320 KM Retrieve diverted pipe flow from D72sP.  
5321 DR D72sP  
\*

5322 KK D72sP1 DIVERT  
5323 KM Divert flow into pipe (south).  
5324 DT D72sP2  
5325 DI 0 662 700  
5326 DQ 0 229 242  
\*

5327 KK P72sS1 ROUTE  
5328 KM Route pipe flow from subbasin 72s to subbasin 72t.  
5329 RK 2350 0.0030 0.015 CIRC 8.00  
\*

5330 KK B72sP2 RETRIEVE  
5331 KM Retrieve diverted pipe flow from D72sP2.  
5332 DR D72sP2  
\*

5333 KK P72sS2 ROUTE  
5334 KM Route pipe flow from subbasin 72s to subbasin 72t.  
5335 RK 2350 0.0031 0.015 CIRC 6.3  
\*

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

5336 KK C72sS COMBINE  
5337 KM Combine flow of R72sS, P72sS1, and P72sS2  
5338 HC 3 4.68  
\*

5339 KK C72t COMBINE  
5340 KM Combine flows of C72sS, 72s, and R68tW  
5341 HC 3 6.23  
\*

5342 KK D72t DIVERT  
5343 KM Divert 714 cfs into pipe (433 cfs + 281 cfs) (south).  
5344 DT D72tP  
5345 DI 0 100 714 10000  
5346 DQ 0 100 714 714  
\*

5347 KK D72tW DIVERT  
5348 KM Divert 53% of surface flow to south.  
5349 DT D72tS  
5350 DI 0 100 1000 10000  
5351 DQ 0 53 530 5300  
\*

5352 KK R72tW ROUTE  
5353 KM Route surface flow west from Subbasin 72t to 76t.  
5354 RS 3 FLOW -1  
5355 RC 0.050 0.016 0.050 2640 0.0015  
5356 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5357 RY 3 1 0.5 0 0 0.5 1 3  
\*

5358 KK 76t BASIN  
5359 KM Subbasin at NEC of Buckeye and 19th Ave  
5360 BA 0.272  
5361 LG 0.19 0.15 9.70 0.06 36  
5362 UC 0.899 0.601  
5363 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5364 UA 100  
\*

5365 KK BD76sP RETRIEVE  
5366 KM Retrieve diverted pipe flow from D76sP.  
5367 DR D76sP  
\*

5368 KK P76sS ROUTE  
5369 KM Route pipe flow from 19th ave/SPRR to subbasin 76t.  
5370 RK 3000 0.0031 0.015 CIRC 6.00  
\*

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

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5371 KK BD76sS RETRIEVE
5372 KM Retrieve diverted surface flow from D76sS.
5373 DR D76sS
*

5374 KK R76sS ROUTE
5375 KM Route surface flow south from Subbasin 76s to 76t.
5376 RS 3 FLOW -1
5377 RC 0.050 0.016 0.050 2800 0.0033
5378 RX 0 0.8 32 78.4 81.6 128 159.2 160
5379 RY 3 1 0.5 0 0 0.5 1 3
*

5380 KK C76sS COMBINE
5381 KM Combine hydrographs R76sS and P76sS.
5382 HC 2 13.28
*

5383 KK C76t COMBINE
5384 KM Combine hydrographs C76sS, 76t, and R72tW.
5385 HC 3 15.10
*

5386 KK D76t DIVERT
5387 KM Divert 297 cfs into pipe (south) (249 cfs + 48 cfs).
5388 DT D76tP
5389 DI 0 100 297 10000
5390 DQ 0 100 297 297
*

5391 KK D76tW DIVERT
5392 KM Divert 53% of surface flow to south.
5393 DT D76tS
5394 DI 0 100 1000 10000
5395 DQ 0 53 530 5300
*

5396 KK R76tW ROUTE
5397 KM Route surface flow west from Subbasin 76t to 80t.
5398 RS 3 FLOW -1
5399 RC 0.050 0.016 0.050 2640 0.0015
5400 RX 0 1.55 62 151.9 158.1 248 308.45 310
5401 RY 3 1 0.5 0 0 0.5 1 3
*

5402 KK 80t BASIN
5403 KM Subbasin at NEC of Buckeye and I-17
5404 BA 0.252
5405 LG 0.19 0.25 5.80 0.24 35
5406 UC 0.853 0.614
5407 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
5408 UA 100
*

5409 KK C80t COMBINE
5410 KM Combine flows of 80t, c80qS, and R76tW
5411 HC 3 16.24
*

5412 KK D80t DIVERT
5413 KM Divert 364 cfs into pipe (south).
5414 DT D80tP
5415 DI 0 100 364 10000
5416 DQ 0 100 364 364
*

5417 KK R80tS ROUTE
5418 KM Route surface flow south from Subbasin 80t to 80u.
5419 RS 2 FLOW -1
5420 RC 0.050 0.016 0.050 2100 0.0048
5421 RX 0 1 40 98 102 160 199 200
5422 RY 3 1 0.5 0 0 0.5 1 3
*

5423 KK 52u BASIN
5424 KM Subbasin at NEC of I-17 and 16th St
5425 BA 0.391
5426 LG 0.27 0.25 4.80 0.34 13
5427 UC 1.134 0.668
5428 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
5429 UA 100
*

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

5430 KK BD52tS RETRIEVE  
 5431 KM Retrieve diverted surface flow from D52tS.  
 5432 DR D52tS  
 \*

5433 KK R52tS ROUTE  
 5434 KM Route surface flow south from Subbasin 52t to 52u.  
 5435 RS 5 FLOW -1  
 5436 RC 0.050 0.016 0.050 3530 0.0023  
 5437 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5438 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5439 KK C52u COMBINE  
 5440 KM Combine hydrographs R52tS and 52u.  
 5441 HC 2 1.35  
 \*

5442 KK S52u STORAGE  
 5443 KM Online detention basin, 68 ac-ft.  
 5444 RS 1 STOR 0  
 5445 SV 0 8 21 35 50 68 90  
 5446 SE 0 2 4 6 8 10 12  
 5447 SL 1.0 12.56 0.62 0.5  
 5448 SS 10 200 2.7 1.5  
 \*

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

5449 KK BD52tP RETRIEVE  
 5450 KM Retrieve diverted pipe flow from D52tP.  
 5451 DR D52tP  
 \*

5452 KK P52tS ROUTE  
 5453 KM Route pipe flow from 16th st/Buckeye to subbasin 52u.  
 5454 RK 3550 0.0038 0.015 CIRC 6.50  
 \*

5455 KK CC52u COMBINE  
 5456 KM Combine hydrographs S52u and P52tS.  
 5457 HC 2 1.35  
 \*

5458 KK D52u DIVERT  
 5459 KM Divert 281 cfs into pipe (south).  
 5460 DT D52uP  
 5461 DI 0 100 281 10000  
 5462 DQ 0 100 281 281  
 \*

5463 KK D52uW DIVERT  
 5464 KM Divert 32% of surface flow to south.  
 5465 DT D52uS  
 5466 DI 0 100 1000 10000  
 5467 DQ 0 32 320 3200  
 \*

5468 KK R52uW ROUTE  
 5469 KM Route surface flow west from Subbasin 52u to 56u.  
 5470 RS 2 FLOW -1  
 5471 RC 0.050 0.016 0.050 2660 0.0015  
 5472 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5473 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5474 KK 56u BASIN  
 5475 KM Subbasin at NEC of I-17 and 12th St  
 5476 BA 0.326  
 5477 LG 0.22 0.25 4.70 0.38 23  
 5478 UC 1.187 0.744  
 5479 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5480 UA 100  
 \*

5481 KK BD56tS RETRIEVE  
 5482 KM Retrieve diverted surface flow from D56tS.  
 5483 DR D56tS  
 \*

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

5484 KK R56tS ROUTE  
 5485 KM Route surface flow south from Subbasin 56t to 56u.  
 5486 RS 2 FLOW -1  
 5487 RC 0.050 0.016 0.050 3400 0.0017  
 5488 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5489 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5490 KK C56u COMBINE  
 5491 KM Combine hydrographs R56tS, 56u, and R52uW.  
 5492 HC 3 2.46  
 \*

5493 KK S56u STORAGE  
 5494 KM Regional Online Detention Basin, 4 ac-ft.  
 5495 RS 1 STOR 0  
 5496 SV 0 4 12  
 5497 SE 0 2 4  
 5498 SL 0.33 0.785 0.62 0.5  
 5499 SS 2 400 2.7 1.5  
 \*

5500 KK BD56tP RETRIEVE  
 5501 KM Retrieve diverted pipe flow from D56tP.  
 5502 DR D56tP  
 \*

5503 KK P56tS ROUTE  
 5504 KM Route pipe flow from 12th st/Buckeye to subbasin 56u.  
 5505 RK 3300 0.0060 0.015 CIRC 8.00  
 \*

5506 KK CC56u COMBINE  
 5507 KM Combine hydrographs S56u and P56tS.  
 5508 HC 2 2.46  
 \*

5509 KK D56u DIVERT  
 5510 KM Divert 612 cfs into pipe (south).  
 5511 DT D56uP  
 5512 DI 0 100 612 10000  
 5513 DQ 0 100 612 612  
 \*

5514 KK D56uW DIVERT  
 5515 KM Divert 21% of surface flow to south.  
 5516 DT D56uS  
 5517 DI 0 100 1000 10000  
 5518 DQ 0 21 210 2100  
 \*

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

5519 KK R56uW ROUTE  
 5520 KM Route surface flow west from Subbasin 56u to 60u.  
 5521 RS 6 FLOW -1  
 5522 RC 0.050 0.016 0.050 2660 0.0010  
 5523 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5524 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5525 KK 60u BASIN  
 5526 KM Subbasin at NEC of I-17 and 7th St  
 5527 BA 0.285  
 5528 LG 0.44 0.25 6.00 0.22 22  
 5529 UC 1.058 0.681  
 5530 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5531 UA 100  
 \*

5532 KK BD60tS RETRIEVE  
 5533 KM Retrieve diverted surface flow from D60tS.  
 5534 DR D60tS  
 \*

5535 KK R60tS ROUTE  
 5536 KM Route surface flow south from Subbasin 60t to 60u.  
 5537 RS 5 FLOW -1  
 5538 RC 0.050 0.016 0.050 3175 0.0013  
 5539 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5540 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5541 KK C60u COMBINE  
 5542 KM Combine hydrographs R60tS, 60u, and R56uW.  
 5543 HC 3 3.68  
 \*

5544 KK S60u STORAGE  
 5545 KM Regional online detention, 1 ac-ft.  
 5546 RS 1 STOR 0  
 5547 SV 0 0.3 0.6 1 2  
 5548 SE 0 2 4 6 8  
 5549 SQ 0 45 90 145 290  
 \*

5550 KK D60u DIVERT  
 5551 KM Divert 124 cfs into pipe (south).  
 5552 DT D60uP  
 5553 DI 0 100 124 10000  
 5554 DQ 0 100 124 124  
 \*

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

5555 KK D60uW DIVERT  
 5556 KM Divert 33% of surface flow to south.  
 5557 DT D60uS  
 5558 DI 0 100 1000 10000  
 5559 DQ 0 33 330 3300  
 \*

5560 KK R60uW ROUTE  
 5561 KM Route surface flow west from Subbasin 60u to 64u.  
 5562 RS 4 FLOW -1  
 5563 RC 0.050 0.016 0.050 2640 0.0015  
 5564 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5565 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5566 KK 64u BASIN  
 5567 KM Subbasin at NEC of I-17 and Central  
 5568 BA 0.296  
 5569 LG 0.19 0.23 6.20 0.21 36  
 5570 UC 1.021 0.621  
 5571 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5572 UA 100  
 \*

5573 KK BD64tP RETRIEVE  
 5574 KM Retrieve diverted pipe flow from D64tP.  
 5575 DR D64tP  
 \*

5576 KK P64tS ROUTE  
 5577 KM Route pipe flow from subbasin 64t to subbasin 64u.  
 5578 KM Two pipe equivalent D = 8.5'  
 5579 RK 3100 0.0035 0.015 CIRC 8.5  
 \*

5580 KK BD64tS RETRIEVE  
 5581 KM Retrieve diverted surface flow from D64tS.  
 5582 DR D64tS  
 \*

5583 KK R64tS ROUTE  
 5584 KM Route surface flow south from Subbasin 64t to 64u.  
 5585 RS 3 FLOW -1  
 5586 RC 0.050 0.016 0.050 3100 0.0035  
 5587 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5588 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5589 KK C64tS COMBINE  
 5590 KM Combine hydrographs R64tS and P64tS.  
 5591 HC 2 3.61  
 \*

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

5592 KK C64u COMBINE  
 5593 KM Combine hydrographs C64tS, 64u, and R60uW.  
 5594 HC 3 4.91  
 \*

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5595 KK D64u DIVERT
5596 KM Divert 0.0 cfs into ADOT west Tunnel (assuming no connection).
5597 DT D64uPT
5598 DI 0 100 1000 10000
5599 DQ 0 0 0 0
*

5600 KK D64u1 DIVERT
5601 KM Divert 375 cfs into pipe (south).
5602 DT D64uP
5603 DI 0 100 375 1000 10000
5604 DQ 0 100 375 375 375
*

5605 KK D64uW DIVERT
5606 KM Divert 25% of surface flow to south.
5607 DT D64uS
5608 DI 0 100 1000 10000
5609 DQ 0 25 250 2500
*

5610 KK R64uW ROUTE
5611 KM Route surface flow west from Subbasin 64u to 68u.
5612 RS 3 FLOW -1
5613 RC 0.050 0.016 0.050 2650 0.0015
5614 RX 0 1.3 52 127.4 132.6 208 258.7 260
5615 RY 3 1 0.5 0 0 0.5 1 3
*

5616 KK 68u BASIN
5617 KM Subbasin at NEC of I-17 and 7th Ave
5618 BA 0.280
5619 LG 0.20 0.15 8.80 0.08 32
5620 UC 0.997 0.637
5621 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
5622 UA 100
*

5623 KK BD68tP RETRIEVE
5624 KM Retrieve diverted pipe flow from D68tP.
5625 DR D68tP
*

5626 KK P68tS ROUTE
5627 KM Route pipe flow from subbasin 68t to subbasin 68u.
5628 RK 2750 0.0030 0.015 CIRC 5.00
*

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

5629 KK BD68tS RETRIEVE
5630 KM Retrieve diverted surface flow from D68tS.
5631 DR D68tS
*

5632 KK R68tS ROUTE
5633 KM Route surface flow south from Subbasin 68t to 68u.
5634 RS 2 FLOW -1
5635 RC 0.050 0.016 0.050 2800 0.0035
5636 RX 0 1.3 52 127.4 132.6 208 258.7 260
5637 RY 3 1 0.5 0 0 0.5 1 3
*

5638 KK C68tS COMBINE
5639 KM Combine hydrographs R68tS and P68tS.
5640 HC 2 4.39
*

5641 KK C68u COMBINE
5642 KM Combine hydrographs 68u, R64uW, and C68tS.
5643 HC 3 5.97
*

5644 KK D68u DIVERT
5645 KM Divert 146 cfs into pipe (south).
5646 DT D68uP
5647 DI 0 100 146 10000
5648 DQ 0 100 146 146
*

5649 KK D68uW DIVERT
5650 KM Divert 21% of surface flow to south.
5651 DT D68uS
5652 DI 0 100 1000 10000

```

5653 DQ 0 21 210 2100  
\*

5654 KK R68uW ROUTE  
5655 KM Route surface flow west from Subbasin 68u to 72u.  
5656 RS 3 FLOW -1  
5657 RC 0.050 0.016 0.050 2640 0.0015  
5658 RX 0 0.8 32 78.4 81.6 128 159.2 160  
5659 RY 3 1 0.5 0 0 0.5 1 3  
\*

5660 KK 72u BASIN  
5661 KM Subbasin at NEC of I-17 and 15th Ave  
5662 BA 0.257  
5663 LG 0.27 0.15 9.70 0.06 24  
5664 UC 0.957 0.627  
5665 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5666 UA 100  
\*

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

5667 KK C72u COMBINE  
5668 KM Combine hydrographs 72u and R68uW.  
5669 HC 2 6.23  
\*

5670 KK BD72tP RETRIEVE  
5671 KM Retrieve diverted pipe flow from D72tP.  
5672 DR D72tP  
\*

5673 KK D72tP1 DIVERT  
5674 KM Divert flow into pipe (south).  
5675 DT D72tP2  
5676 DI 0 714 800  
5677 DQ 0 281 315  
\*

5678 KK P72tS1 ROUTE  
5679 KM Route pipe flow from subbasin 72t to subbasin 72u.  
5680 RK 2700 0.0030 0.015 CIRC 8.0  
\*

5681 KK B72tP2 RETRIEVE  
5682 KM Retrieve diverted pipe flow from D72tP2.  
5683 DR D72tP2  
\*

5684 KK P72tS2 ROUTE  
5685 KM Route pipe flow from subbasin 72t to subbasin 72u.  
5686 RK 2700 0.0031 0.015 CIRC 6.8  
\*

5687 KK B72tS RETRIEVE  
5688 KM Retrieve diverted surface flow from D72tS.  
5689 DR D72tS  
\*

5690 KK R72tS ROUTE  
5691 KM Route surface flow south from Subbasin 72t to 72u.  
5692 RS 3 FLOW -1  
5693 RC 0.050 0.016 0.050 2820 0.0021  
5694 RX 0 2.3 92 225.4 234.6 368 457.7 460  
5695 RY 3 1 0.5 0 0 0.5 1 3  
\*

5696 KK C72tS COMBINE  
5697 KM Combine hydrographs R72tS, P72tS1, and P72tS2.  
5698 HC 3 6.23  
\*

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

5699 KK CC72u COMBINE  
5700 KM Combine hydrographs C72tS and C72u.  
5701 HC 2 8.06  
\*

5702 KK D72u DIVERT  
5703 KM Divert 714 cfs into pipe (south) (433 cfs + 281 cfs).  
5704 DT D72uP

5705 DI 0 100 714 10000  
5706 DQ 0 100 714 714  
\*

5707 KK D72uW DIVERT  
5708 KM Divert 31% of surface flow to south.  
5709 DT D72uS  
5710 DI 0 100 1000 10000  
5711 DQ 0 31 310 3100  
\*

5712 KK R72uW ROUTE  
5713 KM Route surface flow west from Subbasin 72u to 76u.  
5714 RS 3 FLOW -1  
5715 RC 0.050 0.016 0.050 2640 0.0015  
5716 RX 0 1.05 42 102.9 107.1 168 208.95 210  
5717 RY 3 1 0.5 0 0 0.5 1 3  
\*

5718 KK BD76tP RETRIEVE  
5719 KM Retrieve diverted pipe flow from D76tP.  
5720 DR D76tP  
\*

5721 KK D76tP1 DIVERT  
5722 KM Divert 297 cfs into pipe (south).  
5723 DT D76tP2  
5724 DI 0 297 300  
5725 DQ 0 48 49  
\*

5726 KK P76tS1 ROUTE  
5727 KM Route pipe flow from subbasin 76t to subbasin 76u.  
5728 RK 3000 0.0030 0.015 CIRC 6.50  
\*

5729 KK B76tP2 RETRIEVE  
5730 KM Retrieve diverted pipe flow from D76tP2.  
5731 DR D76tP2  
\*

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

5732 KK P76tS2 ROUTE  
5733 KM Route pipe flow from subbasin 76t to subbasin 76u.  
5734 RK 3000 0.0030 0.015 CIRC 3.5  
\*

5735 KK BD76tS RETRIEVE  
5736 KM Retrieve diverted surface flow from D76tS.  
5737 DR D76tS  
\*

5738 KK R76tS ROUTE  
5739 KM Route surface flow south from Subbasin 76t to 76u.  
5740 RS 3 FLOW -1  
5741 RC 0.050 0.016 0.050 2665 0.0015  
5742 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5743 RY 3 1 0.5 0 0 0.5 1 3  
\*

5744 KK C76tS COMBINE  
5745 KM Combine hydrographs R76tS, P76tS1, and P76tS2.  
5746 HC 3 15.10  
\*

5747 KK 76u BASIN  
5748 KM Subbasin at NEC of I-17 and 19th Ave  
5749 BA 0.283  
5750 LG 0.32 0.15 9.70 0.06 23  
5751 UC 0.995 0.607  
5752 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5753 UA 100  
\*

5754 KK C76u COMBINE  
5755 KM Combine hydrographs 76u, C76tS, and R72uW.  
5756 HC 3 17.22  
\*

5757 KK D76u DIVERT  
5758 KM Divert 297 cfs into pipe (south) (48 cfs to 76v, 248 cfs to 80v).  
5759 DT D76uP  
5760 DI 0 100 297 10000

5761 DQ 0 100 297 297  
 \*  
 5762 KK D76uW DIVERT  
 5763 KM Divert 0.0% of surface flow to south.  
 5764 DT D76uS  
 5765 DI 0 100 1000 10000  
 5766 DQ 0 0.0 0.0 0.0  
 \*

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

5767 KK R76uW ROUTE  
 5768 KM Route surface flow west from Subbasin 76u to 80u.  
 5769 RS 2 FLOW -1  
 5770 RC 0.050 0.016 0.050 2370 0.0025  
 5771 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5772 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5773 KK 80u BASIN  
 5774 KM Subbasin at NEC of Durango and I-17  
 5775 BA 0.249  
 5776 LG 0.16 0.15 8.00 0.11 46  
 5777 UC 0.808 0.561  
 5778 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5779 UA 100  
 \*

5780 KK C80u COMBINE  
 5781 KM Combine flows of 80u, R80tS, and R76uW  
 5782 HC 3 18.61  
 \*

5783 KK BD80tP RETRIEVE  
 5784 KM Retrieve diverted pipe flow from D80tP.  
 5785 DR D80tP  
 \*

5786 KK P80tS ROUTE  
 5787 KM Route pipe flow from I-17/Buckeye to subbasin 80u.  
 5788 RK 2100 0.0030 0.015 CIRC 7.50  
 \*

5789 KK BD80qW RETRIEVE  
 5790 KM Retrieve diverted flow from D80qW.  
 5791 DR D80qW  
 \*

5792 KK CC80u COMBINE  
 5793 KM Combine flows of C80u,D80qW, and P80tS  
 5794 HC 3 18.61  
 \*

5795 KK S-I17 STORAGE  
 5796 KM I-17 Depressed Segment and East Durango Curve ponding Areas  
 5797 KM Online Regional Detention Basin, 320 ac-ft.  
 5798 RS 1 STOR 0  
 5799 SV 0 6 29 45 112 169 320 360 396 425  
 5800 SE 0 2 6 8 12 14 16 17 17.6 18  
 5801 SQ 0.0 183 316 365 448 483 517 674 2224 4564  
 \*

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

5802 KK D80u DIVERT  
 5803 KM Divert 509 cfs into pipe (west).  
 5804 DT D80uP  
 5805 DI 0 100 509 10000  
 5806 DQ 0 100 509 509  
 \*

5807 KK R80uW ROUTE  
 5808 KM Route surface flow west from Subbasin 80u to 84u.  
 5809 RS 2 FLOW -1  
 5810 RC 0.050 0.016 0.050 2760 0.0014  
 5811 RX 0 1.0 40 98 102 160 199 200  
 5812 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5813 KK 84t BASIN  
 5814 KM Subbasin at NEC of Buckeye and 27th Ave

5815 BA 0.273  
 5816 LG 0.14 0.15 7.60 0.13 55  
 5817 UC 0.903 0.720  
 5818 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5819 UA 100  
 \*

5820 KK P84tN INFLOW  
 5821 KM Inflow from storm drain north of SPRR along 27th Avenue.  
 5822 KM Maximum flow 252 cfs.  
 5823 IN 60  
 5824 BA 0.5  
 5825 QI 0 1 2 3 4 4 5 5 6 6  
 5826 QI 8 10 17 252 74 21 9 7 6 5  
 5827 QI 5 4 1 0.5 0.1  
 \*

5828 KK C84t COMBINE  
 5829 KM Combine hydrographs P84tN and 80t.  
 5830 HC 2 0.77  
 \*

5831 KK D84t DIVERT  
 5832 KM Divert 252 cfs into pipe (south).  
 5833 DT D84tP  
 5834 DI 0 100 252 10000  
 5835 DQ 0 100 252 252  
 \*

5836 KK D84tS DIVERT  
 5837 KM Divert 13% of surface flow to west.  
 5838 DT D84tW  
 5839 DI 0 100 1000 10000  
 5840 DQ 0 13 130 1300  
 \*

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

5841 KK R84tS ROUTE  
 5842 KM Route surface flow south from Subbasin 84t to 84u.  
 5843 RS 2 FLOW -1  
 5844 RC 0.050 0.016 0.050 2760 0.0018  
 5845 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5846 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5847 KK 84u BASIN  
 5848 KM Subbasin at NEC of Durango and 27th Ave  
 5849 BA 0.263  
 5850 LG 0.61 0.15 8.00 0.11 41  
 5851 UC 0.979 0.641  
 5852 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5853 UA 100  
 \*

5854 KK C84u COMBINE  
 5855 KM Combine hydrographs R84tS, 84u, and R80uW.  
 5856 HC 3 9.04  
 \*

5857 KK S84u STORAGE  
 5858 KM Online Regional Detention Basin, 3 ac-ft.  
 5859 RS 1 STOR 0  
 5860 SV 0 3 13  
 5861 SE 0 2 4  
 5862 SQ 0 30 3000  
 \*

5863 KK BD84tP RETRIEVE  
 5864 KM Retrieve diverted pipe flow from D84tP.  
 5865 DR D84tP  
 \*

5866 KK P84tS ROUTE  
 5867 KM Route pipe flow from I-17/Buckeye to subbasin 84u.  
 5868 RK 2650 0.0031 0.015 CIRC 6.50  
 \*

5869 KK CC84u COMBINE  
 5870 KM Combine hydrographs P84tS and S84u.  
 5871 HC 2 9.04  
 \*

5872 KK D84u DIVERT

5873 KM Divert 252 cfs into pipe (south).  
 5874 DT D84uP  
 5875 DI 0 100 252 10000  
 5876 DQ 0 100 252 252  
 \*

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

5877 KK D84uW DIVERT  
 5878 KM Divert 20% of surface flow to south.  
 5879 DT D84uS  
 5880 DI 0 100 1000 10000  
 5881 DQ 0 20 200 2000  
 \*

5882 KK R84uW ROUTE  
 5883 KM Route surface flow west from Subbasin 84u to 88u.  
 5884 RS 3 FLOW -1  
 5885 RC 0.050 0.016 0.050 2760 0.0022  
 5886 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5887 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5888 KK 88t BASIN  
 5889 KM Subbasin at NEC of Buckeye and 35th Ave  
 5890 BA 0.259  
 5891 LG 0.18 0.25 6.00 0.23 44  
 5892 UC 1.058 0.885  
 5893 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5894 UA 100  
 \*

5895 KK BD84tW RETRIEVE  
 5896 KM Retrieve diverted surface flow from D84tW.  
 5897 DR D84tW  
 \*

5898 KK R84tW ROUTE  
 5899 KM Route surface flow west from Subbasin 84t to 88t.  
 5900 RS 4 FLOW -1  
 5901 RC 0.050 0.016 0.050 2760 0.0011  
 5902 RX 0 0.5 20 49 51 80 99.5 100  
 5903 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5904 KK C88t COMBINE  
 5905 KM Combine hydrographs 88t and R84tW.  
 5906 HC 2 1.03  
 \*

5907 KK D88tS DIVERT  
 5908 KM Divert 30% of surface flow to west.  
 5909 DT D88tW  
 5910 DI 0 100 1000 10000  
 5911 DQ 0 30 300 3000  
 \*

HEC-1 INPUT

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

5912 KK R88tS ROUTE  
 5913 KM Route surface flow south from Subbasin 88t to 88u.  
 5914 RS 3 FLOW -1  
 5915 RC 0.050 0.016 0.050 2760 0.0036  
 5916 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5917 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5918 KK 88u BASIN  
 5919 KM Subbasin at NEC of Durango and 35th Ave  
 5920 BA 0.250  
 5921 LG 0.31 0.15 8.40 0.09 40  
 5922 UC 0.941 0.793  
 5923 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5924 UA 100  
 \*

5925 KK C88u COMBINE  
 5926 KM Combine hydrographs 88u, R84uW, and R88tS.  
 5927 HC 3 9.55  
 \*

5928 KK D88u DIVERT

5929 KM Divert 36 cfs into pipe (west).  
 5930 DT D88uP  
 5931 DI 0 36 1000 10000  
 5932 DQ 0 36 36 36  
 \*

5933 KK D88uW DIVERT  
 5934 KM Divert 76% of surface flow to south.  
 5935 DT D88uS  
 5936 DI 0 100 1000 10000  
 5937 DQ 0 76 760 7600  
 \*

5938 KK R88uW ROUTE  
 5939 KM Route surface flow west from Subbasin 88u to 92u.  
 5940 RS 2 FLOW -1  
 5941 RC 0.050 0.016 0.050 2760 0.0014  
 5942 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5943 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5944 KK BD88uP RETRIEVE  
 5945 KM Retrieve diverted pipe flow from D88uP.  
 5946 DR D88uP  
 \*

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

5947 KK P88uW ROUTE  
 5948 KM Route pipe flow from subbasin 88u to subbasin 92u.  
 5949 RK 2600 0.0039 0.015 CIRC 3.0  
 \*

5950 KK C88uW COMBINE  
 5951 KM Combine hydrographs R88uW and P88uW.  
 5952 HC 2 9.55  
 \*

5953 KK 92t BASIN  
 5954 KM Subbasin at NEC of Buckeye and 43rd Ave  
 5955 BA 0.175  
 5956 LG 0.21 0.25 5.20 0.32 32  
 5957 UC 1.036 0.956  
 5958 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5959 UA 100  
 \*

5960 KK BD88tW RETRIEVE  
 5961 KM Retrieve diverted surface flow from D88tW.  
 5962 DR D88tW  
 \*

5963 KK R88tW ROUTE  
 5964 KM Route surface flow west from Subbasin 88t to 92t.  
 5965 RS 3 FLOW -1  
 5966 RC 0.050 0.016 0.050 1990 0.002  
 5967 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5968 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5969 KK C92t COMBINE  
 5970 KM Combine hydrographs R88tW and 92t.  
 5971 HC 2 1.21  
 \*

5972 KK R92tS ROUTE  
 5973 KM Route surface flow south from Subbasin 92t to 92u.  
 5974 RS 3 FLOW -1  
 5975 RC 0.050 0.016 0.050 2760 0.0040  
 5976 RX 0 0.5 20 49 51 80 99.5 100  
 5977 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5978 KK 92u BASIN  
 5979 KM Subbasin at NEC of Durango and 43rd Ave  
 5980 BA 0.249  
 5981 LG 0.16 0.25 6.00 0.23 44  
 5982 UC 0.931 0.785  
 5983 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5984 UA 100  
 \*

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

```

5985 KK P92uN INFLOW
5986 KM Inflow from storm drain north of Durango Street along 35th Avenue.
5987 KM Maximum flow 141 cfs.
5988 IN 60
5989 BA 2.5
5990 QI 0.0 1 2 3 3 4 4 5 5 5
5991 QI 7 9 30 141 69 27 8 6 5 5
5992 QI 4 3 2 0.5 0.0
*

5993 KK C92u COMBINE
5994 KM Combine flows of 92u, C88uW, P92uN, and R92tS
5995 HC 4 10.17
*

5996 KK D92u DIVERT
5997 KM Divert 201 cfs into pipe (south).
5998 DT D92uP
5999 DI 0 100 201 10000
6000 DQ 0 100 201 201
*

6001 KK R92uS ROUTE
6002 KM Route surface flow south from Subbasin 92u to 92v.
6003 RS 1 FLOW -1
6004 RC 0.050 0.016 0.050 1650 0.0048
6005 RX 0 0.5 20 49 51 80 99.5 100
6006 RY 3 1 0.5 0 0 0.5 1 3
*

6007 KK B92uP RETRIEVE
6008 KM Retrieve diverted pipe flow from D92uP.
6009 DR D92uP
*

6010 KK P92uS ROUTE
6011 KM Route pipe flow from subbasin 92u to subbasin 92v.
6012 RK 1500 0.0030 0.015 CIRC 6.00
*

6013 KK C92uS COMBINE
6014 KM Combine hydrographs R92uS and P92uS.
6015 HC 2 10.17
*

6016 KK 76v BASIN
6017 KM Subbasin at NEC of Lower Buckeye and 19th Ave
6018 BA 0.240
6019 LG 0.21 0.25 4.90 0.40 41
6020 UC 1.017 0.844
6021 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6022 UA 100
*

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

6023 KK B76uP RETRIEVE
6024 KM Retrieve diverted pipe flow from D76uP.
6025 DR D76uP
*

6026 KK D76uP2 DIVERT
6027 KM Divert 297 cfs into pipes (249 cfs to west, 48 cfs to south).
6028 DT D76uP1
6029 DI 0 297 1000
6030 DQ 0 249 249
*

6031 KK P76uS2 ROUTE
6032 KM Route pipe flow from 19th ave/I-17 to subbasin 76v.
6033 RK 2300 0.0030 0.015 CIRC 3.50
*

6034 KK BD76uS RETRIEVE
6035 KM Retrieve diverted flow from D76uS.
6036 DR D76uS
*

6037 KK R76uS ROUTE
6038 KM Route surface flow south from Subbasin 76u to 76v.
6039 RS 2 FLOW -1
6040 RC 0.050 0.016 0.050 2640 0.0023

```

6041 RX 0 0.5 20 49 51 80 99.5 100  
 6042 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6043 KK C76uS COMBINE  
 6044 KM Combine hydrographs P76uS2 and R76uS.  
 6045 HC 2 17.22  
 \*

6046 KK C76v COMBINE  
 6047 KM Combine hydrographs 76v and C76uS.  
 6048 HC 2 8.24  
 \*

6049 KK D76v DIVERT  
 6050 KM Divert 109 cfs into pipe (south).  
 6051 DT D76vP  
 6052 DI 0 100 109 10000  
 6053 DQ 0 100 109 109  
 \*

6054 KK D76vW DIVERT  
 6055 KM Divert 53% of surface flow to south.  
 6056 DT D76vS  
 6057 DI 0 100 1000 10000  
 6058 DQ 0 53 530 5300  
 \*

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

6059 KK R76vW ROUTE  
 6060 KM Route surface flow west from Subbasin 76v to 80v.  
 6061 RS 6 FLOW -1  
 6062 RC 0.050 0.016 0.050 2570 0.0008  
 6063 RX 0 0.5 20 49 51 80 99.5 100  
 6064 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6065 KK 80v BASIN  
 6066 KM Subbasin at NEC of Lower Buckeye and 23rd Ave  
 6067 BA 0.231  
 6068 LG 0.16 0.15 8.00 0.12 59  
 6069 UC 0.871 0.654  
 6070 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6071 UA 100  
 \*

6072 KK B76uP1 RETRIEVE  
 6073 KM Retrieve diverted pipe flow from D76uP1.  
 6074 DR D76uP1  
 \*

6075 KK P76uS1 ROUTE  
 6076 KM Route pipe flow from subbasin 76u to subbasin 80v.  
 6077 RK 4000 0.0030 0.015 CIRC 6.5  
 \*

6078 KK C80v COMBINE  
 6079 KM COmbine flows of 80v, P76uS1, and R76vW  
 6080 HC 3 8.23  
 \*

6081 KK D80v DIVERT  
 6082 KM Divert 249 cfs into pipe (southwest).  
 6083 DT D80vP  
 6084 DI 0 100 249 10000  
 6085 DQ 0 100 249 249  
 \*

6086 KK D80vW DIVERT  
 6087 KM Divert 56% of surface flow to south.  
 6088 DT D80vS  
 6089 DI 0 100 1000 10000  
 6090 DQ 0 56 560 5600  
 \*

6091 KK R80vW ROUTE  
 6092 KM Route surface flow west from Subbasin 80v to 84v.  
 6093 RS 8 FLOW -1  
 6094 RC 0.050 0.016 0.050 2640 0.0004  
 6095 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 6096 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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LINE	ID	1	2	3	4	5	6	7	8	9	10
6097	KK	84v	BASIN								
6098	KM	Subbasin at NEC of Lower Buckeye and 27th Ave									
6099	BA	0.254									
6100	LG	1.75	0.15	9.70	0.07	35					
6101	UC	1.143	0.752								
6102	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
6103	UA	100									
	*										
6104	KK	BD80uP	RETRIEVE								
6105	KM	Retrieve diverted pipe flow from D80uP.									
6106	DR	D80uP									
	*										
6107	KK	P80uS	ROUTE								
6108	KM	Route pipe flow from subbasin 80u to subbasin 84v.									
6109	RK	4000	0.0030	0.015		CIRC	8.5				
	*										
6110	KK	C84v	COMBINE								
6111	KM	Combine hydrographs 84v, P80uS, and R80vW.									
6112	HC	3	8.73								
	*										
6113	KK	BD84uP	RETRIEVE								
6114	KM	Retrieve diverted pipe flow from D84uP.									
6115	DR	D84uP									
	*										
6116	KK	P84uS	ROUTE								
6117	KM	Route pipe flow from subbasin 84u to subbasin 84v.									
6118	RK	2600	0.0030	0.015		CIRC	10.33				
	*										
6119	KK	BD84uS	RETRIEVE								
6120	KM	Retrieve diverted surface flow from D84uS.									
6121	DR	D84uS									
	*										
6122	KK	R84uS	ROUTE								
6123	KM	Route surface flow south from Subbasin 84u to 84v									
6124	RS	3	FLOW	-1							
6125	RC	0.050	0.016	0.050	2600	0.0023					
6126	RX	0	0.75	30	73.5	76.5	120	149.25	150		
6127	RY	3	1	0.5	0	0	0.5	1	3		
	*										
6128	KK	C84uS	COMBINE								
6129	KM	Combine hydrographs R84uS and P84uS.									
6130	HC	2	9.04								
	*										

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LINE	ID	1	2	3	4	5	6	7	8	9	10
6131	KK	CC84v	COMBINE								
6132	KM	Combine hydrographs C84uS and C84v.									
6133	HC	2	9.76								
	*										
6134	KK	D84v	DIVERT								
6135	KM	Divert 1269 cfs into pipes (252 + 509 + 508).									
6136	KM	Flows of 509 and 508 combined.									
6137	DT	D84vP									
6138	DI	0	100	1000	1269	10000					
6139	DQ	0	100	1000	1269	1269					
	*										
6140	KK	D84vW	DIVERT								
6141	KM	Divert 37% of surface flow to south.									
6142	DT	D84vS									
6143	DI	0	100	1000	10000						
6144	DQ	0	37	370	3700						
	*										
6145	KK	R84vW	ROUTE								
6146	KM	Route surface flow west from Subbasin 84v to 88v.									
6147	RS	2	FLOW	-1							
6148	RC	0.050	0.016	0.050	2760	0.0025					
6149	RX	0	0.5	20	49	51	80	99.5	100		
6150	RY	3	1	0.5	0	0	0.5	1	3		

\*  
 6151 KK 88v BASIN  
 6152 KM Subbasin at NEC of Lower Buckeye and 35th Ave  
 6153 BA 0.248  
 6154 LG 0.20 0.13 10.10 0.05 34  
 6155 UC 1.046 0.896  
 6156 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6157 UA 100  
 \*

6158 KK BD88uS RETRIEVE  
 6159 KM Retrieve diverted surface flow from D88uS.  
 6160 DR D88uS  
 \*

6161 KK R88uS ROUTE  
 6162 KM Route surface flow south from Subbasin 88u to 88v.  
 6163 RS 2 FLOW -1  
 6164 RC 0.050 0.016 0.050 2760 0.0033  
 6165 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 6166 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

6167 KK C88v COMBINE  
 6168 KM Combine hydrographs 88v, R88uS, and R84vS.  
 6169 HC 3 10.52  
 \*

6170 KK D88v DIVERT  
 6171 KM Divert 51 cfs into pipe (south).  
 6172 DT D88vP  
 6173 DI 0 51 1000 10000  
 6174 DQ 0 51 51 51  
 \*

6175 KK R88vW ROUTE  
 6176 KM Route surface flow west from Subbasin 88v to 92v.  
 6177 RS 3 FLOW -1  
 6178 RC 0.050 0.016 0.050 2750 0.0011  
 6179 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 6180 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6181 KK 92v BASIN  
 6182 KM Subbasin at NEC of Lower Buckeye and 43rd Ave  
 6183 BA 0.159  
 6184 LG 0.10 0.13 10.10 0.05 72  
 6185 UC 0.733 0.644  
 6186 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6187 UA 100  
 \*

6188 KK C92v COMBINE  
 6189 KM Combine flows of C92uS, 92v and R88vW  
 6190 HC 3 11.30  
 \*

6191 KK D92vP DIVERT  
 6192 KM Divert 201 cfs into pipe (west)  
 6193 DT D92v  
 6194 DI 0 201 1000 10000  
 6195 DQ 0 0 799 9799  
 \*

6196 KK P92vS ROUTE  
 6197 KM Route pipe flow from subbasin 92v to subbasin 88w.  
 6198 RK 4900 0.0030 0.015 CIRC 6.00  
 \*

6199 KK 88w BASIN  
 6200 KM Subbasin at NEC of Salt River and 43rd Ave  
 6201 BA 0.599  
 6202 LG 0.17 0.25 5.10 0.34 40  
 6203 UC 1.168 0.704  
 6204 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6205 UA 100  
 \*

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

6206 KK BD88vP RETRIEVE  
6207 KM Retrieve diverted pipe flow from D88vP.  
6208 DR D88vP  
\*

6209 KK P88vS ROUTE  
6210 KM Route pipe flow from subbasin 88v to subbasin 88w.  
6211 RK 2600 0.0034 0.015 CIRC 3.5  
\*

6212 KK C88w COMBINE  
6213 KM Combine hydrographs P88vS, P92vS, and 88w.  
6214 HC 3 11.90  
\*

6215 KK 44v BASIN  
6216 KM Subbasin at NEC of Salt River and 20th St  
6217 BA 0.236  
6218 LG 0.21 0.29 2.49 1.68 24  
6219 UC 1.155 0.794  
6220 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6221 UA 100  
\*

6222 KK BD44sP RETRIEVE  
6223 KM Retrieve diverted pipe flow from D44sP.  
6224 DR D44sP  
\*

6225 KK P44sS ROUTE  
6226 KM Route pipe flow from 24th st/SPRR to subbasin 44v.  
6227 RK 9500 0.0030 0.015 CIRC 6.00  
\*

6228 KK C44v COMBINE  
6229 KM Combine hydrographs 44v and P44sS.  
6230 HC 2 4.03  
\*

6231 KK B48oPT RETRIEVE  
6232 KM Retrieve diverted East Tunnel flow from D48oPT.  
6233 DR D48oPT  
\*

6234 KK PT48o ROUTE  
6235 KM Route East Tunnel flow from 20th st/Moreland to subbasin 48q.  
6236 RK 3800 0.0030 0.015 CIRC 21.0  
\*

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

6237 KK B48qPT RETRIEVE  
6238 KM Retrieve diverted flow to East Tunnel from D48qPT.  
6239 DR D48qPT  
\*

6240 KK CPT48q COMBINE  
6241 KM Combine hydrographs PT48o and D48qPT.  
6242 HC 2 16.11  
\*

6243 KK PT48q ROUTE  
6244 KM Route East Tunnel flow from subbasin 48q to subbasin 48s.  
6245 RK 2500 0.003 0.015 CIRC 21.0  
\*

6246 KK B48sPT RETRIEVE  
6247 KM Retrieve diverted flow to East Tunnel from D48sPT.  
6248 DR D48sPT  
\*

6249 KK CPT48s COMBINE  
6250 KM Combine hydrographs PT48q and D48sPT.  
6251 HC 2 17.54  
\*

6252 KK PT48s ROUTE  
6253 KM Route East Tunnel flow from subbasin 48s to subbasin 48v.  
6254 RK 9500 0.003 0.015 CIRC 21.00  
\*

6255 KK 48v BASIN  
6256 KM Subbasin at NEC of Salt River and 20th St

6257 BA 0.299  
 6258 LG 0.10 0.28 2.59 1.77 68  
 6259 UC 0.930 0.733  
 6260 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6261 UA 100  
 \*

6262 KK C48v COMBINE  
 6263 KM Combine hydrographs 48v and PT48s.  
 6264 HC 2 17.84  
 \*

6265 KK NUL48v COMBINE  
 6266 KM Combine hydrographs C48v and C44v.  
 6267 HC 2 18.08  
 \*

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

6268 KK 52v BASIN  
 6269 KM Subbasin at NEC of Salt River and 16th St  
 6270 BA 0.297  
 6271 LG 0.22 0.28 2.65 1.41 22  
 6272 UC 1.204 0.767  
 6273 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6274 UA 100  
 \*

6275 KK BD52uP RETRIEVE  
 6276 KM Retrieve diverted pipe flow from D52uP.  
 6277 DR D52uP  
 \*

6278 KK P52uS ROUTE  
 6279 KM Route pipe flow from 16th st/I-17 to subbasin 52v.  
 6280 RK 2700 0.0038 0.015 CIRC 6.50  
 \*

6281 KK BD52uS RETRIEVE  
 6282 KM Retrieve diverted surface flow from D52uS.  
 6283 DR D52uS  
 \*

6284 KK R52uS ROUTE  
 6285 KM Route surface flow south from Subbasin 52u to 52v.  
 6286 RS 2 FLOW -1  
 6287 RC 0.050 0.016 0.050 3080 0.0026  
 6288 RX 0 0.5 20 49 51 80 99.5 100  
 6289 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6290 KK C52uS COMBINE  
 6291 KM Combine hydrographs R52uS and P52uS.  
 6292 HC 2 1.35  
 \*

6293 KK C52v COMBINE  
 6294 KM Combine hydrographs 52v and C52uS.  
 6295 HC 2 1.64  
 \*

6296 KK NUL52v COMBINE  
 6297 KM Combine hydrographs C52v and NUL48v.  
 6298 HC 2 19.72  
 \*

6299 KK 56v BASIN  
 6300 KM Subbasin at NEC of Salt River and 12th St  
 6301 BA 0.231  
 6302 LG 0.20 0.24 4.40 0.47 28  
 6303 UC 1.125 0.995  
 6304 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6305 UA 100  
 \*

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

6306 KK BD56uP RETRIEVE  
 6307 KM Retrieve diverted pipe flow from D56uP.  
 6308 DR D56uP  
 \*

6309 KK P56uS ROUTE  
6310 KM Route pipe flow from subbasin 56u to subbasin 56v.  
6311 RK 2500 0.0060 0.015 CIRC 8.00  
\*

6312 KK BD56uS RETRIEVE  
6313 KM Retrieve diverted surface flow from D56uS.  
6314 DR D56uS  
\*

6315 KK R56uS ROUTE  
6316 KM Route surface flow south from Subbasin 56u to 56v.  
6317 RS 4 FLOW -1  
6318 RC 0.050 0.016 0.050 2500 0.0034  
6319 RX 0 0.5 20 49 51 80 99.5 100  
6320 RY 3 1 0.5 0 0 0.5 1 3  
\*

6321 KK C56uS COMBINE  
6322 KM Combine hydrographs R56uS and P56uS.  
6323 HC 2 2.46  
\*

6324 KK C56v COMBINE  
6325 KM Combine hydrographs 56v and C56uS.  
6326 HC 2 2.69  
\*

6327 KK NUL56v COMBINE  
6328 KM Combine hydrographs C56v and NUL52v.  
6329 HC 2 21.07  
\*

6330 KK 60v BASIN  
6331 KM Subbasin at NEC of Salt River and 7th St  
6332 BA 0.228  
6333 LG 0.15 0.24 4.90 0.38 43  
6334 UC 1.009 0.833  
6335 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6336 UA 100  
\*

6337 KK BD60uP RETRIEVE  
6338 KM Retrieve diverted pipe flow from D60uP.  
6339 DR D60uP  
\*

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

6340 KK P60uS ROUTE  
6341 KM Route pipe flow from subbasin 60u to subbasin 60v.  
6342 RK 2400 0.0030 0.015 CIRC 5.00  
\*

6343 KK BD60uS RETRIEVE  
6344 KM Retrieve diverted surface flow from D60uS.  
6345 DR D60uS  
\*

6346 KK R60uS ROUTE  
6347 KM Route surface flow south from Subbasin 60u to 60v.  
6348 RS 3 FLOW -1  
6349 RC 0.050 0.016 0.050 2400 0.0034  
6350 RX 0 0.5 20 49 51 80 99.5 100  
6351 RY 3 1 0.5 0 0 0.5 1 3  
\*

6352 KK C60uS COMBINE  
6353 KM Combine hydrographs R60uS and P60uS.  
6354 HC 2 3.68  
\*

6355 KK C60v COMBINE  
6356 KM Combine hydrographs C60uS and 60v.  
6357 HC 2 3.91  
\*

6358 KK NUL60v COMBINE  
6359 KM Combine hydrographs C60v and NUL56v.  
6360 HC 2 22.51  
\*

6361 KK BPT64o RETRIEVE  
6362 KM Retrieve diverted West Tunnel flow from DPT64o.

6363 DR DPT64o  
\*  
6364 KK B64qPT RETRIEVE  
6365 KM Retrieve diverted West Tunnel flow from D64qPT.  
6366 DR D64qPT  
\*  
6367 KK CPT64q COMBINE  
6368 KM Combine hydrographs DPT64o and D64qPT.  
6369 HC 2 22.55  
\*  
6370 KK PT64q ROUTE  
6371 KM Route West Tunnel flow from subbasin 64q to subbasin 64s.  
6372 RK 2500 0.003 0.015 CIRC 21.0  
\*

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

6373 KK B64sPT RETRIEVE  
6374 KM Retrieve diverted West Tunnel flow from D64sPT.  
6375 DR D64sPT  
\*  
6376 KK CPT64s COMBINE  
6377 KM Combine hydrographs D64sPT and PT64q.  
6378 HC 2 23.58  
\*  
6379 KK PT64s ROUTE  
6380 KM Route West Tunnel flow from subbasin 64s to subbasin 64t.  
6381 RK 2800 0.003 0.015 CIRC 21.0  
\*

6382 KK B64tPT RETRIEVE  
6383 KM Retrieve diverted West Tunnel flow from D64tPT.  
6384 DR D64tPT  
\*

6385 KK CPT64t COMBINE  
6386 KM Combine hydrographs PT64s and D64tPT.  
6387 HC 2 24.65  
\*

6388 KK PT64t ROUTE  
6389 KM Route West Tunnel flow from subbasin 64t to subbasin 64u.  
6390 RK 3100 0.003 0.015 CIRC 21.0  
\*

6391 KK B64uPT RETRIEVE  
6392 KM Retrieve diverted pipe flow from D64uPT.  
6393 DR D64uPT  
\*

6394 KK CPT64u COMBINE  
6395 KM Combine hydrographs PT64t and D64uPT.  
6396 HC 2 25.95  
\*

6397 KK PT64u ROUTE  
6398 KM Route West Tunnel flow from subbasin 64u to subbasin 64v.  
6399 RK 2000 0.003 0.015 CIRC 21.0  
\*

6400 KK 64v BASIN  
6401 KM Subbasin at NEC of Salt River and Central  
6402 BA 0.195  
6403 LG 0.10 0.25 4.55 0.49 61  
6404 UC 0.893 0.651  
6405 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6406 UA 100  
\*

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

6407 KK BD64uP RETRIEVE  
6408 KM Retrieve diverted pipe flow from D64uP.  
6409 DR D64uP  
\*

6410 KK P64uS ROUTE

```

6411      KM      Route pipe flow from subbasin 64u to subbasin 64v.
6412      RK      2000 0.0035 0.015          CIRC      8.0
          *

6413      KK      BD64uS RETRIEVE
6414      KM      Retrieve diverted surface flow from D64uS.
6415      DR      D64uS
          *

6416      KK      R64uS  ROUTE
6417      KM      Route surface flow south from Subbasin 64u to 64v.
6418      RS      3      FLOW      -1
6419      RC      0.050 0.016 0.050 2100 0.0034
6420      RX      0      0.5      20      49      51      80      99.5      100
6421      RY      3      1      0.5      0      0      0.5      1      3
          *

6422      KK      C64uS COMBINE
6423      KM      Combine hydrographs R64uS and P64uS.
6424      HC      2      4.91
          *

6425      KK      C64v COMBINE
6426      KM      Combine hydrographs C64uS, PT64u, and 64v.
6427      HC      3      26.15
          *

6428      KK      NUL64v COMBINE
6429      KM      Combine hydrographs C64v and NUL60v.
6430      HC      2      44.28
          *

6431      KK      68v  BASIN
6432      KM      Subbasin at NEC of Salt River and 7th Ave
6433      BA      0.218
6434      LG      0.19 0.25 4.60 0.42 33
6435      UC      1.103 0.904
6436      UA      0      5.0      16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6437      UA      100
          *

6438      KK      BD68uP RETRIEVE
6439      KM      Retrieve diverted pipe flow from D68uP.
6440      DR      D68uP
          *

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

6441      KK      P68uS  ROUTE
6442      KM      Route pipe flow from Central/I-17 to subbasin 68v.
6443      RK      3300 0.0073 0.015          CIRC      4.50
          *

6444      KK      BD68uS RETRIEVE
6445      KM      Retrieve diverted surface flow from D68uS.
6446      DR      D68uS
          *

6447      KK      R68uS  ROUTE
6448      KM      Route surface flow south from Subbasin 68u to 68v.
6449      RS      3      FLOW      -1
6450      RC      0.050 0.016 0.050 3300 0.0070
6451      RX      0      0.5      20      49      51      80      99.5      100
6452      RY      3      1      0.5      0      0      0.5      1      3
          *

6453      KK      C68uS COMBINE
6454      KM      Combine hydrographs R68uS and P68uS.
6455      HC      2      5.97
          *

6456      KK      C68v COMBINE
6457      KM      Combine hydrographs P68uS and 68v.
6458      HC      2      6.19
          *

6459      KK      NUL68v COMBINE
6460      KM      Combine hydrographs C68v and NUL64v.
6461      HC      2      45.56
          *

6462      KK      72v  BASIN
6463      KM      Subbasin at NEC of Salt River and 15th Ave
6464      BA      0.407

```

6465 LG 0.13 0.25 4.40 0.52 59  
 6466 UC 0.931 0.665  
 6467 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6468 UA 100  
 \*

6469 KK BD72uP RETRIEVE  
 6470 KM Retrieve diverted pipe flow from D72uP.  
 6471 DR D72uP  
 \*

6472 KK D72uP1 DIVERT  
 6473 KM Divert 714 cfs into pipe (south) (281 cfs + 433 cfs).  
 6474 DT D72uP2  
 6475 DI 0 714 1000  
 6476 DQ 0 281 281  
 \*

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

6477 KK P72uS1 ROUTE  
 6478 KM Route pipe flow from subbasin 72u to subbasin 72v.  
 6479 RK 5000 0.0030 0.015 CIRC 8.00  
 \*

6480 KK B72uP2 RETRIEVE  
 6481 KM Retrieve diverted pipe flow from D72uP2.  
 6482 DR D72uP2  
 \*

6483 KK P72uS2 ROUTE  
 6484 KM Route pipe flow from subbasin 72u to subbasin 72v.  
 6485 RK 4500 0.0031 0.015 CIRC 6.8  
 \*

6486 KK BD72uS RETRIEVE  
 6487 KM Retrieve diverted flow from D72uS.  
 6488 DR D72uS  
 \*

6489 KK R72uS ROUTE  
 6490 KM Route surface flow south from Subbasin 72u to 72v.  
 6491 RS 5 FLOW -1  
 6492 RC 0.050 0.016 0.050 4500 0.0023  
 6493 RX 0 0.5 20 49 51 80 99.5 100  
 6494 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6495 KK C72uS COMBINE  
 6496 KM Combine hydrographs R72uS, P72uS1, and P72uS2.  
 6497 HC 3 8.06  
 \*

6498 KK C72v COMBINE  
 6499 KM Combine hydrographs C72uS and 72v.  
 6500 HC 2 8.47  
 \*

6501 KK NUL72v COMBINE  
 6502 KM Combine hydrographs C72v and NUL68v.  
 6503 HC 2 47.06  
 \*

6504 KK 76w BASIN  
 6505 KM Subbasin at NEC of Salt River and 19th Ave  
 6506 BA 0.334  
 6507 LG 0.10 0.26 3.17 1.09 2  
 6508 UC 1.132 0.761  
 6509 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6510 UA 100  
 \*

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

6511 KK BD76vS RETRIEVE  
 6512 KM Retrieve diverted surface flow from D76vS.  
 6513 DR D76vS  
 \*

6514 KK R76vS ROUTE  
 6515 KM Route surface flow south from Subbasin 76v to 76w.  
 6516 RS 4 FLOW -1

6517	RC	0.050	0.016	0.050	3800	0.0107													
6518	RX	0	0.5	20	49	51	80	99.5	100										
6519	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
6520	KK	BD76vP RETRIEVE																	
6521	KM	Retrieve diverted pipe flow from D76vP.																	
6522	DR	D76vP																	
	*																		
6523	KK	P76vS ROUTE																	
6524	KM	Route pipe flow from subbasin 76v to subbasin 76w.																	
6525	RK	4000	0.0041	0.015		CIRC	4.50												
	*																		
6526	KK	C76vS COMBINE																	
6527	KM	Combine hydrographs R76vS and P76vS.																	
6528	HC	2	8.24																
	*																		
6529	KK	C76w COMBINE																	
6530	KM	Combine hydrographs 76w and C76vS.																	
6531	HC	2	8.57																
	*																		
6532	KK	NUL76w COMBINE																	
6533	KM	Combine hydrographs C76w and NUL72v.																	
6534	HC	2	56.10																
	*																		
6535	KK	80w BASIN																	
6536	KM	Subbasin at NEC of Salt River and 23rd Ave																	
6537	BA	0.360																	
6538	LG	0.12	0.27	3.43	0.95	60													
6539	UC	0.803	0.613																
6540	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0								
6541	UA	100																	
	*																		
6542	KK	BD80vS RETRIEVE																	
6543	KM	Retrieve diverted surface flow from D80vS.																	
6544	DR	D80vS																	
	*																		

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

6545	KK	R80vS ROUTE																	
6546	KM	Route surface flow south from Subbasin 80v to 80w.																	
6547	RS	3	FLOW	-1															
6548	RC	0.050	0.016	0.050	3920	0.0061													
6549	RX	0	0.75	30	73.5	76.5	120	149.25	150										
6550	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
6551	KK	C80w COMBINE																	
6552	KM	Combine hydrographs R80vS and 80w.																	
6553	HC	2	8.59																
	*																		
6554	KK	NUL80w COMBINE																	
6555	KM	Combine hydrographs C80w and NUL76w.																	
6556	HC	2	58.09																
	*																		
6557	KK	BD84vS RETRIEVE																	
6558	KM	Retrieve diverted surface flow from D84vS.																	
6559	DR	D84vS																	
	*																		
6560	KK	R84vS ROUTE																	
6561	KM	Route surface flow south from Subbasin 84v to 84w.																	
6562	RS	2	FLOW	-1															
6563	RC	0.050	0.016	0.050	3290	0.0033													
6564	RX	0	0.5	20	49	51	80	99.5	100										
6565	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
6566	KK	BD84vP RETRIEVE																	
6567	KM	Retrieve diverted pipe flow from D84vP.																	
6568	DR	D84vP																	
	*																		
6569	KK	D84vP1 DIVERT																	
6570	KM	Divert flows into pipe (south).																	

6571 DT D84vP2  
 6572 DI 0 1269 2000  
 6573 DQ 0 1017 1017  
 \*

6574 KK P84vS1 ROUTE  
 6575 KM Route pipe flow from subbasin 84v to subbasin 84w.  
 6576 RK 3100 0.0031 0.015 CIRC 6.50  
 \*

6577 KK B84vP2 RETRIEVE  
 6578 KM Retrieve diverted pipe flow from D84vP2.  
 6579 DR D84vP2  
 \*

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

6580 KK P84vS2 ROUTE  
 6581 KM Route pipe flow from subbasin 84v to subbasin 84w.  
 6582 RK 3100 0.0030 0.015 CIRC 11.0  
 \*

6583 KK C84vS COMBINE  
 6584 KM Combine hydrographs R84vS, P84vS1, and P84vS2.  
 6585 HC 3 9.76  
 \*

6586 KK 84w BASIN  
 6587 KM Subbasin at NEC of Salt River and 27th Ave  
 6588 BA 0.339  
 6589 LG 0.17 0.25 3.95 0.61 43  
 6590 UC 1.018 0.716  
 6591 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6592 UA 100  
 \*

6593 KK BD80vP RETRIEVE  
 6594 KM Retrieve diverted pipe flow from D80vP.  
 6595 DR D80vP  
 \*

6596 KK P80vS ROUTE  
 6597 KM Route pipe flow from subbasin 80v to subbasin 80w.  
 6598 RK 4600 0.0030 0.015 CIRC 6.5  
 \*

6599 KK C84w COMBINE  
 6600 KM Combine hydrographs 84w and C84vS.  
 6601 HC 3 10.10  
 \*

6602 KK NUL84w COMBINE  
 6603 KM Combine hydrographs C84w and NUL80w.  
 6604 HC 2 59.72  
 \*

6605 KK NUL88w COMBINE  
 6606 KM Combine hydrographs C88w and NUL84w.  
 6607 HC 2 61.86  
 \*

6608 KK 24s BASIN  
 6609 KM Subbasin at NEC of Grand Canal and 44th St  
 6610 BA 0.195  
 6611 LG 0.19 0.25 4.80 0.37 35  
 6612 UC 0.678 0.515  
 6613 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6614 UA 100  
 \*

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

6615 KK S24s STORAGE  
 6616 KM Regional online retention basin, 5 ac-ft.  
 6617 RS 1 STOR 0  
 6618 SV 0 5.1 14  
 6619 SE 0 2 4  
 6620 SS 2 100 2.7 1.5  
 \*

6621 KK B28qP2 RETRIEVE  
 6622 KM Retrieve diverted pipe flow from D28qP2.

```

6623      DR  D28qP2
          *

6624      KK  P28qE  ROUTE
6625      KM  Route pipe flow from subbasin 28q to subbasin 24s.
6626      RK  1300 0.0031 0.015          CIRC  3.0
          *

6627      KK  C24s  COMBINE
6628      KM  Combine hydrographs P28qE and S24s.
6629      HC  2    0.20
          *

6630      KK  D24s  DIVERT
6631      KM  Divert 249 cfs into pipe (south).
6632      DT  D24sP
6633      DI  0    100    249    10000
6634      DQ  0    100    249    249
          *

6635      KK  R24sS  ROUTE
6636      KM  Route surface flow south from Subbasin 24s to 24t.
6637      RS  2    FLOW    -1
6638      RC  0.050 0.016 0.050 5000 0.0030
6639      RX  0    0.5    20    49    51    80    99.5    100
6640      RY  3    1    0.5    0    0    0.5    1    3
          *

6641      KK  BD24sP RETRIEVE
6642      KM  Retrieve diverted pipe flow from D24sP.
6643      DR  D24sP
          *

6644      KK  D24sPS DIVERT
6645      KM  Divert 32 cfs into pipe (east).
6646      DT  D24sPE
6647      DI  0    249    250
6648      DQ  0    32    32
          *

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

6649      KK  P24sS  ROUTE
6650      KM  Route pipe flow from 44th st/Grand Canal to subbasin 24t.
6651      RK  5000 0.0030 0.015          CIRC  6.50
          *

6652      KK  C24sS  COMBINE
6653      KM  Combine hydrographs R24sS and P24sS.
6654      HC  2    0.20
          *

6655      KK  24t  BASIN
6656      KM  Subbasin at NEC of Salt River and SR143
6657      BA  0.260
6658      LG  0.10 0.25  3.48 0.87  6
6659      UC  0.726 0.347
6660      UA  0    5.0    16.0 30.0  65.0 77.0  84.0 90.0  94.0 97.0
6661      UA  100
          *

6662      KK  C24t  COMBINE
6663      KM  Combine hydrographs 24t and C24sS.
6664      HC  2    0.46
          *

6665      KK  S24t  STORAGE
6666      KM  Online Regional Detention Basin, 31 ac-ft.
6667      RS  1    STOR    0
6668      SV  0    13    30.6 53.6
6669      SE  0    4    8    12
6670      SQ  0    25    90    6594
          *

6671      KK  04s  BASIN
6672      KM  Subbasin at NEC of Washington and Center Pkwy
6673      BA  0.278
6674      LG  0.12 0.25  4.15 0.63  25
6675      UC  0.359 0.194
6676      UA  0    5.0    16.0 30.0  65.0 77.0  84.0 90.0  94.0 97.0
6677      UA  100
          *

6678      KK  S04s  STORAGE

```

6679 KM Online Detention Basin, 2 ac-ft.  
 6680 RS 1 STOR 0  
 6681 SV 0 0.5 2 6  
 6682 SE 0 4 8 12  
 6683 SL 0.5 0.785 0.62 0.5  
 6684 SS 8 60 2.7 1.5  
 \*

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

6685 KK R04sS ROUTE  
 6686 KM Route surface flow south from Subbasin 04s to 08s.  
 6687 RS 1 FLOW -1  
 6688 RC 0.050 0.016 0.050 1870 0.0064  
 6689 RX 0 0.5 20 49 51 80 99.5 100  
 6690 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6691 KK 08q BASIN  
 6692 KM Subbasin at NEC of Center and Phoenix Zoo  
 6693 BA 0.438  
 6694 LG 0.10 0.25 3.95 0.64 41  
 6695 UC 0.582 0.361  
 6696 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6697 UA 100  
 \*

6698 KK R08qS ROUTE  
 6699 KM Route surface flow south from Subbasin 08q to 08s.  
 6700 RS 2 FLOW -1  
 6701 RC 0.050 0.016 0.050 3500 0.0224  
 6702 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 6703 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6704 KK 08s BASIN  
 6705 KM Subbasin at NEC of Loop 202 and Priest Dr  
 6706 BA 0.651  
 6707 LG 0.15 0.25 3.85 0.68 44  
 6708 UC 0.629 0.305  
 6709 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6710 UA 100  
 \*

6711 KK C08s COMBINE  
 6712 KM Combine hydrographs 08s and R08q, R04s.  
 6713 HC 3 1.37  
 \*

6714 KK S08s STORAGE  
 6715 KM Online Detention Regional Basin, 28 ac-ft.  
 6716 RS 1 STOR 0  
 6717 SV 0 1 3 6 12 20 28 38  
 6718 SE 0 2 4 6 8 10 12 14  
 6719 SL 0.5 3.14 0.62 0.5  
 6720 SS 12 200 2.7 1.5  
 \*

6721 KK D08s DIVERT  
 6722 KM Divert 862 cfs into pipe (south).  
 6723 DT D08sP  
 6724 DI 0 100 862 10000  
 6725 DQ 0 100 862 862  
 \*

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

6726 KK R08sW ROUTE  
 6727 KM Route surface flow west from Subbasin 08s to 16s.  
 6728 RS 3 FLOW -1  
 6729 RC 0.050 0.016 0.050 2800 0.0031  
 6730 RX 0 0.5 20 49 51 80 99.5 100  
 6731 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6732 KK 12q BASIN  
 6733 KM Subbasin at NEC of Van Buren and 56th St  
 6734 BA 0.399  
 6735 LG 0.14 0.25 4.10 0.60 10  
 6736 UC 0.534 0.355  
 6737 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6738 UA 100

\*  
 6739 KK R12qS ROUTE  
 6740 KM Route surface flow south from Subbasin 12q to 12s.  
 6741 RS 2 FLOW -1  
 6742 RC 0.050 0.016 0.050 3500 0.0175  
 6743 RX 0 0.5 20 49 51 80 99.5 100  
 6744 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6745 KK 12s BASIN  
 6746 KM Subbasin at NEC of UPRR and Galvin Pkwy  
 6747 BA 0.208  
 6748 LG 0.12 0.25 4.00 0.65 72  
 6749 UC 0.451 0.313  
 6750 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6751 UA 100  
 \*

6752 KK S12s STORAGE  
 6753 KM Online Detention Basin, 10 ac-ft.  
 6754 RS 1 STOR 0  
 6755 SV 0 1.2 3 6 10 15  
 6756 SE 0 2 4 6 8 10  
 6757 SL 0.5 0.785 0.62 0.5  
 6758 SS 8 150 2.7 1.5  
 \*

6759 KK C12s COMBINE  
 6760 KM Combine hydrographs S12s and R12qs.  
 6761 HC 2 0.61  
 \*

6762 KK R12sW ROUTE  
 6763 KM Route surface flow west from Subbasin 12s to 16s.  
 6764 RS 2 FLOW -1  
 6765 RC 0.050 0.016 0.050 2500 0.0031  
 6766 RX 0 0.5 20 49 51 80 99.5 100  
 6767 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

6768 KK C12sW COMBINE  
 6769 KM Combine hydrographs R12sW and P08sW.  
 6770 HC 2 1.97  
 \*

6771 KK D16s2 DIVERT  
 6772 KM Divert 979 cfs into pipe (south).  
 6773 DT D16sP2  
 6774 DI 0 100 979 10000  
 6775 DQ 0 100 979 979  
 \*

6776 KK 16o BASIN  
 6777 KM Subbasin at NEC of McDowell and 54th St  
 6778 BA 0.211  
 6779 LG 0.10 0.25 4.15 0.63 78  
 6780 UC 0.207 0.094  
 6781 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6782 UA 100  
 \*

6783 KK R16oS ROUTE  
 6784 KM Route surface flow south from Subbasin 16o to 16q.  
 6785 RS 2 FLOW -1  
 6786 RC 0.050 0.016 0.050 5150 0.0252  
 6787 RX 0 0.5 20 49 51 80 99.5 100  
 6788 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6789 KK 16q BASIN  
 6790 KM Subbasin at NEC of Van Buren and 52nd St  
 6791 BA 0.651  
 6792 LG 0.13 0.25 3.95 0.67 21  
 6793 UC 0.718 0.488  
 6794 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6795 UA 100  
 \*

6796 KK C16q COMBINE  
 6797 KM Combine hydrographs 16q and R16oS.  
 6798 HC 2 0.86

```

*
6799  KK  S16q STORAGE
6800  KM  Online Regional Retention Basin, 35 ac-ft.
6801  RS  1  STOR  0
6802  SV  0  0.5  2  3  9  20  35  58
6803  SE  0  2  4  6  10  14  18  22
6804  SS  18  100  2.7  1.5
*

```

HEC-1 INPUT

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

```

6805  KK  D16q DIVERT
6806  KM  Divert 659 cfs into pipes (484 cfs to south, 175 cfs to west).
6807  DT  D16qP
6808  DI  0  100  659  10000
6809  DQ  0  100  659  659
*

```

```

6810  KK  R16qS ROUTE
6811  KM  Route surface flow south from Subbasin 16q to 16s.
6812  RS  2  FLOW  -1
6813  RC  0.050  0.016  0.050  3200  0.0194
6814  RX  0  1  40  98  102  160  199  200
6815  RY  3  1  0.5  0  0  0.5  1  3
*

```

```

6816  KK  16s BASIN
6817  KM  Subbasin at NEC of Loop 202 and Sky Harbor Blvd
6818  BA  0.420
6819  LG  0.16  0.23  4.25  0.52  59
6820  UC  0.508  0.251
6821  UA  0  5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6822  UA  100
*

```

```

6823  KK  C16s COMBINE
6824  KM  Combine flows of 16s, R16qS, and D16s2
6825  HC  3  3.26
*

```

```

6826  KK  S16s STORAGE
6827  KM  Online Regional Retention Basin, 19 ac-ft.
6828  RS  1  STOR  0
6829  SV  0  2.4  7  12.7  19.2  26.5
6830  SE  0  2  4  6  8  10
6831  SS  8  300  2.7  1.5
*

```

```

6832  KK  BD16qP RETRIEVE
6833  KM  Retrieve diverted pipe flow from D16qP.
6834  DR  D16qP
*

```

```

6835  KK  D16qPS DIVERT
6836  KM  Divert 659 cfs into pipes (484 cfs to south 175 cfs to west).
6837  KM  Two pipes to west (82 cfs and 93 cfs).
6838  DT  D16qPW
6839  DI  0  659  1000
6840  DQ  0  175  175
*

```

HEC-1 INPUT

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

```

6841  KK  P16qS ROUTE
6842  KM  Route pipe flow from subbasin 16q to subbasin 16s.
6843  RK  3400  0.0114  0.015  CIRC  6.50
*

```

```

6844  KK  CC16s COMBINE
6845  KM  Combine flows of S16s and P16qS.
6846  HC  2  3.26
*

```

```

6847  KK  D16s DIVERT
6848  KM  Divert 709 cfs into pipe (west).
6849  DT  D16sP
6850  DI  0  100  709  10000
6851  DQ  0  100  709  709
*

```

```

6852  KK  R16sS ROUTE

```

6853 KM Route surface flow south from Subbasin 16s to 20t.  
 6854 RS 2 FLOW -1  
 6855 RC 0.050 0.016 0.050 1800 0.0044  
 6856 RX 0 1 40 98 102 160 199 200  
 6857 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6858 KK BD16sP RETRIEVE  
 6859 KM Retrieve diverted pipe flow from D16sP.  
 6860 DR D16sP  
 \*

6861 KK P16sS ROUTE  
 6862 KM Route pipe flow from 52nd st/SPRR to subbasin 20t.  
 6863 RK 1500 0.0153 0.015 CIRC 8.00  
 \*

6864 KK C16sS COMBINE  
 6865 KM Combine hydrographs R16sS and P16sS.  
 6866 HC 2 3.26  
 \*

6867 KK 20p BASIN  
 6868 KM Subbasin at NEC of Loop 202 and SR143  
 6869 BA 0.532  
 6870 LG 0.54 0.24 4.40 0.46 26  
 6871 UC 0.772 0.457  
 6872 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6873 UA 100  
 \*

HEC-1 INPUT

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

6874 KK S20p1 STORAGE  
 6875 KM Online Retention Basin, 2 ac-ft.  
 6876 RS 1 STOR 0  
 6877 SV 0 0.1 0.6 2 4  
 6878 SE 0 2 4 6 8  
 6879 SS 6 100 2.7 1.5  
 \*

6880 KK B16qPW RETRIEVE  
 6881 KM Retrieve diverted pipe flow from D16qPW.  
 6882 DR D16qPW  
 \*

6883 KK P16qW ROUTE  
 6884 KM Route pipe flow from subbasin 16q to subbasin 20p.  
 6885 RK 5200 0.0127 0.015 CIRC 5.0  
 \*

6886 KK C20p COMBINE  
 6887 KM Combine hydrographs P16qW and S20p1.  
 6888 HC 2 1.39  
 \*

6889 KK S20p2 STORAGE  
 6890 KM Online Regional Detention Basin, 43 ac-ft.  
 6891 RS 1 STOR 0  
 6892 SV 0 1.4 4.1 9.6 20.7 42.7 79.4  
 6893 SE 0 2 4 6 8 10 12  
 6894 SL 1.5 7.065 0.62 0.5  
 6895 SS 10 200 2.7 1.5  
 \*

6896 KK OCC48 INFLOW  
 6897 KM Inflow from OCC48 area at 48th Street and McDowell Rd.  
 6898 KM Maximum flow 3523 cfs  
 6899 IN 60  
 6900 BA 3.0  
 6901 QI 0 7 33 65 130 228 325 423 520 585  
 6902 QI 724 747 818 3523 1600 837 675 585 455 325  
 6903 QI 195 130 65 3 0.1  
 \*

6904 KK BD24oP RETRIEVE  
 6905 KM Retrieve diverted pipe flow from D24oP.  
 6906 DR D24oP  
 \*

6907 KK P24oS ROUTE  
 6908 KM Route pipe flow from subbasin 24o to subbasin 20p.  
 6909 RK 3000 0.0030 0.015 CIRC 3.50  
 \*

```

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

6910      KK      C24oS COMBINE
6911      KM      Combine hydrographs OCCC48 and P24oS.
6912      HC      2      3.00
          *

6913      KK      ROCCC  ROUTE
6914      KM      Route surface flow south from OCCC48 to 20p.
6915      RS      2      FLOW      -1
6916      RC      0.013  0.013  0.013  3000  0.0038
6917      RX      0      1      2      10      19      28      29      30
6918      RY      20      20      0      0      0      0      20      20
          *

6919      KK      CC20p COMBINE
6920      KM      Combine hydrographs S20p2 and ROCCC.
6921      HC      2      4.39
          *

6922      KK      R20pS  ROUTE
6923      KM      Route surface flow south from Subbasin 20p to 20q.
6924      RS      2      FLOW      -1
6925      RC      0.013  0.013  0.013  3000  0.0020
6926      RX      0      1      2      10      19      28      29      30
6927      RY      20      20      0      0      0      0      20      20
          *

6928      KK      20q  BASIN
6929      KM      Subbasin at NEC of Van Buren and SR143
6930      BA      0.276
6931      LG      0.25  0.22  4.45  0.40  11
6932      UC      0.737  0.441
6933      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6934      UA      100
          *

6935      KK      B28pP2 RETRIEVE
6936      KM      Retrieve diverted pipe flow from D28pP2.
6937      DR      D28pP2
          *

6938      KK      P28pE  ROUTE
6939      KM      Route pipe flow from subbasin 28p to subbasin 20q.
6940      RK      6000  0.0030  0.015      CIRC  4.0
          *

6941      KK      C20q COMBINE
6942      KM      Combine hydrographs 20q and R20pS.
6943      HC      3      4.67
          *

```

```

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

6944      KK      R20qS  ROUTE
6945      KM      Route surface flow south from Subbasin 20q to 20s.
6946      RS      2      FLOW      -1
6947      RC      0.013  0.013  0.013  3200  0.0020
6948      RX      0      1      2      10      19      28      29      30
6949      RY      20      20      0      0      0      0      20      20
          *

6950      KK      20s  BASIN
6951      KM      Subbasin at NEC of Grand Canal and SR143
6952      BA      0.484
6953      LG      0.16  0.24  4.55  0.44  52
6954      UC      0.516  0.225
6955      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6956      UA      100
          *

6957      KK      S20s STORAGE
6958      KM      Online Retention Basin, 3 ac-ft.
6959      RS      1      STOR      0
6960      SV      0      0.9  3      8
6961      SE      0      2      4      7
6962      SS      4      60  2.7  1.5
          *

6963      KK      C20s COMBINE
6964      KM      Combine hydrographs S20s and R20qS.

```

```

6965      HC      2      5.15
*
6966      KK      B24sPE RETRIEVE
6967      KM      Retrieve diverted pipe flow from D24sPE.
6968      DR      D24sPE
*
6969      KK      P24sE  ROUTE
6970      KM      Route pipe flow from subbasin 24s to subbasin 20s.
6971      RK      2700  0.0031  0.015      CIRC      3.0
*
6972      KK      CC20s COMBINE
6973      KM      Combine hydrographs C20s and P24sE.
6974      HC      2      5.35
*
6975      KK      R20sS  ROUTE
6976      KM      Route surface flow south from Subbasin 20s to 20t.
6977      RS      2      FLOW      -1
6978      RC      0.013  0.013  0.013  3200  0.0038
6979      RX      0      1      2      10      19      28      29      30
6980      RY      20     20     0      0      0      0      20     20
*

```

HEC-1 INPUT

1

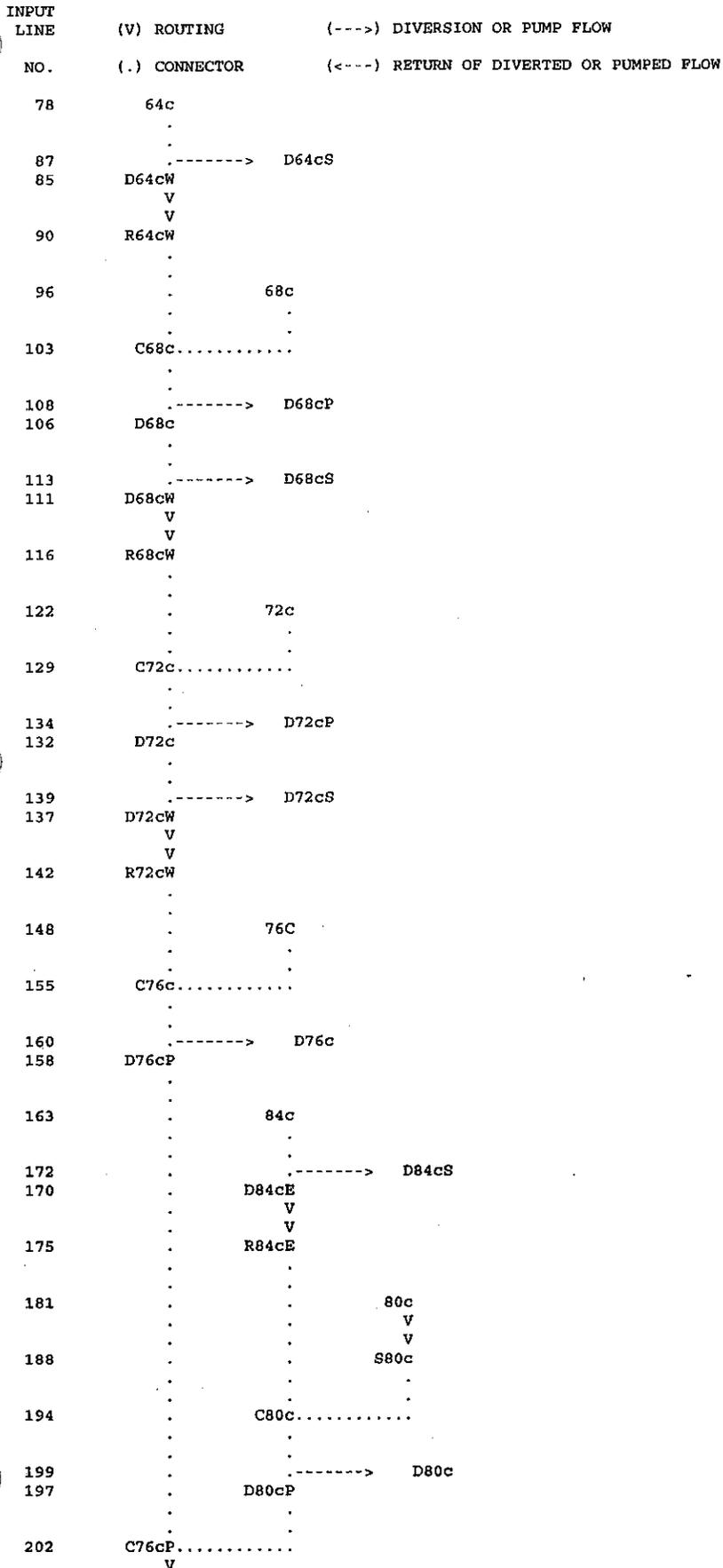
LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

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6981      KK      20t  BASIN
6982      KM      Subbasin at NEC of Salt River and SR143
6983      BA      0.265
6984      LG      0.13   0.23   2.54   1.53   3
6985      UC      1.266  0.708
6986      UA      0      5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
6987      UA      100
*
6988      KK      S20t STORAGE
6989      KM      Online Retention Basin, 156 ac-ft.
6990      RS      1      STOR      0
6991      SV      0      20.7   50.1   88.4   156.1  249.1
6992      SE      0      2      4      6      8      10
6993      SS      8      600   2.7   1.5
*
6994      KK      C20t COMBINE
6995      KM      Combine flows of 20t, C16sS, and 20sS
6996      HC      3      8.01
*
6997      KK      NUL20t COMBINE
6998      KM      Combine hydrographs C20t and S24t.
6999      HC      2      8.27
*
7000      ZZ

```

SCHEMATIC DIAGRAM OF STREAM NETWORK

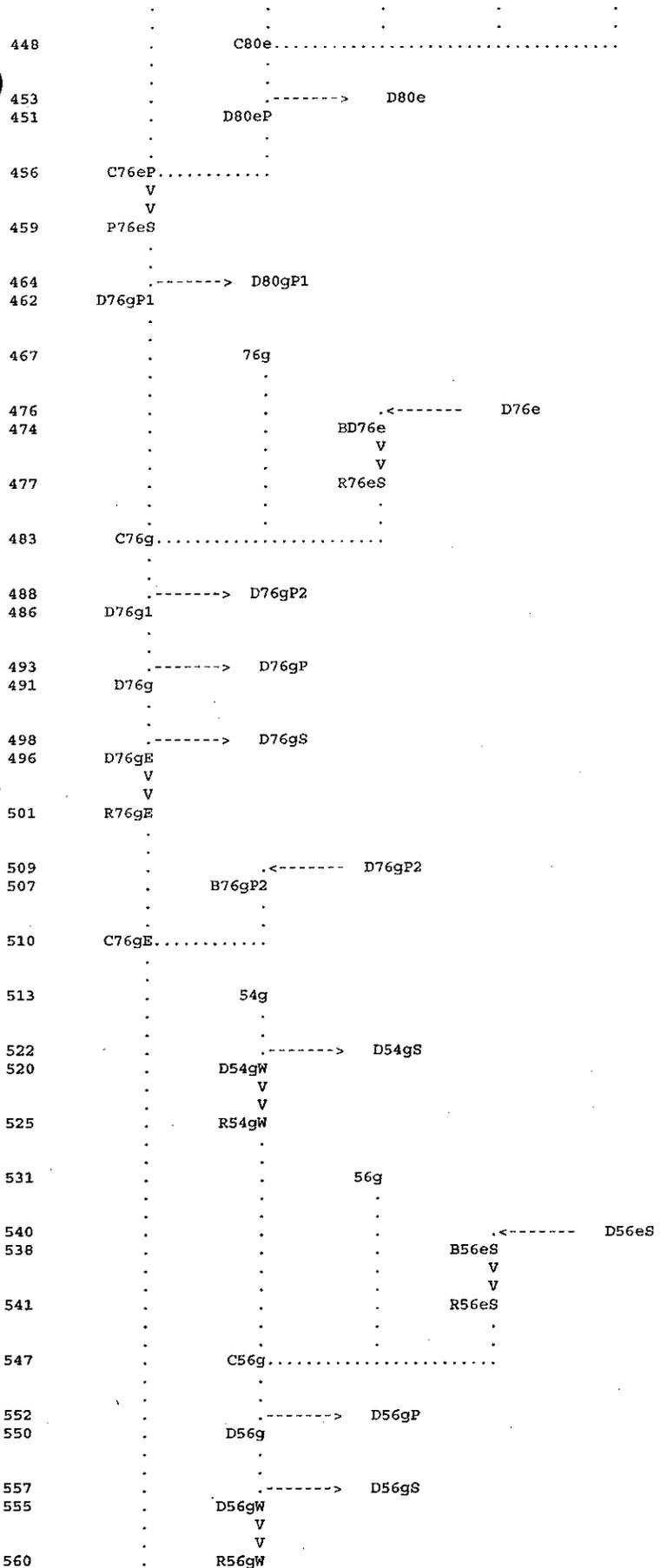


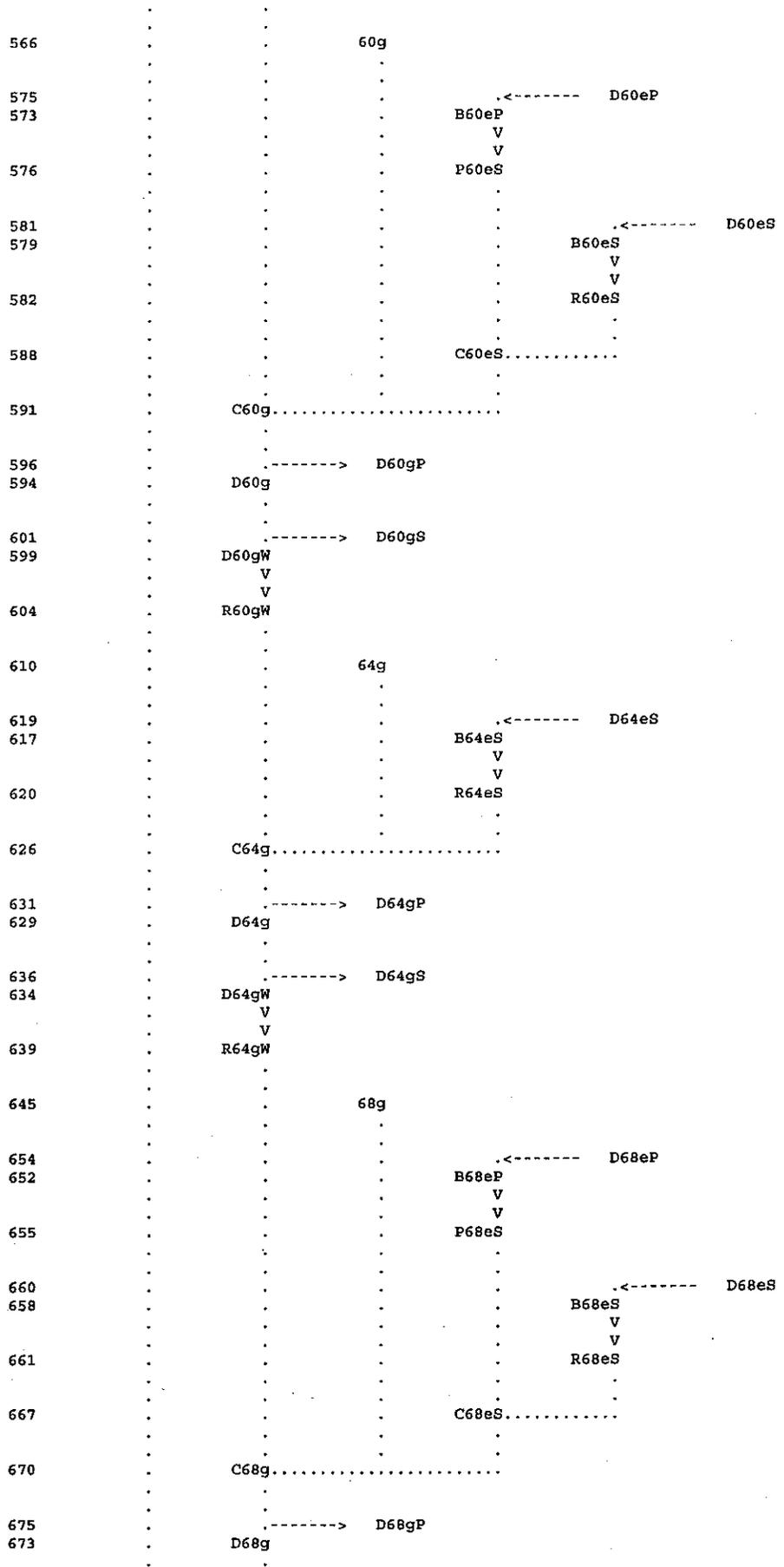
205	V F76cS		
210		----->	D80eP1
208	D76eP1		
213			56e
222		----->	D56eS
220	D56eW		
	V		
	V		
225	R56eW		
231			60e
238			C60e.....
243		----->	D60eP
241	D60e		
248		----->	D60eS
246	D60eW		
	V		
	V		
251	R60eW		
257			64e
266			
264			
		-----<	D64cS
			B64cS
			V
			V
267			R64cS
273			C64e.....
278		----->	D64eS
276	D64eW		
	V		
	V		
281	R64eW		
287			68e
296			
294			
		-----<	D68cP
			B68cP
			V
			V
297			P68cS
302			
300			
		-----<	D68cS
			B68cS
			V
			V
303			R68cS
309			C68cS.....
312			C68e.....
317		----->	D68eP
315	D68e		
322		----->	D68eS
320	D68eW		
	V		
	V		

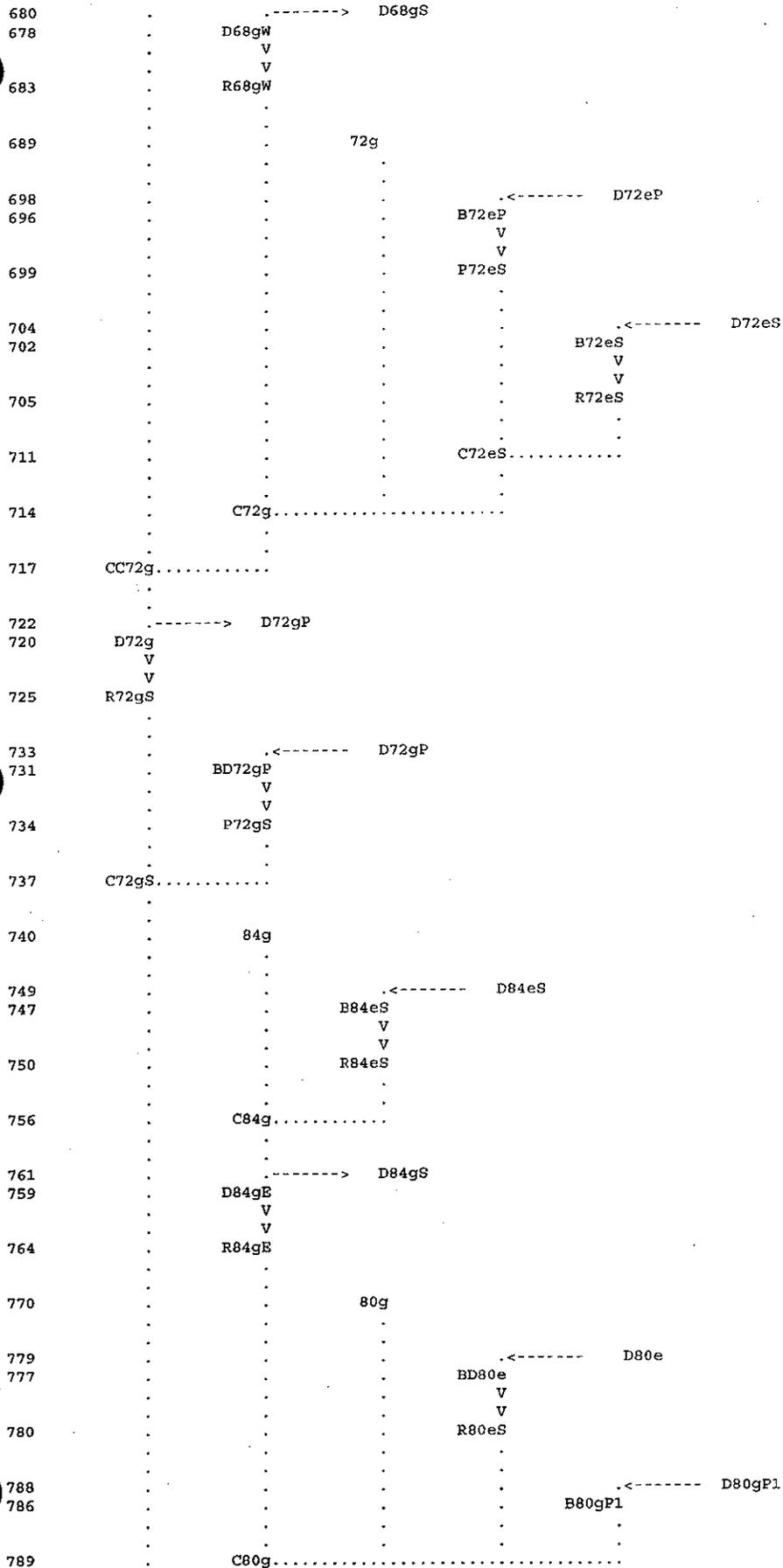
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325 . R68eW
. . .
331 . . 72e
. . .
340 . . . <----- D72cP
338 . . . B72cP
. . . V
. . . V
341 . . . P72cS
. . .
346 . . . <----- D72cS
344 . . . B72cS
. . . V
. . . V
347 . . . R72cS
. . .
353 . . . C72cS.....
. . .
356 . . . C72e.....
. . .
361 . . . <----- D72eP
359 . . . D72e
. . .
366 . . . <----- D72eS
364 . . . D72eW
. . . V
. . . V
369 . . . R72eW
. . .
375 . . . 76e
. . .
384 . . . <----- D76c
382 . . . B76c
. . . V
. . . V
385 . . . R76cS
. . .
391 . . . C76e.....
. . .
396 . . . <----- D76e
394 . . . D76eP
. . .
401 . . . <----- D84cS
399 . . . BD84cS
. . . V
. . . V
402 . . . R84cS
. . .
408 . . . 84e
. . .
415 . . . C84e.....
. . .
420 . . . <----- D84eS
418 . . . D84eE
. . . V
. . . V
423 . . . R84eE
. . .
429 . . . 80e
. . .
438 . . . <----- D80eP1
436 . . . B80eP1
. . .
441 . . . <----- D80c
439 . . . BD80c
. . . V
. . . V
442 . . . R80cS

```













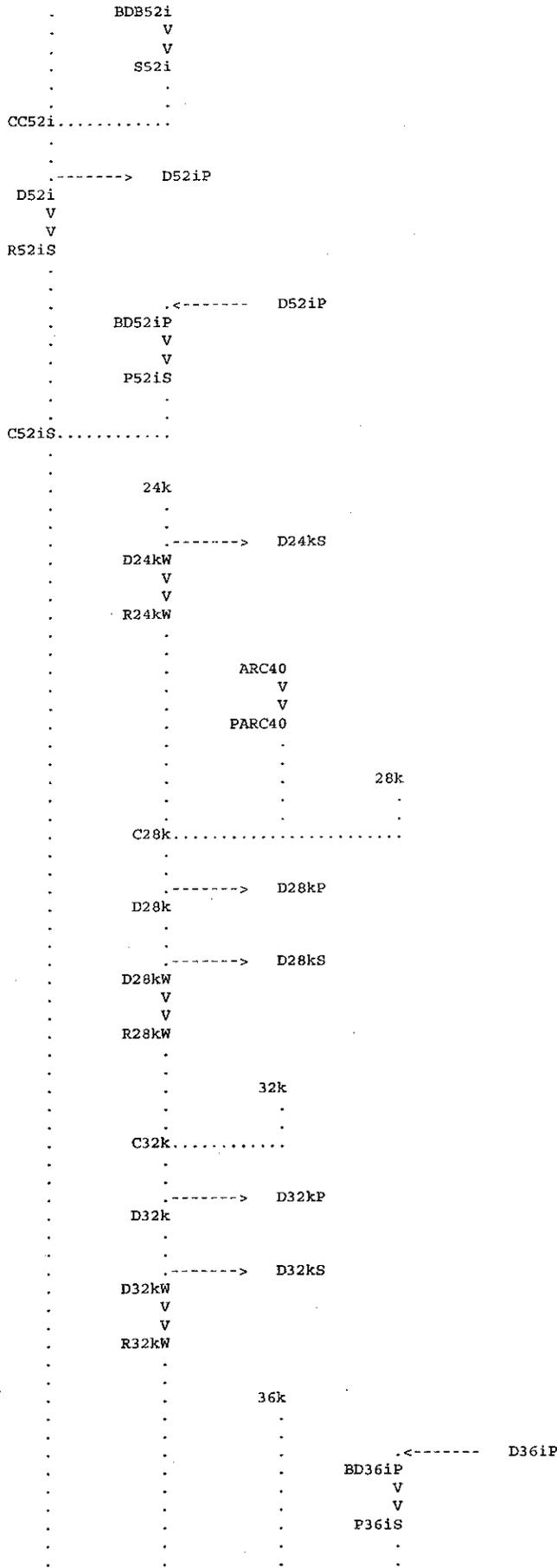
```

1136 -----> D64iP
1134 D64i
.
.
1141 -----> D64iS
1139 D64iW
.
V
V
1144 R64iW
.
.
1150 68i
.
.
1159 -----> D68gP
1157 BD68gP
.
V
V
1160 P68gS
.
.
1165 -----> D68gS
1163 BD68gS
.
V
V
1166 R68gS
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1172 C68gS.....
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1175 C68i.....
.
.
1180 -----> D72i
1178 BD72i
.
.
1183 -----> D76iE
1181 B76iE
.
V
V
1184 R76iE
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.
1190 CC72i.....
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.
1195 -----> D72iS
1193 D72iE
.
V
V
1198 R72iE
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.
1204 CC68i.....
.
.
1209 -----> D68iP
1207 D68i
.
V
V
1212 R68iS
.
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1220 -----> D68iP
1218 BD68iP
.
V
V
1221 P68iS
.
.
1224 C68iS.....
.
.
1227 36i
.
.
1236 -----> D36iP
1234 D36i
.
.
1241 -----> D36iS
1239 D36iW
.
V
V

```

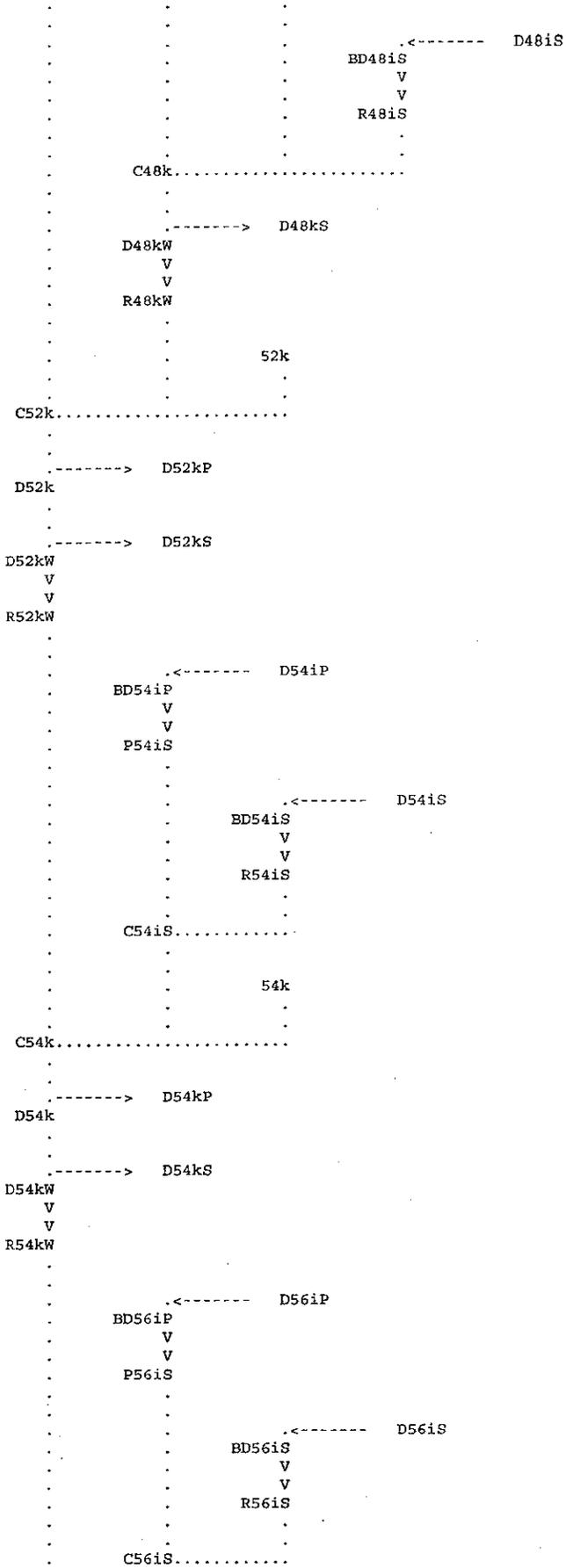
1244	.	.	R36iW	
1250	.	.	.	40i
1257	.	.	.	V
1263	.	.	.	V
1268	.	.	S40i	
1266	.	.	.	
1271	.	.	C40i.....	
1277	.	.	.	
1284	.	.	----->	D40iS
1291	.	.	D40iW	
1297	.	.	V	
1302	.	.	V	
1300	.	.	R40iW	
1307	.	.	.	
1305	.	.	.	44i
1310	.	.	.	
1316	.	.	.	
1323	.	.	.	42i
1328	.	.	.	V
1326	.	.	.	V
1333	.	.	.	R42iW
1331	.	.	.	
1336	.	.	C44i.....	
1344	.	.	.	
1342	.	.	----->	D44iP
1345	.	.	D44i	
1348	.	.	.	
1351	.	.	----->	D44iS
1358	.	.	D44iW	
1364	.	.	V	
1371	.	.	V	
1377	.	.	R44iW	
1374	.	.	.	
1382	.	.	.	48i
	.	.	.	
	.	.	C48i.....	
	.	.	.	
	.	.	----->	D48iP
	.	.	D48i	
	.	.	.	
	.	.	----->	D48iS
	.	.	D48iW	
	.	.	V	
	.	.	V	
	.	.	R48iW	
	.	.	.	
	.	.	.	BD48iP
	.	.	.	V
	.	.	.	V
	.	.	.	P48iW
	.	.	.	
	.	.	C48iW.....	
	.	.	.	
	.	.	.	52g
	.	.	.	V
	.	.	.	V
	.	.	.	R52gS
	.	.	.	
	.	.	.	
	.	.	.	52i
	.	.	.	
	.	.	C52i.....	
	.	.	.	
	.	.	----->	DB52i
	.	.	E52i	
	.	.	.	
	.	.	.	DB52i

1380  
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1500  
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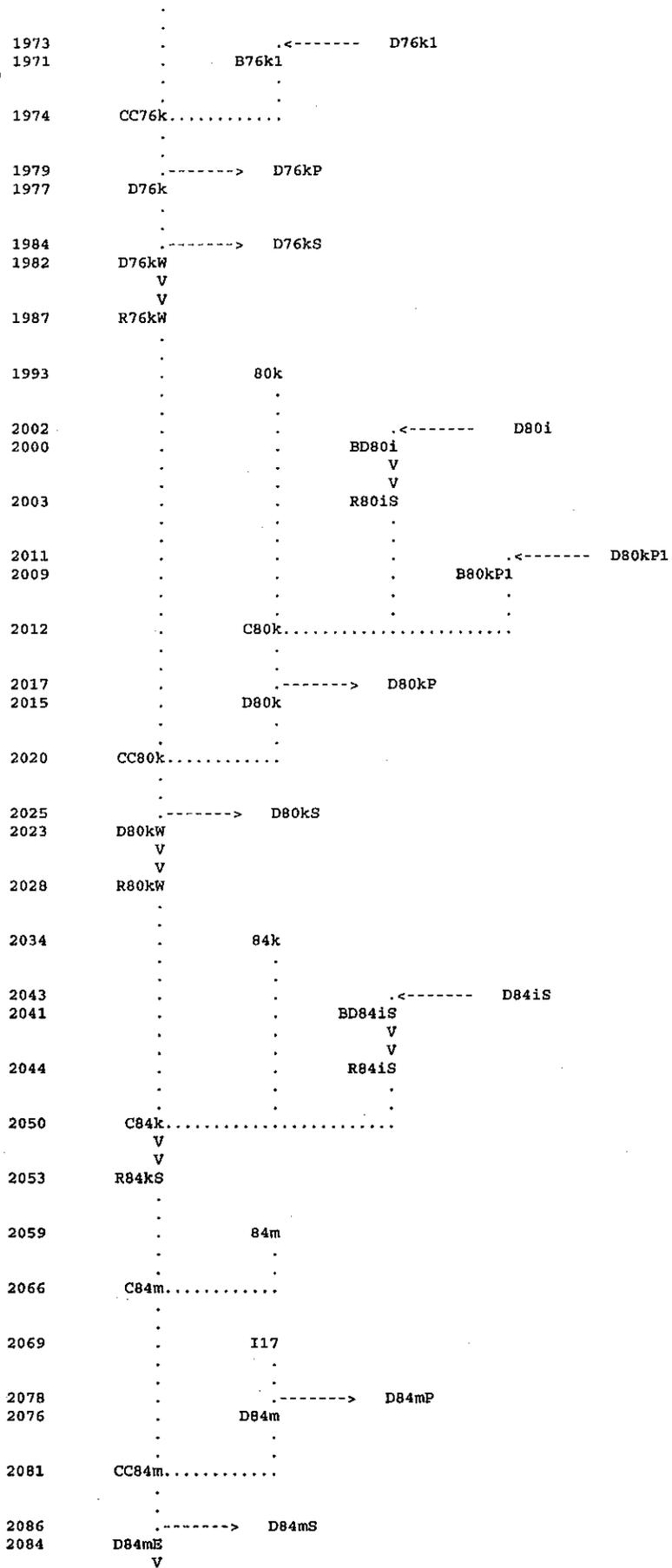


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1740 . . . . . 56k
1747 . . . . . C56k.....
1752 . . . . . <----- D60iP
1750 . . . . . ED60iP
1756 . . . . . -----> D60iP2
1753 . . . . . D60iP1
1759 . . . . . V
1759 . . . . . V
1759 . . . . . P60iS1
1764 . . . . . <----- D60iP2
1762 . . . . . B60iP2
1765 . . . . . V
1765 . . . . . V
1765 . . . . . P60iS2
1770 . . . . . <----- D60iS
1768 . . . . . BD60iS
1771 . . . . . V
1771 . . . . . V
1771 . . . . . R60iS
1777 . . . . . C60iS.....
1780 . . . . . 60k
1787 . . . . . C60k.....
1793 . . . . . -----> D60k
1790 . . . . . D60kP
1800 . . . . . -----> D60kP2
1796 . . . . . D60kP1
1803 . . . . . V
1803 . . . . . V
1803 . . . . . P60kE
1806 . . . . . CC56k.....
1811 . . . . . -----> D56kP
1809 . . . . . D56k
1816 . . . . . -----> D56kS
1814 . . . . . D56kW
1819 . . . . . V
1819 . . . . . V
1819 . . . . . R56kW
1827 . . . . . <----- D60k
1825 . . . . . BD60k
1828 . . . . . CC60k.....
1833 . . . . . -----> D60kS
1831 . . . . . D60kW
1836 . . . . . V
1836 . . . . . V
1836 . . . . . R60kW
1842 . . . . . 64k
1851 . . . . . <----- D64iS
1849 . . . . . BD64iS
1849 . . . . . V

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1852	.	.	.	.	V
	.	.	.	.	R64iS
	.	.	.	.	.
1858	.	.	.	.	C64k.....
	.	.	.	.	V
	.	.	.	.	V
1861	.	.	.	.	S64k
	.	.	.	.	.
1869	.	.	.	.	.<----- D64iP
1867	.	.	.	.	BD64iP
	.	.	.	.	V
	.	.	.	.	V
1870	.	.	.	.	P64iS
	.	.	.	.	.
1873	.	.	.	.	CC64k.....
	.	.	.	.	.
1878	.	.	.	.	-----> D64kP
1876	.	.	.	.	D64k
	.	.	.	.	.
1883	.	.	.	.	-----> D64kS
1881	.	.	.	.	D64kW
	.	.	.	.	V
	.	.	.	.	V
1886	.	.	.	.	R64kW
	.	.	.	.	.
1892	.	.	.	.	68k
	.	.	.	.	.
1899	.	.	.	.	C68k.....
	.	.	.	.	.
1904	.	.	.	.	-----> D68kP
1902	.	.	.	.	D68k
	.	.	.	.	.
1909	.	.	.	.	-----> D68kS
1907	.	.	.	.	D68kW
	.	.	.	.	V
	.	.	.	.	V
1912	.	.	.	.	R68kW
	.	.	.	.	.
1918	.	.	.	.	72k
	.	.	.	.	V
	.	.	.	.	V
1925	.	.	.	.	S72k
	.	.	.	.	.
1933	.	.	.	.	.<----- D72iP1
1931	.	.	.	.	B72iP1
	.	.	.	.	V
	.	.	.	.	V
1934	.	.	.	.	P72iS
	.	.	.	.	.
1939	.	.	.	.	.<----- D72iS
1937	.	.	.	.	BD72iS
	.	.	.	.	V
	.	.	.	.	V
1940	.	.	.	.	R72iS
	.	.	.	.	.
1946	.	.	.	.	C72iS.....
	.	.	.	.	.
1949	.	.	.	.	C72k.....
	.	.	.	.	.
1952	.	.	.	.	CC72k.....
	.	.	.	.	.
1957	.	.	.	.	-----> D72kP
1955	.	.	.	.	D72k
	.	.	.	.	.
1962	.	.	.	.	-----> D72kS
1960	.	.	.	.	D72kW
	.	.	.	.	V
	.	.	.	.	V
1965	.	.	.	.	R72kW



```

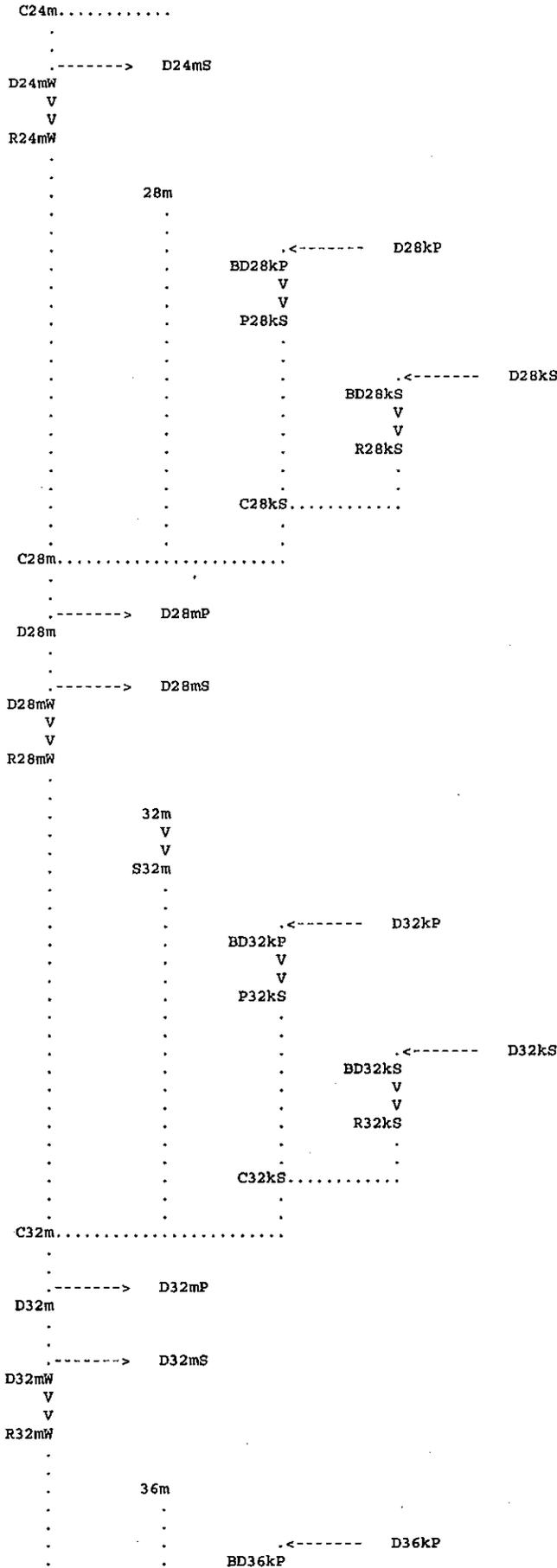
V
2089 R84mE
.
.
2095 . 80m
.
.
2104 . <----- D80kS
2102 . ED80kS
. V
. V
2105 . R80kS
.
.
2111 C80m.....
.
.
2116 <-----> D80mS
2114 D80mE
. V
. V
2119 R80mE
.
.
2125 . 761
.
.
2134 . <----- D80kP
2132 . ED80kP
.
.
2137 . <----- D76kP
2135 . BD76kP
.
.
2138 . C76kP.....
. V
. V
2141 . P76kS
.
.
2146 . <----- D76kS
2144 . BD76kS
. V
. V
2147 . R76kS
.
.
2153 . C76kS.....
.
.
2156 . C761.....
.
.
2161 <-----> D761P
2159 . D761
. V
. V
2164 . R761S
.
.
2172 . <----- D761P
2170 . BD761P
. V
. V
2173 . P761S
.
.
2176 . C761S.....
.
.
2179 . 76m
. V
. V
2186 . S76m
.
.
2192 C76m.....
.
.
2198 <-----> D76m
2195 D76mP
.
.
2204 <-----> D76mP2
2201 D76mP1

```

2207	.	721	.	.
2216	.	.	.	.
2214	.	.	.	.
	.	BD72kP	.	←----- D72kP
	.	V	.	.
	.	V	.	.
2217	.	P72kS	.	.
	.	.	.	.
2222	.	.	.	.
2220	.	.	.	←----- D72kS
	.	BD72kS	.	.
	.	V	.	.
	.	V	.	.
2223	.	R72kS	.	.
	.	.	.	.
2229	.	C72kS	.	.....
	.	.	.	.
2232	.	C721	.	.....
	.	.	.	.
2237	.	.	.	-----> D721P
2235	.	D721	.	.
	.	V	.	.
	.	V	.	.
2240	.	R721S	.	.
	.	.	.	.
2248	.	.	.	←----- D721P
2246	.	BD721P	.	.
	.	V	.	.
	.	V	.	.
2249	.	P721S	.	.
	.	.	.	.
2252	.	C721S	.	.....
	.	.	.	.
2255	.	72m	.	.
	.	.	.	.
2262	.	C72m	.	.....
	.	.	.	.
2265	.	601	.	.
	.	.	.	.
2274	.	.	.	←----- D60kP2
2272	.	B60kP2	.	.
	.	V	.	.
	.	V	.	.
2275	.	P60kS	.	.
	.	.	.	.
2280	.	.	.	←----- D60kS
2278	.	.	.	.
	.	BD60kS	.	.
	.	V	.	.
	.	V	.	.
2281	.	R60kS	.	.
	.	.	.	.
2287	.	C60kS	.	.....
	.	.	.	.
2290	.	C601	.	.....
	.	.	.	.
2295	.	.	.	-----> D601P
2293	.	D601	.	.
	.	.	.	.
2300	.	.	.	-----> D601S
2298	.	D601W	.	.
	.	V	.	.
	.	V	.	.
2303	.	R601W	.	.
	.	.	.	.
2309	.	641	.	.
	.	.	.	.
2318	.	.	.	←----- D64kS

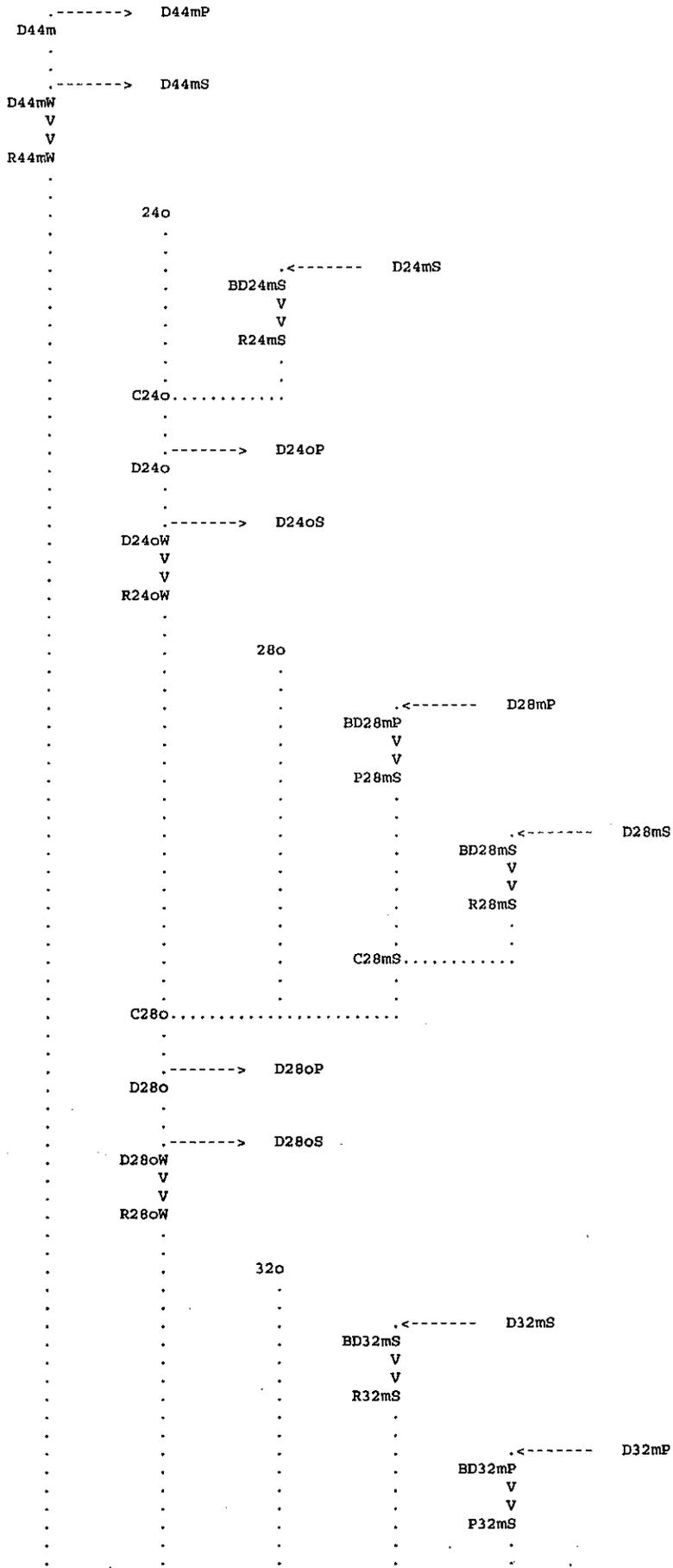
2316	.	.	BD64kS	
	.	.	V	
	.	.	V	
2319	.	.	R64kS	
	.	.	.	
2325	C64L	.....		
	V			
	V			
2328	S64L			
	.	.		
2336	.	.	<----- D64kP	
2334	.	BD64kP		
	.	V		
	.	V		
2337	.	P64kS		
	.	.		
2340	CC64L	.....		
	.	.		
2345	.	.	-----> D641P	
2343	D64L			
	.	.		
2350	.	.	-----> D641S	
2348	D64LW			
	V			
	V			
2353	R64LW			
	.	.		
2359	.	68L		
	.	.		
2368	.	.	<----- D68kP	
2366	.	BD68kP		
	.	V		
	.	V		
2369	.	P68kS		
	.	.		
2374	.	.	<----- D68kS	
2372	.	BD68kS		
	.	V		
	.	V		
2375	.	R68kS		
	.	.		
2381	.	C68kS	.....	
	.	.		
2384	C68L	.....		
	.	.		
2389	.	.	-----> D681P	
2387	D68L			
	V			
	V			
2392	R68LS			
	.	.		
2400	.	.	<----- D681P	
2398	BD681P			
	V			
	V			
2401	P681S			
	.	.		
2404	C681S	.....		
	.	.		
2407	.	24m		
	.	V		
	.	V		
2414	.	S24m		
	.	.		
2422	.	.	<----- D24kS	
2420	.	BD24kS		
	.	V		
	.	V		
2423	.	R24kS		
	.	.		

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2544

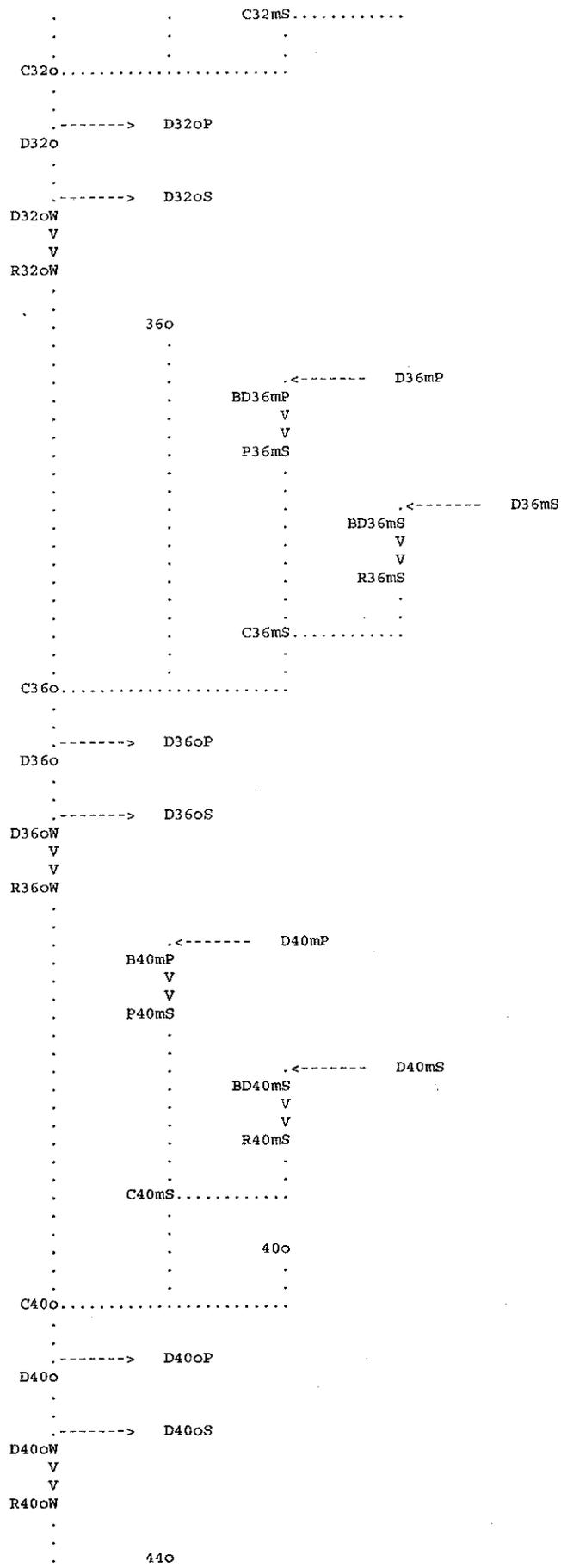


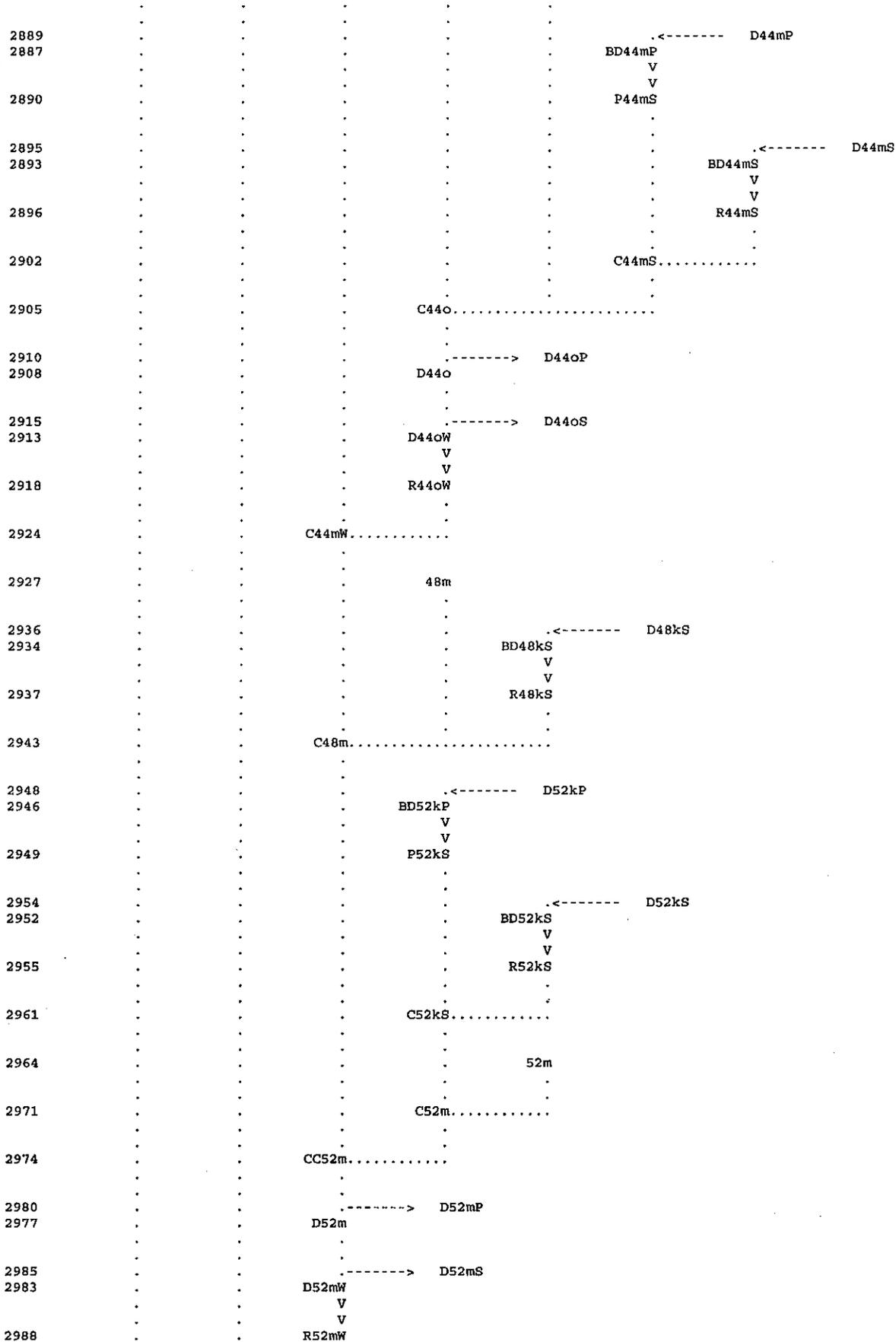
2547	.	.	.	V	
	.	.	.	V	
	.	.	.	P36kS	
2552	.	.	.	.	
2550	.	.	.	.	
	.	.	.	BD36kS	<----- D36kS
	.	.	.	V	
	.	.	.	V	
2553	.	.	.	R36kS	
	.	.	.	.	
2559	.	.	.	C36kS	.....
	.	.	.	.	
2562	.	.	.	C36m	.....
	.	.	.	.	
2567	.	.	.	-----> D36mP	
2565	.	.	.	D36m	
	.	.	.	.	
2572	.	.	.	-----> D36mS	
2570	.	.	.	D36mW	
	.	.	.	V	
	.	.	.	V	
2575	.	.	.	R36mW	
	.	.	.	.	
2581	.	.	.	40m	
	.	.	.	.	
2590	.	.	.	.	
2588	.	.	.	BD40kP	<----- D40kP
	.	.	.	V	
	.	.	.	V	
2591	.	.	.	P40kS	
	.	.	.	.	
2596	.	.	.	.	
2594	.	.	.	BD40kS	<----- D40kS
	.	.	.	V	
	.	.	.	V	
2597	.	.	.	R40kS	
	.	.	.	.	
2603	.	.	.	C40kS	.....
	.	.	.	.	
2606	.	.	.	C40m	.....
	.	.	.	.	
2611	.	.	.	-----> D40mP	
2609	.	.	.	D40m	
	.	.	.	.	
2616	.	.	.	-----> D40mS	
2614	.	.	.	D40mW	
	.	.	.	V	
	.	.	.	V	
2619	.	.	.	R40mW	
	.	.	.	.	
2625	.	.	.	44m	
	.	.	.	.	
2634	.	.	.	.	
2632	.	.	.	BD44kP	<----- D44kP
	.	.	.	V	
	.	.	.	V	
2635	.	.	.	P44kS	
	.	.	.	.	
2640	.	.	.	.	
2638	.	.	.	BD44kS	<----- D44kS
	.	.	.	V	
	.	.	.	V	
2641	.	.	.	R44kS	
	.	.	.	.	
2647	.	.	.	C44kS	.....
	.	.	.	.	
2650	.	.	.	C44m	.....

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2874  
2880





2994

54m

3003  
3001

BD54kP  
V  
V  
P54kS

D54kP

3004

3009  
3007

BD54kS  
V  
V  
R54kS

D54kS

3010

3016

C54kS

3019

C54m

3024  
3022

D54m D54mP

3029  
3027

D54mW D54mS  
V  
V  
R54mW

3032

3038

56m

3047  
3045

BD56kP  
V  
V  
P56kS

D56kP

3048

3053  
3051

BD56kS  
V  
V  
R56kS

D56kS

3054

3060

C56kS

3063

C56m

3068  
3066

D56m D56mP

3073  
3071

D56mW D56mS  
V  
V  
R56mW

3076

3082

60m

3091  
3089

BD601P  
V  
V  
P601S

D601P

3092

3097  
3095

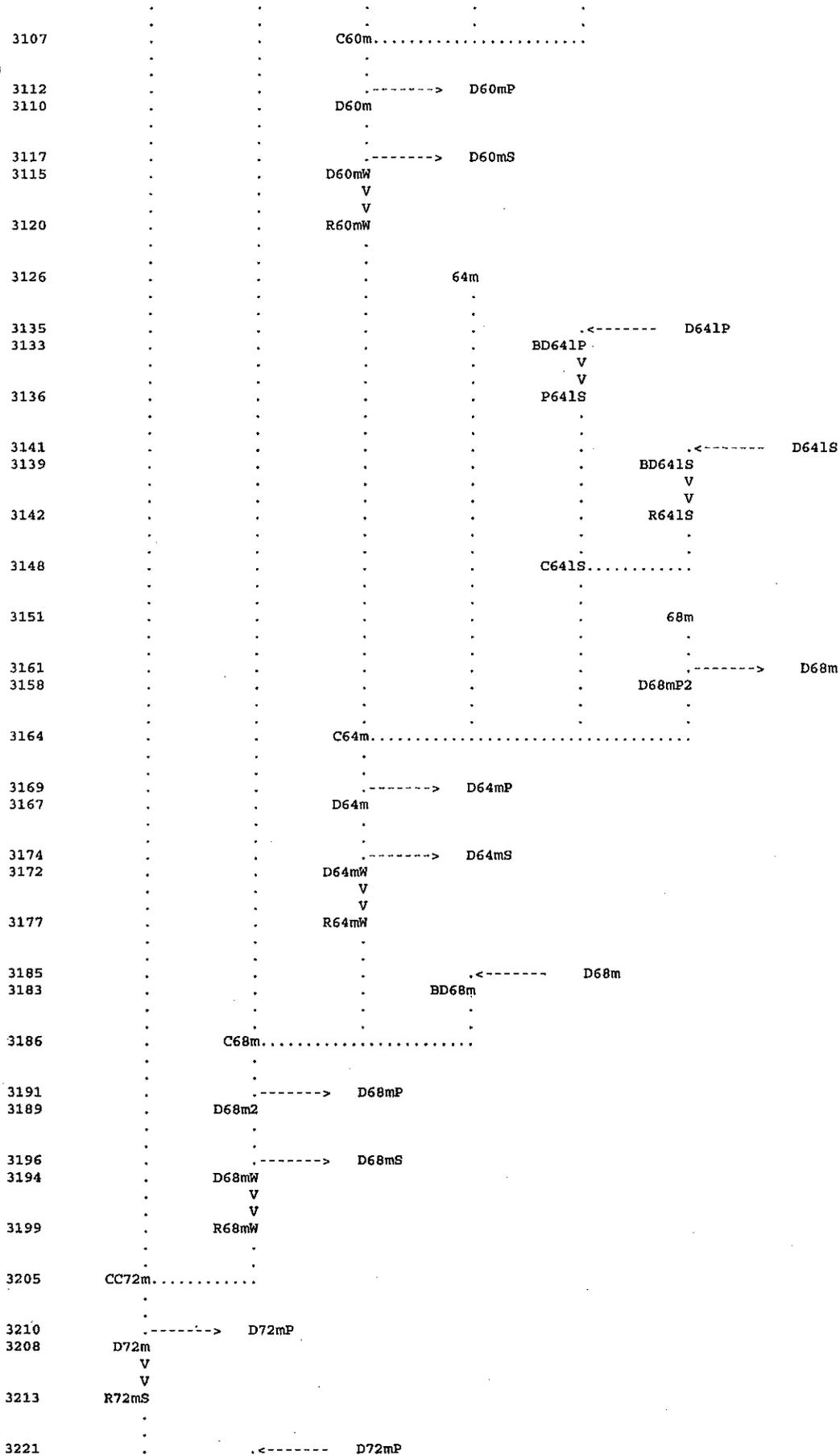
BD601S  
V  
V  
R601S

D601S

3098

3104

C601S



3219	.	BD72mP	
	.	V	
	.	V	
3222	.	P72mS	
	.	.	
3225	.	C72mS	.....
	.	.	
3230	.	.	<----- D24oS
3228	.	BD24oS	
	.	V	
	.	V	
3231	.	R24oS	
	.	.	
3239	.	.	<----- D28oP
3237	.	BD28oP	
	.	V	
	.	V	
3240	.	F28oS	
	.	.	
3245	.	.	<----- D28oS
3243	.	.	BD28oS
	.	.	V
	.	.	V
3246	.	.	R28oS
	.	.	.
3252	.	C28oS	.....
	.	.	
3255	.	C28p	.....
	.	.	
3258	.	.	28p
	.	.	V
	.	.	V
3265	.	S28p	
	.	.	
3271	.	CC28p	.....
	.	.	
3277	.	.	-----> D28pP
3274	.	D28p	
	.	V	
	.	V	
3280	.	R28pW	
	.	.	
3286	.	.	32p
	.	.	
3295	.	.	<----- D32oS
3293	.	.	BD32oS
	.	.	V
	.	.	V
3296	.	.	R32oS
	.	.	.
3302	.	C32p	.....
	.	V	
	.	V	
3305	.	S32p	
	.	.	
3314	.	.	<----- D32oP
3312	.	.	BD32oP
	.	.	V
	.	.	V
3315	.	.	P32oS
	.	.	.
3318	.	CC32p	.....
	.	.	
3323	.	.	-----> D32pS
3321	.	D32pW	
	.	.	
3328	.	.	-----> D32pP
3326	.	D32p	
	.	V	
	.	V	

3331	R32pW		
3339			
3337		BD32pP	<----- D32pP
		V	
		V	
3340		P32pW	
		.	
3343	C32pW	.....	
		.	
3346		28q	
		V	
		V	
3353		S28q	
		.	
3361			<----- D28pP
3359		BD28pP	
		.	
		.	
3364			-----> D28pP2
3362		D28pP1	
		V	
		V	
3367		P28pS	
		.	
3370	C28q	.....	
		.	
3376			-----> D28qP
3373		D28q	
		.	
		.	
3381			-----> D28qS
3379		D28qW	
		V	
		V	
3384		R28qW	
		.	
3390		32q	
		.	
3399			<----- D32pS
3397		BD32pS	
		.	
		.	
3400	C32q	.....	
		V	
		V	
3403		S32q	
		.	
		.	
3413			-----> D32q
3410		D32qP	
		V	
		V	
3416		P32qW	
		.	
3419	C32pqW	.....	
		.	
3422		36p	
		.	
3431			<----- D36oS
3429		BD36oS	
		V	
		V	
3432		R36oS	
		.	
		.	
3438	C36p	.....	
		.	
3443			-----> DB36p
3441	E36p		
		.	
		.	
3448			<----- DB36p
3446		BDB36p	

3449	.	.	V	
	.	.	V	
	.	.	S36p	
3459	.	.	.	
3457	.	.	.	
	.	.	BD36oP	<----- D36oP
	.	.	V	
	.	.	V	
3460	.	.	P36oS	
	.	.	.	
3463	.	.	CC36p	.....
	.	.	.	
3468	.	.	----->	D36pP
3466	.	.	D36p	
	.	.	V	
	.	.	V	
3471	.	.	R36pW	
	.	.	.	
3479	.	.	.	
3477	.	.	BD36pP	<----- D36pP
	.	.	.	
3482	.	.	.	
3480	.	.	D36pP1	-----> D36pP2
	.	.	V	
	.	.	V	
3485	.	.	P36pW	
	.	.	.	
3488	.	.	C36pW	.....
	.	.	.	
3491	.	.	40p	
	.	.	.	
3500	.	.	.	
3498	.	.	BD40oP	<----- D40oP
	.	.	V	
	.	.	V	
3501	.	.	P40oS	
	.	.	.	
3506	.	.	.	
3504	.	.	BD40oS	<----- D40oS
	.	.	V	
	.	.	V	
3507	.	.	R40oS	
	.	.	.	
3513	.	.	C40oS	.....
	.	.	.	
3516	.	.	C40p	.....
	.	.	.	
3521	.	.	----->	D40pP
3519	.	.	D40p	
	.	.	V	
	.	.	V	
3524	.	.	R40pW	
	.	.	.	
3532	.	.	.	
3530	.	.	BD40pP	<----- D40pP
	.	.	V	
	.	.	V	
3533	.	.	P40pW	
	.	.	.	
3537	.	.	C40pW	.....
	.	.	.	
3540	.	.	44p	
	.	.	.	
3549	.	.	.	
3547	.	.	BD44oP	<----- D44oP
	.	.	V	
	.	.	V	
3550	.	.	P44oS	
	.	.	.	

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3555 . . . . . <----- D44oS
3553 . . . . . BD44oS
. . . . . V
. . . . . V
3556 . . . . . R44oS
. . . . .
3562 . . . . . C44oS.....
. . . . .
3565 . . . . . C44p.....
. . . . .
3570 . . . . . -----> D44pP
3568 . . . . . D44p
. . . . . V
. . . . . V
3573 . . . . . R44pW
. . . . .
3581 . . . . . <----- D44pP
3579 . . . . . BD44pP
. . . . .
3584 . . . . . -----> D44pP2
3582 . . . . . D44pP1
. . . . . V
. . . . . V
3587 . . . . . P44pW
. . . . .
3591 . . . . . C44pW.....
. . . . .
3594 . . . . . 48o
. . . . .
3603 . . . . . <----- D52mS
3601 . . . . . BD52mS
. . . . . V
. . . . . V
3604 . . . . . R52mS
. . . . .
3612 . . . . . <----- D52mP
3610 . . . . . BD52mP
. . . . . V
. . . . . V
3613 . . . . . P52mS
. . . . .
3616 . . . . . C52mS.....
. . . . .
3619 . . . . . C48o.....
. . . . .
3624 . . . . . -----> DB48o
3622 . . . . . E48o
. . . . .
3629 . . . . . <----- DB48o
3627 . . . . . BDB48o
. . . . . V
. . . . . V
3630 . . . . . S48o
. . . . .
3638 . . . . . CC48o.....
. . . . .
3643 . . . . . -----> D48oPT
3641 . . . . . D48o
. . . . . V
. . . . . V
3646 . . . . . R48oW
. . . . .
3653 . . . . . 52o
. . . . .
3662 . . . . . <----- D54mP
3660 . . . . . BD54mP
. . . . . V
. . . . . V
3663 . . . . . P54mS

```



```

3768 . . . . . R60mS
. . . . .
3774 . . . . . C60mS.....
. . . . .
3777 . . . . . C60o.....
. . . . .
3783 . . . . . -----> D60oPT
3780 . . . . . D60o
. . . . . V
. . . . . V
3786 . . . . . R60oW
. . . . .
3792 . . . . . 64o
. . . . . V
. . . . . V
3799 . . . . . S64o
. . . . .
3807 . . . . . <----- D64mP
3805 . . . . . BD64mP
. . . . . V
. . . . . V
3808 . . . . . P64mS
. . . . .
3813 . . . . . <----- D64mS
3811 . . . . . BD64mS
. . . . . V
. . . . . V
3814 . . . . . R64mS
. . . . .
3820 . . . . . C64mS.....
. . . . .
3823 . . . . . C64o.....
. . . . .
3829 . . . . . -----> D64oPT
3826 . . . . . D64o
. . . . . V
. . . . . V
3832 . . . . . R64oW
. . . . .
3838 . . . . . 68o
. . . . . V
. . . . . V
3845 . . . . . S68o
. . . . .
3853 . . . . . <----- D68mP
3851 . . . . . BD68mP
. . . . . V
. . . . . V
3854 . . . . . P68mS
. . . . .
3859 . . . . . <----- D68mS
3857 . . . . . BD68mS
. . . . . V
. . . . . V
3860 . . . . . R68mS
. . . . .
3866 . . . . . C68mS.....
. . . . .
3869 . . . . . C68o.....
. . . . .
3875 . . . . . -----> D68oPT
3872 . . . . . D68o
. . . . . V
. . . . . V
3878 . . . . . R68oW
. . . . .
3884 . . . . . 72o
. . . . .
3891 . . . . . C72o.....

```

```

3896 .-----> D72oP
3894 D72o
      V
      V
3899 S72o
      .
      .
3907 .-----> D72o1
3905 D72oPT
      V
      V
3910 PT72oE
      .
      .
3915 .-----< D68oPT
3913 B68oPT
      .
      .
3916 CPT68o.....
      V
      V
3919 PT68oE
      .
      .
3924 .-----< D72o1
3922 BD72o1
      .
      .
3928 .-----> D72oW
3925 D72oE
      V
      V
3931 S-I10
      .
      .
3941 .-----< D64oPT
3939 B64oPT
      .
      .
3944 .-----< D60oPT
3942 B60oPT
      V
      V
3945 PT60oW
      .
      .
3948 C-WT.....
      V
      V
3952 PT64o
      .
      .
3957 .-----> DPT64o
3955 DN_64o
      .
      .
3960 36q
      .
      .
3969 .-----< D32q
3967 BD32q
      V
      V
3970 R32qS
      .
      .
3978 .-----< D36pP2
3976 B36pP2
      V
      V
3979 P36pS
      .
      .
3983 C36q.....
      .
      .
3988 .-----> D36qP
3986 D36q
      .
      .
3993 .-----> D36qS
3991 D36qW
      V
      V

```

3996	.	R36qW	.	.	
4002	.	.	40q	.	
4009	.	C40q	.....	.	
4014	.	----->	D40qP	.	
4012	.	D40q	.	.	
4019	.	----->	D40qS	.	
4017	.	D40qW	.	.	
	.	V	.	.	
	.	V	.	.	
4022	.	R40qW	.	.	
4030	.	.	-----<	D40qP	
4028	.	BD40qP	.	.	
	.	V	.	.	
	.	V	.	.	
4031	.	P40qW	.	.	
4034	.	C40qW	.....	.	
4037	.	.	44q	.	
4046	.	.	.	-----<	D44pP2
4044	.	.	B44pP2	.	.
	.	.	V	.	.
	.	.	V	.	.
4047	.	.	P44pS	.	.
	.	.	.	.	.
4050	.	C44q	.....	.	
4055	.	----->	D44qP	.	
4053	.	D44q	.	.	
4060	.	----->	D44qS	.	
4058	.	D44qW	.	.	
	.	V	.	.	
	.	V	.	.	
4063	.	R44qW	.	.	
4069	.	.	48q	.	
4076	.	C48q	.....	.	
4082	.	----->	D48qPT	.	
4079	.	DB48q	.	.	
	.	V	.	.	
	.	V	.	.	
4085	.	S48q	.	.	
4093	.	----->	D48qS	.	
4091	.	D48qW	.	.	
	.	V	.	.	
	.	V	.	.	
4096	.	R48qW	.	.	
4102	.	.	52q	.	
4109	.	C52q	.....	.	
4114	.	----->	D52qP	.	
4112	.	D52q	.	.	
4119	.	----->	D52qS	.	
4117	.	D52qW	.	.	

4122	.	V	
	.	V	
	.	R52qW	
4128	.	.	56q
	.	.	.
4135	.	C56q.....	
	.	.	
4140	.	----->	D56qP
4138	.	D56q	
	.	.	
4145	.	----->	D56qS
4143	.	D56qW	
	.	V	
	.	V	
4148	.	R56qW	
	.	.	
4154	.	.	60q
	.	.	.
4161	.	C60q.....	
	.	.	
4166	.	----->	D60qP
4164	.	D60q	
	.	.	
4171	.	----->	D60qS
4169	.	D60qW	
	.	V	
	.	V	
4174	.	R60qW	
	.	.	
4180	.	.	64q
	.	.	.
4187	.	C64q.....	
	.	.	
4193	.	----->	D64qPT
4190	.	D64q	
	.	.	
4198	.	----->	D64qP
4196	.	D64q1	
	.	.	
4203	.	----->	D64qS
4201	.	D64qW	
	.	V	
	.	V	
4206	.	R64qW	
	.	.	
4214	.	-----<	D64qP
4212	.	BD64qP	
	.	V	
	.	V	
4215	.	P64qW	
	.	.	
4218	.	C64qW.....	
	.	.	
4221	.	.	68q
	.	.	.
4228	.	C68q.....	
	.	.	
4233	.	----->	D68qP
4231	.	D68q	
	.	.	
4238	.	----->	D68qS
4236	.	D68qW	
	.	V	
	.	V	
4241	.	R68qW	



4353	.	.	76o	.
4362	.	.	.	.<----- D76m
4360	.	.	BD76m	.
	.	.	V	.
	.	.	V	.
4363	.	.	R76mS	.
	.	.	.	.
4371	.	.	.	.<----- D76mP2
4369	.	.	B76mP2	.
	.	.	V	.
	.	.	V	.
4372	.	.	P76mS	.
	.	.	.	.
4375	.	.	C76mS.....	.
	.	.	.	.
4380	.	.	.	.<----- D72oW
4378	.	.	BD72oW	.
	.	.	V	.
	.	.	V	.
4381	.	.	R72oW	.
	.	.	.	.
4387	.	.	C76o.....	.
	.	.	.	.
4392	.	.	.	.-----> D76o
4390	.	.	D76oP	.
	.	.	V	.
	.	.	V	.
4395	.	.	P76oS	.
	.	.	.	.
4400	.	.	.	.<----- D76o
4398	.	.	BD76o	.
	.	.	.	.
4403	.	.	.	.-----> D76oW
4401	.	.	D76oS	.
	.	.	V	.
	.	.	V	.
4406	.	.	R76oS	.
	.	.	.	.
4412	.	.	C76oS.....	.
	.	.	.	.
4415	.	.	76q	.
	.	.	.	.
4422	.	.	C76q.....	.
	.	.	.	.
4427	.	.	.	.-----> D76qP
4425	.	.	D76q	.
	.	.	.	.
4432	.	.	.	.-----> D76qS
4430	.	.	D76qW	.
	.	.	V	.
	.	.	V	.
4435	.	.	R76qW	.
	.	.	.	.
4441	.	.	80p	.
	.	.	.	.
4450	.	.	.	.<----- D76oW
4448	.	.	BD76oW	.
	.	.	V	.
	.	.	V	.
4451	.	.	R76oW	.
	.	.	.	.
4457	.	.	C80p.....	.
	.	.	V	.
	.	.	V	.
4460	.	.	S80p	.
	.	.	.	.
4468	.	.	.	.<----- D80oP
4466	.	.	BD80oP	.



4581	.	.	BD32sP	.	.
	.	.	V	.	.
	.	.	V	.	.
4584	.	.	P32sW	.	.
	.	.	.	.	.
4587	.	.	C32sW.....	.	.
	.	.	.	.	.
4590	.	.	36s	.	.
	.	.	.	.	.
4599	.	.	.	.	.
4597	.	.	BD36qP	.	←----- D36qP
	.	.	V	.	.
	.	.	V	.	.
4600	.	.	P36qS	.	.
	.	.	.	.	.
4605	.	.	.	.	.
4603	.	.	.	.	←----- D36qS
	.	.	BD36qS	.	.
	.	.	V	.	.
	.	.	V	.	.
4606	.	.	R36qS	.	.
	.	.	.	.	.
	.	.	.	.	.
4612	.	.	C36qS.....	.	.
	.	.	.	.	.
4615	.	.	C36s.....	.	.
	.	.	.	.	.
4620	.	.	.	.	.
4618	.	.	D36s	.	-----> D36sP
	.	.	V	.	.
	.	.	V	.	.
4623	.	.	R36sW	.	.
	.	.	.	.	.
4629	.	.	40s	.	.
	.	.	.	.	.
4638	.	.	.	.	.
4636	.	.	BD40qS	.	←----- D40qS
	.	.	V	.	.
	.	.	V	.	.
4639	.	.	R40qS	.	.
	.	.	.	.	.
	.	.	.	.	.
4645	.	.	C40s.....	.	.
	.	.	.	.	.
4650	.	.	.	.	.
4648	.	.	D40s	.	-----> D40sP
	.	.	V	.	.
	.	.	V	.	.
4653	.	.	R40sW	.	.
	.	.	.	.	.
4661	.	.	.	.	.
4659	.	.	BD40sP	.	←----- D40sP
	.	.	V	.	.
	.	.	V	.	.
4662	.	.	P40sW	.	.
	.	.	.	.	.
	.	.	.	.	.
4665	.	.	C40sW.....	.	.
	.	.	.	.	.
4668	.	.	44s	.	.
	.	.	.	.	.
4677	.	.	.	.	.
4675	.	.	BD44qP	.	←----- D44qP
	.	.	V	.	.
	.	.	V	.	.
4678	.	.	P44qS	.	.
	.	.	.	.	.
	.	.	.	.	.
4683	.	.	.	.	.
4681	.	.	.	.	←----- D44qS
	.	.	BD44qS	.	.
	.	.	V	.	.
	.	.	V	.	.
4684	.	.	R44qS	.	.
	.	.	.	.	.
	.	.	.	.	.

```

4690 . . . . . C44qS.....
. . . . .
4693 . . . . . C44s.....
. . . . .
4698 . . . . . D44sP
4696 . . . . . D44s
. . . . . V
. . . . . V
4701 . . . . . R44sW
. . . . .
4707 . . . . . 48s
. . . . .
4716 . . . . . D48qS
4714 . . . . . BD48qS
. . . . . V
. . . . . V
4717 . . . . . R48qS
. . . . .
4723 . . . . . C48s.....
. . . . .
4729 . . . . . D48sPT
4726 . . . . . DB48s
. . . . . V
. . . . . V
4732 . . . . . S48s
. . . . . V
. . . . . V
4738 . . . . . R48sW
. . . . .
4744 . . . . . 52s
. . . . .
4753 . . . . . D52qP
4751 . . . . . BD52qP
. . . . . V
. . . . . V
4754 . . . . . P52qS
. . . . .
4759 . . . . . D52qS
4757 . . . . . BD52qS
. . . . . V
. . . . . V
4760 . . . . . R52qS
. . . . .
4766 . . . . . C52qS.....
. . . . .
4769 . . . . . C52s.....
. . . . .
4774 . . . . . D52sP
4772 . . . . . D52s
. . . . . V
. . . . . V
4777 . . . . . R52sW
. . . . .
4783 . . . . . 56s
. . . . .
4792 . . . . . D56qP
4790 . . . . . BD56qP
. . . . . V
. . . . . V
4793 . . . . . P56qS
. . . . .
4798 . . . . . D56qS
4796 . . . . . BD56qS
. . . . . V
. . . . . V
4799 . . . . . R56qS
. . . . .
4805 . . . . . C56qS.....
. . . . .

```

4808

C56s.....

4813  
4811

D56s > D56sP

4818  
4816

D56sW > D56sS  
V

4821

R56sW  
V

4827

60s

4836  
4834

BD60qP <----- D60qP  
V

4837

P60qS  
V

4842  
4840

BD60qS <----- D60qS  
V

4843

R60qS  
V

4849

C60qS.....

4852

C60s.....

4857  
4855

D60s > D60sP

4862  
4860

D60sW > D60sS  
V

4865

R60sW  
V

4873  
4871

BD60sP <----- D60sP  
V

4874

P60sW  
V

4877

C60sW.....

4880

64s

4889  
4887

BD64qS <----- D64qS  
V

4890

R64qS  
V

4896

C64s.....

4902  
4899

D64s > D64sPT

4908  
4905

D64s1 > D64sP

4913  
4911

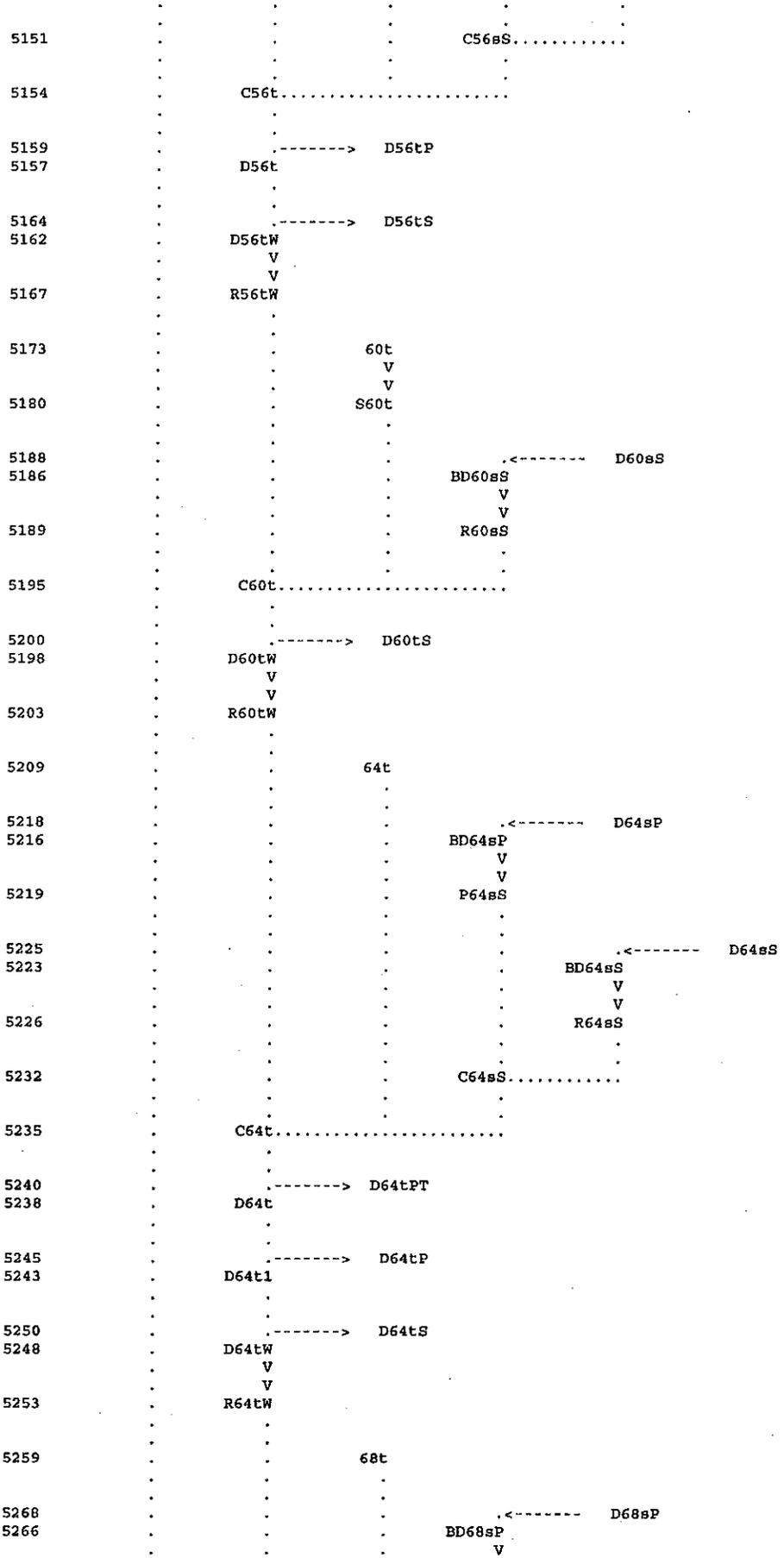
D64sW > D64sS  
V

4916

R64sW  
V

4922	.	.	68s	.	.
4931	.	.	.	.	←----- D68qS
4929	.	.	BD68qS	.	.
	.	.	V	.	.
	.	.	V	.	.
4932	.	.	R68qS	.	.
	.	.	.	.	.
4938	.	.	C68s	.....	.
	.	.	.	.	.
4943	.	.	----->	D68sP	.
4941	.	.	D68s	.	.
	.	.	.	.	.
4948	.	.	----->	D68sS	.
4946	.	.	D68sW	.	.
	.	.	V	.	.
	.	.	V	.	.
4951	.	.	R68sW	.	.
	.	.	.	.	.
4957	.	.	72s	.	.
	.	.	.	.	.
4967	.	.	.	.	←----- D72qP
4964	.	.	BD72qP	.	.
	.	.	.	.	.
	.	.	.	.	.
4970	.	.	----->	D72qP2	.
4968	.	.	D72qP1	.	.
	.	.	V	.	.
	.	.	V	.	.
4973	.	.	P72qS1	.	.
	.	.	.	.	.
4978	.	.	.	.	←----- D72qP2
4976	.	.	B72qP2	.	.
	.	.	V	.	.
	.	.	V	.	.
4979	.	.	P72qS2	.	.
	.	.	.	.	.
4984	.	.	.	.	←----- D72qS
4982	.	.	.	.	BD72qS
	.	.	.	.	V
	.	.	.	.	V
4985	.	.	.	.	R72qS
	.	.	.	.	.
	.	.	.	.	.
4991	.	.	C72qS	.....	.
	.	.	.	.	.
4994	.	.	C72s	.....	.
	.	.	.	.	.
4999	.	.	----->	D72sP	.
4997	.	.	D72s	.	.
	.	.	.	.	.
5004	.	.	----->	D72sS	.
5002	.	.	D72sW	.	.
	.	.	V	.	.
	.	.	V	.	.
5007	.	.	R72sW	.	.
	.	.	.	.	.
5013	.	.	76s	.	.
	.	.	V	.	.
	.	.	V	.	.
5020	.	.	S76s	.	.
	.	.	.	.	.
5028	.	.	.	.	←----- D76qP
5026	.	.	BD76qP	.	.
	.	.	V	.	.
	.	.	V	.	.
5029	.	.	P76qS	.	.
	.	.	.	.	.
	.	.	.	.	.
5034	.	.	.	.	←----- D76qS
5032	.	.	BD76qS	.	.
	.	.	V	.	.
	.	.	V	.	.

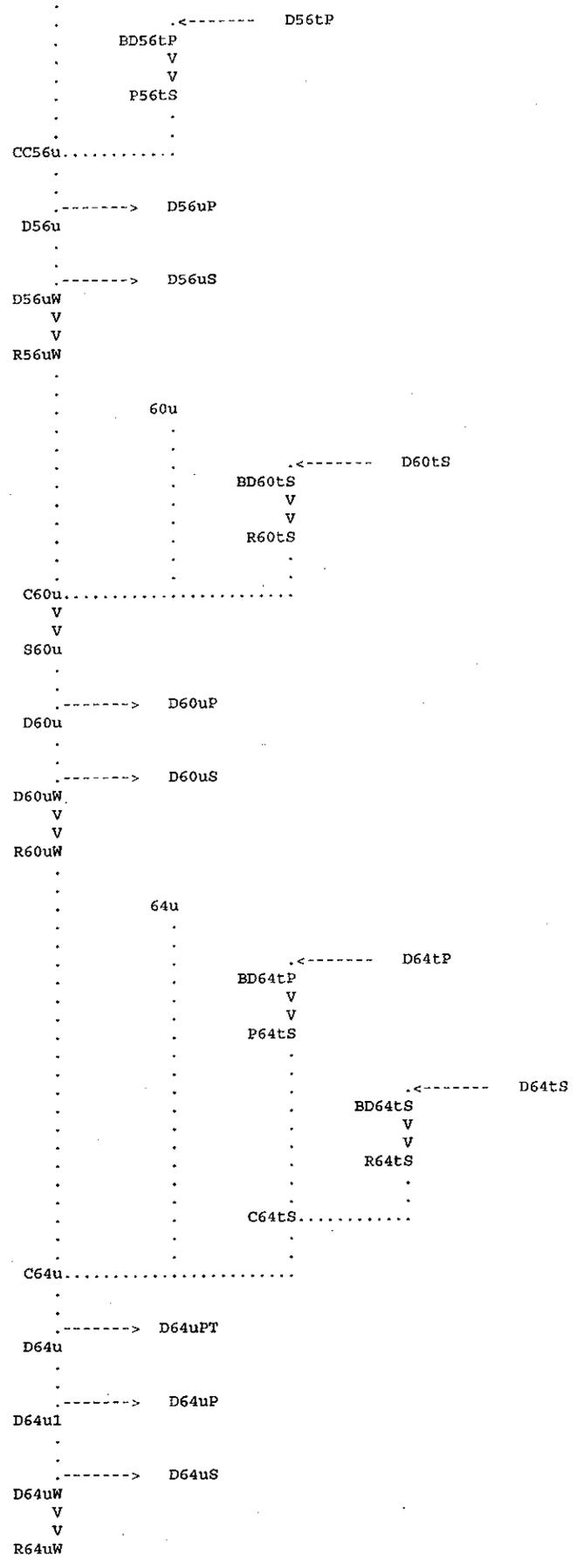
5035	.	.	.	.	R76qS
5041	.	.	.	C76qS.....	.
5044	.	C76s.....	.	.	.
5049	.	----->	D76sP	.	.
5047	.	D76s	.	.	.
5054	.	----->	D76sS	.	.
5052	.	D76sW	.	.	.
	.	V	.	.	.
	.	V	.	.	.
5057	.	R76sW	.	.	.
5063	CC80q.....	.	.	.	.
5068	----->	D80qP	.	.	.
5066	D80q	.	.	.	.
5073	----->	D80qW	.	.	.
5071	D80qS	.	.	.	.
	V	.	.	.	.
	V	.	.	.	.
5076	R80qS	.	.	.	.
5084	.	-----<	D80qP	.	.
5082	BD80qP	.	.	.	.
	V	.	.	.	.
	V	.	.	.	.
5085	P80qS	.	.	.	.
5088	C80qS.....	.	.	.	.
5091	52t	.	.	.	.
	V	.	.	.	.
	V	.	.	.	.
5098	S52t	.	.	.	.
5106	.	-----<	D52sP	.	.
5104	BD52sP	.	.	.	.
	V	.	.	.	.
	V	.	.	.	.
5107	P52sS	.	.	.	.
5110	C52t.....	.	.	.	.
5115	----->	D52tP	.	.	.
5113	D52t	.	.	.	.
5120	----->	D52tS	.	.	.
5118	D52tW	.	.	.	.
	V	.	.	.	.
	V	.	.	.	.
5123	R52tW	.	.	.	.
5129	.	56t	.	.	.
5138	.	.	.	-----<	D56sP
5136	BD56sP	.	.	.	.
	V	.	.	.	.
	V	.	.	.	.
5139	P56sS	.	.	.	.
5144	.	.	.	-----<	D56sS
5142	BD56sS	.	.	.	.
	V	.	.	.	.
	V	.	.	.	.
5145	R56sS	.	.	.	.

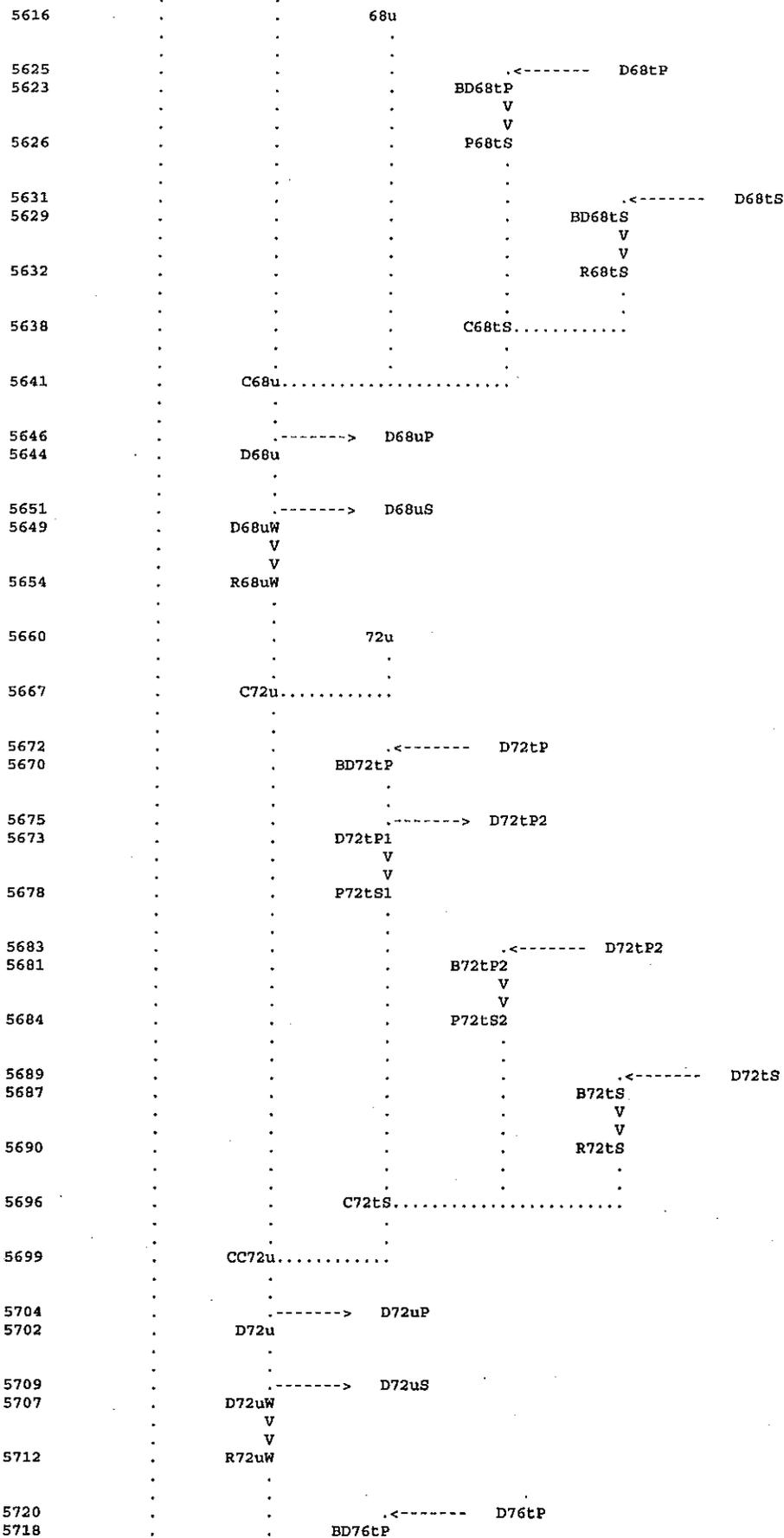


5269	.	.	V	
	.	.	P68sS	
5274	.	.	.	.
5272	.	.	BD68sS	←----- D68sS
	.	.	V	
	.	.	V	
5275	.	.	R68sS	
	.	.	.	
5281	.	.	C68sS	.....
	.	.	.	
5284	.	.	C68t	.....
	.	.	.	
5289	.	.	----->	D68tP
5287	.	.	D68t	
	.	.	.	
5294	.	.	----->	D68tS
5292	.	.	D68tW	
	.	.	V	
	.	.	V	
5297	.	.	R68tW	
	.	.	.	
5303	.	.	72t	
	.	.	.	
5312	.	.	----->	D72sS
5310	.	.	BD72sS	
	.	.	V	
	.	.	V	
5313	.	.	R72sS	
	.	.	.	
5321	.	.	----->	D72sP
5319	.	.	BD72sP	
	.	.	.	
5324	.	.	----->	D72sP2
5322	.	.	D72sP1	
	.	.	V	
	.	.	V	
5327	.	.	P72sS1	
	.	.	.	
5332	.	.	----->	D72sP2
5330	.	.	B72sP2	
	.	.	V	
	.	.	V	
5333	.	.	P72sS2	
	.	.	.	
5336	.	.	C72sS	.....
	.	.	.	
5339	.	.	C72t	.....
	.	.	.	
5344	.	.	----->	D72tP
5342	.	.	D72t	
	.	.	.	
5349	.	.	----->	D72tS
5347	.	.	D72tW	
	.	.	V	
	.	.	V	
5352	.	.	R72tW	
	.	.	.	
5358	.	.	76t	
	.	.	.	
5367	.	.	----->	D76sP
5365	.	.	BD76sP	
	.	.	V	
	.	.	V	
5368	.	.	P76sS	
	.	.	.	
5373	.	.	----->	D76sS
5371	.	.	BD76sS	
	.	.	V	

5374	.	.	.	.	V
	.	.	.	.	R76sS
5380	.	.	.	.	C76sS.....
5383	.	.	.	.	C76t.....
5388	.	.	.	.	-----> D76tP
5386	.	.	.	.	D76t
5393	.	.	.	.	-----> D76tS
5391	.	.	.	.	D76tW
	.	.	.	.	V
	.	.	.	.	V
5396	.	.	.	.	R76tW
5402	.	.	.	.	80t
5409	.	.	.	.	C80t.....
5414	.	.	.	.	-----> D80tP
5412	.	.	.	.	D80t
	.	.	.	.	V
	.	.	.	.	V
5417	.	.	.	.	R80tS
5423	.	.	.	.	52u
5432	.	.	.	.	-----< D52tS
5430	.	.	.	.	BD52tS
	.	.	.	.	V
	.	.	.	.	V
5433	.	.	.	.	R52tS
5439	.	.	.	.	C52u.....
	.	.	.	.	V
	.	.	.	.	V
5442	.	.	.	.	S52u
5451	.	.	.	.	-----< D52tP
5449	.	.	.	.	BD52tP
	.	.	.	.	V
	.	.	.	.	V
5452	.	.	.	.	P52tS
5455	.	.	.	.	CC52u.....
5460	.	.	.	.	-----> D52uP
5458	.	.	.	.	D52u
5465	.	.	.	.	-----> D52uS
5463	.	.	.	.	D52uW
	.	.	.	.	V
	.	.	.	.	V
5468	.	.	.	.	R52uW
5474	.	.	.	.	56u
5483	.	.	.	.	-----< D56tS
5481	.	.	.	.	BD56tS
	.	.	.	.	V
	.	.	.	.	V
5484	.	.	.	.	R56tS
5490	.	.	.	.	C56u.....
	.	.	.	.	V
	.	.	.	.	V
5493	.	.	.	.	S56u

5502  
5500  
5503  
5506  
5511  
5509  
5516  
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5519  
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5532  
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5555  
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5580  
5583  
5589  
5592  
5597  
5595  
5602  
5600  
5607  
5605  
5610





```

5723 . . . . . -----> D76tP2
5721 . . . . . D76tP1
. . . . . V
. . . . . V
5726 . . . . . P76tS1
. . . . .
. . . . .
5731 . . . . . <----- D76tP2
5729 . . . . . B76tP2
. . . . . V
. . . . . V
5732 . . . . . P76tS2
. . . . .
. . . . .
5737 . . . . . <----- D76tS
5735 . . . . . BD76tS
. . . . . V
. . . . . V
5738 . . . . . R76tS
. . . . .
. . . . .
5744 . . . . . C76tS.....
. . . . .
. . . . .
5747 . . . . . 76u
. . . . .
. . . . .
5754 . . . . . C76u.....
. . . . .
. . . . .
5759 . . . . . -----> D76uP
5757 . . . . . D76u
. . . . .
. . . . .
5764 . . . . . -----> D76uS
5762 . . . . . D76uW
. . . . . V
. . . . . V
5767 . . . . . R76uW
. . . . .
. . . . .
5773 . . . . . 80u
. . . . .
. . . . .
5780 . . . . . C80u.....
. . . . .
. . . . .
5785 . . . . . <----- D80tP
5783 . . . . . BD80tP
. . . . . V
. . . . . V
5786 . . . . . P80tS
. . . . .
. . . . .
5791 . . . . . <----- D80qW
5789 . . . . . BD80qW
. . . . .
. . . . .
5792 . . . . . CC80u.....
. . . . . V
. . . . . V
5795 . . . . . S-I17
. . . . .
. . . . .
5804 . . . . . -----> D80uP
5802 . . . . . D80u
. . . . . V
. . . . . V
5807 . . . . . R80uW
. . . . .
. . . . .
5813 . . . . . 84t
. . . . .
. . . . .
5820 . . . . . P84tN
. . . . .
. . . . .
5828 . . . . . C84t.....
. . . . .
. . . . .
5833 . . . . . -----> D84tP
5831 . . . . . D84t
. . . . .
. . . . .
5838 . . . . . -----> D84tW

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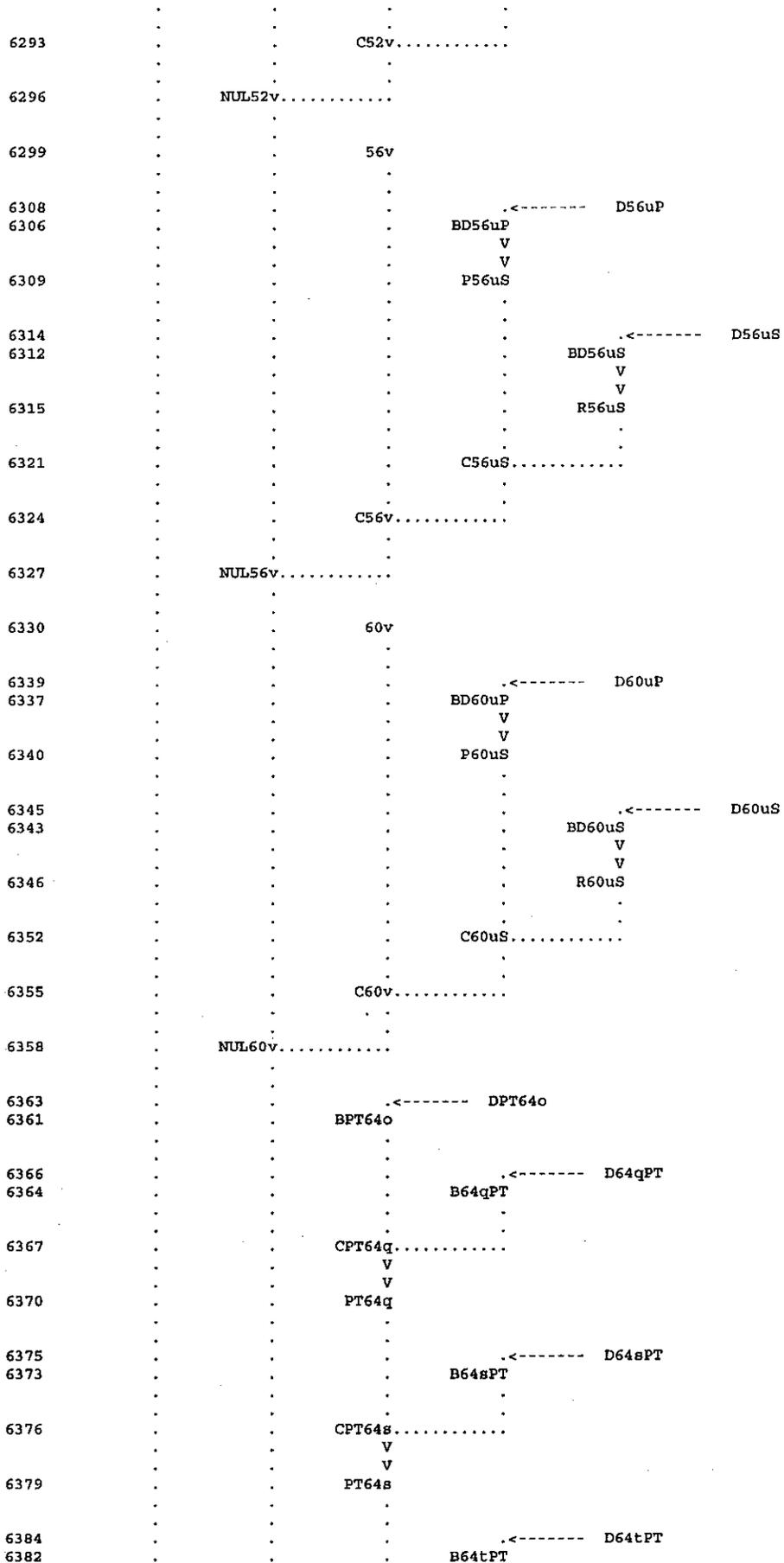
5836 .      D84tS
      .      V
      .      V
5841 .      R84tS
      .
5847 .      .      84u
      .
5854 C84u.....
      V
      V
5857 S84u
      .
5865 .      .      <----- D84tP
5863 .      BD84tP
      .      V
      .      V
5866 .      P84tS
      .
5869 CC84u.....
      .
5874 .      .      >----- D84uP
5872 D84u
      .
5879 .      .      >----- D84uS
5877 D84uW
      .      V
      .      V
5882 R84uW
      .
5888 .      88t
      .
5897 .      .      <----- D84tW
5895 .      .      BD84tW
      .      V
      .      V
5898 .      .      R84tW
      .
5904 .      C88t.....
      .
5909 .      .      >----- D88tW
5907 .      D88tS
      .      V
      .      V
5912 .      R88tS
      .
5918 .      .      88u
      .
5925 C88u.....
      .
5930 .      .      >----- D88uP
5928 D88u
      .
5935 .      .      >----- D88uS
5933 D88uW
      .      V
      .      V
5938 R88uW
      .
5946 .      .      <----- D88uP
5944 .      BD88uP
      .      V
      .      V
5947 .      P88uW
      .
5950 C88uW.....
      .
5953 .      92t
      .

```



6078	.....	C80v	.....	
6083	----->	D80vP		
6081		D80v		
6088	----->	D80vS		
6086		D80vW		
		V		
		V		
6091		R80vW		
6097			84v	
6106				<----- D80uP
6104			BD80uP	
			V	
			V	
6107			P80uS	
6110	.....	C84v	.....	
6115				<----- D84uP
6113			BD84uP	
			V	
			V	
6116			P84uS	
6121				<----- D84uS
6119			BD84uS	
			V	
			V	
6122			R84uS	
6128			C84uS	.....
6131	.....	CC84v	.....	
6137	----->	D84vP		
6134		D84v		
6142	----->	D84vS		
6140		D84vW		
		V		
		V		
6145		R84vW		
6151			88v	
6160				<----- D88uS
6158			BD88uS	
			V	
			V	
6161			R88uS	
6167	.....	C88v	.....	
6172	----->	D88vP		
6170		D88v		
		V		
		V		
6175		R88vW		
6181			92v	
6188	.....	C92v	.....	
6193	----->	D92v		

6191	D92vP		
	V		
6196	P92vS		
	.		
6199		88w	
	.		
6208			<----- D88vP
6206	BD88vP		
	V		
	V		
6209	P88vS		
	.		
6212	C88w	.....	
	.		
6215		44v	
	.		
6224			<----- D44sP
6222	BD44sP		
	V		
	V		
6225	P44sS		
	.		
6228	C44v	.....	
	.		
6233			<----- D48oPT
6231	B48oPT		
	V		
	V		
6234	PT48o		
	.		
6239			<----- D48qPT
6237	B48qPT		
	.		
6240	CPT48q	.....	
	V		
	V		
6243	PT48q		
	.		
6248			<----- D48sPT
6246	B48sPT		
	.		
6249	CPT48s	.....	
	V		
	V		
6252	PT48s		
	.		
6255		48v	
	.		
6262	C48v	.....	
	.		
6265	NUL48v	.....	
	.		
6268		52v	
	.		
6277			<----- D52uP
6275	BD52uP		
	V		
	V		
6278	P52uS		
	.		
6283			<----- D52uS
6281	BD52uS		
	V		
	V		
6284	R52uS		
	.		
6290	C52uS	.....	



6385

CPT64t.....

V

V

6388

PT64t

6393

.....<----- D64uPT

6391

B64uPT

6394

CPT64u.....

V

V

6397

PT64u

6400

64v

6409

.....<----- D64uP

6407

BD64uP

V

V

6410

P64uS

6415

.....<----- D64uS

6413

BD64uS

V

V

6416

R64uS

6422

C64uS.....

6425

C64v.....

6428

NUL64v.....

6431

68v

6440

.....<----- D68uP

6438

BD68uP

V

V

6441

P68uS

6446

.....<----- D68uS

6444

BD68uS

V

V

6447

R68uS

6453

C68uS.....

6456

C68v.....

6459

NUL68v.....

6462

72v

6471

.....<----- D72uP

6469

BD72uP

6474

.....>----- D72uP2

6472

D72uP1

V

V

6477

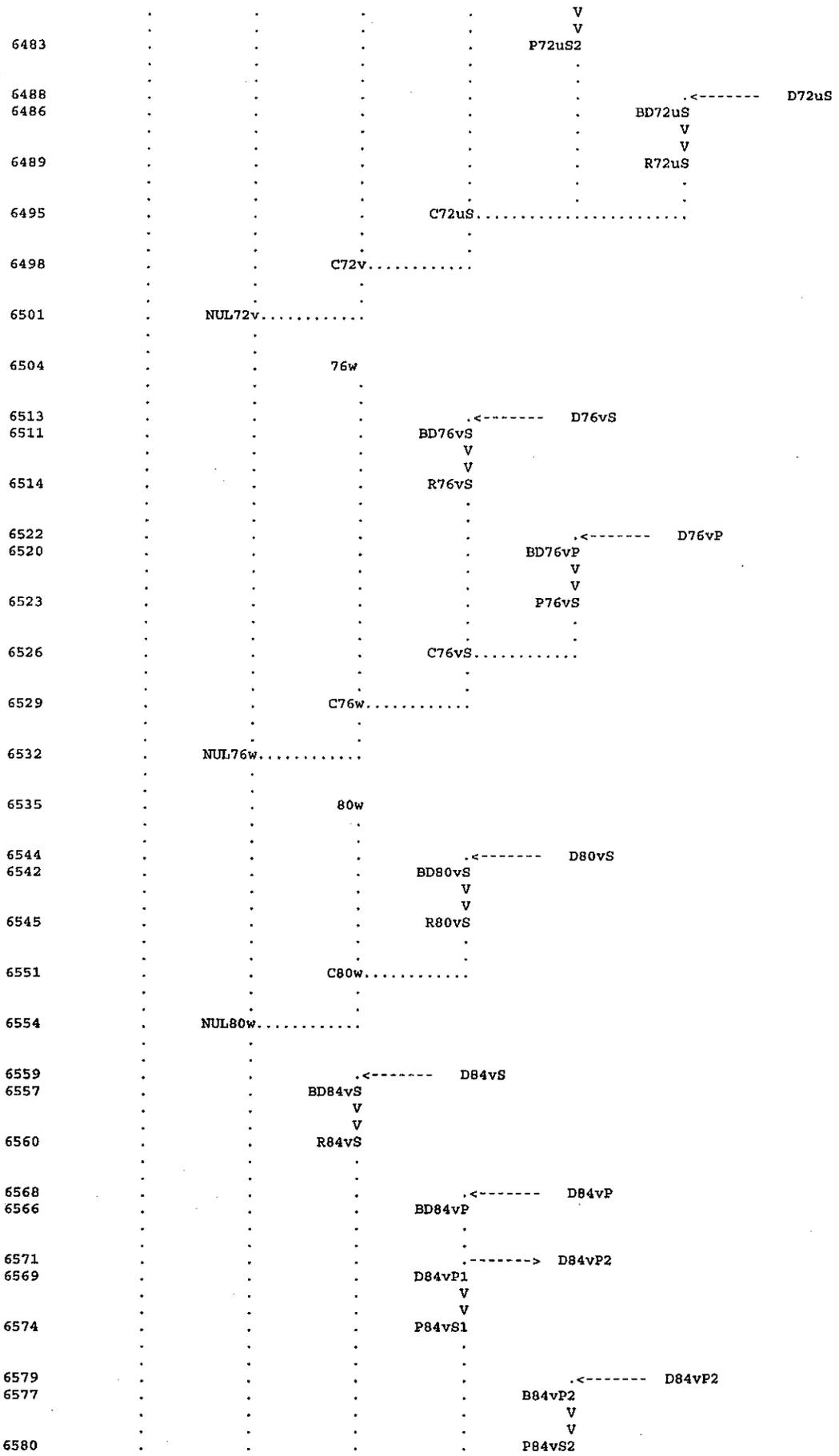
P72uS1

6482

.....<----- D72uP2

6480

B72uP2







6847	.	D16s	
	.	V	
	.	V	
6852	.	R16sS	
	.		
6860	.		←----- D16sP
6858	.	BD16sP	
	.	V	
	.	V	
6861	.	P16sS	
	.		
6864	.	C16sS	.....
	.		
6867	.	20p	
	.	V	
	.	V	
6874	.	S20p1	
	.		
6882	.		←----- D16qPW
6880	.	B16qPW	
	.	V	
	.	V	
6883	.	P16qW	
	.		
6886	.	C20p	.....
	.	V	
	.	V	
6889	.	S20p2	
	.		
6896	.	OCCC48	
	.		
6906	.		←----- D24oP
6904	.	BD24oP	
	.	V	
	.	V	
6907	.	P24oS	
	.		
6910	.	C24oS	.....
	.	V	
	.	V	
6913	.	ROCCC	
	.		
6919	.	CC20p	.....
	.	V	
	.	V	
6922	.	R20pS	
	.		
6928	.	20q	
	.		
6937	.		←----- D28pP2
6935	.	B28pP2	
	.	V	
	.	V	
6938	.	P28pE	
	.		
6941	.	C20q	.....
	.	V	
	.	V	
6944	.	R20qS	
	.		
6950	.	20s	
	.	V	
	.	V	
6957	.	S20s	
	.		
6963	.	C20s	.....
	.		
6968	.		←----- D24sPE
6966	.	B24sPE	
	.	V	
	.	V	

6969	.	.	.	.	P24sE
	.	.	.	.	.
6972	.	.	.	CC20s.....	.
	.	.	.	V	.
	.	.	.	V	.
6975	.	.	.	R20sS	.
	.	.	.	.	.
6981	.	.	.	.	20t
	.	.	.	.	V
	.	.	.	.	V
6988	.	.	.	.	S20t
	.	.	.	.	.
	.	.	.	.	.
6994	.	.	C20t.....	.	.
	.	.	.	.	.
	.	.	.	.	.
6997	.	NUL20t.....	.	.	.

(\*\*\*) RUNOFF ALSO COMPUTED AT THIS LOCATION

```

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   JUN 1998
*   VERSION 4.1
*
* RUN DATE 11JUL06 TIME 08:26:49
*
*****

```

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

```

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Project ID: METRO ADMS/P - Major Basin: 01 - Return Period: 25 Years
METRO PHOENIX ADMS/P - FCD2004C040: Wood/Patel in association with EEC
25-Year 24-Hour Storm
SCS Type II Precipitation Distribution
Green and Ampt Loss Method
Clark Unit Hydrograph
Future Land Use Conditions
Model Name: FW24BASE.DAT, June 2006

```

\*\*\*\*\*  
Important Notes:

- 1) Peak flow for each subbasin may not concentrate on one single point, for illustration purposes, it is assumed that the concentration point is located on the hydrologic low point of the subbasin;
- 2) Surface flow diversions may occur at several locations along one of the subbasin downstream boundaries. For simplicity, one split flow is modeled for each subbasin to one direction;
- 3) A fixed flow split ratio for most of the subbasin is used for all frequencies except some of the subbasins along Grand Canal.
- 4) Some subbasins have multiple pipes to one direction, a composite storm drain pipe may have been used to model these conditions;
- 5) Some subbasins have multiple detention/retention basins, an equivalent detention/retention basin may have been used to model these conditions;
- 6) Surface flow routing may occur at multiple streets and as sheet flow, a composite channel cross section is used to represent the streets flow conveyance.

\*\*\*\*\*  
HEC-1 ELEMENT NOMENCLATURE

SUB-BASIN HYDROGRAPH:

Example: "80c" is the hydrograph from subbasin 80c

SUB-BASIN FLOW DIVERSION:

Example: "D80cS" is the south component of diversion in Subbasin 80c

PIPE FLOW DIVERSION:

Example: "80cP" is the pipe flow from Subbasin 80c

PIPE FLOW ROUTING:

Example: "P80cS" is the south component of pipe routing from Subbasin 80c

CHANNEL ROUTE:

Example: "R80cS" is the south component of surface flow routing from 80c

STORAGE ROUTE:

Example: "S80c" is the storage routing in Subbasin 80c

HYDROGRAPH COMBINE:

Example: "C80c" is the combined flow in Subbasin 80c

HYDROGRAPH RETRIEVAL:

Example: "B80c" is the retrieved flow from Subbasin 80c

"DUMMY" COMBINE:

Example: "NUL80C" is the dummy hydrograph combining to free up a HEC-1 computational path.

\*\*\*\*\*

62 IO

OUTPUT CONTROL VARIABLES

```

IPRNT      5  PRINT CONTROL
IPLOT      0  PLOT CONTROL
QSCAL      0.  HYDROGRAPH PLOT SCALE

```

IT

HYDROGRAPH TIME DATA

```

NMIN      5  MINUTES IN COMPUTATION INTERVAL
IDATE     1  0  STARTING DATE
ITIME     0000  STARTING TIME
NQ        2000  NUMBER OF HYDROGRAPH ORDINATES
NDDATE    7  0  ENDING DATE
NDTIME    2235  ENDING TIME

```







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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	64c	83.	12.42	20.	6.	2.	.26		
DIVERSION TO	D64cS	56.	12.42	14.	4.	1.	.26		
HYDROGRAPH AT	D64cW	27.	12.42	6.	2.	1.	.26		
ROUTED TO	R64cW	25.	12.83	6.	2.	1.	.26		
HYDROGRAPH AT	68c	62.	12.42	18.	6.	2.	.43		
2 COMBINED AT	C68c	78.	12.58	24.	8.	3.	.70		
DIVERSION TO	D68cP	41.	12.17	19.	7.	2.	.70		
HYDROGRAPH AT	D68c	37.	12.58	5.	1.	0.	.70		
DIVERSION TO	D68cS	17.	12.58	2.	1.	0.	.70		
HYDROGRAPH AT	D68cW	20.	12.58	3.	1.	0.	.70		
ROUTED TO	R68cW	16.	13.17	3.	1.	0.	.70		
HYDROGRAPH AT	72c	37.	12.67	15.	5.	2.	.54		
2 COMBINED AT	C72c	48.	13.08	18.	6.	2.	1.24		
DIVERSION TO	D72cP	48.	13.08	18.	6.	2.	1.24		
HYDROGRAPH AT	D72c	0.	.00	0.	0.	0.	1.24		
DIVERSION TO	D72cS	0.	.00	0.	0.	0.	1.24		
HYDROGRAPH AT	D72cW	0.	.00	0.	0.	0.	1.24		
ROUTED TO	R72cW	0.	.00	0.	0.	0.	1.24		
HYDROGRAPH AT	76C	294.	12.33	59.	17.	6.	.60		
2 COMBINED AT	C76c	289.	12.33	58.	17.	6.	1.84		
DIVERSION TO	D76c	250.	12.33	36.	9.	3.	1.84		
HYDROGRAPH AT	D76cP	39.	11.92	21.	8.	3.	1.84		
HYDROGRAPH AT	84c	196.	12.50	65.	21.	7.	.47		
DIVERSION TO	D84cS	151.	12.50	50.	16.	5.	.47		
HYDROGRAPH AT	D84cE	45.	12.50	15.	5.	2.	.47		
ROUTED TO	R84cE	43.	13.00	15.	5.	2.	.47		

+	HYDROGRAPH AT	80c	277.	12.42	71.	23.	8.	.66
+	ROUTED TO	S80c	265.	12.58	71.	21.	7.	.66
+	2 COMBINED AT	C80c	291.	12.67	85.	25.	8.	1.13
+	DIVERSION TO	D80c	272.	12.67	66.	17.	6.	1.13
+	HYDROGRAPH AT	D80cP	19.	11.17	19.	9.	3.	1.13
+	2 COMBINED AT	C76cP	58.	11.92	40.	16.	5.	2.97
+	ROUTED TO	P76cS	58.	12.08	40.	16.	5.	2.97
+	DIVERSION TO	D80eP1	19.	12.08	13.	5.	2.	2.97
+	HYDROGRAPH AT	D76eP1	39.	12.08	27.	11.	4.	2.97
+	HYDROGRAPH AT	56e	29.	12.33	7.	3.	1.	.18
+	DIVERSION TO	D56eS	15.	12.33	4.	1.	0.	.18
+	HYDROGRAPH AT	D56eW	13.	12.33	3.	1.	0.	.18
+	ROUTED TO	R56eW	12.	12.67	3.	1.	0.	.18
+	HYDROGRAPH AT	60e	78.	12.50	24.	8.	3.	.41
+	2 COMBINED AT	C60e	87.	12.58	27.	9.	3.	.58
+	DIVERSION TO	D60eP	75.	12.42	26.	9.	3.	.58
+	HYDROGRAPH AT	D60e	12.	12.58	1.	0.	0.	.58
+	DIVERSION TO	D60eS	4.	12.58	0.	0.	0.	.58
+	HYDROGRAPH AT	D60eW	8.	12.58	1.	0.	0.	.58
+	ROUTED TO	R60eW	4.	13.17	1.	0.	0.	.58
+	HYDROGRAPH AT	64e	55.	12.58	19.	6.	2.	.50
+	HYDROGRAPH AT	B64cS	56.	12.42	14.	4.	1.	.26
+	ROUTED TO	R64cS	49.	13.08	14.	4.	1.	.26
+	3 COMBINED AT	C64e	95.	13.00	32.	11.	4.	1.35
+	DIVERSION TO	D64eS	48.	13.00	16.	5.	2.	1.35
+	HYDROGRAPH AT	D64eW	48.	13.00	16.	5.	2.	1.35
+	ROUTED TO	R64eW	46.	13.25	16.	5.	2.	1.35
+	HYDROGRAPH AT	68e	51.	12.58	18.	6.	2.	.50
+	HYDROGRAPH AT							

+		B68cP	41.	12.17	19.	7.	2.	.70
	ROUTED TO							
		P68cS	41.	12.33	19.	7.	2.	.70
	HYDROGRAPH AT							
+		B68cS	17.	12.58	2.	1.	0.	.70
	ROUTED TO							
+		R68cS	13.	13.25	2.	1.	0.	.70
	2 COMBINED AT							
+		C68cS	54.	13.25	22.	8.	3.	.70
	3 COMBINED AT							
+		C68e	135.	13.17	54.	19.	6.	2.28
	DIVERSION TO							
+		D68eP	63.	12.17	39.	15.	5.	2.28
	HYDROGRAPH AT							
+		D68e	72.	13.17	15.	4.	1.	2.28
	DIVERSION TO							
+		D68eS	39.	13.17	8.	2.	1.	2.28
	HYDROGRAPH AT							
+		D68eW	33.	13.17	7.	2.	1.	2.28
	ROUTED TO							
+		R68eW	30.	13.58	7.	2.	1.	2.28
	HYDROGRAPH AT							
+		72e	63.	12.58	23.	8.	3.	.50
	HYDROGRAPH AT							
+		B72cP	48.	13.08	18.	6.	2.	1.24
	ROUTED TO							
+		P72cS	48.	13.08	18.	6.	2.	1.24
	HYDROGRAPH AT							
+		B72cS	0.	.00	0.	0.	0.	1.24
	ROUTED TO							
+		R72cS	0.	.00	0.	0.	0.	1.24
	2 COMBINED AT							
+		C72cS	48.	13.08	18.	6.	2.	1.24
	3 COMBINED AT							
+		C72e	114.	13.08	46.	15.	5.	3.32
	DIVERSION TO							
+		D72eP	114.	13.08	46.	15.	5.	3.32
	HYDROGRAPH AT							
+		D72e	0.	.00	0.	0.	0.	3.32
	DIVERSION TO							
+		D72eS	0.	.00	0.	0.	0.	3.32
	HYDROGRAPH AT							
+		D72eW	0.	.00	0.	0.	0.	3.32
	ROUTED TO							
+		R72eW	0.	.00	0.	0.	0.	3.32
	HYDROGRAPH AT							
+		76e	135.	12.50	37.	12.	4.	.50
	HYDROGRAPH AT							
+		B76c	250.	12.33	36.	9.	3.	1.84
	ROUTED TO							
+		R76cS	222.	12.75	36.	9.	3.	1.84
	4 COMBINED AT							
+		C76e	373.	12.75	98.	31.	10.	4.42
	DIVERSION TO							
+		D76e	352.	12.75	77.	19.	6.	4.42
	HYDROGRAPH AT							
+		D76eP	21.	10.58	21.	12.	4.	4.42

+	HYDROGRAPH AT	BD84cS	151.	12.50	50.	16.	5.	.47
	ROUTED TO	R84cS	145.	12.92	50.	16.	5.	.47
+	HYDROGRAPH AT	84e	54.	12.58	19.	6.	2.	.21
+	2 COMBINED AT	C84e	193.	12.83	68.	22.	7.	.68
+	DIVERSION TO	D84eS	76.	12.83	27.	8.	3.	.68
+	HYDROGRAPH AT	D84eE	117.	12.83	42.	13.	4.	.68
+	ROUTED TO	R84eE	110.	13.42	41.	13.	4.	.68
+	HYDROGRAPH AT	80e	206.	12.42	49.	15.	5.	.49
+	HYDROGRAPH AT	B80eP1	19.	12.08	13.	5.	2.	2.97
+	HYDROGRAPH AT	BD80c	272.	12.67	66.	17.	6.	1.13
+	ROUTED TO	R80cS	257.	13.00	66.	17.	6.	1.13
+	4 COMBINED AT	C80e	474.	13.00	166.	49.	16.	1.84
+	DIVERSION TO	D80e	419.	13.00	117.	29.	10.	1.84
+	HYDROGRAPH AT	D80eP	55.	12.00	49.	20.	7.	1.84
+	2 COMBINED AT	C76eP	76.	12.00	69.	31.	11.	6.26
+	ROUTED TO	P76eS	76.	12.08	69.	31.	11.	6.26
+	DIVERSION TO	D80gP1	55.	12.08	51.	23.	8.	6.26
+	HYDROGRAPH AT	D76gP1	21.	12.08	19.	8.	3.	6.26
+	HYDROGRAPH AT	76g	180.	12.42	46.	15.	5.	.50
+	HYDROGRAPH AT	BD76e	352.	12.75	77.	19.	6.	4.42
+	ROUTED TO	R76eS	332.	13.08	77.	19.	6.	4.42
+	3 COMBINED AT	C76g	459.	13.00	139.	42.	14.	4.92
+	DIVERSION TO	D76gP2	48.	11.92	42.	18.	6.	4.92
+	HYDROGRAPH AT	D76g1	411.	13.00	97.	24.	8.	4.92
+	DIVERSION TO	D76gP	57.	12.17	29.	7.	2.	4.92
+	HYDROGRAPH AT	D76g	354.	13.00	68.	17.	6.	4.92
+	DIVERSION TO	D76gS	248.	13.00	47.	12.	4.	4.92
+	HYDROGRAPH AT	D76gE	106.	13.00	20.	5.	2.	4.92
+	ROUTED TO	R76gE	104.	13.17	20.	5.	2.	4.92

+	HYDROGRAPH AT	B76gP2	48.	11.92	42.	18.	6.	4.92
	2 COMBINED AT	C76gE	152.	13.17	62.	23.	8.	4.92
+	HYDROGRAPH AT	54g	113.	12.25	22.	7.	2.	.25
+	DIVERSION TO	D54gS	45.	12.25	9.	3.	1.	.25
+	HYDROGRAPH AT	D54gW	68.	12.25	13.	4.	1.	.25
+	ROUTED TO	R54gW	59.	12.67	13.	4.	1.	.25
+	HYDROGRAPH AT	56g	79.	12.42	26.	9.	3.	.50
+	HYDROGRAPH AT	B56eS	15.	12.33	4.	1.	0.	.18
+	ROUTED TO	R56eS	12.	13.08	4.	1.	0.	.18
+	3 COMBINED AT	C56g	139.	12.67	42.	14.	5.	.92
+	DIVERSION TO	D56gP	130.	12.58	42.	14.	5.	.92
+	HYDROGRAPH AT	D56g	9.	12.67	0.	0.	0.	.92
+	DIVERSION TO	D56gS	5.	12.67	0.	0.	0.	.92
+	HYDROGRAPH AT	D56gW	4.	12.67	0.	0.	0.	.92
+	ROUTED TO	R56gW	1.	13.25	0.	0.	0.	.92
+	HYDROGRAPH AT	60g	97.	12.50	31.	11.	4.	.50
+	HYDROGRAPH AT	B60eP	75.	12.42	26.	9.	3.	.58
+	ROUTED TO	P60eS	75.	12.50	26.	9.	3.	.58
+	HYDROGRAPH AT	B60eS	4.	12.58	0.	0.	0.	.58
+	ROUTED TO	R60eS	2.	13.33	0.	0.	0.	.58
+	2 COMBINED AT	C60eS	75.	12.75	26.	9.	3.	.58
+	3 COMBINED AT	C60g	169.	12.50	56.	19.	6.	1.83
+	DIVERSION TO	D60gP	124.	12.33	51.	18.	6.	1.83
+	HYDROGRAPH AT	D60g	45.	12.50	5.	1.	0.	1.83
+	DIVERSION TO	D60gS	21.	12.50	2.	1.	0.	1.83
+	HYDROGRAPH AT	D60gW	24.	12.50	2.	1.	0.	1.83
+	ROUTED TO	R60gW	16.	13.08	2.	1.	0.	1.83
+	HYDROGRAPH AT	64g	61.	12.58	22.	8.	3.	.50
	HYDROGRAPH AT							

+		B64eS	48.	13.00	16.	5.	2.	1.35
	ROUTED TO							
+		R64eS	45.	13.50	16.	5.	2.	1.35
	3 COMBINED AT							
+		C64g	97.	13.08	40.	13.	5.	3.10
	DIVERSION TO							
+		D64gP	97.	13.08	40.	13.	5.	3.10
	HYDROGRAPH AT							
+		D64g	0.	.00	0.	0.	0.	3.10
	DIVERSION TO							
+		D64gS	0.	.00	0.	0.	0.	3.10
	HYDROGRAPH AT							
+		D64gW	0.	.00	0.	0.	0.	3.10
	ROUTED TO							
+		R64gW	0.	.00	0.	0.	0.	3.10
	HYDROGRAPH AT							
+		68g	47.	12.67	19.	7.	2.	.50
	HYDROGRAPH AT							
+		B68eP	63.	12.17	39.	15.	5.	2.28
	ROUTED TO							
+		P68eS	63.	12.25	39.	15.	5.	2.28
	HYDROGRAPH AT							
+		B68eS	39.	13.17	8.	2.	1.	2.28
	ROUTED TO							
+		R68eS	33.	13.67	8.	2.	1.	2.28
	2 COMBINED AT							
+		C68eS	96.	13.67	47.	17.	6.	2.28
	3 COMBINED AT							
+		C68g	125.	13.42	65.	23.	8.	4.53
	DIVERSION TO							
+		D68gP	82.	12.25	53.	20.	7.	4.53
	HYDROGRAPH AT							
+		D68g	43.	13.42	12.	3.	1.	4.53
	DIVERSION TO							
+		D68gS	24.	13.42	6.	2.	1.	4.53
	HYDROGRAPH AT							
+		D68gW	19.	13.42	5.	1.	0.	4.53
	ROUTED TO							
+		R68gW	17.	14.00	5.	1.	0.	4.53
	HYDROGRAPH AT							
+		72g	96.	12.58	32.	10.	3.	.50
	HYDROGRAPH AT							
+		B72eP	114.	13.08	46.	15.	5.	3.32
	ROUTED TO							
+		P72eS	114.	13.17	46.	15.	5.	3.32
	HYDROGRAPH AT							
+		B72eS	0.	.00	0.	0.	0.	3.32
	ROUTED TO							
+		R72eS	0.	.00	0.	0.	0.	3.32
	2 COMBINED AT							
+		C72eS	114.	13.17	46.	15.	5.	3.32
	3 COMBINED AT							
+		C72g	192.	13.08	80.	26.	9.	6.07
	2 COMBINED AT							
+		CC72g	339.	13.17	141.	48.	16.	7.67
	DIVERSION TO							
+		D72gP	178.	12.33	112.	41.	14.	7.67

+	HYDROGRAPH AT	D72g	161.	13.17	29.	7.	2.	7.67
	ROUTED TO	R72gS	143.	13.50	29.	7.	2.	7.67
+	HYDROGRAPH AT	BD72gP	178.	12.33	112.	41.	14.	7.67
+	ROUTED TO	P72gS	178.	12.50	112.	41.	14.	7.67
+	2 COMBINED AT	C72gS	321.	13.50	141.	48.	16.	7.67
+	HYDROGRAPH AT	84g	67.	12.50	22.	7.	2.	.21
+	HYDROGRAPH AT	B84eS	76.	12.83	27.	8.	3.	.68
+	ROUTED TO	R84eS	71.	13.33	27.	8.	3.	.68
+	2 COMBINED AT	C84g	113.	13.25	48.	15.	5.	.90
+	DIVERSION TO	D84gS	53.	13.25	22.	7.	2.	.90
+	HYDROGRAPH AT	D84gE	60.	13.25	25.	8.	3.	.90
+	ROUTED TO	R84gE	57.	13.75	25.	8.	3.	.90
+	HYDROGRAPH AT	80g	155.	12.50	43.	13.	4.	.50
+	HYDROGRAPH AT	BD80e	419.	13.00	117.	29.	10.	1.84
+	ROUTED TO	R80eS	403.	13.33	117.	29.	10.	1.84
+	HYDROGRAPH AT	B80gP1	55.	12.08	51.	23.	8.	6.26
+	4 COMBINED AT	C80g	583.	13.25	232.	73.	25.	2.55
+	DIVERSION TO	D80g	564.	13.25	213.	56.	19.	2.55
+	HYDROGRAPH AT	D80gP	19.	8.50	19.	17.	6.	2.55
+	HYDROGRAPH AT	B76gP	57.	12.17	29.	7.	2.	4.92
+	2 COMBINED AT	C76gP	76.	12.17	48.	24.	8.	7.47
+	ROUTED TO	P76gS	76.	12.33	48.	24.	8.	7.47
+	DIVERSION TO	D80iP1	19.	12.33	12.	6.	2.	7.47
+	HYDROGRAPH AT	D76iP1	57.	12.33	36.	18.	6.	7.47
+	HYDROGRAPH AT	76i	243.	12.42	65.	21.	7.	.50
+	HYDROGRAPH AT	BD76gS	248.	13.00	47.	12.	4.	4.92
+	ROUTED TO	R76gS	224.	13.33	47.	12.	4.	4.92
+	3 COMBINED AT	C76i	393.	13.25	146.	50.	17.	5.42
+	DIVERSION TO	D76i1	345.	13.25	104.	26.	9.	5.42

+	HYDROGRAPH AT	D761P2	48.	11.83	42.	24.	8.	5.42
+	HYDROGRAPH AT	72i	142.	12.50	43.	13.	4.	.50
+	3 COMBINED AT	C72i	441.	13.42	223.	85.	29.	8.68
+	DIVERSION TO	D72i	183.	13.42	43.	11.	4.	8.68
+	HYDROGRAPH AT	D72iP	258.	12.25	180.	74.	25.	8.68
+	DIVERSION TO	D72iP1	226.	12.25	158.	65.	22.	8.68
+	HYDROGRAPH AT	D72iP2	32.	12.25	22.	9.	3.	8.68
+	ROUTED TO	P72iW	32.	12.33	22.	9.	3.	8.68
+	HYDROGRAPH AT	BD7611	345.	13.25	104.	26.	9.	5.42
+	2 COMBINED AT	CC76i	376.	13.25	126.	35.	12.	5.92
+	DIVERSION TO	D76i	298.	13.25	79.	20.	7.	5.92
+	HYDROGRAPH AT	D76iP	78.	12.08	47.	15.	5.	5.92
+	HYDROGRAPH AT	BD84gS	53.	13.25	22.	7.	2.	.90
+	ROUTED TO	R84gS	51.	13.75	22.	7.	2.	.90
+	HYDROGRAPH AT	84i	52.	12.58	19.	6.	2.	.21
+	2 COMBINED AT	C84i	80.	13.58	41.	13.	4.	1.11
+	ROUTED TO	S84i	0.	.00	0.	0.	0.	1.11
+	DIVERSION TO	D84iS	0.	.00	0.	0.	0.	1.11
+	HYDROGRAPH AT	D84iE	0.	.00	0.	0.	0.	1.11
+	ROUTED TO	R84iE	0.	.00	0.	0.	0.	1.11
+	HYDROGRAPH AT	80i	226.	12.42	53.	16.	5.	.49
+	HYDROGRAPH AT	BD80g	564.	13.25	213.	56.	19.	2.55
+	ROUTED TO	S80g	564.	13.33	213.	56.	19.	2.55
+	ROUTED TO	R80gS	553.	13.58	212.	56.	19.	2.55
+	HYDROGRAPH AT	B80iP1	19.	12.33	12.	6.	2.	7.47
+	4 COMBINED AT	C80i	640.	13.50	274.	77.	26.	3.25
+	DIVERSION TO	D80i	612.	13.50	246.	62.	21.	3.25
+	HYDROGRAPH AT	D80iP	28.	11.33	28.	16.	5.	3.25
+	2 COMBINED AT							

+		C76iP	106.	12.08	75.	31.	10.	9.18
	ROUTED TO							
		P76iS	106.	12.17	75.	31.	10.	9.18
	DIVERSION TO							
+		D80kP1	28.	12.17	20.	8.	3.	9.18
	HYDROGRAPH AT							
+		D76kP1	78.	12.17	56.	23.	8.	9.18
	HYDROGRAPH AT							
+		76k	210.	12.33	41.	12.	4.	.32
	HYDROGRAPH AT							
+		BD76i	298.	13.25	79.	20.	7.	5.92
	DIVERSION TO							
+		D76iE	95.	13.25	25.	6.	2.	5.92
	HYDROGRAPH AT							
+		D76iS	203.	13.25	53.	13.	4.	5.92
	ROUTED TO							
+		R76iS	198.	13.42	53.	13.	4.	5.92
	3 COMBINED AT							
+		C76k	361.	12.58	149.	48.	16.	5.74
	DIVERSION TO							
+		D76k1	329.	12.58	117.	29.	10.	5.74
	HYDROGRAPH AT							
+		D76kP2	32.	11.17	32.	19.	6.	5.74
	HYDROGRAPH AT							
+		54i	55.	12.42	17.	6.	2.	.19
	HYDROGRAPH AT							
+		BD54gS	45.	12.25	9.	3.	1.	.25
	ROUTED TO							
+		R54gS	39.	12.75	9.	3.	1.	.25
	2 COMBINED AT							
+		C54i	88.	12.67	26.	9.	3.	.44
	DIVERSION TO							
+		D54iP	68.	12.50	25.	8.	3.	.44
	HYDROGRAPH AT							
+		D54i	20.	12.67	1.	0.	0.	.44
	DIVERSION TO							
+		D54iS	7.	12.67	1.	0.	0.	.44
	HYDROGRAPH AT							
+		D54iW	13.	12.67	1.	0.	0.	.44
	ROUTED TO							
+		R54iW	6.	13.33	1.	0.	0.	.44
	HYDROGRAPH AT							
+		56i	148.	12.42	41.	13.	4.	.50
	HYDROGRAPH AT							
+		BD56gP	130.	12.58	42.	14.	5.	.92
	ROUTED TO							
+		P56gS	130.	12.67	42.	14.	5.	.92
	HYDROGRAPH AT							
+		BD56gS	5.	12.67	0.	0.	0.	.92
	ROUTED TO							
+		R56gS	2.	13.50	0.	0.	0.	.92
	2 COMBINED AT							
+		C56gS	130.	12.67	42.	14.	5.	.92
	3 COMBINED AT							
+		C56i	267.	12.58	82.	28.	9.	1.62
	DIVERSION TO							
+		D56iP	204.	12.33	77.	26.	9.	1.62

+	HYDROGRAPH AT	D56i	63.	12.58	6.	1.	0.	1.62
	DIVERSION TO	D56iS	31.	12.58	3.	1.	0.	1.62
+	HYDROGRAPH AT	D56iW	32.	12.58	3.	1.	0.	1.62
+	ROUTED TO	R56iW	23.	13.25	3.	1.	0.	1.62
+	HYDROGRAPH AT	60i	208.	12.42	54.	17.	6.	.50
+	HYDROGRAPH AT	BD60gP	124.	12.33	51.	18.	6.	1.83
+	ROUTED TO	P60gS	124.	12.42	51.	18.	6.	1.83
+	HYDROGRAPH AT	BD60gS	21.	12.50	2.	1.	0.	1.83
+	ROUTED TO	R60gS	14.	13.25	2.	1.	0.	1.83
+	2 COMBINED AT	C60gS	137.	13.08	54.	18.	6.	1.83
+	3 COMBINED AT	C60i	327.	12.42	108.	36.	12.	3.02
+	DIVERSION TO	D60iP	211.	12.17	93.	32.	11.	3.02
+	HYDROGRAPH AT	D60i	116.	12.42	15.	4.	1.	3.02
+	DIVERSION TO	D60iS	68.	12.42	9.	2.	1.	3.02
+	HYDROGRAPH AT	D60iW	47.	12.42	6.	2.	1.	3.02
+	ROUTED TO	R60iW	35.	13.08	6.	2.	1.	3.02
+	HYDROGRAPH AT	BD64gP	97.	13.08	40.	13.	5.	3.10
+	ROUTED TO	P64gS	97.	13.17	40.	13.	5.	3.10
+	HYDROGRAPH AT	BD64gS	0.	.00	0.	0.	0.	3.10
+	ROUTED TO	R64gS	0.	.00	0.	0.	0.	3.10
+	2 COMBINED AT	C64gS	97.	13.17	40.	13.	5.	3.10
+	HYDROGRAPH AT	64i	125.	12.50	40.	14.	5.	.50
+	3 COMBINED AT	C64i	220.	13.00	84.	28.	9.	4.79
+	DIVERSION TO	D64iP	214.	13.00	83.	28.	9.	4.79
+	HYDROGRAPH AT	D64i	6.	13.00	0.	0.	0.	4.79
+	DIVERSION TO	D64iS	3.	13.00	0.	0.	0.	4.79
+	HYDROGRAPH AT	D64iW	2.	13.00	0.	0.	0.	4.79
+	ROUTED TO	R64iW	1.	13.75	0.	0.	0.	4.79
+	HYDROGRAPH AT	68i	62.	12.67	25.	9.	3.	.50

+	HYDROGRAPH AT	BD68gP	82.	12.25	53.	20.	7.	4.53
	ROUTED TO	P68gS	82.	12.33	53.	20.	7.	4.53
+	HYDROGRAPH AT	BD68gS	24.	13.42	6.	2.	1.	4.53
+	ROUTED TO	R68gS	22.	14.08	6.	2.	1.	4.53
+	2 COMBINED AT	C68gS	104.	14.08	60.	22.	7.	4.53
+	3 COMBINED AT	C68i	143.	13.17	84.	30.	10.	6.72
+	HYDROGRAPH AT	BD72i	183.	13.42	43.	11.	4.	8.68
+	HYDROGRAPH AT	B76iE	95.	13.25	25.	6.	2.	5.92
+	ROUTED TO	R76iE	90.	13.58	25.	6.	2.	5.92
+	2 COMBINED AT	CC72i	267.	13.50	68.	17.	6.	8.68
+	DIVERSION TO	D72iS	187.	13.50	48.	12.	4.	8.68
+	HYDROGRAPH AT	D72iE	80.	13.50	20.	5.	2.	8.68
+	ROUTED TO	R72iE	76.	13.83	20.	5.	2.	8.68
+	2 COMBINED AT	CC68i	210.	13.83	103.	35.	12.	10.87
+	DIVERSION TO	D68iP	99.	12.25	72.	27.	9.	10.87
+	HYDROGRAPH AT	D68i	111.	13.83	31.	8.	3.	10.87
+	ROUTED TO	R68iS	110.	13.92	31.	8.	3.	10.87
+	HYDROGRAPH AT	BD68iP	99.	12.25	72.	27.	9.	10.87
+	ROUTED TO	P68iS	99.	12.33	72.	27.	9.	10.87
+	2 COMBINED AT	C68iS	209.	13.92	103.	35.	12.	10.87
+	HYDROGRAPH AT	36i	89.	12.42	24.	7.	3.	.34
+	DIVERSION TO	D36iP	41.	12.17	18.	6.	2.	.34
+	HYDROGRAPH AT	D36i	48.	12.42	6.	1.	0.	.34
+	DIVERSION TO	D36iS	40.	12.42	5.	1.	0.	.34
+	HYDROGRAPH AT	D36iW	8.	12.42	1.	0.	0.	.34
+	ROUTED TO	R36iW	6.	12.92	1.	0.	0.	.34
+	HYDROGRAPH AT	40i	42.	12.33	13.	5.	2.	.22
+	ROUTED TO	S40i	0.	.00	0.	0.	0.	.22
+	2 COMBINED AT							

+		C40i	6.	12.92	1.	0.	0.	.56
	DIVERSION TO							
+		D40iS	5.	12.92	1.	0.	0.	.56
	HYDROGRAPH AT							
+		D40iW	2.	12.92	0.	0.	0.	.56
	ROUTED TO							
+		R40iW	1.	13.50	0.	0.	0.	.56
	HYDROGRAPH AT							
+		44i	48.	12.50	18.	6.	2.	.35
	HYDROGRAPH AT							
+		42i	47.	12.33	9.	3.	1.	.27
	ROUTED TO							
+		R42iW	43.	12.67	9.	3.	1.	.27
	3 COMBINED AT							
+		C44i	87.	12.67	26.	9.	3.	1.18
	DIVERSION TO							
+		D44iP	48.	12.33	22.	8.	3.	1.18
	HYDROGRAPH AT							
+		D44i	39.	12.67	4.	1.	0.	1.18
	DIVERSION TO							
+		D44iS	19.	12.67	2.	1.	0.	1.18
	HYDROGRAPH AT							
+		D44iW	19.	12.67	2.	1.	0.	1.18
	ROUTED TO							
+		R44iW	16.	13.00	2.	1.	0.	1.18
	HYDROGRAPH AT							
+		48i	47.	12.50	16.	5.	2.	.54
	2 COMBINED AT							
+		C48i	55.	12.83	17.	6.	2.	1.72
	DIVERSION TO							
+		D48iP	47.	12.75	16.	5.	2.	1.72
	HYDROGRAPH AT							
+		D48i	8.	12.83	1.	0.	0.	1.72
	DIVERSION TO							
+		D48iS	4.	12.83	0.	0.	0.	1.72
	HYDROGRAPH AT							
+		D48iW	4.	12.83	0.	0.	0.	1.72
	ROUTED TO							
+		R48iW	3.	13.08	0.	0.	0.	1.72
	HYDROGRAPH AT							
+		BD48iP	47.	12.75	16.	5.	2.	1.72
	ROUTED TO							
+		P48iW	47.	12.83	16.	5.	2.	1.72
	2 COMBINED AT							
+		C48iW	50.	13.00	17.	6.	2.	1.72
	HYDROGRAPH AT							
+		52g	32.	12.33	8.	3.	1.	.26
	ROUTED TO							
+		R52gS	28.	12.92	8.	3.	1.	.26
	HYDROGRAPH AT							
+		52i	69.	12.42	20.	7.	2.	.31
	3 COMBINED AT							
+		C52i	132.	12.75	44.	15.	5.	2.29
	DIVERSION TO							
+		DB52i	37.	12.75	4.	1.	0.	2.29
	HYDROGRAPH AT							
+		E52i	95.	12.33	40.	14.	5.	2.29

+	HYDROGRAPH AT	BDB52i	37.	12.75	4.	1.	0.	2.29
	ROUTED TO	S52i	29.	13.00	4.	1.	0.	2.29
+	2 COMBINED AT	CC52i	124.	13.00	44.	15.	5.	2.29
+	DIVERSION TO	D52iP	95.	12.33	40.	14.	5.	2.29
+	HYDROGRAPH AT	D52i	29.	13.00	4.	1.	0.	2.29
+	ROUTED TO	R52iS	22.	13.50	4.	1.	0.	2.29
+	HYDROGRAPH AT	BD52iP	95.	12.33	40.	14.	5.	2.29
+	ROUTED TO	F52iS	95.	12.50	40.	14.	5.	2.29
+	2 COMBINED AT	C52iS	117.	13.42	44.	15.	5.	2.29
+	HYDROGRAPH AT	24k	91.	12.33	18.	6.	2.	.19
+	DIVERSION TO	D24kS	45.	12.33	9.	3.	1.	.19
+	HYDROGRAPH AT	D24kW	45.	12.33	9.	3.	1.	.19
+	ROUTED TO	R24kW	40.	12.75	9.	3.	1.	.19
+	HYDROGRAPH AT	ARC40	47.	13.00	12.	4.	1.	.10
+	ROUTED TO	PARC40	46.	13.08	12.	4.	1.	.10
+	HYDROGRAPH AT	28k	109.	12.42	30.	10.	3.	.43
+	3 COMBINED AT	C28k	166.	12.67	51.	16.	5.	.72
+	DIVERSION TO	D28kP	131.	12.42	47.	15.	5.	.72
+	HYDROGRAPH AT	D28k	35.	12.67	3.	1.	0.	.72
+	DIVERSION TO	D28kS	15.	12.67	1.	0.	0.	.72
+	HYDROGRAPH AT	D28kW	20.	12.67	2.	0.	0.	.72
+	ROUTED TO	R28kW	15.	13.08	2.	0.	0.	.72
+	HYDROGRAPH AT	32k	66.	12.50	23.	8.	3.	.51
+	2 COMBINED AT	C32k	67.	12.92	25.	9.	3.	1.23
+	DIVERSION TO	D32kP	45.	12.25	22.	8.	3.	1.23
+	HYDROGRAPH AT	D32k	22.	12.92	3.	1.	0.	1.23
+	DIVERSION TO	D32kS	10.	12.92	2.	0.	0.	1.23
+	HYDROGRAPH AT	D32kW	12.	12.92	2.	0.	0.	1.23
+	ROUTED TO	R32kW	10.	13.25	2.	0.	0.	1.23

+	HYDROGRAPH AT	36k	109.	12.50	33.	11.	4.	.51
+	HYDROGRAPH AT	BD36iP	41.	12.17	18.	6.	2.	.34
+	ROUTED TO	P36iS	41.	12.33	18.	6.	2.	.34
+	HYDROGRAPH AT	BD36iS	40.	12.42	5.	1.	0.	.34
+	ROUTED TO	R36iS	32.	13.08	5.	1.	0.	.34
+	2 COMBINED AT	C36iS	73.	13.08	23.	7.	2.	.34
+	3 COMBINED AT	C36k	156.	12.92	56.	18.	6.	2.07
+	DIVERSION TO	D36kP	59.	12.08	35.	13.	4.	2.07
+	HYDROGRAPH AT	D36k	97.	12.92	21.	5.	2.	2.07
+	DIVERSION TO	D36kS	43.	12.92	9.	2.	1.	2.07
+	HYDROGRAPH AT	D36kW	54.	12.92	12.	3.	1.	2.07
+	ROUTED TO	R36kW	53.	13.17	12.	3.	1.	2.07
+	HYDROGRAPH AT	BD40iS	5.	12.92	1.	0.	0.	.56
+	ROUTED TO	R40iS	3.	13.92	1.	0.	0.	.56
+	HYDROGRAPH AT	40k	131.	12.50	38.	12.	4.	.50
+	3 COMBINED AT	C40k	161.	12.75	49.	15.	5.	2.80
+	DIVERSION TO	D40kP	29.	12.00	20.	8.	3.	2.80
+	HYDROGRAPH AT	D40k	132.	12.75	30.	7.	2.	2.80
+	DIVERSION TO	D40kS	55.	12.75	12.	3.	1.	2.80
+	HYDROGRAPH AT	D40kW	76.	12.75	17.	4.	1.	2.80
+	ROUTED TO	R40kW	74.	13.00	17.	4.	1.	2.80
+	HYDROGRAPH AT	44k	179.	12.42	50.	16.	5.	.51
+	HYDROGRAPH AT	BD44iP	48.	12.33	22.	8.	3.	1.18
+	ROUTED TO	P44iS	48.	12.58	22.	8.	3.	1.18
+	HYDROGRAPH AT	BD44iS	19.	12.67	2.	1.	0.	1.18
+	ROUTED TO	R44iS	14.	13.25	2.	1.	0.	1.18
+	2 COMBINED AT	C44iS	62.	13.25	24.	8.	3.	1.18
+	3 COMBINED AT	C44k	265.	12.75	88.	28.	9.	3.93
	DIVERSION TO							

+		D44kP	71.	12.08	45.	17.	6.	3.93
	HYDROGRAPH AT							
		D44k	194.	12.75	43.	11.	4.	3.93
	DIVERSION TO							
+		D44kS	74.	12.75	16.	4.	1.	3.93
	HYDROGRAPH AT							
+		D44kW	121.	12.75	27.	7.	2.	3.93
	ROUTED TO							
+		R44kW	117.	12.92	27.	7.	2.	3.93
	HYDROGRAPH AT							
+		48k	207.	12.42	60.	20.	7.	.50
	ROUTED TO							
+		S48k	207.	12.50	60.	19.	6.	.50
	HYDROGRAPH AT							
+		BD48iS	4.	12.83	0.	0.	0.	1.72
	ROUTED TO							
+		R48iS	2.	13.50	0.	0.	0.	1.72
	3 COMBINED AT							
+		C48k	289.	12.75	85.	25.	8.	4.96
	DIVERSION TO							
+		D48kS	130.	12.75	38.	11.	4.	4.96
	HYDROGRAPH AT							
+		D48kW	160.	12.75	47.	14.	5.	4.96
	ROUTED TO							
+		R48kW	158.	12.83	47.	14.	5.	4.96
	HYDROGRAPH AT							
+		52k	103.	12.50	32.	10.	3.	.29
	3 COMBINED AT							
+		C52k	342.	12.75	120.	38.	13.	5.83
	DIVERSION TO							
+		D52kP	201.	12.33	96.	32.	11.	5.83
	HYDROGRAPH AT							
+		D52k	141.	12.75	24.	6.	2.	5.83
	DIVERSION TO							
+		D52kS	63.	12.75	11.	3.	1.	5.83
	HYDROGRAPH AT							
+		D52kW	77.	12.75	13.	3.	1.	5.83
	ROUTED TO							
+		R52kW	76.	12.92	13.	3.	1.	5.83
	HYDROGRAPH AT							
+		BD54iP	68.	12.50	25.	8.	3.	.44
	ROUTED TO							
+		P54iS	68.	12.75	25.	8.	3.	.44
	HYDROGRAPH AT							
+		BD54iS	7.	12.67	1.	0.	0.	.44
	ROUTED TO							
+		R54iS	3.	13.67	1.	0.	0.	.44
	2 COMBINED AT							
+		C54iS	68.	13.08	25.	8.	3.	.44
	HYDROGRAPH AT							
+		54k	94.	12.50	31.	10.	3.	.25
	3 COMBINED AT							
+		C54k	231.	12.83	70.	22.	7.	1.18
	DIVERSION TO							
+		D54kP	124.	12.33	54.	18.	6.	1.18
	HYDROGRAPH AT							
+		D54k	107.	12.83	15.	4.	1.	1.18

+	DIVERSION TO	D54kS	35.	12.83	4.	1.	0.	1.18
	HYDROGRAPH AT	D54kW	72.	12.83	11.	3.	1.	1.18
+	ROUTED TO	R54kW	58.	13.67	11.	3.	1.	1.18
+	HYDROGRAPH AT	BD56iP	204.	12.33	77.	26.	9.	1.62
+	ROUTED TO	P56iS	204.	12.42	77.	26.	9.	1.62
+	HYDROGRAPH AT	BD56iS	31.	12.58	3.	1.	0.	1.62
+	ROUTED TO	R56iS	24.	13.08	3.	1.	0.	1.62
+	2 COMBINED AT	C56iS	226.	13.00	79.	27.	9.	1.62
+	HYDROGRAPH AT	56k	181.	12.42	45.	14.	5.	.42
+	3 COMBINED AT	C56k	380.	12.42	133.	43.	15.	2.78
+	HYDROGRAPH AT	BD60iP	211.	12.17	93.	32.	11.	3.02
+	DIVERSION TO	D60iP2	143.	12.17	63.	22.	7.	3.02
+	HYDROGRAPH AT	D60iP1	68.	12.17	30.	10.	3.	3.02
+	ROUTED TO	P60iS1	68.	12.25	30.	10.	3.	3.02
+	HYDROGRAPH AT	B60iP2	143.	12.17	63.	22.	7.	3.02
+	ROUTED TO	P60iS2	143.	12.25	63.	22.	7.	3.02
+	HYDROGRAPH AT	BD60iS	68.	12.42	9.	2.	1.	3.02
+	ROUTED TO	R60iS	57.	12.83	9.	2.	1.	3.02
+	3 COMBINED AT	C60iS	268.	12.83	102.	34.	11.	3.02
+	HYDROGRAPH AT	60k	127.	12.42	32.	10.	3.	.27
+	2 COMBINED AT	C60k	368.	12.67	133.	44.	15.	3.29
+	DIVERSION TO	D60k	233.	12.67	51.	13.	4.	3.29
+	HYDROGRAPH AT	D60kP	135.	12.08	82.	31.	11.	3.29
+	DIVERSION TO	D60kP2	125.	12.08	76.	29.	10.	3.29
+	HYDROGRAPH AT	D60kP1	10.	12.08	6.	2.	1.	3.29
+	ROUTED TO	P60kE	10.	12.25	6.	2.	1.	3.29
+	2 COMBINED AT	CC56k	388.	12.42	138.	45.	15.	4.46
+	DIVERSION TO	D56kP	303.	12.25	129.	43.	14.	4.46
+	HYDROGRAPH AT	D56k	85.	12.42	9.	2.	1.	4.46

DIVERSION TO	D56kS	6.	12.42	0.	0.	0.	4.46
HYDROGRAPH AT	D56kW	80.	12.42	9.	2.	1.	4.46
ROUTED TO	R56kW	55.	13.08	9.	2.	1.	4.46
HYDROGRAPH AT	BD60k	233.	12.67	51.	13.	4.	3.29
2 COMBINED AT	CC60k	256.	12.92	59.	15.	5.	4.46
DIVERSION TO	D60kS	153.	12.92	31.	8.	3.	4.46
HYDROGRAPH AT	D60kW	104.	12.92	29.	7.	2.	4.46
ROUTED TO	R60kW	102.	13.25	29.	7.	2.	4.46
HYDROGRAPH AT	64k	102.	12.33	21.	7.	2.	.21
HYDROGRAPH AT	BD64iS	3.	13.00	0.	0.	0.	4.79
ROUTED TO	R64iS	3.	13.25	0.	0.	0.	4.79
3 COMBINED AT	C64k	146.	12.75	48.	13.	4.	6.43
ROUTED TO	S64k	52.	14.25	24.	7.	2.	6.43
HYDROGRAPH AT	BD64iP	214.	13.00	83.	28.	9.	4.79
ROUTED TO	P64iS	214.	13.00	83.	28.	9.	4.79
2 COMBINED AT	CC64k	214.	13.08	104.	35.	12.	6.43
DIVERSION TO	D64kP	214.	13.00	103.	35.	12.	6.43
HYDROGRAPH AT	D64k	3.	13.50	0.	0.	0.	6.43
DIVERSION TO	D64kS	0.	.00	0.	0.	0.	6.43
HYDROGRAPH AT	D64kW	3.	13.50	0.	0.	0.	6.43
ROUTED TO	R64kW	1.	14.00	0.	0.	0.	6.43
HYDROGRAPH AT	68k	131.	12.33	26.	8.	3.	.20
3 COMBINED AT	C68k	229.	12.58	125.	42.	14.	12.71
DIVERSION TO	D68kP	114.	12.08	83.	31.	11.	12.71
HYDROGRAPH AT	D68k	115.	12.58	42.	11.	4.	12.71
DIVERSION TO	D68kS	43.	12.58	12.	3.	1.	12.71
HYDROGRAPH AT	D68kW	73.	12.58	30.	7.	2.	12.71
ROUTED TO	R68kW	68.	14.25	30.	7.	2.	12.71
HYDROGRAPH AT							

+		72k	174.	12.33	37.	11.	4.	.28
	ROUTED TO							
		S72k	159.	12.58	30.	8.	3.	.28
	HYDROGRAPH AT							
+		B72iP1	226.	12.25	158.	65.	22.	8.68
	ROUTED TO							
+		P72iS	226.	12.42	158.	65.	22.	8.68
	HYDROGRAPH AT							
+		BD72iS	187.	13.50	48.	12.	4.	8.68
	ROUTED TO							
+		R72iS	184.	13.67	48.	12.	4.	8.68
	2 COMBINED AT							
+		C72iS	410.	13.67	205.	77.	26.	8.68
	3 COMBINED AT							
+		C72k	504.	13.58	258.	90.	31.	12.99
	2 COMBINED AT							
+		CC72k	536.	13.58	289.	109.	37.	12.99
	DIVERSION TO							
+		D72kP	281.	12.42	211.	90.	30.	12.99
	HYDROGRAPH AT							
+		D72k	255.	13.58	79.	20.	7.	12.99
	DIVERSION TO							
+		D72kS	150.	13.58	41.	10.	3.	12.99
	HYDROGRAPH AT							
+		D72kW	105.	13.58	38.	9.	3.	12.99
	ROUTED TO							
+		R72kW	104.	14.00	38.	9.	3.	12.99
	HYDROGRAPH AT							
		B76k1	329.	12.58	117.	29.	10.	5.74
	2 COMBINED AT							
+		CC76k	373.	13.42	150.	38.	13.	13.31
	DIVERSION TO							
+		D76kP	43.	11.92	31.	8.	3.	13.31
	HYDROGRAPH AT							
+		D76k	330.	13.42	120.	30.	10.	13.31
	DIVERSION TO							
+		D76kS	238.	13.42	80.	20.	7.	13.31
	HYDROGRAPH AT							
+		D76kW	92.	13.42	39.	10.	3.	13.31
	ROUTED TO							
+		R76kW	88.	14.17	39.	10.	3.	13.31
	HYDROGRAPH AT							
+		80k	263.	12.42	59.	17.	6.	.43
	HYDROGRAPH AT							
+		BD80i	612.	13.50	246.	62.	21.	3.25
	ROUTED TO							
+		R80iS	607.	13.58	245.	62.	21.	3.25
	HYDROGRAPH AT							
+		B80kP1	28.	12.17	20.	8.	3.	9.18
	3 COMBINED AT							
+		C80k	698.	13.50	319.	87.	29.	3.68
	DIVERSION TO							
+		D80kP	63.	11.92	61.	22.	7.	3.68
	HYDROGRAPH AT							
+		D80k	635.	13.50	259.	65.	22.	3.68
	2 COMBINED AT							
+		CC80k	713.	13.58	298.	75.	25.	4.68

+	DIVERSION TO	D80kS	256.	13.58	81.	20.	7.	4.68
	HYDROGRAPH AT	D80kW	458.	13.58	217.	54.	18.	4.68
+	ROUTED TO	R80kW	454.	13.75	216.	54.	18.	4.68
+	HYDROGRAPH AT	84k	124.	12.58	44.	14.	5.	.31
+	HYDROGRAPH AT	BD84iS	0.	.00	0.	0.	0.	1.11
+	ROUTED TO	R84iS	0.	.00	0.	0.	0.	1.11
+	3 COMBINED AT	C84k	521.	13.58	259.	68.	23.	4.99
+	ROUTED TO	R84kS	519.	13.75	258.	68.	23.	4.99
+	HYDROGRAPH AT	84m	105.	12.50	31.	9.	3.	.21
+	2 COMBINED AT	C84m	559.	13.67	287.	76.	25.	5.20
+	HYDROGRAPH AT	I17	214.	12.33	64.	23.	8.	.29
+	DIVERSION TO	D84mP	214.	12.33	64.	23.	8.	.29
+	HYDROGRAPH AT	D84m	0.	.00	0.	0.	0.	.29
+	2 COMBINED AT	CC84m	559.	13.67	287.	76.	25.	5.49
+	DIVERSION TO	D84mS	214.	13.67	110.	29.	10.	5.49
+	HYDROGRAPH AT	D84mE	344.	13.67	177.	47.	16.	5.49
+	ROUTED TO	R84mE	342.	13.92	177.	47.	16.	5.49
+	HYDROGRAPH AT	80m	336.	12.42	74.	22.	7.	.54
+	HYDROGRAPH AT	BD80kS	256.	13.58	81.	20.	7.	4.68
+	ROUTED TO	R80kS	246.	13.92	81.	20.	7.	4.68
+	3 COMBINED AT	C80m	640.	13.83	325.	88.	29.	6.03
+	DIVERSION TO	D80mS	369.	13.83	188.	51.	17.	6.03
+	HYDROGRAPH AT	D80mE	271.	13.83	138.	37.	12.	6.03
+	ROUTED TO	R80mE	269.	14.00	137.	37.	12.	6.03
+	HYDROGRAPH AT	76l	173.	12.25	24.	7.	2.	.18
+	HYDROGRAPH AT	BD80kP	63.	11.92	61.	22.	7.	3.68
+	HYDROGRAPH AT	BD76kP	43.	11.92	31.	8.	3.	13.31
+	2 COMBINED AT	C76kP	106.	11.92	90.	29.	10.	17.25
+	ROUTED TO	P76kS	106.	12.00	90.	29.	10.	17.25

+	HYDROGRAPH AT	BD76kS	238.	13.42	80.	20.	7.	13.31
+	ROUTED TO	R76kS	236.	13.50	80.	20.	7.	13.31
+	2 COMBINED AT	C76kS	355.	13.50	176.	51.	17.	4.86
+	2 COMBINED AT	C761	381.	12.50	198.	57.	19.	4.86
+	DIVERSION TO	D761P	156.	11.92	122.	38.	13.	4.86
+	HYDROGRAPH AT	D761	225.	12.50	76.	19.	6.	4.86
+	ROUTED TO	R761S	206.	12.92	76.	19.	6.	4.86
+	HYDROGRAPH AT	BD761P	156.	11.92	122.	38.	13.	4.86
+	ROUTED TO	P761S	156.	12.08	122.	38.	13.	4.86
+	2 COMBINED AT	C761S	362.	12.92	198.	57.	19.	4.86
+	HYDROGRAPH AT	76m	303.	12.42	67.	19.	6.	.49
+	ROUTED TO	S76m	304.	12.42	67.	19.	6.	.49
+	3 COMBINED AT	C76m	730.	12.83	396.	113.	38.	6.71
+	DIVERSION TO	D76m	539.	12.83	226.	56.	19.	6.71
+	HYDROGRAPH AT	D76mP	191.	12.00	170.	56.	19.	6.71
+	DIVERSION TO	D76mP2	32.	12.00	29.	9.	3.	6.71
+	HYDROGRAPH AT	D76mP1	159.	12.00	142.	47.	16.	6.71
+	HYDROGRAPH AT	721	67.	12.58	21.	7.	2.	.22
+	HYDROGRAPH AT	BD72kP	281.	12.42	211.	90.	30.	12.99
+	ROUTED TO	P72kS	281.	12.50	211.	90.	30.	12.99
+	HYDROGRAPH AT	BD72kS	150.	13.58	41.	10.	3.	12.99
+	ROUTED TO	R72kS	148.	13.75	41.	10.	3.	12.99
+	2 COMBINED AT	C72kS	429.	13.75	252.	100.	34.	12.99
+	2 COMBINED AT	C721	456.	13.58	271.	106.	36.	13.21
+	DIVERSION TO	D721P	305.	12.42	227.	95.	32.	13.21
+	HYDROGRAPH AT	D721	151.	13.58	43.	11.	4.	13.21
+	ROUTED TO	R721S	148.	13.92	43.	11.	4.	13.21
+	HYDROGRAPH AT	BD721P	305.	12.42	227.	95.	32.	13.21
+	ROUTED TO							

+		P721S	305.	12.50	227.	95.	32.	13.21
	2 COMBINED AT							
		C721S	453.	13.92	270.	106.	36.	13.21
	HYDROGRAPH AT							
+		72m	260.	12.42	68.	20.	7.	.47
	3 COMBINED AT							
+		C72m	711.	12.50	473.	171.	58.	13.67
	HYDROGRAPH AT							
+		601	108.	12.42	26.	8.	3.	.23
	HYDROGRAPH AT							
+		B60kP2	125.	12.08	76.	29.	10.	3.29
	ROUTED TO							
+		P60kS	125.	12.17	76.	29.	10.	3.29
	HYDROGRAPH AT							
+		BD60kS	153.	12.92	31.	8.	3.	4.46
	ROUTED TO							
+		R60kS	151.	13.00	31.	8.	3.	4.46
	2 COMBINED AT							
+		C60kS	276.	13.00	106.	37.	12.	4.46
	2 COMBINED AT							
+		C601	346.	12.75	132.	44.	15.	4.69
	DIVERSION TO							
+		D601P	93.	11.92	68.	29.	10.	4.69
	HYDROGRAPH AT							
+		D601	253.	12.75	64.	16.	5.	4.69
	DIVERSION TO							
+		D601S	184.	12.75	46.	12.	4.	4.69
	HYDROGRAPH AT							
+		D601W	69.	12.75	17.	4.	1.	4.69
	ROUTED TO							
+		R601W	68.	13.17	17.	4.	1.	4.69
	HYDROGRAPH AT							
+		641	67.	12.58	22.	7.	2.	.29
	HYDROGRAPH AT							
+		BD64kS	0.	.00	0.	0.	0.	6.43
	ROUTED TO							
+		R64kS	0.	.00	0.	0.	0.	6.43
	3 COMBINED AT							
+		C641	122.	13.00	38.	11.	4.	6.96
	ROUTED TO							
+		S641	0.	.00	0.	0.	0.	6.96
	HYDROGRAPH AT							
+		BD64kP	214.	13.00	103.	35.	12.	6.43
	ROUTED TO							
+		P64kS	214.	13.08	103.	35.	12.	6.43
	2 COMBINED AT							
+		CC641	214.	13.08	103.	35.	12.	6.96
	DIVERSION TO							
+		D641P	214.	13.08	103.	35.	12.	6.96
	HYDROGRAPH AT							
+		D641	0.	.00	0.	0.	0.	6.96
	DIVERSION TO							
+		D641S	0.	.00	0.	0.	0.	6.96
	HYDROGRAPH AT							
+		D641W	0.	.00	0.	0.	0.	6.96
	ROUTED TO							
+		R641W	0.	.00	0.	0.	0.	6.96

+	HYDROGRAPH AT	681	153.	12.50	44.	13.	4.	.32
	HYDROGRAPH AT	BD68kP	114.	12.08	83.	31.	11.	12.71
+	ROUTED TO	P68kS	114.	12.17	83.	31.	11.	12.71
+	HYDROGRAPH AT	BD68kS	43.	12.58	12.	3.	1.	12.71
+	ROUTED TO	R68kS	35.	12.83	12.	3.	1.	12.71
+	2 COMBINED AT	C68kS	149.	12.83	95.	34.	12.	12.71
+	3 COMBINED AT	C681	281.	12.67	136.	46.	16.	13.56
+	DIVERSION TO	D681P	114.	12.00	88.	34.	12.	13.56
+	HYDROGRAPH AT	D681	167.	12.67	48.	12.	4.	13.56
+	ROUTED TO	R681S	154.	13.17	48.	12.	4.	13.56
+	HYDROGRAPH AT	BD681P	114.	12.00	88.	34.	12.	13.56
+	ROUTED TO	P681S	114.	12.17	88.	34.	12.	13.56
+	2 COMBINED AT	C681S	268.	13.17	136.	46.	16.	13.56
+	HYDROGRAPH AT	24m	81.	12.50	28.	10.	3.	.50
+	ROUTED TO	S24m	81.	12.50	28.	9.	3.	.50
+	HYDROGRAPH AT	BD24kS	45.	12.33	9.	3.	1.	.19
+	ROUTED TO	R24kS	38.	12.92	9.	3.	1.	.19
+	2 COMBINED AT	C24m	112.	12.75	36.	12.	4.	.69
+	DIVERSION TO	D24mS	48.	12.75	16.	5.	2.	.69
+	HYDROGRAPH AT	D24mW	64.	12.75	21.	7.	2.	.69
+	ROUTED TO	R24mW	61.	13.00	21.	7.	2.	.69
+	HYDROGRAPH AT	28m	69.	12.50	25.	9.	3.	.51
+	HYDROGRAPH AT	BD28kP	131.	12.42	47.	15.	5.	.72
+	ROUTED TO	P28kS	131.	12.58	47.	15.	5.	.72
+	HYDROGRAPH AT	BD28kS	15.	12.67	1.	0.	0.	.72
+	ROUTED TO	R28kS	9.	13.33	1.	0.	0.	.72
+	2 COMBINED AT	C28kS	139.	13.17	49.	15.	5.	.72
+	3 COMBINED AT	C28m	251.	12.92	93.	31.	10.	1.73
+	DIVERSION TO	D28mP	211.	12.42	88.	29.	10.	1.73

+	HYDROGRAPH AT	D28m	40.	12.92	5.	1.	0.	1.73
	DIVERSION TO	D28mS	17.	12.92	2.	1.	0.	1.73
+	HYDROGRAPH AT	D28mW	22.	12.92	3.	1.	0.	1.73
+	ROUTED TO	R28mW	19.	13.33	3.	1.	0.	1.73
+	HYDROGRAPH AT	32m	130.	12.50	38.	13.	4.	.51
+	ROUTED TO	S32m	131.	12.50	38.	12.	4.	.51
+	HYDROGRAPH AT	BD32kP	45.	12.25	22.	8.	3.	1.23
+	ROUTED TO	P32kS	45.	12.42	22.	8.	3.	1.23
+	HYDROGRAPH AT	BD32kS	10.	12.92	2.	0.	0.	1.23
+	ROUTED TO	R32kS	9.	13.42	2.	0.	0.	1.23
+	2 COMBINED AT	C32kS	54.	13.42	23.	8.	3.	1.23
+	3 COMBINED AT	C32m	171.	12.50	62.	21.	7.	2.75
+	DIVERSION TO	D32mP	66.	12.08	40.	15.	5.	2.75
+	HYDROGRAPH AT	D32m	105.	12.50	22.	6.	2.	2.75
+	DIVERSION TO	D32mS	45.	12.50	9.	2.	1.	2.75
+	HYDROGRAPH AT	D32mW	60.	12.50	13.	3.	1.	2.75
+	ROUTED TO	R32mW	51.	13.08	13.	3.	1.	2.75
+	HYDROGRAPH AT	36m	89.	12.50	30.	11.	4.	.51
+	HYDROGRAPH AT	BD36kP	59.	12.08	35.	13.	4.	2.07
+	ROUTED TO	P36kS	59.	12.25	35.	13.	4.	2.07
+	HYDROGRAPH AT	BD36kS	43.	12.92	9.	2.	1.	2.07
+	ROUTED TO	R36kS	39.	13.33	9.	2.	1.	2.07
+	2 COMBINED AT	C36kS	98.	13.33	44.	15.	5.	2.07
+	3 COMBINED AT	C36m	213.	13.00	85.	28.	9.	4.11
+	DIVERSION TO	D36mP	114.	12.25	65.	23.	8.	4.11
+	HYDROGRAPH AT	D36m	99.	13.00	20.	5.	2.	4.11
+	DIVERSION TO	D36mS	47.	13.00	10.	2.	1.	4.11
+	HYDROGRAPH AT	D36mW	51.	13.00	10.	3.	1.	4.11
	ROUTED TO							

+		R36mW	47.	13.33	10.	3.	1.	4.11
	HYDROGRAPH AT							
		40m	196.	12.42	51.	16.	5.	.51
	HYDROGRAPH AT							
+		BD40kP	29.	12.00	20.	8.	3.	2.80
	ROUTED TO							
+		P40kS	29.	12.25	20.	8.	3.	2.80
	HYDROGRAPH AT							
+		BD40kS	55.	12.75	12.	3.	1.	2.80
	ROUTED TO							
+		R40kS	52.	13.17	12.	3.	1.	2.80
	2 COMBINED AT							
+		C40kS	81.	13.17	32.	11.	4.	2.80
	3 COMBINED AT							
+		C40m	240.	12.92	91.	29.	10.	5.35
	DIVERSION TO							
+		D40mP	66.	12.00	45.	17.	6.	5.35
	HYDROGRAPH AT							
+		D40m	174.	12.92	46.	11.	4.	5.35
	DIVERSION TO							
+		D40mS	75.	12.92	20.	5.	2.	5.35
	HYDROGRAPH AT							
+		D40mW	99.	12.92	26.	7.	2.	5.35
	ROUTED TO							
+		R40mW	97.	13.17	26.	7.	2.	5.35
	HYDROGRAPH AT							
+		44m	126.	12.50	38.	13.	4.	.50
	HYDROGRAPH AT							
		BD44kP	71.	12.08	45.	17.	6.	3.93
	ROUTED TO							
+		P44kS	71.	12.25	45.	17.	6.	3.93
	HYDROGRAPH AT							
+		BD44kS	74.	12.75	16.	4.	1.	3.93
	ROUTED TO							
+		R44kS	69.	13.17	16.	4.	1.	3.93
	2 COMBINED AT							
+		C44kS	140.	13.17	61.	21.	7.	3.93
	3 COMBINED AT							
+		C44m	321.	13.00	123.	39.	13.	6.98
	DIVERSION TO							
+		D44mP	124.	12.17	77.	28.	9.	6.98
	HYDROGRAPH AT							
+		D44m	197.	13.00	46.	11.	4.	6.98
	DIVERSION TO							
+		D44mS	83.	13.00	19.	5.	2.	6.98
	HYDROGRAPH AT							
+		D44mW	114.	13.00	26.	7.	2.	6.98
	ROUTED TO							
+		R44mW	104.	13.33	26.	7.	2.	6.98
	HYDROGRAPH AT							
+		24o	147.	12.50	44.	15.	5.	.50
	HYDROGRAPH AT							
+		BD24mS	48.	12.75	16.	5.	2.	.69
	ROUTED TO							
+		R24mS	45.	13.17	16.	5.	2.	.69
	2 COMBINED AT							
+		C24o	160.	12.67	59.	19.	7.	1.20

+	DIVERSION TO	D24oP	48.	12.00	33.	13.	4.	1.20
	HYDROGRAPH AT	D24o	112.	12.67	26.	6.	2.	1.20
+	DIVERSION TO	D24oS	43.	12.67	10.	2.	1.	1.20
+	HYDROGRAPH AT	D24oW	70.	12.67	16.	4.	1.	1.20
+	ROUTED TO	R24oW	68.	13.00	16.	4.	1.	1.20
+	HYDROGRAPH AT	28o	73.	12.58	27.	9.	3.	.50
+	HYDROGRAPH AT	BD28mP	211.	12.42	88.	29.	10.	1.73
+	ROUTED TO	P28mS	211.	12.58	88.	29.	10.	1.73
+	HYDROGRAPH AT	BD28mS	17.	12.92	2.	1.	0.	1.73
+	ROUTED TO	R28mS	14.	13.50	2.	1.	0.	1.73
+	2 COMBINED AT	C28mS	224.	13.42	90.	30.	10.	1.73
+	3 COMBINED AT	C28o	341.	12.83	131.	43.	14.	2.73
+	DIVERSION TO	D28oP	341.	12.83	131.	43.	14.	2.73
+	HYDROGRAPH AT	D28o	0.	.00	0.	0.	0.	2.73
+	DIVERSION TO	D28oS	0.	.00	0.	0.	0.	2.73
+	HYDROGRAPH AT	D28oW	0.	.00	0.	0.	0.	2.73
+	ROUTED TO	R28oW	0.	.00	0.	0.	0.	2.73
+	HYDROGRAPH AT	32o	130.	12.50	39.	13.	4.	.50
+	HYDROGRAPH AT	BD32mS	45.	12.50	9.	2.	1.	2.75
+	ROUTED TO	R32mS	38.	13.25	9.	2.	1.	2.75
+	HYDROGRAPH AT	BD32mP	66.	12.08	40.	15.	5.	2.75
+	ROUTED TO	P32mS	66.	12.25	40.	15.	5.	2.75
+	2 COMBINED AT	C32mS	104.	13.25	50.	18.	6.	2.75
+	3 COMBINED AT	C32o	201.	12.83	87.	30.	10.	4.25
+	DIVERSION TO	D32oP	160.	12.33	81.	28.	10.	4.25
+	HYDROGRAPH AT	D32o	41.	12.83	6.	1.	0.	4.25
+	DIVERSION TO	D32oS	18.	12.83	3.	1.	0.	4.25
+	HYDROGRAPH AT	D32oW	23.	12.83	3.	1.	0.	4.25
+	ROUTED TO	R32oW	20.	13.17	3.	1.	0.	4.25

+	HYDROGRAPH AT	36o	185.	12.42	48.	15.	5.	.50
+	HYDROGRAPH AT	BD36mP	114.	12.25	65.	23.	8.	4.11
+	ROUTED TO	P36mS	114.	12.42	65.	23.	8.	4.11
+	HYDROGRAPH AT	BD36mS	47.	13.00	10.	2.	1.	4.11
+	ROUTED TO	R36mS	42.	13.58	10.	2.	1.	4.11
+	2 COMBINED AT	C36mS	156.	13.58	75.	26.	9.	4.11
+	3 COMBINED AT	C36o	292.	12.42	124.	41.	14.	6.12
+	DIVERSION TO	D36oP	139.	12.17	86.	31.	10.	6.12
+	HYDROGRAPH AT	D36o	153.	12.42	38.	9.	3.	6.12
+	DIVERSION TO	D36oS	66.	12.42	16.	4.	1.	6.12
+	HYDROGRAPH AT	D36oW	87.	12.42	22.	5.	2.	6.12
+	ROUTED TO	R36oW	82.	12.83	22.	5.	2.	6.12
+	HYDROGRAPH AT	B40mP	66.	12.00	45.	17.	6.	5.35
+	ROUTED TO	P40mS	66.	12.17	45.	17.	6.	5.35
+	HYDROGRAPH AT	BD40mS	75.	12.92	20.	5.	2.	5.35
+	ROUTED TO	R40mS	72.	13.33	20.	5.	2.	5.35
+	2 COMBINED AT	C40mS	138.	13.33	65.	22.	7.	5.35
+	HYDROGRAPH AT	40o	132.	12.42	36.	11.	4.	.47
+	3 COMBINED AT	C40o	302.	12.92	119.	38.	13.	7.82
+	DIVERSION TO	D40oP	70.	12.00	53.	22.	7.	7.82
+	HYDROGRAPH AT	D40o	232.	12.92	66.	16.	5.	7.82
+	DIVERSION TO	D40oS	90.	12.92	21.	5.	2.	7.82
+	HYDROGRAPH AT	D40oW	142.	12.92	45.	11.	4.	7.82
+	ROUTED TO	R40oW	138.	13.33	45.	11.	4.	7.82
+	HYDROGRAPH AT	44o	50.	12.42	14.	5.	2.	.23
+	HYDROGRAPH AT	BD44mP	124.	12.17	77.	28.	9.	6.98
+	ROUTED TO	P44mS	124.	12.25	77.	28.	9.	6.98
+	HYDROGRAPH AT	BD44mS	83.	13.00	19.	5.	2.	6.98
+	ROUTED TO							

+		R44mS	81.	13.17	19.	5.	2.	6.98
	2 COMBINED AT							
		C44mS	205.	13.17	96.	33.	11.	6.98
	3 COMBINED AT							
+		C44o	364.	13.25	153.	48.	16.	9.68
	DIVERSION TO							
+		D44oP	124.	12.08	87.	32.	11.	9.68
	HYDROGRAPH AT							
+		D44o	240.	13.25	66.	17.	6.	9.68
	DIVERSION TO							
+		D44oS	151.	13.25	37.	9.	3.	9.68
	HYDROGRAPH AT							
+		D44oW	89.	13.25	29.	7.	2.	9.68
	ROUTED TO							
+		R44oW	86.	13.92	29.	7.	2.	9.68
	2 COMBINED AT							
+		C44mW	175.	13.67	55.	14.	5.	9.68
	HYDROGRAPH AT							
+		48m	161.	12.42	42.	13.	4.	.48
	HYDROGRAPH AT							
+		BD48kS	130.	12.75	38.	11.	4.	4.96
	ROUTED TO							
+		R48kS	124.	13.08	38.	11.	4.	4.96
	3 COMBINED AT							
+		C48m	326.	13.33	129.	37.	12.	11.19
	HYDROGRAPH AT							
+		BD52kP	201.	12.33	96.	32.	11.	5.83
	ROUTED TO							
+		P52kS	201.	12.42	96.	32.	11.	5.83
	HYDROGRAPH AT							
+		BD52kS	63.	12.75	11.	3.	1.	5.83
	ROUTED TO							
+		R52kS	60.	13.00	11.	3.	1.	5.83
	2 COMBINED AT							
+		C52kS	261.	13.00	107.	34.	12.	5.83
	HYDROGRAPH AT							
+		52m	93.	12.33	16.	5.	2.	.18
	2 COMBINED AT							
+		C52m	296.	12.83	122.	39.	13.	6.01
	2 COMBINED AT							
+		CC52m	592.	13.00	247.	74.	25.	12.24
	DIVERSION TO							
+		D52mP	364.	12.33	196.	62.	21.	12.24
	HYDROGRAPH AT							
+		D52m	228.	13.00	51.	13.	4.	12.24
	DIVERSION TO							
+		D52mS	205.	13.00	46.	11.	4.	12.24
	HYDROGRAPH AT							
+		D52mW	23.	13.00	5.	1.	0.	12.24
	ROUTED TO							
+		R52mW	22.	13.33	5.	1.	0.	12.24
	HYDROGRAPH AT							
+		54m	157.	12.33	30.	9.	3.	.27
	HYDROGRAPH AT							
+		BD54kP	124.	12.33	54.	18.	6.	1.18
	ROUTED TO							
+		P54kS	124.	12.50	54.	18.	6.	1.18

+	HYDROGRAPH AT	BD54kS	35.	12.83	4.	1.	0.	1.18
	ROUTED TO	R54kS	27.	13.25	4.	1.	0.	1.18
+	2 COMBINED AT	C54kS	151.	13.25	58.	19.	6.	1.18
+	3 COMBINED AT	C54m	266.	12.42	93.	29.	10.	1.66
+	DIVERSION TO	D54mP	124.	12.08	66.	23.	8.	1.66
+	HYDROGRAPH AT	D54m	142.	12.42	27.	7.	2.	1.66
+	DIVERSION TO	D54mS	57.	12.42	11.	3.	1.	1.66
+	HYDROGRAPH AT	D54mW	85.	12.42	16.	4.	1.	1.66
+	ROUTED TO	R54mW	70.	12.75	16.	4.	1.	1.66
+	HYDROGRAPH AT	56m	160.	12.58	53.	17.	6.	.58
+	HYDROGRAPH AT	BD56kP	303.	12.25	129.	43.	14.	4.46
+	ROUTED TO	P56kS	303.	13.25	129.	43.	14.	4.46
+	HYDROGRAPH AT	BD56kS	6.	12.42	0.	0.	0.	4.46
+	ROUTED TO	R56kS	1.	13.42	0.	0.	0.	4.46
+	2 COMBINED AT	C56kS	304.	13.25	129.	43.	14.	4.46
+	3 COMBINED AT	C56m	521.	12.75	196.	63.	21.	5.50
+	DIVERSION TO	D56mP	433.	12.42	185.	61.	20.	5.50
+	HYDROGRAPH AT	D56m	88.	12.75	11.	3.	1.	5.50
+	DIVERSION TO	D56mS	34.	12.75	4.	1.	0.	5.50
+	HYDROGRAPH AT	D56mW	54.	12.75	7.	2.	1.	5.50
+	ROUTED TO	R56mW	42.	13.17	7.	2.	1.	5.50
+	HYDROGRAPH AT	60m	137.	12.58	41.	12.	4.	.50
+	HYDROGRAPH AT	BD601P	93.	11.92	68.	29.	10.	4.69
+	ROUTED TO	P601S	93.	12.08	68.	29.	10.	4.69
+	HYDROGRAPH AT	BD601S	184.	12.75	46.	12.	4.	4.69
+	ROUTED TO	R601S	181.	13.17	46.	12.	4.	4.69
+	2 COMBINED AT	C601S	274.	13.17	114.	40.	13.	4.69
+	3 COMBINED AT	C60m	418.	13.08	160.	53.	18.	6.24
+	DIVERSION TO	D60mP	124.	12.08	90.	36.	12.	6.24

+	HYDROGRAPH AT	D60m	294.	13.08	70.	17.	6.	6.24
	DIVERSION TO	D60mS	153.	13.08	36.	9.	3.	6.24
+	HYDROGRAPH AT	D60mW	141.	13.08	33.	8.	3.	6.24
+	ROUTED TO	R60mW	133.	13.50	33.	8.	3.	6.24
+	HYDROGRAPH AT	64m	271.	12.50	83.	26.	9.	.50
+	HYDROGRAPH AT	BD641P	214.	13.08	103.	35.	12.	6.96
+	ROUTED TO	P641S	214.	13.17	103.	35.	12.	6.96
+	HYDROGRAPH AT	BD641S	0.	.00	0.	0.	0.	6.96
+	ROUTED TO	R641S	0.	.00	0.	0.	0.	6.96
+	2 COMBINED AT	C641S	214.	13.17	103.	35.	12.	6.96
+	HYDROGRAPH AT	68m	313.	12.50	98.	32.	11.	.55
+	DIVERSION TO	D68m	279.	12.50	67.	17.	6.	.55
+	HYDROGRAPH AT	D68mP2	34.	11.58	31.	15.	5.	.55
+	4 COMBINED AT	C64m	533.	13.17	244.	83.	28.	9.55
+	DIVERSION TO	D64mP	399.	12.42	222.	77.	26.	9.55
+	HYDROGRAPH AT	D64m	134.	13.17	22.	5.	2.	9.55
+	DIVERSION TO	D64mS	83.	13.17	13.	3.	1.	9.55
+	HYDROGRAPH AT	D64mW	51.	13.17	8.	2.	1.	9.55
+	ROUTED TO	R64mW	45.	13.58	8.	2.	1.	9.55
+	HYDROGRAPH AT	BD68m	279.	12.50	67.	17.	6.	.55
+	3 COMBINED AT	C68m	468.	12.92	203.	63.	21.	16.15
+	DIVERSION TO	D68mP	144.	12.00	110.	40.	13.	16.15
+	HYDROGRAPH AT	D68m2	324.	12.92	93.	23.	8.	16.15
+	DIVERSION TO	D68mS	269.	12.92	77.	19.	6.	16.15
+	HYDROGRAPH AT	D68mW	55.	12.92	16.	4.	1.	16.15
+	ROUTED TO	R68mW	53.	13.33	16.	4.	1.	16.15
+	2 COMBINED AT	CC72m	733.	13.50	484.	173.	58.	17.12
+	DIVERSION TO	D72mP	308.	11.92	284.	123.	42.	17.12
	HYDROGRAPH AT							

+		D72m	425.	13.50	200.	50.	17.	17.12
	ROUTED TO							
+		R72mS	418.	13.92	200.	50.	17.	17.12
	HYDROGRAPH AT							
+		BD72mP	308.	11.92	284.	123.	42.	17.12
	ROUTED TO							
+		P72mS	308.	12.08	284.	123.	42.	17.12
	2 COMBINED AT							
+		C72mS	726.	13.92	483.	173.	58.	17.12
	HYDROGRAPH AT							
+		BD24oS	43.	12.67	10.	2.	1.	1.20
	ROUTED TO							
+		R24oS	42.	13.00	10.	2.	1.	1.20
	HYDROGRAPH AT							
+		BD28oP	341.	12.83	131.	43.	14.	2.73
	ROUTED TO							
+		P28oS	341.	12.92	131.	43.	14.	2.73
	HYDROGRAPH AT							
+		BD28oS	0.	.00	0.	0.	0.	2.73
	ROUTED TO							
+		R28oS	0.	.00	0.	0.	0.	2.73
	2 COMBINED AT							
+		C28oS	341.	12.92	131.	43.	14.	2.73
	2 COMBINED AT							
+		C28p	381.	12.92	140.	45.	15.	2.73
	HYDROGRAPH AT							
+		28p	130.	12.42	33.	10.	3.	.37
	ROUTED TO							
+		S28p	130.	12.42	33.	10.	3.	.37
	2 COMBINED AT							
+		CC28p	476.	12.75	171.	55.	18.	3.11
	DIVERSION TO							
+		D28pP	279.	12.33	137.	46.	15.	3.11
	HYDROGRAPH AT							
+		D28p	197.	12.75	34.	9.	3.	3.11
	ROUTED TO							
+		R28pW	192.	13.00	34.	9.	3.	3.11
	HYDROGRAPH AT							
+		32p	71.	12.50	18.	5.	2.	.23
	HYDROGRAPH AT							
+		BD32oS	18.	12.83	3.	1.	0.	4.25
	ROUTED TO							
+		R32oS	17.	13.00	3.	1.	0.	4.25
	2 COMBINED AT							
+		C32p	75.	12.75	20.	5.	2.	4.49
	ROUTED TO							
+		S32p	27.	13.75	13.	3.	1.	4.49
	HYDROGRAPH AT							
+		BD32oP	160.	12.33	81.	28.	10.	4.25
	ROUTED TO							
+		P32oS	160.	12.42	81.	28.	10.	4.25
	3 COMBINED AT							
+		CC32p	362.	13.00	126.	40.	13.	4.86
	DIVERSION TO							
+		D32pS	51.	13.00	16.	5.	2.	4.86
	HYDROGRAPH AT							
+		D32pW	311.	13.00	110.	35.	12.	4.86

+	DIVERSION TO	D32pP	311.	13.00	110.	35.	12.	4.86
	HYDROGRAPH AT	D32p	0.	.00	0.	0.	0.	4.86
+	ROUTED TO	R32pW	0.	.00	0.	0.	0.	4.86
	HYDROGRAPH AT	BD32pP	311.	13.00	110.	35.	12.	4.86
+	ROUTED TO	P32pW	311.	13.08	110.	35.	12.	4.86
+	2 COMBINED AT	C32pW	311.	13.08	110.	35.	12.	4.86
	HYDROGRAPH AT	28q	204.	12.33	42.	13.	4.	.32
+	ROUTED TO	S28q	205.	12.33	42.	13.	4.	.32
	HYDROGRAPH AT	BD28pP	279.	12.33	137.	46.	15.	3.11
+	DIVERSION TO	D28pP2	68.	12.33	33.	11.	4.	3.11
	HYDROGRAPH AT	D28pP1	211.	12.33	104.	35.	12.	3.11
+	ROUTED TO	P28pS	211.	12.42	104.	35.	12.	3.11
+	2 COMBINED AT	C28q	404.	12.42	145.	48.	16.	.82
	DIVERSION TO	D28qP	340.	12.25	142.	47.	16.	.82
	HYDROGRAPH AT	D28q	64.	12.42	3.	1.	0.	.82
+	DIVERSION TO	D28qS	35.	12.42	2.	0.	0.	.82
	HYDROGRAPH AT	D28qW	28.	12.42	2.	0.	0.	.82
+	ROUTED TO	R28qW	8.	13.75	2.	0.	0.	.82
	HYDROGRAPH AT	32q	68.	12.42	15.	4.	1.	.17
+	HYDROGRAPH AT	BD32pS	51.	13.00	16.	5.	2.	4.86
+	3 COMBINED AT	C32q	103.	12.83	33.	9.	3.	.99
	ROUTED TO	S32q	53.	13.83	28.	8.	3.	.99
+	DIVERSION TO	D32q	21.	13.83	6.	2.	1.	.99
	HYDROGRAPH AT	D32qP	32.	12.92	22.	6.	2.	.99
+	ROUTED TO	P32qW	32.	13.00	22.	6.	2.	.99
+	2 COMBINED AT	C32pqW	343.	13.08	130.	41.	14.	4.86
	HYDROGRAPH AT	36p	85.	12.33	18.	5.	2.	.19
+	HYDROGRAPH AT	BD36oS	66.	12.42	16.	4.	1.	6.12
+	ROUTED TO	R36oS	64.	12.75	16.	4.	1.	6.12

+	3 COMBINED AT	C36p	440.	13.00	162.	50.	17.	6.91
+	DIVERSION TO	DB36p	0.	.00	0.	0.	.0.	6.91
+	HYDROGRAPH AT	E36p	440.	13.00	162.	50.	17.	6.91
+	HYDROGRAPH AT	BDB36p	0.	.00	0.	0.	0.	6.91
+	ROUTED TO	S36p	0.	.00	0.	0.	0.	6.91
+	HYDROGRAPH AT	BD36oP	139.	12.17	86.	31.	10.	6.12
+	ROUTED TO	P36oS	139.	12.25	86.	31.	10.	6.12
+	3 COMBINED AT	CC36p	579.	13.00	247.	81.	27.	6.91
+	DIVERSION TO	D36pP	577.	13.00	247.	81.	27.	6.91
+	HYDROGRAPH AT	D36p	2.	12.92	0.	0.	0.	6.91
+	ROUTED TO	R36pW	1.	13.25	0.	0.	0.	6.91
+	HYDROGRAPH AT	BD36pP	577.	13.00	247.	81.	27.	6.91
+	DIVERSION TO	D36pP2	131.	13.00	56.	18.	6.	6.91
+	HYDROGRAPH AT	D36pP1	446.	13.00	191.	63.	21.	6.91
+	ROUTED TO	P36pW	446.	13.00	191.	63.	21.	6.91
+	2 COMBINED AT	C36pW	446.	13.00	191.	63.	21.	6.91
+	HYDROGRAPH AT	40p	105.	12.33	22.	7.	2.	.22
+	HYDROGRAPH AT	BD40oP	70.	12.00	53.	22.	7.	7.82
+	ROUTED TO	P40oS	70.	12.08	53.	22.	7.	7.82
+	HYDROGRAPH AT	BD40oS	90.	12.92	21.	5.	2.	7.82
+	ROUTED TO	R40oS	87.	13.08	21.	5.	2.	7.82
+	2 COMBINED AT	C40oS	157.	13.08	74.	27.	9.	7.82
+	3 COMBINED AT	C40p	652.	13.00	285.	96.	32.	8.83
+	DIVERSION TO	D40pP	652.	13.00	285.	96.	32.	8.83
+	HYDROGRAPH AT	D40p	0.	.00	0.	0.	0.	8.83
+	ROUTED TO	R40pW	0.	.00	0.	0.	0.	8.83
+	HYDROGRAPH AT	BD40pP	652.	13.00	285.	96.	32.	8.83
+	ROUTED TO	P40pW	650.	13.00	285.	96.	32.	8.83
+	2 COMBINED AT							

+		C40pW	650.	13.00	285.	96.	32.	8.83
	HYDROGRAPH AT							
		44p	186.	12.50	51.	15.	5.	.41
	HYDROGRAPH AT							
+		BD44oP	124.	12.08	87.	32.	11.	9.68
	ROUTED TO							
+		P44oS	124.	15.08	87.	32.	11.	9.68
	HYDROGRAPH AT							
+		BD44oS	151.	13.25	37.	9.	3.	9.68
	ROUTED TO							
+		R44oS	144.	13.58	37.	9.	3.	9.68
	2 COMBINED AT							
+		C44oS	268.	13.58	124.	41.	14.	9.68
	3 COMBINED AT							
+		C44p	965.	13.17	454.	150.	50.	11.10
	DIVERSION TO							
+		D44pP	965.	13.17	454.	150.	50.	11.10
	HYDROGRAPH AT							
+		D44p	0.	.00	0.	0.	0.	11.10
	ROUTED TO							
+		R44pW	0.	.00	0.	0.	0.	11.10
	HYDROGRAPH AT							
+		BD44pP	965.	13.17	454.	150.	50.	11.10
	DIVERSION TO							
+		D44pP2	89.	13.17	42.	14.	5.	11.10
	HYDROGRAPH AT							
+		D44pP1	876.	13.17	412.	136.	46.	11.10
	ROUTED TO							
+		P44pW	874.	13.17	412.	136.	46.	11.10
	2 COMBINED AT							
+		C44pW	874.	13.17	412.	136.	46.	11.10
	HYDROGRAPH AT							
+		48o	300.	12.50	74.	22.	7.	.68
	HYDROGRAPH AT							
+		BD52mS	205.	13.00	46.	11.	4.	12.24
	ROUTED TO							
+		R52mS	193.	13.67	46.	11.	4.	12.24
	HYDROGRAPH AT							
+		BD52mP	364.	12.33	196.	62.	21.	12.24
	ROUTED TO							
+		P52mS	364.	12.58	196.	62.	21.	12.24
	2 COMBINED AT							
+		C52mS	557.	13.67	242.	73.	24.	12.24
	3 COMBINED AT							
+		C48o	1516.	13.25	712.	227.	76.	14.34
	DIVERSION TO							
+		DB48o	0.	.00	0.	0.	0.	14.34
	HYDROGRAPH AT							
+		E48o	1516.	13.25	712.	227.	76.	14.34
	HYDROGRAPH AT							
+		BDB48o	0.	.00	0.	0.	0.	14.34
	ROUTED TO							
+		S48o	0.	.00	0.	0.	0.	14.34
	2 COMBINED AT							
+		CC48o	1516.	13.25	712.	227.	76.	14.34
	DIVERSION TO							
+		D48oPT	1516.	13.25	712.	227.	76.	14.34

+	HYDROGRAPH AT	D48o	0.	.00	0.	0.	0.	14.34
	ROUTED TO	R48oW	0.	.00	0.	0.	0.	14.34
+	HYDROGRAPH AT	52o	264.	12.50	75.	23.	8.	.64
+	HYDROGRAPH AT	BD54mP	124.	12.08	66.	23.	8.	1.66
+	ROUTED TO	P54mS	124.	12.33	66.	23.	8.	1.66
+	HYDROGRAPH AT	BD54mS	57.	12.42	11.	3.	1.	1.66
+	ROUTED TO	R54mS	43.	13.25	11.	3.	1.	1.66
+	2 COMBINED AT	C54mS	167.	13.25	77.	25.	8.	1.66
+	3 COMBINED AT	C52o	383.	12.50	150.	48.	16.	2.30
+	DIVERSION TO	D52oP	383.	12.50	150.	48.	16.	2.30
+	HYDROGRAPH AT	D52o	0.	.00	0.	0.	0.	2.30
+	ROUTED TO	R52oW	0.	.00	0.	0.	0.	2.30
+	HYDROGRAPH AT	BD52oP	383.	12.50	150.	48.	16.	2.30
+	ROUTED TO	P52oW	382.	12.58	150.	48.	16.	2.30
+	2 COMBINED AT	C52oW	382.	12.58	150.	48.	16.	2.30
+	HYDROGRAPH AT	56o	221.	12.58	68.	20.	7.	.64
+	HYDROGRAPH AT	BD56mP	433.	12.42	185.	61.	20.	5.50
+	ROUTED TO	P56mS	433.	12.58	185.	61.	20.	5.50
+	HYDROGRAPH AT	BD56mS	34.	12.75	4.	1.	0.	5.50
+	ROUTED TO	R56mS	19.	13.92	4.	1.	0.	5.50
+	2 COMBINED AT	C56mS	443.	13.50	190.	62.	21.	5.50
+	3 COMBINED AT	C56o	1025.	12.58	402.	128.	43.	6.79
+	DIVERSION TO	D56oP	950.	12.50	384.	124.	41.	6.79
+	HYDROGRAPH AT	D56o	75.	12.58	18.	4.	1.	6.79
+	ROUTED TO	R56oW	57.	12.92	18.	4.	1.	6.79
+	HYDROGRAPH AT	BD56oP	950.	12.50	384.	124.	41.	6.79
+	ROUTED TO	P56oW	950.	12.58	384.	124.	42.	6.79
+	2 COMBINED AT	C56oW	1001.	12.83	402.	128.	43.	6.79
+	HYDROGRAPH AT	60o	158.	12.67	57.	19.	6.	.64

+	HYDROGRAPH AT	BD60mP	124.	12.08	90.	36.	12.	6.24
	ROUTED TO	P60mS	124.	12.33	90.	36.	12.	6.24
+	HYDROGRAPH AT	BD60mS	153.	13.08	36.	9.	3.	6.24
+	ROUTED TO	R60mS	138.	13.75	36.	9.	3.	6.24
+	2 COMBINED AT	C60mS	262.	13.75	126.	45.	15.	6.24
+	3 COMBINED AT	C60o	1270.	12.83	581.	191.	64.	8.16
+	DIVERSION TO	D60oPT	1270.	12.83	581.	191.	64.	8.16
+	HYDROGRAPH AT	D60o	0.	.00	0.	0.	0.	8.16
+	ROUTED TO	R60oW	0.	.00	0.	0.	0.	8.16
+	HYDROGRAPH AT	64o	198.	12.67	74.	25.	8.	.65
+	ROUTED TO	S64o	198.	12.67	74.	25.	8.	.65
+	HYDROGRAPH AT	BD64mP	399.	12.42	222.	77.	26.	9.55
+	ROUTED TO	P64mS	399.	12.58	223.	77.	26.	9.55
+	HYDROGRAPH AT	BD64mS	83.	13.17	13.	3.	1.	9.55
+	ROUTED TO	R64mS	69.	13.92	13.	3.	1.	9.55
+	2 COMBINED AT	C64mS	468.	13.92	236.	81.	27.	9.55
+	3 COMBINED AT	C64o	586.	12.67	303.	103.	35.	12.13
+	DIVERSION TO	D64oPT	586.	12.67	303.	103.	35.	12.13
+	HYDROGRAPH AT	D64o	0.	.00	0.	0.	0.	12.13
+	ROUTED TO	R64oW	0.	.00	0.	0.	0.	12.13
+	HYDROGRAPH AT	68o	301.	12.58	89.	26.	9.	.69
+	ROUTED TO	S68o	253.	13.00	73.	20.	7.	.69
+	HYDROGRAPH AT	BD68mP	144.	12.00	110.	40.	13.	16.15
+	ROUTED TO	P68mS	144.	12.25	110.	40.	13.	16.15
+	HYDROGRAPH AT	BD68mS	269.	12.92	77.	19.	6.	16.15
+	ROUTED TO	R68mS	256.	13.50	77.	19.	6.	16.15
+	2 COMBINED AT	C68mS	400.	13.50	187.	59.	20.	16.15
+	3 COMBINED AT	C68o	595.	13.33	252.	77.	26.	16.84
	DIVERSION TO							

+		D68oPT	595.	13.33	252.	77.	26.	16.84
	HYDROGRAPH AT							
		D68o	0.	.00	0.	0.	0.	16.84
	ROUTED TO							
+		R68oW	0.	.00	0.	0.	0.	16.84
	HYDROGRAPH AT							
+		72o	323.	12.50	83.	23.	8.	.66
	3 COMBINED AT							
+		C72o	894.	13.08	559.	194.	65.	17.78
	DIVERSION TO							
+		D72oP	433.	12.17	384.	150.	51.	17.78
	HYDROGRAPH AT							
+		D72o	461.	13.08	175.	44.	15.	17.78
	ROUTED TO							
+		S72o	450.	13.17	175.	44.	15.	17.78
	DIVERSION TO							
+		D72o1	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		D72oPT	450.	13.17	175.	44.	15.	17.78
	ROUTED TO							
+		PT72oE	450.	13.25	175.	44.	15.	17.78
	HYDROGRAPH AT							
+		B68oPT	595.	13.33	252.	77.	26.	16.84
	2 COMBINED AT							
+		CPT68o	1039.	13.25	424.	120.	40.	18.47
	ROUTED TO							
+		PT68oE	1038.	13.25	424.	120.	40.	18.47
	HYDROGRAPH AT							
+		BD72o1	0.	.00	0.	0.	0.	17.78
	DIVERSION TO							
+		D72oW	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		D72oE	0.	.00	0.	0.	0.	17.78
	ROUTED TO							
+		S-110	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		B64oPT	586.	12.67	303.	103.	35.	12.13
	HYDROGRAPH AT							
+		B60oPT	1270.	12.83	581.	191.	64.	8.16
	ROUTED TO							
+		PT60oW	1270.	12.83	581.	191.	64.	8.16
	4 COMBINED AT							
+		C-WT	2768.	13.25	1262.	401.	135.	21.04
	ROUTED TO							
+		PT64o	2767.	13.25	1262.	401.	135.	21.04
	DIVERSION TO							
+		DPT64o	2767.	13.25	1262.	401.	135.	21.04
	HYDROGRAPH AT							
+		DN_64o	0.	.00	0.	0.	0.	21.04
	HYDROGRAPH AT							
+		36q	187.	12.33	40.	12.	4.	.27
	HYDROGRAPH AT							
+		BD32q	21.	13.83	6.	2.	1.	.99
	ROUTED TO							
+		R32qS	20.	14.25	6.	2.	1.	.99
	HYDROGRAPH AT							
+		B36pP2	131.	13.00	56.	18.	6.	6.91

+	ROUTED TO	P36pS	131.	13.08	56.	18.	6.	6.91
	3 COMBINED AT	C36q	263.	12.42	103.	32.	11.	1.56
+	DIVERSION TO	D36qP	263.	12.42	103.	32.	11.	1.56
+	HYDROGRAPH AT	D36q	0.	.00	0.	0.	0.	1.56
+	DIVERSION TO	D36qS	0.	.00	0.	0.	0.	1.56
+	HYDROGRAPH AT	D36qW	0.	.00	0.	0.	0.	1.56
+	ROUTED TO	R36qW	0.	.00	0.	0.	0.	1.56
+	HYDROGRAPH AT	40q	230.	12.33	53.	16.	5.	.35
+	2 COMBINED AT	C40q	226.	12.33	52.	15.	5.	1.91
+	DIVERSION TO	D40qP	32.	11.83	19.	7.	2.	1.91
+	HYDROGRAPH AT	D40q	194.	12.33	33.	8.	3.	1.91
+	DIVERSION TO	D40qS	118.	12.33	20.	5.	2.	1.91
+	HYDROGRAPH AT	D40qW	76.	12.33	13.	3.	1.	1.91
+	ROUTED TO	R40qW	71.	12.75	13.	3.	1.	1.91
+	HYDROGRAPH AT	BD40qP	32.	11.83	19.	7.	2.	1.91
+	ROUTED TO	P40qW	32.	12.00	19.	7.	2.	1.91
+	2 COMBINED AT	C40qW	103.	12.75	32.	10.	3.	1.91
+	HYDROGRAPH AT	44q	234.	12.42	62.	19.	6.	.36
+	HYDROGRAPH AT	B44pP2	89.	13.17	42.	14.	5.	11.10
+	ROUTED TO	P44pS	89.	13.25	42.	14.	5.	11.10
+	3 COMBINED AT	C44q	381.	12.58	135.	43.	15.	2.57
+	DIVERSION TO	D44qP	201.	12.17	108.	37.	12.	2.57
+	HYDROGRAPH AT	D44q	180.	12.58	28.	7.	2.	2.57
+	DIVERSION TO	D44qS	111.	12.58	17.	4.	1.	2.57
+	HYDROGRAPH AT	D44qW	68.	12.58	11.	3.	1.	2.57
+	ROUTED TO	R44qW	63.	12.92	11.	3.	1.	2.57
+	HYDROGRAPH AT	48q	167.	12.50	45.	13.	4.	.30
+	2 COMBINED AT	C48q	202.	12.75	54.	15.	5.	2.87
+	DIVERSION TO	D48qPT	202.	12.75	54.	15.	5.	2.87

+	HYDROGRAPH AT	DB48q	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	S48q	0.	.00	0.	0.	0.	2.87
+	DIVERSION TO	D48qS	0.	.00	0.	0.	0.	2.87
+	HYDROGRAPH AT	D48qW	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	R48qW	0.	.00	0.	0.	0.	2.87
+	HYDROGRAPH AT	52q	203.	12.50	59.	18.	6.	.39
+	2 COMBINED AT	C52q	203.	12.50	59.	18.	6.	.39
+	DIVERSION TO	D52qP	191.	12.42	59.	18.	6.	.39
+	HYDROGRAPH AT	D52q	12.	12.50	1.	0.	0.	.39
+	DIVERSION TO	D52qS	6.	12.50	0.	0.	0.	.39
+	HYDROGRAPH AT	D52qW	6.	12.50	0.	0.	0.	.39
+	ROUTED TO	R52qW	2.	13.42	0.	0.	0.	.39
+	HYDROGRAPH AT	56q	158.	12.42	41.	12.	4.	.35
+	2 COMBINED AT	C56q	157.	12.42	41.	12.	4.	.75
+	DIVERSION TO	D56qP	68.	12.17	29.	9.	3.	.75
+	HYDROGRAPH AT	D56q	89.	12.42	11.	3.	1.	.75
+	DIVERSION TO	D56qS	29.	12.42	4.	1.	0.	.75
+	HYDROGRAPH AT	D56qW	59.	12.42	8.	2.	1.	.75
+	ROUTED TO	R56qW	48.	13.00	8.	2.	1.	.75
+	HYDROGRAPH AT	60q	168.	12.42	38.	11.	4.	.35
+	2 COMBINED AT	C60q	166.	12.42	45.	13.	4.	1.10
+	DIVERSION TO	D60qP	166.	12.42	45.	13.	4.	1.10
+	HYDROGRAPH AT	D60q	0.	.00	0.	0.	0.	1.10
+	DIVERSION TO	D60qS	0.	.00	0.	0.	0.	1.10
+	HYDROGRAPH AT	D60qW	0.	.00	0.	0.	0.	1.10
+	ROUTED TO	R60qW	0.	.00	0.	0.	0.	1.10
+	HYDROGRAPH AT	64q	259.	12.42	61.	19.	6.	.41
+	3 COMBINED AT	C64q	255.	12.42	60.	19.	6.	1.51
	DIVERSION TO							

+		D64qPT	0.	.00	0.	0.	0.	1.51
	HYDROGRAPH AT							
		D64q	255.	12.42	60.	19.	6.	1.51
	DIVERSION TO							
+		D64qP	68.	12.00	34.	12.	4.	1.51
	HYDROGRAPH AT							
+		D64q1	187.	12.42	26.	7.	2.	1.51
	DIVERSION TO							
+		D64qS	62.	12.42	9.	2.	1.	1.51
	HYDROGRAPH AT							
+		D64qW	126.	12.42	18.	4.	1.	1.51
	ROUTED TO							
+		R64qW	110.	12.75	18.	4.	1.	1.51
	HYDROGRAPH AT							
+		BD64qP	68.	12.00	34.	12.	4.	1.51
	ROUTED TO							
+		P64qW	68.	12.17	34.	12.	4.	1.51
	2 COMBINED AT							
+		C64qW	178.	12.75	51.	17.	6.	1.51
	HYDROGRAPH AT							
+		68q	177.	12.42	40.	12.	4.	.29
	2 COMBINED AT							
+		C68q	315.	12.67	90.	29.	10.	1.80
	DIVERSION TO							
+		D68qP	68.	11.92	43.	17.	6.	1.80
	HYDROGRAPH AT							
+		D68q	247.	12.67	48.	12.	4.	1.80
	DIVERSION TO							
+		D68qS	81.	12.67	16.	4.	1.	1.80
	HYDROGRAPH AT							
+		D68qW	165.	12.67	32.	8.	3.	1.80
	ROUTED TO							
+		R68qW	155.	12.92	32.	8.	3.	1.80
	HYDROGRAPH AT							
+		BD68qP	68.	11.92	43.	17.	6.	1.80
	ROUTED TO							
+		P68qW	68.	12.08	43.	17.	6.	1.80
	2 COMBINED AT							
+		C68qW	223.	12.92	75.	25.	8.	1.80
	HYDROGRAPH AT							
+		72q	205.	12.42	49.	14.	5.	.33
	HYDROGRAPH AT							
+		B72oP	433.	12.17	384.	150.	51.	17.78
	ROUTED TO							
+		P72oS	433.	12.25	384.	150.	51.	17.78
	3 COMBINED AT							
+		C72q	811.	12.75	507.	192.	65.	3.13
	DIVERSION TO							
+		D72qP	662.	12.25	487.	187.	63.	3.13
	HYDROGRAPH AT							
+		D72q	149.	12.75	20.	5.	2.	3.13
	DIVERSION TO							
+		D72qS	49.	12.75	7.	2.	1.	3.13
	HYDROGRAPH AT							
+		D72qW	100.	12.75	13.	3.	1.	3.13
	ROUTED TO							
+		R72qW	85.	13.17	13.	3.	1.	3.13

+	HYDROGRAPH AT	80o	434.	12.33	82.	25.	8.	.54
	HYDROGRAPH AT	BD84mP	214.	12.33	64.	23.	8.	.29
+	ROUTED TO	P84mS	212.	12.42	64.	23.	8.	.29
+	HYDROGRAPH AT	BD84mS	214.	13.67	110.	29.	10.	5.49
+	ROUTED TO	R84mS	212.	14.00	109.	29.	10.	5.49
+	2 COMBINED AT	C84mS	293.	13.25	168.	51.	17.	5.49
+	HYDROGRAPH AT	BD80mS	369.	13.83	188.	51.	17.	6.03
+	ROUTED TO	R80mS	368.	13.92	187.	51.	17.	6.03
+	3 COMBINED AT	C80o	792.	12.42	431.	126.	42.	6.58
+	DIVERSION TO	DB80o	543.	12.42	217.	54.	18.	6.58
+	HYDROGRAPH AT	E80o	249.	12.00	214.	71.	24.	6.58
+	HYDROGRAPH AT	BDB80o	543.	12.42	217.	54.	18.	6.58
+	ROUTED TO	S80o	487.	13.25	202.	54.	18.	6.58
+	2 COMBINED AT	CC80o	736.	13.25	413.	125.	42.	6.58
+	DIVERSION TO	D80oP	249.	12.00	225.	78.	26.	6.58
+	HYDROGRAPH AT	D80o	487.	13.25	188.	47.	16.	6.58
+	ROUTED TO	R80oS	481.	13.42	188.	47.	16.	6.58
+	HYDROGRAPH AT	76o	360.	12.50	98.	29.	10.	.67
+	HYDROGRAPH AT	BD76m	539.	12.83	226.	56.	19.	6.71
+	ROUTED TO	R76mS	509.	13.33	225.	56.	19.	6.71
+	HYDROGRAPH AT	B76mP2	32.	12.00	29.	9.	3.	6.71
+	ROUTED TO	P76mS	32.	12.25	29.	9.	3.	6.71
+	2 COMBINED AT	C76mS	541.	13.33	254.	66.	22.	6.71
+	HYDROGRAPH AT	BD72oW	0.	.00	0.	0.	0.	17.78
+	ROUTED TO	R72oW	0.	.00	0.	0.	0.	17.78
+	4 COMBINED AT	C76o	1220.	13.17	534.	140.	47.	7.92
+	DIVERSION TO	D76o	991.	13.17	352.	88.	29.	7.92
+	HYDROGRAPH AT	D76oP	229.	12.17	182.	52.	17.	7.92
+	ROUTED TO	P76oS	229.	12.33	182.	52.	18.	7.92

+	HYDROGRAPH AT	BD76o	991.	13.17	352.	88.	29.	7.92
	DIVERSION TO	D76oW	99.	13.17	35.	9.	3.	7.92
+	HYDROGRAPH AT	D76oS	892.	13.17	316.	79.	26.	7.92
+	ROUTED TO	R76oS	869.	13.50	316.	79.	26.	7.92
+	2 COMBINED AT	C76oS	1098.	13.50	498.	131.	44.	7.92
+	HYDROGRAPH AT	76q	314.	12.33	68.	20.	7.	.40
+	3 COMBINED AT	C76q	1222.	13.42	564.	152.	51.	11.45
+	DIVERSION TO	D76qP	229.	12.08	194.	59.	20.	11.45
+	HYDROGRAPH AT	D76q	993.	13.42	370.	92.	31.	11.45
+	DIVERSION TO	D76qS	516.	13.42	192.	48.	16.	11.45
+	HYDROGRAPH AT	D76qW	477.	13.42	178.	44.	15.	11.45
+	ROUTED TO	R76qW	466.	13.58	177.	44.	15.	11.45
+	HYDROGRAPH AT	80p	318.	12.33	69.	22.	7.	.40
	HYDROGRAPH AT	BD76oW	99.	13.17	35.	9.	3.	7.92
+	ROUTED TO	R76oW	96.	13.50	35.	9.	3.	7.92
+	2 COMBINED AT	C80p	318.	12.33	106.	32.	11.	8.32
+	ROUTED TO	S80p	302.	12.42	99.	28.	10.	8.32
+	HYDROGRAPH AT	BD80oP	249.	12.00	225.	78.	26.	6.58
+	ROUTED TO	P80oS	249.	12.17	225.	78.	26.	6.58
+	2 COMBINED AT	CC80p	551.	12.42	323.	106.	36.	8.32
+	DIVERSION TO	D80pP	249.	12.00	230.	82.	29.	8.32
+	HYDROGRAPH AT	D80p	302.	12.42	93.	23.	8.	8.32
+	ROUTED TO	R80pS	267.	13.00	93.	23.	8.	8.32
+	HYDROGRAPH AT	BD80pP	249.	12.00	230.	82.	29.	8.32
+	ROUTED TO	P80pS	249.	12.17	230.	82.	29.	8.32
+	2 COMBINED AT	C80pS	516.	13.00	322.	106.	36.	8.32
	HYDROGRAPH AT	80q	256.	12.58	78.	23.	8.	.50
+	3 COMBINED AT	C80q	1034.	13.42	568.	171.	58.	12.34
	HYDROGRAPH AT							

+		28s	137.	12.25	24.	7.	2.	.16
	HYDROGRAPH AT							
+		BD28qP	340.	12.25	142.	47.	16.	.82
	DIVERSION TO							
+		D28qP2	32.	12.25	13.	4.	1.	.82
	HYDROGRAPH AT							
+		D28qP1	308.	12.25	129.	43.	14.	.82
	ROUTED TO							
+		P28qS	308.	12.33	129.	43.	14.	.82
	HYDROGRAPH AT							
+		BD28qS	35.	12.42	2.	0.	0.	.82
	ROUTED TO							
+		R28qS	26.	12.50	2.	0.	0.	.82
	2 COMBINED AT							
+		C28qS	334.	12.50	130.	43.	15.	.82
	2 COMBINED AT							
+		C28s	443.	12.42	153.	51.	17.	.98
	DIVERSION TO							
+		D28sP	443.	12.42	153.	51.	17.	.98
	HYDROGRAPH AT							
+		D28s	0.	.00	0.	0.	0.	.98
	DIVERSION TO							
+		D28sS	0.	.00	0.	0.	0.	.98
	HYDROGRAPH AT							
+		D28sW	0.	.00	0.	0.	0.	.98
	ROUTED TO							
+		R28sW	0.	.00	0.	0.	0.	.98
	HYDROGRAPH AT							
		32s	194.	12.42	53.	17.	6.	.34
	2 COMBINED AT							
+		C32s	191.	12.42	52.	17.	6.	1.32
	ROUTED TO							
+		S32s	127.	13.00	30.	9.	3.	1.32
	DIVERSION TO							
+		D32sP	48.	12.83	22.	7.	2.	1.32
	HYDROGRAPH AT							
+		D32s	79.	13.00	9.	2.	1.	1.32
	ROUTED TO							
+		R32sW	57.	13.50	9.	2.	1.	1.32
	HYDROGRAPH AT							
+		BD32sP	48.	12.83	22.	7.	2.	1.32
	ROUTED TO							
+		P32sW	48.	12.92	22.	7.	2.	1.32
	2 COMBINED AT							
+		C32sW	105.	13.50	30.	9.	3.	1.32
	HYDROGRAPH AT							
+		36s	180.	12.33	40.	12.	4.	.24
	HYDROGRAPH AT							
+		BD36qP	263.	12.42	103.	32.	11.	1.56
	ROUTED TO							
+		P36qS	261.	12.42	103.	32.	11.	1.56
	HYDROGRAPH AT							
+		BD36qS	0.	.00	0.	0.	0.	1.56
	ROUTED TO							
+		R36qS	0.	.00	0.	0.	0.	1.56
	2 COMBINED AT							
+		C36qS	261.	12.42	103.	32.	11.	1.56

+	3 COMBINED AT	C36s	434.	12.42	169.	52.	17.	2.30
	DIVERSION TO	D36sP	303.	12.17	151.	47.	16.	2.30
+	HYDROGRAPH AT	D36s	131.	12.42	18.	4.	1.	2.30
	ROUTED TO	R36sW	98.	12.75	18.	4.	1.	2.30
+	HYDROGRAPH AT	40s	183.	12.33	44.	14.	5.	.24
+	HYDROGRAPH AT	BD40qS	118.	12.33	20.	5.	2.	1.91
+	ROUTED TO	R40qS	110.	12.67	20.	5.	2.	1.91
+	3 COMBINED AT	C40s	353.	12.67	80.	23.	8.	2.89
+	DIVERSION TO	D40sP	68.	12.00	34.	11.	4.	2.89
+	HYDROGRAPH AT	D40s	285.	12.67	46.	11.	4.	2.89
+	ROUTED TO	R40sW	255.	12.92	46.	11.	4.	2.89
+	HYDROGRAPH AT	BD40sP	68.	12.00	34.	11.	4.	2.89
+	ROUTED TO	P40sW	68.	12.17	34.	11.	4.	2.89
+	2 COMBINED AT	C40sW	323.	12.92	80.	23.	8.	2.89
+	HYDROGRAPH AT	44s	164.	12.42	42.	13.	4.	.24
+	HYDROGRAPH AT	BD44qP	201.	12.17	108.	37.	12.	2.57
+	ROUTED TO	P44qS	201.	12.25	108.	37.	12.	2.57
+	HYDROGRAPH AT	BD44qS	111.	12.58	17.	4.	1.	2.57
+	ROUTED TO	R44qS	104.	12.92	17.	4.	1.	2.57
+	2 COMBINED AT	C44qS	305.	12.92	125.	41.	14.	2.57
+	3 COMBINED AT	C44s	746.	12.83	245.	76.	25.	3.79
+	DIVERSION TO	D44sP	201.	12.00	129.	47.	16.	3.79
+	HYDROGRAPH AT	D44s	545.	12.83	116.	29.	10.	3.79
+	ROUTED TO	R44sW	533.	13.00	116.	29.	10.	3.79
+	HYDROGRAPH AT	48s	161.	12.33	37.	12.	4.	.21
+	HYDROGRAPH AT	BD48qS	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	R48qS	0.	.00	0.	0.	0.	2.87
+	3 COMBINED AT	C48s	614.	13.00	151.	40.	13.	4.31
+	DIVERSION TO	D48sPT	614.	13.00	151.	40.	13.	4.31

+	HYDROGRAPH AT	DB48s	0.	.00	0.	0.	0.	4.31
+	ROUTED TO	S48s	0.	.00	0.	0.	0.	4.31
+	ROUTED TO	R48sW	0.	.00	0.	0.	0.	4.31
+	HYDROGRAPH AT	52s	190.	12.42	47.	14.	5.	.26
+	HYDROGRAPH AT	BD52qP	191.	12.42	59.	18.	6.	.39
+	ROUTED TO	P52qS	191.	12.50	59.	18.	6.	.39
+	HYDROGRAPH AT	BD52qS	6.	12.50	0.	0.	0.	.39
+	ROUTED TO	R52qS	2.	13.17	0.	0.	0.	.39
+	2 COMBINED AT	C52qS	191.	12.58	59.	18.	6.	.39
+	3 COMBINED AT	C52s	377.	12.42	105.	32.	11.	.66
+	DIVERSION TO	D52sP	191.	12.17	81.	26.	9.	.66
+	HYDROGRAPH AT	D52s	186.	12.42	23.	6.	2.	.66
+	ROUTED TO	R52sW	176.	12.75	23.	6.	2.	.66
+	HYDROGRAPH AT	56s	193.	12.33	48.	14.	5.	.25
+	HYDROGRAPH AT	BD56qP	68.	12.17	29.	9.	3.	.75
+	ROUTED TO	P56qS	68.	12.33	29.	9.	3.	.75
+	HYDROGRAPH AT	BD56qS	29.	12.42	4.	1.	0.	.75
+	ROUTED TO	R56qS	25.	12.92	4.	1.	0.	.75
+	2 COMBINED AT	C56qS	93.	12.92	33.	10.	3.	.75
+	3 COMBINED AT	C56s	415.	12.67	102.	30.	10.	1.27
+	DIVERSION TO	D56sP	201.	12.17	78.	24.	8.	1.27
+	HYDROGRAPH AT	D56s	214.	12.67	24.	6.	2.	1.27
+	DIVERSION TO	D56sS	32.	12.67	4.	1.	0.	1.27
+	HYDROGRAPH AT	D56sW	182.	12.67	21.	5.	2.	1.27
+	ROUTED TO	R56sW	160.	13.00	21.	5.	2.	1.27
+	HYDROGRAPH AT	60s	215.	12.33	47.	15.	5.	.25
+	HYDROGRAPH AT	BD60qP	166.	12.42	45.	13.	4.	1.10
+	ROUTED TO	P60qS	165.	12.50	45.	13.	4.	1.10
+	HYDROGRAPH AT							

+		BD60qS	0.	.00	0.	0.	0.	1.10
	ROUTED TO							
		R60qS	0.	.00	0.	0.	0.	1.10
	2 COMBINED AT							
+		C60qS	165.	12.50	45.	13.	4.	1.10
	3 COMBINED AT							
+		C60s	422.	12.92	111.	33.	11.	1.87
	DIVERSION TO							
+		D60sP	217.	12.17	82.	25.	8.	1.87
	HYDROGRAPH AT							
+		D60s	205.	12.92	29.	7.	2.	1.87
	DIVERSION TO							
+		D60sS	57.	12.92	8.	2.	1.	1.87
	HYDROGRAPH AT							
+		D60sW	148.	12.92	21.	5.	2.	1.87
	ROUTED TO							
+		R60sW	131.	13.17	21.	5.	2.	1.87
	HYDROGRAPH AT							
+		BD60sP	217.	12.17	82.	25.	8.	1.87
	ROUTED TO							
+		P60sW	217.	12.25	82.	25.	8.	1.87
	2 COMBINED AT							
+		C60sW	348.	13.17	103.	31.	10.	1.87
	HYDROGRAPH AT							
+		64s	217.	12.33	49.	16.	5.	.26
	HYDROGRAPH AT							
+		BD64qS	62.	12.42	9.	2.	1.	1.51
	ROUTED TO							
+		R64qS	53.	12.75	9.	2.	1.	1.51
	3 COMBINED AT							
+		C64s	493.	12.75	158.	48.	16.	2.54
	DIVERSION TO							
+		D64sPT	0.	.00	0.	0.	0.	2.54
	HYDROGRAPH AT							
+		D64s	493.	12.75	158.	48.	16.	2.54
	DIVERSION TO							
+		D64sP	327.	12.08	130.	41.	14.	2.54
	HYDROGRAPH AT							
+		D64s1	166.	12.75	28.	7.	2.	2.54
	DIVERSION TO							
+		D64sS	70.	12.75	12.	3.	1.	2.54
	HYDROGRAPH AT							
+		D64sW	96.	12.75	17.	4.	1.	2.54
	ROUTED TO							
+		R64sW	93.	13.00	17.	4.	1.	2.54
	HYDROGRAPH AT							
+		68s	167.	12.33	39.	13.	4.	.24
	HYDROGRAPH AT							
+		BD68qS	81.	12.67	16.	4.	1.	1.80
	ROUTED TO							
+		R68qS	75.	13.00	16.	4.	1.	1.80
	3 COMBINED AT							
+		C68s	256.	12.83	69.	21.	7.	3.07
	DIVERSION TO							
+		D68sP	124.	12.17	50.	16.	5.	3.07
	HYDROGRAPH AT							
+		D68s	132.	12.83	20.	5.	2.	3.07

+	DIVERSION TO	D68sS	37.	12.83	6.	1.	0.	3.07
	HYDROGRAPH AT	D68sW	95.	12.83	14.	4.	1.	3.07
+	ROUTED TO	R68sW	85.	13.17	14.	4.	1.	3.07
+	HYDROGRAPH AT	72s	216.	12.33	46.	14.	5.	.28
+	HYDROGRAPH AT	BD72qP	662.	12.25	487.	187.	63.	3.13
+	DIVERSION TO	D72qP2	229.	12.25	169.	65.	22.	3.13
+	HYDROGRAPH AT	D72qP1	433.	12.25	319.	122.	41.	3.13
+	ROUTED TO	P72qS1	433.	12.33	319.	122.	41.	3.13
+	HYDROGRAPH AT	B72qP2	229.	12.25	169.	65.	22.	3.13
+	ROUTED TO	P72qS2	229.	12.33	169.	65.	22.	3.13
+	HYDROGRAPH AT	BD72qS	49.	12.75	7.	2.	1.	3.13
+	ROUTED TO	R72qS	43.	13.17	7.	2.	1.	3.13
+	3 COMBINED AT	C72qS	705.	13.17	494.	188.	64.	3.13
+	3 COMBINED AT	C72s	<del>476.</del> 476.	13.00	550.	205.	69.	4.68
+	DIVERSION TO	D72sP	662.	12.17	502.	193.	65.	4.68
+	HYDROGRAPH AT	D72s	214.	13.00	48.	12.	4.	4.68
+	DIVERSION TO	D72sS	86.	13.00	19.	5.	2.	4.68
+	HYDROGRAPH AT	D72sW	128.	13.00	29.	7.	2.	4.68
+	ROUTED TO	R72sW	124.	13.33	29.	7.	2.	4.68
+	HYDROGRAPH AT	76s	218.	12.33	50.	16.	5.	.28
+	ROUTED TO	S76s	216.	12.33	50.	16.	5.	.28
+	HYDROGRAPH AT	BD76qP	229.	12.08	194.	59.	20.	11.45
+	ROUTED TO	P76qS	229.	12.17	194.	59.	20.	11.45
+	HYDROGRAPH AT	BD76qS	516.	13.42	192.	48.	16.	11.45
+	ROUTED TO	R76qS	508.	13.58	192.	48.	16.	11.45
+	2 COMBINED AT	C76qS	737.	13.58	386.	107.	36.	11.45
+	3 COMBINED AT	C76s	888.	13.50	455.	128.	43.	13.28
+	DIVERSION TO	D76sP	204.	12.00	181.	59.	20.	13.28
+	HYDROGRAPH AT	D76s	684.	13.50	274.	69.	23.	13.28

DIVERSION TO	D76sS	150.	13.50	60.	15.	5.	13.28
HYDROGRAPH AT	D76sW	533.	13.50	214.	53.	18.	13.28
ROUTED TO	R76sW	523.	13.67	214.	53.	18.	13.28
2 COMBINED AT	CC80q	1520.	13.58	775.	222.	75.	14.17
DIVERSION TO	D80qP	364.	12.17	329.	111.	38.	14.17
HYDROGRAPH AT	D80q	1156.	13.58	446.	111.	37.	14.17
DIVERSION TO	D80qW	1156.	13.58	446.	111.	37.	14.17
HYDROGRAPH AT	D80qS	0.	.00	0.	0.	0.	14.17
ROUTED TO	R80qS	0.	.00	0.	0.	0.	14.17
HYDROGRAPH AT	BD80qP	364.	12.17	329.	111.	38.	14.17
ROUTED TO	P80qS	364.	12.25	329.	111.	38.	14.17
2 COMBINED AT	C80qS	364.	12.25	329.	111.	38.	14.17
HYDROGRAPH AT	52t	191.	12.42	47.	15.	5.	.30
ROUTED TO	S52t	189.	12.50	46.	13.	4.	.30
HYDROGRAPH AT	BD52sP	191.	12.17	81.	26.	9.	.66
ROUTED TO	P52sS	191.	12.25	81.	26.	9.	.66
2 COMBINED AT	C52t	378.	12.50	126.	38.	13.	.96
DIVERSION TO	D52tP	281.	12.17	115.	36.	12.	.96
HYDROGRAPH AT	D52t	97.	12.50	11.	3.	1.	.96
DIVERSION TO	D52tS	40.	12.50	4.	1.	0.	.96
HYDROGRAPH AT	D52tW	57.	12.50	6.	2.	1.	.96
ROUTED TO	R52tW	50.	12.75	6.	2.	1.	.96
HYDROGRAPH AT	56t	120.	12.42	32.	10.	3.	.18
HYDROGRAPH AT	BD56sP	201.	12.17	78.	24.	8.	1.27
ROUTED TO	P56sS	201.	12.25	78.	24.	8.	1.27
HYDROGRAPH AT	BD56sS	32.	12.67	4.	1.	0.	1.27
ROUTED TO	R56sS	27.	13.17	4.	1.	0.	1.27
2 COMBINED AT	C56sS	228.	13.17	82.	24.	8.	1.27
3 COMBINED AT							

+		C56t	352.	12.75	119.	36.	12.	1.74
	DIVERSION TO							
+		D56tP	352.	12.75	119.	36.	12.	1.74
	HYDROGRAPH AT							
+		D56t	0.	.00	0.	0.	0.	1.74
	DIVERSION TO							
+		D56tS	0.	.00	0.	0.	0.	1.74
	HYDROGRAPH AT							
+		D56tW	0.	.00	0.	0.	0.	1.74
	ROUTED TO							
+		R56tW	0.	.00	0.	0.	0.	1.74
	HYDROGRAPH AT							
+		60t	196.	12.42	52.	16.	5.	.33
	ROUTED TO							
+		S60t	196.	12.42	52.	16.	5.	.33
	HYDROGRAPH AT							
+		BD60sS	57.	12.92	8.	2.	1.	1.87
	ROUTED TO							
+		R60sS	51.	13.17	8.	2.	1.	1.87
	3 COMBINED AT							
+		C60t	204.	12.58	59.	17.	6.	2.68
	DIVERSION TO							
+		D60tS	55.	12.58	16.	5.	2.	2.68
	HYDROGRAPH AT							
+		D60tW	149.	12.58	43.	13.	4.	2.68
	ROUTED TO							
+		R60tW	147.	12.83	43.	13.	4.	2.68
	HYDROGRAPH AT							
+		64t	169.	12.42	42.	13.	5.	.27
	HYDROGRAPH AT							
+		BD64sP	327.	12.08	130.	41.	14.	2.54
	ROUTED TO							
+		P64sS	327.	12.17	130.	41.	14.	2.54
	HYDROGRAPH AT							
+		BD64sS	70.	12.75	12.	3.	1.	2.54
	ROUTED TO							
+		R64sS	65.	13.08	12.	3.	1.	2.54
	2 COMBINED AT							
+		C64sS	392.	13.08	142.	44.	15.	2.54
	3 COMBINED AT							
+		C64t	652.	12.75	225.	70.	23.	3.61
	DIVERSION TO							
+		D64tPT	0.	.00	0.	0.	0.	3.61
	HYDROGRAPH AT							
+		D64t	652.	12.75	225.	70.	23.	3.61
	DIVERSION TO							
+		D64tP	375.	12.08	171.	56.	19.	3.61
	HYDROGRAPH AT							
+		D64t1	277.	12.75	54.	13.	4.	3.61
	DIVERSION TO							
+		D64tS	122.	12.75	24.	6.	2.	3.61
	HYDROGRAPH AT							
+		D64tW	155.	12.75	30.	8.	3.	3.61
	ROUTED TO							
+		R64tW	151.	13.00	30.	8.	3.	3.61
	HYDROGRAPH AT							
+		68t	182.	12.33	39.	12.	4.	.25

+	HYDROGRAPH AT	BD68sP	124.	12.17	50.	16.	5.	3.07
	ROUTED TO	P68sS	124.	12.25	50.	16.	5.	3.07
+	HYDROGRAPH AT	BD68sS	37.	12.83	6.	1.	0.	3.07
+	ROUTED TO	R68sS	33.	13.17	6.	1.	0.	3.07
+	2 COMBINED AT	C68sS	157.	13.17	55.	17.	6.	3.07
+	3 COMBINED AT	C68t	402.	12.83	122.	36.	12.	4.39
+	DIVERSION TO	D68tP	124.	12.00	62.	20.	7.	4.39
+	HYDROGRAPH AT	D68t	278.	12.83	61.	15.	5.	4.39
+	DIVERSION TO	D68tS	128.	12.83	28.	7.	2.	4.39
+	HYDROGRAPH AT	D68tW	150.	12.83	33.	8.	3.	4.39
+	ROUTED TO	R68tW	145.	13.08	33.	8.	3.	4.39
+	HYDROGRAPH AT	72t	133.	12.42	35.	10.	3.	.22
+	HYDROGRAPH AT	BD72sS	86.	13.00	19.	5.	2.	4.68
+	ROUTED TO	R72sS	84.	13.17	19.	5.	2.	4.68
+	HYDROGRAPH AT	BD72sP	662.	12.17	502.	193.	65.	4.68
+	DIVERSION TO	D72sP2	229.	12.17	174.	67.	22.	4.68
+	HYDROGRAPH AT	D72sP1	433.	12.17	329.	126.	43.	4.68
+	ROUTED TO	P72sS1	433.	12.25	329.	126.	43.	4.68
+	HYDROGRAPH AT	B72sP2	229.	12.17	174.	67.	22.	4.68
+	ROUTED TO	P72sS2	229.	12.25	174.	67.	22.	4.68
+	3 COMBINED AT	C72sS	746.	13.17	521.	197.	67.	4.68
+	3 COMBINED AT	C72t	975.	12.92	586.	215.	73.	6.23
+	DIVERSION TO	D72tP	714.	12.17	530.	201.	68.	6.23
+	HYDROGRAPH AT	D72t	261.	12.92	57.	14.	5.	6.23
+	DIVERSION TO	D72tS	139.	12.92	30.	8.	3.	6.23
+	HYDROGRAPH AT	D72tW	123.	12.92	27.	7.	2.	6.23
+	ROUTED TO	R72tW	119.	13.25	27.	7.	2.	6.23
+	HYDROGRAPH AT	76t	183.	12.42	44.	13.	4.	.27
+	HYDROGRAPH AT	BD76sP	204.	12.00	181.	59.	20.	13.28

+	ROUTED TO	P76sS	204.	12.08	181.	59.	20.	13.28
+	HYDROGRAPH AT	BD76sS	150.	13.50	60.	15.	5.	13.28
+	ROUTED TO	R76sS	148.	13.67	60.	15.	5.	13.28
+	2 COMBINED AT	C76sS	352.	13.67	241.	74.	25.	13.28
+	3 COMBINED AT	C76t	510.	13.00	305.	93.	31.	15.10
+	DIVERSION TO	D76tP	297.	12.08	245.	78.	26.	15.10
+	HYDROGRAPH AT	D76t	213.	13.00	60.	15.	5.	15.10
+	DIVERSION TO	D76tS	113.	13.00	32.	8.	3.	15.10
+	HYDROGRAPH AT	D76tW	100.	13.00	28.	7.	2.	15.10
+	ROUTED TO	R76tW	98.	13.50	28.	7.	2.	15.10
+	HYDROGRAPH AT	80t	141.	12.33	33.	10.	3.	.25
+	3 COMBINED AT	C80t	514.	13.17	386.	127.	44.	16.24
+	DIVERSION TO	D80tP	364.	12.08	331.	113.	39.	16.24
+	HYDROGRAPH AT	D80t	150.	13.17	55.	14.	5.	16.24
+	ROUTED TO	R80tS	149.	13.25	55.	14.	5.	16.24
+	HYDROGRAPH AT	S2u	153.	12.50	36.	10.	3.	.39
+	HYDROGRAPH AT	BD52tS	40.	12.50	4.	1.	0.	.96
+	ROUTED TO	R52tS	31.	13.08	4.	1.	0.	.96
+	2 COMBINED AT	C52u	153.	12.50	40.	11.	4.	1.35
+	ROUTED TO	S52u	75.	13.50	34.	9.	3.	1.35
+	HYDROGRAPH AT	BD52tP	281.	12.17	115.	36.	12.	.96
+	ROUTED TO	P52tS	281.	12.25	115.	36.	12.	.96
+	2 COMBINED AT	CC52u	355.	13.25	148.	45.	15.	1.35
+	DIVERSION TO	D52uP	281.	12.25	137.	42.	14.	1.35
+	HYDROGRAPH AT	D52u	74.	13.25	11.	3.	1.	1.35
+	DIVERSION TO	D52uS	24.	13.25	4.	1.	0.	1.35
+	HYDROGRAPH AT	D52uW	50.	13.25	8.	2.	1.	1.35
+	ROUTED TO	R52uW	46.	13.42	8.	2.	1.	1.35
	HYDROGRAPH AT							

+		56u	126.	12.50	34.	10.	3.	.33
	HYDROGRAPH AT							
		BD56tS	0.	.00	0.	0.	0.	1.74
	ROUTED TO							
+		R56tS	0.	.00	0.	0.	0.	1.74
	3 COMBINED AT							
+		C56u	126.	12.50	42.	12.	4.	2.46
	ROUTED TO							
+		S56u	121.	12.75	36.	11.	4.	2.46
	HYDROGRAPH AT							
+		BD56tP	352.	12.75	119.	36.	12.	1.74
	ROUTED TO							
+		P56tS	352.	12.75	119.	36.	12.	1.74
	2 COMBINED AT							
+		CC56u	472.	12.75	155.	47.	16.	2.46
	DIVERSION TO							
+		D56uP	472.	12.75	155.	47.	16.	2.46
	HYDROGRAPH AT							
+		D56u	0.	.00	0.	0.	0.	2.46
	DIVERSION TO							
+		D56uS	0.	.00	0.	0.	0.	2.46
	HYDROGRAPH AT							
+		D56uW	0.	.00	0.	0.	0.	2.46
	ROUTED TO							
+		R56uW	0.	.00	0.	0.	0.	2.46
	HYDROGRAPH AT							
+		60u	126.	12.42	31.	9.	3.	.28
	HYDROGRAPH AT							
		BD60tS	55.	12.58	16.	5.	2.	2.68
	ROUTED TO							
+		R60tS	53.	13.08	16.	5.	2.	2.68
	3 COMBINED AT							
+		C60u	151.	12.75	46.	14.	5.	3.68
	ROUTED TO							
+		S60u	149.	12.83	46.	14.	5.	3.68
	DIVERSION TO							
+		D60uP	124.	12.50	44.	13.	4.	3.68
	HYDROGRAPH AT							
+		D60u	25.	12.83	2.	1.	0.	3.68
	DIVERSION TO							
+		D60uS	8.	12.83	1.	0.	0.	3.68
	HYDROGRAPH AT							
+		D60uW	17.	12.83	1.	0.	0.	3.68
	ROUTED TO							
+		R60uW	10.	13.33	1.	0.	0.	3.68
	HYDROGRAPH AT							
+		64u	163.	12.42	40.	12.	4.	.30
	HYDROGRAPH AT							
+		BD64tP	375.	12.08	171.	56.	19.	3.61
	ROUTED TO							
+		P64tS	375.	12.17	171.	56.	19.	3.61
	HYDROGRAPH AT							
+		BD64tS	122.	12.75	24.	6.	2.	3.61
	ROUTED TO							
+		R64tS	118.	13.00	24.	6.	2.	3.61
	2 COMBINED AT							
+		C64tS	493.	13.00	194.	62.	21.	3.61

+	3 COMBINED AT	C64u	609.	12.83	234.	74.	25.	4.91
	DIVERSION TO	D64uPT	0.	.00	0.	0.	0.	4.91
+	HYDROGRAPH AT	D64u	609.	12.83	234.	74.	25.	4.91
+	DIVERSION TO	D64uP	375.	12.08	184.	62.	21.	4.91
+	HYDROGRAPH AT	D64u1	234.	12.83	50.	13.	4.	4.91
+	DIVERSION TO	D64uS	59.	12.83	13.	3.	1.	4.91
+	HYDROGRAPH AT	D64uW	176.	12.83	38.	9.	3.	4.91
+	ROUTED TO	R64uW	169.	13.08	38.	9.	3.	4.91
+	HYDROGRAPH AT	68u	173.	12.42	43.	13.	4.	.28
+	HYDROGRAPH AT	BD68tP	124.	12.00	62.	20.	7.	4.39
+	ROUTED TO	P68tS	124.	12.08	62.	20.	7.	4.39
+	HYDROGRAPH AT	BD68tS	128.	12.83	28.	7.	2.	4.39
+	ROUTED TO	R68tS	124.	13.08	28.	7.	2.	4.39
+	2 COMBINED AT	C68tS	248.	13.08	90.	27.	9.	4.39
+	3 COMBINED AT	C68u	526.	12.92	168.	49.	16.	5.97
+	DIVERSION TO	D68uP	146.	12.00	81.	27.	9.	5.97
+	HYDROGRAPH AT	D68u	380.	12.92	87.	22.	7.	5.97
+	DIVERSION TO	D68uS	80.	12.92	18.	5.	2.	5.97
+	HYDROGRAPH AT	D68uW	300.	12.92	69.	17.	6.	5.97
+	ROUTED TO	R68uW	294.	13.17	69.	17.	6.	5.97
+	HYDROGRAPH AT	72u	162.	12.42	38.	11.	4.	.26
+	2 COMBINED AT	C72u	382.	13.08	106.	28.	9.	6.23
+	HYDROGRAPH AT	BD72tP	714.	12.17	530.	201.	68.	6.23
+	DIVERSION TO	D72tP2	281.	12.17	209.	79.	27.	6.23
+	HYDROGRAPH AT	D72tP1	433.	12.17	321.	122.	41.	6.23
+	ROUTED TO	P72tS1	433.	12.25	321.	122.	41.	6.23
+	HYDROGRAPH AT	B72tP2	281.	12.17	209.	79.	27.	6.23
+	ROUTED TO	P72tS2	281.	12.25	209.	79.	27.	6.23
+	HYDROGRAPH AT	B72tS	139.	12.92	30.	8.	3.	6.23

ROUTED TO	R72tS	134.	13.25	30.	8.	3.	6.23
3 COMBINED AT	C72tS	848.	13.25	560.	208.	70.	6.23
2 COMBINED AT	CC72u	1222.	13.08	664.	236.	79.	8.06
DIVERSION TO	D72uP	714.	12.17	543.	206.	69.	8.06
HYDROGRAPH AT	D72u	508.	13.08	121.	30.	10.	8.06
DIVERSION TO	D72uS	157.	13.08	37.	9.	3.	8.06
HYDROGRAPH AT	D72uW	350.	13.08	83.	21.	7.	8.06
ROUTED TO	R72uW	342.	13.33	83.	21.	7.	8.06
HYDROGRAPH AT	BD76tP	297.	12.08	245.	78.	26.	15.10
DIVERSION TO	D76tP2	48.	12.08	40.	13.	4.	15.10
HYDROGRAPH AT	D76tP1	249.	12.08	205.	65.	22.	15.10
ROUTED TO	P76tS1	249.	12.17	205.	65.	22.	15.10
HYDROGRAPH AT	B76tP2	48.	12.08	40.	13.	4.	15.10
ROUTED TO	P76tS2	48.	12.25	40.	13.	4.	15.10
HYDROGRAPH AT	BD76tS	113.	13.00	32.	8.	3.	15.10
ROUTED TO	R76tS	111.	13.50	32.	8.	3.	15.10
3 COMBINED AT	C76tS	408.	13.50	277.	85.	29.	15.10
HYDROGRAPH AT	76u	178.	12.42	42.	12.	4.	.28
3 COMBINED AT	C76u	801.	13.25	392.	116.	39.	17.22
DIVERSION TO	D76uP	297.	12.08	250.	80.	27.	17.22
HYDROGRAPH AT	D76u	504.	13.25	142.	36.	12.	17.22
DIVERSION TO	D76uS	0.	.00	0.	0.	0.	17.22
HYDROGRAPH AT	D76uW	504.	13.25	142.	36.	12.	17.22
ROUTED TO	R76uW	500.	13.42	142.	36.	12.	17.22
HYDROGRAPH AT	80u	176.	12.33	41.	13.	4.	.25
3 COMBINED AT	C80u	695.	13.33	232.	61.	20.	18.61
HYDROGRAPH AT	BD80tP	364.	12.08	331.	113.	39.	16.24
ROUTED TO	P80tS	364.	12.17	331.	113.	39.	16.24
HYDROGRAPH AT							

+		BD80qW	1156.	13.58	446.	111.	37.	14.17
	3 COMBINED AT							
+		CC80u	2141.	13.50	991.	281.	95.	18.61
	ROUTED TO							
+		S-I17	519.	16.17	505.	280.	95.	18.61
	DIVERSION TO							
+		D80uP	509.	16.17	503.	280.	95.	18.61
	HYDROGRAPH AT							
+		D80u	10.	16.17	2.	1.	0.	18.61
	ROUTED TO							
+		R80uW	8.	16.67	2.	1.	0.	18.61
	HYDROGRAPH AT							
+		84t	166.	12.42	47.	15.	5.	.27
	HYDROGRAPH AT							
+		P84tN	252.	13.00	64.	19.	6.	.50
	2 COMBINED AT							
+		C84t	364.	13.00	110.	34.	11.	.77
	DIVERSION TO							
+		D84tP	252.	12.42	99.	31.	10.	.77
	HYDROGRAPH AT							
+		D84t	112.	13.00	11.	3.	1.	.77
	DIVERSION TO							
+		D84tW	14.	13.00	1.	0.	0.	.77
	HYDROGRAPH AT							
+		D84tS	97.	13.00	10.	2.	1.	.77
	ROUTED TO							
+		R84tS	73.	13.17	10.	2.	1.	.77
	HYDROGRAPH AT							
+		84u	153.	12.42	39.	12.	4.	.26
	3 COMBINED AT							
+		C84u	150.	13.08	51.	16.	5.	9.04
	ROUTED TO							
+		S84u	149.	13.17	49.	16.	5.	9.04
	HYDROGRAPH AT							
+		BD84tP	252.	12.42	99.	31.	10.	.77
	ROUTED TO							
+		P84tS	252.	12.50	99.	31.	10.	.77
	2 COMBINED AT							
+		CC84u	401.	13.17	145.	46.	16.	9.04
	DIVERSION TO							
+		D84uP	252.	12.33	117.	39.	13.	9.04
	HYDROGRAPH AT							
+		D84u	149.	13.17	29.	7.	2.	9.04
	DIVERSION TO							
+		D84uS	30.	13.17	6.	1.	0.	9.04
	HYDROGRAPH AT							
+		D84uW	119.	13.17	23.	6.	2.	9.04
	ROUTED TO							
+		R84uW	116.	13.33	23.	6.	2.	9.04
	HYDROGRAPH AT							
+		88t	117.	12.50	37.	12.	4.	.26
	HYDROGRAPH AT							
+		BD84tW	14.	13.00	1.	0.	0.	.77
	ROUTED TO							
+		R84tW	9.	13.42	1.	0.	0.	.77
	2 COMBINED AT							
+		C88t	117.	12.50	39.	12.	4.	1.03

+	DIVERSION TO	D88tW	35.	12.50	11.	4.	1.	1.03
	HYDROGRAPH AT	D88tS	81.	12.50	27.	8.	3.	1.03
+	ROUTED TO	R88tS	78.	12.75	27.	8.	3.	1.03
+	HYDROGRAPH AT	88u	138.	12.50	39.	12.	4.	.25
+	3 COMBINED AT	C88u	289.	12.83	86.	26.	9.	9.55
+	DIVERSION TO	D88uP	36.	11.92	27.	11.	4.	9.55
+	HYDROGRAPH AT	D88u	253.	12.83	59.	15.	5.	9.55
+	DIVERSION TO	D88uS	193.	12.83	45.	11.	4.	9.55
+	HYDROGRAPH AT	D88uW	61.	12.83	14.	4.	1.	9.55
+	ROUTED TO	R88uW	55.	13.25	14.	4.	1.	9.55
+	HYDROGRAPH AT	BD88uP	36.	11.92	27.	11.	4.	9.55
+	ROUTED TO	P88uW	36.	12.08	27.	11.	4.	9.55
+	2 COMBINED AT	C88uW	91.	13.25	41.	14.	5.	9.55
+	HYDROGRAPH AT	92t	67.	12.50	21.	7.	2.	.17
+	HYDROGRAPH AT	BD88tW	35.	12.50	11.	4.	1.	1.03
+	ROUTED TO	R88tW	33.	12.83	11.	4.	1.	1.03
+	2 COMBINED AT	C92t	94.	12.67	32.	10.	3.	1.21
+	ROUTED TO	R92tS	93.	12.83	32.	10.	3.	1.21
+	HYDROGRAPH AT	92u	125.	12.42	36.	12.	4.	.25
+	HYDROGRAPH AT	P92uN	141.	13.00	47.	15.	5.	2.50
+	4 COMBINED AT	C92u	399.	13.00	154.	50.	17.	10.17
+	DIVERSION TO	D92uP	201.	12.25	119.	41.	14.	10.17
+	HYDROGRAPH AT	D92u	198.	13.00	35.	9.	3.	10.17
+	ROUTED TO	R92uS	191.	13.08	35.	9.	3.	10.17
+	HYDROGRAPH AT	B92uP	201.	12.25	119.	41.	14.	10.17
+	ROUTED TO	P92uS	201.	12.33	119.	41.	14.	10.17
+	2 COMBINED AT	C92uS	392.	13.08	154.	50.	17.	10.17
+	HYDROGRAPH AT	76v	101.	12.50	31.	10.	3.	.24
+	HYDROGRAPH AT	B76uP	297.	12.08	250.	80.	27.	17.22

+	DIVERSION TO	D76uP1	249.	12.08	209.	67.	22.	17.22
+	HYDROGRAPH AT	D76uP2	48.	12.08	40.	13.	4.	17.22
+	ROUTED TO	P76uS2	48.	12.17	40.	13.	4.	17.22
+	HYDROGRAPH AT	BD76uS	0.	.00	0.	0.	0.	17.22
+	ROUTED TO	R76uS	0.	.00	0.	0.	0.	17.22
+	2 COMBINED AT	C76uS	48.	12.17	40.	13.	4.	17.22
+	2 COMBINED AT	C76v	145.	12.50	70.	23.	8.	8.24
+	DIVERSION TO	D76vP	109.	12.25	66.	22.	7.	8.24
+	HYDROGRAPH AT	D76v	36.	12.50	4.	1.	0.	8.24
+	DIVERSION TO	D76vS	19.	12.50	2.	1.	0.	8.24
+	HYDROGRAPH AT	D76vW	17.	12.50	2.	0.	0.	8.24
+	ROUTED TO	R76vW	12.	13.17	2.	0.	0.	8.24
+	HYDROGRAPH AT	80v	151.	12.42	41.	13.	4.	.23
+	HYDROGRAPH AT	B76uP1	249.	12.08	209.	67.	22.	17.22
+	ROUTED TO	P76uS1	249.	12.25	209.	67.	22.	17.22
+	3 COMBINED AT	C80v	395.	12.42	251.	81.	27.	8.23
+	DIVERSION TO	D80vP	249.	12.08	216.	73.	24.	8.23
+	HYDROGRAPH AT	D80v	146.	12.42	35.	9.	3.	8.23
+	DIVERSION TO	D80vS	82.	12.42	20.	5.	2.	8.23
+	HYDROGRAPH AT	D80vW	64.	12.42	15.	4.	1.	8.23
+	ROUTED TO	R80vW	56.	13.17	15.	4.	1.	8.23
+	HYDROGRAPH AT	84v	63.	12.50	21.	7.	2.	.25
+	HYDROGRAPH AT	BD80uP	509.	16.17	503.	280.	95.	18.61
+	ROUTED TO	P80uS	509.	16.17	503.	280.	95.	18.61
+	3 COMBINED AT	C84v	548.	13.75	524.	304.	103.	8.73
+	HYDROGRAPH AT	BD84uP	252.	12.33	117.	39.	13.	9.04
+	ROUTED TO	P84uS	252.	12.42	117.	39.	13.	9.04
+	HYDROGRAPH AT	BD84uS	30.	13.17	6.	1.	0.	9.04
	ROUTED TO							

+		R84uS	28.	13.33	6.	1.	0.	9.04
	2 COMBINED AT							
		C84uS	280.	13.33	122.	41.	14.	9.04
	2 COMBINED AT							
+		CC84v	823.	13.58	624.	344.	117.	9.76
	DIVERSION TO							
+		D84vP	823.	13.58	624.	344.	117.	9.76
	HYDROGRAPH AT							
+		D84v	0.	.00	0.	0.	0.	9.76
	DIVERSION TO							
+		D84vS	0.	.00	0.	0.	0.	9.76
	HYDROGRAPH AT							
+		D84vW	0.	.00	0.	0.	0.	9.76
	ROUTED TO							
+		R84vW	0.	.00	0.	0.	0.	9.76
	HYDROGRAPH AT							
+		88v	130.	12.50	41.	12.	4.	.25
	HYDROGRAPH AT							
+		BD88uS	193.	12.83	45.	11.	4.	9.55
	ROUTED TO							
+		R88uS	185.	13.08	45.	11.	4.	9.55
	3 COMBINED AT							
+		C88v	287.	13.00	84.	23.	8.	10.52
	DIVERSION TO							
+		D88vP	51.	12.08	31.	10.	3.	10.52
	HYDROGRAPH AT							
+		D88v	236.	13.00	54.	13.	4.	10.52
	ROUTED TO							
+		R88vW	224.	13.25	54.	13.	4.	10.52
	HYDROGRAPH AT							
+		92v	116.	12.33	32.	11.	4.	.16
	3 COMBINED AT							
+		C92v	660.	13.08	237.	73.	25.	11.30
	DIVERSION TO							
+		D92v	459.	13.08	105.	26.	9.	11.30
	HYDROGRAPH AT							
+		D92vP	201.	12.08	132.	47.	16.	11.30
	ROUTED TO							
+		P92vS	201.	12.25	132.	47.	16.	11.30
	HYDROGRAPH AT							
+		88w	279.	12.50	79.	25.	8.	.60
	HYDROGRAPH AT							
+		BD88vP	51.	12.08	31.	10.	3.	10.52
	ROUTED TO							
+		P88vS	51.	12.25	31.	10.	3.	10.52
	3 COMBINED AT							
+		C88w	518.	12.50	238.	80.	27.	11.90
	HYDROGRAPH AT							
+		44v	47.	12.50	15.	5.	2.	.24
	HYDROGRAPH AT							
+		BD44sP	201.	12.00	129.	47.	16.	3.79
	ROUTED TO							
+		P44sS	201.	12.25	129.	47.	16.	3.79
	2 COMBINED AT							
+		C44v	245.	12.50	143.	52.	17.	4.03
	HYDROGRAPH AT							
+		B48oPT	1516.	13.25	712.	227.	76.	14.34

+	ROUTED TO	PT48o	1515.	13.25	712.	227.	76.	14.34
	HYDROGRAPH AT	B48qPT	202.	12.75	54.	15.	5.	2.87
+	2 COMBINED AT	CPT48q	1639.	13.08	757.	239.	80.	16.11
+	ROUTED TO	PT48q	1639.	13.17	757.	239.	80.	16.11
+	HYDROGRAPH AT	B48sPT	614.	13.00	151.	40.	13.	4.31
+	2 COMBINED AT	CPT48s	2191.	13.00	892.	275.	92.	17.54
+	ROUTED TO	PT48s	2189.	13.08	892.	275.	92.	17.54
+	HYDROGRAPH AT	48v	143.	12.42	46.	16.	5.	.30
+	2 COMBINED AT	C48v	2277.	13.08	934.	290.	97.	17.84
+	2 COMBINED AT	NUL48v	2508.	13.08	1072.	340.	114.	18.08
+	HYDROGRAPH AT	52v	66.	12.50	20.	7.	2.	.30
+	HYDROGRAPH AT	BD52uP	281.	12.25	137.	42.	14.	1.35
+	ROUTED TO	P52uS	281.	12.33	137.	42.	14.	1.35
+	HYDROGRAPH AT	BD52uS	24.	13.25	4.	1.	0.	1.35
+	ROUTED TO	R52uS	21.	13.50	4.	1.	0.	1.35
+	2 COMBINED AT	C52uS	302.	13.50	140.	43.	14.	1.35
+	2 COMBINED AT	C52v	346.	12.83	160.	49.	16.	1.64
+	2 COMBINED AT	NUL52v	2831.	13.08	1217.	385.	129.	19.72
+	HYDROGRAPH AT	56v	75.	12.58	25.	8.	3.	.23
+	HYDROGRAPH AT	BD56uP	472.	12.75	155.	47.	16.	2.46
+	ROUTED TO	P56uS	471.	12.83	155.	47.	16.	2.46
+	HYDROGRAPH AT	BD56uS	0.	.00	0.	0.	0.	2.46
+	ROUTED TO	R56uS	0.	.00	0.	0.	0.	2.46
+	2 COMBINED AT	C56uS	471.	12.83	155.	47.	16.	2.46
+	2 COMBINED AT	C56v	541.	12.75	178.	54.	18.	2.69
+	2 COMBINED AT	NUL56v	3308.	13.08	1380.	434.	146.	21.07
+	HYDROGRAPH AT	60v	101.	12.50	31.	10.	3.	.23
+	HYDROGRAPH AT	BD60uP	124.	12.50	44.	13.	4.	3.68
+	ROUTED TO	P60uS	124.	12.58	44.	13.	4.	3.68

+	HYDROGRAPH AT	BD60uS	8.	12.83	1.	0.	0.	3.68
	ROUTED TO	R60uS	6.	13.17	1.	0.	0.	3.68
+	2 COMBINED AT	C60uS	130.	13.17	44.	13.	4.	3.68
+	2 COMBINED AT	C60v	220.	12.58	74.	23.	8.	3.91
+	2 COMBINED AT	NUL60v	3489.	13.00	1444.	454.	152.	22.51
+	HYDROGRAPH AT	BPT64o	2767.	13.25	1262.	401.	135.	21.04
+	HYDROGRAPH AT	B64qPT	0.	.00	0.	0.	0.	1.51
+	2 COMBINED AT	CPT64q	2767.	13.25	1262.	401.	135.	22.55
+	ROUTED TO	PT64q	2754.	13.25	1255.	399.	134.	22.55
+	HYDROGRAPH AT	B64sPT	0.	.00	0.	0.	0.	2.54
+	2 COMBINED AT	CPT64s	2754.	13.25	1255.	399.	134.	23.58
+	ROUTED TO	PT64s	2747.	13.33	1251.	398.	134.	23.58
+	HYDROGRAPH AT	B64tPT	0.	.00	0.	0.	0.	3.61
+	2 COMBINED AT	CPT64t	2747.	13.33	1251.	398.	134.	24.65
+	ROUTED TO	PT64t	2740.	13.33	1247.	397.	133.	24.65
+	HYDROGRAPH AT	B64uPT	0.	.00	0.	0.	0.	4.91
+	2 COMBINED AT	CPT64u	2740.	13.33	1247.	397.	133.	25.95
+	ROUTED TO	PT64u	2731.	13.33	1242.	396.	133.	25.95
+	HYDROGRAPH AT	64v	112.	12.42	31.	11.	4.	.19
+	HYDROGRAPH AT	BD64uP	375.	12.08	184.	62.	21.	4.91
+	ROUTED TO	P64uS	375.	12.17	184.	62.	21.	4.91
+	HYDROGRAPH AT	BD64uS	59.	12.83	13.	3.	1.	4.91
+	ROUTED TO	R64uS	58.	13.00	13.	3.	1.	4.91
+	2 COMBINED AT	C64uS	433.	13.00	197.	65.	22.	4.91
+	3 COMBINED AT	C64v	3196.	13.33	1457.	467.	157.	26.15
+	2 COMBINED AT	NUL64v	6311.	13.17	2740.	874.	294.	44.28
+	HYDROGRAPH AT	68v	81.	12.50	26.	8.	3.	.22
+	HYDROGRAPH AT	BD68uP	146.	12.00	81.	27.	9.	5.97
+	ROUTED TO							

+		P68uS	146.	12.08	81.	27.	9.	5.97
	HYDROGRAPH AT							
+		BD68uS	80.	12.92	18.	5.	2.	5.97
	ROUTED TO							
+		R68uS	79.	13.17	18.	5.	2.	5.97
	2 COMBINED AT							
+		C68uS	225.	13.17	99.	32.	11.	5.97
	2 COMBINED AT							
+		C68v	287.	13.00	124.	39.	13.	6.19
	2 COMBINED AT							
+		NUL68v	6559.	13.17	2845.	908.	305.	45.56
	HYDROGRAPH AT							
+		72v	222.	12.42	63.	21.	7.	.41
	HYDROGRAPH AT							
+		BD72uP	714.	12.17	543.	206.	69.	8.06
	DIVERSION TO							
+		D72uP2	281.	12.17	214.	81.	27.	8.06
	HYDROGRAPH AT							
+		D72uP1	433.	12.17	329.	125.	42.	8.06
	ROUTED TO							
+		P72uS1	433.	12.33	329.	125.	42.	8.06
	HYDROGRAPH AT							
+		B72uP2	281.	12.17	214.	81.	27.	8.06
	ROUTED TO							
+		P72uS2	281.	12.33	214.	81.	27.	8.06
	HYDROGRAPH AT							
+		BD72uS	157.	13.08	37.	9.	3.	8.06
	ROUTED TO							
+		R72uS	152.	13.50	37.	9.	3.	8.06
	3 COMBINED AT							
+		C72uS	866.	13.50	581.	215.	72.	8.06
	2 COMBINED AT							
+		C72v	968.	13.17	639.	235.	79.	8.47
	2 COMBINED AT							
+		NUL72v	7478.	13.17	3441.	1128.	379.	47.06
	HYDROGRAPH AT							
+		76w	60.	12.50	14.	4.	1.	.33
	HYDROGRAPH AT							
+		BD76vS	19.	12.50	2.	1.	0.	8.24
	ROUTED TO							
+		R76vS	16.	12.92	2.	1.	0.	8.24
	HYDROGRAPH AT							
+		BD76vP	109.	12.25	66.	22.	7.	8.24
	ROUTED TO							
+		P76vS	109.	12.33	66.	22.	7.	8.24
	2 COMBINED AT							
+		C76vS	125.	12.92	68.	22.	7.	8.24
	2 COMBINED AT							
+		C76w	175.	12.75	81.	26.	9.	8.57
	2 COMBINED AT							
+		NUL76w	7517.	13.17	3457.	1134.	381.	56.10
	HYDROGRAPH AT							
+		80w	199.	12.33	54.	18.	6.	.36
	HYDROGRAPH AT							
+		BD80vS	82.	12.42	20.	5.	2.	8.23
	ROUTED TO							
+		R80vS	76.	12.75	20.	5.	2.	8.23

+	2 COMBINED AT	C80w	241.	12.58	71.	23.	8.	8.59
	2 COMBINED AT	NUL80w	7636.	13.17	3508.	1150.	387.	58.09
+	HYDROGRAPH AT	BD84vS	0.	.00	0.	0.	0.	9.76
+	ROUTED TO	R84vS	0.	.00	0.	0.	0.	9.76
+	HYDROGRAPH AT	BD84vP	823.	13.58	624.	344.	117.	9.76
+	DIVERSION TO	D84vP2	660.	13.58	500.	275.	93.	9.76
+	HYDROGRAPH AT	D84vP1	163.	13.58	124.	68.	23.	9.76
+	ROUTED TO	P84vS1	163.	13.67	124.	68.	23.	9.76
+	HYDROGRAPH AT	B84vP2	660.	13.58	500.	275.	93.	9.76
+	ROUTED TO	P84vS2	660.	13.67	500.	275.	93.	9.76
+	3 COMBINED AT	C84vS	823.	13.67	624.	344.	117.	9.76
+	HYDROGRAPH AT	84w	149.	12.42	43.	14.	5.	.34
+	HYDROGRAPH AT	BD80vP	249.	12.08	216.	73.	24.	8.23
+	ROUTED TO	P80vS	249.	12.25	216.	73.	24.	8.23
+	3 COMBINED AT	C84w	1137.	13.33	866.	428.	145.	10.10
+	2 COMBINED AT	NUL84w	8708.	13.17	4296.	1520.	511.	59.72
+	2 COMBINED AT	NUL88w	9103.	13.17	4509.	1592.	536.	61.86
+	HYDROGRAPH AT	24s	118.	12.25	24.	8.	3.	.19
+	ROUTED TO	S24s	80.	12.67	18.	5.	2.	.19
+	HYDROGRAPH AT	B28qP2	32.	12.25	13.	4.	1.	.82
+	ROUTED TO	P28qE	32.	12.33	13.	4.	1.	.82
+	2 COMBINED AT	C24s	112.	12.67	31.	10.	3.	.20
+	DIVERSION TO	D24sP	112.	12.67	31.	10.	3.	.20
+	HYDROGRAPH AT	D24s	0.	.00	0.	0.	0.	.20
+	ROUTED TO	R24sS	0.	.00	0.	0.	0.	.20
+	HYDROGRAPH AT	BD24sP	112.	12.67	31.	10.	3.	.20
+	DIVERSION TO	D24sPE	14.	12.67	4.	1.	0.	.20
+	HYDROGRAPH AT	D24sPS	97.	12.67	27.	8.	3.	.20
+	ROUTED TO	P24sS	97.	12.83	27.	8.	3.	.20

+	2 COMBINED AT	C24sS	97.	12.83	27.	8.	3.	.20
+	HYDROGRAPH AT	24t	110.	12.25	15.	4.	1.	.26
+	2 COMBINED AT	C24t	151.	12.58	41.	12.	4.	.46
+	ROUTED TO	S24t	30.	14.33	24.	12.	4.	.46
+	HYDROGRAPH AT	04s	253.	12.08	27.	8.	3.	.28
+	ROUTED TO	S04s	247.	12.17	26.	8.	3.	.28
+	ROUTED TO	R04sS	211.	12.25	26.	8.	3.	.28
+	HYDROGRAPH AT	08q	311.	12.25	54.	18.	6.	.44
+	ROUTED TO	R08qS	301.	12.33	54.	18.	6.	.44
+	HYDROGRAPH AT	08s	491.	12.25	82.	27.	9.	.65
+	3 COMBINED AT	C08s	966.	12.25	159.	52.	17.	1.37
+	ROUTED TO	S08s	692.	12.50	117.	51.	17.	1.37
+	DIVERSION TO	D08sP	692.	12.50	117.	51.	17.	1.37
+	HYDROGRAPH AT	D08s	0.	.00	0.	0.	0.	1.37
+	ROUTED TO	R08sW	0.	.00	0.	0.	0.	1.37
+	HYDROGRAPH AT	12q	223.	12.25	29.	8.	3.	.40
+	ROUTED TO	R12qS	213.	12.33	29.	8.	3.	.40
+	HYDROGRAPH AT	12s	205.	12.17	37.	13.	4.	.21
+	ROUTED TO	S12s	106.	12.58	21.	11.	4.	.21
+	2 COMBINED AT	C12s	268.	12.50	49.	19.	7.	.61
+	ROUTED TO	R12sW	248.	12.67	49.	19.	7.	.61
+	2 COMBINED AT	C12sW	240.	12.67	48.	19.	7.	1.97
+	DIVERSION TO	D16sP2	240.	12.67	48.	19.	7.	1.97
+	HYDROGRAPH AT	D16s2	0.	.00	0.	0.	0.	1.97
+	HYDROGRAPH AT	16o	354.	12.00	39.	14.	5.	.21
+	ROUTED TO	R16oS	299.	12.17	39.	14.	5.	.21
+	HYDROGRAPH AT	16q	303.	12.33	57.	17.	6.	.65
+	2 COMBINED AT	C16q	547.	12.17	96.	31.	10.	.86
	ROUTED TO							

+		S16q	176.	12.92	43.	13.	4.	.86
	DIVERSION TO							
		D16qP	176.	12.92	43.	13.	4.	.86
	HYDROGRAPH AT							
+		D16q	0.	.00	0.	0.	0.	.86
	ROUTED TO							
+		R16qS	0.	.00	0.	0.	0.	.86
	HYDROGRAPH AT							
+		16s	421.	12.17	66.	22.	7.	.42
	3 COMBINED AT							
+		C16s	411.	12.17	64.	22.	7.	3.26
	ROUTED TO							
+		S16s	336.	12.33	41.	12.	4.	3.26
	HYDROGRAPH AT							
+		BD16qP	176.	12.92	43.	13.	4.	.86
	DIVERSION TO							
+		D16qPW	47.	12.92	12.	3.	1.	.86
	HYDROGRAPH AT							
+		D16qPS	129.	12.92	32.	10.	3.	.86
	ROUTED TO							
+		P16qS	128.	12.92	32.	10.	3.	.86
	2 COMBINED AT							
+		CC16s	336.	12.33	71.	21.	7.	3.26
	DIVERSION TO							
+		D16sP	336.	12.33	71.	21.	7.	3.26
	HYDROGRAPH AT							
+		D16s	0.	.00	0.	0.	0.	3.26
	ROUTED TO							
+		R16sS	0.	.00	0.	0.	0.	3.26
	HYDROGRAPH AT							
+		BD16sP	336.	12.33	71.	21.	7.	3.26
	ROUTED TO							
+		P16sS	314.	12.42	71.	21.	7.	3.26
	2 COMBINED AT							
+		C16sS	314.	12.42	71.	21.	7.	3.26
	HYDROGRAPH AT							
+		20p	276.	12.33	53.	16.	5.	.53
	ROUTED TO							
+		S20p1	274.	12.33	53.	15.	5.	.53
	HYDROGRAPH AT							
+		B16qPW	47.	12.92	12.	3.	1.	.86
	ROUTED TO							
+		P16qW	46.	13.00	12.	3.	1.	.86
	2 COMBINED AT							
+		C20p	274.	12.33	63.	19.	6.	1.39
	ROUTED TO							
+		S20p2	82.	13.50	61.	18.	6.	1.39
	HYDROGRAPH AT							
+		OCCC48	3523.	13.00	1371.	542.	181.	3.00
	HYDROGRAPH AT							
+		BD24oP	48.	12.00	33.	13.	4.	1.20
	ROUTED TO							
+		P24oS	48.	12.17	33.	13.	4.	1.20
	2 COMBINED AT							
+		C24oS	3571.	13.00	1404.	554.	185.	3.00
	ROUTED TO							
+		ROCCC	3510.	13.00	1404.	554.	185.	3.00

+	2 COMBINED AT	CC20p	3589.	13.00	1456.	572.	191.	4.39
	ROUTED TO	R20pS	3606.	13.08	1456.	572.	191.	4.39
	HYDROGRAPH AT	20q	151.	12.33	24.	7.	2.	.28
+	HYDROGRAPH AT	B28pP2	68.	12.33	33.	11.	4.	3.11
+	ROUTED TO	P28pE	68.	12.58	33.	11.	4.	3.11
+	3 COMBINED AT	C20q	3715.	13.08	1512.	590.	197.	4.67
+	ROUTED TO	R20qS	3698.	13.08	1512.	589.	197.	4.67
+	HYDROGRAPH AT	20s	495.	12.17	71.	24.	8.	.48
+	ROUTED TO	S20s	475.	12.25	71.	22.	7.	.48
+	2 COMBINED AT	C20s	3767.	13.08	1581.	611.	204.	5.15
+	HYDROGRAPH AT	B24sPE	14.	12.67	4.	1.	0.	.20
+	ROUTED TO	P24sE	14.	12.75	4.	1.	0.	.20
+	2 COMBINED AT	CC20s	3779.	13.08	1585.	612.	204.	5.35
+	ROUTED TO	R20sS	3748.	13.08	1585.	612.	204.	5.35
+	HYDROGRAPH AT	20t	36.	12.50	9.	2.	1.	.26
+	ROUTED TO	S20t	0.	.00	0.	0.	0.	.26
+	3 COMBINED AT	C20t	3931.	13.08	1648.	632.	211.	8.01
+	2 COMBINED AT	NUL20t	3952.	13.08	1664.	642.	215.	8.27

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

**APPENDIX F**

**HEC-1 Model Output File for the 10-Year, 24-Hour Storm**

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*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
* JUN 1998
* VERSION 4.1
*
* RUN DATE 11JUL06 TIME 08:13:30
*
*****

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

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID Project ID: METRO ADMS/P - Major Basin: 01 - Return Period: 10 Years
2 ID METRO PHOENIX ADMS/P - FCD2004C040: Wood/Patel in association with EEC
3 ID 10-Year 24-Hour Storm
4 ID SCS Type II Precipitation Distribution
5 ID Green and Ampt Loss Method
6 ID Clark Unit Hydrograph
7 ID Future Land Use Conditions
8 ID Model Name: PN24BASE.DAT, June 2006
9 ID
10 ID *****
11 ID Important Notes:
12 ID 1) Peak flow for each subbasin may not concentrate on one single point,
13 ID for illustration purposes, it is assumed that the concentration point
14 ID is located on the hydrologic low point of the subbasin;
15 ID 2) Surface flow diversions may occur at several locations along one of the
16 ID subbasin downstream boundaries. For simplicity, one split flow is
17 ID modeled for each subbasin to one direction;
18 ID 3) A fixed flow split ratio for most of the subbasin is used for all
19 ID frequencies except some of the subbasins along Grand Canal.
20 ID 4) Some subbasins have multiple pipes to one direction, a composite storm
21 ID drain pipe may have been used to model these conditions;
22 ID 5) Some subbasins have multiple detention/retention basins, an equivalent
23 ID detention/retention basin may have been used to model these conditions;
24 ID 6) Surface flow routing may occur at multiple streets and as sheet flow,
25 ID a composite channel cross section is used to represent the streets
26 ID flow conveyance.
27 ID
28 ID *****
29 ID HEC-1 ELEMENT NOMENCLATURE
30 ID
31 ID SUB-BASIN HYDROGRAPH:
32 ID Example: "80c" is the hydrograph from subbasin 80c
33 ID
34 ID SUB-BASIN FLOW DIVERSION:
35 ID Example: "D80cS" is the south component of diversion in Subbasin 80c
36 ID
37 ID PIPE FLOW DIVERSION:
38 ID Example: "80cP" is the pipe flow from Subbasin 80c
39 ID
40 ID PIPE FLOW ROUTING:
41 ID Example: "P80cS" is the south component of pipe routing from Subbasin 80c
42 ID
43 ID CHANNEL ROUTE:
44 ID Example: "R80cS" is the south component of surface flow routing from 80c
45 ID
46 ID STORAGE ROUTE:
47 ID Example: "S80c" is the storage routing in Subbasin 80c
48 ID

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49 ID HYDROGRAPH COMBINE:  
 50 ID Example: "C80c" is the combined flow in Subbasin 80c  
 51 ID  
 52 ID HYDROGRAPH RETRIEVAL:  
 53 ID Example: "B80c" is the retrieved flow from Subbasin 80c  
 54 ID  
 55 ID "DUMMY" COMBINE:

HEC-1 INPUT

1

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

56 ID Example: "NUL80C" is the dummy hydrograph combining to free up a HEC-1  
 57 ID computational path.  
 58 ID \*\*\*\*\*  
 59 ID  
 60 IT 5 2000  
 61 IN 15  
 62 IO 5  
 \*DIAGRAM  
 \*  
 63 JD 2.45 0.01  
 64 PC 0.000 0.002 0.005 0.008 0.011 0.014 0.017 0.020 0.023 0.026  
 65 PC 0.029 0.032 0.035 0.038 0.041 0.044 0.048 0.052 0.056 0.060  
 66 PC 0.064 0.068 0.072 0.076 0.080 0.085 0.090 0.095 0.100 0.105  
 67 PC 0.110 0.115 0.120 0.126 0.133 0.140 0.147 0.155 0.163 0.172  
 68 PC 0.181 0.191 0.203 0.218 0.236 0.257 0.283 0.387 0.663 0.707  
 69 PC 0.735 0.758 0.776 0.791 0.804 0.815 0.825 0.834 0.842 0.849  
 70 PC 0.856 0.863 0.869 0.875 0.881 0.887 0.893 0.898 0.903 0.908  
 71 PC 0.913 0.918 0.922 0.926 0.930 0.934 0.938 0.942 0.946 0.950  
 72 PC 0.953 0.956 0.959 0.962 0.965 0.968 0.971 0.974 0.977 0.980  
 73 PC 0.983 0.986 0.989 0.992 0.995 0.998 1.000  
 74 JD 2.303 10  
 75 JD 2.205 30  
 76 JD 2.107 60  
 77 JD 2.073 90  
 \*  
 78 KK 64c BASIN  
 79 BA 0.264  
 80 KM Subbasin at NEC(northeast corner) of Northern Ave. & Central Ave.  
 81 LG 1.00 0.24 4.55 0.41 20  
 82 UC 0.997 0.769  
 83 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 84 UA 100  
 \*  
 85 KK D64cW DIVERT  
 86 KM Divert 68% of surface flow to south.  
 87 DT D64cS  
 88 DI 0 100 1000 10000  
 89 DQ 0 68 678 6776  
 \*  
 90 KK R64cW ROUTE  
 91 KM Route surface flow west from Subbasin 64c to Subbasin 68c.  
 92 RS 5 FLOW -1  
 93 RC 0.050 0.016 0.050 2640 0.0045  
 94 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 95 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

1

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

96 KK 68c BASIN  
 97 KM Subbasin at NEC corner of Northern Ave. & 7th Ave.  
 98 BA 0.434  
 99 LG 1.68 0.25 4.60 0.39 18  
 100 UC 0.973 0.641  
 101 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 102 UA 100  
 \*  
 103 KK C68c COMBINE  
 104 KM Combine hydrographs 68c and R64cW at Northern and Central Avenues.  
 105 HC 2 0.70  
 \*  
 106 KK D68c DIVERT  
 107 KM Divert 41 cfs into pipe (south).  
 108 DT D68cP  
 109 DI 0 41 1000 10000  
 110 DQ 0 41 41 41  
 \*

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111 KK D68cW DIVERT
112 KM Divert surface flow to south.
113 DT D68cS
114 DI 0 100 1000 10000
115 DQ 0 46 458 4576
*

116 KK R68cW ROUTE
117 KM Route surface flow west from Subbasin 68c to Subbasin 72c.
118 RS 4 FLOW -1
119 RC 0.050 0.016 0.050 2640 0.0023
120 RX 0 1.85 74 181.3 188.7 296 368.15 370
121 RY 3 1 0.5 0 0 0.5 1 3
*

122 KK 72c BASIN
123 KM Subbasin at NEC corner of Northern Ave. & 15th Ave.
124 BA 0.542
125 LG 1.94 0.25 4.80 0.35 13
126 UC 1.375 1.066
127 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
128 UA 100
*

129 KK C72c COMBINE
130 KM Combine hydrographs 72c and R68cW at Northern and 15th Avenues.
131 HC 2 1.24
*

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HEC-1 INPUT

PAGE 4

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

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132 KK D72c DIVERT
133 KM Divert 90 cfs into pipe (south).
134 DT D72cP
135 DI 0 90 1000 10000
136 DQ 0 90 90 90
*

137 KK D72cW DIVERT
138 KM Divert 90% surface flow to south.
139 DT D72cS
140 DI 0 100 1000 10000
141 DQ 0 90 900 9000
*

142 KK R72cW ROUTE
143 KM Route surface flow west from Subbasin 72c to Subbasin 76c.
144 RS 9 FLOW -1
145 RC 0.050 0.016 0.050 2640 0.0008
146 RX 0 2.05 82 200.9 209.1 328 407.95 410
147 RY 3 1 0.5 0 0 0.5 1 3
*

148 KK 76c BASIN
149 KM Subbasin at NEC corner of Northern Ave. & 19th Ave.
150 BA 0.602
151 LG 0.77 0.19 6.60 0.17 18
152 UC 0.951 0.615
153 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
154 UA 100
*

155 KK C76c COMBINE
156 KM Combine hydrographs 76c and R72cW at Northern and 19th Avenues.
157 HC 2 1.84
*

158 KK D76cP DIVERT
159 KM Divert 39 (68% of 58) cfs into 19th Ave pipe (south).
160 DT D76c
161 DI 0 39 100 1000 10000
162 DQ 0 0 61 961 9961
*

163 KK 84c BASIN
164 KM Subbasin at NWC(northwest corner) of Northern Ave. & 23rd Ave.
165 BA 0.467
166 LG 0.24 0.25 6.00 0.23 42
167 UC 1.140 1.043
168 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
169 UA 100
*

```

HEC-1 INPUT

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

170 KK D84cE DIVERT  
 171 KM Divert surface flow to south.  
 172 DT D84cS  
 173 DI 0 100 1000 10000  
 174 DQ 0 77 768 7682  
 \*

175 KK R84cE ROUTE  
 176 KM Route surface flow east from Subbasin 84c to Subbasin 80c.  
 177 RS 4 FLOW -1  
 178 RC 0.050 0.016 0.050 2640 0.0008  
 179 RX 0 0.5 20 49 51 80 99.5 100  
 180 RY 3 1 0.5 0 0 0.5 1 3  
 \*

181 KK 80c BASIN  
 182 KM Subbasin at NEC corner of Northern Ave. & 15th Ave.  
 183 BA 0.661  
 184 LG 0.83 0.25 5.20 0.33 33  
 185 UC 1.059 0.709  
 186 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 187 UA 100  
 \*

188 KK S80c STORAGE  
 189 KM Online Local Retention Basin, 4 ac-ft.  
 190 RS 1 STOR 0  
 191 SV 0 1 2.6 4.3 11  
 192 SE 0 1 2 3 5  
 193 SS 3 100 2.7 1.5  
 \*

194 KK C80c COMBINE  
 195 KM Combine hydrographs 80c and R84cE at Northern and 19th Avenues.  
 196 HC 2 1.13  
 \*

197 KK D80cP DIVERT  
 198 KM Divert 19 (32% of 58) cfs into 19th Ave pipe (south).  
 199 DT D80c  
 200 DI 0 19 100 1000 10000  
 201 DQ 0 0 81 981 9981  
 \*

202 KK C76cP COMBINE  
 203 KM Combine hydrographs into Storm Drain at Northern and 19th Avenues.  
 204 HC 2 2.97  
 \*

1

HEC-1 INPUT

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

205 KK P76cS ROUTE  
 206 KM Route pipe flow from Northern/19th Ave. to Glendale/19th Ave.  
 207 RK 5300 0.0044 0.015 CIRC 3.50  
 \*

208 KK D76eP1 DIVERT  
 209 KM Divert 32% of pipe flow to 80e from 80c.  
 210 DT D80eP1  
 211 DI 0 100 1000 10000  
 212 DQ 0 32 320 3200  
 \*

213 KK 56e BASIN  
 214 KM Subbasin at NEC of Glendale Ave. & 12th St.  
 215 BA 0.176  
 216 LG 1.72 0.24 4.35 0.47 18  
 217 UC 0.755 0.523  
 218 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 219 UA 100  
 \*

220 KK D56eW DIVERT  
 221 KM Divert surface flow to south.  
 222 DT D56eS  
 223 DI 0 100 1000 10000  
 224 DQ 0 53 525 5253  
 \*

225 KK R56eW ROUTE  
 226 KM Route surface flow west from Subbasin 56e to Subbasin 60e.

227	RS	6	FLOW	-1							
228	RC	0.050	0.016	0.050	2640	0.0053					
229	RX	0	3.75	70	171.5	178.5	280	348.25	350		
230	RY	3	1	0.5	0	0	0.5	1	3		
	*										
231	KK	60e	BASIN								
232	KM	Subbasin at NEC of Glendale Ave. & 7th St.									
233	BA	0.406									
234	LG	1.35	0.25	4.45	0.45	21					
235	UC	1.124	0.874								
236	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
237	UA	100									
	*										
238	KK	C60e	COMBINE								
239	KM	Combine hydrographs 60e and R56eW.									
240	HC	2	0.58								
	*										

HEC-1 INPUT

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

241	KK	D60e	DIVERT								
242	KM	Divert 75 cfs into pipe (south).									
243	DT	D60eP									
244	DI	0	75	1000	10000						
245	DQ	0	75	75	75						
	*										
246	KK	D60eW	DIVERT								
247	KM	Divert surface flow to south.									
248	DT	D60eS									
249	DI	0	100	1000	10000						
250	DQ	0	34	342	3420						
	*										
251	KK	R60eW	ROUTE								
252	KM	Route surface flow west from Subbasin 60e to Subbasin 64e.									
253	RS	6	FLOW	-1							
254	RC	0.050	0.016	0.050	2640	0.0038					
255	RX	0	3.85	154	377.3	392.7	616	766.15	770		
256	RY	3	1	0.5	0	0	0.5	1	3		
	*										
257	KK	64e	BASIN								
258	KM	Subbasin at NEC of Glendale Ave. & Central Ave.									
259	BA	0.502									
260	LG	1.59	0.25	4.70	0.36	15					
261	UC	1.224	0.949								
262	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
263	UA	100									
	*										
264	KK	B64cS	RETRIEVE								
265	KM	Retrieve diverted surface flow from D64cS.									
266	DR	D64cS									
	*										
267	KK	R64cS	ROUTE								
268	KM	Route surface flow south from Subbasin 64c to Subbasin 64e.									
269	RS	6	FLOW	-1							
270	RC	0.050	0.016	0.050	5280	0.0072					
271	RX	0	1.8	72	176.4	183.6	288	358.2	360		
272	RY	3	1	0.5	0	0	0.5	1	3		
	*										
273	KK	C64e	COMBINE								
274	KM	Combine hydrographs 64e, R64cS, and R60eW.									
275	HC	3	1.35								
	*										

HEC-1 INPUT

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

276	KK	D64eW	DIVERT								
277	KM	Divert surface flow to south.									
278	DT	D64eS									
279	DI	0	100	1000	10000						
280	DQ	0	50	500	5000						
	*										
281	KK	R64eW	ROUTE								
282	KM	Route surface flow west from Subbasin 64e to Subbasin 68e.									

283	RS	3	FLOW	-1							
284	RC	0.050	0.016	0.050	2640	0.0034					
285	RX	0	1.55	62	151.9	158.1	248	308.45	310		
286	RY	3	1	0.5	0	0	0.5	1	3		
	*										
287	KK	68e	BASIN								
288	KM		Subbasin at NEC of Glendale Ave. & 7th Ave.								
289	BA	0.496									
290	LG	1.58	0.25	4.80	0.35	14					
291	UC	1.275	0.999								
292	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
293	UA	100									
	*										
294	KK	B68cP	RETRIEVE								
295	KM		Retrieve diverted pipe flow from D68cP.								
296	DR	D68cP									
	*										
297	KK	P68cS	ROUTE								
298	KM		Route pipe flow from Northern/7th Ave. to Glendale/7th Ave.								
299	RK	5300	0.0033	0.015		CIRC	3.25				
	*										
300	KK	B68cS	RETRIEVE								
301	KM		Retrieve diverted surface flow from D68cS.								
302	DR	D68cS									
	*										
303	KK	R68cS	ROUTE								
304	KM		Route surface flow south from Subbasin 68c to Subbasin 68e.								
305	RS	6	FLOW	-1							
306	RC	0.050	0.016	0.050	5280	0.0066					
307	RX	0	1.05	42	102.9	107.1	168	208.95	210		
308	RY	3	1	0.5	0	0	0.5	1	3		
	*										
309	KK	C68cS	COMBINE								
310	KM		Combine hydrographs R68cS and P68cS.								
311	HC	2	0.70								
	*										

HEC-1 INPUT

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

312	KK	C68e	COMBINE								
313	KM		Combine hydrographs 68e, C68cS, and R64eW.								
314	HC	3	2.28								
	*										
315	KK	D68e	DIVERT								
316	KM		Divert 63 cfs into pipe (south).								
317	DT	D68eP									
318	DI	0	63	1000	10000						
319	DQ	0	63	63	63						
	*										
320	KK	D68eW	DIVERT								
321	KM		Divert surface flow to south.								
322	DT	D68eS									
323	DI	0	100	1000	10000						
324	DQ	0	54	539	5391						
	*										
325	KK	R68eW	ROUTE								
326	KM		Route surface flow west from Subbasin 68e to Subbasin 72e.								
327	RS	3	FLOW	-1							
328	RC	0.050	0.016	0.050	2640	0.0019					
329	RX	0	1.55	62	151.9	158.1	248	308.45	310		
330	RY	3	1	0.5	0	0	0.5	1	3		
	*										
331	KK	72e	BASIN								
332	KM		Subbasin at NEC of Glendale Ave. & 15th Ave.								
333	BA	0.499									
334	LG	1.62	0.25	4.80	0.35	19					
335	UC	1.237	0.963								
336	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
337	UA	100									
	*										
338	KK	B72cP	RETRIEVE								
339	KM		Retrieve diverted pipe flow from D72cP.								
340	DR	D72cP									

```

*
341 KK P72cS ROUTE
342 KM Route pipe flow from Northern/15th Ave. to Glendale/15th Ave.
343 RK 5300 0.0052 0.015 CIRC 4.00
*
344 KK B72cS RETRIEVE
345 KM Retrieve diverted surface flow from D72cS.
346 DR D72cS
*

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HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
347 KK R72cS ROUTE
348 KM Route surface flow south from Subbasin 72c to Subbasin 72e.
349 RS 6 FLOW -1
350 RC 0.050 0.016 0.050 5280 0.0055
351 RX 0 1.55 62 151.9 158.1 248 308.45 310
352 RY 3 1 0.5 0 0 0.5 1 3
*
353 KK C72cS COMBINE
354 KM Combine hydrographs R72cS and P72cS.
355 HC 2 1.24
*
356 KK C72e COMBINE
357 KM Combine hydrographs 72e, C72cS, and R68eW.
358 HC 3 3.32
*
359 KK D72e DIVERT
360 KM Divert 195 cfs into pipe (south).
361 DT D72eP
362 DI 0 100 195 10000
363 DQ 0 100 195 195
*
364 KK D72eW DIVERT
365 KM Divert 90% surface flow to south.
366 DT D72eS
367 DI 0 100 1000 10000
368 DQ 0 90 900 9000
*
369 KK R72eW ROUTE
370 KM Route surface flow west from Subbasin 72e to Subbasin 76e.
371 RS 9 FLOW -1
372 RC 0.050 0.016 0.050 2640 0.0004
373 RX 0 1.65 66 161.7 168.3 264 328.35 330
374 RY 3 1 0.5 0 0 0.5 1 3
*
375 KK 76e BASIN
376 KM Subbasin at NEC of Glendale Ave. & 19th Ave.
377 BA 0.499
378 LG 1.17 0.25 5.20 0.30 22
379 UC 1.197 0.808
380 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
381 UA 1.00
*

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HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
382 KK B76c RETRIEVE
383 KM Retrieve diverted surface flow from D76c.
384 DR D76c
*
385 KK R76cS ROUTE
386 KM Route surface flow south from Subbasin 76c to Subbasin 76e.
387 RS 5 FLOW -1
388 RC 0.050 0.016 0.050 5280 0.0036
389 RX 0 1 40 98 102 160 199 200
390 RY 3 1 0.5 0 0 0.5 1 3
*
391 KK C76e COMBINE
392 KM Combine hydrographs 76e, R72eW, D76eP1, and R76cS.
393 HC 4 4.42
*

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```

394      KK  D76eP  DIVERT
395      KM  Divert 21 (27% of 76) cfs into 19th Ave pipe (south).
396      DT  D76e
397      DI      0      21      100      1000      10000
398      DQ      0      0      79      979      9979
      *

399      KK  BD84cS  RETRIEVE
400      KM  Retrieve diverted surface flow from D84cS.
401      DR  D84cS
      *

402      KK  R84cS  ROUTE
403      KM  Route surface flow south from Subbasin 84c to Subbasin 84e.
404      RS      4      FLOW      -1
405      RC  0.050  0.016  0.050  5280  0.0042
406      RX      0      0.75      30      73.5      76.5      120  149.25      150
407      RY      3      1      0.5      0      0      0.5      1      3
      *

408      KK      84e  BASIN
409      KM  Subbasin at NWC of Glendale Ave. & 23rd Ave.
410      BA  0.214
411      LG  1.19  0.15  7.30  0.13  23
412      UC  1.215  1.339
413      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
414      UA      100
      *

415      KK  C84e  COMBINE
416      KM  Combine hydrographs 84e and R84cS.
417      HC      2      0.68
      *

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HEC-1 INPUT

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

```

418      KK  D84eE  DIVERT
419      KM  Divert surface flow to south.
420      DT  D84eS
421      DI      0      100      1000  10000
422      DQ      0      39      395  3950
      *

423      KK  R84eE  ROUTE
424      KM  Route surface flow east from Subbasin 84e to Subbasin 80e.
425      RS      6      FLOW      -1
426      RC  0.050  0.016  0.050  2640  0.0005
427      RX      0      1.85      74  181.3  188.7      296  368.15      370
428      RY      3      1      0.5      0      0      0.5      1      3
      *

429      KK      80e  BASIN
430      KM  Subbasin at NWC of Glendale Ave. & 19th Ave.
431      BA  0.494
432      LG  0.74  0.25  6.00  0.22  23
433      UC  1.070  0.718
434      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
435      UA      100
      *

436      KK  B80eP1  RETRIEVE
437      KM  Retrieve diverted pipe flow from D80eP1.
438      DR  D80eP1
      *

439      KK  BD80c  RETRIEVE
440      KM  Retrieve diverted surface flow from D80c.
441      DR  D80c
      *

442      KK  R80cS  ROUTE
443      KM  Route surface flow south from Subbasin 80c to Subbasin 80e.
444      RS      4      FLOW      -1
445      RC  0.050  0.016  0.050  5280  0.0036
446      RX      0      1      40      98      102      160      199      200
447      RY      3      1      0.5      0      0      0.5      1      3
      *

448      KK  C80e  COMBINE
449      KM  Combine hydrographs 80e,R84eE, R80cS, and D80eP1.
450      HC      4      1.84
      *

```

451 KK D80eP DIVERT  
 452 KM Divert 55 (73% of 76) cfs into 19th Ave pipe (south).  
 453 DT D80e  
 454 DI 0 55 100 1000 10000  
 455 DQ 0 0 45 945 9945  
 \*

HEC-1 INPUT

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

456 KK C76eP COMBINE  
 457 KM Combine hydrographs D80eP and D76eP into 19th Ave pipe.  
 458 HC 2 6.26  
 \*  
 459 KK P76eS ROUTE  
 460 KM Route pipe flow from Glendale/19th Ave. to Bethany/19th Ave.  
 461 RK 5300 0.0037 0.015 CIRC 4.00  
 \*

462 KK D76gP1 DIVERT  
 463 KM Divert 73% of pipe flow to 80g from 80e.  
 464 DT D80gP1  
 465 DI 0 100 1000 10000  
 466 DQ 0 73 730 7300  
 \*

467 KK 76g BASIN  
 468 KM Subbasin at NWC of Bethany Home & 15th Ave.  
 469 BA 0.501  
 470 LG 1.08 0.25 5.60 0.26 28  
 471 UC 1.082 0.720  
 472 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 473 UA 100  
 \*

474 KK BD76e RETRIEVE  
 475 KM Retrieve diverted surface flow from D76e.  
 476 DR D76e  
 \*

477 KK R76eS ROUTE  
 478 KM Route surface flow south from Subbasin 76e to Subbasin 76g.  
 479 RS 5 FLOW -1  
 480 RC 0.050 0.016 0.050 5280 0.0040  
 481 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 482 RY 3 1 0.5 0 0 0.5 1 3  
 \*

483 KK C76g COMBINE  
 484 KM Combine hydrographs 76g, R76eS, and D76gP1.  
 485 HC 3 4.92  
 \*

486 KK D76g1 DIVERT  
 487 KM Divert 48 cfs into pipe (15th Ave).  
 488 DT D76gP2  
 489 DI 0 48 1000 10000  
 490 DQ 0 48 48 48  
 \*

HEC-1 INPUT

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

491 KK D76g DIVERT  
 492 KM Divert 57 (75% of 76) cfs into 19th Ave pipe (south).  
 493 DT D76gP  
 494 DI 0 57 100 1000 10000  
 495 DQ 0 57 57 57 57  
 \*

496 KK D76gE DIVERT  
 497 KM Divert surface flow to south.  
 498 DT D76gS  
 499 DI 0 100 1000 10000  
 500 DQ 0 70 700 7000  
 \*

501 KK R76gE ROUTE  
 502 KM Route surface flow east from Subbasin 76g to Subbasin 72g.  
 503 RS 3 FLOW -1  
 504 RC 0.050 0.016 0.050 1000 0.0008  
 505 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 506 RY 3 1 0.5 0 0 0.5 1 3

```

*
507 KK B76gP2 RETRIEVE
508 KM Retrieve diverted pipe flow from D76gP2.
509 DR D76gP2
*

510 KK C76gE COMBINE
511 KM Combine hydrographs D76gP2 and R76gE.
512 HC 2 4.92
*

513 KK 54g BASIN
514 KM Subbasin at NEC of Bethany Home & 16th St.
515 BA 0.247
516 LG 0.95 0.25 4.65 0.39 26
517 UC 0.720 0.556
518 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
519 UA 100
*

520 KK D54gW DIVERT
521 KM Divert surface flow to south.
522 DT D54gS
523 DI 0 100 1000 10000
524 DQ 0 40 405 4050
*

525 KK R54gW ROUTE
526 KM Route surface flow west from Subbasin 54g to Subbasin 56g.
527 RS 4 FLOW -1
528 RC 0.050 0.016 0.050 2636 0.0030
529 RX 0 1.95 78 191.1 198.9 312 388.05 390
530 RY 3 1 0.5 0 0 0.5 1 3
*

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1

HEC-1 INPUT

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

```

531 KK 56g BASIN
532 KM Subbasin at NEC of Bethany Home & 12th St.
533 BA 0.500
534 LG 1.70 0.25 4.35 0.47 23
535 UC 1.000 0.759
536 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
537 UA 100
*

538 KK B56eS RETRIEVE
539 KM Retrieve diverted surface flow from D56eS.
540 DR D56eS
*

541 KK R56eS ROUTE
542 KM Route surface flow south from Subbasin 56e to Subbasin 56g.
543 RS 6 FLOW -1
544 RC 0.050 0.016 0.050 5280 0.0106
545 RX 0 1.8 72 176.4 183.6 288 358.2 360
546 RY 3 1 0.5 0 0 0.5 1 3
*

547 KK C56g COMBINE
548 KM Combine hydrographs 56g, R56eS, and R54gW.
549 HC 3 0.92
*

550 KK D56g DIVERT
551 KM Divert 130 cfs into pipe (south).
552 DT D56gP
553 DI 0 100 130 10000
554 DQ 0 100 130 130
*

555 KK D56gW DIVERT
556 KM Divert surface flow to south.
557 DT D56gS
558 DI 0 100 1000 10000
559 DQ 0 56 561 5614
*

560 KK R56gW ROUTE
561 KM Route surface flow west from Subbasin 56g to Subbasin 60g.
562 RS 5 FLOW -1
563 RC 0.050 0.016 0.050 2636 0.0030
564 RX 0 1.9 76 186.2 193.8 304 378.1 380

```

565 RY 3 1 0.5 0 0 0.5 1 3

HEC-1 INPUT

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

566 KK 60g BASIN
567 KM Subbasin at NEC of Bethany Home & 7th St.
568 BA 0.500
569 LG 1.51 0.25 4.65 0.39 25
570 UC 1.071 0.820
571 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
572 UA 100

573 KK B60eP RETRIEVE
574 KM Retrieve diverted pipe flow from D60eP.
575 DR D60eP

576 KK P60eS ROUTE
577 KM Route pipe flow from Glendale/7th St. to Bethany/7th St.
578 RK 5300 0.0074 0.015 CIRC 3.50

579 KK B60eS RETRIEVE
580 KM Retrieve diverted surface flow from D60eS.
581 DR D60eS

582 KK R60eS ROUTE
583 KM Route surface flow south from Subbasin 60e to Subbasin 60g.
584 RS 6 FLOW -1
585 RC 0.050 0.016 0.050 5280 0.0091
586 RX 0 1.55 62 151.9 158.1 248 308.45 310
587 RY 3 1 0.5 0 0 0.5 1 3

588 KK C60eS COMBINE
589 KM Combine hydrographs R60eS and P60eS.
590 HC 2 0.58

591 KK C60g COMBINE
592 KM Combine hydrographs 60g, R56gW, and C60eS.
593 HC 3 1.83

594 KK D60g DIVERT
595 KM Divert 124 cfs into pipe (south).
596 DT D60gP
597 DI 0 100 124 10000
598 DQ 0 100 124 124

HEC-1 INPUT

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

599 KK D60gW DIVERT
600 KM Divert surface flow to south.
601 DT D60gS
602 DI 0 100 1000 10000
603 DQ 0 47 470 4701

604 KK R60gW ROUTE
605 KM Route surface flow west from Subbasin 60g to Subbasin 64g.
606 RS 3 FLOW -1
607 RC 0.050 0.016 0.050 2640 0.0023
608 RX 0 2.05 82 200.9 209.1 328 407.95 410
609 RY 3 1 0.5 0 0 0.5 1 3

610 KK 64g BASIN
611 KM Subbasin at NEC of Bethany Home & Central Ave.
612 BA 0.502
613 LG 1.76 0.25 4.80 0.36 20
614 UC 1.147 0.883
615 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
616 UA 100

617 KK B64eS RETRIEVE
618 KM Retrieve diverted surface flow from D64eS.

619 DR D64eS  
 \*  
 620 KK R64eS ROUTE  
 621 KM Route surface flow south from Subbasin 64e to Subbasin 64g.  
 622 RS 6 FLOW -1  
 623 RC 0.050 0.016 0.050 5280 0.0076  
 624 RX 0 1.75 70 171.5 178.5 280 348.25 350  
 625 RY 3 1 0.5 0 0 0.5 1 3  
 \*

626 KK C64g COMBINE  
 627 KM Combine hydrographs 64g, R60gW, and R64eS.  
 628 HC 3 3.10  
 \*

629 KK D64g DIVERT  
 630 KM Divert 153 cfs into pipe.  
 631 DT D64gP  
 632 DI 0 100 153 10000  
 633 DQ 0 100 153 153  
 \*

HEC-1 INPUT

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

634 KK D64gW DIVERT  
 635 KM Divert surface flow to south.  
 636 DT D64gS  
 637 DI 0 100 1000 10000  
 638 DQ 0 48 480 4800  
 \*

639 KK R64gW ROUTE  
 640 KM Route surface flow west from Subbasin 64g to Subbasin 68g.  
 641 RS 3 FLOW -1  
 642 RC 0.050 0.016 0.050 2640 0.0019  
 643 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 644 RY 3 1 0.5 0 0 0.5 1 3  
 \*

645 KK 68g BASIN  
 646 KM Subbasin at NEC of Bethany Home & 7th Ave.  
 647 BA 0.502  
 648 LG 1.98 0.25 4.80 0.36 17  
 649 UC 1.288 1.004  
 650 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 651 UA 100  
 \*

652 KK B68eP RETRIEVE  
 653 KM Retrieve diverted pipe flow from D68eP.  
 654 DR D68eP  
 \*

655 KK P68eS ROUTE  
 656 KM Route pipe flow from Glendale/7th Ave. to Bethany/7th Ave.  
 657 RK 5300 0.0052 0.015 CIRC 3.50  
 \*

658 KK B68eS RETRIEVE  
 659 KM Retrieve diverted surface flow from D68eS.  
 660 DR D68eS  
 \*

661 KK R68eS ROUTE  
 662 KM Route surface flow south from Subbasin 68e to Subbasin 68g.  
 663 RS 3 FLOW -1  
 664 RC 0.050 0.016 0.050 5280 0.0063  
 665 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 666 RY 3 1 0.5 0 0 0.5 1 3  
 \*

667 KK C68eS COMBINE  
 668 KM Combine hydrographs R68eS and P68eS.  
 669 HC 2 2.28  
 \*

HEC-1 INPUT

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

670 KK C68g COMBINE  
 671 KM Combine hydrographs 68g, C68eS, and R64gW.  
 672 HC 3 4.53

```

*
673 KK D68g DIVERT
674 KM Divert 82 cfs into pipe.
675 DT D68gP
676 DI 0 82 1000 10000
677 DQ 0 82 82 82
*

678 KK D68gW DIVERT
679 KM Divert surface flow to south.
680 DT D68gS
681 DI 0 100 1000 10000
682 DQ 0 56 560 5600
*

683 KK R68gW ROUTE
684 KM Route surface flow west from Subbasin 68g to Subbasin 72g.
685 RS 4 FLOW -1
686 RC 0.050 0.016 0.050 2640 0.0008
687 RX 0 1.05 42 102.9 107.1 168 208.95 210
688 RY 3 1 0.5 0 0 0.5 1 3
*

689 KK 72g BASIN
690 KM Subbasin at NEC of Bethany Home & 15th Ave.
691 BA 0.500
692 LG 1.30 0.25 5.60 0.27 20
693 UC 1.346 1.057
694 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
695 UA 100
*

696 KK B72eP RETRIEVE
697 KM Retrieve diverted pipe flow from D72eP.
698 DR D72eP
*

699 KK P72eS ROUTE
700 KM Route pipe flow from Glendale/15th Ave. to Bethany/15th Ave.
701 RK 5300 0.0058 0.015 CIRC 5.25
*

702 KK B72eS RETRIEVE
703 KM Retrieve diverted surface flow from D72eS.
704 DR D72eS
*

HEC-1 INPUT
PAGE 20

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

705 KK R72eS ROUTE
706 KM Route surface flow south from Subbasin 72e to Subbasin 72g.
707 RS 5 FLOW -1
708 RC 0.050 0.016 0.050 5280 0.0047
709 RX 0 1.75 70 171.5 178.5 280 348.25 350
710 RY 3 1 0.5 0 0 0.5 1 3
*

711 KK C72eS COMBINE
712 KM Combine hydrographs R72eS and P72eS.
713 HC 2 3.32
*

714 KK C72g COMBINE
715 KM Combine hydrographs 72g, C72eS, and R68gW.
716 HC 3 6.07
*

717 KK CC72g COMBINE
718 KM Combine hydrographs C72g and C76gE.
719 HC 2 7.67
*

720 KK D72g DIVERT
721 KM Divert 178 cfs into pipe.
722 DT D72gP
723 DI 0 100 178 10000
724 DQ 0 100 178 178
*

725 KK R72gS ROUTE
726 KM Route surface flow south from Subbasin 72g to Subbasin 72i.
727 RS 3 FLOW -1
728 RC 0.050 0.016 0.050 5280 0.0040

```

729	RX	0	1.3	52	127.4	132.6	208	258.7	260
730	RY	3	1	0.5	0	0	0.5	1	3
	*								
731	KK BD72gP RETRIEVE								
732	KM Retrieve diverted pipe flow from D72gP.								
733	DR D72gP								
	*								
734	KK P72gS ROUTE								
735	KM Route pipe flow from Bethany/15th Ave. to Camelback/15th Ave.								
736	RK	5300	0.0024	0.015		CIRC	6.00		
	*								
737	KK C72gS COMBINE								
738	KM Combine hydrographs R72gS and P72gS.								
739	HC	2	7.67						
	*								

1

HEC-1 INPUT

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

740	KK 84g BASIN									
741	KM Subbasin at NWC of Bethany Home & 23rd Ave.									
742	BA 0.214									
743	LG	0.61	0.25	4.80	0.36	27				
744	UC	1.056	1.139							
745	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
746	UA	100								
	*									

747	KK B84eS RETRIEVE									
748	KM Retrieve diverted surface flow from D84eS.									
749	DR D84eS									
	*									

750	KK R84eS ROUTE									
751	KM Route surface flow south from Subbasin 84e to Subbasin 84g.									
752	RS	6	FLOW	-1						
753	RC	0.050	0.016	0.050	5280	0.0042				
754	RX	0	1	40	98	102	160	199	200	
755	RY	3	1	0.5	0	0	0.5	1	3	
	*									

756	KK C84g COMBINE									
757	KM Combine hydrographs 84g and R84eS.									
758	HC	2	0.90							
	*									

759	KK D84gE DIVERT									
760	KM Divert surface flow to south.									
761	DT D84gS									
762	DI	0	100	1000	10000					
763	DQ	0	47	474	4742					
	*									

764	KK R84gE ROUTE									
765	KM Route surface flow east from Subbasin 84g to Subbasin 80g.									
766	RS	6	FLOW	-1						
767	RC	0.050	0.016	0.050	2640	0.0005				
768	RX	0	1.4	56	137.2	142.8	224	278.6	280	
769	RY	3	1	0.5	0	0	0.5	1	3	
	*									

770	KK 80g BASIN									
771	KM Subbasin at NWC of Bethany Home & 19th Ave.									
772	BA 0.496									
773	LG	0.89	0.25	4.80	0.39	23				
774	UC	1.232	0.837							
775	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
776	UA	100								
	*									

1

HEC-1 INPUT

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

777	KK BD80e RETRIEVE									
778	KM Retrieve diverted surface flow from D80e.									
779	DR D80e									
	*									

780	KK R80eS ROUTE									
781	KM Route surface flow south from Subbasin 80e to Subbasin 80g.									
782	RS	3	FLOW	-1						

783 RC 0.050 0.016 0.050 5280 0.0040  
784 RX 0 1.05 42 102.9 107.1 168 208.95 210  
785 RY 3 1 0.5 0 0 0.5 1 3  
\*

786 KK B80gP1 RETRIEVE  
787 KM Retrieve diverted pipe flow from D80gP1.  
788 DR D80gP1  
\*

789 KK C80g COMBINE  
790 KM Combine hydrographs 80g, R84gE, R80eS, and D80gP1.  
791 HC 4 2.55  
\*

792 KK D80gP DIVERT  
793 KM Divert 19 (25% of 76) cfs into pipe (south).  
794 DT D80g  
795 DI 0 19 100 1000 10000  
796 DQ 0 0 81 981 9981  
\*

797 KK B76gP RETRIEVE  
798 KM Retrieve diverted pipe flow from D76gP.  
799 DR D76gP  
\*

800 KK C76gP COMBINE  
801 KM Combine hydrographs D76gP and D80gP.  
802 HC 2 7.47  
\*

803 KK P76gS ROUTE  
804 KM Route pipe flow from Bethany/19th Ave. to Camelback/19th Ave.  
805 RK 5300 0.0037 0.015 CIRC 4.00  
\*

806 KK D76iP1 DIVERT  
807 KM Divert 25% of pipe flow from 80g to 80i.  
808 DT D80iP1  
809 DI 0 100 1000 10000  
810 DQ 0 25 250 2500  
\*

HEC-1 INPUT

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

811 KK 761 BASIN  
812 KM Subbasin at NWC of Camelback Rd. & 15th Ave.  
813 BA 0.499  
814 LG 0.72 0.25 5.40 0.29 44  
815 UC 1.053 0.701  
816 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
817 UA 100  
\*

818 KK BD76gS RETRIEVE  
819 KM Retrieve diverted surface flow from D76gS.  
820 DR D76gS  
\*

821 KK R76gS ROUTE  
822 KM Route surface flow south from Subbasin 76g to Subbasin 76i.  
823 RS 3 FLOW -1  
824 RC 0.050 0.016 0.050 5280 0.0034  
825 RX 0 0.75 30 73.5 76.5 120 149.25 150  
826 RY 3 1 0.5 0 0 0.5 1 3  
\*

827 KK C76i COMBINE  
828 KM Combine hydrographs D76iP1, R76gS, and 76i.  
829 HC 3 5.42  
\*

830 KK D76iP2 DIVERT  
831 KM Divert 48 cfs flow into 15th Ave pipe.  
832 DT D76i1  
833 DI 0 48 100 1000 10000  
834 DQ 0 0 52 952 9952  
\*

835 KK 721 BASIN  
836 KM Subbasin at NEC of Camelback Rd. & 7th Ave.  
837 BA 0.504  
838 LG 0.92 0.25 4.80 0.36 22

```

839 UC 1.258 0.976
840 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
841 UA 100
*

842 KK C72i COMBINE
843 KM Combine hydrographs 72i, C72gS, and D76iP2.
844 HC 3 8.68
*

845 KK D72iP DIVERT
846 KM Divert flow into pipe.
847 KM Total Pipe flow is 258 cfs
848 DT D72i
849 DI 0 258 1000 10000
850 DQ 0 0 742 9742
*

```

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HEC-1 INPUT

PAGE 24

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

```

851 KK D72iP2 DIVERT
852 KM Divert flow into pipe.
853 KM Flow of pipe 2 to west is 32, flow of pipe 1 to south is 226 cfs
854 DT D72iP1
855 DI 0 258 300
856 DQ 0 226 226
*

```

```

857 KK P72iW ROUTE
858 KM Route pipe flow from Camelback/15th Ave. to Camelback/19th Ave.
859 RK 2600 0.0030 0.015 CIRC 4.0
*

```

```

860 KK BD76i1 RETRIEVE
861 KM Retrieve diverted flow from D76i1.
862 DR D76i1
*

```

```

863 KK CC76i COMBINE
864 KM Combine hydrographs D76i1, and P72iW.
865 HC 2 5.92
*

```

```

866 KK D76iP DIVERT
867 KM Divert 78 (74% of 106) cfs flow into pipe.
868 DT D76i
869 DI 0 78 100 1000 10000
870 DQ 0 0 22 922 9922
*
*

```

```

871 KK BD84gS RETRIEVE
872 KM Retrieve diverted surface flow from D84gS.
873 DR D84gS
*

```

```

874 KK R84gS ROUTE
875 KM Route surface flow south from Subbasin 84g to Subbasin 84i.
876 RS 6 FLOW -1
877 RC 0.050 0.016 0.050 5280 0.0038
878 RX 0 0.75 30 73.5 76.5 120 149.25 150
879 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

880 KK 84i BASIN
881 KM Subbasin at NWC of Camelback Rd. & 23rd Ave.
882 BA 0.211
883 LG 0.99 0.25 5.20 0.31 27
884 UC 1.203 1.343
885 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
886 UA 100
*

```

1

HEC-1 INPUT

PAGE 25

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

```

887 KK C84i COMBINE
888 KM Combine hydrographs 84i and R84gS.
889 HC 2 1.11
*

```

```

890 KK S84i STORAGE
891 KM Online Regional Retention Basin - Phase A Basin of 24th Ave & Camelback Rd.

```

892	RS	1	STOR	0					
893	SV	0	8	17	22	27	32	50	
894	SE	0	2	4	5	6	7	9	
895	SS	7	100	2.7	1.5				

896 KK D84iE DIVERT  
 897 KM Divert surface flow to south.  
 898 DT D84iS  
 899 DI 0 100 1000 10000  
 900 DQ 0 39 387 3873  
 \*

901 KK R84iE ROUTE  
 902 KM Route surface flow east from Subbasin 84i to Subbasin 80i.  
 903 RS 9 FLOW -1  
 904 RC 0.050 0.016 0.050 2640 0.0015  
 905 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 906 RY 3 1 0.5 0 0 0.5 1 3  
 \*

907 KK 80i BASIN  
 908 KM Subbasin at NWC of Camelback Rd. & 19th Ave.  
 909 BA 0.494  
 910 LG 0.47 0.25 5.70 0.24 23  
 911 UC 1.060 0.709  
 912 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 913 UA 100  
 \*

914 KK BD80g RETRIEVE  
 915 KM Retrieve diverted flow from D80g.  
 916 DR D80g  
 \*

917 KK S80g STORAGE  
 918 KM Online Regional Detention Basin, 0.9 ac-ft.  
 919 RS 1 STOR 0  
 920 SV 0 0.2 0.5 0.9 1.4 3.0  
 921 SE 0 1 2 3 4 5  
 922 SL 0 0.785 0.62 0.5  
 923 SS 3 300 2.7 1.5  
 \*

HEC-1 INPUT

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

924 KK R80gS ROUTE  
 925 KM Route surface flow south from Subbasin 80g to Subbasin 80i.  
 926 RS 3 FLOW -1  
 927 RC 0.050 0.016 0.050 5280 0.0034  
 928 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 929 RY 3 1 0.5 0 0 0.5 1 3  
 \*

930 KK B80iP1 RETRIEVE  
 931 KM Retrieve diverted pipe flow from D80iP1.  
 932 DR D80iP1  
 \*

933 KK C80i COMBINE  
 934 KM Combine hydrographs 80i,R84E,R80gS, and D80iP1.  
 935 HC 4 3.25  
 \*

936 KK D80iP DIVERT  
 937 KM Divert 28 (26% of 106) cfs into pipe.  
 938 DT D80i  
 939 DI 0 28 100 1000 10000  
 940 DQ 0 0 72 972 9972  
 \*

941 KK C76iP COMBINE  
 942 KM Combine hydrographs D80iP and D76iP.  
 943 HC 2 9.18  
 \*

944 KK P76iS ROUTE  
 945 KM Route pipe flow from Camelback/19th Ave. to Grand Canal/19th Ave.  
 946 RK 3500 0.0039 0.015 CIRC 4.50  
 \*

947 KK D76kP1 DIVERT  
 948 KM Divert 26% of pipe flow from 80i to 80k.  
 949 DT D80kP1

950	DI	0	100	1000	10000						
951	DQ	0	26	260	2600						
	*										
952	KK	76k	BASIN								
953	KM	Subbasin at NEC of Grand Canal & 19th Ave.									
954	BA	0.317									
955	LG	0.55	0.15	7.00	0.14	28					
956	UC	0.877	0.556								
957	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
958	UA	100									
	*										

1

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

959	KK	BD76i	RETRIEVE								
960	KM	Retrieve diverted surface flow from D76i.									
961	DR	D76i									
	*										
962	KK	D76iS	DIVERT								
963	KM	Divert surface flow to east.									
964	DT	D76iE									
965	DI	0	100	1000	10000						
966	DQ	0	32	320	3200						
	*										
967	KK	R76iS	ROUTE								
968	KM	Route surface flow south from Subbasin 76i to Subbasin 76k.									
969	RS	3	FLOW	-1							
970	RC	0.050	0.016	0.050	3500	0.0038					
971	RX	0	0.75	30	73.5	76.5	120	149.25	150		
972	RY	3	1	0.5	0	0	0.5	1	3		
	*										
973	KK	C76k	COMBINE								
974	KM	Combine hydrographs D76kP1, R76iS, and 76k.									
975	HC	3	5.74								
	*										

976	KK	D76kP2	DIVERT								
977	KM	Divert flow into pipe.									
978	KM	Pipe flow to east is 32 cfs									
979	DT	D76k1									
980	DI	0	32	100	1000	10000					
981	DQ	0	0	68	968	9968					
	*										
982	KK	54i	BASIN								
983	KM	Subbasin at NEC of Camelback Rd. & 16th St.									
984	BA	0.192									
985	LG	1.22	0.25	4.80	0.39	33					
986	UC	0.911	0.968								
987	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
988	UA	100									
	*										

989	KK	BD54gS	RETRIEVE								
990	KM	Retrieve diverted surface flow from D54gS.									
991	DR	D54gS									
	*										
992	KK	R54gS	ROUTE								
993	KM	Route surface flow south from Subbasin 54g to Subbasin 54i.									
994	RS	6	FLOW	-1							
995	RC	0.050	0.016	0.050	5280	0.0072					
996	RX	0	0.75	30	73.5	76.5	120	149.25	150		
997	RY	3	1	0.5	0	0	0.5	1	3		
	*										

1

HEC-1 INPUT

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

998	KK	C54i	COMBINE								
999	KM	Combine hydrographs 54i and R54gS.									
1000	HC	2	0.44								
	*										
1001	KK	D54i	DIVERT								
1002	KM	Divert 68 cfs into pipe.									
1003	DT	D54iP									
1004	DI	0	68	1000	10000						
1005	DQ	0	68	68	68						

```

*
1006 KK D54iW DIVERT
1007 KM Divert surface flow to south.
1008 DT D54iS
1009 DI 0 100 1000 10000
1010 DQ 0 37 372 3722
*

1011 KK R54iW ROUTE
1012 KM Route surface flow west from Subbasin 54i to Subbasin 56i.
1013 RS 6 FLOW -1
1014 RC 0.050 0.016 0.050 2636 0.0015
1015 RX 0 1.6 64 156.8 163.2 256 318.4 320
1016 RY 3 1 0.5 0 0 0.5 1 3
*

1017 KK 56i BASIN
1018 KM Subbasin at NEC of Camelback Rd. & 12th St.
1019 BA 0.500
1020 LG 1.20 0.25 4.80 0.37 28
1021 UC 1.016 0.774
1022 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1023 UA 100
*

1024 KK BD56gP RETRIEVE
1025 KM Retrieve diverted pipe flow from D56gP.
1026 DR D56gP
*

1027 KK P56gS ROUTE
1028 KM Route pipe flow from Bethany/12th St. to Camelback/12th St.
1029 RK 5300 0.0058 0.015 CIRC 4.50
*

1030 KK BD56gS RETRIEVE
1031 KM Retrieve diverted surface flow from D56gS.
1032 DR D56gS
*

```

HEC-1 INPUT

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

1033 KK R56gS ROUTE
1034 KM Route surface flow south from Subbasin 56g to Subbasin 56i.
1035 RS 6 FLOW -1
1036 RC 0.050 0.016 0.050 5280 0.0072
1037 RX 0 1.3 52 127.4 132.6 208 258.7 260
1038 RY 3 1 0.5 0 0 0.5 1 3
*

1039 KK C56gS COMBINE
1040 KM Combine hydrographs R56gS and P56gS.
1041 HC 2 0.92
*

1042 KK C56i COMBINE
1043 KM Combine hydrographs 56i, C56gS, and R54iW.
1044 HC 3 1.62
*

1045 KK D56i DIVERT
1046 KM Divert 204 cfs into pipe.
1047 DT D56iP
1048 DI 0 100 204 10000
1049 DQ 0 100 204 204
*

1050 KK D56iW DIVERT
1051 KM Divert surface flow to south.
1052 DT D56iS
1053 DI 0 100 1000 10000
1054 DQ 0 49 488 4881
*

1055 KK R56iW ROUTE
1056 KM Route surface flow west from Subbasin 56i to Subbasin 60i.
1057 RS 9 FLOW -1
1058 RC 0.050 0.016 0.050 2636 0.0015
1059 RX 0 2.4 96 235.2 244.8 384 477.6 480
1060 RY 3 1 0.5 0 0 0.5 1 3
*

1061 KK 60i BASIN

```

1062 KM Subbasin at NEC of Camelback Rd. & 7th St.  
 1063 BA 0.500  
 1064 LG 0.78 0.25 4.80 0.37 33  
 1065 UC 0.981 0.744  
 1066 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1067 UA 100  
 \*

HEC-1 INPUT

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

1068 KK BD60gP RETRIEVE  
 1069 KM Retrieve diverted pipe flow from D60gP.  
 1070 DR D60gP  
 \*  
 1071 KK P60gS ROUTE  
 1072 KM Route pipe flow from Bethany/7th St. to Camelback/7th St.  
 1073 RK 5300 0.0053 0.015 CIRC 4.50  
 \*

1074 KK BD60gS RETRIEVE  
 1075 KM Retrieve diverted surface flow from D60gS.  
 1076 DR D60gS  
 \*

1077 KK R60gS ROUTE  
 1078 KM Route surface flow south from Subbasin 60g to Subbasin 60i.  
 1079 RS 5 FLOW -1  
 1080 RC 0.050 0.016 0.050 5280 0.0064  
 1081 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 1082 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1083 KK C60gS COMBINE  
 1084 KM Combine hydrographs R60gS and P60gS.  
 1085 HC 2 1.83  
 \*

1086 KK C60i COMBINE  
 1087 KM Combine hydrographs 60i, C60gS, and R56iW.  
 1088 HC 3 3.02  
 \*

1089 KK D60i DIVERT  
 1090 KM Divert 211 cfs into pipe.  
 1091 KM Total flow for two pipes is 211 cfs  
 1092 DT D60iP  
 1093 DI 0 100 211 10000  
 1094 DQ 0 100 211 211  
 \*

1095 KK D60iW DIVERT  
 1096 KM Divert surface flow to south.  
 1097 DT D60iS  
 1098 DI 0 100 1000 10000  
 1099 DQ 0 59 592 5916  
 \*

1100 KK R60iW ROUTE  
 1101 KM Route surface flow west from Subbasin 60i to Subbasin 64i.  
 1102 RS 4 FLOW -1  
 1103 RC 0.050 0.016 0.050 2640 0.0015  
 1104 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1105 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1106 KK BD64gP RETRIEVE  
 1107 KM Retrieve diverted pipe flow from D64gP.  
 1108 DR D64gP  
 \*

1109 KK P64gS ROUTE  
 1110 KM Route pipe flow from Bethany/Central Ave. to Camelback/Central Ave.  
 1111 RK 5300 0.0046 0.015 CIRC 5.00  
 \*

1112 KK BD64gS RETRIEVE  
 1113 KM Retrieve diverted surface flow from D64gS.  
 1114 DR D64gS  
 \*



1172 KK C68gS COMBINE  
 1173 KM Combine hydrographs R68gS and P68gS.  
 1174 HC 2 4.53  
 \*

HEC-1 INPUT

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

1175 KK C68i COMBINE  
 1176 KM Combine hydrographs 68i, C68gS, and R64iW.  
 1177 HC 3 6.72  
 \*

1178 KK BD72i RETRIEVE  
 1179 KM Retrieve diverted surface flow from D72i.  
 1180 DR D72i  
 \*

1181 KK B76iE RETRIEVE  
 1182 KM Retrieve diverted surface flow from D76iE.  
 1183 DR D76iE  
 \*

1184 KK R76iE ROUTE  
 1185 KM Route surface flow east from Subbasin 76i to Subbasin 72i.  
 1186 RS 4 FLOW -1  
 1187 RC 0.050 0.016 0.050 2640 0.0008  
 1188 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 1189 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1190 KK CC72i COMBINE  
 1191 KM Combine hydrographs R76iE and D72i.  
 1192 HC 2 8.68  
 \*

1193 KK D72iE DIVERT  
 1194 KM Divert surface flow to south.  
 1195 DT D72iS  
 1196 DI 0 100 1000 10000  
 1197 DQ 0 70 700 7000  
 \*

1198 KK R72iE ROUTE  
 1199 KM Route surface flow east from Subbasin 72i to Subbasin 68i.  
 1200 RS 5 FLOW -1  
 1201 RC 0.050 0.016 0.050 2640 0.0008  
 1202 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1203 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1204 KK CC68i COMBINE  
 1205 KM Combine hydrographs C68i and R72iE.  
 1206 HC 2 10.87  
 \*

1207 KK D68i DIVERT  
 1208 KM Divert 99 cfs into pipe.  
 1209 DT D68iP  
 1210 DI 0 99 1000 10000  
 1211 DQ 0 99 99 99  
 \*

HEC-1 INPUT

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

1212 KK R68iS ROUTE  
 1213 KM Route surface flow south from Subbasin 68i to Subbasin 68k.  
 1214 RS 3 FLOW -1  
 1215 RC 0.050 0.016 0.050 2000 0.0030  
 1216 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1217 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1218 KK BD68iP RETRIEVE  
 1219 KM Retrieve diverted pipe flow from D68iP.  
 1220 DR D68iP  
 \*

1221 KK P68iS ROUTE  
 1222 KM Route pipe flow from Camelback/7th Ave. to Grand Canal/7th Ave.  
 1223 RK 2400 0.0034 0.015 CIRC 4.50  
 \*

1224 KK C68iS COMBINE  
 1225 KM Combine hydrographs R68iS and P68iS.  
 1226 HC 2 10.87  
 \*

1227 KK 36i BASIN  
 1228 KM Subbasin at NEC of Camelback Rd. & 32nd St.  
 1229 BA 0.339  
 1230 LG 0.95 0.24 3.95 0.57 19  
 1231 UC 1.048 0.879  
 1232 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1233 UA 100  
 \*

1234 KK D36i DIVERT  
 1235 KM Divert 41 cfs into pipe.  
 1236 DT D36iP  
 1237 DI 0 41 1000 10000  
 1238 DQ 0 41 41 41  
 \*

1239 KK D36iW DIVERT  
 1240 KM Divert 84% surface flow to south.  
 1241 DT D36iS  
 1242 DI 0 100 1000 10000  
 1243 DQ 0 84 836 8357  
 \*

1244 KK R36iW ROUTE  
 1245 KM Route surface flow west from Subbasin 36i to Subbasin 40i.  
 1246 RS 5 FLOW -1  
 1247 RC 0.050 0.016 0.050 2610 0.0077  
 1248 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 1249 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1250 KK 40i BASIN  
 1251 KM Subbasin at NEC of Camelback Rd. & 28th St.  
 1252 BA 0.224  
 1253 LG 2.53 0.25 4.10 0.58 26  
 1254 UC 0.805 0.721  
 1255 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1256 UA 100  
 \*

1257 KK S40i STORAGE  
 1258 KM Online local Retention Basin, 11 ac-ft.  
 1259 RS 1 STOR 0  
 1260 SV 0 2.4 6.1 10.5 15.3  
 1261 SE 0 1 2 3 4  
 1262 SS 3 50 2.7 1.5  
 \*

1263 KK C40i COMBINE  
 1264 KM Combine hydrographs 40i and R36iW.  
 1265 HC 2 0.56  
 \*

1266 KK D40iW DIVERT  
 1267 KM Divert surface flow to south.  
 1268 DT D40iS  
 1269 DI 0 100 1000 10000  
 1270 DQ 0 76 759 7592  
 \*

1271 KK R40iW ROUTE  
 1272 KM Route surface flow west from Subbasin 40i to Subbasin 44i.  
 1273 RS 5 FLOW -1  
 1274 RC 0.050 0.016 0.050 2715 0.0059  
 1275 RX 0 0.5 20 49 51 80 99.5 100  
 1276 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1277 KK 44i BASIN  
 1278 KM Subbasin at NEC of Camelback Rd. & 24th St.  
 1279 BA 0.349  
 1280 LG 1.92 0.25 4.35 0.50 23  
 1281 UC 1.004 0.936  
 1282 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1283 UA 100  
 \*

1284 KK 42i BASIN  
 1285 KM Subbasin north of Biltmore & 28th St.  
 1286 BA 0.269  
 1287 LG 1.07 0.25 4.00 0.64 5  
 1288 UC 0.934 0.725  
 1289 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1290 UA 100  
 \*

HEC-1 INPUT

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

1291 KK R42iW ROUTE  
 1292 KM Route surface flow west from Subbasin 42i to Subbasin 44i.  
 1293 RS 3 FLOW -1  
 1294 RC 0.050 0.016 0.050 2715 0.0059  
 1295 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1296 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1297 KK C44i COMBINE  
 1298 KM Combine hydrographs 44i, R42iW, and R40iW.  
 1299 HC 3 1.18  
 \*

1300 KK D44i DIVERT  
 1301 KM Divert 48 cfs into pipe.  
 1302 DT D44iP  
 1303 DI 0 48 1000 10000  
 1304 DQ 0 48 48 48  
 \*

1305 KK D44iW DIVERT  
 1306 KM Divert surface flow to south.  
 1307 DT D44iS  
 1308 DI 0 100 1000 10000  
 1309 DQ 0 50 496 4957  
 \*

1310 KK R44iW ROUTE  
 1311 KM Route surface flow west from Subbasin 44i to Subbasin 48i.  
 1312 RS 3 FLOW -1  
 1313 RC 0.050 0.016 0.050 2640 0.0053  
 1314 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1315 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1316 KK 48i BASIN  
 1317 KM Subbasin at NEC of Camelback Rd. & 20th St.  
 1318 BA 0.535  
 1319 LG 1.55 0.25 4.35 0.45 11  
 1320 UC 1.155 0.934  
 1321 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1322 UA 100  
 \*

1323 KK C48i COMBINE  
 1324 KM Combine hydrographs 48i and R44iW.  
 1325 HC 2 1.72  
 \*

HEC-1 INPUT

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

1326 KK D48i DIVERT  
 1327 KM Divert 47 cfs into pipe.  
 1328 DT D48iP  
 1329 DI 0 47 1000 10000  
 1330 DQ 0 47 47 47  
 \*

1331 KK D48iW DIVERT  
 1332 KM Divert surface flow to south.  
 1333 DT D48iS  
 1334 DI 0 100 1000 10000  
 1335 DQ 0 49 487 4872  
 \*

1336 KK R48iW ROUTE  
 1337 KM Route surface flow west from Subbasin 48i to Subbasin 52i.  
 1338 RS 3 FLOW -1  
 1339 RC 0.050 0.016 0.050 1660 0.0036  
 1340 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1341 RY 3 1 0.5 0 0 0.5 1 3

```

*
1342 KK BD48iP RETRIEVE
1343 KM Retrieve diverted pipe flow from D48iP.
1344 DR D48iP
*

1345 KK P48iW ROUTE
1346 KM Route pipe flow from Camelback/20th St. to Camelback/SR51.
1347 RK 1550 0.0043 0.015 CIRC 3.3
*

1348 KK C48iW COMBINE
1349 KM Combine hydrographs P48iW and R48iW.
1350 HC 2 1.72
*

1351 KK 52g BASIN
1352 KM Subbasin at NEC of Bethany Home & SR51.
1353 BA 0.265
1354 LG 1.71 0.25 4.15 0.51 13
1355 UC 0.765 0.480
1356 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1357 UA 100
*

1358 KK R52gS ROUTE
1359 KM Route surface flow south from Subbasin 52g to Subbasin 52i.
1360 RS 6 FLOW -1
1361 RC 0.050 0.016 0.050 5280 0.0087
1362 RX 0 1.8 72 176.4 183.6 288 358.2 360
1363 RY 3 1 0.5 0 0 0.5 1 3
*

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HEC-1 INPUT

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

```

1364 KK 52i BASIN
1365 KM Subbasin at NEC of Camelback Rd. & SR51.
1366 BA 0.309
1367 LG 1.29 0.25 4.70 0.37 22
1368 UC 1.017 0.914
1369 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1370 UA 100
*

1371 KK C52i COMBINE
1372 KM Combine hydrographs 52i, R52gS, and C48iW.
1373 HC 3 2.29
*

1374 KK E52i DIVERT
1375 KM Divert flow into pipe for routing through offline detention basin.
1376 KM Pipe flow = 95 cfs
1377 DT DB52i
1378 DI 0 95 1000 10000
1379 DQ 0 0 905 9905
*

1380 KK BDB52iRETRIEVE
1381 KM Retrieve diverted surface flow from DB52i.
1382 DR DB52i
*

1383 KK S52i STORAGE
1384 KM Offline Regional Detention Basin, 27 ac-ft.
1385 RS 1 STOR 0
1386 SV 0 1 5 12 21 27 33
1387 SE 0 4 8 12 16 18 20
1388 SQ 0 43 60 74 86 91 860
*

1389 KK CC52i COMBINE
1390 KM Combine hydrographs B52i and S52i.
1391 HC 2 2.29
*

1392 KK D52i DIVERT
1393 KM Divert 95 cfs into pipe.
1394 DT D52iP
1395 DI 0 95 1000 10000
1396 DQ 0 95 95 95
*

1397 KK R52iS ROUTE

```

1398 KM Route surface flow south from Subbasin 52i to Subbasin 52k.  
 1399 RS 4 FLOW -1  
 1400 RC 0.050 0.016 0.050 5280 0.0038  
 1401 RX 0 0.5 20 49 51 80 99.5 100  
 1402 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1403 KK BD52iP RETRIEVE  
 1404 KM Retrieve diverted pipe flow from D52iP.  
 1405 DR D52iP  
 \*

1406 KK P52iS ROUTE  
 1407 KM Route pipe flow from Camelback/SR51. to Indian School/SR51.  
 1408 RK 5250 0.0031 0.015 CIRC 4.50  
 \*

1409 KK C52iS COMBINE  
 1410 KM Combine hydrographs R52iS and P52iS.  
 1411 HC 2 2.29  
 \*

1412 KK 24k BASIN  
 1413 KM Subbasin at NEC of Indian School Rd. & 44th St.  
 1414 BA 0.192  
 1415 LG 0.60 0.25 4.60 0.40 23  
 1416 UC 0.756 0.610  
 1417 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1418 UA 100  
 \*

1419 KK D24kW DIVERT  
 1420 KM Divert surface flow to south.  
 1421 DF D24kS  
 1422 DI 0 100 1000 10000  
 1423 DQ 0 50 502 5018  
 \*

1424 KK R24kW ROUTE  
 1425 KM Route surface flow west from Subbasin 24k to Subbasin 28k.  
 1426 RS 4 FLOW -1  
 1427 RC 0.050 0.016 0.050 2640 0.0045  
 1428 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1429 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1430 KK ARC40 INFLOW  
 1431 KM Inflow from Arcadia area from 40th Street through storm drain system.  
 1432 KM Maximum flow 47 cfs.  
 1433 IN 60  
 1434 BA 0.1  
 1435 QI 0.0 0.1 0.2 0.5 1 1 1 1 1 1  
 1436 QI 1 1 2 47 16 5 2 1 1 1  
 1437 QI 1 1 0.5 0.1 0.0  
 \*

HEC-1 INPUT

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

1438 KK PARC40 ROUTE  
 1439 KM Route pipe flow from Arcadia to Indian School/40th St.  
 1440 RK 5400 0.0050 0.015 CIRC 4.00  
 \*

1441 KK 28k BASIN  
 1442 KM Subbasin at NEC of Indian School Rd. & 40th St.  
 1443 BA 0.428  
 1444 LG 1.19 0.25 4.60 0.40 22  
 1445 UC 1.056 0.811  
 1446 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1447 UA 100  
 \*

1448 KK C28k COMBINE  
 1449 KM Combine hydrographs 28k, PARC40, and R24kW.  
 1450 HC 3 0.72  
 \*

1451 KK D28k DIVERT  
 1452 KM Divert 131 cfs into pipe.  
 1453 DT D28kP

1454	DI	0	131	1000	10000					
1455	DQ	0	131	131	131					
	*									
1456	KK	D28kW	DIVERT							
1457	KM	Divert surface flow to south.								
1458	DT	D28kS								
1459	DI	0	100	1000	10000					
1460	DQ	0	42	424	4242					
	*									
1461	KK	R28kW	ROUTE							
1462	KM	Route surface flow west from Subbasin 28k to Subbasin 32k.								
1463	RS	4	FLOW	-1						
1464	RC	0.050	0.016	0.050	2640	0.0038				
1465	RX	0	1.85	74	181.3	188.7	296	368.15	370	
1466	RY	3	1	0.5	0	0	0.5	1	3	
	*									
1467	KK	32k	BASIN							
1468	KM	Subbasin at NEC of Indian School Rd. & 36th St.								
1469	BA	0.506								
1470	LG	1.88	0.25	4.50	0.43	21				
1471	UC	1.102	0.840							
1472	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
1473	UA	100								97.0
	*									

HEC-1 INPUT

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

1474	KK	C32k	COMBINE							
1475	KM	Combine hydrographs 32k and R28kW.								
1476	HC	2	1.23							
	*									
1477	KK	D32k	DIVERT							
1478	KM	Divert 45 cfs into 48" pipe.								
1479	DT	D32kP								
1480	DI	0	45	1000	10000					
1481	DQ	0	45	45	45					
	*									
1482	KK	D32kW	DIVERT							
1483	KM	Divert surface flow to south.								
1484	DT	D32kS								
1485	DI	0	100	1000	10000					
1486	DQ	0	46	457	4571					
	*									
1487	KK	R32kW	ROUTE							
1488	KM	Route surface flow west from Subbasin 32k to Subbasin 36k.								
1489	RS	3	FLOW	-1						
1490	RC	0.050	0.016	0.050	2640	0.0045				
1491	RX	0	1.85	74	181.3	188.7	296	368.15	370	
1492	RY	3	1	0.5	0	0	0.5	1	3	
	*									
1493	KK	36k	BASIN							
1494	KM	Subbasin at NEC of Indian School Rd. & 32nd St.								
1495	BA	0.508								
1496	LG	1.39	0.25	4.65	0.39	24				
1497	UC	1.082	0.821							
1498	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
1499	UA	100								97.0
	*									

1500	KK	BD36iP	RETRIEVE							
1501	KM	Retrieve diverted pipe flow from D36iP.								
1502	DR	D36iP								
	*									
1503	KK	P36iS	ROUTE							
1504	KM	Route pipe flow from Camelback/32nd St. to Indian School/32nd St.								
1505	RK	5350	0.0050	0.015		CIRC	3.0			
	*									
1506	KK	BD36iS	RETRIEVE							
1507	KM	Retrieve diverted surface flow from D36iS.								
1508	DR	D36iS								
	*									

HEC-1 INPUT

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

1509 KK R36iS ROUTE  
 1510 KM Route surface flow south from Subbasin 36i to Subbasin 36k.  
 1511 RS 6 FLOW -1  
 1512 RC 0.050 0.016 0.050 5280 0.0080  
 1513 RX 0 2.05 82 200.9 209.1 328 407.95 410  
 1514 RY 3 1 0.5 0 0 0.5 1 3

1515 KK C36iS COMBINE  
 1516 KM Combine hydrographs R36iS and P36iS.  
 1517 HC 2 0.34  
 \*

1518 KK C36k COMBINE  
 1519 KM Combine hydrographs 36k, C36iS, and R32kW.  
 1520 HC 3 2.07  
 \*

1521 KK D36k DIVERT  
 1522 KM Divert 59 cfs into pipe.  
 1523 DT D36kP  
 1524 DI 0 59 1000 10000  
 1525 DQ 0 59 59 59  
 \*

1526 KK D36kW DIVERT  
 1527 KM Divert surface flow to south.  
 1528 DT D36kS  
 1529 DI 0 100 1000 10000  
 1530 DQ 0 44 439 4394  
 \*

1531 KK R36kW ROUTE  
 1532 KM Route surface flow west from Subbasin 36k to Subbasin 40k.  
 1533 RS 3 FLOW -1  
 1534 RC 0.050 0.016 0.050 2640 0.0045  
 1535 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1536 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1537 KK BD40iS RETRIEVE  
 1538 KM Retrieve diverted surface flow from D40iS.  
 1539 DR D40iS  
 \*

1540 KK R40iS ROUTE  
 1541 KM Route surface flow south from Subbasin 40i to Subbasin 40k.  
 1542 RS 8 FLOW -1  
 1543 RC 0.050 0.016 0.050 5280 0.0068  
 1544 RX 0 1 40 98 102 160 199 200  
 1545 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

1546 KK 40k BASIN  
 1547 KM Subbasin at NEC of Indian School Rd. & 28th St.  
 1548 BA 0.504  
 1549 LG 1.14 0.25 4.80 0.37 24  
 1550 UC 1.153 0.886  
 1551 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1552 UA 100  
 \*

1553 KK C40k COMBINE  
 1554 KM Combine hydrographs 40k, R40iS, and R36kW.  
 1555 HC 3 2.80  
 \*

1556 KK D40k DIVERT  
 1557 KM Divert 29 cfs into pipe.  
 1558 DT D40kP  
 1559 DI 0 29 100 1000 10000  
 1560 DQ 0 29 29 29 29  
 \*

1561 KK D40kW DIVERT  
 1562 KM Divert surface flow to south.  
 1563 DT D40kS  
 1564 DI 0 100 1000 10000  
 1565 DQ 0 42 421 4206  
 \*

1566 KK R40kW ROUTE

```

1567      KM      Route surface flow west from Subbasin 40k to Subbasin 44k.
1568      RS        3      FLOW      -1
1569      RC      0.050  0.016  0.050  2640  0.0053
1570      RX        0      1.35    54    132.3  137.7    216  268.65    270
1571      RY        3        1      0.5      0      0      0.5      1      3
1572      *
1572      KK      44k  BASIN
1573      KM      Subbasin at NEC of Indian School Rd. & 24th St.
1574      BA      0.508
1575      LG      1.00  0.25  4.80  0.38  32
1576      UC      1.048  0.793
1577      UA        0      5.0    16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
1578      UA      100
1579      *
1579      KK      BD44iP RETRIEVE
1580      KM      Retrieve diverted pipe flow from D44iP.
1581      DR      D44iP
1581      *

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HEC-1 INPUT

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

1582      KK      P44iS  ROUTE
1583      KM      Route pipe flow from Camelback/24th St. to Indian School/24th St.
1584      RK      5300  0.0030  0.015      CIRC  3.50
1584      *
1585      KK      BD44iS RETRIEVE
1586      KM      Retrieve diverted surface flow from D44iS.
1587      DR      D44iS
1587      *
1588      KK      R44iS  ROUTE
1589      KM      Route surface flow south from Subbasin 44i to Subbasin 44k.
1590      RS        5      FLOW      -1
1591      RC      0.050  0.016  0.050  5280  0.0064
1592      RX        0      0.5     20     49     51     80     99.5    100
1593      RY        3        1      0.5      0      0      0.5      1      3
1593      *
1594      KK      C44iS COMBINE
1595      KM      Combine hydrographs R44iS and P44iS.
1596      HC        2      1.18
1596      *
1597      KK      C44k COMBINE
1598      KM      Combine hydrographs 44k, C44iS, and R40kW.
1599      HC        3      3.93
1599      *
1600      KK      D44k  DIVERT
1601      KM      Divert 71 cfs into pipe.
1602      DT      D44kP
1603      DI        0      71     1000  10000
1604      DQ        0      71      71     71
1604      *
1605      KK      D44kW  DIVERT
1606      KM      Divert surface flow to south.
1607      DT      D44kS
1608      DI        0      100    1000  10000
1609      DQ        0      38     380   3797
1609      *
1610      KK      R44kW  ROUTE
1611      KM      Route surface flow west from Subbasin 44k to Subbasin 48k.
1612      RS        2      FLOW      -1
1613      RC      0.050  0.016  0.050  2640  0.0045
1614      RX        0      1.35    54    132.3  137.7    216  268.65    270
1615      RY        3        1      0.5      0      0      0.5      1      3
1615      *

```

HEC-1 INPUT

1

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

1616      KK      48k  BASIN
1617      KM      Subbasin at NEC of Indian School Rd. & 20th St.
1618      BA      0.500
1619      LG      0.82  0.25  4.80  0.38  41
1620      UC      1.056  0.807
1621      UA        0      5.0    16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
1622      UA      100

```

```

*
1623 KK S48k STORAGE
1624 KM Online Local Retention Basin, 2 ac-ft.
1625 RS 1 STOR 0
1626 SV 0 0.8 2 4
1627 SE 0 2 4 6
1628 SS 4 100 2.7 1.5
*

1629 KK BD48iS RETRIEVE
1630 KM Retrieve diverted surface flow from D48iS.
1631 DR D48iS
*

1632 KK R48iS ROUTE
1633 KM Route surface flow south from Subbasin 48i to Subbasin 48k.
1634 RS 6 FLOW -1
1635 RC 0.050 0.016 0.050 5280 0.0053
1636 RX 0 0.8 32 78.4 81.6 128 159.2 160
1637 RY 3 1 0.5 0 0 0.5 1 3
*

1638 KK C48k COMBINE
1639 KM Combine hydrographs S48k, R48iS, and R44kW.
1640 HC 3 4.96
*

1641 KK D48kW DIVERT
1642 KM Divert surface flow to south.
1643 DT D48kS
1644 DI 0 100 1000 10000
1645 DQ 0 45 448 4475
*

1646 KK R48kW ROUTE
1647 KM Route surface flow west from Subbasin 48k to Subbasin 52k.
1648 RS 2 FLOW -1
1649 RC 0.050 0.016 0.050 1625 0.0049
1650 RX 0 1.4 56 137.2 142.8 224 278.6 280
1651 RY 3 1 0.5 0 0 0.5 1 3
*

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

1652 KK 52k BASIN
1653 KM Subbasin at NEC of Indian School Rd. & SR51
1654 BA 0.295
1655 LG 0.59 0.25 4.80 0.37 31
1656 UC 1.084 1.007
1657 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1658 UA 100
*

1659 KK C52k COMBINE
1660 KM Combine hydrographs 52k, C52iS, and R48kW.
1661 HC 3 5.83
*

1662 KK D52k DIVERT
1663 KM Divert 201 cfs into pipe.
1664 DT D52kP
1665 DI 0 100 201 10000
1666 DQ 0 100 201 201
*

1667 KK D52kW DIVERT
1668 KM Divert surface flow to south.
1669 DT D52kS
1670 DI 0 100 1000 10000
1671 DQ 0 45 451 4513
*

1672 KK R52kW ROUTE
1673 KM Route surface flow west from Subbasin 52k to Subbasin 54k.
1674 RS 1 FLOW -1
1675 RC 0.050 0.016 0.050 1100 0.0026
1676 RX 0 0.8 32 78.4 81.6 128 159.2 160
1677 RY 3 1 0.5 0 0 0.5 1 3
*

1678 KK BD54iP RETRIEVE
1679 KM Retrieve diverted pipe flow from D54iP.
1680 DR D54iP

```

```

*
1681 KK P54iS ROUTE
1682 KM Route pipe flow from Camelback/16th St. to Indian School/16th St.
1683 RK 5800 0.0030 0.015 CIRC 4.0
*

1684 KK BD54iS RETRIEVE
1685 KM Retrieve diverted surface flow from D54iS.
1686 DR D54iS
*

```

HEC-1 INPUT

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

```

1687 KK R54iS ROUTE
1688 KM Route surface flow south from Subbasin 54i to Subbasin 54k.
1689 RS 9 FLOW -1
1690 RC 0.050 0.016 0.050 5800 0.0034
1691 RX 0 0.5 20 49 51 80 99.5 100
1692 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

1693 KK C54iS COMBINE
1694 KM Combine hydrographs R54iS and P54iS.
1695 HC 2 0.44
*

```

```

1696 KK 54k BASIN
1697 KM Subbasin at NEC of Grand Canal & 16th St.
1698 BA 0.245
1699 LG 0.33 0.24 4.80 0.38 39
1700 UC 1.072 1.058
1701 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1702 UA 100
*

```

```

1703 KK C54k COMBINE
1704 KM Combine hydrographs 54k, C54iS, and R52kW.
1705 HC 3 1.18
*

```

```

1706 KK D54k DIVERT
1707 KM Divert 124 cfs into pipe.
1708 DT D54kP
1709 DI 0 100 124 10000
1710 DQ 0 100 124 124
*

```

```

1711 KK D54kW DIVERT
1712 KM Divert surface flow to south.
1713 DT D54kS
1714 DI 0 37 118 382 658 1241
1715 DQ 0 0 40 207 393 800
*

```

```

1716 KK R54kW ROUTE
1717 KM Route surface flow west from Subbasin 54k to Subbasin 56k.
1718 RS 7 FLOW -1
1719 RC 0.050 0.016 0.050 3500 0.0005
1720 RX 0 1.6 64 156.8 163.2 256 318.4 320
1721 RY 3 1 0.5 0 0 0.5 1 3
*

```

HEC-1 INPUT

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

```

1722 KK BD56iP RETRIEVE
1723 KM Retrieve diverted pipe flow from D56iP.
1724 DR D56iP
*

```

```

1725 KK P56iS ROUTE
1726 KM Route pipe flow from Camelback/12th St. to Grand Canal/12th St.
1727 RK 3400 0.0031 0.015 CIRC 6.0
*

```

```

1728 KK BD56iS RETRIEVE
1729 KM Retrieve diverted surface flow from D56iS.
1730 DR D56iS
*

```

```

1731 KK R56iS ROUTE
1732 KM Route surface flow south from Subbasin 56i to Subbasin 56k.

```

1733	RS	9	FLOW	-1								
1734	RC	0.050	0.016	0.050	4200	0.0052						
1735	RX	0	1.05	42	102.9	107.1	168	208.95	210			
1736	RY	3	1	0.5	0	0	0.5	1	3			

1737 KK C56iS COMBINE  
 1738 KM Combine hydrographs R56iS and P56iS.  
 1739 HC 2 1.62  
 \*

1740 KK 56k BASIN  
 1741 KM Subbasin at NEC of Grand Canal & 12th St.  
 1742 BA 0.423  
 1743 LG 0.90 0.24 4.80 0.38 34  
 1744 UC 1.022 0.663  
 1745 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1746 UA 100  
 \*

1747 KK C56k COMBINE  
 1748 KM Combine hydrographs 56k, C56iS, and R54k.  
 1749 HC 3 2.78  
 \*

1750 KK BD60iP RETRIEVE  
 1751 KM Retrieve diverted pipe flow from D60iP.  
 1752 DR D60iP  
 \*

1753 KK D60iP1 DIVERT  
 1754 KM Divert flow into pipe.  
 1755 KM Total flow for two pipes is 211 cfs, and 143 cfs going to east (P2)  
 1756 DT D60iP2  
 1757 DI 0 211 220  
 1758 DQ 0 143 143  
 \*

1

HEC-1 INPUT

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

1759 KK P60iS1 ROUTE  
 1760 KM Route pipe flow from Camelback/7th St. to Grand Canal/7th St.  
 1761 RK 2600 0.0031 0.015 CIRC 6.0  
 \*

1762 KK B60iP2 RETRIEVE  
 1763 KM Retrieve diverted pipe flow from D60iP2.  
 1764 DR D60iP2  
 \*

1765 KK P60iS2 ROUTE  
 1766 KM Route pipe flow from Camelback/12th St. to Grand Canal/12th St.  
 1767 RK 2600 0.0031 0.015 CIRC 7.0  
 \*

1768 KK BD60iS RETRIEVE  
 1769 KM Retrieve diverted surface flow from D60iS.  
 1770 DR D60iS  
 \*

1771 KK R60iS ROUTE  
 1772 KM Route surface flow south from Subbasin 60i to Subbasin 60k.  
 1773 RS 3 FLOW -1  
 1774 RC 0.050 0.016 0.050 3000 0.0047  
 1775 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 1776 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1777 KK C60iS COMBINE  
 1778 KM Combine hydrographs R60iS and P60iS.  
 1779 HC 3 3.02  
 \*

1780 KK 60k BASIN  
 1781 KM Subbasin at NEC of Grand Canal & 7th St.  
 1782 BA 0.266  
 1783 LG 0.46 0.24 4.80 0.37 36  
 1784 UC 0.943 0.714  
 1785 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1786 UA 100  
 \*

1787 KK C60k COMBINE  
 1788 KM Combine hydrographs 60k and C60iS.

```

1789      HC      2      3.29
          *
1790      KK      D60kP  DIVERT
1791      KM      Divert flow into pipe.
1792      KM      Total pipe flow is 284 (P1 = 159, P2 = 125)cfs
1793      DT      D60k
1794      DI      0      100      135      1000      10000
1795      DQ      0      0      0      865      9865
          *

```

HEC-1 INPUT

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

```

1796      KK      D60kP1 DIVERT
1797      KM      Divert flow into pipe.
1798      KM      Flow for P1 = 10.0 cfs going east for storms greater than 2-year
1799      KM      Minimum flow to east to keep the model working
1800      DT      D60kP2
1801      DI      0      135      300
1802      DQ      0      125      290
          *

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1803      KK      P60kE  ROUTE
1804      KM      Route pipe flow from Grand Canal/7th St. to Grand Canal/12th St.
1805      RK      3000  0.0030  0.015      CIRC      7.0
          *

```

```

1806      KK      CC56k  COMBINE
1807      KM      Combine hydrographs C56k and P60kE.
1808      HC      2      4.46
          *

```

```

1809      KK      D56k  DIVERT
1810      KM      Divert 303 cfs into pipe.
1811      DT      D56kP
1812      DI      0      100      303      10000
1813      DQ      0      100      303      303
          *

```

```

1814      KK      D56kW  DIVERT
1815      KM      Divert surface flow to south.
1816      DT      D56kS
1817      DI      0      73      124      325      649      1102
1818      DQ      0      0      24      157      393      734
          *

```

```

1819      KK      R56kW  ROUTE
1820      KM      Route surface flow west from Subbasin 56k to Subbasin 60k.
1821      RS      5      FLOW      -1
1822      RC      0.050  0.016  0.050  3000  0.0006
1823      RX      0      0.85      34      83.3  86.7      136  169.15  170
1824      RY      3      1      0.5      0      0      0.5      1      3
          *

```

```

1825      KK      BD60k  RETRIEVE
1826      KM      Retrieve diverted surface flow from D60k.
1827      DR      D60k
          *

```

```

1828      KK      CC60k  COMBINE
1829      KM      Combine hydrographs D60k and R56kW.
1830      HC      2      4.46
          *

```

HEC-1 INPUT

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

```

1831      KK      D60kW  DIVERT
1832      KM      Divert surface flow to south.
1833      DT      D60kS
1834      DI      0      49      106      362      554      788      1067
1835      DQ      0      0      36      235      390      583      814
          *

```

```

1836      KK      R60kW  ROUTE
1837      KM      Route surface flow west from Subbasin 60k to Subbasin 64k.
1838      RS      6      FLOW      -1
1839      RC      0.050  0.016  0.050  2800  0.0007
1840      RX      0      0.8      32      78.4  81.6      128  159.2  160
1841      RY      3      1      0.5      0      0      0.5      1      3
          *

```

```

1842      KK      64k  BASIN

```

1843 KM Subbasin at NEC of Grand Canal & Central Ave.  
 1844 BA 0.206  
 1845 LG 1.25 0.14 7.60 0.12 31  
 1846 UC 0.851 0.546  
 1847 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1848 UA 100  
 \*

1849 KK BD64iS RETRIEVE  
 1850 KM Retrieve diverted surface flow from D64iS.  
 1851 DR D64iS  
 \*

1852 KK R64iS ROUTE  
 1853 KM Route surface flow south from Subbasin 64i to Subbasin 64k.  
 1854 RS 3 FLOW -1  
 1855 RC 0.050 0.016 0.050 2130 0.0047  
 1856 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 1857 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1858 KK C64k COMBINE  
 1859 KM Combine hydrographs 64k, R64iS, and R60kW.  
 1860 HC 3 6.43  
 \*

1861 KK S64k STORAGE  
 1862 KM Online Regional Retention Basin, 12 ac-ft.  
 1863 RS 1 STOR 0  
 1864 SV 0 12 149  
 1865 SE 0 0.5 2.5  
 1866 SS 0.5 500 2.7 1.5  
 \*

1

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

1867 KK BD64iP RETRIEVE  
 1868 KM Retrieve diverted pipe flow from D64iP.  
 1869 DR D64iP  
 \*

1870 KK P64iS ROUTE  
 1871 KM Route pipe flow from Camelback/Central Ave. to Grand Canal/Central Ave.  
 1872 RK 2000 0.0034 0.015 CIRC 6.0  
 \*

1873 KK CC64k COMBINE  
 1874 KM Combine hydrographs P64iS and S64i.  
 1875 HC 2 6.43  
 \*

1876 KK D64k DIVERT  
 1877 KM Divert 214 cfs into pipe.  
 1878 DT D64kP  
 1879 DI 0 100 214 10000  
 1880 DQ 0 100 214 214  
 \*

1881 KK D64kW DIVERT  
 1882 KM Divert surface flow to south.  
 1883 DT D64kS  
 1884 DI 0 138 214 344 519 1004  
 1885 DQ 0 0 38 125 251 617  
 \*

1886 KK R64kW ROUTE  
 1887 KM Route surface flow west from Subbasin 64k to Subbasin 68k.  
 1888 RS 3 FLOW -1  
 1889 RC 0.050 0.016 0.050 2800 0.0008  
 1890 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 1891 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1892 KK 68k BASIN  
 1893 KM Subbasin at NEC of Grand Canal & 7th Ave.  
 1894 BA 0.204  
 1895 LG 0.79 0.14 8.40 0.09 26  
 1896 UC 0.890 0.556  
 1897 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1898 UA 100  
 \*

1899 KK C68k COMBINE  
 1900 KM Combine hydrographs 68k, C68iS, and R64kW.

1901 HC 3 12.71

\*

HEC-1 INPUT

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

1902 KK D68k DIVERT  
 1903 KM Divert 114 cfs into pipe.  
 1904 DT D68kP  
 1905 DI 0 100 114 10000  
 1906 DQ 0 100 114 114  
 \*

1907 KK D68kW DIVERT  
 1908 KM Divert surface flow to south.  
 1909 DT D68kS  
 1910 DI 0 49 105 209 352 747 1283  
 1911 DQ 0 0 35 113 225 542 977  
 \*

1912 KK R68kW ROUTE  
 1913 KM Route surface flow west from Subbasin 68k to Subbasin 72k.  
 1914 RS 4 FLOW -1  
 1915 RC 0.050 0.016 0.050 3000 0.0007  
 1916 RX 0 1.1 44 107.8 112.2 176 218.9 220  
 1917 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1918 KK 72k BASIN  
 1919 KM Subbasin at NEC of Grand Canal & 15th Ave.  
 1920 BA 0.281  
 1921 LG 0.66 0.14 8.40 0.09 27  
 1922 UC 0.960 0.616  
 1923 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1924 UA 100  
 \*

1925 KK S72k STORAGE  
 1926 KM Online Local Retention Basin, 6 ac-ft.  
 1927 RS 1 STOR 0  
 1928 SV 0 6 12  
 1929 SE 0 1 2  
 1930 SS 1 400 2.7 1.5  
 \*

1931 KK B72iP1 RETRIEVE  
 1932 KM Retrieve diverted pipe flow from D72iP1.  
 1933 DR D72iP1  
 \*

1934 KK P72iS ROUTE  
 1935 KM Route pipe flow from Camelback/15th Ave. to Grand Canal/15th Ave.  
 1936 RK 3300 0.0024 0.015 CIRC 6.0  
 \*

HEC-1 INPUT

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

1937 KK BD72iS RETRIEVE  
 1938 KM Retrieve diverted surface flow from D72iS.  
 1939 DR D72iS  
 \*

1940 KK R72iS ROUTE  
 1941 KM Route surface flow south from Subbasin 72i to Subbasin 72k.  
 1942 RS 3 FLOW -1  
 1943 RC 0.050 0.016 0.050 2900 0.0028  
 1944 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 1945 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1946 KK C72iS COMBINE  
 1947 KM Combine hydrographs P72iS and R72iS.  
 1948 HC 2 8.68  
 \*

1949 KK C72k COMBINE  
 1950 KM Combine hydrographs S72k, C72iS, and R68kW.  
 1951 HC 3 12.99  
 \*

1952 KK CC72k COMBINE  
 1953 KM Combine hydrographs D76kP2 and C72k.  
 1954 HC 2 12.99

```

*
1955 KK D72k DIVERT
1956 KM Divert 281 cfs into pipe.
1957 DT D72kP
1958 DI 0 100 281 10000
1959 DQ 0 100 281 281
*

1960 KK D72kW DIVERT
1961 KM Divert surface flow to south.
1962 DT D72kS
1963 DI 0 51 99 186 460 860 1108
1964 DQ 0 0 29 95 314 642 847
*

1965 KK R72kW ROUTE
1966 KM Route surface flow west from Subbasin 72k to Subbasin 76k.
1967 RS 6 FLOW -1
1968 RC 0.050 0.016 0.050 2800 0.0004
1969 RX 0 1.1 44 107.8 112.2 176 218.9 220
1970 RY 3 1 0.5 0 0 0.5 1 3
*

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1

HEC-1 INPUT

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

```

1971 KK B76k1 RETRIEVE
1972 KM Retrieve diverted surface flow from D76k1.
1973 DR D76k1
*

1974 KK CC76k COMBINE
1975 KM Combine hydrographs D76k1 and R72kW.
1976 HC 2 13.31
*

1977 KK D76k DIVERT
1978 KM Divert flow 43 (41% of 106) cfs into pipe.
1979 DT D76kP
1980 DI 0 43 100 1000 10000
1981 DQ 0 43 43 43 43
*

1982 KK D76kW DIVERT
1983 KM Divert surface flow to south.
1984 DT D76kS
1985 DI 0 28 132 348 669 1096
1986 DQ 0 0 76 253 519 877
*

1987 KK R76kW ROUTE
1988 KM Route surface flow west from Subbasin 76k to Subbasin 80k.
1989 RS 9 FLOW -1
1990 RC 0.050 0.016 0.050 3500 0.0003
1991 RX 0 1.35 54 132.3 137.7 216 268.65 270
1992 RY 3 1 0.5 0 0 0.5 1 3
*

1993 KK 80k BASIN
1994 KM Subbasin at NEC of Grand Canal & 23rd Ave.
1995 BA 0.428
1996 LG 0.47 0.15 8.40 0.09 26
1997 UC 0.981 0.652
1998 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1999 UA 100
*

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```

2000 KK BD80i RETRIEVE
2001 KM Retrieve diverted surface flow from D80i.
2002 DR D80i
*

2003 KK R80iS ROUTE
2004 KM Route surface flow south from Subbasin 80i to Subbasin 80k.
2005 RS 2 FLOW -1
2006 RC 0.050 0.016 0.050 3500 0.0038
2007 RX 0 0.75 30 73.5 76.5 120 149.25 150
2008 RY 3 1 0.5 0 0 0.5 1 3
*

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1

HEC-1 INPUT

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

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2009      KK  B80kP1 RETRIEVE
2010      KM  Retrieve diverted pipe flow from D80kP1.
2011      DR  D80kP1
          *

2012      KK  C80k COMBINE
2013      KM  Combine hydrographs 80k,R80iS, and D80kP1.
2014      HC  3    3.68
          *

2015      KK  D80k DIVERT
2016      KM  Divert 63 (59% of 106) cfs into pipe.
2017      DT  D80kP
2018      DI  0    63    100    1000    10000
2019      DQ  0    63    63    63    63
          *

2020      KK  CC80k COMBINE
2021      KM  Combine hydrographs R76kW and D80k.
2022      HC  2    4.68
          *

2023      KK  D80kW DIVERT
2024      KM  Divert surface flow to south.
2025      DT  D80kS
2026      DI  0    152    286    833    1526
2027      DQ  0    0    41    316    721
          *

2028      KK  R80kW ROUTE
2029      KM  Route surface flow west from Subbasin 80k to Subbasin 84k.
2030      RS  2    FLOW    -1
2031      RC  0.050  0.016  0.050  1500  0.0010
2032      RX  0    1.85    74    181.3  188.7    296  368.15    370
2033      RY  3    1    0.5    0    0    0.5    1    3
          *

2034      KK  84k BASIN
2035      KM  Subbasin at NWC of Grand Canal & 23rd Ave.
2036      BA  0.311
2037      LG  0.57  0.15  8.40  0.09  35
2038      UC  1.215  1.269
2039      UA  0    5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
2040      UA  100
          *

2041      KK  BD84iS RETRIEVE
2042      KM  Retrieve diverted surface flow from D84iS.
2043      DR  D84iS
          *

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

2044      KK  R84iS ROUTE
2045      KM  Route surface flow south from Subbasin 84i to Subbasin 84k.
2046      RS  9    FLOW    -1
2047      RC  0.050  0.016  0.050  6900  0.0029
2048      RX  0    0.75    30    73.5  76.5    120  149.25    150
2049      RY  3    1    0.5    0    0    0.5    1    3
          *

2050      KK  C84k COMBINE
2051      KM  Combine hydrographs 84k, R84iS, and R80kW.
2052      HC  3    4.99
          *

2053      KK  R84kS ROUTE
2054      KM  Route surface flow south from Subbasin 84k to Subbasin 84m.
2055      RS  3    FLOW    -1
2056      RC  0.050  0.016  0.050  4570  0.0035
2057      RX  0    0.5  20    49    51    80  99.5  100
2058      RY  3    1    0.5    0    0    0.5    1    3
          *

2059      KK  84m BASIN
2060      KM  Subbasin at NWC of Thomas Rd. & 23rd Ave.
2061      BA  0.209
2062      LG  0.24  0.15  9.70  0.06  24
2063      UC  0.996  1.026
2064      UA  0    5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
2065      UA  100
          *

2066      KK  C84m COMBINE

```

2067 KM Combine hydrographs 84m and R84kS.  
 2068 HC 2 5.20  
 \*

2069 KK I17 BASIN  
 2070 KM Subbasin for I-17 from GC to ACDC.  
 2071 BA 0.293  
 2072 LG 0.10 0.25 4.80 0.25 99  
 2073 UC 0.749 0.747  
 2074 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2075 UA 100  
 \*

2076 KK D84m DIVERT  
 2077 KM Divert 249 cfs into pipe.  
 2078 DT D84mP  
 2079 DI 0 100 249 10000  
 2080 DQ 0 100 249 249  
 \*

HEC-1 INPUT

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

2081 KK CC84m COMBINE  
 2082 KM Combine hydrographs C84m and D84m.  
 2083 HC 2 5.49  
 \*

2084 KK D84mE DIVERT  
 2085 KM Divert surface flow to south.  
 2086 DT D84mS  
 2087 DI 0 100 1000 10000  
 2088 DQ 0 38 384 3841  
 \*

2089 KK R84mE ROUTE  
 2090 KM Route surface flow east from Subbasin 84m to Subbasin 80m.  
 2091 RS 3 FLOW -1  
 2092 RC 0.050 0.016 0.050 2540 0.0008  
 2093 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2094 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2095 KK 80m BASIN  
 2096 KM Subbasin at NWC of Thomas Rd. & 19th Ave.  
 2097 BA 0.541  
 2098 LG 0.46 0.15 8.40 0.09 26  
 2099 UC 0.960 0.642  
 2100 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2101 UA 100  
 \*

2102 KK BD80kS RETRIEVE  
 2103 KM Retrieve diverted surface flow from D80kS.  
 2104 DR D80kS  
 \*

2105 KK R80kS ROUTE  
 2106 KM Route surface flow south from Subbasin 80k to Subbasin 80m.  
 2107 RS 3 FLOW -1  
 2108 RC 0.050 0.016 0.050 5900 0.0037  
 2109 RX 0 1 40 98 102 160 199 200  
 2110 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2111 KK C80m COMBINE  
 2112 KM Combine hydrographs R84mE, R80kS, and 80m.  
 2113 HC 3 6.03  
 \*

2114 KK D80mE DIVERT  
 2115 KM Divert surface flow to south.  
 2116 DT D80mS  
 2117 DI 0 100 1000 10000  
 2118 DQ 0 58 576 5763  
 \*

HEC-1 INPUT

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

2119 KK R80mE ROUTE  
 2120 KM Route surface flow east from Subbasin 80m to Subbasin 76m.  
 2121 RS 3 FLOW -1  
 2122 RC 0.050 0.016 0.050 2640 0.0008

2123	RX	0	0.8	32	78.4	81.6	128	159.2	160		
2124	RY	3	1	0.5	0	0	0.5	1	3		
	*										
2125	KK	761	BASIN								
2126	KM	Subbasin at NEC of Indian School Rd. & 19th Ave.									
2127	BA	0.183									
2128	LG	0.66	0.15	8.80	0.07	22					
2129	UC	0.648	0.334								
2130	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	
2131	UA	100									
	*										

2132	KK	BD80kP RETRIEVE								
2133	KM	Retrieve diverted pipe flow from D80kP.								
2134	DR	D80kP								
	*									

2135	KK	BD76kP RETRIEVE								
2136	KM	Retrieve diverted pipe flow from D76kP.								
2137	DR	D76kP								
	*									

2138	KK	C76kP COMBINE								
2139	KM	Combine hydrographs D76kP and D80kP.								
2140	HC	2	17.25							
	*									

2141	KK	P76kS ROUTE								
2142	KM	Route pipe flow from Subbasin 80k to Indian School/19th Ave.								
2143	RK	1600	0.0039	0.015	CIRC	4.5				
	*									

2144	KK	BD76kS RETRIEVE								
2145	KM	Retrieve diverted surface flow from D76kS.								
2146	DR	D76kS								
	*									

2147	KK	R76kS ROUTE								
2148	KM	Route surface flow south from Subbasin 76k to Subbasin 76l.								
2149	RS	1	FLOW	-1						
2150	RC	0.050	0.016	0.050	1700	0.0050				
2151	RX	0	1	40	98	102	160	199	200	
2152	RY	3	1	0.5	0	0	0.5	1	3	
	*									

HEC-1 INPUT

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

2153	KK	C76kS COMBINE								
2154	KM	Combine hydrographs P76kS and R76kS.								
2155	HC	2	4.68							
	*									

2156	KK	C76l COMBINE								
2157	KM	Combine hydrographs 76l and C76kS.								
2158	HC	2	4.86							
	*									

2159	KK	D76l DIVERT								
2160	KM	Divert 156 cfs into pipe.								
2161	DT	D76lP								
2162	DI	0	100	156	10000					
2163	DQ	0	100	156	156					
	*									

2164	KK	R76lS ROUTE								
2165	KM	Route surface flow south from Subbasin 76l to Subbasin 76m.								
2166	RS	3	FLOW	-1						
2167	RC	0.050	0.016	0.050	5280	0.0034				
2168	RX	0	1	40	98	102	160	199	200	
2169	RY	3	1	0.5	0	0	0.5	1	3	
	*									

2170	KK	BD76lP RETRIEVE								
2171	KM	Retrieve diverted pipe flow from D76lP.								
2172	DR	D76lP								
	*									

2173	KK	P76lS ROUTE								
2174	KM	Route pipe flow from Indian School/19th Ave. to Thomas/19th Ave.								
2175	RK	5300	0.0037	0.015	CIRC	5.25				
	*									

2176	KK	C76lS COMBINE								
------	----	---------------	--	--	--	--	--	--	--	--

2177 KM Combine hydrographs R761S and P761S.  
 2178 HC 2 4.86  
 \*

2179 KK 76m BASIN  
 2180 KM Subbasin at NWC of Thomas Rd. & 15th Ave.  
 2181 BA 0.492  
 2182 LG 0.60 0.15 8.80 0.07 24  
 2183 UC 0.973 0.647  
 2184 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2185 UA 100  
 \*

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HEC-1 INPUT

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

2186 KK S76m STORAGE  
 2187 KM Online Local Retention Basin, 0.5 ac-ft.  
 2188 RS 1 STOR 0  
 2189 SV 0 0.47 2.27  
 2190 SE 0 2 4  
 2191 SS 2 100 2.7 1.5  
 \*

2192 KK C76m COMBINE  
 2193 KM Combine hydrographs R80mE, S76m, and C761S.  
 2194 HC 3 6.71  
 \*

2195 KK D76mP DIVERT  
 2196 KM Divert flow into pipe.  
 2197 KM Total Pipe flow = 191 cfs (32 cfs to east, 159 cfs to south)  
 2198 DT D76m  
 2199 DI 0 100 191 1000 10000  
 2200 DQ 0 0 0 809 9809  
 \*

2201 KK D76mP1 DIVERT  
 2202 KM Divert flow into pipe.  
 2203 KM Total Pipe flow = 191 cfs (32 cfs to east, 159 cfs to south)  
 2204 DT D76mP2  
 2205 DI 0 191 200  
 2206 DQ 0 32 34  
 \*

2207 KK 721 BASIN  
 2208 KM Subbasin at NWC of Indian School Rd. & 7th Ave.  
 2209 BA 0.215  
 2210 LG 1.24 0.15 8.80 0.07 26  
 2211 UC 1.172 1.069  
 2212 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2213 UA 100  
 \*

2214 KK BD72kP RETRIEVE  
 2215 KM Retrieve diverted pipe flow from D72kP.  
 2216 DR D72kP  
 \*

2217 KK P72kS ROUTE  
 2218 KM Route pipe flow from Grand Canal/15th Ave. to Indian School/15th Ave.  
 2219 RK 2850 0.0031 0.015 CIRC 6.75  
 \*

2220 KK BD72kS RETRIEVE  
 2221 KM Retrieve diverted surface flow from D72kS.  
 2222 DR D72kS  
 \*

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HEC-1 INPUT

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

2223 KK R72kS ROUTE  
 2224 KM Route surface flow south from Subbasin 72k to Subbasin 721.  
 2225 RS 2 FLOW -1  
 2226 RC 0.050 0.016 0.050 2900 0.0034  
 2227 RX 0 0.5 20 49 51 80 99.5 100  
 2228 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2229 KK C72kS COMBINE  
 2230 KM Combine hydrographs R72kS and P72kS.  
 2231 HC 2 12.99  
 \*

2232 KK C721 COMBINE  
 2233 KM Combine hydrographs 721 and C72kS.  
 2234 HC 2 13.21  
 \*

2235 KK D721 DIVERT  
 2236 KM Divert 305 cfs into pipe.  
 2237 DT D721P  
 2238 DI 0 100 305 10000  
 2239 DQ 0 100 305 305  
 \*

2240 KK R721S ROUTE  
 2241 KM Route surface flow south from Subbasin 721 to Subbasin 72m.  
 2242 RS 3 FLOW -1  
 2243 RC 0.050 0.016 0.050 5280 0.0030  
 2244 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2245 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2246 KK BD721P RETRIEVE  
 2247 KM Retrieve diverted pipe flow from D721P.  
 2248 DR D721P  
 \*

2249 KK P721S ROUTE  
 2250 KM Route pipe flow from Indian School/15th Ave. to Thomas/15th Ave.  
 2251 RK 5280 0.0045 0.015 CIRC 6.50  
 \*

2252 KK C721S COMBINE  
 2253 KM Combine hydrographs R721S and P721S.  
 2254 HC 2 13.21  
 \*

2255 KK 72m BASIN  
 2256 KM Subbasin at NWC of Thomas Rd. & 15th Ave.  
 2257 BA 0.468  
 2258 LG 0.31 0.15 8.80 0.08 27  
 2259 UC 1.068 0.794  
 2260 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 HEC-1 INPUT

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

2261 UA 100  
 \*

2262 KK C72m COMBINE  
 2263 KM Combine hydrographs 72m, C721S, and D76mP1.  
 2264 HC 3 13.67  
 \*

2265 KK 601 BASIN  
 2266 KM Subbasin at NEC of Indian School Rd. & 7th St.  
 2267 BA 0.234  
 2268 LG 0.37 0.25 4.80 0.37 30  
 2269 UC 0.966 0.715  
 2270 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2271 UA 100  
 \*

2272 KK B60kP2 RETRIEVE  
 2273 KM Retrieve diverted pipe flow from D60kP2.  
 2274 DR D60kP2  
 \*

2275 KK P60kS ROUTE  
 2276 KM Route pipe flow from Grand Canal/7th St. to Indian School/7th St.  
 2277 RK 2750 0.0030 0.015 CIRC 4.50  
 \*

2278 KK BD60kS RETRIEVE  
 2279 KM Retrieve diverted surface flow from D60kS.  
 2280 DR D60kS  
 \*

2281 KK R60kS ROUTE  
 2282 KM Route surface flow south from Subbasin 60k to Subbasin 601.  
 2283 RS 2 FLOW -1  
 2284 RC 0.050 0.016 0.050 1855 0.0054  
 2285 RX 0 0.5 20 49 51 80 99.5 100  
 2286 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2287 KK C60KS COMBINE  
 2288 KM Combine hydrographs R60ks and P60ks.  
 2289 HC 2 4.46  
 \*

2290 KK C60I COMBINE  
 2291 KM Combine hydrographs C60ks and 60I.  
 2292 HC 2 4.69  
 \*

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HEC-1 INPUT

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

2293 KK D60I DIVERT  
 2294 KM Divert 93 cfs into pipe.  
 2295 DT D60IP  
 2296 DI 0 93 1000 10000  
 2297 DQ 0 93 93 93  
 \*

2298 KK D60IW DIVERT  
 2299 KM Divert surface flow to south.  
 2300 DT D60IS  
 2301 DI 0 100 1000 10000  
 2302 DQ 0 73 727 7275  
 \*

2303 KK R60IW ROUTE  
 2304 KM Route surface flow west from Subbasin 60I to Subbasin 64I.  
 2305 RS 5 FLOW -1  
 2306 RC 0.050 0.016 0.050 2640 0.0008  
 2307 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 2308 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2309 KK 64I BASIN  
 2310 KM Subbasin at NEC of Indian School Rd. & Central Ave.  
 2311 BA 0.295  
 2312 LG 1.36 0.15 8.00 0.11 21  
 2313 UC 1.420 1.121  
 2314 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2315 UA 100  
 \*

2316 KK BD64kS RETRIEVE  
 2317 KM Retrieve diverted surface flow from D64kS.  
 2318 DR D64kS  
 \*

2319 KK R64kS ROUTE  
 2320 KM Route surface flow south from Subbasin 64k to Subbasin 64I.  
 2321 RS 2 FLOW -1  
 2322 RC 0.050 0.016 0.050 2780 0.0043  
 2323 RX 0 0.5 20 49 51 80 99.5 100  
 2324 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2325 KK C64I COMBINE  
 2326 KM Combine hydrographs 64I, R64kS, and R60IW.  
 2327 HC 3 6.96  
 \*

1

HEC-1 INPUT

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

2328 KK S64I STORAGE  
 2329 KM Online Regional Retention Basin, 35 ac-ft.  
 2330 RS 1 STOR 0  
 2331 SV 0 35 92  
 2332 SE 0 2 4  
 2333 SS 2 900 2.7 1.5  
 \*

2334 KK BD64kP RETRIEVE  
 2335 KM Retrieve diverted pipe flow from D64kP.  
 2336 DR D64kP  
 \*

2337 KK P64kS ROUTE  
 2338 KM Route pipe flow from Grand Canal/Central Ave. to Indian School/Central Ave.  
 2339 RK 3300 0.0034 0.015 CIRC 6.00  
 \*

2340 KK CC64I COMBINE

2341 KM Combine hydrographs S641 and P64kS.  
2342 HC 2 6.96  
\*

2343 KK D641 DIVERT  
2344 KM Divert 303 cfs into pipe.  
2345 DT D641P  
2346 DI 0 100 303 10000  
2347 DQ 0 100 303 303  
\*

2348 KK D641W DIVERT  
2349 KM Divert surface flow to south.  
2350 DT D641S  
2351 DI 0 100 1000 10000  
2352 DQ 0 86 856 8565  
\*

2353 KK R641W ROUTE  
2354 KM Route surface flow west from Subbasin 641 to Subbasin 681.  
2355 RS 5 FLOW -1  
2356 RC 0.050 0.016 0.050 2980 0.0004  
2357 RX 0 0.5 20 49 51 80 99.5 100  
2358 RY 3 1 0.5 0 0 0.5 1 3  
\*

2359 KK 681 BASIN  
2360 KM Subbasin at NEC of Indian School Rd. & 7th Ave.  
2361 BA 0.317  
2362 LG 0.59 0.15 8.80 0.07 26  
2363 UC 1.134 0.941  
2364 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2365 UA 100  
\*

HEC-1 INPUT

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

2366 KK ED68kP RETRIEVE  
2367 KM Retrieve diverted pipe flow from D68kP.  
2368 DR D68kP  
\*

2369 KK P68kS ROUTE  
2370 KM Route pipe flow from Grand Canal/7th Ave. to Indian School/7th Ave.  
2371 RK 2900 0.0034 0.015 CIRC 4.75  
\*

2372 KK BD68kS RETRIEVE  
2373 KM Retrieve diverted surface flow from D68kS.  
2374 DR D68kS  
\*

2375 KK R68kS ROUTE  
2376 KM Route surface flow south from Subbasin 68k to Subbasin 681.  
2377 RS 2 FLOW -1  
2378 RC 0.050 0.016 0.050 3290 0.0036  
2379 RX 0 0.5 20 49 51 80 99.5 100  
2380 RY 3 1 0.5 0 0 0.5 1 3  
\*

2381 KK C68kS COMBINE  
2382 KM Combine hydrographs R68kS and P68kS.  
2383 HC 2 12.71  
\*

2384 KK C681 COMBINE  
2385 KM Combine hydrographs 681, C68kS, and R641W.  
2386 HC 3 13.56  
\*

2387 KK D681 DIVERT  
2388 KM Divert 114 cfs into pipe.  
2389 DT D681P  
2390 DI 0 100 114 10000  
2391 DQ 0 100 114 114  
\*

2392 KK R681S ROUTE  
2393 KM Route surface flow south from Subbasin 681 to Subbasin 68m.  
2394 RS 4 FLOW -1  
2395 RC 0.050 0.016 0.050 5235 0.0027  
2396 RX 0 1.3 52 127.4 132.6 208 258.7 260  
2397 RY 3 1 0.5 0 0 0.5 1 3  
\*

2398 KK BD681P RETRIEVE  
 2399 KM Retrieve diverted pipe flow from D681P.  
 2400 DR D681P  
 \*

HEC-1 INPUT

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

2401 KK P681S ROUTE  
 2402 KM Route pipe flow from Indian School/7th Ave. to Thomas/7th Ave.  
 2403 RK 5300 0.0034 0.015 CIRC 4.75  
 \*

2404 KK C681S COMBINE  
 2405 KM Combine hydrographs R681S and P681S.  
 2406 HC 2 13.56  
 \*

2407 KK 24m BASIN  
 2408 KM Subbasin at NEC of Thomas Rd. & 44th St.  
 2409 BA 0.502  
 2410 LG 1.65 0.25 4.80 0.38 24  
 2411 UC 1.089 0.833  
 2412 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2413 UA 100  
 \*

2414 KK S24m STORAGE  
 2415 KM Online Local Retention Basin, 0.5 ac-ft.  
 2416 RS 1 STOR 0  
 2417 SV 0 0.5 1.2  
 2418 SE 0 2 4  
 2419 SS 2 100 2.7 1.5  
 \*

2420 KK BD24kS RETRIEVE  
 2421 KM Retrieve diverted surface flow from D24kS.  
 2422 DR D24kS  
 \*

2423 KK R24kS ROUTE  
 2424 KM Route surface flow south from Subbasin 24k to Subbasin 24m.  
 2425 RS 6 FLOW -1  
 2426 RC 0.050 0.016 0.050 5280 0.0087  
 2427 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 2428 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2429 KK C24m COMBINE  
 2430 KM Combine hydrographs S24m and R24kS.  
 2431 HC 2 0.69  
 \*

2432 KK D24mW DIVERT  
 2433 KM Divert surface flow to south.  
 2434 DT D24mS  
 2435 DI 0 100 1000 10000  
 2436 DQ 0 43 428 4278  
 \*

HEC-1 INPUT

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

2437 KK R24mW ROUTE  
 2438 KM Route surface flow west from Subbasin 24m to Subbasin 28m.  
 2439 RS 3 FLOW -1  
 2440 RC 0.050 0.016 0.050 2840 0.0045  
 2441 RX 0 1.8 72 176.4 183.6 288 358.2 360  
 2442 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2443 KK 28m BASIN  
 2444 KM Subbasin at NEC of Thomas Rd. & 40th St.  
 2445 BA 0.508  
 2446 LG 1.85 0.25 4.80 0.36 22  
 2447 UC 1.101 0.838  
 2448 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2449 UA 100  
 \*

2450 KK BD28kP RETRIEVE  
 2451 KM Retrieve diverted pipe flow from D28kP.  
 2452 DR D28kP

\*  
 2453 KK P28kS ROUTE  
 2454 KM Route pipe flow from Indian School/40th St. to Thomas/40th St.  
 2455 RK 5300 0.0059 0.015 CIRC 4.50  
 \*

2456 KK BD28kS RETRIEVE  
 2457 KM Retrieve diverted surface flow from D28kS.  
 2458 DR D28kS  
 \*

2459 KK R28kS ROUTE  
 2460 KM Route surface flow south from Subbasin 28k to Subbasin 28m.  
 2461 RS 6 FLOW -1  
 2462 RC 0.050 0.016 0.050 5280 0.0076  
 2463 RX 0 1 40 98 102 160 199 200  
 2464 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2465 KK C28kS COMBINE  
 2466 KM Combine hydrographs R28kS and P28kS.  
 2467 HC 2 0.72  
 \*

2468 KK C28m COMBINE  
 2469 KM Combine hydrographs 28m, C28kS, and R24mW.  
 2470 HC 3 1.73  
 \*

HEC-1 INPUT

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

2471 KK D28m DIVERT  
 2472 KM Divert 211 cfs into pipe.  
 2473 DT D28mP  
 2474 DI 0 100 211 10000  
 2475 DQ 0 100 211 211  
 \*

2476 KK D28mW DIVERT  
 2477 KM Divert surface flow to south.  
 2478 DT D28mS  
 2479 DI 0 100 1000 10000  
 2480 DQ 0 44 443 4427  
 \*

2481 KK R28mW ROUTE  
 2482 KM Route surface flow west from Subbasin 28m to Subbasin 32m.  
 2483 RS 3 FLOW -1  
 2484 RC 0.050 0.016 0.050 2640 0.0038  
 2485 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2486 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2487 KK 32m BASIN  
 2488 KM Subbasin at NEC of Thomas Rd. & 36th St.  
 2489 BA 0.514  
 2490 LG 1.32 0.25 4.80 0.36 27  
 2491 UC 1.078 0.813  
 2492 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2493 UA 100  
 \*

2494 KK S32m STORAGE  
 2495 KM Online Local Retention Basin, 0.6 ac-ft.  
 2496 RS 1 STOR 0  
 2497 SV 0 0.2 0.6 1.2  
 2498 SE 0 2 4 6  
 2499 SS 4 50 2.7 1.5  
 \*

2500 KK BD32kP RETRIEVE  
 2501 KM Retrieve diverted pipe flow from D32kP.  
 2502 DR D32kP  
 \*

2503 KK P32kS ROUTE  
 2504 KM Route pipe flow from Indian School/36th St. to Thomas/36th St.  
 2505 RK 5400 0.0044 0.015 CIRC 4.00  
 \*

HEC-1 INPUT

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

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2506      KK  BD32kS RETRIEVE
2507      KM  Retrieve diverted surface flow from D32kS.
2508      DR  D32kS
          *

2509      KK  R32kS  ROUTE
2510      KM  Route surface flow south from Subbasin 32k to Subbasin 32m.
2511      RS  6      FLOW      -1
2512      RC  0.050  0.016  0.050  5280  0.0076
2513      RX  0      1.05   42     102.9  107.1  168  208.95  210
2514      RY  3      1      0.5   0      0      0.5   1      3
          *

2515      KK  C32kS COMBINE
2516      KM  Combine hydrographs R32kS and P32kS.
2517      HC  2      1.23
          *

2518      KK  C32m COMBINE
2519      KM  Combine hydrographs S32m, C32kS, and R28mW.
2520      HC  3      2.75
          *

2521      KK  D32m DIVERT
2522      KM  Divert 66 cfs into 54" pipe.
2523      DT  D32mP
2524      DI  0      66     1000  10000
2525      DQ  0      66     66     66
          *

2526      KK  D32mW DIVERT
2527      KM  Divert surface flow to south.
2528      DT  D32mS
2529      DI  0      100    1000  10000
2530      DQ  0      43     430   4300
          *

2531      KK  R32mW  ROUTE
2532      KM  Route surface flow west from Subbasin 32m to Subbasin 36m.
2533      RS  2      FLOW      -1
2534      RC  0.050  0.016  0.050  2640  0.0023
2535      RX  0      1.35   54     132.3  137.7  216  268.65  270
2536      RY  3      1      0.5   0      0      0.5   1      3
          *

2537      KK  36m  BASIN
2538      KM  Subbasin at NEC of Thomas Rd. & 32nd St.
2539      BA  0.514
2540      LG  1.59   0.25   4.80   0.36   25
2541      UC  1.164  0.885
2542      UA  0      5.0    16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
2543      UA  100
          *

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

2544      KK  BD36kP RETRIEVE
2545      KM  Retrieve diverted pipe flow from D36kP.
2546      DR  D36kP
          *

2547      KK  P36kS  ROUTE
2548      KM  Route pipe flow from Indian School/32nd St. to Thomas/32nd St.
2549      RK  5300  0.0046  0.015  CIRC  3.50
          *

2550      KK  BD36kS RETRIEVE
2551      KM  Retrieve diverted surface flow from D36kS.
2552      DR  D36kS
          *

2553      KK  R36kS  ROUTE
2554      KM  Route surface flow south from Subbasin 36k to Subbasin 36m.
2555      RS  3      FLOW      -1
2556      RC  0.050  0.016  0.050  5280  0.0068
2557      RX  0      0.8    32     78.4   81.6   128  159.2  160
2558      RY  3      1      0.5   0      0      0.5   1      3
          *

2559      KK  C36kS COMBINE
2560      KM  Combine hydrographs R36kS and P36kS.
2561      HC  2      2.07
          *

```

2562 KK C36m COMBINE  
 2563 KM Combine hydrographs 36m, C36kS, and R32mW.  
 2564 HC 3 4.11  
 \*

2565 KK D36m DIVERT  
 2566 KM Divert 114 cfs into pipe.  
 2567 DT D36mP  
 2568 DI 0 100 114 10000  
 2569 DQ 0 100 114 114  
 \*

2570 KK D36mW DIVERT  
 2571 KM Divert surface flow to south.  
 2572 DT D36mS  
 2573 DI 0 100 1000 10000  
 2574 DQ 0 48 480 4800  
 \*

2575 KK R36mW ROUTE  
 2576 KM Route surface flow west from Subbasin 36m to Subbasin 40m.  
 2577 RS 2 FLOW -1  
 2578 RC 0.050 0.016 0.050 2640 0.0045  
 2579 RX 0 1.9 76 186.2 193.8 304 378.1 380  
 2580 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

2581 KK 40m BASIN  
 2582 KM Subbasin at NEC of Thomas Rd. & 28th St.  
 2583 BA 0.511  
 2584 LG 0.85 0.25 4.80 0.36 29  
 2585 UC 1.020 0.767  
 2586 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2587 UA 100  
 \*

2588 KK BD40kP RETRIEVE  
 2589 KM Retrieve diverted pipe flow from D40kP.  
 2590 DR D40kP  
 \*

2591 KK P40kS ROUTE  
 2592 KM Route pipe flow from Indian School/28th St. to Thomas/28th St.  
 2593 RK 5400 0.0041 0.015 CIRC 3.0  
 \*

2594 KK BD40kS RETRIEVE  
 2595 KM Retrieve diverted surface flow from D40kS.  
 2596 DR D40kS  
 \*

2597 KK R40kS ROUTE  
 2598 KM Route surface flow south from Subbasin 40k to Subbasin 40m.  
 2599 RS 5 FLOW -1  
 2600 RC 0.050 0.016 0.050 5280 0.0068  
 2601 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 2602 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2603 KK C40kS COMBINE  
 2604 KM Combine hydrographs R40kS and P40kS.  
 2605 HC 2 2.80  
 \*

2606 KK C40m COMBINE  
 2607 KM Combine hydrographs 40m, C40kS, and R36mW.  
 2608 HC 3 5.35  
 \*

2609 KK D40m DIVERT  
 2610 KM Divert 66 cfs flow into pipe.  
 2611 DT D40mP  
 2612 DI 0 66 500 1000  
 2613 DQ 0 66 66 66  
 \*

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

2614 KK D40mW DIVERT

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2615      KM      Divert surface flow to south.
2616      DT      D40mS
2617      DI          0      100      1000      10000
2618      DQ          0      43      430      4300
          *

2619      KK      R40mW  ROUTE
2620      KM      Route surface flow west from Subbasin 40m to Subbasin 44m.
2621      RS          3      FLOW      -1
2622      RC      0.050  0.016  0.050  2640  0.0045
2623      RX          0      1.9      76      186.2  193.8      304  378.1      380
2624      RY          3      1      0.5      0      0      0.5      1      3
          *

2625      KK          44m  BASIN
2626      KM      Subbasin at NEC of Thomas Rd. & 24th St.
2627      BA      0.504
2628      LG      1.28      0.25      4.80      0.37      27
2629      UC      1.130  0.866
2630      UA          0      5.0      16.0      30.0      65.0      77.0      84.0      90.0      94.0      97.0
2631      UA          100
          *

2632      KK      BD44kP RETRIEVE
2633      KM      Retrieve diverted pipe flow from D44kP.
2634      DR      D44kP
          *

2635      KK      P44kS  ROUTE
2636      KM      Route pipe flow from Indian School/24th St. to Thomas/24th St.
2637      RK      5300  0.0033  0.015      CIRC      4.00
          *

2638      KK      BD44kS RETRIEVE
2639      KM      Retrieve diverted surface flow from D44kS.
2640      DR      D44kS
          *

2641      KK      R44kS  ROUTE
2642      KM      Route surface flow south from Subbasin 44k to Subbasin 44m.
2643      RS          3      FLOW      -1
2644      RC      0.050  0.016  0.050  5280  0.0064
2645      RX          0      0.75      30      73.5      76.5      120  149.25      150
2646      RY          3      1      0.5      0      0      0.5      1      3
          *

2647      KK      C44kS COMBINE
2648      KM      Combine hydrographs R44kS and P44kS.
2649      HC          2      3.93
          *

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

2650      KK      C44m COMBINE
2651      KM      Combine hydrographs 44m, C44kS, and R40mW.
2652      HC          3      6.98
          *

2653      KK      D44m DIVERT
2654      KM      Divert 124 cfs into pipe.
2655      DT      D44mP
2656      DI          0      100      124      10000
2657      DQ          0      100      124      124
          *

2658      KK      D44mW DIVERT
2659      KM      Divert surface flow to south.
2660      DT      D44mS
2661      DI          0      100      1000      10000
2662      DQ          0      42      424      4242
          *

2663      KK      R44mW  ROUTE
2664      KM      Route surface flow west from Subbasin 44m to Subbasin 48m.
2665      RS          2      FLOW      -1
2666      RC      0.050  0.016  0.050  2700  0.0023
2667      RX          0      2.1      84      205.8  214.2      336  417.9      420
2668      RY          3      1      0.5      0      0      0.5      1      3
          *

2669      KK          24o  BASIN
2670      KM      Subbasin at NEC of McDowell Rd. & 44th St.
2671      BA      0.504
2672      LG      1.13      0.25      4.80      0.37      30

```

2673 UC 1.140 0.874  
 2674 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2675 UA 100  
 \*

2676 KK BD24mS RETRIEVE  
 2677 KM Retrieve diverted surface flow from D24mS.  
 2678 DR D24mS  
 \*

2679 KK R24mS ROUTE  
 2680 KM Route surface flow south from Subbasin 24m to Subbasin 24o.  
 2681 RS 5 FLOW -1  
 2682 RC 0.050 0.016 0.050 5280 0.0061  
 2683 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2684 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

2685 KK C24o COMBINE  
 2686 KM Combine hydrographs 24o and R24mS.  
 2687 HC 2 1.20  
 \*

2688 KK D24o DIVERT  
 2689 KM Divert 48 cfs into pipe.  
 2690 DT D24oP  
 2691 DI 0 48 1000 10000  
 2692 DQ 0 48 48 48  
 \*

2693 KK D24oW DIVERT  
 2694 KM Divert surface flow to south.  
 2695 DT D24oS  
 2696 DI 0 100 1000 10000  
 2697 DQ 0 38 378 3782  
 \*

2698 KK R24oW ROUTE  
 2699 KM Route surface flow west from Subbasin 24o to Subbasin 28o.  
 2700 RS 2 FLOW -1  
 2701 RC 0.050 0.016 0.050 2640 0.0053  
 2702 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 2703 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2704 KK 28o BASIN  
 2705 KM Subbasin at NEC of McDowell Rd. & 40th St.  
 2706 BA 0.500  
 2707 LG 1.64 0.25 4.80 0.36 23  
 2708 UC 1.211 0.940  
 2709 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2710 UA 100  
 \*

2711 KK BD28mP RETRIEVE  
 2712 KM Retrieve diverted pipe flow from D28mP.  
 2713 DR D28mP  
 \*

2714 KK P28mS ROUTE  
 2715 KM Route pipe flow from Thomas/40th St. to McDowell/40th St.  
 2716 RK 5280 0.0033 0.015 CIRC 6.00  
 \*

2717 KK BD28mS RETRIEVE  
 2718 KM Retrieve diverted surface flow from D28mS.  
 2719 DR D28mS  
 \*

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

2720 KK R28mS ROUTE  
 2721 KM Route surface flow south from Subbasin 28m to Subbasin 28o.  
 2722 RS 5 FLOW -1  
 2723 RC 0.050 0.016 0.050 5280 0.0061  
 2724 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 2725 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2726 KK C28mS COMBINE

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2727      KM      Combine hydrographs R28mS and P28mS.
2728      HC      2      1.73
*

2729      KK      C28o COMBINE
2730      KM      Combine hydrographs 28o, C28mS, and R24oW.
2731      HC      3      2.73
*

2732      KK      D28o DIVERT
2733      KM      Divert 367 cfs into pipe.
2734      DT      D28oP
2735      DI      0      100      367      10000
2736      DQ      0      100      367      367
*

2737      KK      D28oW DIVERT
2738      KM      Divert surface flow to south.
2739      DT      D28oS
2740      DI      0      100      1000      10000
2741      DQ      0      42      419      4194
*

2742      KK      R28oW ROUTE
2743      KM      Route surface flow west from Subbasin 28o to Subbasin 32o.
2744      RS      3      FLOW      -1
2745      RC      0.050      0.016      0.050      2640      0.0038
2746      RX      0      1.85      74      181.3      188.7      296      368.15      370
2747      RY      3      1      0.5      0      0      0.5      1      3
*

2748      KK      32o BASIN
2749      KM      Subbasin at NEC of McDowell Rd. & 36th St.
2750      BA      0.500
2751      LG      1.19      0.25      4.80      0.37      26
2752      UC      1.147      0.885
2753      UA      0      5.0      16.0      30.0      65.0      77.0      84.0      90.0      94.0      97.0
2754      UA      100
*

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

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2755      KK      BD32mS RETRIEVE
2756      KM      Retrieve diverted surface flow from D32mS.
2757      DR      D32mS
*

2758      KK      R32mS ROUTE
2759      KM      Route surface flow south from Subbasin 32m to Subbasin 32o.
2760      RS      3      FLOW      -1
2761      RC      0.050      0.016      0.050      5280      0.0061
2762      RX      0      1      40      98      102      160      199      200
2763      RY      3      1      0.5      0      0      0.5      1      3
*

2764      KK      BD32mP RETRIEVE
2765      KM      Retrieve diverted pipe flow from D32mP.
2766      DR      D32mP
*

2767      KK      P32mS ROUTE
2768      KM      Route pipe flow from Thomas/36th St. to McDowell/36nd St.
2769      RK      5280      0.0060      0.015      CIRC      4.5
*

2770      KK      C32mS COMBINE
2771      KM      Combine hydrographs P32mW and R32mS.
2772      HC      2      2.75
*

2773      KK      C32o COMBINE
2774      KM      Combine hydrographs 32o, C32mS, and R28oW.
2775      HC      3      4.25
*

2776      KK      D32o DIVERT
2777      KM      Divert 160 cfs flow into 72" pipe (south).
2778      DT      D32oP
2779      DI      0      160      1000      10000
2780      DQ      0      160      160      160
*

2781      KK      D32oW DIVERT
2782      KM      Divert surface flow to south.

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2783 DT D32oS
2784 DI 0 100 1000 10000
2785 DQ 0 44 442 4415
*

2786 KK R32oW ROUTE
2787 KM Route surface flow west from Subbasin 32o to Subbasin 36o.
2788 RS 3 FLOW -1
2789 RC 0.050 0.016 0.050 2640 0.0030
2790 RX 0 0.8 32 78.4 81.6 128 159.2 160
2791 RY 3 1 0.5 0 0 0.5 1 3
*

```

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

```

2792 KK 36o BASIN
2793 KM Subbasin at NEC of McDowell Rd. & 32nd St.
2794 BA 0.500
2795 LG 0.66 0.25 4.80 0.36 24
2796 UC 1.058 0.809
2797 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
2798 UA 100
*

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2799 KK BD36mP RETRIEVE
2800 KM Retrieve diverted pipe flow from D36mP.
2801 DR D36mP
*

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```

2802 KK P36mS ROUTE
2803 KM Route pipe flow from Thomas/32nd St. to McDowell/32nd St.
2804 RK 5300 0.0045 0.015 CIRC 4.50
*

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2805 KK BD36mS RETRIEVE
2806 KM Retrieve diverted surface flow from D36mS.
2807 DR D36mS
*

```

```

2808 KK R36mS ROUTE
2809 KM Route surface flow south from Subbasin 36m to Subbasin 36o.
2810 RS 4 FLOW -1
2811 RC 0.050 0.016 0.050 5280 0.0057
2812 RX 0 1.25 50 122.5 127.5 200 248.75 250
2813 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

2814 KK C36mS COMBINE
2815 KM Combine hydrographs R36mS and P36mS.
2816 HC 2 4.11
*

```

```

2817 KK C36o COMBINE
2818 KM Combine hydrographs 36o, C36mS, and R32oW.
2819 HC 3 6.12
*

```

```

2820 KK D36o DIVERT
2821 KM Divert 139 cfs into pipe.
2822 DT D36oP
2823 DI 0 100 139 10000
2824 DQ 0 100 139 139
*

```

HEC-1 INPUT

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

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2825 KK D36oW DIVERT
2826 KM Divert surface flow to south.
2827 DT D36oS
2828 DI 0 100 1000 10000
2829 DQ 0 43 430 4300
*

```

```

2830 KK R36oW ROUTE
2831 KM Route surface flow west from Subbasin 36o to Subbasin 40o.
2832 RS 3 FLOW -1
2833 RC 0.050 0.016 0.050 2000 0.0022
2834 RX 0 1.65 66 161.7 168.3 264 328.35 330
2835 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

2836 KK B40mP RETRIEVE

```

```

2837      KM   Retrieve diverted pipe flow from D40mP.
2838      DR   D40mP
          *

2839      KK   P40mS  ROUTE
2840      KM   Route pipe flow from Thomas/28th St. to McDowell/28th St.
2841      RK   3800  0.0041  0.015          CIRC   4.50
          *

2842      KK   BD40mS RETRIEVE
2843      KM   Retrieve diverted surface flow from D40mS.
2844      DR   D40mS
          *

2845      KK   R40mS  ROUTE
2846      KM   Route surface flow south from Subbasin 40m to Subbasin 40o.
2847      RS   5      FLOW      -1
2848      RC   0.050  0.016  0.050  4900  0.0053
2849      RX   0      1.55    62    151.9  158.1    248  308.45  310
2850      RY   3      1      0.5    0      0      0.5    1      3
          *

2851      KK   C40mS COMBINE
2852      KM   Combine hydrographs R40mS and P40mS.
2853      HC   2      5.35
          *

2854      KK   40o  BASIN
2855      KM   Subbasin at NEC of Grand Canal & 28th St.
2856      BA   0.465
2857      LG   1.13   0.24   4.80   0.36    23
2858      UC   1.124  0.794
2859      UA   0      5.0    16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
2860      UA   100
          *

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

2861      KK   C40o COMBINE
2862      KM   Combine hydrographs 40o, C40mS, and R36oW.
2863      HC   3      7.82
          *

2864      KK   D40o DIVERT
2865      KM   Divert 70 cfs into pipe.
2866      DT   D40oP
2867      DI   0      70    1000  10000
2868      DQ   0      70    70    70
          *

2869      KK   D40oW DIVERT
2870      KM   Divert surface flow to south.
2871      DT   D40oS
2872      DI   0      51    224   454   788   1511
2873      DQ   0      0     85   225   441   927
          *

2874      KK   R40oW  ROUTE
2875      KM   Route surface flow west from Subbasin 40o to Subbasin 44o.
2876      RS   6      FLOW      -1
2877      RC   0.050  0.016  0.050  3500  0.0012
2878      RX   0      1.35    54   132.3  137.7    216  268.65  270
2879      RY   3      1      0.5    0      0      0.5    1      3
          *

2880      KK   44o  BASIN
2881      KM   Subbasin at NEC of Grand Canal & 24th St.
2882      BA   0.229
2883      LG   1.41   0.24   4.80   0.36    21
2884      UC   1.037  0.754
2885      UA   0      5.0    16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
2886      UA   100
          *

2887      KK   BD44mP RETRIEVE
2888      KM   Retrieve diverted pipe flow from D44mP.
2889      DR   D44mP
          *

2890      KK   P44mS  ROUTE
2891      KM   Route pipe flow from Thomas/24th St to McDowell/24th St.
2892      RK   1150  0.0030  0.015          CIRC   5.0
          *

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2893 KK BD44mS RETRIEVE  
 2894 KM Retrieve diverted surface flow from D44mS.  
 2895 DR D44mS  
 \*

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

2896 KK R44mS ROUTE  
 2897 KM Route surface flow south from Subbasin 44m to Subbasin 44o.  
 2898 RS 2 FLOW -1  
 2899 RC 0.050 0.016 0.050 2400 0.0058  
 2900 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2901 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2902 KK C44mS COMBINE  
 2903 KM Combine hydrographs R44mS and P44mS.  
 2904 HC 2 6.98  
 \*

2905 KK C44o COMBINE  
 2906 KM Combine hydrographs 44o, C44mS, and R40oW.  
 2907 HC 3 9.68  
 \*

2908 KK D44o DIVERT  
 2909 KM Divert 124 cfs into pipe.  
 2910 DT D44oP  
 2911 DI 0 100 124 10000  
 2912 DQ 0 100 124 124  
 \*

2913 KK D44oW DIVERT  
 2914 KM Divert surface flow to south.  
 2915 DT D44oS  
 2916 DI 0 27 198 433 769 1484  
 2917 DQ 0 0 119 299 561 1124  
 \*

2918 KK R44oW ROUTE  
 2919 KM Route surface flow west from Subbasin 44o to Subbasin 48m.  
 2920 RS 8 FLOW -1  
 2921 RC 0.050 0.016 0.050 4000 0.0006  
 2922 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2923 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2924 KK C44mW COMBINE  
 2925 KM Combine hydrographs R44mW and R44oW.  
 2926 HC 2 9.68  
 \*

2927 KK 48m BASIN  
 2928 KM Subbasin at NEC of Grand Canal & 20th St.  
 2929 BA 0.481  
 2930 LG 1.04 0.24 4.80 0.36 26  
 2931 UC 1.088 0.751  
 2932 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2933 UA 100  
 \*

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

2934 KK BD48kS RETRIEVE  
 2935 KM Retrieve diverted surface flow from D48kS.  
 2936 DR D48kS  
 \*

2937 KK R48kS ROUTE  
 2938 KM Route surface flow south from Subbasin 48k to Subbasin 48m.  
 2939 RS 3 FLOW -1  
 2940 RC 0.050 0.016 0.050 4500 0.0048  
 2941 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2942 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2943 KK C48m COMBINE  
 2944 KM Combine hydrographs 48m, C44mW, and R48kS.  
 2945 HC 3 11.19  
 \*

2946 KK BDS2kP RETRIEVE

```

2947      KM   Retrieve diverted pipe flow from D52kP.
2948      DR   D52kP
          *

2949      KK   P52kS  ROUTE
2950      KM   Route pipe flow from Indian School/SR51 to Grand Canal/SR51.
2951      RK   4500  0.0030  0.015          CIRC   6.0
          *

2952      KK   BD52kS RETRIEVE
2953      KM   Retrieve diverted surface flow from D52kS.
2954      DR   D52kS
          *

2955      KK   R52kS  ROUTE
2956      KM   Route surface flow south from Subbasin 52k to Subbasin 52m.
2957      RS   2     FLOW   -1
2958      RC   0.050  0.016  0.050  2600  0.0046
2959      RX   0     0.75   30     73.5   76.5   120  149.25  150
2960      RY   3     1     0.5    0       0     0.5   1       3
          *

2961      KK   C52kS COMBINE
2962      KM   Combine hydrographs R52kS and P52kS.
2963      HC   2     5.83
          *

2964      KK   52m  BASIN
2965      KM   Subbasin at NEC of Grand Canal & SR51.
2966      BA   0.177
2967      LG   0.54  0.23   4.80  0.35   16
2968      UC   0.799  0.500
2969      UA   0     5.0   16.0  30.0   65.0   77.0  84.0  90.0  94.0  97.0
2970      UA   100
          *

          HEC-1 INPUT

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

2971      KK   C52m COMBINE
2972      KM   Combine hydrographs 52m and C52kS.
2973      HC   2     6.01
          *

2974      KK   CC52m COMBINE
2975      KM   Combine hydrographs C52m and C48m.
2976      HC   2     12.24
          *

2977      KK   D52m DIVERT
2978      KM   Divert 364 cfs into pipe.
2979      KM   Pipe flow along 52m to south
2980      DT   D52mP
2981      DI   0     100   364  10000
2982      DQ   0     100   364  364
          *

2983      KK   D52mW DIVERT
2984      KM   Total split flow of 48m and 52m, 10% to west
2985      DT   D52mS
2986      DI   0     100   1000  10000
2987      DQ   0     90    900   9000
          *

2988      KK   R52mW  ROUTE
2989      KM   Route surface flow west from Subbasin 52m to Subbasin 54m.
2990      RS   2     FLOW   -1
2991      RC   0.050  0.016  0.050  2650  0.0066
2992      RX   0     0.3   12    29.4   30.6   48   59.7   60
2993      RY   3     1     0.5    0       0     0.5   1       3
          *

2994      KK   54m  BASIN
2995      KM   Subbasin at NEC of Thomas Rd. & 16th St.
2996      BA   0.271
2997      LG   0.56  0.25   4.80  0.37   31
2998      UC   0.794  0.479
2999      UA   0     5.0   16.0  30.0   65.0   77.0  84.0  90.0  94.0  97.0
3000      UA   100
          *

3001      KK   BD54kP RETRIEVE
3002      KM   Retrieve diverted pipe flow from D54kP.
3003      DR   D54kP
          *

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3004 KK P54kS ROUTE  
 3005 KM Route pipe flow from Grand Canal/16th St. to Thomas/16th St.  
 3006 RK 5000 0.0030 0.015 CIRC 5.0  
 \*

HEC-1 INPUT

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

3007 KK BD54kS RETRIEVE  
 3008 KM Retrieve diverted surface flow from D54kS.  
 3009 DR D54kS  
 \*

3010 KK R54kS ROUTE  
 3011 KM Route surface flow south from Subbasin 54k to Subbasin 54m.  
 3012 RS 3 FLOW -1  
 3013 RC 0.050 0.016 0.050 4500 0.0057  
 3014 RX 0 0.5 20 49 51 80 99.5 100  
 3015 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3016 KK C54kS COMBINE  
 3017 KM Combine hydrographs R54kS and P54kS.  
 3018 HC 2 1.18  
 \*

3019 KK C54m COMBINE  
 3020 KM Combine hydrographs 54m, C54kS, and R52mW.  
 3021 HC 3 1.66  
 \*

3022 KK D54m DIVERT  
 3023 KM Divert 124 cfs into pipe.  
 3024 DT D54mP  
 3025 DI 0 100 124 10000  
 3026 DQ 0 100 124 124  
 \*

3027 KK D54mW DIVERT  
 3028 KM Divert surface flow to south.  
 3029 DT D54mS  
 3030 DI 0 100 1000 10000  
 3031 DQ 0 40 400 4000  
 \*

3032 KK R54mW ROUTE  
 3033 KM Route surface flow west from Subbasin 54m to Subbasin 56m.  
 3034 RS 2 FLOW -1  
 3035 RC 0.050 0.016 0.050 2640 0.0030  
 3036 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3037 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3038 KK 56m BASIN  
 3039 KM Subbasin at NEC of Thomas Rd. & 12th St.  
 3040 BA 0.576  
 3041 LG 0.86 0.25 4.90 0.36 26  
 3042 UC 1.375 1.077  
 3043 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3044 UA 100  
 \*

HEC-1 INPUT

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

3045 KK BD56kP RETRIEVE  
 3046 KM Retrieve diverted pipe flow from D56kP.  
 3047 DR D56kP  
 \*

3048 KK P56kS ROUTE  
 3049 KM Route pipe flow from Grand Canal/12th St. to Thomas/12th St.  
 3050 RK 7350 0.0030 0.015 CIRC 7.0  
 \*

3051 KK BD56kS RETRIEVE  
 3052 KM Retrieve diverted surface flow from D56kS.  
 3053 DR D56kS  
 \*

3054 KK R56kS ROUTE  
 3055 KM Route surface flow south from Subbasin 56k to Subbasin 56m.  
 3056 RS 5 FLOW -1

3057	RC	0.050	0.016	0.050	6070	0.0033			
3058	RX	0	0.5	20	49	51	80	99.5	100
3059	RY	3	1	0.5	0	0	0.5	1	3
	*								
3060	KK	C56kS COMBINE							
3061	KM	Combine hydrographs R56kS and P56kS.							
3062	HC	2	4.46						
	*								
3063	KK	C56m COMBINE							
3064	KM	Combine hydrographs 56m, C56kS, and R54mW.							
3065	HC	3	5.50						
	*								
3066	KK	D56m DIVERT							
3067	KM	Divert 433 cfs into pipe.							
3068	DT	D56mP							
3069	DI	0	100	433	10000				
3070	DQ	0	100	433	433				
	*								
3071	KK	D56mW DIVERT							
3072	KM	Divert surface flow to south.							
3073	DT	D56mS							
3074	DI	0	100	1000	10000				
3075	DQ	0	39	389	3892				
	*								
3076	KK	R56mW ROUTE							
3077	KM	Route surface flow west from Subbasin 56m to Subbasin 60m.							
3078	RS	3	FLOW	-1					
3079	RC	0.050	0.016	0.050	2640	0.0023			
3080	RX	0	1.8	72	176.4	183.6	288	358.2	360
3081	RY	3	1	0.5	0	0	0.5	1	3
	*								

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HEC-1 INPUT

LINE	ID.....	1.....	2.....	3.....	4.....	5.....	6.....	7.....	8.....	9.....	10
3082	KK	60m BASIN									
3083	KM	Subbasin at NEC of Thomas Rd. & 7th St.									
3084	BA	0.500									
3085	LG	0.84	0.25	5.80	0.25	16					
3086	UC	1.334	1.046								
3087	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3088	UA	100									
	*										
3089	KK	BD601P RETRIEVE									
3090	KM	Retrieve diverted pipe flow from D601P.									
3091	DR	D601P									
	*										
3092	KK	P601S ROUTE									
3093	KM	Route pipe flow from Indian School/7th St. to Thomas/7th St.									
3094	RK	5300	0.0030	0.015		CIRC	4.50				
	*										
3095	KK	BD601S RETRIEVE									
3096	KM	Retrieve diverted surface flow from D601S.									
3097	DR	D601S									
	*										
3098	KK	R601S ROUTE									
3099	KM	Route surface flow south from Subbasin 601 to Subbasin 60m.									
3100	RS	5	FLOW	-1							
3101	RC	0.050	0.016	0.050	5280	0.0038					
3102	RX	0	1.3	52	127.4	132.6	208	258.7	260		
3103	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3104	KK	C601S COMBINE									
3105	KM	Combine hydrographs R601S and P601S.									
3106	HC	2	4.69								
	*										
3107	KK	C60m COMBINE									
3108	KM	Combine hydrographs 60m, C601S, and R56mW.									
3109	HC	3	6.24								
	*										
3110	KK	D60m DIVERT									
3111	KM	Divert 124 cfs into pipe.									
3112	DT	D60mP									

3113 DI 0 100 124 10000  
 3114 DQ 0 100 124 124  
 \*

HEC-1 INPUT

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

3115 KK D60mW DIVERT  
 3116 KM Divert surface flow to south.  
 3117 DT D60mS  
 3118 DI 0 100 1000 10000  
 3119 DQ 0 52 520 5199  
 \*

3120 KK R60mW ROUTE  
 3121 KM Route surface flow west from Subbasin 60m to Subbasin 64m.  
 3122 RS 4 FLOW -1  
 3123 RC 0.050 0.016 0.050 2640 0.0008  
 3124 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 3125 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3126 KK 64m BASIN  
 3127 KM Subbasin at NEC of Thomas Rd. & Central Ave.  
 3128 BA 0.500  
 3129 LG 0.29 0.15 8.40 0.09 49  
 3130 UC 1.138 0.877  
 3131 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3132 UA 100  
 \*

3133 KK BD641P RETRIEVE  
 3134 KM Retrieve diverted pipe flow from D641P.  
 3135 DR D641P  
 \*

3136 KK P641S ROUTE  
 3137 KM Route pipe flow from Indian School/Central Ave. to Thomas/Central Ave.  
 3138 RK 5280 0.0030 0.015 CIRC 7.00  
 \*

3139 KK BD641S RETRIEVE  
 3140 KM Retrieve diverted surface flow from D641S.  
 3141 DR D641S  
 \*

3142 KK R641S ROUTE  
 3143 KM Route surface flow south from Subbasin 64l to Subbasin 64m.  
 3144 RS 8 FLOW -1  
 3145 RC 0.050 0.016 0.050 5280 0.0030  
 3146 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 3147 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3148 KK C641S COMBINE  
 3149 KM Combine hydrographs R641S and P641S.  
 3150 HC 2 6.96  
 \*

HEC-1 INPUT

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

3151 KK 68m BASIN  
 3152 KM Subbasin at NEC of Thomas Rd. & 7th Ave.  
 3153 BA 0.550  
 3154 LG 0.14 0.15 8.80 0.08 57  
 3155 UC 1.149 0.853  
 3156 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3157 UA 100  
 \*

3158 KK D68mP2 DIVERT  
 3159 KM Divert flow into pipe.  
 3160 KM pipe flow to east = 34 cfs  
 3161 DT D68m  
 3162 DI 0 34 100 1000 10000  
 3163 DQ 0 0 66 966 9966  
 \*

3164 KK C64m COMBINE  
 3165 KM Combine hydrographs 64m, C641S, D68mP2, and R60mW.  
 3166 HC 4 9.55  
 \*

```

3167 KK D64m DIVERT
3168 KM Divert 399 cfs into pipe.
3169 DT D64mP
3170 DI 0 100 399 10000
3171 DQ 0 100 399 399
*

3172 KK D64mW DIVERT
3173 KM Divert surface flow to south.
3174 DT D64mS
3175 DI 0 100 1000 10000
3176 DQ 0 62 618 6176
*

3177 KK R64mW ROUTE
3178 KM Route surface flow west from Subbasin 64m to Subbasin 68m.
3179 RS 5 FLOW -1
3180 RC 0.050 0.016 0.050 2640 0.0010
3181 RX 0 1.3 52 127.4 132.6 208 258.7 260
3182 RY 3 1 0.5 0 0 0.5 1 3
*

3183 KK BD68m RETRIEVE
3184 KM Retrieve diverted surface flow from D68m.
3185 DR D68m
*

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HEC-1 INPUT

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

```

3186 KK C68m COMBINE
3187 KM Combine hydrographs C681S, D68m, and R64mW.
3188 HC 3 16.15
*

3189 KK D68m2 DIVERT
3190 KM Divert 144 cfs into pipe.
3191 DT D68mP
3192 DI 0 100 144 10000
3193 DQ 0 100 144 144
*

3194 KK D68mW DIVERT
3195 KM Divert surface flow to south.
3196 DT D68mS
3197 DI 0 100 1000 10000
3198 DQ 0 83 830 8300
*

3199 KK R68mW ROUTE
3200 KM Route surface flow west from Subbasin 68m to Subbasin 72m.
3201 RS 5 FLOW -1
3202 RC 0.050 0.016 0.050 2640 0.0008
3203 RX 0 1.05 42 102.9 107.1 168 208.95 210
3204 RY 3 1 0.5 0 0 0.5 1 3
*

3205 KK CC72m COMBINE
3206 KM Combine hydrographs C72m and R68mW.
3207 HC 2 17.12
*

3208 KK D72m DIVERT
3209 KM Divert 308 cfs into pipe.
3210 DT D72mP
3211 DI 0 100 308 10000
3212 DQ 0 100 308 308
*

3213 KK R72mS ROUTE
3214 KM Route surface flow south from Subbasin 72m to Subbasin 72o.
3215 RS 6 FLOW -1
3216 RC 0.050 0.016 0.050 6900 0.0020
3217 RX 0 1.25 50 122.5 127.5 200 248.75 250
3218 RY 3 1 0.5 0 0 0.5 1 3
*

3219 KK BD72mP RETRIEVE
3220 KM Retrieve diverted pipe flow from D72mP.
3221 DR D72mP
*

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HEC-1 INPUT

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

```

3222      KK      P72mS  ROUTE
3223      KM      Route pipe flow from Thomas/15th Ave. to I-10/15th Ave.
3224      RK      6900  0.0030  0.015          CIRC      7.0
          *

3225      KK      C72mS  COMBINE
3226      KM      Combine hydrographs R72mS and P72mS.
3227      HC      2      17.12
          *

3228      KK      BD24oS  RETRIEVE
3229      KM      Retrieve diverted surface flow from D24oS.
3230      DR      D24oS
          *

3231      KK      R24oS  ROUTE
3232      KM      Route surface flow south from Subbasin 24o to Subbasin 28p.
3233      RS      3      FLOW      -1
3234      RC      0.050  0.016  0.050  3500  0.0081
3235      RX      0      1      40      98      102      160      199      200
3236      RY      3      1      0.5      0      0      0.5      1      3
          *

3237      KK      BD28oP  RETRIEVE
3238      KM      Retrieve diverted pipe flow from D28oP.
3239      DR      D28oP
          *

3240      KK      P28oS  ROUTE
3241      KM      Route pipe flow from McDowell/40th St. to Loop 202/40th St.
3242      RK      2500  0.0044  0.015          CIRC      7.00
          *

3243      KK      BD28oS  RETRIEVE
3244      KM      Retrieve diverted surface flow from D28oS.
3245      DR      D28oS
          *

3246      KK      R28oS  ROUTE
3247      KM      Route surface flow south from Subbasin 28o to Subbasin 28p.
3248      RS      2      FLOW      -1
3249      RC      0.050  0.016  0.050  2800  0.0112
3250      RX      0      1.25  50      122.5  127.5      200  248.75  250
3251      RY      3      1      0.5      0      0      0.5      1      3
          *

3252      KK      C28oS  COMBINE
3253      KM      Combine hydrographs R28oS and P28oS.
3254      HC      2      2.73
          *

```

HEC-1 INPUT

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

```

3255      KK      C28p  COMBINE
3256      KM      Combine hydrographs C28oS and R24oS.
3257      HC      2      2.73
          *

3258      KK      28p  BASIN
3259      KM      Subbasin at NEC of Loop 202 & 40th St.
3260      BA      0.372
3261      LG      1.02  0.25  4.80  0.36  26
3262      UC      1.001  0.732
3263      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
3264      UA      100
          *

3265      KK      S28p  STORAGE
3266      KM      Online Local Retention Basin, 0.8 ac-ft.
3267      RS      1      STOR      0
3268      SV      0      0.2  0.8  1.5
3269      SE      0      2      4      6
3270      SS      4      100  2.7  1.5
          *

3271      KK      CC28p  COMBINE
3272      KM      Combine hydrographs C28p and S28p.
3273      HC      2      3.11
          *

3274      KK      D28p  DIVERT
3275      KM      Divert flow into pipe.
3276      KM      Total pipe flow = 279 cfs (201 cfs to south, 68 cfs to east)

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```

3277 DT D28pP
3278 DI 0 100 279 10000
3279 DQ 0 100 279 279
*

3280 KK R28pW ROUTE
3281 KM Route surface flow west from Subbasin 28p to Subbasin 32p.
3282 RS 3 FLOW -1
3283 RC 0.050 0.016 0.050 2640 0.0030
3284 RX 0 0.8 32 78.4 81.6 128 159.2 160
3285 RY 3 1 0.5 0 0 0.5 1 3
*

3286 KK 32p BASIN
3287 KM Subbasin at NEC of Loop 202 & 36th St.
3288 BA 0.234
3289 LG 0.28 0.25 4.80 0.33 3
3290 UC 1.245 1.028
3291 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
3292 UA 100
*

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HEC-1 INPUT

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

```

3293 KK BD32oS RETRIEVE
3294 KM Retrieve diverted surface flow from D32oS.
3295 DR D32oS
*

3296 KK R32oS ROUTE
3297 KM Route surface flow south from Subbasin 32o to Subbasin 32p.
3298 RS 2 FLOW -1
3299 RC 0.050 0.016 0.050 2540 0.0071
3300 RX 0 0.5 20 49 51 80 99.5 100
3301 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

3302 KK C32p COMBINE
3303 KM Combine hydrographs 32p and R32oS.
3304 HC 2 4.49
*

```

```

3305 KK S32p STORAGE
3306 KM Online Regional Detention Basin, 57 ac-ft.
3307 RS 1 STOR 0
3308 SV 0 3.5 13.8 32.9 57.4 83.7
3309 SE 0 2 4 6 8 10
3310 SL 2 12.56 0.62 0.5
3311 SS 8 20 2.7 1.5
*

```

```

3312 KK BD32oP RETRIEVE
3313 KM Retrieve diverted pipe flow from D32oP.
3314 DR D32oP
*

```

```

3315 KK P32oS ROUTE
3316 KM Route pipe flow from McDowell/36th St. to SR202L/36th ST.
3317 RK 2500 0.0060 0.015 CIRC 6.0
*

```

```

3318 KK CC32p COMBINE
3319 KM Combine hydrographs P32oS, R28pW and S32p.
3320 HC 3 4.86
*

```

```

3321 KK D32pW DIVERT
3322 KM Divert flow to pipe.
3323 DT D32pS
3324 DI 0 100 1000 10000
3325 DQ 0 10 150 600
*

```

1

HEC-1 INPUT

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

```

3326 KK D32p DIVERT
3327 KM Divert 379 cfs into pipe.
3328 DT D32pP
3329 DI 0 100 379 1000 10000
3330 DQ 0 100 379 379 379
*

```

```

3331      KK  R32pW  ROUTE
3332      KM  Route surface flow west from Subbasin 32p to Subbasin 36p.
3333      RS  3      FLOW      -1
3334      RC  0.050  0.016  0.050  2700  0.0022
3335      RX  0      0.5     20     49     51     80     99.5    100
3336      RY  3      1      0.5     0      0      0.5     1      3
          *

3337      KK  BD32pP RETRIEVE
3338      KM  Retrieve diverted pipe flow from D32pP.
3339      DR  D32pP
          *

3340      KK  P32pW  ROUTE
3341      KM  Route pipe flow from Loop 202/36th St. to Loop 202/32nd St.
3342      RK  2750  0.0047  0.015      CIRC      7.0
          *

3343      KK  C32pW COMBINE
3344      KM  Combine hydrographs R32pW and P32pW.
3345      HC  2      4.86
          *

3346      KK  28q  BASIN
3347      KM  Subbasin at NEC of Grand Canal & 40th St.
3348      BA  0.318
3349      LG  0.35  0.25  4.80  0.39  42
3350      UC  0.785  0.486
3351      UA  0      5.0    16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
3352      UA  100
          *

3353      KK  S28q STORAGE
3354      KM  Online Local Retention Basin, 0.3 ac-ft.
3355      RS  1      STOR      0
3356      SV  0      0.3    0.8
3357      SE  0      2      4
3358      SS  2      100   2.7    1.5
          *

3359      KK  BD28pP RETRIEVE
3360      KM  Retrieve diverted pipe flow from D28pP.
3361      DR  D28pP
          *

          HEC-1 INPUT
          PAGE 94

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

3362      KK  D28pP1 DIVERT
3363      KM  Divert flow into pipe.
3364      DT  D28pP2
3365      DI  0      279   300
3366      DQ  0      68    75
          *

3367      KK  P28pS  ROUTE
3368      KM  Route pipe flow from Loop 202/40th St. to Grand Canal/40th St.
3369      RK  2700  0.0030  0.015      CIRC      6.00
          *

3370      KK  C28q COMBINE
3371      KM  Combine hydrographs P28pS and S28q.
3372      HC  2      0.82
          *

3373      KK  D28q DIVERT
3374      KM  Divert flow into pipe.
3375      KM  Total pipe flow = 340 cfs (32 cfs to east, 308 cfs to south)
3376      DT  D28qP
3377      DI  0      100   340  10000
3378      DQ  0      100   340  340
          *

3379      KK  D28qW DIVERT
3380      KM  Divert surface flow to south.
3381      DT  D28qS
3382      DI  0      14     72     203   550   1348
3383      DQ  0      0      41     144   430   1103
          *

3384      KK  R28qW  ROUTE
3385      KM  Route surface flow west from Subbasin 28q to Subbasin 32q.
3386      RS  9      FLOW      -1
3387      RC  0.050  0.016  0.050  3500  0.0003
3388      RX  0      0.75   30     73.5  76.5   120  149.25  150

```

3389	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3390	KK	32q	BASIN								
3391	KM	Subbasin at NEC of Grand Canal & 36th St.									
3392	BA	0.175									
3393	LG	0.25	0.21	4.80	0.32	6					
3394	UC	1.079	0.854								
3395	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3396	UA	100									
	*										

1

HEC-1 INPUT

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

3397	KK	BD32pS RETRIEVE									
3398	KM	Retrieve diverted surface flow from D32pS.									
3399	DR	D32pS									
	*										

3400	KK	C32q COMBINE									
3401	KM	Combine hydrographs 32q, D32pS, and R28qW.									
3402	HC	3	0.99								
	*										

3403	KK	S32q STORAGE									
3404	KM	Online Regional Detention Basin, 92 ac-ft.									
3405	RS	1	STOR	0							
3406	SV	0	10	24	41	59	80	92	110		
3407	SE	0	4	8	12	16	20	22	24		
3408	SL	1.5	7.068	0.62	0.5						
3409	SS	22	750	2.7	1.5						
	*										

3410	KK	D32qP DIVERT									
3411	KM	Divert surface flow to southwest.									
3412	KM	Basin bleed-off pipe flow = 32 cfs									
3413	DT	D32q									
3414	DI	0	32	100	1000	10000					
3415	DQ	0	0	68	968	9968					
	*										

3416	KK	P32qW ROUTE									
3417	KM	Route pipe flow from Subbasin 32q to Detention Basin in 36p.									
3418	RK	800	0.0031	0.015	CIRC	3.0					
	*										

3419	KK	C32pqW COMBINE									
3420	KM	Combine hydrographs C32pW and P32qW.									
3421	HC	2	4.86								
	*										

3422	KK	36p	BASIN								
3423	KM	Subbasin at NEC of Grand Canal and Loop 202									
3424	BA	0.186									
3425	LG	0.72	0.22	4.80	0.36	23					
3426	UC	0.877	0.627								
3427	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3428	UA	100									
	*										

3429	KK	BD36oS RETRIEVE									
3430	KM	Retrieve diverted surface flow from D36oS.									
3431	DR	D36oS									
	*										

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

3432	KK	R36oS	ROUTE								
3433	KM	Route surface flow south from Subbasin 36o to 36p.									
3434	RS	3	FLOW	-1							
3435	RC	0.050	0.016	0.050	2500	0.0063					
3436	RX	0	0.75	30	73.5	76.5	120	149.25	150		
3437	RY	3	1	0.5	0	0	0.5	1	3		
	*										

3438	KK	C36p COMBINE									
3439	KM	Combine hydrographs 36p, C32pqW, and R36oS.									
3440	HC	3	6.91								
	*										

3441	KK	E36p DIVERT									
3442	KM	Divert flow into detention basin 40p and 36q, (Bypass 613 cfs pipe flow).									

```

3443      DT  DB36p
3444      DI      0      100      613      1000      10000
3445      DQ      0      0      0      387      9387
*
3446      KK  BDB36pRETRIEVE
3447      KM  Retrieve diverted flow from DB36p for offline detention.
3448      DR  DB36p
*
3449      KK  S36p STORAGE
3450      KM  Offline Detention basins within 40p and 36q receive flows from subbasin
3451      KM  36p. They are treated as one detention basin, 68 ac-ft.
3452      RS      1      STOR      0
3453      SV      0      10      22      37      55      68      84
3454      SE      0      4      8      12      16      18      20
3455      SL      2      12.56      0.62      0.5
3456      SS      18      200      2.7      1.5
*
3457      KK  BD36oP RETRIEVE
3458      KM  Retrieve diverted pipe flow from D36oP.
3459      DR  D36oP
*
3460      KK  P36oS ROUTE
3461      KM  Route pipe flow from 32nd st/McDowell to subbasin 36p.
3462      RK      900      0.0038      0.015      CIRC      5.00
*
3463      KK  CC36p COMBINE
3464      KM  Combine hydrographs E36p, P36oS, and S36p.
3465      HC      3      6.91
*

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

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3466      KK  D36p DIVERT
3467      KM  Divert 613 cfs into pipe (139 cfs to south, 474 cfs to west).
3468      DT  D36pP
3469      DI      0      100      613      1000      10000
3470      DQ      0      100      613      613      613
*
3471      KK  R36pW ROUTE
3472      KM  Route surface flow west from Subbasin 36p to 40p.
3473      RS      2      FLOW      -1
3474      RC      0.050      0.016      0.050      2640      0.0024
3475      RX      0      0.75      30      73.5      76.5      120      149.25      150
3476      RY      3      1      0.5      0      0      0.5      1      3
*
3477      KK  BD36pP RETRIEVE
3478      KM  Retrieve diverted pipe flow from D36pP.
3479      DR  D36pP
*
3480      KK  D36pP1 DIVERT
3481      KM  Divert flow into pipe (south).
3482      DT  D36pP2
3483      DI      0      613      620
3484      DQ      0      139      140
*
3485      KK  P36pW ROUTE
3486      KM  Route pipe flow from offline detention basin to subbasin 40p.
3487      RK      2700      0.0036      0.015      CIRC      8.0
*
3488      KK  C36pW COMBINE
3489      KM  Combine hydrographs R36pW and P36pW.
3490      HC      2      6.91
*
3491      KK  40p BASIN
3492      KM  Subbasin at NEC of Loop 202 and 28th St
3493      BA      0.222
3494      LG      1.05      0.13      7.00      0.14      22
3495      UC      0.960      0.648
3496      UA      0      5.0      16.0      30.0      65.0      77.0      84.0      90.0      94.0      97.0
3497      UA      100
*
3498      KK  BD40oP RETRIEVE

```

3499 KM Retrieve diverted pipe flow from D40oP.  
3500 DR D40oP  
\*

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

3501 KK P40oS ROUTE  
3502 KM Route pipe flow from 28th st/Grand Canal to subbasin 40p.  
3503 RK 2800 0.0041 0.015 CIRC 5.00  
\*

3504 KK BD40oS RETRIEVE  
3505 KM Retrieve diverted surface flow from D40oS.  
3506 DR D40oS  
\*

3507 KK R40oS ROUTE  
3508 KM Route surface flow south from Subbasin 40o to 40p.  
3509 RS 3 FLOW -1  
3510 RC 0.050 0.016 0.050 2500 0.0072  
3511 RX 0 1.3 52 127.4 132.6 208 258.7 260  
3512 RY 3 1 0.5 0 0 0.5 1 3  
\*

3513 KK C40oS COMBINE  
3514 KM Combine hydrographs R40oS and P40oS.  
3515 HC 2 7.82  
\*

3516 KK C40p COMBINE  
3517 KM Combine hydrographs 40p and C40oS.  
3518 HC 3 8.83  
\*

3519 KK D40p DIVERT  
3520 KM Divert 785 cfs to 9'x9' box (west).  
3521 DT D40pP  
3522 DI 0 100 785 10000  
3523 DQ 0 100 785 785  
\*

3524 KK R40pW ROUTE  
3525 KM Route surface flow west from Subbasin 40p to 44p.  
3526 RS 4 FLOW -1  
3527 RC 0.050 0.016 0.050 2640 0.0023  
3528 RX 0 1 40 98 102 160 199 200  
3529 RY 3 1 0.5 0 0 0.5 1 3  
\*

3530 KK BD40pP RETRIEVE  
3531 KM Retrieve diverted pipe flow from D40pP.  
3532 DR D40pP  
\*

3533 KK P40pW ROUTE  
3534 KM Route pipe flow from 28th st/I-10 to subbasin 44p.  
3535 KM 9'x9' box equals to D =10' pipe  
3536 RK 2640 0.0030 0.015 CIRC 10.0  
\*

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

3537 KK C40pW COMBINE  
3538 KM Combine hydrographs R40oW and P40pW.  
3539 HC 2 8.83  
\*

3540 KK 44p BASIN  
3541 KM NEC corner of Loop 202 and 24th St  
3542 BA 0.407  
3543 LG 0.56 0.15 7.00 0.14 25  
3544 UC 1.159 0.897  
3545 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3546 UA 100  
\*

3547 KK BD44oP RETRIEVE  
3548 KM Retrieve diverted pipe flow from D44oP.  
3549 DR D44oP  
\*

3550 KK P44oS ROUTE

3551 KM Route pipe flow from 24th st/Grand Canal to subbasin 44p.  
 3552 RK 5650 0.0030 0.015 CIRC 5.00  
 \*

3553 KK BD44oS RETRIEVE  
 3554 KM Retrieve diverted surface flow from D44oS.  
 3555 DR D44oS  
 \*

3556 KK R44oS ROUTE  
 3557 KM Route surface flow south from Subbasin 44o to 44p.  
 3558 RS 3 FLOW -1  
 3559 RC 0.050 0.016 0.050 4230 0.0033  
 3560 RX 0 1 40 98 102 160 199 200  
 3561 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3562 KK C44oS COMBINE  
 3563 KM Combine hydrographs R44oS and P44oS.  
 3564 HC 2 9.68  
 \*

3565 KK C44p COMBINE  
 3566 KM Combine hydrographs C44oS, C40pW, and 44p.  
 3567 HC 3 11.10  
 \*

3568 KK D44p DIVERT  
 3569 KM Divert 1344 cfs into pipe (124 cfs to south, 1220 cfs to west).  
 3570 DT D44pP  
 3571 DI 0 100 1344 10000  
 3572 DQ 0 100 1344 1344  
 \*

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

3573 KK R44pW ROUTE  
 3574 KM Route surface flow west from Subbasin 44p to 48o.  
 3575 RS 3 FLOW -1  
 3576 RC 0.050 0.016 0.050 2640 0.0015  
 3577 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 3578 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3579 KK BD44pP RETRIEVE  
 3580 KM Retrieve diverted pipe flow from D44pP.  
 3581 DR D44pP  
 \*

3582 KK D44pP1 DIVERT  
 3583 KM Divert flow into pipe (south).  
 3584 DT D44pP2  
 3585 DI 0 1344 1500  
 3586 DQ 0 124 138  
 \*

3587 KK P44pW ROUTE  
 3588 KM Route pipe flow from 24th st/McDowell to subbasin 48o.  
 3589 KM 11'x10' box approximately equals to 12' pipe  
 3590 RK 2100 0.0030 0.015 CIRC 12.0  
 \*

3591 KK C44pW COMBINE  
 3592 KM Combine hydrographs R44pW and P44pW.  
 3593 HC 2 11.10  
 \*

3594 KK 48o BASIN  
 3595 KM Subbasin at NEC of Loop 202 and SR51  
 3596 BA 0.676  
 3597 LG 0.74 0.17 6.80 0.16 23  
 3598 UC 1.183 0.738  
 3599 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3600 UA 100  
 \*

3601 KK BD52mS RETRIEVE  
 3602 KM Retrieve diverted surface flow from D52mS.  
 3603 DR D52mS  
 \*

3604 KK R52mS ROUTE  
 3605 KM Route surface flow south from Subbasin 52m to 48o.  
 3606 RS 3 FLOW -1

3607	RC	0.050	0.016	0.050	7000	0.0026			
3608	RX	0	0.5	20	49	51	80	99.5	100
3609	RY	3	1	0.5	0	0	0.5	1	3

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

3610 KK BD52mP RETRIEVE  
 3611 KM Retrieve diverted pipe flow from D52mP.  
 3612 DR D52mP  
 \*

3613 KK P52mS ROUTE  
 3614 KM Route pipe flow from subbasin 52m to subbasin 48o.  
 3615 RK 8600 0.0030 0.015 CIRC 7.50  
 \*

3616 KK C52mS COMBINE  
 3617 KM Combine hydrographs R52mS and P52mS.  
 3618 HC 2 12.24  
 \*

3619 KK C48o COMBINE  
 3620 KM Combine hydrographs C52mS, C44pW, and 48o.  
 3621 HC 3 14.34  
 \*

3622 KK E48o DIVERT  
 3623 KM Divert 2573 cfs into ADOT East Tunnel 21' pipe at Moreland St.  
 3624 DT DB48o  
 3625 DI 0 100 1000 2573 10000  
 3626 DQ 0 0 0 0 7427  
 \*

3627 KK BDB48o RETRIEVE  
 3628 KM Retrieve diverted flow from DB48o for detention.  
 3629 DR DB48o  
 \*

3630 KK S48o STORAGE  
 3631 KM Excess flood water at ADOT East Tunnel going west  
 3632 KM through McDowell Rd after ponding, online detention basin 35 ac-ft.  
 3633 RS 1 STOR 0  
 3634 SV 0 6 35 81  
 3635 SE 0 2 4 6  
 3636 SL 0.5 7.07 0.62 0.5  
 3637 SS 4 50 2.7 1.5  
 \*

3638 KK CC48o COMBINE  
 3639 KM Combine hydrographs E48o and S48o.  
 3640 HC 2 14.34  
 \*

3641 KK D48o DIVERT  
 3642 KM Divert 2573 cfs into ADOT East tunnel 21' pipe at Moreland St.  
 3643 DT D48oPT  
 3644 DI 0 100 2573 5000 10000  
 3645 DQ 0 100 2573 2573 2573  
 \*

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

3646 KK R48oW ROUTE  
 3647 KM Route surface flow west from Subbasin 48o to 52o.  
 3648 KM Excess flow routing to west through McDowell Rd.  
 3649 RS 3 FLOW -1  
 3650 RC 0.050 0.016 0.050 2640 0.0015  
 3651 RX 0 0.5 20 49 51 80 99.5 100  
 3652 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3653 KK 52o BASIN  
 3654 KM Subbasin at NEC of I-10 and 16th St  
 3655 BA 0.645  
 3656 LG 0.42 0.25 5.80 0.23 28  
 3657 UC 1.220 0.880  
 3658 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3659 UA 100  
 \*

3660 KK BD54mP RETRIEVE

3661 KM Retrieve diverted pipe flow from D54mP.  
3662 DR D54mP  
\*

3663 KK P54mS ROUTE  
3664 KM Route pipe flow from 16th st/Thomas to subbasin 52o.  
3665 RK 6350 0.0030 0.015 CIRC 5.00  
\*

3666 KK BD54mS RETRIEVE  
3667 KM Retrieve diverted surface flow from D54mS.  
3668 DR D54mS  
\*

3669 KK R54mS ROUTE  
3670 KM Route surface flow south from Subbasin 54m to 52o.  
3671 RS 6 FLOW -1  
3672 RC 0.050 0.016 0.050 6845 0.0029  
3673 RX 0 0.5 20 49 51 80 99.5 100  
3674 RY 3 1 0.5 0 0 0.5 1 3  
\*

3675 KK C54mS COMBINE  
3676 KM Combine hydrographs R54mS and P54mS.  
3677 HC 2 1.66  
\*

3678 KK C52o COMBINE  
3679 KM Combine hydrographs C54mS, R48oW, and 52o.  
3680 HC 3 2.30  
\*

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

3681 KK D52o DIVERT  
3682 KM Divert 517 cfs into pipe to West Tunnel.  
3683 KM 72" SD at 19th St and 72" SD at 16th St, Q = 211+306 = 517 cfs  
3684 DT D52oP  
3685 DI 0 100 517 10000  
3686 DQ 0 100 517 517  
\*

3687 KK R52oW ROUTE  
3688 KM Route surface flow west from Subbasin 52o to 56o.  
3689 RS 6 FLOW -1  
3690 RC 0.050 0.016 0.050 2640 0.0015  
3691 RX 0 1.6 64 156.8 163.2 256 318.4 320  
3692 RY 3 1 0.5 0 0 0.5 1 3  
\*

3693 KK BD52oP RETRIEVE  
3694 KM Retrieve diverted pipe flow from D52oP.  
3695 DR D52oP  
\*

3696 KK P52oW ROUTE  
3697 KM Route pipe flow from 16th st/McDowell to subbasin 56o.  
3698 RK 2700 0.0031 0.015 CIRC 7.5  
\*

3699 KK C52oW COMBINE  
3700 KM Combine hydrographs R52oW and P52oW.  
3701 HC 2 2.30  
\*

3702 KK 56o BASIN  
3703 KM Subbasin at NEC of I-10 and 12th St  
3704 BA 0.638  
3705 LG 0.29 0.25 5.00 0.33 24  
3706 UC 1.329 0.988  
3707 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3708 UA 100  
\*

3709 KK BD56mP RETRIEVE  
3710 KM Retrieve diverted pipe flow from D56mP.  
3711 DR D56mP  
\*

3712 KK P56mS ROUTE  
3713 KM Route pipe flow from 12th st/Thomas to subbasin 56o.  
3714 RK 6450 0.0030 0.015 CIRC 8.00  
\*

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

3715 KK BDS6mS RETRIEVE  
 3716 KM Retrieve diverted surface flow from D56mS.  
 3717 DR D56mS  
 \*

3718 KK R56mS ROUTE  
 3719 KM Route surface flow south from Subbasin 56m to 56o.  
 3720 RS 7 FLOW -1  
 3721 RC 0.050 0.016 0.050 6770 0.0024  
 3722 RX 0 1.1 44 107.8 112.2 176 218.9 220  
 3723 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3724 KK C56mS COMBINE  
 3725 KM Combine hydrographs R56mS and P56mS.  
 3726 HC 2 5.50  
 \*

3727 KK C56o COMBINE  
 3728 KM Combine hydrographs C56mS, C52oW, and 56o.  
 3729 HC 3 6.79  
 \*

3730 KK D56o DIVERT  
 3731 KM Divert flow into West Tunnel (517 cfs from U/S).  
 3732 KM 10'x6' RCB at 12th St. Q = 433+517 = 950 cfs.  
 3733 DT D56oP  
 3734 DI 0 100 1000 10000  
 3735 DQ 0 100 950 950  
 \*

3736 KK R56oW ROUTE  
 3737 KM Route surface flow west from Subbasin 56o to 60o.  
 3738 RS 3 FLOW -1  
 3739 RC 0.050 0.016 0.050 2640 0.0023  
 3740 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 3741 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3742 KK BD56oP RETRIEVE  
 3743 KM Retrieve diverted pipe flow from D56oP.  
 3744 DR D56oP  
 \*

3745 KK P56oW ROUTE  
 3746 KM Route pipe flow from 12th st/McDowell to subbasin 60o.  
 3747 KM 10'x10' box approximately equals to 11.5' pipe  
 3748 RK 2700 0.0030 0.015 CIRC 11.5  
 \*

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

3749 KK C56oW COMBINE  
 3750 KM Combine hydrographs R56oW and P56oW.  
 3751 HC 2 6.79  
 \*

3752 KK 60o BASIN  
 3753 KM Subbasin at NEC of I-10 and 7th St  
 3754 BA 0.640  
 3755 LG 1.22 0.25 5.30 0.31 32  
 3756 UC 1.411 1.059  
 3757 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3758 UA 100  
 \*

3759 KK BD60mP RETRIEVE  
 3760 KM Retrieve diverted pipe flow from D60mP.  
 3761 DR D60mP  
 \*

3762 KK P60mS ROUTE  
 3763 KM Route pipe flow from 7th st/Thomas to subbasin 60o.  
 3764 RK 6200 0.0030 0.015 CIRC 5.00  
 \*

3765 KK BD60mS RETRIEVE  
 3766 KM Retrieve diverted surface flow from D60mS.  
 3767 DR D60mS  
 \*

3768 KK R60mS ROUTE  
 3769 KM Route surface flow south from Subbasin 60m to 60o.  
 3770 RS 6 FLOW -1  
 3771 RC 0.050 0.016 0.050 6720 0.0024  
 3772 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 3773 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3774 KK C60mS COMBINE  
 3775 KM Combine hydrographs R60mS and P60mS.  
 3776 HC 2 6.24  
 \*

3777 KK C60o COMBINE  
 3778 KM Combine hydrographs C60mS, C56oW, and 60o.  
 3779 HC 3 8.16  
 \*

3780 KK D60o DIVERT  
 3781 KM Divert flow into West ADOT Tunnel (950 cfs U/S).  
 3782 KM 84" at 7th St and 60" at 10th St, Q = 435+376 = 811+950 = 1761 cfs.  
 3783 DT D60oPT  
 3784 DI 0 100 1761 10000  
 3785 DQ 0 100 1761 1761  
 \*

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

3786 KK R60oW ROUTE  
 3787 KM Route surface flow west from Subbasin 60o to 64o.  
 3788 RS 6 FLOW -1  
 3789 RC 0.050 0.016 0.050 2640 0.0015  
 3790 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3791 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3792 KK 64o BASIN  
 3793 KM Subbasin at NEC of I-10 and Central  
 3794 BA 0.651  
 3795 LG 1.21 0.25 5.80 0.25 44  
 3796 UC 1.455 1.049  
 3797 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3798 UA 100  
 \*

3799 KK S64o STORAGE  
 3800 KM Online Detention Basin 1 ac-ft.  
 3801 RS 1 STOR 0  
 3802 SV 0 0.25 1 3  
 3803 SE 0 2 4 6  
 3804 SQ 0 8 11 600  
 \*

3805 KK BD64mP RETRIEVE  
 3806 KM Retrieve diverted pipe flow from D64mP.  
 3807 DR D64mP  
 \*

3808 KK P64mS ROUTE  
 3809 KM Route pipe flow from Central/Thomas to subbasin 64o.  
 3810 RK 6450 0.0025 0.015 CIRC 8.00  
 \*

3811 KK BD64mS RETRIEVE  
 3812 KM Retrieve diverted surface flow from D64mS.  
 3813 DR D64mS  
 \*

3814 KK R64mS ROUTE  
 3815 KM Route surface flow south from Subbasin 64m to 64o.  
 3816 RS 8 FLOW -1  
 3817 RC 0.050 0.016 0.050 6860 0.0020  
 3818 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3819 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3820 KK C64mS COMBINE  
 3821 KM Combine hydrographs R64mS and P64mS.  
 3822 HC 2 9.55  
 \*

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

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3823      KK      C64o COMBINE
3824      KM      Combine flows of C64mS, S64o,and R60oW
3825      HC      3  12.13
*

3826      KK      D64o DIVERT
3827      KM      Divert flow to ADOT West Tunnel (south).
3828      KM      96" SD at Central and 8'x7' RCB at 3rd Ave. Q =535+500=1035 cfs.
3829      DT      D64oPT
3830      DI      0    100    1035    2000    10000
3831      DQ      0    100    1035    1035    1035
*

3832      KK      R64oW ROUTE
3833      KM      Route surface flow west from Subbasin 64o to 68o.
3834      RS      2    FLOW    -1
3835      RC      0.050  0.016  0.050  2640  0.0015
3836      RX      0    1.05    42    102.9  107.1    168  208.95  210
3837      RY      3    1    0.5    0    0    0.5    1    3
*

3838      KK      68o BASIN
3839      KM      Subbasin at NEC of I-10 & 7th Ave.
3840      BA      0.688
3841      LG      0.21  0.17    6.80  0.16    25
3842      UC      1.348  0.934
3843      UA      0    5.0    16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
3844      UA      100
*

3845      KK      S68o STORAGE
3846      KM      Online Local Retention Basin, 13 ac-ft.
3847      RS      1    STOR    0
3848      SV      0    4    13    25
3849      SE      0    2    4    6
3850      SS      4    100    2.7    1.5
*

3851      KK      BD68mP RETRIEVE
3852      KM      Retrieve diverted pipe flow from D68mP.
3853      DR      D68mP
*

3854      KK      P68mS ROUTE
3855      KM      Route pipe flow from Thomas/7th Ave. to I-10/7th Ave.
3856      RK      6800  0.002  0.015    CIRC    4.0
*

3857      KK      BD68mS RETRIEVE
3858      KM      Retrieve diverted surface flow from D68mS.
3859      DR      D68mS
*

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

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3860      KK      R68mS ROUTE
3861      KM      Route surface flow south from Subbasin 68m to Subbasin 68o.
3862      RS      7    FLOW    -1
3863      RC      0.050  0.016  0.050  6780  0.0021
3864      RX      0    1.3    52    127.4  132.6    208  258.7  260
3865      RY      3    1    0.5    0    0    0.5    1    3
*

3866      KK      C68mS COMBINE
3867      KM      Combine hydrographs R68mS and P68mS.
3868      HC      2  16.15
*

3869      KK      C68o COMBINE
3870      KM      Combine hydrographs S68o, C68mS, and R64oW.
3871      HC      3  16.84
*

3872      KK      D68o DIVERT
3873      KM      Divert flow into ADOT west Tunnel storm water interceptor 14'
3874      KM      96" SD at 7th Ave and 96" SD at 3rd Ave. Q = 433 + 510 = 943 cfs
3875      DT      D68oPT
3876      DI      0    100    943    2000    10000
3877      DQ      0    100    943    943    943
*

3878      KK      R68oW ROUTE

```

3879 KM Route surface flow west from Subbasin 68o to 72o.  
 3880 RS 6 FLOW -1  
 3881 RC 0.050 0.016 0.050 2640 0.0015  
 3882 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3883 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3884 KK 72o BASIN  
 3885 KM Subbasin at NEC of I-10 & 15th Ave.  
 3886 BA 0.662  
 3887 LG 0.41 0.15 8.80 0.08 12  
 3888 UC 1.282 0.844  
 3889 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3890 UA 100  
 \*

3891 KK C72o COMBINE  
 3892 KM Combine hydrographs 72o, R68oW, and C72mS  
 3893 HC 3 17.78  
 \*

3894 KK D72o DIVERT  
 3895 KM Diver 433 cfs into storm drain  
 3896 DT D72oP  
 3897 DI 0 100 433 1000 10000  
 3898 DQ 0 100 433 433 433  
 \*

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

3899 KK S72o STORAGE  
 3900 KM ADOT West Tunnel Inlet Basin - Online Regional Detention Basin.  
 3901 RS 1 STOR 0  
 3902 SV 0 0.2 2 3 4.3 6.2 8.9 50  
 3903 SE 0 2 6 8 10 12 14 16  
 3904 SQ 0 50 250 380 530 1148 2156 3703  
 \*

3905 KK D72oPT DIVERT  
 3906 KM Divert flow into West Tunnel  
 3907 DT D72o1  
 3908 DI 0 50 250 380 530 1148 2156 3703  
 3909 DQ 0 0 0 0 0 458 1296 2763  
 \*

3910 KK PT72oE ROUTE  
 3911 KM 14' pipe to ADOT West Tunnel from I-10/15th Ave. to I-10/7th Ave.  
 3912 RK 2600 0.0030 0.015 CIRC 14.0  
 \*

3913 KK B68oPT RETRIEVE  
 3914 KM Retrieve diverted pipe flow from D68oPT.  
 3915 DR D68oPT  
 \*

3916 KK CPT68o COMBINE  
 3917 KM Combine hydrographs PT72oE and D68oPT in the North Tunnel.  
 3918 HC 2 18.47  
 \*

3919 KK PT68oE ROUTE  
 3920 KM Route pipe flow from I-10/7th Ave. to I-10/Central Ave.  
 3921 RK 850 0.0030 0.015 CIRC 14.0  
 \*

3922 KK BD72o1 RETRIEVE  
 3923 KM Retrieve diverted surface flow from D72o1.  
 3924 DR D72o1  
 \*

3925 KK D72oE DIVERT  
 3926 KM Divert flow overtopping West Tunnel Inlet Basin east and west,  
 3927 KM East flow into I-10 depressed segment  
 3928 DT D72oW  
 3929 DI 0 100 458 1296 2763  
 3930 DQ 0 0 0 0 382  
 \*

3931 KK S-I10 STORAGE  
 3932 KM Routing through I-10 depressed segment as a detention basin  
 3933 KM Flood water within the depressed area is pumped into ADOT  
 3934 KM West Tunnel. Two Pump Stations with total flow = 350 cfs, 1252 ac-ft.  
 3935 RS 1 STOR 0  
 3936 SV 0 10 62 160 287 602 997 1252 1539

LINE	ID	1	2	3	4	5	6	7	8	9	10
3937	SE	0	1	4	8	12	20	28	32	36	
3938	SQ	0	50	175	350	350	350	350	350	4820	
	*										
3939	KK	B64oPT RETRIEVE									
3940	KM	Retrieve diverted pipe flow from D64oPT.									
3941	DR	D64oPT									
	*										
3942	KK	B60oPT RETRIEVE									
3943	KM	Retrieve diverted pipe flow from D60oPT.									
3944	DR	D60oPT									
	*										
3945	KK	PT60oW ROUTE									
3946	KM	Route pipe flow from 7th st/I-10 to 3rd st/I-10, subbasin 64o.									
3947	RK	2800	0.0030	0.015			CIRC	14.0			
	*										
3948	KK	C-WT COMBINE									
3949	KM	Total flow into ADOT west tunnel at 3rd st/I-10,									
3950	KM	Combine hydrographs S-I10, PT68oE, PT60oW, and D64oPT.									
3951	HC	4	21.04								
	*										
3952	KK	PT64o ROUTE									
3953	KM	Route ADOT West Tunnel flow from 3rd st/I-10 through subbasin 64q.									
3954	RK	3800	0.002	0.015			CIRC	21.0			
	*										
3955	KK	DN_64o DIVERT									
3956	KM	Divert all flow to West Tunnel ( to free up a HEC-1 hydrograph path).									
3957	DT	DPT64o									
3958	DI	0	100	1000	10000						
3959	DQ	0	100	1000	10000						
	*										
3960	KK	36q BASIN									
3961	KM	Subbasin at NEC of Van Buren and 32nd St									
3962	BA	0.267									
3963	LG	0.26	0.15	9.70	0.06	25					
3964	UC	0.827	0.626								
3965	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3966	UA	100									
	*										
3967	KK	BD32q RETRIEVE									
3968	KM	Retrieve diverted surface flow from D32q.									
3969	DR	D32q									
	*										

LINE	ID	1	2	3	4	5	6	7	8	9	10
3970	KK	R32qS ROUTE									
3971	KM	Route surface flow west from Subbasin 32q to 36q.									
3972	RS	3	FLOW	-1							
3973	RC	0.050	0.016	0.050	3600	0.0044					
3974	RK	0	0.5	20	49	51	80	99.5	100		
3975	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3976	KK	B36pP2 RETRIEVE									
3977	KM	Retrieve diverted pipe flow from D36pP2.									
3978	DR	D36pP2									
	*										
3979	KK	P36pS ROUTE									
3980	KM	Route pipe flow from 32nd st/SR-202 to subbasin 36q.									
3981	KM	Pipe size needs check									
3982	RK	4500	0.0036	0.015			CIRC	5.0			
	*										
3983	KK	C36q COMBINE									
3984	KM	Combine hydrographs D32pS, R28qW, and 36q.									
3985	HC	3	1.56								
	*										
3986	KK	D36q DIVERT									
3987	KM	Divert 295 cfs into pipe (south).									
3988	DT	D36qP									

3989	DI	0	100	295	10000															
3990	DQ	0	100	295	295															
	*																			
3991	KK	D36qW	DIVERT																	
3992	KM	Divert	43% of surface flow south.																	
3993	DT	D36qS																		
3994	DI	0	100	1000	10000															
3995	DQ	0	43	428	4276															
	*																			
3996	KK	R36qW	ROUTE																	
3997	KM	Route	surface flow west from Subbasin 36q to 40q.																	
3998	RS	5	FLOW	-1																
3999	RC	0.050	0.016	0.050	2640	0.0023														
4000	RX	0	1.3	52	127.4	132.6	208	258.7	260											
4001	RY	3	1	0.5	0	0	0.5	1	3											
	*																			
4002	KK	40q	BASIN																	
4003	KM	Subbasin	at NEC of Van Buren and 28th St																	
4004	BA	0.349																		
4005	LG	0.31	0.15	9.70	0.06	29														
4006	UC	0.905	0.665																	
4007	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0									
4008	UA	100																		
	*																			

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

4009	KK	C40q	COMBINE																		
4010	KM	Combine	hydrographs R36qW and 40q.																		
4011	HC	2	1.91																		
	*																				
4012	KK	D40q	DIVERT																		
4013	KM	Divert	32 cfs into pipe (west).																		
4014	DT	D40qP																			
4015	DI	0	32	1000	10000																
4016	DQ	0	32	32	32																
	*																				
4017	KK	D40qW	DIVERT																		
4018	KM	Divert	61% of surface flow to south.																		
4019	DT	D40qS																			
4020	DI	0	100	1000	10000																
4021	DQ	0	61	608	6077																
	*																				
4022	KK	R40qW	ROUTE																		
4023	KM	Route	surface flow west from Subbasin 40q to 44q.																		
4024	RS	5	FLOW	-1																	
4025	RC	0.050	0.016	0.050	2640	0.0015															
4026	RX	0	1.05	42	102.9	107.1	168	208.95	210												
4027	RY	3	1	0.5	0	0	0.5	1	3												
	*																				
4028	KK	BD40qP	RETRIEVE																		
4029	KM	Retrieve	diverted pipe flow from D40qP.																		
4030	DR	D40qP																			
	*																				
4031	KK	P40qW	ROUTE																		
4032	KM	Route	pipe flow from 28th st/Van Buren to subbasin 44q.																		
4033	RK	2700	0.0031	0.015		CIRC	3.0														
	*																				
4034	KK	C40qW	COMBINE																		
4035	KM	Combine	hydrographs R40qW and P40qW.																		
4036	HC	2	1.91																		
	*																				
4037	KK	44q	BASIN																		
4038	KM	Subbasin	at NEC of Van Bure24th St																		
4039	BA	0.359																			
4040	LG	0.33	0.15	9.70	0.06	49															
4041	UC	0.917	0.716																		
4042	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0										
4043	UA	100																			
	*																				

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

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4044      KK  B44pP2 RETRIEVE
4045      KM  Retrieve diverted pipe flow from D44pP2.
4046      DR  D44pP2
          *

4047      KK  P44pS  ROUTE
4048      KM  Route pipe flow from 24th st/McDowell to subbasin 44q.
4049      RK  3700 0.0030 0.015          CIRC 5.00
          *

4050      KK  C44q COMBINE
4051      KM  Combine hydrographs C40qW, 44q, and P44pS.
4052      HC  3 2.57
          *

4053      KK  D44q DIVERT
4054      KM  Divert 201 cfs into pipe (south).
4055      DT  D44qP
4056      DI  0 100 201 10000
4057      DQ  0 100 201 201
          *

4058      KK  D44qW DIVERT
4059      KM  Divert 62% of surface flow to south.
4060      DT  D44qS
4061      DI  0 100 1000 10000
4062      DQ  0 62 621 6211
          *

4063      KK  R44qW ROUTE
4064      KM  Route surface flow west from Subbasin 44q to 48q.
4065      RS  3 FLOW -1
4066      RC  0.050 0.016 0.050 2500 0.0018
4067      RX  0 0.8 32 78.4 81.6 128 159.2 160
4068      RY  3 1 0.5 0 0 0.5 1 3
          *

4069      KK  48q BASIN
4070      KM  Subbasin at NEC of Van Buren and I-10
4071      BA  0.300
4072      LG  0.25 0.15 9.70 0.06 24
4073      UC  1.033 0.840
4074      UA  0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4075      UA  100
          *

4076      KK  C48q COMBINE
4077      KM  Combine hydrographs R44qW and 48q.
4078      HC  2 2.87
          *

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

4079      KK  DB48q DIVERT
4080      KM  Divert flow into East ADOT Tunnel.
4081      KM  78" SD at Pierce St and 96" SD at Taylor St. Q = 245+368=613 cfs.
4082      DT  D48qPT
4083      DI  0 100 613 1000 10000
4084      DQ  0 100 613 613 613
          *

4085      KK  S48q STORAGE
4086      KM  Online detention basin, 5 ac-ft.
4087      RS  1 STOR 0
4088      SV  0 2 4 5.2 8
4089      SE  0 2 4 5 7
4090      SQ  0 30 43 48 438
          *

4091      KK  D48qW DIVERT
4092      KM  Divert 59% of flow to south.
4093      DT  D48qS
4094      DI  0 100 1000 10000
4095      DQ  0 59 590 5900
          *

4096      KK  R48qW ROUTE
4097      KM  Route surface flow west from Subbasin 48q to 52q.
4098      RS  2 FLOW -1
4099      RC  0.050 0.016 0.050 3050 0.0020
4100      RX  0 0.8 32 78.4 81.6 128 159.2 160
4101      RY  3 1 0.5 0 0 0.5 1 3
          *

```

4102 KK 52q BASIN  
 4103 KM Subbasin at NEC of Van Buren and 16th St  
 4104 BA 0.394  
 4105 LG 0.43 0.15 8.80 0.08 35  
 4106 UC 1.148 0.888  
 4107 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4108 UA 100  
 \*

4109 KK C52q COMBINE  
 4110 KM Combine hydrographs D48qW and 52q.  
 4111 HC 2 0.39  
 \*

4112 KK D52q DIVERT  
 4113 KM Divert 191 cfs into pipe (south).  
 4114 DT D52qP  
 4115 DI 0 100 191 10000  
 4116 DQ 0 100 191 191  
 \*

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

4117 KK D52qW DIVERT  
 4118 KM Divert 51% of surface flow to south.  
 4119 DT D52qS  
 4120 DI 0 100 1000 10000  
 4121 DQ 0 51 510 5100  
 \*

4122 KK R52qW ROUTE  
 4123 KM Route surface flow west from Subbasin 52q to 56q.  
 4124 RS 7 FLOW -1  
 4125 RC 0.050 0.016 0.050 2640 0.0015  
 4126 RX 0 1.6 64 156.8 163.2 256 318.4 320  
 4127 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4128 KK 56q BASIN  
 4129 KM Subbasin at NEC of Van Buren and 12th St  
 4130 BA 0.354  
 4131 LG 0.24 0.25 6.00 0.21 22  
 4132 UC 1.139 0.816  
 4133 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4134 UA 100  
 \*

4135 KK C56q COMBINE  
 4136 KM Combine hydrographs R52qW and 56q.  
 4137 HC 2 0.75  
 \*

4138 KK D56q DIVERT  
 4139 KM Divert 68 cfs into pipe (south).  
 4140 DT D56qP  
 4141 DI 0 68 1000 10000  
 4142 DQ 0 68 68 68  
 \*

4143 KK D56qW DIVERT  
 4144 KM Divert 33% of surface flow to south.  
 4145 DT D56qS  
 4146 DI 0 100 1000 10000  
 4147 DQ 0 33 330 3300  
 \*

4148 KK R56qW ROUTE  
 4149 KM Route surface flow west from Subbasin 56q to 60q.  
 4150 RS 5 FLOW -1  
 4151 RC 0.050 0.016 0.050 2640 0.0015  
 4152 RX 0 2.1 84 205.8 214.2 336 417.9 420  
 4153 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

4154 KK 60q BASIN  
 4155 KM Subbasin at NEC of Van Buren and 7th St  
 4156 BA 0.353  
 4157 LG 0.24 0.25 5.00 0.33 23  
 4158 UC 1.099 0.659

```

4159 UA . 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4160 UA 100
*

4161 KK C60q COMBINE
4162 KM Combine hydrographs R56qW and 60q.
4163 HC 2 1.10
*

4164 KK D60q DIVERT
4165 KM Divert 281 cfs into pipe (south).
4166 DT D60qP
4167 DI 0 100 281 10000
4168 DQ 0 100 281 281
*

4169 KK D60qW DIVERT
4170 KM Divert 28% of surface flow to south.
4171 DT D60qS
4172 DI 0 100 1000 10000
4173 DQ 0 28 280 2800
*

4174 KK R60qW ROUTE
4175 KM Route surface flow west from Subbasin 60q to 64q.
4176 RS 6 FLOW -1
4177 RC 0.050 0.016 0.050 2640 0.0015
4178 RX 0 1.55 62 151.9 158.1 248 308.45 310
4179 RY 3 1 0.5 0 0 0.5 1 3
*

4180 KK 64q BASIN
4181 KM Subbasin at NEC of Van Buren and Central
4182 BA 0.405
4183 LG 0.17 0.17 6.80 0.17 42
4184 UC 1.087 0.591
4185 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4186 UA 100
*

4187 KK C64q COMBINE
4188 KM Combine flows of 64q, R60qW, and DN_64o.
4189 HC 3 1.51
*

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

4190 KK D64q DIVERT
4191 KM Divert 0.0 cfs into West Tunnel.
4192 KM Assuming the storm drain is not connected to West Tunnel.
4193 DT D64qPT
4194 DI 0 100 1000 10000
4195 DQ 0 0 0 0
*

4196 KK D64q1 DIVERT
4197 KM Divert 68 cfs into storm drain to west).
4198 DT D64qP
4199 DI 0 68 1000 10000
4200 DQ 0 68 68 68
*

4201 KK D64qW DIVERT
4202 KM Divert 33% of surface flow to south.
4203 DT D64qS
4204 DI 0 100 1000 10000
4205 DQ 0 33 330 3300
*

4206 KK R64qW ROUTE
4207 KM Route surface flow west from Subbasin 64q to 68q.
4208 RS 4 FLOW -1
4209 RC 0.050 0.016 0.050 2300 0.0009
4210 RX 0 1.35 54 132.3 137.7 216 268.65 270
4211 RY 3 1 0.5 0 0 0.5 1 3
*

4212 KK BD64qP RETRIEVE
4213 KM Retrieve diverted pipe flow from D64qP.
4214 DR D64qP
*

4215 KK P64qW ROUTE
4216 KM Route pipe flow from Central/Van Buren to subbasin 68q.

```

4217 RK 2650 0.0030 0.015 CIRC 4.0  
 \*  
 4218 KK C64qW COMBINE  
 4219 KM Combine hydrographs R64qW and P64qW.  
 4220 HC 2 1.51  
 \*  
 4221 KK 68q BASIN  
 4222 KM Subbasin at NEC of Van Buren and 7th Ave  
 4223 BA 0.295  
 4224 LG 0.18 0.23 6.20 0.22 36  
 4225 UC 1.016 0.587  
 4226 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4227 UA 100  
 \*

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

4228 KK C68q COMBINE  
 4229 KM Combine hydrographs C64qW and 68q.  
 4230 HC 2 1.80  
 \*  
 4231 KK D68q DIVERT  
 4232 KM Divert 68 cfs into pipe (west).  
 4233 DT D68qP  
 4234 DI 0 68 1000 10000  
 4235 DQ 0 68 68 68  
 \*  
 4236 KK D68qW DIVERT  
 4237 KM Divert 33% of surface flow to south.  
 4238 DT D68qS  
 4239 DI 0 100 1000 10000  
 4240 DQ 0 33 330 3300  
 \*  
 4241 KK R68qW ROUTE  
 4242 KM Route surface flow west from Subbasin 68q to 72q.  
 4243 RS 3 FLOW -1  
 4244 RC 0.050 0.016 0.050 2640 0.0015  
 4245 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 4246 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4247 KK BD68qP RETRIEVE  
 4248 KM Retrieve diverted pipe flow from D68qP.  
 4249 DR D68qP  
 \*  
 4250 KK P68qW ROUTE  
 4251 KM Route pipe flow from 7th ave/Van Buren to subbasin 72q.  
 4252 RK 3500 0.0030 0.015 CIRC 4.0  
 \*

4253 KK C68qW COMBINE  
 4254 KM Combine hydrographs R68qW and P68qW.  
 4255 HC 2 1.80  
 \*  
 4256 KK 72q BASIN  
 4257 KM Subbasin at NEC of Van Buren and 15th Ave  
 4258 BA 0.329  
 4259 LG 0.19 0.15 8.40 0.09 29  
 4260 UC 1.099 0.654  
 4261 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4262 UA 100  
 \*

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

4263 KK B72oP RETRIEVE  
 4264 KM Retrieve diverted pipe flow from D72oP.  
 4265 DR D72oP  
 \*  
 4266 KK P72oS ROUTE  
 4267 KM Route pipe flow from 15th ave/Thomas to subbasin 72q.  
 4268 RK 3700 0.0030 0.015 CIRC 8.00  
 \*

4269 KK C72q COMBINE  
4270 KM Combine hydrographs C68qW, 72q, and P72oS.  
4271 HC 3 3.13  
\*

4272 KK D72q DIVERT  
4273 KM Divert 662 cfs into two pipes (229 cfs for east, 433 for west).  
4274 DT D72qP  
4275 DI 0 100 662 10000  
4276 DQ 0 100 662 662  
\*

4277 KK D72qW DIVERT  
4278 KM Divert 33% of surface flow to south.  
4279 DT D72qS  
4280 DI 0 100 1000 10000  
4281 DQ 0 33 330 3300  
\*

4282 KK R72qW ROUTE  
4283 KM Route surface flow west from Subbasin 72q to 76q.  
4284 RS 4 FLOW -1  
4285 RC 0.050 0.016 0.050 3000 0.0015  
4286 RX 0 1.85 74 181.3 188.7 296 368.15 370  
4287 RY 3 1 0.5 0 0 0.5 1 3  
\*

4288 KK 80o BASIN  
4289 KM Subbasin at NEC of McDowell and 19th Ave  
4290 BA 0.542  
4291 LG 0.46 0.15 9.70 0.06 33  
4292 UC 0.848 0.464  
4293 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
4294 UA 100  
\*

4295 KK BD84mP RETRIEVE  
4296 KM Retrieve diverted pipe flow from D84mP.  
4297 DR D84mP  
\*

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

4298 KK P84mS ROUTE  
4299 KM Route pipe flow from I-17/THomas to subbasin 80o.  
4300 RK 1800 0.0030 0.015 CIRC 6.50  
\*

4301 KK BD84mS RETRIEVE  
4302 KM Retrieve diverted surface flow from D84mS.  
4303 DR D84mS  
\*

4304 KK R84mS ROUTE  
4305 KM Route surface flow south from Subbasin 84m to 80o.  
4306 RS 3 FLOW -1  
4307 RC 0.050 0.016 0.050 6000 0.004  
4308 RX 0 0.75 30 73.5 76.5 120 149.25 150  
4309 RY 3 1 0.5 0 0 0.5 1 3  
\*

4310 KK C84mS COMBINE  
4311 KM Combine hydrographs R84mS and P84mS.  
4312 HC 2 5.49  
\*

4313 KK BD80mS RETRIEVE  
4314 KM Retrieve diverted surface flow from D80mS.  
4315 DR D80mS  
\*

4316 KK R80mS ROUTE  
4317 KM Route surface flow south from Subbasin 80m to 80o.  
4318 RS 2 FLOW -1  
4319 RC 0.050 0.016 0.050 3500 0.0065  
4320 RX 0 0.5 20 49 51 80 99.5 100  
4321 RY 3 1 0.5 0 0 0.5 1 3  
\*

4322 KK C80o COMBINE  
4323 KM Combine hydrographs R80mS, C84mS, and 80o.  
4324 HC 3 6.58  
\*

4325 KK E80o DIVERT  
 4326 KM By-pass 249 cfs and the remaining flow diverted into offline detention.  
 4327 DT DB80o  
 4328 DI 0 100 249 1000 10000  
 4329 DQ 0 0 0 751 9751  
 \*

4330 KK BDB80oRETRIEVE  
 4331 KM Retrieve diverted flow from DB80 for offline detention.  
 4332 DR DB80o  
 \*

HEC-1 INPUT

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

4333 KK S80o STORAGE  
 4334 KM Offline Regional Detention Basin, 18 ac-ft.  
 4335 RS 1 STOR 0  
 4336 SV 0 2.7 6.2 10.1 14.3 17.7 24.3  
 4337 SE 0 2 4 6 8 9.5 12  
 4338 SQ 0 15 26 34 55 120 1400  
 \*

4339 KK CC80o COMBINE  
 4340 KM Combine hydrographs S80o and E80o.  
 4341 HC 2 6.58  
 \*

4342 KK D80o DIVERT  
 4343 KM Divert 249 cfs into pipe (south).  
 4344 DT D80oP  
 4345 DI 0 100 249 10000  
 4346 DQ 0 100 249 249  
 \*

4347 KK R80oS ROUTE  
 4348 KM Route surface flow south from Subbasin 80o to 80p.  
 4349 RS 3 FLOW -1  
 4350 RC 0.050 0.016 0.050 4000 0.0037  
 4351 RX 0 1.5 60 147 153 240 298.5 300  
 4352 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4353 KK 76o BASIN  
 4354 KM Subbasin at NEC of I-10 and 19th Ave  
 4355 BA 0.673  
 4356 LG 0.17 0.15 8.80 0.08 26  
 4357 UC 1.197 0.824  
 4358 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4359 UA 100  
 \*

4360 KK BD76m RETRIEVE  
 4361 KM Retrieve diverted surface flow from D76m.  
 4362 DR D76m  
 \*

4363 KK R76mS ROUTE  
 4364 KM Route surface flow south from Subbasin 76m to 76o.  
 4365 RS 3 FLOW -1  
 4366 RC 0.050 0.016 0.050 6900 0.0023  
 4367 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4368 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

4369 KK B76mP2 RETRIEVE  
 4370 KM Retrieve diverted pipe flow from D76mP2.  
 4371 DR D76mP2  
 \*

4372 KK P76mS ROUTE  
 4373 KM Route pipe flow from 19th ave/Thomas to subbasin 76o.  
 4374 RK 7000 0.0030 0.015 CIRC 5.50  
 \*

4375 KK C76mS COMBINE  
 4376 KM Combine hydrographs R76mS and P76mS.  
 4377 HC 2 6.71  
 \*

4378 KK BD72oW RETRIEVE

```

4379      KM   Retrieve diverted surface flow from D72oW.
4380      DR   D72oW
          *

4381      KK   R72oW  ROUTE
4382      KM   Route surface flow west from Subbasin 72o to 76o.
4383      RS   2    FLOW    -1
4384      RC   0.050  0.016  0.050  2800  0.0007
4385      RX   0     0.8    32    78.4  81.6    128  159.2  160
4386      RY   3     1     0.5    0     0     0.5    1     3
          *

4387      KK   C76o COMBINE
4388      KM   Combine flows of 76o, C76mS, R80oS, and R72oW
4389      HC   4     7.92
          *

4390      KK   D76oP  DIVERT
4391      KM   Divert 229 cfs into pipe (south).
4392      DT   D76o
4393      DI   0     100    229   10000
4394      DQ   0     0     0     9771
          *

4395      KK   P76oS  ROUTE
4396      KM   Route pipe flow from 19th ave/Thomas to subbasin 76q.
4397      RK   4000  0.0031  0.015          CIRC  6.25
          *

4398      KK   BD76o RETRIEVE
4399      KM   Retrieve diverted surface flow from D76o.
4400      DR   D76o
          *

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

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4401      KK   D76oS  DIVERT
4402      KM   Divert 10% of surface flow to west.
4403      DT   D76oW
4404      DI   0     100    1000  10000
4405      DQ   0     10    100    1000
          *

4406      KK   R76oS  ROUTE
4407      KM   Route surface flow south from Subbasin 76o to 76q.
4408      RS   2    FLOW    -1
4409      RC   0.050  0.016  0.050  4000  0.0022
4410      RX   0     1.05  42    102.9  107.1    168  208.95  210
4411      RY   3     1     0.5    0     0     0.5    1     3
          *

4412      KK   C76oS COMBINE
4413      KM   Combine hydrographs R76oS and P76oS.
4414      HC   2     7.92
          *

4415      KK   76q  BASIN
4416      KM   Subbasin at NEC of Van Buren and UPRR
4417      BA   0.396
4418      LG   0.19  0.13  10.10  0.05    39
4419      UC   0.918  0.506
4420      UA   0     5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
4421      UA   100
          *

4422      KK   C76q COMBINE
4423      KM   Combine hydrographs 76q, R72qW, and C76oS.
4424      HC   3    11.45
          *

4425      KK   D76q  DIVERT
4426      KM   Divert 229 cfs into pipe (south).
4427      DT   D76qP
4428      DI   0     100    229   10000
4429      DQ   0     100    229    229
          *

4430      KK   D76qW  DIVERT
4431      KM   Divert 52% of surface flow to south.
4432      DT   D76qS
4433      DI   0     100    1000  10000
4434      DQ   0     52    520   5200
          *

```

4435 KK R76qW ROUTE  
 4436 KM Route surface flow west from Subbasin 76q to 80q.  
 4437 RS 2 FLOW -1  
 4438 RC 0.050 0.016 0.050 2300 0.0009  
 4439 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4440 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

4441 KK 80p BASIN  
 4442 KM Subbasin at NEC of I-10 and I-17  
 4443 BA 0.397  
 4444 LG 0.14 0.15 8.00 0.11 55  
 4445 UC 0.799 0.504  
 4446 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4447 UA 100  
 \*

4448 KK BD76oW RETRIEVE  
 4449 KM Retrieve diverted surface flow from D76oW.  
 4450 DR D76oW  
 \*

4451 KK R76oW ROUTE  
 4452 KM Route surface flow west from Subbasin 76o to 80p.  
 4453 RS 2 FLOW -1  
 4454 RC 0.050 0.016 0.050 2200 0.0036  
 4455 RX 0 1.8 72 176.4 183.6 288 358.2 360  
 4456 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4457 KK C80p COMBINE  
 4458 KM Combine flows of 80P and R76oW  
 4459 HC 2 8.32  
 \*

4460 KK S80p STORAGE  
 4461 KM Online Regional Detention Basin, 6 ac-ft.  
 4462 RS 1 STOR 0  
 4463 SV 0 1.9 3.8 5.7 7.8 10  
 4464 SE 0 2 4 6 8 10  
 4465 SQ 0 2 3 4 400 1100  
 \*

4466 KK BD80oP RETRIEVE  
 4467 KM Retrieve diverted pipe flow from D80oP.  
 4468 DR D80oP  
 \*

4469 KK P80oS ROUTE  
 4470 KM Route pipe flow from subbasin 80o to subbasin 80p along I-17.  
 4471 RK 5900 0.0030 0.015 CIRC 6.50  
 \*

4472 KK CC80p COMBINE  
 4473 KM Combine hydrographs P80oS and S80p.  
 4474 HC 2 8.32  
 \*

HEC-1 INPUT

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

4475 KK D80p DIVERT  
 4476 KM Divert 249 cfs into pipe (south).  
 4477 DT D80pP  
 4478 DI 0 100 249 10000  
 4479 DQ 0 100 249 249  
 \*

4480 KK R80pS ROUTE  
 4481 KM Route surface flow south from Subbasin 80p to 80q.  
 4482 RS 8 FLOW -1  
 4483 RC 0.050 0.016 0.050 6200 0.0019  
 4484 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 4485 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4486 KK BD80pP RETRIEVE  
 4487 KM Retrieve diverted pipe flow from D80pP.  
 4488 DR D80pP  
 \*

4489 KK P80pS ROUTE  
4490 KM Route pipe flow from I-17/I-10 to subbasin 80q.  
4491 RK 6200 0.0030 0.015 CIRC 6.50  
\*

4492 KK C80pS COMBINE  
4493 KM Combine hydrographs R36oS and P36oS.  
4494 HC 2 8.32  
\*

4495 KK 80q BASIN  
4496 KM Subbasin at NEC of UPRR and I-17  
4497 BA 0.497  
4498 LG 0.20 0.15 9.70 0.06 31  
4499 UC 1.251 0.914  
4500 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
4501 UA 100  
\*

4502 KK C80q COMBINE  
4503 KM Combine flows of 80q, C80pS, and R76qW  
4504 HC 3 12.34  
\*

4505 KK 28s BASIN  
4506 KM Subbasin at NEC of UPRR and 40th St  
4507 BA 0.164  
4508 LG 0.15 0.23 5.80 0.25 42  
4509 UC 0.683 0.390  
4510 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
4511 UA 100  
\*

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

4512 KK BD28qP RETRIEVE  
4513 KM Retrieve diverted pipe flow from D28qP.  
4514 DR D28qP  
\*

4515 KK D28qP1 DIVERT  
4516 KM Divert 32 cfs into pipe (east).  
4517 DT D28qP2  
4518 DI 0 340 1000  
4519 DQ 0 32 32  
\*

4520 KK P28qS ROUTE  
4521 KM Route pipe flow from 40th st/Grand Canal to subbasin 28s.  
4522 RK 2500 0.0031 0.015 CIRC 7.00  
\*

4523 KK BD28qS RETRIEVE  
4524 KM Retrieve diverted surface flow from D28qS.  
4525 DR D28qS  
\*

4526 KK R28qS ROUTE  
4527 KM Route surface flow south from Subbasin 28q to 28s.  
4528 RS 1 FLOW -1  
4529 RC 0.050 0.016 0.050 1240 0.0065  
4530 RX 0 0.8 32 78.4 81.6 128 159.2 160  
4531 RY 3 1 0.5 0 0 0.5 1 3  
\*

4532 KK C28qS COMBINE  
4533 KM Combine hydrographs R28qS and P28qS.  
4534 HC 2 0.82  
\*

4535 KK C28s COMBINE  
4536 KM Combine hydrographs C28qS and 28s.  
4537 HC 2 0.98  
\*

4538 KK D28s DIVERT  
4539 KM Divert 492 cfs into pipe (south).  
4540 DT D28sP  
4541 DI 0 100 492 10000  
4542 DQ 0 100 492 492  
\*

4543 KK D28sW DIVERT  
4544 KM Divert 43% of surface flow to south.

4545 DT D28sS  
 4546 DI 0 100 1000 10000  
 4547 DQ 0 43 434 4340  
 \*

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

4548 KK R28sW ROUTE  
 4549 KM Route surface flow west from Subbasin 28s to 32s.  
 4550 RS 5 FLOW -1  
 4551 RC 0.050 0.016 0.050 2640 0.0023  
 4552 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4553 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4554 KK 32s BASIN  
 4555 KM Subbasin at NEC of UPRR and 36th St  
 4556 BA 0.336  
 4557 LG 0.52 0.15 8.00 0.11 48  
 4558 UC 0.990 0.778  
 4559 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4560 UA 100  
 \*

4561 KK C32s COMBINE  
 4562 KM Combine hydrographs 32s and R28sW.  
 4563 HC 2 1.32  
 \*

4564 KK S32s STORAGE  
 4565 KM Regional online retention basin, 16 ac-ft.  
 4566 RS 1 STOR 0  
 4567 SV 0 0.9 2.2 3.9 6.1 8.8 16 21.2  
 4568 SE 0 2 4 6 8 10 14 16  
 4569 SS 14 100 2.7 1.5  
 \*

4570 KK D32s DIVERT  
 4571 KM Divert 48 cfs into pipe (west).  
 4572 DT D32sP  
 4573 DI 0 48 1000 10000  
 4574 DQ 0 48 48 48  
 \*

4575 KK R32sW ROUTE  
 4576 KM Route surface flow west from Subbasin 32s to 36s.  
 4577 RS 4 FLOW -1  
 4578 RC 0.050 0.016 0.050 2640 0.0015  
 4579 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 4580 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4581 KK BD32sP RETRIEVE  
 4582 KM Retrieve diverted pipe flow from D32sP.  
 4583 DR D32sP  
 \*

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

4584 KK P32sW ROUTE  
 4585 KM Route pipe flow from subbasin 32s to subbasin 36s.  
 4586 RK 2650 0.0030 0.015 CIRC 3.5  
 \*

4587 KK C32sW COMBINE  
 4588 KM Combine hydrographs R32sW and P32sW.  
 4589 HC 2 1.32  
 \*

4590 KK 36s BASIN  
 4591 KM Subbasin at NEC of UPRR and 32nd St  
 4592 BA 0.241  
 4593 LG 0.19 0.13 10.10 0.05 34  
 4594 UC 0.887 0.579  
 4595 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4596 UA 100  
 \*

4597 KK BD36qP RETRIEVE  
 4598 KM Retrieve diverted pipe flow from D36qP.  
 4599 DR D36qP  
 \*

4600 KK P36qS ROUTE  
 4601 KM Route pipe flow from 32nd st/Van Buren to subbasin 36s.  
 4602 RK 2500 0.0065 0.015 CIRC 6.00  
 \*

4603 KK BD36qS RETRIEVE  
 4604 KM Retrieve diverted surface flow from D36qS.  
 4605 DR D36qS  
 \*

4606 KK R36qS ROUTE  
 4607 KM Route surface flow south from Subbasin 36q to 36s.  
 4608 RS 4 FLOW -1  
 4609 RC 0.050 0.016 0.050 2530 0.0032  
 4610 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4611 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4612 KK C36qS COMBINE  
 4613 KM Combine hydrographs R36qS and P36qS.  
 4614 HC 2 1.56  
 \*

4615 KK C36s COMBINE  
 4616 KM Combine hydrographs C36qS, 36s, and C32sW.  
 4617 HC 3 2.30  
 \*

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

4618 KK D36s DIVERT  
 4619 KM Divert 303 cfs into pipe (south).  
 4620 DT D36sP  
 4621 DI 0 100 303 10000  
 4622 DQ 0 100 303 303  
 \*

4623 KK R36sW ROUTE  
 4624 KM Route surface flow west from Subbasin 36s to 40s.  
 4625 RS 2 FLOW -1  
 4626 RC 0.050 0.016 0.050 2640 0.0015  
 4627 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4628 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4629 KK 40s BASIN  
 4630 KM Subbasin at NEC of UPRR and 28th St  
 4631 BA 0.244  
 4632 LG 0.15 0.13 10.10 0.05 48  
 4633 UC 0.903 0.586  
 4634 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4635 UA 100  
 \*

4636 KK BD40qS RETRIEVE  
 4637 KM Retrieve diverted surface flow from D40qS.  
 4638 DR D40qS  
 \*

4639 KK R40qS ROUTE  
 4640 KM Route surface flow south from Subbasin 40q to 40s.  
 4641 RS 3 FLOW -1  
 4642 RC 0.050 0.016 0.050 2540 0.0024  
 4643 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 4644 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4645 KK C40s COMBINE  
 4646 KM Combine hydrographs R40qS, 40s, and R36sW.  
 4647 HC 3 2.89  
 \*

4648 KK D40s DIVERT  
 4649 KM Divert 68 cfs into pipe (west).  
 4650 DT D40sP  
 4651 DI 0 68 1000 10000  
 4652 DQ 0 68 68 68  
 \*

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

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4653 KK R40sW ROUTE
4654 KM Route surface flow west from Subbasin 40s to 44s.
4655 RS 2 FLOW -1
4656 RC 0.050 0.016 0.050 2640 0.0015
4657 RX 0 1.1 44 107.8 112.2 176 218.9 220
4658 RY 3 1 0.5 0 0 0.5 1 3
*

4659 KK BD40sP RETRIEVE
4660 KM Retrieve diverted pipe flow from D40sP.
4661 DR D40sP
*

4662 KK P40sW ROUTE
4663 KM Route pipe flow from subbasin 40s to subbasin 44s.
4664 RK 2800 0.0030 0.015 CIRC 4.0
*

4665 KK C40sW COMBINE
4666 KM Combine hydrographs R40sW and P40sW.
4667 HC 2 2.89
*

4668 KK 44s BASIN
4669 KM Subbasin at NEC of UPRR and 24th St
4670 BA 0.240
4671 LG 0.16 0.13 10.10 0.05 44
4672 UC 0.999 0.662
4673 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4674 UA 100
*

4675 KK BD44qP RETRIEVE
4676 KM Retrieve diverted pipe flow from D44qP.
4677 DR D44qP
*

4678 KK P44qS ROUTE
4679 KM Route pipe flow from 24th st/Van Buren to subbasin 44s.
4680 RK 2500 0.0030 0.015 CIRC 6.00
*

4681 KK BD44qS RETRIEVE
4682 KM Retrieve diverted surface flow from D44qS.
4683 DR D44qS
*

4684 KK R44qS ROUTE
4685 KM Route surface flow south from Subbasin 44q to 44s.
4686 RS 3 FLOW -1
4687 RC 0.050 0.016 0.050 2550 0.0016
4688 RX 0 0.75 30 73.5 76.5 120 149.25 150
4689 RY 3 1 0.5 0 0 0.5 1 3
*

4690 KK C44qS COMBINE
4691 KM Combine hydrographs R44qS and P44qS.
4692 HC 2 2.57
*

4693 KK C44s COMBINE
4694 KM Combine hydrographs C44qS, 44s, and C40sW.
4695 HC 3 3.79
*

4696 KK D44s DIVERT
4697 KM Divert 201 cfs into pipe (south).
4698 DT D44sP
4699 DI 0 100 201 10000
4700 DQ 0 100 201 201
*

4701 KK R44sW ROUTE
4702 KM Route surface flow west from Subbasin 44s to 48s.
4703 RS 3 FLOW -1
4704 RC 0.050 0.016 0.050 2400 0.0017
4705 RX 0 1.1 44 107.8 112.2 176 218.9 220
4706 RY 3 1 0.5 0 0 0.5 1 3
*

4707 KK 48s BASIN
4708 KM Subbasin at NEC of UPRR and I-10

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

1

4709 BA 0.212  
 4710 LG 0.15 0.15 9.70 0.06 49  
 4711 UC 0.871 0.571  
 4712 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4713 UA 100  
 \*

4714 KK BD48qS RETRIEVE  
 4715 KM Retrieve diverted flow from D48qS.  
 4716 DR D48qS  
 \*

4717 KK R48qS ROUTE  
 4718 KM Route surface flow south from Subbasin 48q to 48s.  
 4719 RS 2 FLOW -1  
 4720 RC 0.050 0.016 0.050 2550 0.0016  
 4721 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4722 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4723 KK C48s COMBINE  
 4724 KM Combine hydrographs R48qS, 48s, and R44sW.  
 4725 HC 3 4.31  
 \*

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

4726 KK DB48s DIVERT  
 4727 KM Divert flow into East Tunnel.  
 4728 KM 102" SD at Admas St and 96" SD at Madison St. Q =600+468=1068 cfs  
 4729 DT D48sPT  
 4730 DI 0 100 1068 10000  
 4731 DQ 0 100 1068 1068  
 \*

4732 KK S48s STORAGE  
 4733 KM Regional online detention basin, 0.6 ac-ft.  
 4734 RS 1 STOR 0  
 4735 SV 0 0.6 2  
 4736 SE 0 1 3  
 4737 SQ 0 24 290  
 \*

4738 KK R48sW ROUTE  
 4739 KM Route surface flow west from Subbasin 48s to 52s.  
 4740 RS 6 FLOW -1  
 4741 RC 0.050 0.016 0.050 3000 0.0014  
 4742 RX 0 0.9 36 88.2 91.8 144 179.1 180  
 4743 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4744 KK 52s BASIN  
 4745 KM Subbasin at NEC of UPRR and 16th St  
 4746 BA 0.265  
 4747 LG 0.17 0.13 10.10 0.05 44  
 4748 UC 0.940 0.616  
 4749 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4750 UA 100  
 \*

4751 KK BD52qP RETRIEVE  
 4752 KM Retrieve diverted pipe flow from D52qP.  
 4753 DR D52qP  
 \*

4754 KK P52qS ROUTE  
 4755 KM Route pipe flow from subbasin 52q to subbasin 52s.  
 4756 RK 2500 0.0139 0.015 CIRC 4.42  
 \*

4757 KK BD52qS RETRIEVE  
 4758 KM Retrieve diverted surface flow from D52qS.  
 4759 DR D52qS  
 \*

4760 KK R52qS ROUTE  
 4761 KM Route surface flow south from Subbasin 52q to 52s.  
 4762 RS 5 FLOW -1  
 4763 RC 0.050 0.016 0.050 2500 0.0024  
 4764 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 4765 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

4766 KK C52qS COMBINE  
 4767 KM Combine hydrographs R52qS and P52qS.  
 4768 HC 2 0.39  
 \*

4769 KK C52s COMBINE  
 4770 KM Combine hydrographs C52s, C52qS, and R48sW.  
 4771 HC 3 0.66  
 \*

4772 KK D52s DIVERT  
 4773 KM Divert 191 cfs into pipe (south).  
 4774 DT D52sP  
 4775 DI 0 100 191 10000  
 4776 DQ 0 100 191 191  
 \*

4777 KK R52sW ROUTE  
 4778 KM Route surface flow west from Subbasin 52s to 56s.  
 4779 RS 5 FLOW -1  
 4780 RC 0.050 0.016 0.050 2640 0.0015  
 4781 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4782 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4783 KK 56s BASIN  
 4784 KM Subbasin at NEC of UPRR and 12th St  
 4785 BA 0.255  
 4786 LG 0.18 0.10 11.20 0.03 39  
 4787 UC 0.927 0.583  
 4788 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4789 UA 100  
 \*

4790 KK BD56qP RETRIEVE  
 4791 KM Retrieve diverted pipe flow from D56qP.  
 4792 DR D56qP  
 \*

4793 KK P56qS ROUTE  
 4794 KM Route pipe flow from 12th st/Van Buren to subbasin 56s.  
 4795 RK 2600 0.0030 0.015 CIRC 4.00  
 \*

4796 KK BD56qS RETRIEVE  
 4797 KM Retrieve diverted surface flow from D56qS.  
 4798 DR D56qS  
 \*

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

4799 KK R56qS ROUTE  
 4800 KM Route surface flow south from Subbasin 56q to 56s.  
 4801 RS 5 FLOW -1  
 4802 RC 0.050 0.016 0.050 2500 0.0024  
 4803 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 4804 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4805 KK C56qS COMBINE  
 4806 KM Combine hydrographs R56qS and P56qS.  
 4807 HC 2 0.75  
 \*

4808 KK C56s COMBINE  
 4809 KM Combine hydrographs C56qS, 56s, and R52sW.  
 4810 HC 3 1.27  
 \*

4811 KK D56s DIVERT  
 4812 KM Divert 201 cfs into pipe (south).  
 4813 DT D56sP  
 4814 DI 0 100 201 10000  
 4815 DQ 0 100 201 201  
 \*

4816 KK D56sW DIVERT  
 4817 KM Divert 15% of surface flow to south.  
 4818 DT D56sS  
 4819 DI 0 100 1000 10000  
 4820 DQ 0 15 150 1500

```

*
4821 KK R56sW ROUTE
4822 KM Route surface flow west from Subbasin 56s to 60s.
4823 RS 3 FLOW -1
4824 RC 0.050 0.016 0.050 2640 0.0015
4825 RX 0 0.8 32 78.4 81.6 128 159.2 160
4826 RY 3 1 0.5 0 0 0.5 1 3
*
4827 KK 60s BASIN
4828 KM Subbasin at NEC of UPRR and 7th St
4829 BA 0.253
4830 LG 0.14 0.13 10.10 0.05 55
4831 UC 0.770 0.492
4832 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4833 UA 100
*

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

```

4834 KK BD60qP RETRIEVE
4835 KM Retrieve diverted pipe flow from D60qP.
4836 DR D60qP
*
4837 KK P60qS ROUTE
4838 KM Route pipe flow from subbasin 60q to subbasin 60s.
4839 RK 2600 0.0031 0.015 CIRC 6.75
*
4840 KK BD60qS RETRIEVE
4841 KM Retrieve diverted surface flow from D60qS.
4842 DR D60qS
*
4843 KK R60qS ROUTE
4844 KM Route surface flow south from Subbasin 60q to 60s.
4845 RS 6 FLOW -1
4846 RC 0.050 0.016 0.050 2600 0.0037
4847 RX 0 1.25 50 122.5 127.5 200 248.75 250
4848 RY 3 1 0.5 0 0 0.5 1 3
*
4849 KK C60qS COMBINE
4850 KM Combine hydrographs R60qS and P60qS.
4851 HC 2 1.10
*
4852 KK C60s COMBINE
4853 KM Combine flows of 60s, c60qS, and R56sW
4854 HC 3 1.87
*
4855 KK D60s DIVERT
4856 KM Divert 217 cfs into pipe (west).
4857 DT D60sP
4858 DI 0 100 217 10000
4859 DQ 0 100 217 217
*
4860 KK D60sW DIVERT
4861 KM Divert 28% of surface flow to south.
4862 DT D60sS
4863 DI 0 100 1000 10000
4864 DQ 0 28 280 2800
*
4865 KK R60sW ROUTE
4866 KM Route surface flow west from Subbasin 60s to 64s.
4867 RS 3 FLOW -1
4868 RC 0.050 0.016 0.050 2640 0.0008
4869 RX 0 0.8 32 78.4 81.6 128 159.2 160
4870 RY 3 1 0.5 0 0 0.5 1 3
*

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

```

4871 KK BD60sP RETRIEVE
4872 KM Retrieve diverted pipe flow from D60sP.
4873 DR D60sP
*

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```

4874      KK      P60sW  ROUTE
4875      KM      Route pipe flow from subbasin 60s to subbasin 64s.
4876      RK      1150  0.0030  0.015          CIRC      6.2
*

4877      KK      C60sW  COMBINE
4878      KM      Combine hydrographs R60sW and P60sW.
4879      HC      2      1.87
*

4880      KK      64s   BASIN
4881      KM      Subbasin at NEC of UPRR and Central
4882      BA      0.258
4883      LG      0.11   0.15   9.70   0.07   65
4884      UC      0.803  0.498
4885      UA      0      5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
4886      UA      100
*

4887      KK      BD64qS  RETRIEVE
4888      KM      Retrieve diverted surface flow from D64qS.
4889      DR      D64qS
*

4890      KK      R64qS  ROUTE
4891      KM      Route surface flow south from Subbasin 64q to 64s.
4892      RS      3      FLOW      -1
4893      RC      0.050  0.016  0.050  2480  0.0032
4894      RX      0      1.55   62    151.9  158.1   248  308.45  310
4895      RY      3      1      0.5    0      0      0.5    1      3
*

4896      KK      C64s  COMBINE
4897      KM      Combine flows of 64s, R64qS, and C60sW
4898      HC      3      2.54
*

4899      KK      D64s  DIVERT
4900      KM      Divert 0.0 cfs into West Tunnel.
4901      KM      Assuming no connection to ADOT West Tunnel.
4902      DT      D64sPT
4903      DI      0      100   1000  10000
4904      DQ      0      0      0      0
*

4905      KK      D64s1  DIVERT
4906      KM      Divert 327 cfs into storm drain.
4907      KM      600 cfs for two pipes combined but limited by D/S pipe capacity.
4908      DT      D64sP
4909      DI      0      100   327   1000  10000
4910      DQ      0      100   327   327   327
*

4911      KK      D64sW  DIVERT
4912      KM      Divert 42% of surface flow to south.
4913      DT      D64sS
4914      DI      0      100   1000  10000
4915      DQ      0      42    420   4200
*

4916      KK      R64sW  ROUTE
4917      KM      Route surface flow west from Subbasin 64s to 68s.
4918      RS      3      FLOW      -1
4919      RC      0.050  0.016  0.050  2280  0.0026
4920      RX      0      1.3   52    127.4  132.6   208  258.7   260
4921      RY      3      1      0.5    0      0      0.5    1      3
*

4922      KK      68s   BASIN
4923      KM      Subbasin at NEC of UPRR and 7th Ave
4924      BA      0.236
4925      LG      0.12   0.25   5.20   0.35   60
4926      UC      0.837  0.532
4927      UA      0      5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
4928      UA      100
*

4929      KK      BD68qS  RETRIEVE
4930      KM      Retrieve diverted surface flow from D68qS.
4931      DR      D68qS
*

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

4932 KK R68qS ROUTE  
 4933 KM Route surface flow south from Subbasin 68q to 68s.  
 4934 RS 3 FLOW -1  
 4935 RC 0.050 0.016 0.050 2800 0.0024  
 4936 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 4937 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4938 KK C68s COMBINE  
 4939 KM Combine hydrographs 68s,R68qS, and R64sW  
 4940 HC 3 3.07  
 \*

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

4941 KK D68s DIVERT  
 4942 KM Divert 124 cfs into pipe (south).  
 4943 DT D68sP  
 4944 DI 0 100 124 10000  
 4945 DQ 0 100 124 124  
 \*

4946 KK D68sW DIVERT  
 4947 KM Divert 28% of surface flow to south.  
 4948 DT D68sS  
 4949 DI 0 100 1000 10000  
 4950 DQ 0 28 280 2800  
 \*

4951 KK R68sW ROUTE  
 4952 KM Route surface flow west from Subbasin 68s to 72s.  
 4953 RS 3 FLOW -1  
 4954 RC 0.050 0.016 0.050 2640 0.0015  
 4955 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 4956 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4957 KK 72s BASIN  
 4958 KM Subbasin at NEC of UPRR and 15th Ave  
 4959 BA 0.283  
 4960 LG 0.16 0.15 9.70 0.06 35  
 4961 UC 0.884 0.543  
 4962 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4963 UA 100  
 \*

4964 KK BD72qP RETRIEVE  
 4965 KM Retrieve diverted pipe flow from D72qP.  
 4966 KM Total pipe flow = 662 cfs  
 4967 DR D72qP  
 \*

4968 KK D72qP1 DIVERT  
 4969 KM Divert flow into pipe (south).  
 4970 DT D72qP2  
 4971 DI 0 662 700  
 4972 DQ 0 229 242  
 \*

4973 KK P72qS1 ROUTE  
 4974 KM Route pipe flow from 15th ave/Van Buren to subbasin 72s.  
 4975 RK 3000 0.0030 0.015 CIRC 8.00  
 \*

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

4976 KK B72qP2 RETRIEVE  
 4977 KM Retrieve diverted pipe flow from D72qP2.  
 4978 DR D72qP2  
 \*

4979 KK P72qS2 ROUTE  
 4980 KM Route pipe flow from subbasin 72q to subbasin 72s.  
 4981 RK 3000 0.0031 0.015 CIRC 6.3  
 \*

4982 KK BD72qS RETRIEVE  
 4983 KM Retrieve diverted surface flow from D72qS.  
 4984 DR D72qS  
 \*

4985 KK R72qS ROUTE  
 4986 KM Route surface flow south from Subbasin 72q to 72s.  
 4987 RS 4 FLOW -1  
 4988 RC 0.050 0.016 0.050 3000 0.0024  
 4989 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 4990 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4991 KK C72qS COMBINE  
 4992 KM Combine hydrographs R72qS, P72qS2, and P72qS1.  
 4993 HC 3 3.13  
 \*

4994 KK C72s COMBINE  
 4995 KM COMbine flows of C72qS, 72s, and R68sW  
 4996 HC 3 4.68  
 \*

4997 KK D72s DIVERT  
 4998 KM Divert 662 cfs into pipe (433 cfs + 229 cfs) (south).  
 4999 DT D72sP  
 5000 DI 0 100 662 10000  
 5001 DQ 0 100 662 662  
 \*

5002 KK D72sW DIVERT  
 5003 KM Divert 40% of surface flow to south.  
 5004 DT D72sS  
 5005 DI 0 100 1000 10000  
 5006 DQ 0 40 400 4000  
 \*

5007 KK R72sW ROUTE  
 5008 KM Route surface flow west from Subbasin 72s to 76s.  
 5009 RS 4 FLOW -1  
 5010 RC 0.050 0.016 0.050 2640 0.0008  
 5011 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5012 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

5013 KK 76s BASIN  
 5014 KM Subbasin at NEC of UPRR and 19th Ave  
 5015 BA 0.279  
 5016 LG 0.11 0.15 9.70 0.07 54  
 5017 UC 0.899 0.535  
 5018 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5019 UA 100  
 \*

5020 KK S76s STORAGE  
 5021 KM Online Retention Basin, 0.7 ac-ft.  
 5022 RS 1 STOR 0  
 5023 SV 0 0.7 2  
 5024 SE 0 2 4  
 5025 SS 2 100 2.7 1.5  
 \*

5026 KK BD76qP RETRIEVE  
 5027 KM Retrieve diverted pipe flow from D76qP.  
 5028 DR D76qP  
 \*

5029 KK P76qS ROUTE  
 5030 KM Route pipe flow from 19th ave/Van Buren to subbasin 76s.  
 5031 RK 2200 0.0031 0.015 CIRC 6.25  
 \*

5032 KK BD76qS RETRIEVE  
 5033 KM Retrieve diverted surface flow from D76qS.  
 5034 DR D76qS  
 \*

5035 KK R76qS ROUTE  
 5036 KM Route surface flow south from Subbasin 76q to 76s.  
 5037 RS 2 FLOW -1  
 5038 RC 0.050 0.016 0.050 2480 0.0032  
 5039 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 5040 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5041 KK C76qS COMBINE  
 5042 KM Combine hydrographs P76qS and R76qS.

5043 HC 2 11.45  
\*  
5044 KK C76s COMBINE  
5045 KM Combine hydrographs S76s, C76qS, and R72sW.  
5046 HC 3 13.28  
\*

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

5047 KK D76s DIVERT  
5048 KM Divert 204 cfs into pipe (south).  
5049 DT D76sP  
5050 DI 0 100 204 10000  
5051 DQ 0 100 204 204  
\*  
5052 KK D76sW DIVERT  
5053 KM Divert 22% of surface flow to south.  
5054 DT D76sS  
5055 DI 0 100 1000 10000  
5056 DQ 0 22 220 2200  
\*  
5057 KK R76sW ROUTE  
5058 KM Route surface flow west from Subbasin 76s to 80q.  
5059 RS 3 FLOW -1  
5060 RC 0.050 0.016 0.050 2290 0.0009  
5061 RX 0 1.25 50 122.5 127.5 200 248.75 250  
5062 RY 3 1 0.5 0 0 0.5 1 3  
\*

5063 KK CC80q COMBINE  
5064 KM COMbine flows of C80q and R76sW  
5065 HC 2 14.17  
\*

5066 KK D80q DIVERT  
5067 KM Divert 364 cfs into pipe (south).  
5068 DT D80qP  
5069 DI 0 100 364 10000  
5070 DQ 0 100 364 364  
\*

5071 KK D80qS DIVERT  
5072 KM Divert 100% of surface flow to west because of the SPRR.  
5073 DT D80qW  
5074 DI 0 100 1000 10000  
5075 DQ 0 100 1000 10000  
\*

5076 KK R80qS ROUTE  
5077 KM Route surface flow south from Subbasin 80q to 80t.  
5078 RS 2 FLOW -1  
5079 RC 0.050 0.016 0.050 2900 0.0042  
5080 RX 0 0.75 30 73.5 76.5 120 149.25 150  
5081 RY 3 1 0.5 0 0 0.5 1 3  
\*

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

5082 KK BD80qP RETRIEVE  
5083 KM Retrieve diverted pipe flow from D80qP.  
5084 DR D80qP  
\*

5085 KK P80qS ROUTE  
5086 KM Route pipe flow from SPRR/I-17 to subbasin 80t.  
5087 RK 2700 0.0030 0.015 CIRC 7.50  
\*

5088 KK C80qS COMBINE  
5089 KM Combine hydrographs R80qS and P80qS.  
5090 HC 2 14.17  
\*

5091 KK 52t BASIN  
5092 KM Subbasin at NEC of Buckeye and 16th St  
5093 BA 0.297  
5094 LG 0.15 0.15 8.00 0.11 42  
5095 UC 1.032 0.653  
5096 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0

5097 UA 100  
\*

5098 KK S52t STORAGE  
5099 KM Online Retention Basin, 4 ac-ft.  
5100 RS 1 STOR 0  
5101 SV 0 1.6 4 7  
5102 SE 0 2 4 6  
5103 SS 4 100 2.7 1.5  
\*

5104 KK BD52sP RETRIEVE  
5105 KM Retrieve diverted pipe flow from D52sP.  
5106 DR D52sP  
\*

5107 KK P52sS ROUTE  
5108 KM Route pipe flow from 16th st/SPRR to subbasin 52t.  
5109 RK 2850 0.0139 0.015 CIRC 4.42  
\*

5110 KK C52t COMBINE  
5111 KM Combine hydrographs S52t and P52sS.  
5112 HC 2 0.96  
\*

5113 KK D52t DIVERT  
5114 KM Divert 281 cfs into pipe (south).  
5115 DT D52tP  
5116 DI 0 100 281 10000  
5117 DQ 0 100 281 281  
\*

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

5118 KK D52tW DIVERT  
5119 KM Divert 41% of surface flow to south.  
5120 DT D52tS  
5121 DI 0 100 1000 10000  
5122 DQ 0 41 410 4100  
\*

5123 KK R52tW ROUTE  
5124 KM Route surface flow west from Subbasin 52t to 56t.  
5125 RS 3 FLOW -1  
5126 RC 0.050 0.016 0.050 2640 0.0023  
5127 RX 0 0.5 20 49 51 80 99.5 100  
5128 RY 3 1 0.5 0 0 0.5 1 3  
\*

5129 KK 56t BASIN  
5130 KM Subbasin at NEC of Buckeye and 12th St  
5131 BA 0.179  
5132 LG 0.12 0.15 8.80 0.08 57  
5133 UC 0.895 0.715  
5134 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5135 UA 100  
\*

5136 KK BD56sP RETRIEVE  
5137 KM Retrieve diverted pipe flow from D56sP.  
5138 DR D56sP  
\*

5139 KK P56sS ROUTE  
5140 KM Route pipe flow from subbasin 56s to subbasin 56t.  
5141 RK 2900 0.0030 0.015 CIRC 6.00  
\*

5142 KK BD56sS RETRIEVE  
5143 KM Retrieve diverted surface flow from D56sS.  
5144 DR D56sS  
\*

5145 KK R56sS ROUTE  
5146 KM Route surface flow south from Subbasin 56s to 56t.  
5147 RS 6 FLOW -1  
5148 RC 0.050 0.016 0.050 2900 0.0030  
5149 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5150 RY 3 1 0.5 0 0 0.5 1 3  
\*

5151 KK C56sS COMBINE  
5152 KM Combine hydrographs R56sS and P56sS.

5153 HC 2 1.27  
\*

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

5154 KK C56t COMBINE  
5155 KM Combine hydrographs 56t, R52tW, and C56sS.  
5156 HC 3 1.74  
\*

5157 KK D56t DIVERT  
5158 KM Divert 612 cfs into pipe (south).  
5159 DT D56tP  
5160 DI 0 100 612 10000  
5161 DQ 0 100 612 612  
\*

5162 KK D56tW DIVERT  
5163 KM Divert 35% of surface flow to south.  
5164 DT D56tS  
5165 DI 0 100 1000 10000  
5166 DQ 0 35 350 3500  
\*

5167 KK R56tW ROUTE  
5168 KM Route surface flow west from Subbasin 56t to 60t.  
5169 RS 2 FLOW -1  
5170 RC 0.050 0.016 0.050 2640 0.0023  
5171 RX 0 0.5 20 49 51 80 99.5 100  
5172 RY 3 1 0.5 0 0 0.5 1 3  
\*

5173 KK 60t BASIN  
5174 KM Subbasin at NEC of Buckeye and 7th St  
5175 BA 0.328  
5176 LG 0.17 0.15 8.00 0.11 42  
5177 UC 1.064 0.730  
5178 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5179 UA 100  
\*

5180 KK S60t STORAGE  
5181 KM Online Retention Basin, 0.7 ac-ft.  
5182 RS 1 STOR 0  
5183 SV 0 0.3 0.7 1.3  
5184 SE 0 2 4 6  
5185 SS 4 100 2.7 1.5  
\*

5186 KK BD60sS RETRIEVE  
5187 KM Retrieve diverted surface flow from D60sS.  
5188 DR D60sS  
\*

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

5189 KK R60sS ROUTE  
5190 KM Route surface flow south from Subbasin 60s to 60t.  
5191 RS 3 FLOW -1  
5192 RC 0.050 0.016 0.050 2900 0.0035  
5193 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5194 RY 3 1 0.5 0 0 0.5 1 3  
\*

5195 KK C60t COMBINE  
5196 KM Combine hydrographs R60sS, S60t and R56tW.  
5197 HC 3 2.68  
\*

5198 KK D60tW DIVERT  
5199 KM Divert 27% of surface flow to south.  
5200 DT D60tS  
5201 DI 0 100 1000 10000  
5202 DQ 0 27 270 2700  
\*

5203 KK R60tW ROUTE  
5204 KM Route surface flow west from Subbasin 60t to 64t.  
5205 RS 3 FLOW -1  
5206 RC 0.050 0.016 0.050 2640 0.0023  
5207 RX 0 0.75 30 73.5 76.5 120 149.25 150  
5208 RY 3 1 0.5 0 0 0.5 1 3

\*  
 5209 KK 64t BASIN  
 5210 KM Subbasin at NEC of Buckeye and Central  
 5211 BA 0.271  
 5212 LG 0.15 0.21 6.40 0.21 49  
 5213 UC 0.992 0.633  
 5214 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5215 UA 100  
 \*

5216 KK BD64sP RETRIEVE  
 5217 KM Retrieve diverted pipe flow from D64sP.  
 5218 DR D64sP  
 \*

5219 KK P64sS ROUTE  
 5220 KM Route pipe flow from subbasin 64s to subbasin 64t.  
 5221 KM Two pipes equivalent D = 10'  
 5222 RK 2800 0.0035 0.015 CIRC 10.0  
 \*

5223 KK BD64sS RETRIEVE  
 5224 KM Retrieve diverted surface flow from D64sS.  
 5225 DR D64sS  
 \*

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

5226 KK R64sS ROUTE  
 5227 KM Route surface flow south from Subbasin 64s to 64t.  
 5228 RS 3 FLOW -1  
 5229 RC 0.050 0.016 0.050 2900 0.0035  
 5230 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5231 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5232 KK C64sS COMBINE  
 5233 KM Combine hydrographs R64sS and P64sS.  
 5234 HC 2 2.54  
 \*

5235 KK C64t COMBINE  
 5236 KM Combine flows of 64t, C64sS, and R60tW  
 5237 HC 3 3.61  
 \*

5238 KK D64t DIVERT  
 5239 KM Divert 0.0 cfs into ADOT West Tunnel (assuming no connection).  
 5240 DT D64tPT  
 5241 DI 0 100 1000 10000  
 5242 DQ 0 0 0 0  
 \*

5243 KK D64t1 DIVERT  
 5244 KM Divert 375 (327+48) cfs into pipes (south).  
 5245 DT D64tP  
 5246 DI 0 100 375 10000  
 5247 DQ 0 100 375 375  
 \*

5248 KK D64tW DIVERT  
 5249 KM Divert 44% of surface flow to south.  
 5250 DT D64tS  
 5251 DI 0 100 1000 10000  
 5252 DQ 0 44 440 4400  
 \*

5253 KK R64tW ROUTE  
 5254 KM Route surface flow west from Subbasin 64t to 68t.  
 5255 RS 3 FLOW -1  
 5256 RC 0.050 0.016 0.050 2640 0.0023  
 5257 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5258 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5259 KK 68t BASIN  
 5260 KM Subbasin at NEC of Buckeye and 7th Ave  
 5261 BA 0.251  
 5262 LG 0.20 0.15 8.80 0.08 33  
 5263 UC 0.873 0.573  
 5264 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5265 UA 100  
 \*

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

5266      KK  BD68sP RETRIEVE
5267      KM  Retrieve diverted pipe flow from D68sP.
5268      DR  D68sP
          *

5269      KK  P68sS  ROUTE
5270      KM  Route pipe flow from 7th ave/SPRR to subbasin 68t.
5271      RK  2500  0.0030  0.015          CIRC  5.00
          *

5272      KK  BD68sS RETRIEVE
5273      KM  Retrieve diverted surface flow from D68sS.
5274      DR  D68sS
          *

5275      KK  R68sS  ROUTE
5276      KM  Route surface flow south from Subbasin 68s to 68t.
5277      RS  3    FLOW  -1
5278      RC  0.050  0.016  0.050  2600  0.0035
5279      RX  0    1.3    52   127.4  132.6    208  258.7    260
5280      RY  3    1    0.5    0    0    0.5    1    3
          *

5281      KK  C68sS COMBINE
5282      KM  Combine hydrographs R68sS and P68sS.
5283      HC  2    3.07
          *

5284      KK  C68t COMBINE
5285      KM  Combine flows of 68t, C68sS, and R64tW
5286      HC  3    4.39
          *

5287      KK  D68t  DIVERT
5288      KM  Divert 124 cfs into pipe (south).
5289      DT  D68tP
5290      DI  0    100    124  10000
5291      DQ  0    100    124  124
          *

5292      KK  D68tW DIVERT
5293      KM  Divert 46% of surface flow to south.
5294      DT  D68tS
5295      DI  0    100    1000  10000
5296      DQ  0    46    460  4600
          *

5297      KK  R68tW  ROUTE
5298      KM  Route surface flow west from Subbasin 68t to 72t.
5299      RS  2    FLOW  -1
5300      RC  0.050  0.016  0.050  2640  0.0023
5301      RX  0    1.05   42  102.9  107.1    168  208.95    210
5302      RY  3    1    0.5    0    0    0.5    1    3
          *

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

5303      KK  72t  BASIN
5304      KM  Subbasin at NEC of Buckeye and 15th Ave
5305      BA  0.222
5306      LG  0.21  0.15  9.70  0.06  31
5307      UC  0.949  0.790
5308      UA  0    5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
5309      UA  100
          *

5310      KK  BD72sS RETRIEVE
5311      KM  Retrieve diverted surface flow from D72sS.
5312      DR  D72sS
          *

5313      KK  R72sS  ROUTE
5314      KM  Route surface flow south from Subbasin 72s to 72t.
5315      RS  2    FLOW  -1
5316      RC  0.050  0.016  0.050  2400  0.0051
5317      RX  0    1.05   42  102.9  107.1    168  208.95    210
5318      RY  3    1    0.5    0    0    0.5    1    3
          *

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5319 KK BD72sP RETRIEVE  
5320 KM Retrieve diverted pipe flow from D72sP.  
5321 DR D72sP  
\*

5322 KK D72sP1 DIVERT  
5323 KM Divert flow into pipe (south).  
5324 DT D72sP2  
5325 DI 0 662 700  
5326 DQ 0 229 242  
\*

5327 KK P72sS1 ROUTE  
5328 KM Route pipe flow from subbasin 72s to subbasin 72t.  
5329 RK 2350 0.0030 0.015 CIRC 8.00  
\*

5330 KK B72sP2 RETRIEVE  
5331 KM Retrieve diverted pipe flow from D72sP2.  
5332 DR D72sP2  
\*

5333 KK P72sS2 ROUTE  
5334 KM Route pipe flow from subbasin 72s to subbasin 72t.  
5335 RK 2350 0.0031 0.015 CIRC 6.3  
\*

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

5336 KK C72sS COMBINE  
5337 KM Combine flow of R72sS, P72sS1, and P72sS2  
5338 HC 3 4.68  
\*

5339 KK C72t COMBINE  
5340 KM Combine flows of C72sS, 72s, and R68tW  
5341 HC 3 6.23  
\*

5342 KK D72t DIVERT  
5343 KM Divert 714 cfs into pipe (433 cfs + 281 cfs) (south).  
5344 DT D72tP  
5345 DI 0 100 714 10000  
5346 DQ 0 100 714 714  
\*

5347 KK D72tW DIVERT  
5348 KM Divert 53% of surface flow to south.  
5349 DT D72tS  
5350 DI 0 100 1000 10000  
5351 DQ 0 53 530 5300  
\*

5352 KK R72tW ROUTE  
5353 KM Route surface flow west from Subbasin 72t to 76t.  
5354 RS 3 FLOW -1  
5355 RC 0.050 0.016 0.050 2640 0.0015  
5356 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5357 RY 3 1 0.5 0 0 0.5 1 3  
\*

5358 KK 76t BASIN  
5359 KM Subbasin at NEC of Buckeye and 19th Ave  
5360 BA 0.272  
5361 LG 0.19 0.15 9.70 0.06 36  
5362 UC 0.967 0.652  
5363 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5364 UA 100  
\*

5365 KK BD76sP RETRIEVE  
5366 KM Retrieve diverted pipe flow from D76sP.  
5367 DR D76sP  
\*

5368 KK P76sS ROUTE  
5369 KM Route pipe flow from 19th ave/SPRR to subbasin 76t.  
5370 RK 3000 0.0031 0.015 CIRC 6.00  
\*

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

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5371 KK BD76sS RETRIEVE
5372 KM Retrieve diverted surface flow from D76sS.
5373 DR D76sS
*

5374 KK R76sS ROUTE
5375 KM Route surface flow south from Subbasin 76s to 76t.
5376 RS 3 FLOW -1
5377 RC 0.050 0.016 0.050 2800 0.0033
5378 RX 0 0.8 32 78.4 81.6 128 159.2 160
5379 RY 3 1 0.5 0 0 0.5 1 3
*

5380 KK C76sS COMBINE
5381 KM Combine hydrographs R76sS and P76sS.
5382 HC 2 13.28
*

5383 KK C76t COMBINE
5384 KM Combine hydrographs C76sS, 76t, and R72tW.
5385 HC 3 15.10
*

5386 KK D76t DIVERT
5387 KM Divert 297 cfs into pipe (south) (249 cfs + 48 cfs).
5388 DT D76tP
5389 DI 0 100 297 10000
5390 DQ 0 100 297 297
*

5391 KK D76tW DIVERT
5392 KM Divert 53% of surface flow to south.
5393 DT D76tS
5394 DI 0 100 1000 10000
5395 DQ 0 53 530 5300
*

5396 KK R76tW ROUTE
5397 KM Route surface flow west from Subbasin 76t to 80t.
5398 RS 3 FLOW -1
5399 RC 0.050 0.016 0.050 2640 0.0015
5400 RX 0 1.55 62 151.9 158.1 248 308.45 310
5401 RY 3 1 0.5 0 0 0.5 1 3
*

5402 KK 80t BASIN
5403 KM Subbasin at NEC of Buckeye and I-17
5404 BA 0.252
5405 LG 0.19 0.25 5.80 0.24 35
5406 UC 0.921 0.669
5407 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
5408 UA 100
*

5409 KK C80t COMBINE
5410 KM Combine flows of 80t, c80qS, and R76tW
5411 HC 3 16.24
*

5412 KK D80t DIVERT
5413 KM Divert 364 cfs into pipe (south).
5414 DT D80tP
5415 DI 0 100 364 10000
5416 DQ 0 100 364 364
*

5417 KK R80tS ROUTE
5418 KM Route surface flow south from Subbasin 80t to 80u.
5419 RS 2 FLOW -1
5420 RC 0.050 0.016 0.050 2100 0.0048
5421 RX 0 1 40 98 102 160 199 200
5422 RY 3 1 0.5 0 0 0.5 1 3
*

5423 KK 52u BASIN
5424 KM Subbasin at NEC of I-17 and 16th St
5425 BA 0.391
5426 LG 0.27 0.25 4.80 0.34 13
5427 UC 1.254 0.747
5428 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
5429 UA 100
*

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

5430 KK BD52tS RETRIEVE  
 5431 KM Retrieve diverted surface flow from D52tS.  
 5432 DR D52tS  
 \*

5433 KK R52tS ROUTE  
 5434 KM Route surface flow south from Subbasin 52t to 52u.  
 5435 RS 5 FLOW -1  
 5436 RC 0.050 0.016 0.050 3530 0.0023  
 5437 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5438 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5439 KK C52u COMBINE  
 5440 KM Combine hydrographs R52tS and 52u.  
 5441 HC 2 1.35  
 \*

5442 KK S52u STORAGE  
 5443 KM Online detention basin, 68 ac-ft.  
 5444 RS 1 STOR 0  
 5445 SV 0 8 21 35 50 68 90  
 5446 SE 0 2 4 6 8 10 12  
 5447 SL 1.0 12.56 0.62 0.5  
 5448 SS 10 200 2.7 1.5  
 \*

HEC-1 INPUT

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

5449 KK BD52tP RETRIEVE  
 5450 KM Retrieve diverted pipe flow from D52tP.  
 5451 DR D52tP  
 \*

5452 KK P52tS ROUTE  
 5453 KM Route pipe flow from 16th st/Buckeye to subbasin 52u.  
 5454 RK 3550 0.0038 0.015 CIRC 6.50  
 \*

5455 KK CC52u COMBINE  
 5456 KM Combine hydrographs S52u and P52tS.  
 5457 HC 2 1.35  
 \*

5458 KK D52u DIVERT  
 5459 KM Divert 281 cfs into pipe (south).  
 5460 DT D52uP  
 5461 DI 0 100 281 10000  
 5462 DQ 0 100 281 281  
 \*

5463 KK D52uW DIVERT  
 5464 KM Divert 32% of surface flow to south.  
 5465 DT D52uS  
 5466 DI 0 100 1000 10000  
 5467 DQ 0 32 320 3200  
 \*

5468 KK R52uW ROUTE  
 5469 KM Route surface flow west from Subbasin 52u to 56u.  
 5470 RS 2 FLOW -1  
 5471 RC 0.050 0.016 0.050 2660 0.0015  
 5472 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5473 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5474 KK 56u BASIN  
 5475 KM Subbasin at NEC of I-17 and 12th St  
 5476 BA 0.326  
 5477 LG 0.22 0.25 4.70 0.38 23  
 5478 UC 1.295 0.820  
 5479 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5480 UA 100  
 \*

5481 KK BD56tS RETRIEVE  
 5482 KM Retrieve diverted surface flow from D56tS.  
 5483 DR D56tS  
 \*

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

5484 KK R56tS ROUTE  
 5485 KM Route surface flow south from Subbasin 56t to 56u.  
 5486 RS 2 FLOW -1  
 5487 RC 0.050 0.016 0.050 3400 0.0017  
 5488 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5489 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5490 KK C56u COMBINE  
 5491 KM Combine hydrographs R56tS, 56u, and R52uW.  
 5492 HC 3 2.46  
 \*

5493 KK S56u STORAGE  
 5494 KM Regional Online Detention Basin, 4 ac-ft.  
 5495 RS 1 STOR 0  
 5496 SV 0 4 12  
 5497 SE 0 2 4  
 5498 SL 0.33 0.785 0.62 0.5  
 5499 SS 2 400 2.7 1.5  
 \*

5500 KK BD56tP RETRIEVE  
 5501 KM Retrieve diverted pipe flow from D56tP.  
 5502 DR D56tP  
 \*

5503 KK P56tS ROUTE  
 5504 KM Route pipe flow from 12th st/Buckeye to subbasin 56u.  
 5505 RK 3300 0.0060 0.015 CTRC 8.00  
 \*

5506 KK CC56u COMBINE  
 5507 KM Combine hydrographs S56u and P56tS.  
 5508 HC 2 2.46  
 \*

5509 KK D56u DIVERT  
 5510 KM Divert 612 cfs into pipe (south).  
 5511 DT D56uP  
 5512 DI 0 100 612 10000  
 5513 DQ 0 100 612 612  
 \*

5514 KK D56uW DIVERT  
 5515 KM Divert 21% of surface flow to south.  
 5516 DT D56uS  
 5517 DI 0 100 1000 10000  
 5518 DQ 0 21 210 2100  
 \*

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

5519 KK R56uW ROUTE  
 5520 KM Route surface flow west from Subbasin 56u to 60u.  
 5521 RS 6 FLOW -1  
 5522 RC 0.050 0.016 0.050 2660 0.0010  
 5523 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5524 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5525 KK 60u BASIN  
 5526 KM Subbasin at NEC of I-17 and 7th St  
 5527 BA 0.285  
 5528 LG 0.44 0.25 6.00 0.22 22  
 5529 UC 1.160 0.754  
 5530 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5531 UA 100  
 \*

5532 KK BD60tS RETRIEVE  
 5533 KM Retrieve diverted surface flow from D60tS.  
 5534 DR D60tS  
 \*

5535 KK R60tS ROUTE  
 5536 KM Route surface flow south from Subbasin 60t to 60u.  
 5537 RS 5 FLOW -1  
 5538 RC 0.050 0.016 0.050 3175 0.0013  
 5539 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5540 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5541 KK C60u COMBINE  
 5542 KM Combine hydrographs R60tS, 60u, and R56uW.  
 5543 HC 3 3.68  
 \*

5544 KK S60u STORAGE  
 5545 KM Regional online detention, 1 ac-ft.  
 5546 RS 1 STOR 0  
 5547 SV 0 0.3 0.6 1 2  
 5548 SE 0 2 4 6 8  
 5549 SQ 0 45 90 145 290  
 \*

5550 KK D60u DIVERT  
 5551 KM Divert 124 cfs into pipe (south).  
 5552 DT D60uP  
 5553 DI 0 100 124 10000  
 5554 DQ 0 100 124 124  
 \*

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

5555 KK D60uW DIVERT  
 5556 KM Divert 33% of surface flow to south.  
 5557 DT D60uS  
 5558 DI 0 100 1000 10000  
 5559 DQ 0 33 330 3300  
 \*

5560 KK R60uW ROUTE  
 5561 KM Route surface flow west from Subbasin 60u to 64u.  
 5562 RS 4 FLOW -1  
 5563 RC 0.050 0.016 0.050 2640 0.0015  
 5564 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5565 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5566 KK 64u BASIN  
 5567 KM Subbasin at NEC of I-17 and Central  
 5568 BA 0.296  
 5569 LG 0.19 0.23 6.20 0.21 36  
 5570 UC 1.101 0.675  
 5571 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5572 UA 100  
 \*

5573 KK BD64tP RETRIEVE  
 5574 KM Retrieve diverted pipe flow from D64tP.  
 5575 DR D64tP  
 \*

5576 KK P64tS ROUTE  
 5577 KM Route pipe flow from subbasin 64t to subbasin 64u.  
 5578 KM Two pipe equivalent D = 8.5'  
 5579 RK 3100 0.0035 0.015 CIRC 8.5  
 \*

5580 KK BD64tS RETRIEVE  
 5581 KM Retrieve diverted surface flow from D64tS.  
 5582 DR D64tS  
 \*

5583 KK R64tS ROUTE  
 5584 KM Route surface flow south from Subbasin 64t to 64u.  
 5585 RS 3 FLOW -1  
 5586 RC 0.050 0.016 0.050 3100 0.0035  
 5587 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5588 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5589 KK C64tS COMBINE  
 5590 KM Combine hydrographs R64tS and P64tS.  
 5591 HC 2 3.61  
 \*

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

5592 KK C64u COMBINE  
 5593 KM Combine hydrographs C64tS, 64u, and R60uW.  
 5594 HC 3 4.91  
 \*

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5595      KK      D64u  DIVERT
5596      KM      Divert 0.0 cfs into ADCT west Tunnel (assuming no connection).
5597      DT      D64uPT
5598      DI      0      100      1000      10000
5599      DQ      0      0      0      0
          *

5600      KK      D64u1 DIVERT
5601      KM      Divert 375 cfs into pipe (south).
5602      DT      D64uP
5603      DI      0      100      375      1000      10000
5604      DQ      0      100      375      375      375
          *

5605      KK      D64uW DIVERT
5606      KM      Divert 25% of surface flow to south.
5607      DT      D64uS
5608      DI      0      100      1000      10000
5609      DQ      0      25      250      2500
          *

5610      KK      R64uW  ROUTE
5611      KM      Route surface flow west from Subbasin 64u to 68u.
5612      RS      3      FLOW      -1
5613      RC      0.050  0.016  0.050  2650  0.0015
5614      RX      0      1.3      52      127.4  132.6      208      258.7      260
5615      RY      3      1      0.5      0      0      0.5      1      3
          *

5616      KK      68u   BASIN
5617      KM      Subbasin at NEC of I-17 and 7th Ave
5618      BA      0.280
5619      LG      0.20   0.15   8.80   0.08   32
5620      UC      1.076  0.693
5621      UA      0      5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
5622      UA      100
          *

5623      KK      BD68tP RETRIEVE
5624      KM      Retrieve diverted pipe flow from D68tP.
5625      DR      D68tP
          *

5626      KK      P68tS  ROUTE
5627      KM      Route pipe flow from subbasin 68t to subbasin 68u.
5628      RK      2750  0.0030  0.015      CIRC      5.00
          *

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

5629      KK      BD68tS RETRIEVE
5630      KM      Retrieve diverted surface flow from D68tS.
5631      DR      D68tS
          *

5632      KK      R68tS  ROUTE
5633      KM      Route surface flow south from Subbasin 68t to 68u.
5634      RS      2      FLOW      -1
5635      RC      0.050  0.016  0.050  2800  0.0035
5636      RX      0      1.3      52      127.4  132.6      208      258.7      260
5637      RY      3      1      0.5      0      0      0.5      1      3
          *

5638      KK      C68tS  COMBINE
5639      KM      Combine hydrographs R68tS and P68tS.
5640      HC      2      4.39
          *

5641      KK      C68u  COMBINE
5642      KM      Combine hydrographs 68u, R64uW, and C68tS.
5643      HC      3      5.97
          *

5644      KK      D68u  DIVERT
5645      KM      Divert 146 cfs into pipe (south).
5646      DT      D68uP
5647      DI      0      100      146      10000
5648      DQ      0      100      146      146
          *

5649      KK      D68uW DIVERT
5650      KM      Divert 21% of surface flow to south.
5651      DT      D68uS
5652      DI      0      100      1000      10000

```

5653 DQ 0 21 210 2100  
\*  
5654 KK R68uW ROUTE  
5655 KM Route surface flow west from Subbasin 68u to 72u.  
5656 RS 3 FLOW -1  
5657 RC 0.050 0.016 0.050 2640 0.0015  
5658 RX 0 0.8 32 78.4 81.6 128 159.2 160  
5659 RY 3 1 0.5 0 0 0.5 1 3  
\*

5660 KK 72u BASIN  
5661 KM Subbasin at NEC of I-17 and 15th Ave  
5662 BA 0.257  
5663 LG 0.27 0.15 9.70 0.06 24  
5664 UC 1.037 0.685  
5665 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5666 UA 100  
\*

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

5667 KK C72u COMBINE  
5668 KM Combine hydrographs 72u and R68uW.  
5669 HC 2 6.23  
\*

5670 KK BD72tP RETRIEVE  
5671 KM Retrieve diverted pipe flow from D72tP.  
5672 DR D72tP  
\*

5673 KK D72tP1 DIVERT  
5674 KM Divert flow into pipe (south).  
5675 DT D72tP2  
5676 DI 0 714 800  
5677 DQ 0 281 315  
\*

5678 KK P72tS1 ROUTE  
5679 KM Route pipe flow from subbasin 72t to subbasin 72u.  
5680 RK 2700 0.0030 0.015 CIRC 8.0  
\*

5681 KK B72tP2 RETRIEVE  
5682 KM Retrieve diverted pipe flow from D72tP2.  
5683 DR D72tP2  
\*

5684 KK P72tS2 ROUTE  
5685 KM Route pipe flow from subbasin 72t to subbasin 72u.  
5686 RK 2700 0.0031 0.015 CIRC 6.8  
\*

5687 KK B72tS RETRIEVE  
5688 KM Retrieve diverted surface flow from D72tS.  
5689 DR D72tS  
\*

5690 KK R72tS ROUTE  
5691 KM Route surface flow south from Subbasin 72t to 72u.  
5692 RS 3 FLOW -1  
5693 RC 0.050 0.016 0.050 2820 0.0021  
5694 RX 0 2.3 92 225.4 234.6 368 457.7 460  
5695 RY 3 1 0.5 0 0 0.5 1 3  
\*

5696 KK C72tS COMBINE  
5697 KM Combine hydrographs R72tS, P72tS1, and P72tS2.  
5698 HC 3 6.23  
\*

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

5699 KK CC72u COMBINE  
5700 KM Combine hydrographs C72tS and C72u.  
5701 HC 2 8.06  
\*

5702 KK D72u DIVERT  
5703 KM Divert 714 cfs into pipe (south) (433 cfs + 281 cfs).  
5704 DT D72uP

5705 DI 0 100 714 10000  
 5706 DQ 0 100 714 714  
 \*

5707 KK D72uW DIVERT  
 5708 KM Divert 31% of surface flow to south.  
 5709 DT D72uS  
 5710 DI 0 100 1000 10000  
 5711 DQ 0 31 310 3100  
 \*

5712 KK R72uW ROUTE  
 5713 KM Route surface flow west from Subbasin 72u to 76u.  
 5714 RS 3 FLOW -1  
 5715 RC 0.050 0.016 0.050 2640 0.0015  
 5716 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5717 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5718 KK BD76tP RETRIEVE  
 5719 KM Retrieve diverted pipe flow from D76tP.  
 5720 DR D76tP  
 \*

5721 KK D76tP1 DIVERT  
 5722 KM Divert 297 cfs into pipe (south).  
 5723 DT D76tP2  
 5724 DI 0 297 300  
 5725 DQ 0 48 49  
 \*

5726 KK P76tS1 ROUTE  
 5727 KM Route pipe flow from subbasin 76t to subbasin 76u.  
 5728 RK 3000 0.0030 0.015 CIRC 6.50  
 \*

5729 KK B76tP2 RETRIEVE  
 5730 KM Retrieve diverted pipe flow from D76tP2.  
 5731 DR D76tP2  
 \*

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

5732 KK P76tS2 ROUTE  
 5733 KM Route pipe flow from subbasin 76t to subbasin 76u.  
 5734 RK 3000 0.0030 0.015 CIRC 3.5  
 \*

5735 KK BD76tS RETRIEVE  
 5736 KM Retrieve diverted surface flow from D76tS.  
 5737 DR D76tS  
 \*

5738 KK R76tS ROUTE  
 5739 KM Route surface flow south from Subbasin 76t to 76u.  
 5740 RS 3 FLOW -1  
 5741 RC 0.050 0.016 0.050 2665 0.0015  
 5742 RK 0 1.3 52 127.4 132.6 208 258.7 260  
 5743 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5744 KK C76tS COMBINE  
 5745 KM Combine hydrographs R76tS, P76tS1, and P76tS2.  
 5746 HC 3 15.10  
 \*

5747 KK 76u BASIN  
 5748 KM Subbasin at NEC of I-17 and 19th Ave  
 5749 BA 0.283  
 5750 LG 0.32 0.15 9.70 0.06 23  
 5751 UC 1.080 0.665  
 5752 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5753 UA 100  
 \*

5754 KK C76u COMBINE  
 5755 KM Combine hydrographs 76u, C76tS, and R72uW.  
 5756 HC 3 17.22  
 \*

5757 KK D76u DIVERT  
 5758 KM Divert 297 cfs into pipe (south) (48 cfs to 76v, 248 cfs to 80v).  
 5759 DT D76uP  
 5760 DI 0 100 297 10000

5761 DQ 0 100 297 297  
 \*  
 5762 KK D76uW DIVERT  
 5763 KM Divert 0.0% of surface flow to south.  
 5764 DT D76uS  
 5765 DI 0 100 1000 10000  
 5766 DQ 0 0.0 0.0 0.0  
 \*

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

5767 KK R76uW ROUTE  
 5768 KM Route surface flow west from Subbasin 76u to 80u.  
 5769 RS 2 FLOW -1  
 5770 RC 0.050 0.016 0.050 2370 0.0025  
 5771 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5772 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5773 KK 80u BASIN  
 5774 KM Subbasin at NEC of Durango and I-17  
 5775 BA 0.249  
 5776 LG 0.16 0.15 8.00 0.11 46  
 5777 UC 0.867 0.607  
 5778 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5779 UA 100  
 \*

5780 KK C80u COMBINE  
 5781 KM Combine flows of 80u, R80tS, and R76uW  
 5782 HC 3 18.61  
 \*

5783 KK BD80tP RETRIEVE  
 5784 KM Retrieve diverted pipe flow from D80tP.  
 5785 DR D80tP  
 \*

5786 KK P80tS ROUTE  
 5787 KM Route pipe flow from I-17/Buckeye to subbasin 80u.  
 5788 RK 2100 0.0030 0.015 CIRC 7.50  
 \*

5789 KK BD80qW RETRIEVE  
 5790 KM Retrieve diverted flow from D80qW.  
 5791 DR D80qW  
 \*

5792 KK CC80u COMBINE  
 5793 KM Combine flows of C80u,D80qW, and P80tS  
 5794 HC 3 18.61  
 \*

5795 KK S-I17 STORAGE  
 5796 KM I-17 Depressed Segment and East Durango Curve ponding Areas  
 5797 KM Online Regional Detention Basin, 320 ac-ft.  
 5798 RS 1 STOR 0  
 5799 SV 0 6 29 45 112 169 320 360 396 425  
 5800 SE 0 2 6 8 12 14 16 17 17.6 18  
 5801 SQ 0.0 183 316 365 448 483 517 674 2224 4564  
 \*

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

5802 KK D80u DIVERT  
 5803 KM Divert 509 cfs into pipe (west).  
 5804 DT D80uP  
 5805 DI 0 100 509 10000  
 5806 DQ 0 100 509 509  
 \*

5807 KK R80uW ROUTE  
 5808 KM Route surface flow west from Subbasin 80u to 84u.  
 5809 RS 2 FLOW -1  
 5810 RC 0.050 0.016 0.050 2760 0.0014  
 5811 RX 0 1.0 40 98 102 160 199 200  
 5812 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5813 KK 84t BASIN  
 5814 KM Subbasin at NEC of Buckeye and 27th Ave

5815 BA 0.273  
 5816 LG 0.14 0.15 7.60 0.13 55  
 5817 UC 0.967 0.777  
 5818 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5819 UA 100  
 \*

5820 KK P84tN INFLOW  
 5821 KM Inflow from storm drain north of SPRR along 27th Avenue.  
 5822 KM Maximum flow 252 cfs.  
 5823 IN 60  
 5824 BA 0.5  
 5825 QI 0 1 2 3 4 4 5 5 6 6  
 5826 QI 8 10 17 252 74 21 9 7 6 5  
 5827 QI 5 4 1 0.5 0.1  
 \*

5828 KK C84t COMBINE  
 5829 KM Combine hydrographs P84tN and 80t.  
 5830 HC 2 0.77  
 \*

5831 KK D84t DIVERT  
 5832 KM Divert 252 cfs into pipe (south).  
 5833 DT D84tP  
 5834 DI 0 100 252 10000  
 5835 DQ 0 100 252 252  
 \*

5836 KK D84tS DIVERT  
 5837 KM Divert 13% of surface flow to west.  
 5838 DT D84tW  
 5839 DI 0 100 1000 10000  
 5840 DQ 0 13 130 1300  
 \*

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

5841 KK R84tS ROUTE  
 5842 KM Route surface flow south from Subbasin 84t to 84u.  
 5843 RS 2 FLOW -1  
 5844 RC 0.050 0.016 0.050 2760 0.0018  
 5845 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5846 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5847 KK 84u BASIN  
 5848 KM Subbasin at NEC of Durango and 27th Ave  
 5849 BA 0.263  
 5850 LG 0.61 0.15 8.00 0.11 41  
 5851 UC 1.065 0.704  
 5852 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5853 UA 100  
 \*

5854 KK C84u COMBINE  
 5855 KM Combine hydrographs R84tS, 84u, and R80uW.  
 5856 HC 3 9.04  
 \*

5857 KK S84u STORAGE  
 5858 KM Online Regional Detention Basin, 3 ac-ft.  
 5859 RS 1 STOR 0  
 5860 SV 0 3 13  
 5861 SE 0 2 4  
 5862 SQ 0 30 3000  
 \*

5863 KK BD84tP RETRIEVE  
 5864 KM Retrieve diverted pipe flow from D84tP.  
 5865 DR D84tP  
 \*

5866 KK P84tS ROUTE  
 5867 KM Route pipe flow from I-17/Buckeye to subbasin 84u.  
 5868 RK 2650 0.0031 0.015 CIRC 6.50  
 \*

5869 KK CC84u COMBINE  
 5870 KM Combine hydrographs P84tS and S84u.  
 5871 HC 2 9.04  
 \*

5872 KK D84u DIVERT

5873 KM Divert 252 cfs into pipe (south).  
 5874 DT D84uP  
 5875 DI 0 100 252 10000  
 5876 DQ 0 100 252 252  
 \*

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

5877 KK D84uW DIVERT  
 5878 KM Divert 20% of surface flow to south.  
 5879 DT D84uS  
 5880 DI 0 100 1000 10000  
 5881 DQ 0 20 200 2000  
 \*

5882 KK R84uW ROUTE  
 5883 KM Route surface flow west from Subbasin 84u to 88u.  
 5884 RS 3 FLOW -1  
 5885 RC 0.050 0.016 0.050 2760 0.0022  
 5886 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5887 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5888 KK 88t BASIN  
 5889 KM Subbasin at NEC of Buckeye and 35th Ave  
 5890 BA 0.259  
 5891 LG 0.18 0.25 6.00 0.23 44  
 5892 UC 1.138 0.959  
 5893 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5894 UA 100  
 \*

5895 KK BD84tW RETRIEVE  
 5896 KM Retrieve diverted surface flow from D84tW.  
 5897 DR D84tW  
 \*

5898 KK R84tW ROUTE  
 5899 KM Route surface flow west from Subbasin 84t to 88t.  
 5900 RS 4 FLOW -1  
 5901 RC 0.050 0.016 0.050 2760 0.0011  
 5902 RX 0 0.5 20 49 51 80 99.5 100  
 5903 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5904 KK C88t COMBINE  
 5905 KM Combine hydrographs 88t and R84tW.  
 5906 HC 2 1.03  
 \*

5907 KK D88tS DIVERT  
 5908 KM Divert 30% of surface flow to west.  
 5909 DT D88tW  
 5910 DI 0 100 1000 10000  
 5911 DQ 0 30 300 3000  
 \*

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

5912 KK R88tS ROUTE  
 5913 KM Route surface flow south from Subbasin 88t to 88u.  
 5914 RS 3 FLOW -1  
 5915 RC 0.050 0.016 0.050 2760 0.0036  
 5916 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5917 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5918 KK 88u BASIN  
 5919 KM Subbasin at NEC of Durango and 35th Ave  
 5920 BA 0.250  
 5921 LG 0.31 0.15 8.40 0.09 40  
 5922 UC 1.014 0.861  
 5923 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5924 UA 100  
 \*

5925 KK C88u COMBINE  
 5926 KM Combine hydrographs 88u, R84uW, and R88tS.  
 5927 HC 3 9.55  
 \*

5928 KK D88u DIVERT

```

5929      KM      Divert 36 cfs into pipe (west).
5930      DT      D88uP
5931      DI          0      36      1000      10000
5932      DQ          0      36          36          36
          *

5933      KK      D88uW  DIVERT
5934      KM      Divert 76% of surface flow to south.
5935      DT      D88uS
5936      DI          0      100      1000      10000
5937      DQ          0      76          760          7600
          *

5938      KK      R88uW  ROUTE
5939      KM      Route surface flow west from Subbasin 88u to 92u.
5940      RS          2      FLOW          -1
5941      RC      0.050  0.016  0.050  2760  0.0014
5942      RX          0      0.75      30      73.5  76.5      120  149.25      150
5943      RY          3          1      0.5      0      0      0.5      1          3
          *

5944      KK      BD88uP RETRIEVE
5945      KM      Retrieve diverted pipe flow from D88uP.
5946      DR      D88uP
          *

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

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5947      KK      P88uW  ROUTE
5948      KM      Route pipe flow from subbasin 88u to subbasin 92u.
5949      RK      2600  0.0039  0.015          CIRC      3.0
          *

5950      KK      C88uW  COMBINE
5951      KM      Combine hydrographs R88uW and P88uW.
5952      HC          2      9.55
          *

5953      KK          92t  BASIN
5954      KM      Subbasin at NEC of Buckeye and 43rd Ave
5955      BA      0.175
5956      LG      0.21  0.25  5.20  0.32  32
5957      UC      1.125  1.046
5958      UA          0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
5959      UA          100
          *

5960      KK      BD88tW RETRIEVE
5961      KM      Retrieve diverted surface flow from D88tW.
5962      DR      D88tW
          *

5963      KK      R88tW  ROUTE
5964      KM      Route surface flow west from Subbasin 88t to 92t.
5965      RS          3      FLOW          -1
5966      RC      0.050  0.016  0.050  1990  0.002
5967      RX          0      0.75      30      73.5  76.5      120  149.25      150
5968      RY          3          1      0.5      0      0      0.5      1          3
          *

5969      KK      C92t  COMBINE
5970      KM      Combine hydrographs R88tW and 92t.
5971      HC          2      1.21
          *

5972      KK      R92tS  ROUTE
5973      KM      Route surface flow south from Subbasin 92t to 92u.
5974      RS          3      FLOW          -1
5975      RC      0.050  0.016  0.050  2760  0.0040
5976      RX          0      0.5      20      49      51      80      99.5      100
5977      RY          3          1      0.5      0      0      0.5      1          3
          *

5978      KK          92u  BASIN
5979      KM      Subbasin at NEC of Durango and 43rd Ave
5980      BA      0.249
5981      LG      0.16  0.25  6.00  0.23  44
5982      UC      1.001  0.850
5983      UA          0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
5984      UA          100
          *

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

5985 KK P92uN INFLOW  
 5986 KM Inflow from storm drain north of Durango Street along 35th Avenue.  
 5987 KM Maximum flow 141 cfs.  
 5988 IN 60  
 5989 BA 2.5  
 5990 QI 0.0 1 2 3 3 4 4 5 5 5  
 5991 QI 7 9 30 141 69 27 8 6 5 5  
 5992 QI 4 3 2 0.5 0.0  
 \*

5993 KK C92u COMBINE  
 5994 KM Combine flows of 92u, C88uW, P92uN, and R92LS  
 5995 HC 4 10.17  
 \*

5996 KK D92u DIVERT  
 5997 KM Divert 201 cfs into pipe (south).  
 5998 DT D92uP  
 5999 DI 0 100 201 10000  
 6000 DQ 0 100 201 201  
 \*

6001 KK R92uS ROUTE  
 6002 KM Route surface flow south from Subbasin 92u to 92v.  
 6003 RS 1 FLOW -1  
 6004 RC 0.050 0.016 0.050 1650 0.0048  
 6005 RX 0 0.5 20 49 51 80 99.5 100  
 6006 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6007 KK B92uP RETRIEVE  
 6008 KM Retrieve diverted pipe flow from D92uP.  
 6009 DR D92uP  
 \*

6010 KK P92uS ROUTE  
 6011 KM Route pipe flow from subbasin 92u to subbasin 92v.  
 6012 RK 1500 0.0030 0.015 CIRC 6.00  
 \*

6013 KK C92uS COMBINE  
 6014 KM Combine hydrographs R92uS and P92uS.  
 6015 HC 2 10.17  
 \*

6016 KK 76v BASIN  
 6017 KM Subbasin at NEC of Lower Buckeye and 19th Ave  
 6018 BA 0.240  
 6019 LG 0.21 0.25 4.90 0.40 41  
 6020 UC 1.096 0.916  
 6021 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6022 UA 100  
 \*

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

6023 KK B76uP RETRIEVE  
 6024 KM Retrieve diverted pipe flow from D76uP.  
 6025 DR D76uP  
 \*

6026 KK D76uP2 DIVERT  
 6027 KM Divert 297 cfs into pipes (249 cfs to west, 48 cfs to south).  
 6028 DT D76uP1  
 6029 DI 0 297 1000  
 6030 DQ 0 249 249  
 \*

6031 KK P76uS2 ROUTE  
 6032 KM Route pipe flow from 19th ave/I-17 to subbasin 76v.  
 6033 RK 2300 0.0030 0.015 CIRC 3.50  
 \*

6034 KK BD76uS RETRIEVE  
 6035 KM Retrieve diverted flow from D76uS.  
 6036 DR D76uS  
 \*

6037 KK R76uS ROUTE  
 6038 KM Route surface flow south from Subbasin 76u to 76v.  
 6039 RS 2 FLOW -1  
 6040 RC 0.050 0.016 0.050 2640 0.0023

6041	RX	0	0.5	20	49	51	80	99.5	100
6042	RY	3	1	0.5	0	0	0.5	1	3
	*								
6043	KK	C76uS COMBINE							
6044	KM	Combine hydrographs P76uS2 and R76uS.							
6045	HC	2	17.22						
	*								
6046	KK	C76v COMBINE							
6047	KM	Combine hydrographs 76v and C76uS.							
6048	HC	2	8.24						
	*								
6049	KK	D76v DIVERT							
6050	KM	Divert 109 cfs into pipe (south).							
6051	DT	D76vP							
6052	DI	0	100	109	10000				
6053	DQ	0	100	109	109				
	*								
6054	KK	D76vW DIVERT							
6055	KM	Divert 53% of surface flow to south.							
6056	DT	D76vS							
6057	DI	0	100	1000	10000				
6058	DQ	0	53	530	5300				
	*								

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

6059	KK	R76vW	ROUTE								
6060	KM	Route surface flow west from Subbasin 76v to 80v.									
6061	RS	6	FLOW	-1							
6062	RC	0.050	0.016	0.050	2570	0.0008					
6063	RX	0	0.5	20	49	51	80	99.5	100		
6064	RY	3	1	0.5	0	0	0.5	1	3		
	*										
6065	KK	80v BASIN									
6066	KM	Subbasin at NEC of Lower Buckeye and 23rd Ave									
6067	BA	0.231									
6068	LG	0.16	0.15	8.00	0.12	59					
6069	UC	0.932	0.706								
6070	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
6071	UA	100									
	*										
6072	KK	B76uP1 RETRIEVE									
6073	KM	Retrieve diverted pipe flow from D76uP1.									
6074	DR	D76uP1									
	*										
6075	KK	P76uS1 ROUTE									
6076	KM	Route pipe flow from subbasin 76u to subbasin 80v.									
6077	RK	4000	0.0030	0.015		CIRC	6.5				
	*										
6078	KK	C80v COMBINE									
6079	KM	Combine flows of 80v, P76uS1, and R76vW									
6080	HC	3	8.23								
	*										
6081	KK	D80v DIVERT									
6082	KM	Divert 249 cfs into pipe (southwest).									
6083	DT	D80vP									
6084	DI	0	100	249	10000						
6085	DQ	0	100	249	249						
	*										
6086	KK	D80vW DIVERT									
6087	KM	Divert 56% of surface flow to south.									
6088	DT	D80vS									
6089	DI	0	100	1000	10000						
6090	DQ	0	56	560	5600						
	*										
6091	KK	R80vW ROUTE									
6092	KM	Route surface flow west from Subbasin 80v to 84v.									
6093	RS	8	FLOW	-1							
6094	RC	0.050	0.016	0.050	2640	0.0004					
6095	RX	0	1.25	50	122.5	127.5	200	248.75	250		
6096	RY	3	1	0.5	0	0	0.5	1	3		
	*										

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LINE	ID	1	2	3	4	5	6	7	8	9	10
6097	KK	84v	BASIN								
6098	KM	Subbasin at NEC of Lower Buckeye and 27th Ave									
6099	BA	0.254									
6100	LG	1.75	0.15	9.70	0.07	35					
6101	UC	1.230	0.816								
6102	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
6103	UA	100									
	*										
6104	KK	BD80uP	RETRIEVE								
6105	KM	Retrieve diverted pipe flow from D80uP.									
6106	DR	D80uP									
	*										
6107	KK	P80uS	ROUTE								
6108	KM	Route pipe flow from subbasin 80u to subbasin 84v.									
6109	RK	4000	0.0030	0.015		CIRC	8.5				
	*										
6110	KK	C84v	COMBINE								
6111	KM	Combine hydrographs 84v, P80uS, and R80vW.									
6112	HC	3	8.73								
	*										
6113	KK	BD84uP	RETRIEVE								
6114	KM	Retrieve diverted pipe flow from D84uP.									
6115	DR	D84uP									
	*										
6116	KK	P84uS	ROUTE								
6117	KM	Route pipe flow from subbasin 84u to subbasin 84v.									
6118	RK	2600	0.0030	0.015		CIRC	10.33				
	*										
6119	KK	BD84uS	RETRIEVE								
6120	KM	Retrieve diverted surface flow from D84uS.									
6121	DR	D84uS									
	*										
6122	KK	R84uS	ROUTE								
6123	KM	Route surface flow south from Subbasin 84u to 84v									
6124	RS	3	FLOW	-1							
6125	RC	0.050	0.016	0.050	2600	0.0023					
6126	RX	0	0.75	30	73.5	76.5	120	149.25	150		
6127	RY	3	1	0.5	0	0	0.5	1	3		
	*										
6128	KK	C84uS	COMBINE								
6129	KM	Combine hydrographs R84uS and P84uS.									
6130	HC	2	9.04								
	*										

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LINE	ID	1	2	3	4	5	6	7	8	9	10
6131	KK	CC84v	COMBINE								
6132	KM	Combine hydrographs C84uS and C84v.									
6133	HC	2	9.76								
	*										
6134	KK	D84v	DIVERT								
6135	KM	Divert 1269 cfs into pipes (252 + 509 + 508).									
6136	KM	Flows of 509 and 508 combined.									
6137	DT	D84vP									
6138	DI	0	100	1000	1269	10000					
6139	DQ	0	100	1000	1269	1269					
	*										
6140	KK	D84vW	DIVERT								
6141	KM	Divert 37% of surface flow to south.									
6142	DT	D84vS									
6143	DI	0	100	1000	10000						
6144	DQ	0	37	370	3700						
	*										
6145	KK	R84vW	ROUTE								
6146	KM	Route surface flow west from Subbasin 84v to 88v.									
6147	RS	2	FLOW	-1							
6148	RC	0.050	0.016	0.050	2760	0.0025					
6149	RX	0	0.5	20	49	51	80	99.5	100		
6150	RY	3	1	0.5	0	0	0.5	1	3		

\*  
6151 KK 88v BASIN  
6152 KM Subbasin at NEC of Lower Buckeye and 35th Ave  
6153 BA 0.248  
6154 LG 0.20 0.13 10.10 0.05 34  
6155 UC 1.123 0.969  
6156 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6157 UA 100  
\*

6158 KK B88uS RETRIEVE  
6159 KM Retrieve diverted surface flow from D88uS.  
6160 DR D88uS  
\*

6161 KK R88uS ROUTE  
6162 KM Route surface flow south from Subbasin 88u to 88v.  
6163 RS 2 FLOW -1  
6164 RC 0.050 0.016 0.050 2760 0.0033  
6165 RX 0 0.75 30 73.5 76.5 120 149.25 150  
6166 RY 3 1 0.5 0 0 0.5 1 3  
\*

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

6167 KK C88v COMBINE  
6168 KM Combine hydrographs 88v, R88uS, and R84vS.  
6169 HC 3 10.52  
\*

6170 KK D88v DIVERT  
6171 KM Divert 51 cfs into pipe (south).  
6172 DT D88vP  
6173 DI 0 51 1000 10000  
6174 DQ 0 51 51 51  
\*

6175 KK R88vW ROUTE  
6176 KM Route surface flow west from Subbasin 88v to 92v.  
6177 RS 3 FLOW -1  
6178 RC 0.050 0.016 0.050 2750 0.0011  
6179 RX 0 1.05 42 102.9 107.1 168 208.95 210  
6180 RY 3 1 0.5 0 0 0.5 1 3  
\*

6181 KK 92v BASIN  
6182 KM Subbasin at NEC of Lower Buckeye and 43rd Ave  
6183 BA 0.159  
6184 LG 0.10 0.13 10.10 0.05 72  
6185 UC 0.782 0.692  
6186 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6187 UA 100  
\*

6188 KK C92v COMBINE  
6189 KM Combine flows of C92uS, 92v and R88vW  
6190 HC 3 11.30  
\*

6191 KK D92vP DIVERT  
6192 KM Divert 201 cfs into pipe (west)  
6193 DT D92v  
6194 DI 0 201 1000 10000  
6195 DQ 0 0 799 9799  
\*

6196 KK P92vS ROUTE  
6197 KM Route pipe flow from subbasin 92v to subbasin 88w.  
6198 RK 4900 0.0030 0.015 CIRC 6.00  
\*

6199 KK 88w BASIN  
6200 KM Subbasin at NEC of Salt River and 43rd Ave  
6201 BA 0.599  
6202 LG 0.17 0.25 5.10 0.34 40  
6203 UC 1.261 0.767  
6204 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6205 UA 100  
\*

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

6206 KK BD88vP RETRIEVE  
6207 KM Retrieve diverted pipe flow from D88vP.  
6208 DR D88vP  
\*

6209 KK P88vS ROUTE  
6210 KM Route pipe flow from subbasin 88v to subbasin 88w.  
6211 RK 2600 0.0034 0.015 CIRC 3.5  
\*

6212 KK C88w COMBINE  
6213 KM Combine hydrographs P88vS, P92vS, and 88w.  
6214 HC 3 11.90  
\*

6215 KK 44v BASIN  
6216 KM Subbasin at NEC of Salt River and 20th St  
6217 BA 0.236  
6218 LG 0.21 0.29 2.49 1.68 24  
6219 UC 1.274 0.885  
6220 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6221 UA 100  
\*

6222 KK BD44sP RETRIEVE  
6223 KM Retrieve diverted pipe flow from D44sP.  
6224 DR D44sP  
\*

6225 KK P44sS ROUTE  
6226 KM Route pipe flow from 24th st/SPRR to subbasin 44v.  
6227 RK 9500 0.0030 0.015 CIRC 6.00  
\*

6228 KK C44v COMBINE  
6229 KM Combine hydrographs 44v and P44sS.  
6230 HC 2 4.03  
\*

6231 KK B48oPT RETRIEVE  
6232 KM Retrieve diverted East Tunnel flow from D48oPT.  
6233 DR D48oPT  
\*

6234 KK PT48o ROUTE  
6235 KM Route East Tunnel flow from 20th st/Moreland to subbasin 48q.  
6236 RK 3800 0.0030 0.015 CIRC 21.0  
\*

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

6237 KK B48qPT RETRIEVE  
6238 KM Retrieve diverted flow to East Tunnel from D48qPT.  
6239 DR D48qPT  
\*

6240 KK CPT48q COMBINE  
6241 KM Combine hydrographs PT48o and D48qPT.  
6242 HC 2 16.11  
\*

6243 KK PT48q ROUTE  
6244 KM Route East Tunnel flow from subbasin 48q to subbasin 48s.  
6245 RK 2500 0.003 0.015 CIRC 21.0  
\*

6246 KK B48sPT RETRIEVE  
6247 KM Retrieve diverted flow to East Tunnel from D48sPT.  
6248 DR D48sPT  
\*

6249 KK CPT48s COMBINE  
6250 KM Combine hydrographs PT48q and D48sPT.  
6251 HC 2 17.54  
\*

6252 KK PT48s ROUTE  
6253 KM Route East Tunnel flow from subbasin 48s to subbasin 48v.  
6254 RK 9500 0.003 0.015 CIRC 21.00  
\*

6255 KK 48v BASIN  
6256 KM Subbasin at NEC of Salt River and 20th St

6257 BA 0.299  
 6258 LG 0.10 0.28 2.59 1.77 68  
 6259 UC 0.996 0.791  
 6260 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6261 UA 100  
 \*

6262 KK C48v COMBINE  
 6263 KM Combine hydrographs 48v and PT48s.  
 6264 HC 2 17.84  
 \*

6265 KK NUL48v COMBINE  
 6266 KM Combine hydrographs C48v and C44v.  
 6267 HC 2 18.08  
 \*

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

6268 KK 52v BASIN  
 6269 KM Subbasin at NEC of Salt River and 16th St  
 6270 BA 0.297  
 6271 LG 0.22 0.28 2.65 1.41 22  
 6272 UC 1.339 0.863  
 6273 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6274 UA 100  
 \*

6275 KK BD52uP RETRIEVE  
 6276 KM Retrieve diverted pipe flow from D52uP.  
 6277 DR D52uP  
 \*

6278 KK P52uS ROUTE  
 6279 KM Route pipe flow from 16th st/I-17 to subbasin 52v.  
 6280 RK 2700 0.0038 0.015 CIRC 6.50  
 \*

6281 KK BD52uS RETRIEVE  
 6282 KM Retrieve diverted surface flow from D52uS.  
 6283 DR D52uS  
 \*

6284 KK R52uS ROUTE  
 6285 KM Route surface flow south from Subbasin 52u to 52v.  
 6286 RS 2 FLOW -1  
 6287 RC 0.050 0.016 0.050 3080 0.0026  
 6288 RK 0 0.5 20 49 51 80 99.5 100  
 6289 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6290 KK C52uS COMBINE  
 6291 KM Combine hydrographs R52uS and P52uS.  
 6292 HC 2 1.35  
 \*

6293 KK C52v COMBINE  
 6294 KM Combine hydrographs 52v and C52uS.  
 6295 HC 2 1.64  
 \*

6296 KK NUL52v COMBINE  
 6297 KM Combine hydrographs C52v and NUL48v.  
 6298 HC 2 19.72  
 \*

6299 KK 56v BASIN  
 6300 KM Subbasin at NEC of Salt River and 12th St  
 6301 BA 0.231  
 6302 LG 0.20 0.24 4.40 0.47 28  
 6303 UC 1.218 1.087  
 6304 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6305 UA 100  
 \*

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

6306 KK BD56uP RETRIEVE  
 6307 KM Retrieve diverted pipe flow from D56uP.  
 6308 DR D56uP  
 \*

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6309      KK  P56uS  ROUTE
6310      KM  Route pipe flow from subbasin 56u to subbasin 56v.
6311      RK  2500 0.0060 0.015          CIRC  8.00
        *

6312      KK  BD56uS RETRIEVE
6313      KM  Retrieve diverted surface flow from D56uS.
6314      DR  D56uS
        *

6315      KK  R56uS  ROUTE
6316      KM  Route surface flow south from Subbasin 56u to 56v.
6317      RS  4      FLOW  -1
6318      RC  0.050 0.016 0.050 2500 0.0034
6319      RX  0      0.5  20    49    51    80    99.5  100
6320      RY  3      1    0.5    0    0    0.5    1    3
        *

6321      KK  C56uS COMBINE
6322      KM  Combine hydrographs R56uS and P56uS.
6323      HC  2      2.46
        *

6324      KK  C56v COMBINE
6325      KM  Combine hydrographs 56v and C56uS.
6326      HC  2      2.69
        *

6327      KK  NUL56v COMBINE
6328      KM  Combine hydrographs C56v and NUL52v.
6329      HC  2      21.07
        *

6330      KK  60v  BASIN
6331      KM  Subbasin at NEC of Salt River and 7th St
6332      BA  0.228
6333      LG  0.15  0.24  4.90  0.38  43
6334      UC  1.088 0.906
6335      UA  0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6336      UA  100
        *

6337      KK  BD60uP RETRIEVE
6338      KM  Retrieve diverted pipe flow from D60uP.
6339      DR  D60uP
        *

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

6340      KK  P60uS  ROUTE
6341      KM  Route pipe flow from subbasin 60u to subbasin 60v.
6342      RK  2400 0.0030 0.015          CIRC  5.00
        *

6343      KK  BD60uS RETRIEVE
6344      KM  Retrieve diverted surface flow from D60uS.
6345      DR  D60uS
        *

6346      KK  R60uS  ROUTE
6347      KM  Route surface flow south from Subbasin 60u to 60v.
6348      RS  3      FLOW  -1
6349      RC  0.050 0.016 0.050 2400 0.0034
6350      RX  0      0.5  20    49    51    80    99.5  100
6351      RY  3      1    0.5    0    0    0.5    1    3
        *

6352      KK  C60uS COMBINE
6353      KM  Combine hydrographs R60uS and P60uS.
6354      HC  2      3.68
        *

6355      KK  C60v COMBINE
6356      KM  Combine hydrographs C60uS and 60v.
6357      HC  2      3.91
        *

6358      KK  NUL60v COMBINE
6359      KM  Combine hydrographs C60v and NUL56v.
6360      HC  2      22.51
        *

6361      KK  BPT64o RETRIEVE
6362      KM  Retrieve diverted West Tunnel flow from DPT64o.

```

6363 DR DPT64o  
\*  
6364 KK B64qPT RETRIEVE  
6365 KM Retrieve diverted West Tunnel flow from D64qPT.  
6366 DR D64qPT  
\*  
6367 KK CPT64q COMBINE  
6368 KM Combine hydrographs DPT64o and D64qPT.  
6369 HC 2 22.55  
\*  
6370 KK PT64q ROUTE  
6371 KM Route West Tunnel flow from subbasin 64q to subbasin 64s.  
6372 RK 2500 0.003 0.015 CIRC 21.0  
\*

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

6373 KK B64sPT RETRIEVE  
6374 KM Retrieve diverted West Tunnel flow from D64sPT.  
6375 DR D64sPT  
\*  
6376 KK CPT64s COMBINE  
6377 KM Combine hydrographs D64sPT and PT64q.  
6378 HC 2 23.58  
\*  
6379 KK PT64s ROUTE  
6380 KM Route West Tunnel flow from subbasin 64s to subbasin 64t.  
6381 RK 2800 0.003 0.015 CIRC 21.0  
\*

6382 KK B64tPT RETRIEVE  
6383 KM Retrieve diverted West Tunnel flow from D64tPT.  
6384 DR D64tPT  
\*

6385 KK CPT64t COMBINE  
6386 KM Combine hydrographs PT64s and D64tPT.  
6387 HC 2 24.65  
\*

6388 KK PT64t ROUTE  
6389 KM Route West Tunnel flow from subbasin 64t to subbasin 64u.  
6390 RK 3100 0.003 0.015 CIRC 21.0  
\*

6391 KK B64uPT RETRIEVE  
6392 KM Retrieve diverted pipe flow from D64uPT.  
6393 DR D64uPT  
\*

6394 KK CPT64u COMBINE  
6395 KM Combine hydrographs PT64t and D64uPT.  
6396 HC 2 25.95  
\*

6397 KK PT64u ROUTE  
6398 KM Route West Tunnel flow from subbasin 64u to subbasin 64v.  
6399 RK 2000 0.003 0.015 CIRC 21.0  
\*

6400 KK 64v BASIN  
6401 KM Subbasin at NEC of Salt River and Central  
6402 BA 0.195  
6403 LG 0.10 0.25 4.55 0.49 61  
6404 UC 0.955 0.701  
6405 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6406 UA 100  
\*

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

6407 KK BD64uP RETRIEVE  
6408 KM Retrieve diverted pipe flow from D64uP.  
6409 DR D64uP  
\*  
6410 KK P64uS ROUTE

```

6411      KM      Route pipe flow from subbasin 64u to subbasin 64v.
6412      RK      2000 0.0035 0.015          CIRC      8.0
*

6413      KK      BD64uS RETRIEVE
6414      KM      Retrieve diverted surface flow from D64uS.
6415      DR      D64uS
*

6416      KK      R64uS  ROUTE
6417      KM      Route surface flow south from Subbasin 64u to 64v.
6418      RS      3      FLOW      -1
6419      RC      0.050 0.016 0.050 2100 0.0034
6420      RX      0      0.5      20      49      51      80      99.5      100
6421      RY      3      1      0.5      0      0      0.5      1      3
*

6422      KK      C64uS COMBINE
6423      KM      Combine hydrographs R64uS and P64uS.
6424      HC      2      4.91
*

6425      KK      C64v COMBINE
6426      KM      Combine hydrographs C64uS, PT64u, and 64v.
6427      HC      3      26.15
*

6428      KK      NUL64v COMBINE
6429      KM      Combine hydrographs C64v and NUL60v.
6430      HC      2      44.28
*

6431      KK      68v  BASIN
6432      KM      Subbasin at NEC of Salt River and 7th Ave
6433      BA      0.218
6434      LG      0.19 0.25 4.60 0.42 33
6435      UC      1.193 0.986
6436      UA      0      5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6437      UA      100
*

6438      KK      BD68uP RETRIEVE
6439      KM      Retrieve diverted pipe flow from D68uP.
6440      DR      D68uP
*

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

6441      KK      P68uS  ROUTE
6442      KM      Route pipe flow from Central/I-17 to subbasin 68v.
6443      RK      3300 0.0073 0.015          CIRC      4.50
*

6444      KK      BD68uS RETRIEVE
6445      KM      Retrieve diverted surface flow from D68uS.
6446      DR      D68uS
*

6447      KK      R68uS  ROUTE
6448      KM      Route surface flow south from Subbasin 68u to 68v.
6449      RS      3      FLOW      -1
6450      RC      0.050 0.016 0.050 3300 0.0070
6451      RX      0      0.5      20      49      51      80      99.5      100
6452      RY      3      1      0.5      0      0      0.5      1      3
*

6453      KK      C68uS COMBINE
6454      KM      Combine hydrographs R68uS and P68uS.
6455      HC      2      5.97
*

6456      KK      C68v COMBINE
6457      KM      Combine hydrographs P68uS and 68v.
6458      HC      2      6.19
*

6459      KK      NUL68v COMBINE
6460      KM      Combine hydrographs C68v and NUL64v.
6461      HC      2      45.56
*

6462      KK      72v  BASIN
6463      KM      Subbasin at NEC of Salt River and 15th Ave
6464      BA      0.407

```

6465 LG 0.13 0.25 4.40 0.52 59  
 6466 UC 0.995 0.716  
 6467 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6468 UA 100  
 \*

6469 KK BD72uP RETRIEVE  
 6470 KM Retrieve diverted pipe flow from D72uP.  
 6471 DR D72uP  
 \*

6472 KK D72uP1 DIVERT  
 6473 KM Divert 714 cfs into pipe (south) (281 cfs + 433 cfs).  
 6474 DT D72uP2  
 6475 DI 0 714 1000  
 6476 DQ 0 281 281  
 \*

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

6477 KK P72uS1 ROUTE  
 6478 KM Route pipe flow from subbasin 72u to subbasin 72v.  
 6479 RK 5000 0.0030 0.015 CIRC 8.00  
 \*

6480 KK B72uP2 RETRIEVE  
 6481 KM Retrieve diverted pipe flow from D72uP2.  
 6482 DR D72uP2  
 \*

6483 KK P72uS2 ROUTE  
 6484 KM Route pipe flow from subbasin 72u to subbasin 72v.  
 6485 RK 4500 0.0031 0.015 CIRC 6.8  
 \*

6486 KK BD72uS RETRIEVE  
 6487 KM Retrieve diverted flow from D72uS.  
 6488 DR D72uS  
 \*

6489 KK R72uS ROUTE  
 6490 KM Route surface flow south from Subbasin 72u to 72v.  
 6491 RS 5 FLOW -1  
 6492 RC 0.050 0.016 0.050 4500 0.0023  
 6493 RX 0 0.5 20 49 51 80 99.5 100  
 6494 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6495 KK C72uS COMBINE  
 6496 KM Combine hydrographs R72uS, P72uS1, and P72uS2.  
 6497 HC 3 8.06  
 \*

6498 KK C72v COMBINE  
 6499 KM Combine hydrographs C72uS and 72v.  
 6500 HC 2 8.47  
 \*

6501 KK NUL72v COMBINE  
 6502 KM Combine hydrographs C72v and NUL68v.  
 6503 HC 2 47.06  
 \*

6504 KK 76w BASIN  
 6505 KM Subbasin at NEC of Salt River and 19th Ave  
 6506 BA 0.334  
 6507 LG 0.10 0.26 3.17 1.09 2  
 6508 UC 1.309 0.895  
 6509 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6510 UA 100  
 \*

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

6511 KK BD76vS RETRIEVE  
 6512 KM Retrieve diverted surface flow from D76vS.  
 6513 DR D76vS  
 \*

6514 KK R76vS ROUTE  
 6515 KM Route surface flow south from Subbasin 76v to 76w.  
 6516 RS 4 FLOW -1

6517	RC	0.050	0.016	0.050	3800	0.0107													
6518	RX	0	0.5	20	49	51	80	99.5	100										
6519	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
6520	KK	BD76vP RETRIEVE																	
6521	KM	Retrieve diverted pipe flow from D76vP.																	
6522	DR	D76vP																	
	*																		
6523	KK	P76vS ROUTE																	
6524	KM	Route pipe flow from subbasin 76v to subbasin 76w.																	
6525	RK	4000	0.0041	0.015		CIRC	4.50												
	*																		
6526	KK	C76vS COMBINE																	
6527	KM	Combine hydrographs R76vS and P76vS.																	
6528	HC	2	8.24																
	*																		
6529	KK	C76w COMBINE																	
6530	KM	Combine hydrographs 76w and C76vS.																	
6531	HC	2	8.57																
	*																		
6532	KK	NUL76w COMBINE																	
6533	KM	Combine hydrographs C76w and NUL72v.																	
6534	HC	2	56.10																
	*																		
6535	KK	80w BASIN																	
6536	KM	Subbasin at NEC of Salt River and 23rd Ave																	
6537	BA	0.360																	
6538	LG	0.12	0.27	3.43	0.95	60													
6539	UC	0.860	0.661																
6540	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0								
6541	UA	100																	
	*																		
6542	KK	BD80vS RETRIEVE																	
6543	KM	Retrieve diverted surface flow from D80vS.																	
6544	DR	D80vS																	
	*																		

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

6545	KK	R80vS ROUTE																	
6546	KM	Route surface flow south from Subbasin 80v to 80w.																	
6547	RS	3	FLOW	-1															
6548	RC	0.050	0.016	0.050	3920	0.0061													
6549	RX	0	0.75	30	73.5	76.5	120	149.25	150										
6550	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
6551	KK	C80w COMBINE																	
6552	KM	Combine hydrographs R80vS and 80w.																	
6553	HC	2	8.59																
	*																		
6554	KK	NUL80w COMBINE																	
6555	KM	Combine hydrographs C80w and NUL76w.																	
6556	HC	2	58.09																
	*																		
6557	KK	BD84vS RETRIEVE																	
6558	KM	Retrieve diverted surface flow from D84vS.																	
6559	DR	D84vS																	
	*																		
6560	KK	R84vS ROUTE																	
6561	KM	Route surface flow south from Subbasin 84v to 84w.																	
6562	RS	2	FLOW	-1															
6563	RC	0.050	0.016	0.050	3290	0.0033													
6564	RX	0	0.5	20	49	51	80	99.5	100										
6565	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
6566	KK	BD84vP RETRIEVE																	
6567	KM	Retrieve diverted pipe flow from D84vP.																	
6568	DR	D84vP																	
	*																		
6569	KK	D84vP1 DIVERT																	
6570	KM	Divert flows into pipe (south).																	

6571 DT D84vP2  
 6572 DI 0 1269 2000  
 6573 DQ 0 1017 1017  
 \*

6574 KK P84vS1 ROUTE  
 6575 KM Route pipe flow from subbasin 84v to subbasin 84w.  
 6576 RK 3100 0.0031 0.015 CIRC 6.50  
 \*

6577 KK B84vP2 RETRIEVE  
 6578 KM Retrieve diverted pipe flow from D84vP2.  
 6579 DR D84vP2  
 \*

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

6580 KK P84vS2 ROUTE  
 6581 KM Route pipe flow from subbasin 84v to subbasin 84w.  
 6582 RK 3100 0.0030 0.015 CIRC 11.0  
 \*

6583 KK C84vS COMBINE  
 6584 KM Combine hydrographs R84vS, P84vS1, and P84vS2.  
 6585 HC 3 9.76  
 \*

6586 KK 84w BASIN  
 6587 KM Subbasin at NEC of Salt River and 27th Ave  
 6588 BA 0.339  
 6589 LG 0.17 0.25 3.95 0.61 43  
 6590 UC 1.090 0.773  
 6591 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6592 UA 100  
 \*

6593 KK BD80vP RETRIEVE  
 6594 KM Retrieve diverted pipe flow from D80vP.  
 6595 DR D80vP  
 \*

6596 KK P80vS ROUTE  
 6597 KM Route pipe flow from subbasin 80v to subbasin 80w.  
 6598 RK 4600 0.0030 0.015 CIRC 6.5  
 \*

6599 KK C84w COMBINE  
 6600 KM Combine hydrographs 84w and C84vS.  
 6601 HC 3 10.10  
 \*

6602 KK NUL84w COMBINE  
 6603 KM Combine hydrographs C84w and NUL80w.  
 6604 HC 2 59.72  
 \*

6605 KK NUL88w COMBINE  
 6606 KM Combine hydrographs C88w and NUL84w.  
 6607 HC 2 61.86  
 \*

6608 KK 24s BASIN  
 6609 KM Subbasin at NEC of Grand Canal and 44th St  
 6610 BA 0.195  
 6611 LG 0.19 0.25 4.80 0.37 35  
 6612 UC 0.734 0.563  
 6613 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6614 UA 100  
 \*

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

6615 KK S24s STORAGE  
 6616 KM Regional online retention basin, 5 ac-ft.  
 6617 RS 1 STOR 0  
 6618 SV 0 5.1 14  
 6619 SE 0 2 4  
 6620 SS 2 100 2.7 1.5  
 \*

6621 KK B28qP2 RETRIEVE  
 6622 KM Retrieve diverted pipe flow from D28qP2.

```

6623      DR  D28qP2
*

6624      KK  P28qE  ROUTE
6625      KM  Route pipe flow from subbasin 28q to subbasin 24s.
6626      RK  1300 0.0031 0.015          CIRC  3.0
*

6627      KK  C24s  COMBINE
6628      KM  Combine hydrographs P28qE and S24s.
6629      HC  2    0.20
*

6630      KK  D24s  DIVERT
6631      KM  Divert 249 cfs into pipe (south).
6632      DT  D24sP
6633      DI  0    100    249    10000
6634      DQ  0    100    249    249
*

6635      KK  R24sS  ROUTE
6636      KM  Route surface flow south from Subbasin 24s to 24t.
6637      RS  2    FLOW    -1
6638      RC  0.050 0.016 0.050 5000 0.0030
6639      RX  0    0.5    20    49    51    80    99.5  100
6640      RY  3    1    0.5    0    0    0.5    1    3
*

6641      KK  BD24sP RETRIEVE
6642      KM  Retrieve diverted pipe flow from D24sP.
6643      DR  D24sP
*

6644      KK  D24sPS DIVERT
6645      KM  Divert 32 cfs into pipe (east).
6646      DT  D24sPE
6647      DI  0    249    250
6648      DQ  0    32    32
*

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HEC-1 INPUT
PAGE186

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

6649      KK  P24sS  ROUTE
6650      KM  Route pipe flow from 44th st/Grand Canal to subbasin 24t.
6651      RK  5000 0.0030 0.015          CIRC  6.50
*

6652      KK  C24sS  COMBINE
6653      KM  Combine hydrographs R24sS and P24sS.
6654      HC  2    0.20
*

6655      KK  24t  BASIN
6656      KM  Subbasin at NEC of Salt River and SR143
6657      BA  0.260
6658      LG  0.10 0.25  3.48  0.87  6
6659      UC  0.812 0.392
6660      UA  0    5.0    16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6661      UA  100
*

6662      KK  C24t  COMBINE
6663      KM  Combine hydrographs 24t and C24sS.
6664      HC  2    0.46
*

6665      KK  S24t  STORAGE
6666      KM  Online Regional Detention Basin, 31 ac-ft.
6667      RS  1    STOR    0
6668      SV  0    13    30.6  53.6
6669      SE  0    4    8    12
6670      SQ  0    25    90    6594
*

6671      KK  04s  BASIN
6672      KM  Subbasin at NEC of Washington and Center Pkwy
6673      BA  0.278
6674      LG  0.12 0.25  4.15  0.63  25
6675      UC  0.388 0.211
6676      UA  0    5.0    16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6677      UA  100
*

6678      KK  S04s  STORAGE

```

6679 KM Online Detention Basin, 2 ac-ft.  
 6680 RS 1 STOR 0  
 6681 SV 0 0.5 2 6  
 6682 SE 0 4 8 12  
 6683 SL 0.5 0.785 0.62 0.5  
 6684 SS 8 60 2.7 1.5  
 \*

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

6685 KK R04sS ROUTE  
 6686 KM Route surface flow south from Subbasin 04s to 08s.  
 6687 RS 1 FLOW -1  
 6688 RC 0.050 0.016 0.050 1870 0.0064  
 6689 RX 0 0.5 20 49 51 80 99.5 100  
 6690 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6691 KK 08q BASIN  
 6692 KM Subbasin at NEC of Center and Phoenix Zoo  
 6693 BA 0.438  
 6694 LG 0.10 0.25 3.95 0.64 41  
 6695 UC 0.624 0.390  
 6696 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6697 UA 100  
 \*

6698 KK R08qS ROUTE  
 6699 KM Route surface flow south from Subbasin 08q to 08s.  
 6700 RS 2 FLOW -1  
 6701 RC 0.050 0.016 0.050 3500 0.0224  
 6702 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 6703 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6704 KK 08s BASIN  
 6705 KM Subbasin at NEC of Loop 202 and Priest Dr  
 6706 BA 0.651  
 6707 LG 0.15 0.25 3.85 0.68 44  
 6708 UC 0.674 0.329  
 6709 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6710 UA 100  
 \*

6711 KK C08s COMBINE  
 6712 KM Combine hydrographs 08s and R08q, R04s.  
 6713 HC 3 1.37  
 \*

6714 KK S08s STORAGE  
 6715 KM Online Detention Regional Basin, 28 ac-ft.  
 6716 RS 1 STOR 0  
 6717 SV 0 1 3 6 12 20 28 38  
 6718 SE 0 2 4 6 8 10 12 14  
 6719 SL 0.5 3.14 0.62 0.5  
 6720 SS 12 200 2.7 1.5  
 \*

6721 KK D08s DIVERT  
 6722 KM Divert 862 cfs into pipe (south).  
 6723 DT D08sP  
 6724 DI 0 100 862 10000  
 6725 DQ 0 100 862 862  
 \*

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

6726 KK R08sW ROUTE  
 6727 KM Route surface flow west from Subbasin 08s to 16s.  
 6728 RS 3 FLOW -1  
 6729 RC 0.050 0.016 0.050 2800 0.0031  
 6730 RX 0 0.5 20 49 51 80 99.5 100  
 6731 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6732 KK 12q BASIN  
 6733 KM Subbasin at NEC of Van Buren and 56th St  
 6734 BA 0.399  
 6735 LG 0.14 0.25 4.10 0.60 10  
 6736 UC 0.585 0.394  
 6737 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6738 UA 100

\*  
 6739 KK R12qS ROUTE  
 6740 KM Route surface flow south from Subbasin 12q to 12s.  
 6741 RS 2 FLOW -1  
 6742 RC 0.050 0.016 0.050 3500 0.0175  
 6743 RX 0 0.5 20 49 51 80 99.5 100  
 6744 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6745 KK 12s BASIN  
 6746 KM Subbasin at NEC of UPRR and Galvin Pkwy  
 6747 BA 0.208  
 6748 LG 0.12 0.25 4.00 0.65 72  
 6749 UC 0.482 0.337  
 6750 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6751 UA 100  
 \*

6752 KK S12s STORAGE  
 6753 KM Online Detention Basin, 10 ac-ft.  
 6754 RS 1 STOR 0  
 6755 SV 0 1.2 3 6 10 15  
 6756 SE 0 2 4 6 8 10  
 6757 SL 0.5 0.785 0.62 0.5  
 6758 SS 8 150 2.7 1.5  
 \*

6759 KK C12s COMBINE  
 6760 KM Combine hydrographs S12s and R12qs.  
 6761 HC 2 0.61  
 \*

6762 KK R12sW ROUTE  
 6763 KM Route surface flow west from Subbasin 12s to 16s.  
 6764 RS 2 FLOW -1  
 6765 RC 0.050 0.016 0.050 2500 0.0031  
 6766 RX 0 0.5 20 49 51 80 99.5 100  
 6767 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

6768 KK C12sW COMBINE  
 6769 KM Combine hydrographs R12sW and P08sW.  
 6770 HC 2 1.97  
 \*

6771 KK D16s2 DIVERT  
 6772 KM Divert 979 cfs into pipe (south).  
 6773 DT D16sP2  
 6774 DI 0 100 979 10000  
 6775 DQ 0 100 979 979  
 \*

6776 KK 16o BASIN  
 6777 KM Subbasin at NEC of Mcdowell and 54th St  
 6778 BA 0.211  
 6779 LG 0.10 0.25 4.15 0.63 78  
 6780 UC 0.221 0.101  
 6781 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6782 UA 100  
 \*

6783 KK R16oS ROUTE  
 6784 KM Route surface flow south from Subbasin 16o to 16q.  
 6785 RS 2 FLOW -1  
 6786 RC 0.050 0.016 0.050 5150 0.0252  
 6787 RX 0 0.5 20 49 51 80 99.5 100  
 6788 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6789 KK 16q BASIN  
 6790 KM Subbasin at NEC of Van Buren and 52nd St  
 6791 BA 0.651  
 6792 LG 0.13 0.25 3.95 0.67 21  
 6793 UC 0.778 0.534  
 6794 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6795 UA 100  
 \*

6796 KK C16q COMBINE  
 6797 KM Combine hydrographs 16q and R16oS.  
 6798 HC 2 0.86

```

*
6799 KK S16q STORAGE
6800 KM Online Regional Retention Basin, 35 ac-ft.
6801 RS 1 STOR 0
6802 SV 0 0.5 2 3 9 20 35 58
6803 SE 0 2 4 6 10 14 18 22
6804 SS 18 100 2.7 1.5
*

```

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

```

6805 KK D16q DIVERT
6806 KM Divert 659 cfs into pipes (484 cfs to south, 175 cfs to west).
6807 DT D16qP
6808 DI 0 100 659 10000
6809 DQ 0 100 659 659
*

```

```

6810 KK R16qS ROUTE
6811 KM Route surface flow south from Subbasin 16q to 16s.
6812 RS 2 FLOW -1
6813 RC 0.050 0.016 0.050 3200 0.0194
6814 RX 0 1 40 98 102 160 199 200
6815 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

6816 KK 16s BASIN
6817 KM Subbasin at NEC of Loop 202 and Sky Harbor Blvd
6818 BA 0.420
6819 LG 0.16 0.23 4.25 0.52 59
6820 UC 0.543 0.271
6821 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6822 UA 100
*

```

```

6823 KK C16s COMBINE
6824 KM Combine flows of 16s, R16qS, and D16s2
6825 HC 3 3.26
*

```

```

6826 KK S16s STORAGE
6827 KM Online Regional Retention Basin, 19 ac-ft.
6828 RS 1 STOR 0
6829 SV 0 2.4 7 12.7 19.2 26.5
6830 SE 0 2 4 6 8 10
6831 SS 8 300 2.7 1.5
*

```

```

6832 KK BD16qP RETRIEVE
6833 KM Retrieve diverted pipe flow from D16qP.
6834 DR D16qP
*

```

```

6835 KK D16qPS DIVERT
6836 KM Divert 659 cfs into pipes (484 cfs to south 175 cfs to west).
6837 KM Two pipes to west (82 cfs and 93 cfs).
6838 DT D16qPW
6839 DI 0 659 1000
6840 DQ 0 175 175
*

```

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

```

6841 KK P16qS ROUTE
6842 KM Route pipe flow from subbasin 16q to subbasin 16s.
6843 RK 3400 0.0114 0.015 CIRC 6.50
*

```

```

6844 KK CC16s COMBINE
6845 KM Combine flows of S16s and P16qS.
6846 HC 2 3.26
*

```

```

6847 KK D16s DIVERT
6848 KM Divert 709 cfs into pipe (west).
6849 DT D16sP
6850 DI 0 100 709 10000
6851 DQ 0 100 709 709
*

```

```

6852 KK R16sS ROUTE

```

```

6853      KM      Route surface flow south from Subbasin 16s to 20t.
6854      RS          2      FLOW          -1
6855      RC      0.050  0.016  0.050  1800  0.0044
6856      RX          0          1          40          98          102          160          199          200
6857      RY          3          1          0.5          0          0          0.5          1          3
*

6858      KK      BD16sP RETRIEVE
6859      KM      Retrieve diverted pipe flow from D16sP.
6860      DR      D16sP
*

6861      KK      P16sS ROUTE
6862      KM      Route pipe flow from 52nd st/SPRR to subbasin 20t.
6863      RK      1500  0.0153  0.015          CIRC      8.00
*

6864      KK      C16sS COMBINE
6865      KM      Combine hydrographs R16sS and P16sS.
6866      HC          2          3.26
*

6867      KK      20p BASIN
6868      KM      Subbasin at NEC of Loop 202 and SR143
6869      BA      0.532
6870      LG      0.54          0.24          4.40          0.46          26
6871      UC      0.839  0.502
6872      UA          0          5.0          16.0          30.0          65.0          77.0          84.0          90.0          94.0          97.0
6873      UA          100
*

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

6874      KK      S20p1 STORAGE
6875      KM      Online Retention Basin, 2 ac-ft.
6876      RS          1      STOR          0
6877      SV          0          0.1          0.6          2          4
6878      SE          0          2          4          6          8
6879      SS          6          100          2.7          1.5
*

6880      KK      B16qPW RETRIEVE
6881      KM      Retrieve diverted pipe flow from D16qPW.
6882      DR      D16qPW
*

6883      KK      P16qW ROUTE
6884      KM      Route pipe flow from subbasin 16q to subbasin 20p.
6885      RK      5200  0.0127  0.015          CIRC      5.0
*

6886      KK      C20p COMBINE
6887      KM      Combine hydrographs P16qW and S20p1.
6888      HC          2          1.39
*

6889      KK      S20p2 STORAGE
6890      KM      Online Regional Detention Basin, 43 ac-ft.
6891      RS          1      STOR          0
6892      SV          0          1.4          4.1          9.6          20.7          42.7          79.4
6893      SE          0          2          4          6          8          10          12
6894      SL          1.5          7.065          0.62          0.5
6895      SS          10          200          2.7          1.5
*

6896      KK      OCCC48 INFLOW
6897      KM      Inflow from OCCC area at 48th Street and McDowell Rd.
6898      KM      Maximum flow 2493 cfs
6899      IN          60
6900      BA          3.0
6901      QI          0          5          23          46          92          161          230          299          368          414
6902      QI          512          529          579          2493          1132          592          477          414          322          230
6903      QI          138          92          46          2          0.1
*

6904      KK      BD24oP RETRIEVE
6905      KM      Retrieve diverted pipe flow from D24oP.
6906      DR      D24oP
*

6907      KK      P24oS ROUTE
6908      KM      Route pipe flow from subbasin 24o to subbasin 20p.
6909      RK      3000  0.0030  0.015          CIRC      3.50
*

```

```

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

6910      KK      C24oS COMBINE
6911      KM      Combine hydrographs OCCC48 and P24oS.
6912      HC      2      3.00
          *

6913      KK      ROCCC  ROUTE
6914      KM      Route surface flow south from OCCC48 to 20p.
6915      RS      2      FLOW      -1
6916      RC      0.013  0.013  0.013  3000  0.0038
6917      RX      0      1      2      10      19      28      29      30
6918      RY      20      20      0      0      0      0      20      20
          *

6919      KK      CC20p COMBINE
6920      KM      Combine hydrographs S20p2 and ROCCC.
6921      HC      2      4.39
          *

6922      KK      R20pS  ROUTE
6923      KM      Route surface flow south from Subbasin 20p to 20q.
6924      RS      2      FLOW      -1
6925      RC      0.013  0.013  0.013  3000  0.0020
6926      RX      0      1      2      10      19      28      29      30
6927      RY      20      20      0      0      0      0      20      20
          *

6928      KK      20q  BASIN
6929      KM      Subbasin at NEC of Van Buren and SR143
6930      BA      0.276
6931      LG      0.25  0.22  4.45  0.40  11
6932      UC      0.816  0.494
6933      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6934      UA      100
          *

6935      KK      B28pP2 RETRIEVE
6936      KM      Retrieve diverted pipe flow from D28pP2.
6937      DR      D28pP2
          *

6938      KK      P28pE  ROUTE
6939      KM      Route pipe flow from subbasin 28p to subbasin 20q.
6940      RK      6000  0.0030  0.015      CIRC      4.0
          *

6941      KK      C20q COMBINE
6942      KM      Combine hydrographs 20q and R20pS.
6943      HC      3      4.67
          *

```

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

6944      KK      R20qS  ROUTE
6945      KM      Route surface flow south from Subbasin 20q to 20s.
6946      RS      2      FLOW      -1
6947      RC      0.013  0.013  0.013  3200  0.0020
6948      RX      0      1      2      10      19      28      29      30
6949      RY      20      20      0      0      0      0      20      20
          *

6950      KK      20s  BASIN
6951      KM      Subbasin at NEC of Grand Canal and SR143
6952      BA      0.484
6953      LG      0.16  0.24  4.55  0.44  52
6954      UC      0.554  0.243
6955      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6956      UA      100
          *

6957      KK      S20s STORAGE
6958      KM      Online Retention Basin, 3 ac-ft.
6959      RS      1      STOR      0
6960      SV      0      0.9  3      8
6961      SE      0      2      4      7
6962      SS      4      60  2.7  1.5
          *

6963      KK      C20s COMBINE
6964      KM      Combine hydrographs S20s and R20qS.

```

```

6965      HC      2      5.15
          *

6966      KK      B24sPE RETRIEVE
6967      KM      Retrieve diverted pipe flow from D24sPE.
6968      DR      D24sPE
          *

6969      KK      P24sE  ROUTE
6970      KM      Route pipe flow from subbasin 24s to subbasin 20s.
6971      RK      2700  0.0031  0.015      CIRC      3.0
          *

6972      KK      CC20s COMBINE
6973      KM      Combine hydrographs C20s and P24sE.
6974      HC      2      5.35
          *

6975      KK      R20sS  ROUTE
6976      KM      Route surface flow south from Subbasin 20s to 20t.
6977      RS      2      FLOW      -1
6978      RC      0.013  0.013  0.013  3200  0.0038
6979      RX      0      1      2      10      19      28      29      30
6980      RY      20      20      0      0      0      0      20      20
          *

```

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

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6981      KK      20t  BASIN
6982      KM      Subbasin at NEC of Salt River and SR143
6983      BA      0.265
6984      LG      0.13  0.23  2.54  1.53      3
6985      UC      1.500  0.860
6986      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
6987      UA      100
          *

6988      KK      S20t STORAGE
6989      KM      Online Retention Basin, 156 ac-ft.
6990      RS      1      STOR      0
6991      SV      0      20.7  50.1  88.4  156.1  249.1
6992      SE      0      2      4      6      8      10
6993      SS      8      600  2.7  1.5
          *

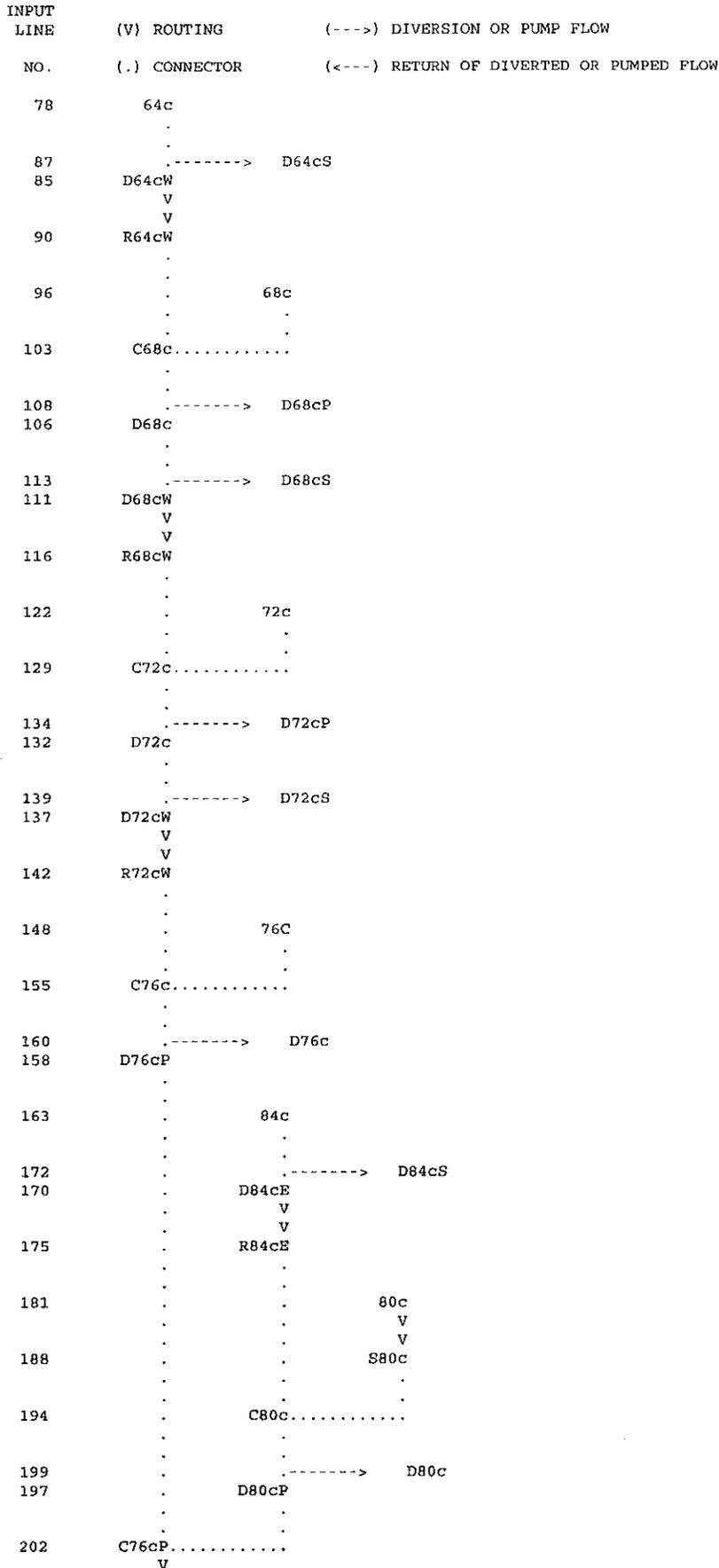
6994      KK      C20t COMBINE
6995      KM      Combine flows of 20t, C16sS, and 20sS
6996      HC      3      8.01
          *

6997      KK      NUL20t COMBINE
6998      KM      Combine hydrographs C20t and S24t.
6999      HC      2      8.27
          *

7000      ZZ

```

SCHEMATIC DIAGRAM OF STREAM NETWORK



```

205      V
      P76cS
      .
210      -----> D80eP1
208      D76eP1
      .
213      .      56e
      .
222      .      -----> D56eS
220      .      D56eW
      .      V
      .      V
225      .      R56eW
      .
231      .      .      60e
      .
238      .      C60e.....
      .
243      .      -----> D60eP
241      .      D60e
      .
248      .      -----> D60eS
246      .      D60eW
      .      V
      .      V
251      .      R60eW
      .
257      .      .      64e
      .
266      .      .      .      <----- D64cS
264      .      .      B64cS
      .      .      V
      .      .      V
267      .      .      R64cS
      .
273      .      C64e.....
      .
278      .      -----> D64eS
276      .      D64eW
      .      V
      .      V
281      .      R64eW
      .
287      .      .      68e
      .
296      .      .      .      <----- D68cP
294      .      .      B68cP
      .      .      V
      .      .      V
297      .      .      P68cS
      .
302      .      .      .      <----- D68cS
300      .      .      .      B68cS
      .      .      V
      .      .      V
303      .      .      .      R68cS
      .
309      .      .      C68cS.....
      .
312      .      C68e.....
      .
317      .      -----> D68eP
315      .      D68e
      .
322      .      -----> D68eS
320      .      D68eW
      .      V
      .      V

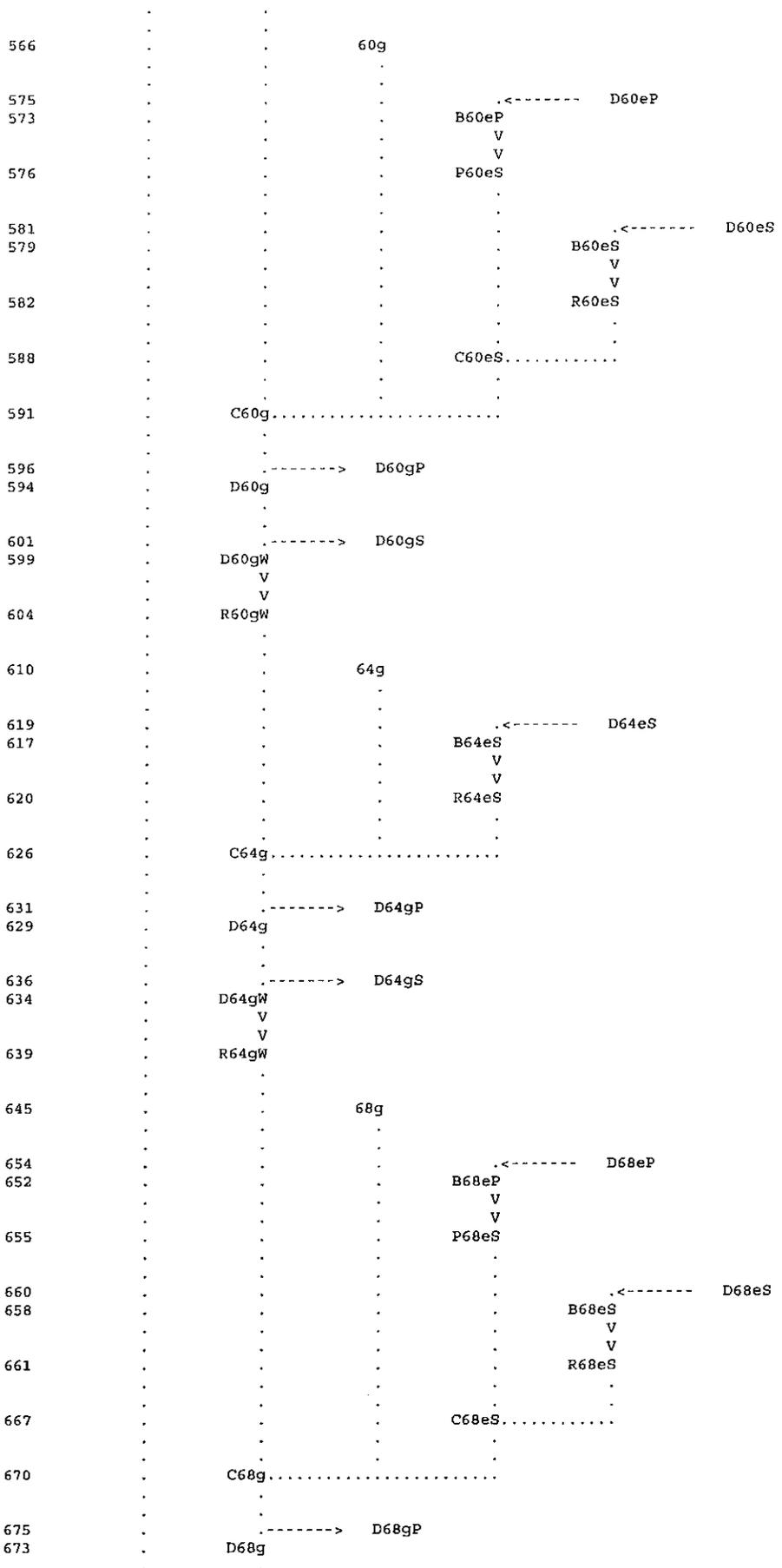
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448 . . . . . C80e . . . . .
453 . . . . . D80e
451 . . . . . D80eP
456 C76eP . . . . .
    V
    V
459 P76eS
464 . . . . . D80gP1
462 D76gP1
467 . . . . . 76g
476 . . . . . D76e
474 . . . . . BD76e
    V
    V
477 . . . . . R76eS
483 C76g . . . . .
488 . . . . . D76gP2
486 D76g1
493 . . . . . D76gP
491 D76g
498 . . . . . D76gS
496 D76gE
    V
    V
501 R76gE
509 . . . . . D76gP2
507 B76gP2
510 C76gE . . . . .
513 . . . . . 54g
522 . . . . . D54gS
520 D54gW
    V
    V
525 R54gW
531 . . . . . 56g
540 . . . . . D56eS
538 . . . . . B56eS
    V
    V
541 . . . . . R56eS
547 C56g . . . . .
552 . . . . . D56gP
550 D56g
557 . . . . . D56gS
555 D56gW
    V
    V
560 R56gW

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1136 .-----> D64iP
1134 . D64i
.
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1141 .-----> D64iS
1139 . D64iW
. V
. V
1144 . R64iW
.
.
.
1150 . 68i
.
.
.
1159 .<----- D68gP
1157 . BD68gP
. V
. V
1160 . P68gS
.
.
.
1165 .<----- D68gS
1163 . BD68gS
. V
. V
1166 . R68gS
.
.
.
1172 . C68gS.....
.
.
1175 . C68i.....
.
.
.
1180 .<----- D72i
1178 . BD72i
.
.
.
1183 .<----- D76iE
1181 . B76iE
. V
. V
1184 . R76iE
.
.
.
1190 . CC72i.....
.
.
.
1195 .-----> D72iS
1193 . D72iE
. V
. V
1198 . R72iE
.
.
.
1204 . CC68i.....
.
.
.
1209 .-----> D68iP
1207 . D68i
. V
. V
1212 . R68iS
.
.
.
1220 .<----- D68iP
1218 . BD68iP
. V
. V
1221 . P68iS
.
.
.
1224 . C68iS.....
.
.
.
1227 . 36i
.
.
.
1236 .-----> D36iP
1234 . D36i
.
.
.
1241 .-----> D36iS
1239 . D36iW
. V
. V

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1244 . . . . . R36iW
. . . . .
1250 . . . . . 40i
. . . . . V
. . . . . V
1257 . . . . . S40i
. . . . .
1263 . . . . . C40i.....
. . . . .
1268 . . . . . -----> D40iS
1266 . . . . . D40iW
. . . . . V
. . . . . V
1271 . . . . . R40iW
. . . . .
1277 . . . . . 44i
. . . . .
1284 . . . . . 42i
. . . . . V
. . . . . V
1291 . . . . . R42iW
. . . . .
1297 . . . . . C44i.....
. . . . .
1302 . . . . . -----> D44iP
1300 . . . . . D44i
. . . . .
1307 . . . . . -----> D44iS
1305 . . . . . D44iW
. . . . . V
. . . . . V
1310 . . . . . R44iW
. . . . .
1316 . . . . . 48i
. . . . .
1323 . . . . . C48i.....
. . . . .
1328 . . . . . -----> D48iP
1326 . . . . . D48i
. . . . .
1333 . . . . . -----> D48iS
1331 . . . . . D48iW
. . . . . V
. . . . . V
1336 . . . . . R48iW
. . . . .
1344 . . . . . <----- D48iP
1342 . . . . . BD48iP
. . . . . V
. . . . . V
1345 . . . . . P48iW
. . . . .
1348 . . . . . C48iW.....
. . . . .
1351 . . . . . 52g
. . . . . V
. . . . . V
1358 . . . . . R52gS
. . . . .
1364 . . . . . 52i
. . . . .
1371 . . . . . C52i.....
. . . . .
1377 . . . . . -----> DB52i
1374 . . . . . E52i
. . . . .
1382 . . . . . <----- DB52i

```

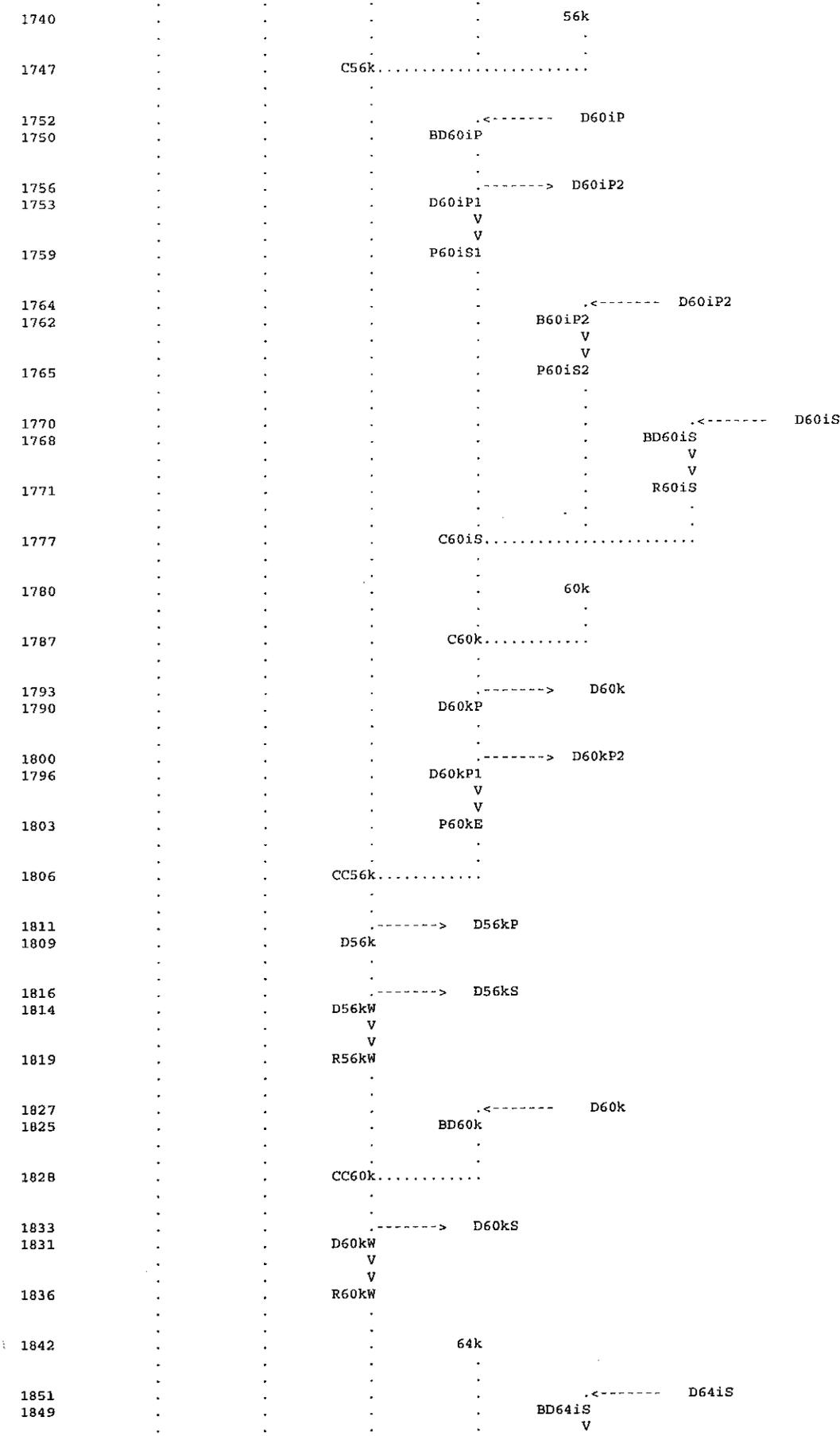
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1380 . . . . . BDB52i
. . . . . V
. . . . . V
1383 . . . . . S52i
. . . . .
1389 . . . . . CC52i.....
. . . . .
1394 . . . . . -----> D52iP
1392 . . . . . D52i
. . . . . V
. . . . . V
1397 . . . . . R52iS
. . . . .
1405 . . . . . <----- D52iP
1403 . . . . . BD52iP
. . . . . V
. . . . . V
1406 . . . . . P52iS
. . . . .
1409 . . . . . C52iS.....
. . . . .
1412 . . . . . 24k
. . . . .
1421 . . . . . -----> D24kS
1419 . . . . . D24kW
. . . . . V
. . . . . V
1424 . . . . . R24kW
. . . . .
1430 . . . . . ARC40
. . . . . V
. . . . . V
1438 . . . . . PARC40
. . . . .
1441 . . . . . 28k
. . . . .
1448 . . . . . C28k.....
. . . . .
1453 . . . . . -----> D28kP
1451 . . . . . D28k
. . . . .
1458 . . . . . -----> D28kS
1456 . . . . . D28kW
. . . . . V
. . . . . V
1461 . . . . . R28kW
. . . . .
1467 . . . . . 32k
. . . . .
1474 . . . . . C32k.....
. . . . .
1479 . . . . . -----> D32kP
1477 . . . . . D32k
. . . . .
1484 . . . . . -----> D32kS
1482 . . . . . D32kW
. . . . . V
. . . . . V
1487 . . . . . R32kW
. . . . .
1493 . . . . . 36k
. . . . .
1502 . . . . . <----- D36iP
1500 . . . . . BD36iP
. . . . . V
. . . . . V
1503 . . . . . P36iS
. . . . .

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1852	.	.	.	.	V
	.	.	.	.	R64iS
	.	.	.	.	.
1858	.	.	.	.	C64k.....
	.	.	.	.	V
	.	.	.	.	V
1861	.	.	.	.	S64k
	.	.	.	.	.
1869	.	.	.	.	.
1867	.	.	.	.	BD64iP
	.	.	.	.	.
	.	.	.	.	V
	.	.	.	.	V
1870	.	.	.	.	P64iS
	.	.	.	.	.
	.	.	.	.	.
1873	.	.	.	.	CC64k.....
	.	.	.	.	.
1878	.	.	.	.	.
1876	.	.	.	.	D64k
	.	.	.	.	.
1883	.	.	.	.	.
1881	.	.	.	.	D64kW
	.	.	.	.	V
	.	.	.	.	V
1886	.	.	.	.	R64kW
	.	.	.	.	.
	.	.	.	.	.
1892	.	.	.	.	68k
	.	.	.	.	.
	.	.	.	.	.
1899	.	.	.	.	C68k.....
	.	.	.	.	.
1904	.	.	.	.	.
1902	.	.	.	.	D68k
	.	.	.	.	.
	.	.	.	.	.
1909	.	.	.	.	.
1907	.	.	.	.	D68kW
	.	.	.	.	V
	.	.	.	.	V
1912	.	.	.	.	R68kW
	.	.	.	.	.
	.	.	.	.	.
1918	.	.	.	.	72k
	.	.	.	.	V
	.	.	.	.	V
1925	.	.	.	.	S72k
	.	.	.	.	.
	.	.	.	.	.
1933	.	.	.	.	.
1931	.	.	.	.	B72iP1
	.	.	.	.	V
	.	.	.	.	V
1934	.	.	.	.	P72iS
	.	.	.	.	.
	.	.	.	.	.
1939	.	.	.	.	.
1937	.	.	.	.	BD72iS
	.	.	.	.	V
	.	.	.	.	V
1940	.	.	.	.	R72iS
	.	.	.	.	.
	.	.	.	.	.
1946	.	.	.	.	C72iS.....
	.	.	.	.	.
	.	.	.	.	.
1949	.	.	.	.	C72k.....
	.	.	.	.	.
	.	.	.	.	.
1952	.	.	.	.	CC72k.....
	.	.	.	.	.
1957	.	.	.	.	.
1955	.	.	.	.	D72k
	.	.	.	.	.
	.	.	.	.	.
1962	.	.	.	.	.
1960	.	.	.	.	D72kW
	.	.	.	.	V
	.	.	.	.	V
1965	.	.	.	.	R72kW

```

1973 . . . . . <----- D76k1
1971 . . . . . B76k1
. . . . .
1974 CC76k.....
. . . . .
1979 . . . . . >----- D76kP
1977 D76k
. . . . .
1984 . . . . . >----- D76kS
1982 D76kW
. . . . . V
. . . . . V
1987 R76kW
. . . . .
1993 . . . . . 80k
. . . . .
2002 . . . . . <----- D80i
2000 . . . . . BD80i
. . . . . V
. . . . . V
2003 . . . . . R80iS
. . . . .
2011 . . . . . <----- D80kP1
2009 . . . . . B80kP1
. . . . .
2012 . . . . . C80k.....
. . . . .
2017 . . . . . >----- D80kP
2015 D80k
. . . . .
2020 CC80k.....
. . . . .
2025 . . . . . >----- D80kS
2023 D80kW
. . . . . V
. . . . . V
2028 R80kW
. . . . .
2034 . . . . . 84k
. . . . .
2043 . . . . . <----- D84iS
2041 . . . . . BD84iS
. . . . . V
. . . . . V
2044 . . . . . R84iS
. . . . .
2050 . . . . . C84k.....
. . . . . V
. . . . . V
2053 R84kS
. . . . .
2059 . . . . . 84m
. . . . .
2066 . . . . . C84m.....
. . . . .
2069 . . . . . I17
. . . . .
2078 . . . . . >----- D84mP
2076 . . . . . D84m
. . . . .
2081 . . . . . CC84m.....
. . . . .
2086 . . . . . >----- D84mS
2084 D84mE
. . . . . V

```





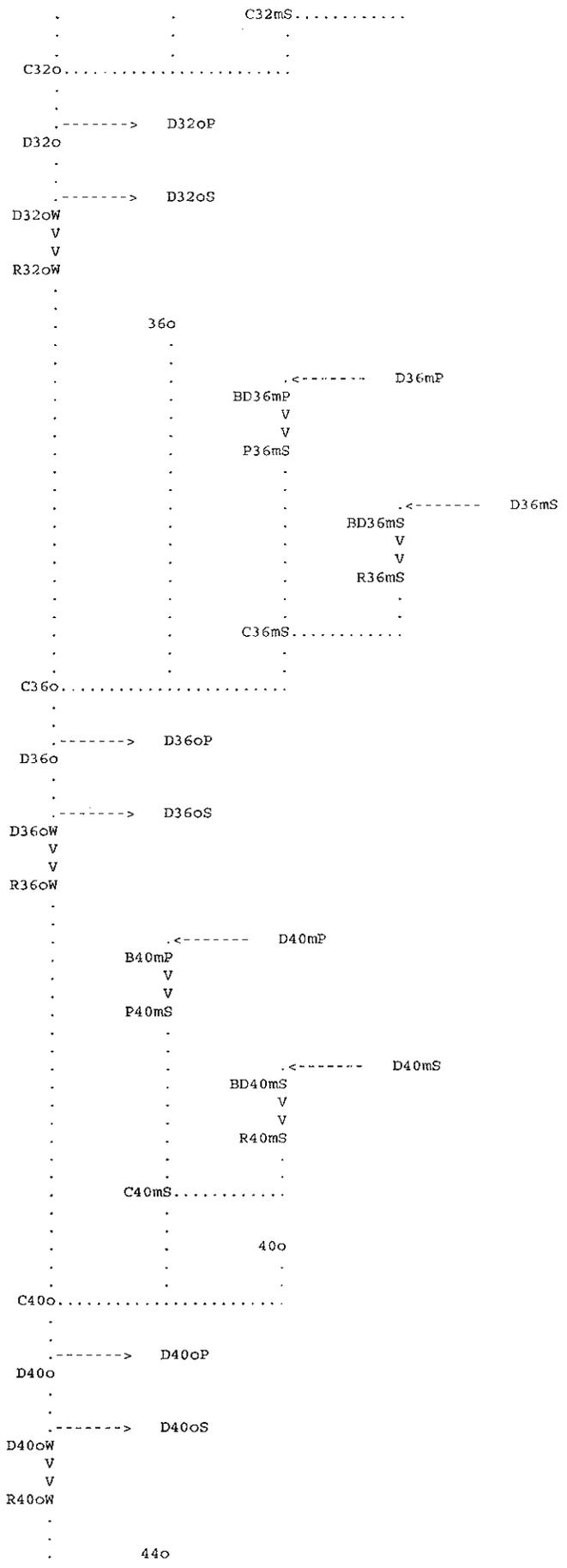
2316	.	.	BD64kS	
	.	.	V	
	.	.	V	
2319	.	.	R64kS	
	.	.	.	
2325	.	C641	.....	
	.	V		
	.	V		
2328	.	S641		
	.	.		
2336	.	.	.	D64kP
2334	.	BD64kP		
	.	V		
	.	V		
2337	.	P64kS		
	.	.		
2340	.	CC641	.....	
	.	.		
2345	.	.	.	D641P
2343	.	D641		
	.	.		
2350	.	.	.	D641S
2348	.	D641W		
	.	V		
	.	V		
2353	.	R641W		
	.	.		
2359	.	681		
	.	.		
2368	.	.	.	D68kP
2366	.	BD68kP		
	.	V		
	.	V		
2369	.	P68kS		
	.	.		
2374	.	.	.	D68kS
2372	.	.	BD68kS	
	.	.	V	
	.	.	V	
2375	.	.	R68kS	
	.	.	.	
2381	.	.	C68kS	.....
	.	.	.	
2384	.	C681	.....	
	.	.		
2389	.	.	.	D681P
2387	.	D681		
	.	V		
	.	V		
2392	.	R681S		
	.	.		
2400	.	.	.	D681P
2398	.	BD681P		
	.	V		
	.	V		
2401	.	P681S		
	.	.		
2404	.	C681S	.....	
	.	.		
2407	.	24m		
	.	V		
	.	V		
2414	.	S24m		
	.	.		
2422	.	.	.	D24kS
2420	.	BD24kS		
	.	V		
	.	V		
2423	.	R24kS		
	.	.		
	.	.		

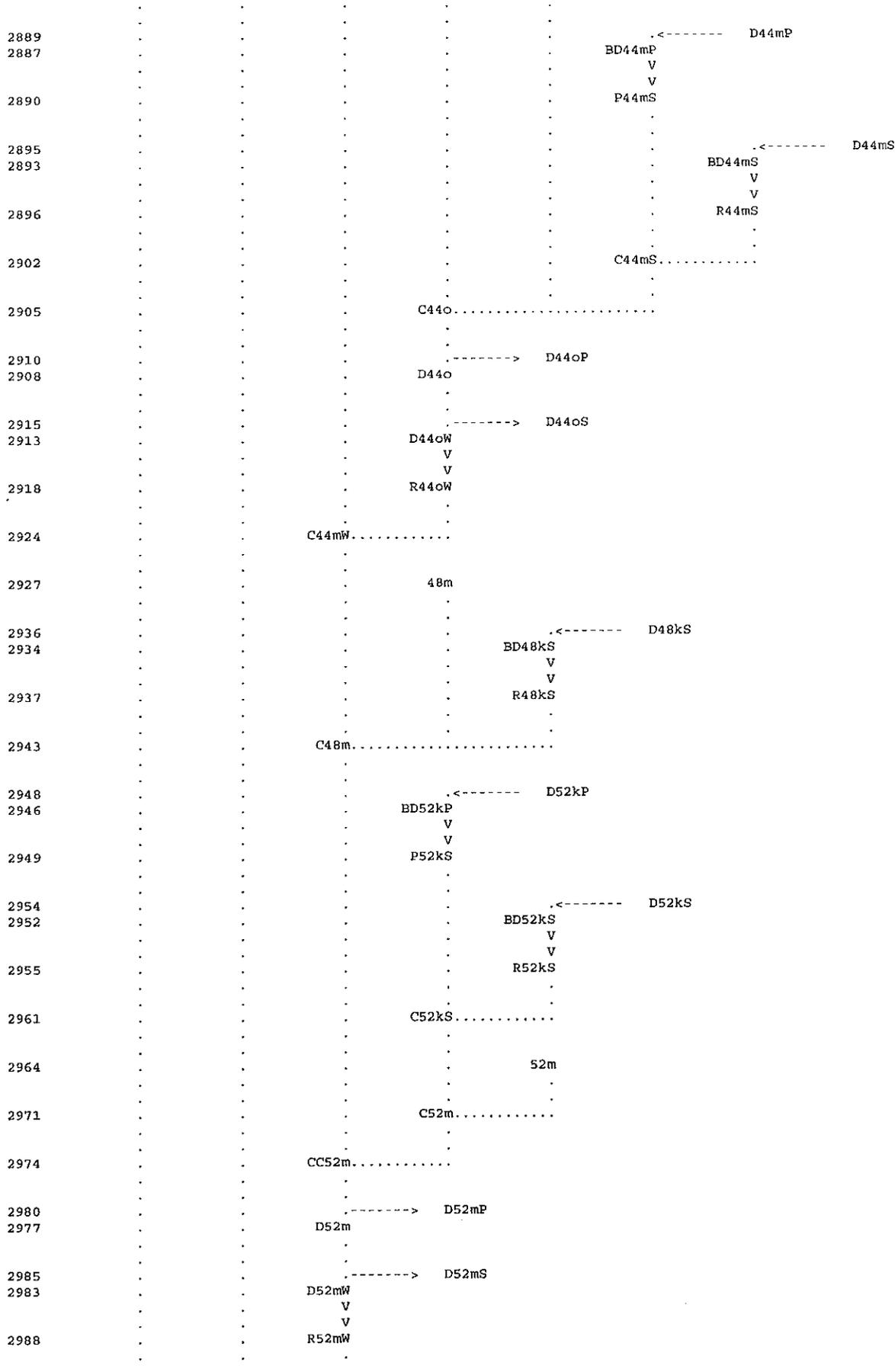
2429	.	.	C24m.....		
	.	.	.		
2434	.	.	----->	D24mS	
2432	.	.	D24mW		
	.	.	V		
	.	.	V		
2437	.	.	R24mW		
	.	.	.		
2443	.	.	.	28m	
	.	.	.	.	
2452	.	.	.	.	-----<
2450	.	.	BD28kP		D28kP
	.	.	V		
	.	.	V		
2453	.	.	P28kS		
	.	.	.		
2458	.	.	.	.	-----<
2456	.	.	BD28kS		D28kS
	.	.	V		
	.	.	V		
2459	.	.	R28kS		
	.	.	.		
2465	.	.	C28kS.....		
	.	.	.		
2468	.	.	C28m.....		
	.	.	.		
2473	.	.	----->	D28mP	
2471	.	.	D28m		
	.	.	.		
2478	.	.	----->	D28mS	
2476	.	.	D28mW		
	.	.	V		
	.	.	V		
2481	.	.	R28mW		
	.	.	.		
2487	.	.	.	32m	
	.	.	.	V	
	.	.	.	V	
2494	.	.	S32m		
	.	.	.		
2502	.	.	.	.	-----<
2500	.	.	BD32kP		D32kP
	.	.	V		
	.	.	V		
2503	.	.	P32kS		
	.	.	.		
2508	.	.	.	.	-----<
2506	.	.	BD32kS		D32kS
	.	.	V		
	.	.	V		
2509	.	.	R32kS		
	.	.	.		
2515	.	.	C32kS.....		
	.	.	.		
2518	.	.	C32m.....		
	.	.	.		
2523	.	.	----->	D32mP	
2521	.	.	D32m		
	.	.	.		
2528	.	.	----->	D32mS	
2526	.	.	D32mW		
	.	.	V		
	.	.	V		
2531	.	.	R32mW		
	.	.	.		
2537	.	.	.	36m	
	.	.	.	.	
2546	.	.	.	.	-----<
2544	.	.	BD36kP		D36kP

2547	.	.	.	.	V	
	.	.	.	.	V	
	.	.	.	.	P36kS	
2552	.	.	.	.	.	.
2550	.	.	.	.	.	.<----- D36kS
	.	.	.	.	BD36kS	
	.	.	.	.	V	
	.	.	.	.	V	
2553	.	.	.	.	R36kS	
	.	.	.	.	.	
	.	.	.	.	.	
2559	.	.	.	.	C36kS	.....
	.	.	.	.	.	
2562	.	.	.	.	C36m	.....
	.	.	.	.	.	
2567	.	.	.	.	.	.-----> D36mP
2565	.	.	.	.	D36m	
	.	.	.	.	.	
	.	.	.	.	.	
2572	.	.	.	.	.	.-----> D36mS
2570	.	.	.	.	D36mW	
	.	.	.	.	V	
	.	.	.	.	V	
2575	.	.	.	.	R36mW	
	.	.	.	.	.	
	.	.	.	.	.	
2581	.	.	.	.	40m	
	.	.	.	.	.	
	.	.	.	.	.	
2590	.	.	.	.	.	.<----- D40kP
2588	.	.	.	.	BD40kP	
	.	.	.	.	V	
	.	.	.	.	V	
2591	.	.	.	.	P40kS	
	.	.	.	.	.	
	.	.	.	.	.	
2596	.	.	.	.	.	.<----- D40kS
2594	.	.	.	.	BD40kS	
	.	.	.	.	V	
	.	.	.	.	V	
2597	.	.	.	.	R40kS	
	.	.	.	.	.	
	.	.	.	.	.	
2603	.	.	.	.	C40kS	.....
	.	.	.	.	.	
	.	.	.	.	.	
2606	.	.	.	.	C40m	.....
	.	.	.	.	.	
	.	.	.	.	.	
2611	.	.	.	.	.	.-----> D40mP
2609	.	.	.	.	D40m	
	.	.	.	.	.	
	.	.	.	.	.	
2616	.	.	.	.	.	.-----> D40mS
2614	.	.	.	.	D40mW	
	.	.	.	.	V	
	.	.	.	.	V	
2619	.	.	.	.	R40mW	
	.	.	.	.	.	
	.	.	.	.	.	
2625	.	.	.	.	44m	
	.	.	.	.	.	
	.	.	.	.	.	
2634	.	.	.	.	.	.<----- D44kP
2632	.	.	.	.	BD44kP	
	.	.	.	.	V	
	.	.	.	.	V	
2635	.	.	.	.	P44kS	
	.	.	.	.	.	
	.	.	.	.	.	
2640	.	.	.	.	.	.<----- D44kS
2638	.	.	.	.	BD44kS	
	.	.	.	.	V	
	.	.	.	.	V	
2641	.	.	.	.	R44kS	
	.	.	.	.	.	
	.	.	.	.	.	
2647	.	.	.	.	C44kS	.....
	.	.	.	.	.	
	.	.	.	.	.	
2650	.	.	.	.	C44m	.....

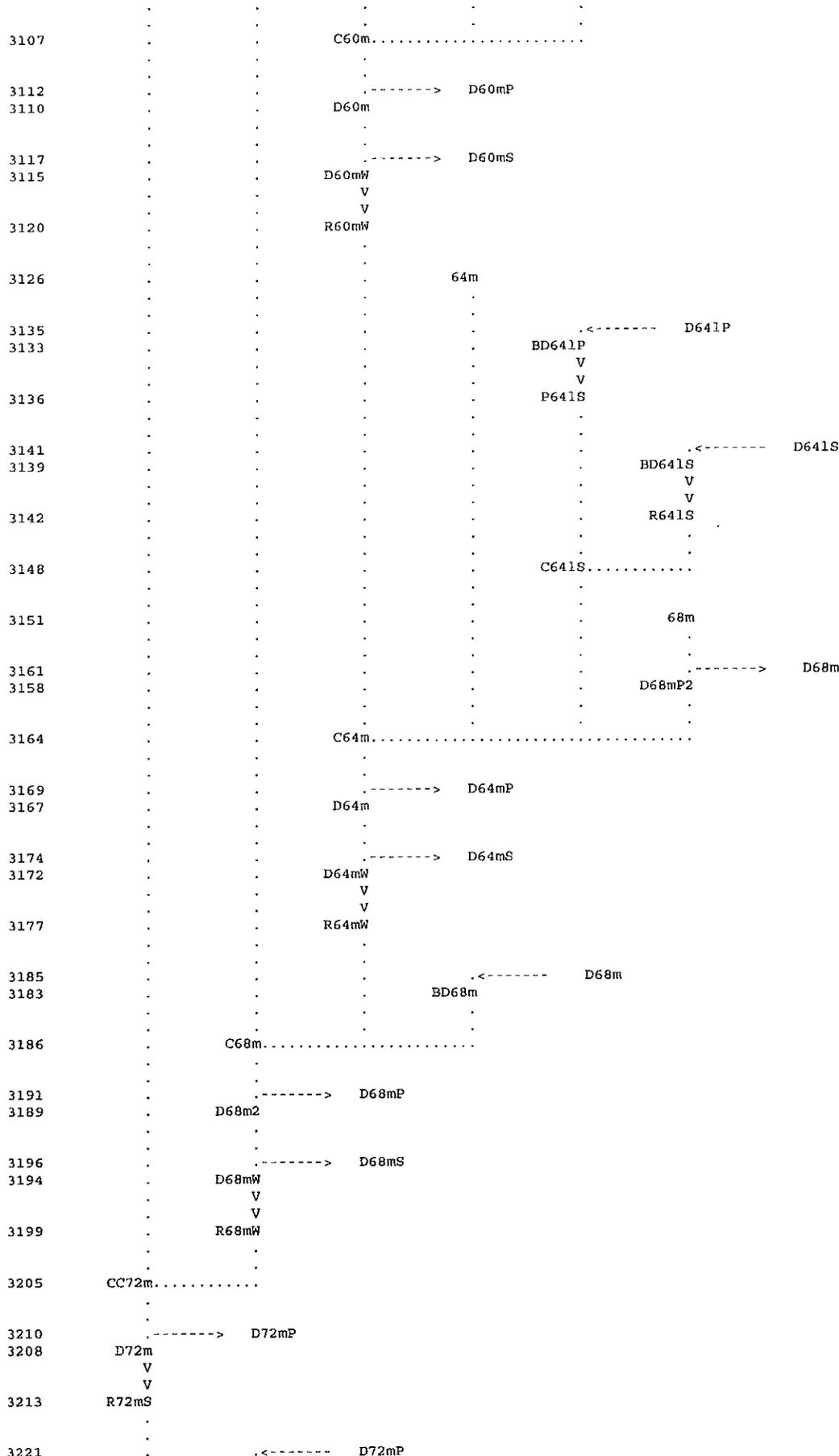
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2653		D44m			
2660				----->	D44mS
2658		D44mW			
		V			
		V			
2663		R44mW			
2669			24o		
2678				.<-----	D24mS
2676			BD24mS		
			V		
			V		
2679			R24mS		
2685			C24o	.....	
2690				----->	D24oP
2688			D24o		
2695				----->	D24oS
2693			D24oW		
			V		
			V		
2698			R24oW		
2704					28o
2713				.<-----	D28mP
2711			BD28mP		
			V		
			V		
2714			P28mS		
2719				.<-----	D28mS
2717			BD28mS		
			V		
			V		
2720			R28mS		
2726				.....	C28mS
2729			C28o	.....	
2734				----->	D28oP
2732			D28o		
2739				----->	D28oS
2737			D28oW		
			V		
			V		
2742			R28oW		
2748					32o
2757				.<-----	D32mS
2755			BD32mS		
			V		
			V		
2758			R32mS		
2766				.<-----	D32mP
2764			BD32mP		
			V		
			V		
2767			P32mS		

2770  
2773  
2778  
2776  
2783  
2781  
2786  
2792  
2801  
2799  
2802  
2807  
2805  
2808  
2814  
2817  
2822  
2820  
2827  
2825  
2830  
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2844  
2842  
2845  
2851  
2854  
2861  
2866  
2864  
2871  
2869  
2874  
2880





2994	.	.	54m	.	.
3003	.	.	.	.<-----	D54kP
001	.	.	BD54kP	.	.
	.	.	V	.	.
	.	.	V	.	.
3004	.	.	P54kS	.	.
	.	.	.	.	.
3009	.	.	.	.<-----	D54kS
3007	.	.	BD54kS	.	.
	.	.	V	.	.
	.	.	V	.	.
3010	.	.	R54kS	.	.
	.	.	.	.	.
3016	.	.	CS4kS.....	.	.
	.	.	.	.	.
3019	.	.	C54m.....	.	.
	.	.	.	.	.
3024	.	.	----->	D54mP	
3022	.	.	D54m	.	.
	.	.	.	.	.
3029	.	.	----->	D54mS	
3027	.	.	D54mW	.	.
	.	.	V	.	.
	.	.	V	.	.
3032	.	.	R54mW	.	.
	.	.	.	.	.
3038	.	.	56m	.	.
	.	.	.	.	.
3047	.	.	.	.<-----	D56kP
3045	.	.	BD56kP	.	.
	.	.	V	.	.
	.	.	V	.	.
3048	.	.	P56kS	.	.
	.	.	.	.	.
3053	.	.	.	.<-----	D56kS
3051	.	.	BD56kS	.	.
	.	.	V	.	.
	.	.	V	.	.
3054	.	.	R56kS	.	.
	.	.	.	.	.
3060	.	.	CS6kS.....	.	.
	.	.	.	.	.
3063	.	.	C56m.....	.	.
	.	.	.	.	.
3068	.	.	----->	D56mP	
3066	.	.	D56m	.	.
	.	.	.	.	.
3073	.	.	----->	D56mS	
3071	.	.	D56mW	.	.
	.	.	V	.	.
	.	.	V	.	.
3076	.	.	R56mW	.	.
	.	.	.	.	.
3082	.	.	60m	.	.
	.	.	.	.	.
3091	.	.	.	.<-----	D601P
3089	.	.	BD601P	.	.
	.	.	V	.	.
	.	.	V	.	.
3092	.	.	P601S	.	.
	.	.	.	.	.
3097	.	.	.	.<-----	D601S
3095	.	.	BD601S	.	.
	.	.	V	.	.
	.	.	V	.	.
3098	.	.	R601S	.	.
	.	.	.	.	.
3104	.	.	C601S.....	.	.



3219	.	BD72mP	
	.	V	
	.	V	
3222	.	P72mS	
	.	.	
3225	.	C72mS	.....
	.	.	
3230	.	.	<----- D24oS
3228	.	BD24oS	
	.	V	
	.	V	
3231	.	R24oS	
	.	.	
3239	.	.	<----- D28oP
3237	.	BD28oP	
	.	V	
	.	V	
3240	.	P28oS	
	.	.	
3245	.	.	<----- D28oS
3243	.	BD28oS	
	.	V	
	.	V	
3246	.	R28oS	
	.	.	
3252	.	C28oS	.....
	.	.	
3255	.	C28p	.....
	.	.	
3258	.	28p	
	.	V	
	.	V	
3265	.	S28p	
	.	.	
3271	.	CC28p	.....
	.	.	
3277	.	.	-----> D28pP
3274	.	D28p	
	.	V	
	.	V	
3280	.	R28pW	
	.	.	
3286	.	32p	
	.	.	
3295	.	.	<----- D32oS
3293	.	BD32oS	
	.	V	
	.	V	
3296	.	R32oS	
	.	.	
3302	.	C32p	.....
	.	V	
	.	V	
3305	.	S32p	
	.	.	
3314	.	.	<----- D32oP
3312	.	BD32oP	
	.	V	
	.	V	
3315	.	P32oS	
	.	.	
3318	.	CC32p	.....
	.	.	
3323	.	.	-----> D32pS
3321	.	D32pW	
	.	.	
3328	.	.	-----> D32pP
3326	.	D32p	
	.	V	
	.	V	

3331	R32pW		
3339		.<-----	D32pP
3337	BD32pP		
	V		
	V		
3340	P32pW		
	.		
3343	C32pW	.....	
	.		
3346	28q		
	V		
	V		
3353	S28q		
	.		
3361		.<-----	D28pP
3359	BD28pP		
	.		
3364		----->	D28pP2
3362	D28pP1		
	V		
	V		
3367	P28pS		
	.		
3370	C28q	.....	
	.		
3376		----->	D28qP
3373	D28q		
	.		
3381		----->	D28qS
3379	D28qW		
	V		
	V		
3384	R28qW		
	.		
3390			32q
	.		
3399		.<-----	D32pS
3397	BD32pS		
	.		
3400	C32q	.....	
	V		
	V		
3403	S32q		
	.		
3413		----->	D32q
3410	D32qP		
	V		
	V		
3416	P32qW		
	.		
3419	C32pqW	.....	
	.		
3422	36p		
	.		
3431		.<-----	D36oS
3429	BD36oS		
	V		
	V		
3432	R36oS		
	.		
3438	C36p	.....	
	.		
3443		----->	DB36p
3441	E36p		
	.		
3448		.<-----	DB36p
3446	BDB36p		



```

3555 . . . . . <----- D44oS
3553 . . . . . BD44oS
. . . . . V
. . . . . V
3556 . . . . . R44oS
. . . . .
3562 . . . . . C44oS.....
. . . . .
3565 . . . . . C44p.....
. . . . .
3570 . . . . . -----> D44pP
3568 . . . . . D44p
. . . . . V
. . . . . V
3573 . . . . . R44pW
. . . . .
3581 . . . . . <----- D44pP
3579 . . . . . BD44pP
. . . . .
3584 . . . . . -----> D44pP2
3582 . . . . . D44pP1
. . . . . V
. . . . . V
3587 . . . . . P44pW
. . . . .
3591 . . . . . C44pW.....
. . . . .
3594 . . . . . 48o
. . . . .
3603 . . . . . <----- D52mS
3601 . . . . . BD52mS
. . . . . V
. . . . . V
3604 . . . . . R52mS
. . . . .
3612 . . . . . <----- D52mP
3610 . . . . . BD52mP
. . . . . V
. . . . . V
3613 . . . . . P52mS
. . . . .
3616 . . . . . C52mS.....
. . . . .
3619 . . . . . C48o.....
. . . . .
3624 . . . . . -----> DB48o
3622 . . . . . E48o
. . . . .
3629 . . . . . <----- DB48o
3627 . . . . . BDB48o
. . . . . V
. . . . . V
3630 . . . . . S48o
. . . . .
3638 . . . . . CC48o.....
. . . . .
3643 . . . . . -----> D48oPT
3641 . . . . . D48o
. . . . . V
. . . . . V
3646 . . . . . R48oW
. . . . .
3653 . . . . . 52o
. . . . .
3662 . . . . . <----- D54mP
3660 . . . . . BD54mP
. . . . . V
. . . . . V
3663 . . . . . P54mS

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3768 . . . . . R60mS
3774 . . . . . C60mS
3777 . . . . . C60o
3783 . . . . . D60oPT
3780 . . . . . D60o
3780 . . . . . V
3780 . . . . . V
3786 . . . . . R60oW
3792 . . . . . 64o
3792 . . . . . V
3792 . . . . . V
3799 . . . . . S64o
3807 . . . . . D64mP
3805 . . . . . BD64mP
3805 . . . . . V
3805 . . . . . V
3808 . . . . . P64mS
3813 . . . . . D64mS
3811 . . . . . BD64mS
3811 . . . . . V
3811 . . . . . V
3814 . . . . . R64mS
3820 . . . . . C64mS
3823 . . . . . C64o
3829 . . . . . D64oPT
3826 . . . . . D64o
3826 . . . . . V
3826 . . . . . V
3832 . . . . . R64oW
3838 . . . . . 68o
3838 . . . . . V
3838 . . . . . V
3845 . . . . . S68o
3853 . . . . . D68mP
3851 . . . . . BD68mP
3851 . . . . . V
3851 . . . . . V
3854 . . . . . P68mS
3859 . . . . . D68mS
3857 . . . . . BD68mS
3857 . . . . . V
3857 . . . . . V
3860 . . . . . R68mS
3866 . . . . . C68mS
3869 . . . . . C68o
3875 . . . . . D68oPT
3872 . . . . . D68o
3872 . . . . . V
3872 . . . . . V
3878 . . . . . R68oW
3884 . . . . . 72o
3891 . . . . . C72o

```

```

3896 .
3894 .-----> D72oP
      D72o
      V
      V
3899 . S72o
      .
      .
3907 .-----> D72o1
3905 . D72oPT
      V
      V
3910 . PT72oE
      .
      .
3915 . .<----- D68oPT
3913 . B68oPT
      .
      .
3916 . CPT68o.....
      V
      V
3919 . PT68oE
      .
      .
3924 . .<----- D72o1
3922 . BD72o1
      .
      .
3928 . .-----> D72oW
3925 . D72oE
      V
      V
3931 . S-110
      .
      .
3941 . .<----- D64oPT
3939 . B64oPT
      .
      .
3944 . .<----- D60oPT
3942 . B60oPT
      V
      V
3945 . PT60oW
      .
      .
3948 . C-WT.....
      V
      V
3952 . PT64o
      .
      .
3957 .-----> DPT64o
3955 . DN_64o
      .
      .
3960 . 36q
      .
      .
3969 . .<----- D32q
3967 . BD32q
      V
      V
3970 . R32qS
      .
      .
3978 . .<----- D36pP2
3976 . B36pP2
      V
      V
3979 . P36pS
      .
      .
3983 . C36q.....
      .
      .
3988 . .-----> D36qP
3986 . D36q
      .
      .
3993 . .-----> D36qS
3991 . D36qW
      V
      V

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```

      V
      V
4122  . . . . . R52qW
      .
      .
4128  . . . . . 56q
      .
      .
4135  . . . . . C56q
      .
      .
4140  . . . . . D56qP
4138  . . . . . D56q
      .
      .
4145  . . . . . D56qS
4143  . . . . . D56qW
      .
      .
4148  . . . . . R56qW
      .
      .
4154  . . . . . 60q
      .
      .
4161  . . . . . C60q
      .
      .
4166  . . . . . D60qP
4164  . . . . . D60q
      .
      .
4171  . . . . . D60qS
4169  . . . . . D60qW
      .
      .
4174  . . . . . R60qW
      .
      .
4180  . . . . . 64q
      .
      .
4187  . . . . . C64q
      .
      .
4193  . . . . . D64qPT
4190  . . . . . D64q
      .
      .
4198  . . . . . D64qP
4196  . . . . . D64q1
      .
      .
4203  . . . . . D64qS
4201  . . . . . D64qW
      .
      .
4206  . . . . . R64qW
      .
      .
4214  . . . . . D64qP
4212  . . . . . BD64qP
      .
      .
4215  . . . . . P64qW
      .
      .
4218  . . . . . C64qW
      .
      .
4221  . . . . . 68q
      .
      .
4228  . . . . . C68q
      .
      .
4233  . . . . . D68qP
4231  . . . . . D68q
      .
      .
4238  . . . . . D68qS
4236  . . . . . D68qW
      .
      .
4241  . . . . . R68qW
      .
      .

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4249 . . . . . <----- D68qP
4247 . . . . . BD68qP
. . . . . V
. . . . . V
4250 . . . . . P68qW
. . . . .
4253 C68qW.....
. . . . .
4256 . . . . . 72q
. . . . .
4265 . . . . . <----- D72oP
4263 . . . . . B72oP
. . . . . V
. . . . . V
4266 . . . . . P72oS
. . . . .
4269 C72q.....
. . . . .
4274 . . . . . >----- D72qP
4272 D72q
. . . . .
4279 . . . . . >----- D72qS
4277 D72qW
. . . . . V
. . . . . V
4282 R72qW
. . . . .
4288 . . . . . 80o
. . . . .
4297 . . . . . <----- D84mP
4295 . . . . . BD84mP
. . . . . V
. . . . . V
4298 . . . . . P84mS
. . . . .
4303 . . . . . <----- D84mS
4301 . . . . . BD84mS
. . . . . V
. . . . . V
4304 . . . . . R84mS
. . . . .
4310 . . . . . C84mS.....
. . . . .
4315 . . . . . <----- D80mS
4313 . . . . . BD80mS
. . . . . V
. . . . . V
4316 . . . . . R80mS
. . . . .
4322 C80o.....
. . . . .
4327 . . . . . >----- DB80o
4325 E80o
. . . . .
4332 . . . . . <----- DB80o
4330 . . . . . BDB80o
. . . . . V
. . . . . V
4333 . . . . . S80o
. . . . .
4339 CC80o.....
. . . . .
4344 . . . . . >----- D80oP
4342 D80o
. . . . . V
. . . . . V
4347 R80oS
. . . . .

```

4353	.	.	76o	.	.
4362	.	.	.	.	.<----- D76m
4360	.	.	BD76m	.	.
	.	.	V	.	.
	.	.	V	.	.
4363	.	.	R76mS	.	.
4371	.	.	.	.	.<----- D76mP2
4369	.	.	B76mP2	.	.
	.	.	V	.	.
	.	.	V	.	.
4372	.	.	P76mS	.	.
	.	.	.	.	.
4375	.	.	C76mS	.	.
4380	.	.	.	.	.<----- D72oW
4378	.	.	BD72oW	.	.
	.	.	V	.	.
	.	.	V	.	.
4381	.	.	R72oW	.	.
	.	.	.	.	.
4387	.	.	C76o	.	.
4392	.	.	.	.	.-----> D76o
4390	.	.	D76oP	.	.
	.	.	V	.	.
	.	.	V	.	.
4395	.	.	P76oS	.	.
4400	.	.	.	.	.<----- D76o
4398	.	.	BD76o	.	.
	.	.	.	.	.
4403	.	.	.	.	.-----> D76oW
4401	.	.	D76oS	.	.
	.	.	V	.	.
	.	.	V	.	.
4406	.	.	R76oS	.	.
	.	.	.	.	.
4412	.	.	C76oS	.	.
4415	.	.	.	.	76q
4422	.	.	C76q	.	.
4427	.	.	.	.	.-----> D76qP
4425	.	.	D76q	.	.
4432	.	.	.	.	.-----> D76qS
4430	.	.	D76qW	.	.
	.	.	V	.	.
	.	.	V	.	.
4435	.	.	R76qW	.	.
4441	.	.	80p	.	.
4450	.	.	.	.	.<----- D76oW
4448	.	.	BD76oW	.	.
	.	.	V	.	.
	.	.	V	.	.
4451	.	.	R76oW	.	.
4457	.	.	C80p	.	.
	.	.	V	.	.
	.	.	V	.	.
4460	.	.	S80p	.	.
4468	.	.	.	.	.<----- D80oP
4466	.	.	BD80oP	.	.



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4581 . . . . . BD32sP
      . . . . . V
4584 . . . . . P32sW
      . . . . .
4587 . . . . . C32sW.....
      . . . . .
4590 . . . . . 36s
      . . . . .
4599 . . . . . <----- D36qP
4597 . . . . . BD36qP
      . . . . . V
      . . . . . V
4600 . . . . . P36qS
      . . . . .
4605 . . . . . <----- D36qS
4603 . . . . . BD36qS
      . . . . . V
      . . . . . V
4606 . . . . . R36qS
      . . . . .
4612 . . . . . C36qS.....
      . . . . .
4615 . . . . . C36s.....
      . . . . .
4620 . . . . . <-----> D36sP
4618 . . . . . D36s
      . . . . . V
      . . . . . V
4623 . . . . . R36sW
      . . . . .
4629 . . . . . 40s
      . . . . .
4638 . . . . . <----- D40qS
4636 . . . . . BD40qS
      . . . . . V
      . . . . . V
4639 . . . . . R40qS
      . . . . .
4645 . . . . . C40s.....
      . . . . .
4650 . . . . . <-----> D40sP
4648 . . . . . D40s
      . . . . . V
      . . . . . V
4653 . . . . . R40sW
      . . . . .
4661 . . . . . <----- D40sP
4659 . . . . . BD40sP
      . . . . . V
      . . . . . V
4662 . . . . . P40sW
      . . . . .
4665 . . . . . C40sW.....
      . . . . .
4668 . . . . . 44s
      . . . . .
4677 . . . . . <----- D44qP
4675 . . . . . BD44qP
      . . . . . V
      . . . . . V
4678 . . . . . P44qS
      . . . . .
4683 . . . . . <----- D44qS
4681 . . . . . BD44qS
      . . . . . V
      . . . . . V
4684 . . . . . R44qS
      . . . . .

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4690 . . . . . C44qS.....
4693 . . . . . C44s.....
4698 . . . . . D44sP
4696 . . . . . D44s
         V
         V
4701 . . . . . R44sW
         .
4707 . . . . . 48s
         .
4716 . . . . . D48qS
4714 . . . . . BD48qS
         V
         V
4717 . . . . . R48qS
         .
4723 . . . . . C48s.....
         .
4729 . . . . . D48sPT
4726 . . . . . DB48s
         V
         V
4732 . . . . . S48s
         V
         V
4738 . . . . . R48sW
         .
4744 . . . . . 52s
         .
4753 . . . . . D52qP
4751 . . . . . BD52qP
         V
         V
4754 . . . . . P52qS
         .
4759 . . . . . D52qS
4757 . . . . . BD52qS
         V
         V
4760 . . . . . R52qS
         .
4766 . . . . . C52qS.....
         .
4769 . . . . . C52s.....
         .
4774 . . . . . D52sP
4772 . . . . . D52s
         V
         V
4777 . . . . . R52sW
         .
4783 . . . . . 56s
         .
4792 . . . . . D56qP
4790 . . . . . BD56qP
         V
         V
4793 . . . . . P56qS
         .
4798 . . . . . D56qS
4796 . . . . . BD56qS
         V
         V
4799 . . . . . R56qS
         .
4805 . . . . . C56qS.....

```

```

4808 . . . . . C56s . . . . .
. . . . . |
. . . . . |
4813 . . . . . |-----> D56sP
4811 . . . . . D56s
. . . . . |
. . . . . |
4818 . . . . . |-----> D56sS
4816 . . . . . D56sW
. . . . . V
. . . . . V
4821 . . . . . R56sW
. . . . . |
. . . . . |
4827 . . . . . 60s
. . . . . |
. . . . . |
4836 . . . . . |-----< D60qP
4834 . . . . . BD60qP
. . . . . V
. . . . . V
4837 . . . . . P60qS
. . . . . |
. . . . . |
4842 . . . . . |-----< D60qS
4840 . . . . . BD60qS
. . . . . V
. . . . . V
4843 . . . . . R60qS
. . . . . |
. . . . . |
4849 . . . . . C60qS . . . . .
. . . . . |
. . . . . |
4852 . . . . . C60s . . . . .
. . . . . |
. . . . . |
4857 . . . . . |-----> D60sP
4855 . . . . . D60s
. . . . . |
. . . . . |
4862 . . . . . |-----> D60sS
4860 . . . . . D60sW
. . . . . V
. . . . . V
4865 . . . . . R60sW
. . . . . |
. . . . . |
4873 . . . . . |-----< D60sP
4871 . . . . . BD60sP
. . . . . V
. . . . . V
4874 . . . . . P60sW
. . . . . |
. . . . . |
4877 . . . . . C60sW . . . . .
. . . . . |
. . . . . |
4880 . . . . . 64s
. . . . . |
. . . . . |
4889 . . . . . |-----< D64qS
4887 . . . . . BD64qS
. . . . . V
. . . . . V
4890 . . . . . R64qS
. . . . . |
. . . . . |
4896 . . . . . C64s . . . . .
. . . . . |
. . . . . |
4902 . . . . . |-----> D64sPT
4899 . . . . . D64s
. . . . . |
. . . . . |
4908 . . . . . |-----> D64sP
4905 . . . . . D64s1
. . . . . |
. . . . . |
4913 . . . . . |-----> D64sS
4911 . . . . . D64sW
. . . . . V
. . . . . V
4916 . . . . . R64sW
. . . . . |
. . . . . |

```

```

4922 . . . . . 68s
. . . . .
4931 . . . . . <----- D68qS
4929 . . . . . BD68qS
. . . . . V
. . . . . V
4932 . . . . . R68qS
. . . . .
4938 . . . . . C68s.....
. . . . .
4943 . . . . . >----- D68sP
4941 . . . . . D68s
. . . . .
4948 . . . . . >----- D68sS
4946 . . . . . D68sW
. . . . . V
. . . . . V
4951 . . . . . R68sW
. . . . .
4957 . . . . . 72s
. . . . .
4967 . . . . . <----- D72qP
4964 . . . . . BD72qP
. . . . .
. . . . . >----- D72qP2
4970 . . . . . D72qP1
4968 . . . . . V
. . . . . V
4973 . . . . . P72qS1
. . . . .
4978 . . . . . <----- D72qP2
4976 . . . . . B72qP2
. . . . . V
. . . . . V
4979 . . . . . P72qS2
. . . . .
4984 . . . . . <----- D72qS
4982 . . . . . BD72qS
. . . . . V
. . . . . V
4985 . . . . . R72qS
. . . . .
4991 . . . . . C72qS.....
. . . . .
4994 . . . . . C72s.....
. . . . .
4999 . . . . . >----- D72sP
4997 . . . . . D72s
. . . . .
5004 . . . . . >----- D72sS
5002 . . . . . D72sW
. . . . . V
. . . . . V
5007 . . . . . R72sW
. . . . .
5013 . . . . . 76s
. . . . . V
. . . . . V
5020 . . . . . S76s
. . . . .
5028 . . . . . <----- D76qP
5026 . . . . . BD76qP
. . . . . V
. . . . . V
5029 . . . . . P76qS
. . . . .
5034 . . . . . <----- D76qS
5032 . . . . . BD76qS
. . . . . V
. . . . . V

```

```

5035 . . . . . R76qS
. . . . .
5041 . . . . . C76qS.....
. . . . .
5044 . . . . . C76s.....
. . . . .
5049 . . . . . > D76sP
5047 . . . . . D76s
. . . . .
5054 . . . . . > D76sS
5052 . . . . . D76sW
. . . . . V
. . . . . V
5057 . . . . . R76sW
. . . . .
5063 . . . . . CC80q.....
. . . . .
5068 . . . . . > D80qP
5066 . . . . . D80q
. . . . .
5073 . . . . . > D80qW
5071 . . . . . D80qS
. . . . . V
. . . . . V
5076 . . . . . R80qS
. . . . .
5084 . . . . . <----- D80qP
5082 . . . . . BD80qP
. . . . . V
. . . . . V
5085 . . . . . P80qS
. . . . .
5088 . . . . . C80qS.....
. . . . .
5091 . . . . . 52t
. . . . . V
. . . . . V
5098 . . . . . S52t
. . . . .
5106 . . . . . <----- D52sP
5104 . . . . . BD52sP
. . . . . V
. . . . . V
5107 . . . . . P52sS
. . . . .
5110 . . . . . C52t.....
. . . . .
5115 . . . . . > D52tP
5113 . . . . . D52t
. . . . .
5120 . . . . . > D52tS
5118 . . . . . D52tW
. . . . . V
. . . . . V
5123 . . . . . R52tW
. . . . .
5129 . . . . . 56t
. . . . .
5138 . . . . . <----- D56sP
5136 . . . . . BD56sP
. . . . . V
. . . . . V
5139 . . . . . P56sS
. . . . .
. . . . .
. . . . . <----- D56sS
. . . . . BD56sS
. . . . . V
. . . . . V
5145 . . . . . R56sS

```

```

5151 . . . . . C56sS.....
. . . . .
5154 . . . . . C56t.....
. . . . .
5159 . . . . . D56tP
5157 . . . . . D56t
. . . . .
5164 . . . . . D56tS
5162 . . . . . D56tW
. . . . . V
. . . . . V
5167 . . . . . R56tW
. . . . .
5173 . . . . . 60t
. . . . . V
. . . . . V
5180 . . . . . S60t
. . . . .
5188 . . . . . <----- D60sS
5186 . . . . . BD60sS
. . . . . V
. . . . . V
5189 . . . . . R60sS
. . . . .
5195 . . . . . C60t.....
. . . . .
5200 . . . . . D60tS
5198 . . . . . D60tW
. . . . . V
. . . . . V
5203 . . . . . R60tW
. . . . .
5209 . . . . . 64t
. . . . .
5218 . . . . . <----- D64sP
5216 . . . . . BD64sP
. . . . . V
. . . . . V
5219 . . . . . P64sS
. . . . .
5225 . . . . . <----- D64sS
5223 . . . . . BD64sS
. . . . . V
. . . . . V
5226 . . . . . R64sS
. . . . .
5232 . . . . . C64sS.....
. . . . .
5235 . . . . . C64t.....
. . . . .
5240 . . . . . D64tPT
5238 . . . . . D64t
. . . . .
5245 . . . . . D64tP
5243 . . . . . D64t1
. . . . .
5250 . . . . . D64tS
5248 . . . . . D64tW
. . . . . V
. . . . . V
5253 . . . . . R64tW
. . . . .
5259 . . . . . 68t
. . . . .
5268 . . . . . <----- D68sP
5266 . . . . . BD68sP
. . . . . V

```



```

. . . . . V
5374 . . . . . R76sS
. . . . .
5380 . . . . . C76sS.....
. . . . .
5383 . . . . . C76t.....
. . . . .
5388 . . . . . -----> D76tP
5386 . . . . . D76t
. . . . .
5393 . . . . . -----> D76tS
5391 . . . . . D76tW
. . . . . V
. . . . . V
5396 . . . . . R76tW
. . . . .
5402 . . . . . 80t
. . . . .
5409 . . . . . C80t.....
. . . . .
5414 . . . . . -----> D80tP
5412 . . . . . D80t
. . . . . V
. . . . . V
5417 . . . . . R80tS
. . . . .
5423 . . . . . 52u
. . . . .
5432 . . . . . -----< D52tS
5430 . . . . . BD52tS
. . . . . V
. . . . . V
5433 . . . . . R52tS
. . . . .
5439 . . . . . C52u.....
. . . . . V
. . . . . V
5442 . . . . . S52u
. . . . .
5451 . . . . . -----< D52tP
5449 . . . . . BD52tP
. . . . . V
. . . . . V
5452 . . . . . P52tS
. . . . .
5455 . . . . . CC52u.....
. . . . .
5460 . . . . . -----> D52uP
5458 . . . . . D52u
. . . . .
5465 . . . . . -----> D52uS
5463 . . . . . D52uW
. . . . . V
. . . . . V
5468 . . . . . R52uW
. . . . .
5474 . . . . . 56u
. . . . .
5483 . . . . . -----< D56tS
5481 . . . . . BD56tS
. . . . . V
. . . . . V
5484 . . . . . R56tS
. . . . .
5490 . . . . . C56u.....
. . . . . V
. . . . . V
5493 . . . . . S56u
. . . . .

```

```

5502 . . . . . <----- D56tP
5500 . . . . . BD56tP
. . . . . V
. . . . . V
5503 . . . . . P56tS
. . . . .
. . . . .
5506 . . . . . CC56u.....
. . . . .
. . . . .
5511 . . . . . -----> D56uP
5509 . . . . . D56u
. . . . .
. . . . .
5516 . . . . . -----> D56uS
5514 . . . . . D56uW
. . . . . V
. . . . . V
5519 . . . . . R56uW
. . . . .
. . . . .
5525 . . . . . 60u
. . . . .
. . . . .
5534 . . . . . <----- D60tS
5532 . . . . . BD60tS
. . . . . V
. . . . . V
5535 . . . . . R60tS
. . . . .
. . . . .
5541 . . . . . C60u.....
. . . . . V
. . . . . V
5544 . . . . . S60u
. . . . .
. . . . .
5552 . . . . . -----> D60uP
5550 . . . . . D60u
. . . . .
. . . . .
5557 . . . . . -----> D60uS
5555 . . . . . D60uW
. . . . . V
. . . . . V
5560 . . . . . R60uW
. . . . .
. . . . .
5566 . . . . . 64u
. . . . .
. . . . .
5575 . . . . . <----- D64tP
5573 . . . . . BD64tP
. . . . . V
. . . . . V
5576 . . . . . P64tS
. . . . .
. . . . .
5582 . . . . . <----- D64tS
5580 . . . . . BD64tS
. . . . . V
. . . . . V
5583 . . . . . R64tS
. . . . .
. . . . .
5589 . . . . . C64tS.....
. . . . .
. . . . .
5592 . . . . . C64u.....
. . . . .
. . . . .
5597 . . . . . -----> D64uPT
5595 . . . . . D64u
. . . . .
. . . . .
5602 . . . . . -----> D64uP
5600 . . . . . D64u1
. . . . .
. . . . .
5607 . . . . . -----> D64uS
5605 . . . . . D64uW
. . . . . V
. . . . . V
5610 . . . . . R64uW
. . . . .

```

```

5616 . . . . . 68u
. . . . .
5625 . . . . . <----- D68tP
5623 . . . . . BD68tP
. . . . . V
. . . . . V
5626 . . . . . P68tS
. . . . .
5631 . . . . . <----- D68tS
5629 . . . . . BD68tS
. . . . . V
. . . . . V
5632 . . . . . R68tS
. . . . .
5638 . . . . . C68tS.....
. . . . .
5641 . . . . . C68u.....
. . . . .
5646 . . . . . <-----> D68uP
5644 . . . . . D68u
. . . . .
5651 . . . . . <-----> D68uS
5649 . . . . . D68uW
. . . . . V
. . . . . V
5654 . . . . . R68uW
. . . . .
5660 . . . . . 72u
. . . . .
5667 . . . . . C72u.....
. . . . .
5672 . . . . . <----- D72tP
5670 . . . . . BD72tP
. . . . .
5675 . . . . . <-----> D72tP2
5673 . . . . . D72tP1
. . . . . V
. . . . . V
5678 . . . . . P72tS1
. . . . .
5683 . . . . . <----- D72tP2
5681 . . . . . B72tP2
. . . . . V
. . . . . V
5684 . . . . . P72tS2
. . . . .
5689 . . . . . <----- D72tS
5687 . . . . . B72tS
. . . . . V
. . . . . V
5690 . . . . . R72tS
. . . . .
5696 . . . . . C72tS.....
. . . . .
5699 . . . . . CC72u.....
. . . . .
5704 . . . . . <-----> D72uP
5702 . . . . . D72u
. . . . .
5709 . . . . . <-----> D72uS
5707 . . . . . D72uW
. . . . . V
. . . . . V
5712 . . . . . R72uW
. . . . .
5720 . . . . . <----- D76tP
5718 . . . . . BD76tP
. . . . .

```

```

5723 . . . . . -----> D76tP2
5721 . . . . . D76tP1
. . . . . V
. . . . . V
5726 . . . . . P76tS1
. . . . .
. . . . .
5731 . . . . . <----- D76tP2
5729 . . . . . B76tP2
. . . . . V
. . . . . V
5732 . . . . . P76tS2
. . . . .
. . . . .
5737 . . . . . <----- D76tS
5735 . . . . . BD76tS
. . . . . V
. . . . . V
5738 . . . . . R76tS
. . . . .
. . . . .
5744 . . . . . C76tS.....
. . . . .
. . . . .
5747 . . . . . 76u
. . . . .
. . . . .
5754 . . . . . C76u.....
. . . . .
. . . . .
5759 . . . . . -----> D76uP
5757 . . . . . D76u
. . . . .
. . . . .
5764 . . . . . -----> D76uS
5762 . . . . . D76uW
. . . . . V
. . . . . V
5767 . . . . . R76uW
. . . . .
. . . . .
5773 . . . . . 80u
. . . . .
. . . . .
5780 . . . . . C80u.....
. . . . .
. . . . .
5785 . . . . . <----- D80tP
5783 . . . . . BD80tP
. . . . . V
. . . . . V
5786 . . . . . P80tS
. . . . .
. . . . .
5791 . . . . . <----- D80qW
5789 . . . . . BD80qW
. . . . .
. . . . .
5792 . . . . . CC80u.....
. . . . . V
. . . . . V
5795 . . . . . S-117
. . . . .
. . . . .
5804 . . . . . -----> D80uP
5802 . . . . . D80u
. . . . . V
. . . . . V
5807 . . . . . R80uW
. . . . .
. . . . .
5813 . . . . . 84t
. . . . .
. . . . .
5820 . . . . . P84tN
. . . . .
. . . . .
5828 . . . . . C84t.....
. . . . .
. . . . .
5833 . . . . . -----> D84tP
5831 . . . . . D84t
. . . . .
. . . . .
5838 . . . . . -----> D84tW

```

```

5836 . D84tS
      . V
      . V
5841 . R84tS
      .
      .
5847 . 84u
      .
      .
5854 C84u.....
      .
      .
5857 S84u
      .
      .
5865 . <----- D84tP
5863 . BD84tP
      . V
      . V
5866 . P84tS
      .
      .
5869 CC84u.....
      .
      .
5874 .-----> D84uP
5872 D84u
      .
      .
5879 .-----> D84uS
5877 D84uW
      . V
      . V
5882 R84uW
      .
      .
5888 . 88t
      .
      .
5897 . <----- D84tW
5895 . BD84tW
      . V
      . V
5898 . R84tW
      .
      .
5904 . C88t.....
      .
      .
5909 .-----> D88tW
5907 D88tS
      . V
      . V
5912 R88tS
      .
      .
5918 . 88u
      .
      .
5925 C88u.....
      .
      .
5930 .-----> D88uP
5928 D88u
      .
      .
5935 .-----> D88uS
5933 D88uW
      . V
      . V
5938 R88uW
      .
      .
5946 . <----- D88uP
5944 . BD88uP
      . V
      . V
5947 . P88uW
      .
      .
5950 C88uW.....
      .
      .
5953 . 92t
      .
      .

```

```

5962 . . . . . <----- D88tW
5960 . . . . . BD88tW
. . . . . V
. . . . . V
5963 . . . . . R88tW
. . . . .
5969 . . . . . C92t.....
. . . . . V
. . . . . V
5972 . . . . . R92tS
. . . . .
5978 . . . . . 92u
. . . . .
5985 . . . . . P92uN
. . . . .
5993 . . . . . C92u.....
. . . . .
5998 . . . . . <----- D92uP
5996 . . . . . D92u
. . . . . V
. . . . . V
6001 . . . . . R92uS
. . . . .
6009 . . . . . <----- D92uP
6007 . . . . . B92uP
. . . . . V
. . . . . V
6010 . . . . . P92uS
. . . . .
6013 . . . . . C92uS.....
. . . . .
6016 . . . . . 76v
. . . . .
6025 . . . . . <----- D76uP
6023 . . . . . B76uP
. . . . .
6028 . . . . . <----- D76uP1
6026 . . . . . D76uP2
. . . . . V
. . . . . V
6031 . . . . . P76uS2
. . . . .
6036 . . . . . <----- D76uS
6034 . . . . . BD76uS
. . . . . V
. . . . . V
6037 . . . . . R76uS
. . . . .
6043 . . . . . C76uS.....
. . . . .
6046 . . . . . C76v.....
. . . . .
6051 . . . . . <----- D76vP
6049 . . . . . D76v
. . . . .
6056 . . . . . <----- D76vS
6054 . . . . . D76vW
. . . . . V
. . . . . V
6059 . . . . . R76vW
. . . . .
6065 . . . . . 80v
. . . . .
6074 . . . . . <----- D76uP1
6072 . . . . . B76uP1
. . . . . V
. . . . . V
6075 . . . . . P76uS1
. . . . .

```

```

6078 . . . . . C80v . . . . .
. . . . .
6083 . . . . . -----> D80vP
6081 . . . . . D80v
. . . . .
6088 . . . . . -----> D80vS
6086 . . . . . D80vW
. . . . . V
. . . . . V
6091 . . . . . R80vW
. . . . .
6097 . . . . . 84v
. . . . .
6106 . . . . . <----- D80uP
6104 . . . . . BD80uP
. . . . . V
. . . . . V
6107 . . . . . P80uS
. . . . .
6110 . . . . . C84v . . . . .
. . . . .
6115 . . . . . <----- D84uP
6113 . . . . . BD84uP
. . . . . V
. . . . . V
6116 . . . . . P84uS
. . . . .
6121 . . . . . <----- D84uS
6119 . . . . . BD84uS
. . . . . V
. . . . . V
6122 . . . . . R84uS
. . . . .
6128 . . . . . C84uS . . . . .
. . . . .
6131 . . . . . CC84v . . . . .
. . . . .
6137 . . . . . -----> D84vP
6134 . . . . . D84v
. . . . .
6142 . . . . . -----> D84vS
6140 . . . . . D84vW
. . . . . V
. . . . . V
6145 . . . . . R84vW
. . . . .
6151 . . . . . 88v
. . . . .
6160 . . . . . <----- D88uS
6158 . . . . . BD88uS
. . . . . V
. . . . . V
6161 . . . . . R88uS
. . . . .
6167 . . . . . C88v . . . . .
. . . . .
6172 . . . . . -----> D88vP
6170 . . . . . D88v
. . . . . V
. . . . . V
6175 . . . . . R88vW
. . . . .
6181 . . . . . 92v
. . . . .
6188 . . . . . C92v . . . . .
. . . . .
6193 . . . . . -----> D92v

```

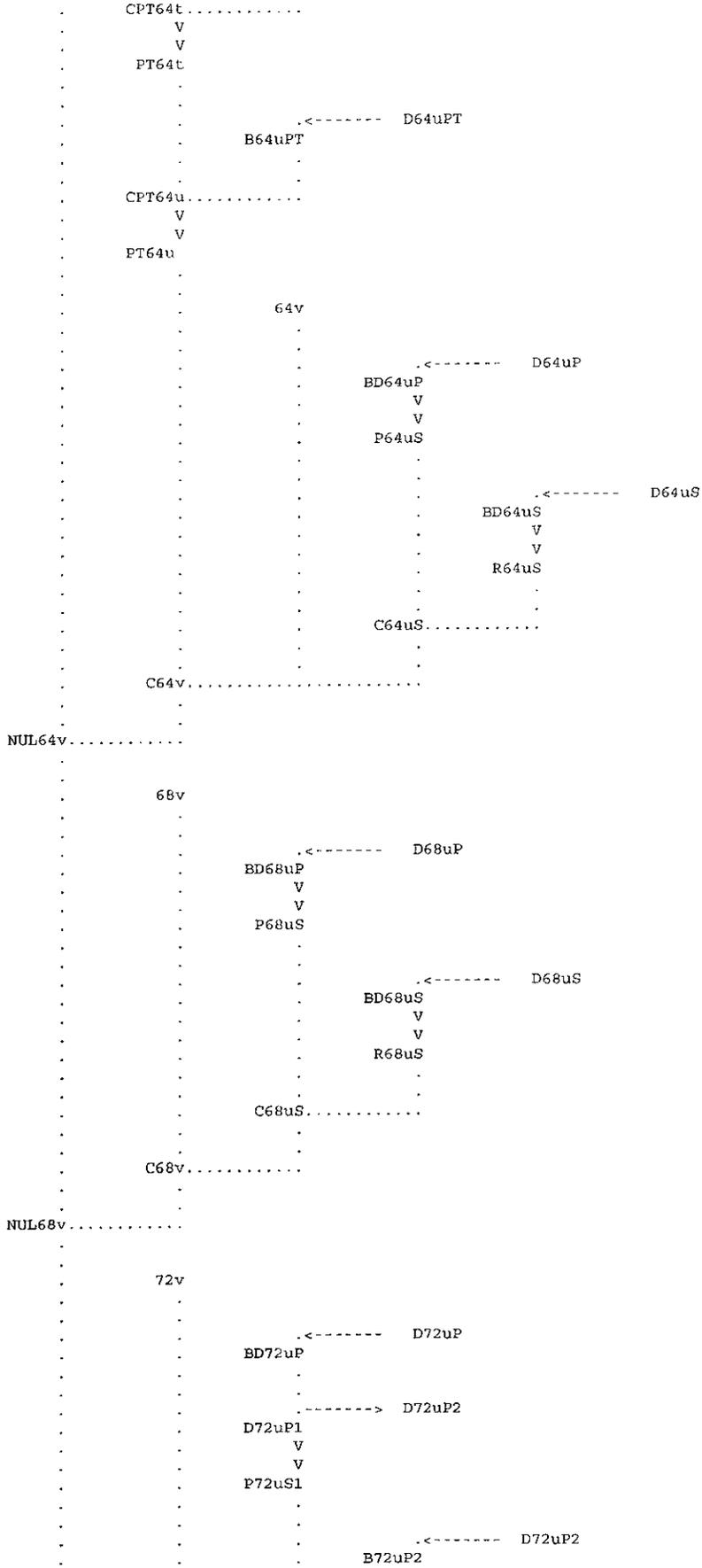
6191	D92vP		
	V		
	V		
6196	P92vS		
	.		
6199	.	88w	
	.	.	
6208	.	.	<----- D88vP
6206	.	ED88vP	
	.	V	
	.	V	
6209	.	P88vS	
	.	.	
6212	C88w	.....	
	.	.	
6215	.	44v	
	.	.	
6224	.	.	<----- D44sP
6222	.	BD44sP	
	.	V	
	.	V	
6225	.	P44sS	
	.	.	
6228	C44v	.....	
	.	.	
6233	.	.	<----- D48oPT
6231	.	B48oPT	
	.	V	
	.	V	
6234	.	PT48o	
	.	.	
6239	.	.	<----- D48qPT
6237	.	B48qPT	
	.	.	
6240	CPT48q	.....	
	.	V	
	.	V	
6243	.	PT48q	
	.	.	
6248	.	.	<----- D48sPT
6246	.	B48sPT	
	.	.	
6249	CPT48s	.....	
	.	V	
	.	V	
6252	.	PT48s	
	.	.	
6255	.	.	48v
	.	.	
6262	.	C48v	.....
	.	.	
6265	NUL48v	.....	
	.	.	
6268	.	52v	
	.	.	
6277	.	.	<----- D52uP
6275	.	BD52uP	
	.	V	
	.	V	
6278	.	P52uS	
	.	.	
6283	.	.	<----- D52uS
6281	.	.	BD52uS
	.	.	V
	.	.	V
6284	.	.	R52uS
	.	.	.
6290	.	C52uS	.....

```

6293 . . . . . C52v . . . . .
6296 . . . . . NUL52v . . . . .
6299 . . . . . 56v
6308 . . . . . <----- D56uP
6306 . . . . . BD56uP
        . . . . . V
        . . . . . V
6309 . . . . . P56uS
        . . . . .
6314 . . . . . <----- D56uS
6312 . . . . . BD56uS
        . . . . . V
        . . . . . V
6315 . . . . . R56uS
        . . . . .
6321 . . . . . CS6uS . . . . .
6324 . . . . . C56v . . . . .
6327 . . . . . NUL56v . . . . .
6330 . . . . . 60v
6339 . . . . . <----- D60uP
6337 . . . . . BD60uP
        . . . . . V
        . . . . . V
6340 . . . . . P60uS
        . . . . .
6345 . . . . . <----- D60uS
6343 . . . . . BD60uS
        . . . . . V
        . . . . . V
6346 . . . . . R60uS
        . . . . .
6352 . . . . . C60uS . . . . .
6355 . . . . . C60v . . . . .
6358 . . . . . NUL60v . . . . .
6363 . . . . . <----- DPT64o
6361 . . . . . BPT64o
        . . . . .
6366 . . . . . <----- D64qPT
6364 . . . . . B64qPT
        . . . . .
6367 . . . . . CPT64q . . . . .
        . . . . . V
        . . . . . V
6370 . . . . . PT64q
        . . . . .
6375 . . . . . <----- D64sPT
6373 . . . . . B64sPT
        . . . . .
6376 . . . . . CPT64s . . . . .
        . . . . . V
        . . . . . V
6379 . . . . . PT64s
        . . . . .
6384 . . . . . <----- D64tPT
6382 . . . . . B64tPT

```

6385  
6388  
6393  
6391  
6394  
6397  
6400  
6409  
6407  
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6477  
6482  
6480



6483	.	.	.	.	V	
	.	.	.	.	V	
	.	.	.	.	P72uS2	
6488	.	.	.	.	.	
6486	.	.	.	.	BD72uS	←----- D72uS
	.	.	.	.	V	
	.	.	.	.	V	
6489	.	.	.	.	R72uS	
	.	.	.	.	.	
6495	.	.	.	.	C72uS	.....
	.	.	.	.	.	
6498	.	.	.	.	C72v	.....
	.	.	.	.	.	
6501	.	.	.	.	NUL72v	.....
	.	.	.	.	.	
6504	.	.	.	.	76w	
	.	.	.	.	.	
6513	.	.	.	.	.	←----- D76vS
6511	.	.	.	.	BD76vS	
	.	.	.	.	V	
	.	.	.	.	V	
6514	.	.	.	.	R76vS	
	.	.	.	.	.	
6522	.	.	.	.	.	←----- D76vP
6520	.	.	.	.	BD76vP	
	.	.	.	.	V	
	.	.	.	.	V	
6523	.	.	.	.	P76vS	
	.	.	.	.	.	
6526	.	.	.	.	C76vS	.....
	.	.	.	.	.	
6529	.	.	.	.	C76w	.....
	.	.	.	.	.	
6532	.	.	.	.	NUL76w	.....
	.	.	.	.	.	
6535	.	.	.	.	80w	
	.	.	.	.	.	
6544	.	.	.	.	.	←----- D80vS
6542	.	.	.	.	BD80vS	
	.	.	.	.	V	
	.	.	.	.	V	
6545	.	.	.	.	R80vS	
	.	.	.	.	.	
6551	.	.	.	.	C80w	.....
	.	.	.	.	.	
6554	.	.	.	.	NUL80w	.....
	.	.	.	.	.	
6559	.	.	.	.	.	←----- D84vS
6557	.	.	.	.	BD84vS	
	.	.	.	.	V	
	.	.	.	.	V	
6560	.	.	.	.	R84vS	
	.	.	.	.	.	
6568	.	.	.	.	.	←----- D84vP
6566	.	.	.	.	BD84vP	
	.	.	.	.	.	
6571	.	.	.	.	.	-----> D84vP2
6569	.	.	.	.	D84vP1	
	.	.	.	.	V	
	.	.	.	.	V	
6574	.	.	.	.	P84vS1	
	.	.	.	.	.	
6579	.	.	.	.	.	←----- D84vP2
6577	.	.	.	.	B84vP2	
	.	.	.	.	V	
	.	.	.	.	V	
6580	.	.	.	.	P84vS2	



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6711 . . . . . C08s .....
        . . . . . V
        . . . . . V
6714 . . . . . S08s
        . . . . .
6723 . . . . . -----> D08sP
6721 . . . . . D08s
        . . . . . V
        . . . . . V
6726 . . . . . R08sW
        . . . . .
6732 . . . . . 12q
        . . . . . V
        . . . . . V
6739 . . . . . R12qS
        . . . . .
6745 . . . . . 12s
        . . . . . V
        . . . . . V
6752 . . . . . S12s
        . . . . .
6759 . . . . . C12s .....
        . . . . . V
        . . . . . V
6762 . . . . . R12sW
        . . . . .
6768 . . . . . C12sW .....
        . . . . .
6773 . . . . . -----> D16sP2
6771 . . . . . D16s2
        . . . . .
6776 . . . . . 16o
        . . . . . V
        . . . . . V
6783 . . . . . R16oS
        . . . . .
6789 . . . . . 16q
        . . . . .
6796 . . . . . C16q .....
        . . . . . V
        . . . . . V
6799 . . . . . S16q
        . . . . .
6807 . . . . . -----> D16qP
6805 . . . . . D16q
        . . . . . V
        . . . . . V
6810 . . . . . R16qS
        . . . . .
6816 . . . . . 16s
        . . . . .
6823 . . . . . C16s .....
        . . . . . V
        . . . . . V
6826 . . . . . S16s
        . . . . .
6834 . . . . . <----- D16qP
6832 . . . . . BD16qP
        . . . . .
6838 . . . . . -----> D16qPW
6835 . . . . . D16qPS
        . . . . . V
        . . . . . V
6841 . . . . . P16qS
        . . . . .
6844 . . . . . CC16s .....
        . . . . .
6849 . . . . . -----> D16sP

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6847	.	.	D16s	.	.	.	
	.	.	V	.	.	.	
	.	.	V	.	.	.	
6852	.	.	R16sS	.	.	.	
	.	.	.	.	.	.	
6860	.	.	.	.	----->	D16sP	
6858	.	.	BD16sP	.	.	.	
	.	.	V	.	.	.	
	.	.	V	.	.	.	
6861	.	.	P16sS	.	.	.	
	.	.	.	.	.	.	
6864	.	.	C16sS.....	.	.	.	
	.	.	.	.	.	.	
6867	.	.	20p	.	.	.	
	.	.	V	.	.	.	
	.	.	V	.	.	.	
6874	.	.	S20p1	.	.	.	
	.	.	.	.	.	.	
6882	.	.	.	.	----->	D16qPW	
6880	.	.	B16qPW	.	.	.	
	.	.	V	.	.	.	
	.	.	V	.	.	.	
6883	.	.	P16qW	.	.	.	
	.	.	.	.	.	.	
6886	.	.	C20p.....	.	.	.	
	.	.	V	.	.	.	
	.	.	V	.	.	.	
6889	.	.	S20p2	.	.	.	
	.	.	.	.	.	.	
6896	.	.	.	.	OCCC48	.	
	.	.	.	.	.	.	
6906	.	.	.	.	.	----->	D24oP
6904	.	.	.	.	BD24oP	.	
	.	.	.	.	V	.	
	.	.	.	.	V	.	
6907	.	.	.	.	P24oS	.	
	.	.	.	.	.	.	
6910	.	.	.	.	C24oS.....	.	
	.	.	.	.	V	.	
	.	.	.	.	V	.	
6913	.	.	.	.	ROCCC	.	
	.	.	.	.	.	.	
6919	.	.	CC20p.....	.	.	.	
	.	.	V	.	.	.	
	.	.	V	.	.	.	
6922	.	.	R20pS	.	.	.	
	.	.	.	.	.	.	
6928	.	.	.	.	20q	.	
	.	.	.	.	.	.	
6937	.	.	.	.	.	----->	D28pP2
6935	.	.	.	.	B28pP2	.	
	.	.	.	.	V	.	
	.	.	.	.	V	.	
6938	.	.	.	.	P28pE	.	
	.	.	.	.	.	.	
6941	.	.	C20q.....	.	.	.	
	.	.	V	.	.	.	
	.	.	V	.	.	.	
6944	.	.	R20qS	.	.	.	
	.	.	.	.	.	.	
6950	.	.	.	.	20s	.	
	.	.	.	.	V	.	
	.	.	.	.	V	.	
6957	.	.	.	.	S20s	.	
	.	.	.	.	.	.	
6963	.	.	C20s.....	.	.	.	
	.	.	.	.	.	.	
6968	.	.	.	.	.	----->	D24sPE
6966	.	.	.	.	B24sPE	.	
	.	.	.	.	V	.	
	.	.	.	.	V	.	

6969	.	.	.	.	P24sE
	.	.	.	.	.
6972	.	.	.	CC20s.....	.
	.	.	.	V	.
	.	.	.	V	.
6975	.	.	.	R20sS	.
	.	.	.	.	.
6981	.	.	.	.	20t
	.	.	.	.	V
	.	.	.	.	V
6988	.	.	.	.	S20t
	.	.	.	.	.
6994	.	.	C20t.....	.	.
	.	.	.	.	.
6997	.	NUL20t.....	.	.	.

(\*\*\*) RUNOFF ALSO COMPUTED AT THIS LOCATION

```

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
* JUN 1998 *
* VERSION 4.1 *
* RUN DATE 11JUL06 TIME 08:13:30 *
*
*****

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

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Project ID: METRO ADMS/P - Major Basin: 01 - Return Period: 10 Years
METRO PHOENIX ADMS/P - FCD2004C040: Wood/Patel in association with BEC
10-Year 24-Hour Storm
SCS Type II Precipitation Distribution
Green and Ampt Loss Method
Clark Unit Hydrograph
Future Land Use Conditions
Model Name: FN24BASE.DAT, June 2006

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\*\*\*\*\*  
Important Notes:

- 1) Peak flow for each subbasin may not concentrate on one single point, for illustration purposes, it is assumed that the concentration point is located on the hydrologic low point of the subbasin;
- 2) Surface flow diversions may occur at several locations along one of the subbasin downstream boundaries. For simplicity, one split flow is modeled for each subbasin to one direction;
- 3) A fixed flow split ratio for most of the subbasin is used for all frequencies except some of the subbasins along Grand Canal.
- 4) Some subbasins have multiple pipes to one direction, a composite storm drain pipe may have been used to model these conditions;
- 5) Some subbasins have multiple detention/retention basins, an equivalent detention/retention basin may have been used to model these conditions;
- 6) Surface flow routing may occur at multiple streets and as sheet flow, a composite channel cross section is used to represent the streets flow conveyance.

\*\*\*\*\*  
HEC-1 ELEMENT NOMENCLATURE

SUB-BASIN HYDROGRAPH:

Example: "80c" is the hydrograph from subbasin 80c

SUB-BASIN FLOW DIVERSION:

Example: "D80cS" is the south component of diversion in Subbasin 80c

PIPE FLOW DIVERSION:

Example: "80cP" is the pipe flow from Subbasin 80c

PIPE FLOW ROUTING:

Example: "P80cS" is the south component of pipe routing from Subbasin 80c

CHANNEL ROUTE:

Example: "R80cS" is the south component of surface flow routing from 80c

STORAGE ROUTE:

Example: "S80c" is the storage routing in Subbasin 80c

HYDROGRAPH COMBINE:

Example: "C80c" is the combined flow in Subbasin 80c

HYDROGRAPH RETRIEVAL:

Example: "B80c" is the retrieved flow from Subbasin 80c

"DUMMY" COMBINE:

Example: "NUL80C" is the dummy hydrograph combining to free up a HEC-1 computational path.

\*\*\*\*\*

62 IO

OUTPUT CONTROL VARIABLES

```

IPRNT      5  PRINT CONTROL
IPLOT      0  PLOT CONTROL
QSCAL     0.  HYDROGRAPH PLOT SCALE

```

IT

HYDROGRAPH TIME DATA

```

NMIN      5  MINUTES IN COMPUTATION INTERVAL
IDATE     1  0  STARTING DATE
ITIME     0000 STARTING TIME
NQ        2000 NUMBER OF HYDROGRAPH ORDINATES
NDDATE    7  0  ENDING DATE
NDTIME    2235 ENDING TIME

```







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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	64c	41.	12.50	12.	4.	1.	.26		
DIVERSION TO	D64cS	28.	12.50	8.	3.	1.	.26		
HYDROGRAPH AT	D64cW	13.	12.50	4.	1.	0.	.26		
ROUTED TO	R64cW	12.	12.92	4.	1.	0.	.26		
HYDROGRAPH AT	68c	45.	12.42	14.	5.	2.	.43		
2 COMBINED AT	C68c	51.	12.67	18.	6.	2.	.70		
DIVERSION TO	D68cP	41.	12.33	17.	6.	2.	.70		
HYDROGRAPH AT	D68c	10.	12.67	1.	0.	0.	.70		
DIVERSION TO	D68cS	5.	12.67	0.	0.	0.	.70		
HYDROGRAPH AT	D68cW	6.	12.67	1.	0.	0.	.70		
ROUTED TO	R68cW	3.	13.33	1.	0.	0.	.70		
HYDROGRAPH AT	72c	29.	12.75	12.	4.	1.	.54		
2 COMBINED AT	C72c	30.	12.83	13.	5.	2.	1.24		
DIVERSION TO	D72cP	30.	12.83	13.	5.	2.	1.24		
HYDROGRAPH AT	D72c	0.	.00	0.	0.	0.	1.24		
DIVERSION TO	D72cS	0.	.00	0.	0.	0.	1.24		
HYDROGRAPH AT	D72cW	0.	.00	0.	0.	0.	1.24		
ROUTED TO	R72cW	0.	.00	0.	0.	0.	1.24		
HYDROGRAPH AT	76c	181.	12.42	41.	12.	4.	.60		
2 COMBINED AT	C76c	177.	12.42	40.	12.	4.	1.84		
DIVERSION TO	D76c	138.	12.42	20.	5.	2.	1.84		
HYDROGRAPH AT	D76cP	39.	12.00	20.	7.	2.	1.84		
HYDROGRAPH AT	84c	138.	12.58	49.	16.	5.	.47		
DIVERSION TO	D84cS	106.	12.58	38.	12.	4.	.47		
HYDROGRAPH AT	D84cE	32.	12.58	11.	4.	1.	.47		
ROUTED TO	R84cE	30.	13.08	11.	4.	1.	.47		

+	HYDROGRAPH AT	80c	167.	12.50	49.	16.	5.	.66
+	ROUTED TO	S80c	160.	12.67	49.	14.	5.	.66
+	2 COMBINED AT	C80c	180.	12.75	60.	18.	6.	1.13
+	DIVERSION TO	D80c	161.	12.75	42.	10.	3.	1.13
+	HYDROGRAPH AT	D80cP	19.	11.67	18.	7.	2.	1.13
+	2 COMBINED AT	C76cP	58.	12.00	38.	14.	5.	2.97
+	ROUTED TO	P76cS	58.	12.17	38.	14.	5.	2.97
+	DIVERSION TO	D80eP1	19.	12.17	12.	5.	2.	2.97
+	HYDROGRAPH AT	D76eP1	39.	12.17	26.	10.	3.	2.97
+	HYDROGRAPH AT	56e	22.	12.33	6.	2.	1.	.18
+	DIVERSION TO	D56eS	11.	12.33	3.	1.	0.	.18
+	HYDROGRAPH AT	D56eW	10.	12.33	3.	1.	0.	.18
+	ROUTED TO	R56eW	9.	12.83	3.	1.	0.	.18
+	HYDROGRAPH AT	60e	41.	12.58	15.	5.	2.	.41
+	2 COMBINED AT	C60e	48.	12.75	18.	6.	2.	.58
+	DIVERSION TO	D60eP	48.	12.75	18.	6.	2.	.58
+	HYDROGRAPH AT	D60e	0.	.00	0.	0.	0.	.58
+	DIVERSION TO	D60eS	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	D60eW	0.	.00	0.	0.	0.	.58
+	ROUTED TO	R60eW	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	64e	34.	12.58	13.	5.	2.	.50
+	HYDROGRAPH AT	B64cS	28.	12.50	8.	3.	1.	.26
+	ROUTED TO	R64cS	25.	13.17	8.	3.	1.	.26
+	3 COMBINED AT	C64e	53.	13.00	21.	7.	2.	1.35
+	DIVERSION TO	D64eS	26.	13.00	11.	4.	1.	1.35
+	HYDROGRAPH AT	D64eW	26.	13.00	11.	4.	1.	1.35
+	ROUTED TO	R64eW	25.	13.42	11.	4.	1.	1.35
+	HYDROGRAPH AT	68e	30.	12.67	12.	4.	1.	.50
	HYDROGRAPH AT							

+		B68cP	41.	12.33	17.	6.	2.	.70
	ROUTED TO							
		P68cS	41.	12.50	17.	6.	2.	.70
	HYDROGRAPH AT							
+		B68cS	5.	12.67	0.	0.	0.	.70
	ROUTED TO							
+		R68cS	2.	13.50	0.	0.	0.	.70
	2 COMBINED AT							
+		C68cS	42.	13.08	17.	6.	2.	.70
	3 COMBINED AT							
+		C68e	90.	13.08	39.	14.	5.	2.28
	DIVERSION TO							
+		D68eP	63.	12.33	35.	13.	4.	2.28
	HYDROGRAPH AT							
+		D68e	27.	13.08	5.	1.	0.	2.28
	DIVERSION TO							
+		D68eS	15.	13.08	2.	1.	0.	2.28
	HYDROGRAPH AT							
+		D68eW	13.	13.08	2.	1.	0.	2.28
	ROUTED TO							
+		R68eW	10.	13.50	2.	1.	0.	2.28
	HYDROGRAPH AT							
+		72e	42.	12.67	17.	6.	2.	.50
	HYDROGRAPH AT							
+		B72cP	30.	12.83	13.	5.	2.	1.24
	ROUTED TO							
+		P72cS	30.	12.92	13.	5.	2.	1.24
	HYDROGRAPH AT							
+		B72cS	0.	.00	0.	0.	0.	1.24
	ROUTED TO							
+		R72cS	0.	.00	0.	0.	0.	1.24
	2 COMBINED AT							
+		C72cS	30.	12.92	13.	5.	2.	1.24
	3 COMBINED AT							
+		C72e	71.	12.83	31.	11.	4.	3.32
	DIVERSION TO							
+		D72eP	71.	12.83	31.	11.	4.	3.32
	HYDROGRAPH AT							
+		D72e	0.	.00	0.	0.	0.	3.32
	DIVERSION TO							
+		D72eS	0.	.00	0.	0.	0.	3.32
	HYDROGRAPH AT							
+		D72eW	0.	.00	0.	0.	0.	3.32
	ROUTED TO							
+		R72eW	0.	.00	0.	0.	0.	3.32
	HYDROGRAPH AT							
+		76e	66.	12.58	22.	8.	3.	.50
	HYDROGRAPH AT							
+		B76c	138.	12.42	20.	5.	2.	1.84
	ROUTED TO							
+		R76cS	118.	12.92	20.	5.	2.	1.84
	4 COMBINED AT							
+		C76e	211.	12.92	66.	22.	7.	4.42
	DIVERSION TO							
+		D76e	190.	12.92	46.	11.	4.	4.42
	HYDROGRAPH AT							
+		D76eP	21.	11.33	20.	10.	3.	4.42

+	HYDROGRAPH AT	BD84cS	106.	12.58	38.	12.	4.	.47
.	ROUTED TO	R84cS	101.	13.00	38.	12.	4.	.47
+	HYDROGRAPH AT	84e	28.	12.75	12.	4.	1.	.21
+	2 COMBINED AT	C84e	126.	13.00	49.	16.	5.	.68
+	DIVERSION TO	D84eS	49.	13.00	19.	6.	2.	.68
+	HYDROGRAPH AT	D84eE	77.	13.00	30.	10.	3.	.68
+	ROUTED TO	R84eE	72.	13.58	30.	10.	3.	.68
+	HYDROGRAPH AT	80e	127.	12.50	34.	11.	4.	.49
+	HYDROGRAPH AT	B80eP1	19.	12.17	12.	5.	2.	2.97
+	HYDROGRAPH AT	BD80c	161.	12.75	42.	10.	3.	1.13
+	ROUTED TO	R80cS	151.	13.17	42.	10.	3.	1.13
+	4 COMBINED AT	C80e	291.	13.25	115.	35.	12.	1.84
+	DIVERSION TO	D80e	236.	13.25	68.	17.	6.	1.84
+	HYDROGRAPH AT	D80eP	55.	12.08	46.	18.	6.	1.84
+	2 COMBINED AT	C76eP	76.	12.08	67.	28.	9.	6.26
+	ROUTED TO	P76eS	76.	12.17	67.	28.	9.	6.26
+	DIVERSION TO	D80gP1	55.	12.17	49.	20.	7.	6.26
+	HYDROGRAPH AT	D76gP1	21.	12.17	18.	8.	3.	6.26
+	HYDROGRAPH AT	76g	97.	12.50	30.	10.	3.	.50
+	HYDROGRAPH AT	BD76e	190.	12.92	46.	11.	4.	4.42
+	ROUTED TO	R76eS	178.	13.25	46.	11.	4.	4.42
+	3 COMBINED AT	C76g	255.	13.17	91.	29.	10.	4.92
+	DIVERSION TO	D76gP2	48.	12.08	40.	16.	5.	4.92
+	HYDROGRAPH AT	D76g1	207.	13.17	51.	13.	4.	4.92
+	DIVERSION TO	D76gP	57.	12.33	26.	6.	2.	4.92
+	HYDROGRAPH AT	D76g	150.	13.17	26.	6.	2.	4.92
+	DIVERSION TO	D76gS	105.	13.17	18.	5.	2.	4.92
+	HYDROGRAPH AT	D76gE	45.	13.17	8.	2.	1.	4.92
+	ROUTED TO	R76gE	43.	13.42	8.	2.	1.	4.92

+	HYDROGRAPH AT	B76gP2	48.	12.08	40.	16.	5.	4.92
	2 COMBINED AT	C76gE	91.	13.42	48.	18.	6.	4.92
+	HYDROGRAPH AT	54g	61.	12.33	14.	5.	2.	.25
+	DIVERSION TO	D54gS	24.	12.33	6.	2.	1.	.25
+	HYDROGRAPH AT	D54gW	37.	12.33	9.	3.	1.	.25
+	ROUTED TO	R54gW	31.	12.83	9.	3.	1.	.25
+	HYDROGRAPH AT	56g	60.	12.50	21.	7.	2.	.50
+	HYDROGRAPH AT	B56eS	11.	12.33	3.	1.	0.	.18
+	ROUTED TO	R56eS	9.	13.17	3.	1.	0.	.18
+	3 COMBINED AT	C56g	92.	12.75	32.	11.	4.	.92
+	DIVERSION TO	D56gP	92.	12.75	32.	11.	4.	.92
+	HYDROGRAPH AT	D56g	0.	.00	0.	0.	0.	.92
+	DIVERSION TO	D56gS	0.	.00	0.	0.	0.	.92
+	HYDROGRAPH AT	D56gW	0.	.00	0.	0.	0.	.92
+	ROUTED TO	R56gW	0.	.00	0.	0.	0.	.92
+	HYDROGRAPH AT	60g	62.	12.50	22.	8.	3.	.50
+	HYDROGRAPH AT	B60eP	48.	12.75	18.	6.	2.	.58
+	ROUTED TO	P60eS	48.	12.75	18.	6.	2.	.58
+	HYDROGRAPH AT	B60eS	0.	.00	0.	0.	0.	.58
+	ROUTED TO	R60eS	0.	.00	0.	0.	0.	.58
+	2 COMBINED AT	C60eS	48.	12.75	18.	6.	2.	.58
+	3 COMBINED AT	C60g	107.	12.67	40.	14.	5.	1.83
+	DIVERSION TO	D60gP	107.	12.67	40.	14.	5.	1.83
+	HYDROGRAPH AT	D60g	0.	.00	0.	0.	0.	1.83
+	DIVERSION TO	D60gS	0.	.00	0.	0.	0.	1.83
+	HYDROGRAPH AT	D60gW	0.	.00	0.	0.	0.	1.83
+	ROUTED TO	R60gW	0.	.00	0.	0.	0.	1.83
+	HYDROGRAPH AT	64g	48.	12.58	18.	6.	2.	.50
	HYDROGRAPH AT							

+		B64eS	26.	13.00	11.	4.	1.	1.35
	ROUTED TO	R64eS	25.	13.58	11.	4.	1.	1.35
	3 COMBINED AT	C64g	58.	13.08	28.	10.	3.	3.10
+	DIVERSION TO	D64gP	58.	13.08	28.	10.	3.	3.10
+	HYDROGRAPH AT	D64g	0.	.00	0.	0.	0.	3.10
+	DIVERSION TO	D64gS	0.	.00	0.	0.	0.	3.10
+	HYDROGRAPH AT	D64gW	0.	.00	0.	0.	0.	3.10
+	ROUTED TO	R64gW	0.	.00	0.	0.	0.	3.10
+	HYDROGRAPH AT	68g	37.	12.67	15.	5.	2.	.50
+	HYDROGRAPH AT	B68eP	63.	12.33	35.	13.	4.	2.28
+	ROUTED TO	P68eS	63.	12.42	35.	13.	4.	2.28
+	HYDROGRAPH AT	B68eS	15.	13.08	2.	1.	0.	2.28
+	ROUTED TO	R68eS	11.	13.58	2.	1.	0.	2.28
+	2 COMBINED AT	C68eS	74.	13.58	37.	13.	4.	2.28
+	3 COMBINED AT	C68g	100.	12.83	52.	19.	6.	4.53
+	DIVERSION TO	D68gP	82.	12.33	48.	17.	6.	4.53
+	HYDROGRAPH AT	D68g	18.	12.83	4.	1.	0.	4.53
+	DIVERSION TO	D68gS	10.	12.83	2.	1.	0.	4.53
+	HYDROGRAPH AT	D68gW	8.	12.83	2.	0.	0.	4.53
+	ROUTED TO	R68gW	7.	13.92	2.	0.	0.	4.53
+	HYDROGRAPH AT	72g	45.	12.67	19.	7.	2.	.50
+	HYDROGRAPH AT	B72eP	71.	12.83	31.	11.	4.	3.32
+	ROUTED TO	P72eS	71.	12.92	31.	11.	4.	3.32
+	HYDROGRAPH AT	B72eS	0.	.00	0.	0.	0.	3.32
+	ROUTED TO	R72eS	0.	.00	0.	0.	0.	3.32
+	2 COMBINED AT	C72eS	71.	12.92	31.	11.	4.	3.32
+	3 COMBINED AT	C72g	113.	12.83	50.	17.	6.	6.07
+	2 COMBINED AT	CC72g	195.	13.33	98.	35.	12.	7.67
+	DIVERSION TO	D72gP	178.	13.00	97.	35.	12.	7.67

+	HYDROGRAPH AT	D72g	17.	13.33	1.	0.	0.	7.67
	ROUTED TO	R72gS	5.	14.08	1.	0.	0.	7.67
+	HYDROGRAPH AT	BD72gP	178.	13.00	97.	35.	12.	7.67
+	ROUTED TO	P72gS	178.	13.17	97.	35.	12.	7.67
+	2 COMBINED AT	C72gS	181.	13.67	98.	35.	12.	7.67
+	HYDROGRAPH AT	84g	44.	12.58	16.	5.	2.	.21
+	HYDROGRAPH AT	B84eS	49.	13.00	19.	6.	2.	.68
+	ROUTED TO	R84eS	47.	13.58	19.	6.	2.	.68
+	2 COMBINED AT	C84g	73.	13.42	34.	11.	4.	.90
+	DIVERSION TO	D84gS	34.	13.42	16.	5.	2.	.90
+	HYDROGRAPH AT	D84gE	39.	13.42	18.	6.	2.	.90
+	ROUTED TO	R84gE	37.	14.00	18.	6.	2.	.90
+	HYDROGRAPH AT	80g	82.	12.58	27.	9.	3.	.50
+	HYDROGRAPH AT	BD80e	236.	13.25	68.	17.	6.	1.84
+	ROUTED TO	R80eS	227.	13.58	68.	17.	6.	1.84
+	HYDROGRAPH AT	B80gP1	55.	12.17	49.	20.	7.	6.26
+	4 COMBINED AT	C80g	353.	13.50	159.	52.	17.	2.55
+	DIVERSION TO	D80g	334.	13.50	140.	36.	12.	2.55
+	HYDROGRAPH AT	D80gP	19.	9.67	19.	15.	5.	2.55
+	HYDROGRAPH AT	B76gP	57.	12.33	26.	6.	2.	4.92
+	2 COMBINED AT	C76gP	76.	12.33	44.	21.	7.	7.47
+	ROUTED TO	P76gS	76.	12.42	44.	21.	7.	7.47
+	DIVERSION TO	D80iP1	19.	12.42	11.	5.	2.	7.47
+	HYDROGRAPH AT	D76iP1	57.	12.42	33.	16.	6.	7.47
+	HYDROGRAPH AT	76i	164.	12.50	48.	16.	5.	.50
+	HYDROGRAPH AT	BD76gS	105.	13.17	18.	5.	2.	4.92
+	ROUTED TO	R76gS	89.	13.58	18.	5.	2.	4.92
+	3 COMBINED AT	C76i	215.	12.50	98.	36.	12.	5.42
+	DIVERSION TO	D76i1	167.	12.50	58.	14.	5.	5.42

+	HYDROGRAPH AT	D761P2	48.	11.92	40.	22.	7.	5.42
+	HYDROGRAPH AT	72i	75.	12.67	27.	9.	3.	.50
+	3 COMBINED AT	C72i	287.	13.08	162.	65.	22.	8.68
+	DIVERSION TO	D72i	29.	13.08	4.	1.	0.	8.68
+	HYDROGRAPH AT	D72iP	258.	12.58	159.	64.	22.	8.68
+	DIVERSION TO	D72iP1	226.	12.58	139.	56.	19.	8.68
+	HYDROGRAPH AT	D72iP2	32.	12.58	20.	8.	3.	8.68
+	ROUTED TO	P72iW	32.	12.67	20.	8.	3.	8.68
+	HYDROGRAPH AT	BD76i1	167.	12.50	58.	14.	5.	5.42
+	2 COMBINED AT	CC76i	197.	13.50	77.	22.	7.	5.92
+	DIVERSION TO	D76i	119.	13.50	34.	9.	3.	5.92
+	HYDROGRAPH AT	D76iP	78.	12.17	43.	14.	5.	5.92
+	HYDROGRAPH AT	BD84gS	34.	13.42	16.	5.	2.	.90
+	ROUTED TO	R84gS	33.	14.00	16.	5.	2.	.90
+	HYDROGRAPH AT	84i	29.	12.75	12.	4.	1.	.21
+	2 COMBINED AT	C84i	49.	13.83	28.	9.	3.	1.11
+	ROUTED TO	S84i	0.	.00	0.	0.	0.	1.11
+	DIVERSION TO	D84iS	0.	.00	0.	0.	0.	1.11
+	HYDROGRAPH AT	D84iE	0.	.00	0.	0.	0.	1.11
+	ROUTED TO	R84iE	0.	.00	0.	0.	0.	1.11
+	HYDROGRAPH AT	80i	146.	12.50	38.	12.	4.	.49
+	HYDROGRAPH AT	BD80g	334.	13.50	140.	36.	12.	2.55
+	ROUTED TO	S80g	334.	13.50	140.	36.	12.	2.55
+	ROUTED TO	R80gS	327.	13.83	139.	36.	12.	2.55
+	HYDROGRAPH AT	B80iP1	19.	12.42	11.	5.	2.	7.47
+	4 COMBINED AT	C80i	386.	13.75	185.	53.	18.	3.25
+	DIVERSION TO	D80i	358.	13.75	157.	39.	13.	3.25
+	HYDROGRAPH AT	D80iP	28.	11.92	28.	14.	5.	3.25
+	2 COMBINED AT							

+		C76iP	106.	12.17	71.	27.	9.	9.18
	ROUTED TO							
		P76iS	106.	12.25	71.	27.	9.	9.18
	DIVERSION TO							
+		D80kP1	28.	12.25	18.	7.	2.	9.18
	HYDROGRAPH AT							
+		D76kP1	78.	12.25	52.	20.	7.	9.18
	HYDROGRAPH AT							
+		76k	139.	12.33	30.	9.	3.	.32
	HYDROGRAPH AT							
+		BD76i	119.	13.50	34.	9.	3.	5.92
	DIVERSION TO							
+		D76iE	38.	13.50	11.	3.	1.	5.92
	HYDROGRAPH AT							
+		D76iS	81.	13.50	23.	6.	2.	5.92
	ROUTED TO							
+		R76iS	78.	13.75	23.	6.	2.	5.92
	3 COMBINED AT							
+		C76k	246.	12.75	104.	35.	12.	5.74
	DIVERSION TO							
+		D76k1	214.	12.75	72.	18.	6.	5.74
	HYDROGRAPH AT							
+		D76kP2	32.	11.75	32.	17.	6.	5.74
	HYDROGRAPH AT							
+		54i	32.	12.50	12.	4.	1.	.19
	HYDROGRAPH AT							
+		BD54gS	24.	12.33	6.	2.	1.	.25
	ROUTED TO							
		R54gS	21.	12.92	6.	2.	1.	.25
	2 COMBINED AT							
+		C54i	48.	12.83	17.	6.	2.	.44
	DIVERSION TO							
+		D54iP	48.	12.83	17.	6.	2.	.44
	HYDROGRAPH AT							
+		D54i	0.	.00	0.	0.	0.	.44
	DIVERSION TO							
+		D54iS	0.	.00	0.	0.	0.	.44
	HYDROGRAPH AT							
+		D54iW	0.	.00	0.	0.	0.	.44
	ROUTED TO							
+		R54iW	0.	.00	0.	0.	0.	.44
	HYDROGRAPH AT							
+		56i	80.	12.50	26.	9.	3.	.50
	HYDROGRAPH AT							
+		BD56gP	92.	12.75	32.	11.	4.	.92
	ROUTED TO							
+		P56gS	91.	12.75	32.	11.	4.	.92
	HYDROGRAPH AT							
+		BD56gS	0.	.00	0.	0.	0.	.92
	ROUTED TO							
+		R56gS	0.	.00	0.	0.	0.	.92
	2 COMBINED AT							
+		C56gS	91.	12.75	32.	11.	4.	.92
	3 COMBINED AT							
+		C56i	164.	12.67	58.	20.	7.	1.62
	DIVERSION TO							
+		D56iP	164.	12.67	58.	20.	7.	1.62

+	HYDROGRAPH AT	D56i	0.	.00	0.	0.	0.	1.62
+	DIVERSION TO	D56iS	0.	.00	0.	0.	0.	1.62
+	HYDROGRAPH AT	D56iW	0.	.00	0.	0.	0.	1.62
+	ROUTED TO	R56iW	0.	.00	0.	0.	0.	1.62
+	HYDROGRAPH AT	60i	128.	12.42	38.	13.	4.	.50
+	HYDROGRAPH AT	BD60gP	107.	12.67	40.	14.	5.	1.83
+	ROUTED TO	P60gS	107.	12.67	40.	14.	5.	1.83
+	HYDROGRAPH AT	BD60gS	0.	.00	0.	0.	0.	1.83
+	ROUTED TO	R60gS	0.	.00	0.	0.	0.	1.83
+	2 COMBINED AT	C60gS	107.	12.67	40.	14.	5.	1.83
+	3 COMBINED AT	C60i	227.	12.58	76.	26.	9.	3.02
+	DIVERSION TO	D60iP	211.	12.42	75.	26.	9.	3.02
+	HYDROGRAPH AT	D60i	16.	12.58	1.	0.	0.	3.02
+	DIVERSION TO	D60iS	9.	12.58	1.	0.	0.	3.02
+	HYDROGRAPH AT	D60iW	6.	12.58	0.	0.	0.	3.02
+	ROUTED TO	R60iW	2.	13.25	0.	0.	0.	3.02
+	HYDROGRAPH AT	BD64gP	58.	13.08	28.	10.	3.	3.10
+	ROUTED TO	P64gS	58.	13.08	28.	10.	3.	3.10
+	HYDROGRAPH AT	BD64gS	0.	.00	0.	0.	0.	3.10
+	ROUTED TO	R64gS	0.	.00	0.	0.	0.	3.10
+	2 COMBINED AT	C64gS	58.	13.08	28.	10.	3.	3.10
+	HYDROGRAPH AT	64i	77.	12.58	28.	10.	3.	.50
+	3 COMBINED AT	C64i	127.	12.67	56.	20.	7.	4.79
+	DIVERSION TO	D64iP	127.	12.67	56.	20.	7.	4.79
+	HYDROGRAPH AT	D64i	0.	.00	0.	0.	0.	4.79
+	DIVERSION TO	D64iS	0.	.00	0.	0.	0.	4.79
+	HYDROGRAPH AT	D64iW	0.	.00	0.	0.	0.	4.79
+	ROUTED TO	R64iW	0.	.00	0.	0.	0.	4.79
+	HYDROGRAPH AT	68i	49.	12.67	20.	7.	2.	.50

+	HYDROGRAPH AT	BD68gP	82.	12.33	48.	17.	6.	4.53
	ROUTED TO	P68gS	82.	12.42	48.	17.	6.	4.53
+	HYDROGRAPH AT	BD68gS	10.	12.83	2.	1.	0.	4.53
+	ROUTED TO	R68gS	9.	13.92	2.	1.	0.	4.53
+	2 COMBINED AT	C68gS	91.	13.92	50.	18.	6.	4.53
+	3 COMBINED AT	C68i	130.	12.75	70.	25.	8.	6.72
+	HYDROGRAPH AT	BD72i	29.	13.08	4.	1.	0.	8.68
+	HYDROGRAPH AT	B76iE	38.	13.50	11.	3.	1.	5.92
+	ROUTED TO	R76iE	35.	13.92	11.	3.	1.	5.92
+	2 COMBINED AT	CC72i	54.	13.08	15.	4.	1.	8.68
+	DIVERSION TO	D72iS	37.	13.08	10.	3.	1.	8.68
+	HYDROGRAPH AT	D72iE	16.	13.08	4.	1.	0.	8.68
+	ROUTED TO	R72iE	13.	14.17	4.	1.	0.	8.68
+	2 COMBINED AT	CC68i	129.	13.75	73.	26.	9.	10.87
+	DIVERSION TO	D68iP	99.	12.33	64.	24.	8.	10.87
+	HYDROGRAPH AT	D68i	30.	13.75	9.	2.	1.	10.87
+	ROUTED TO	R68iS	30.	13.92	9.	2.	1.	10.87
+	HYDROGRAPH AT	BD68iP	99.	12.33	64.	24.	8.	10.87
+	ROUTED TO	P68iS	99.	12.42	64.	24.	8.	10.87
+	2 COMBINED AT	C68iS	129.	13.92	73.	26.	9.	10.87
+	HYDROGRAPH AT	36i	43.	12.50	14.	5.	2.	.34
+	DIVERSION TO	D36iP	40.	12.50	14.	5.	2.	.34
+	HYDROGRAPH AT	D36i	3.	12.50	0.	0.	0.	.34
+	DIVERSION TO	D36iS	2.	12.50	0.	0.	0.	.34
+	HYDROGRAPH AT	D36iW	0.	12.50	0.	0.	0.	.34
+	ROUTED TO	R36iW	0.	13.00	0.	0.	0.	.34
+	HYDROGRAPH AT	40i	33.	12.42	10.	4.	1.	.22
+	ROUTED TO	S40i	0.	.00	0.	0.	0.	.22
	2 COMBINED AT							

+		C40i	0.	13.00	0.	0.	0.	.56
	DIVERSION TO							
+		D40iS	0.	13.00	0.	0.	0.	.56
	HYDROGRAPH AT							
+		D40iW	0.	13.00	0.	0.	0.	.56
	ROUTED TO							
+		R40iW	0.	13.50	0.	0.	0.	.56
	HYDROGRAPH AT							
+		44i	38.	12.50	14.	5.	2.	.35
	HYDROGRAPH AT							
+		42i	11.	12.50	3.	1.	0.	.27
	ROUTED TO							
+		R42iW	10.	12.83	3.	1.	0.	.27
	3 COMBINED AT							
+		C44i	45.	12.67	17.	6.	2.	1.18
	DIVERSION TO							
+		D44iP	45.	12.67	17.	6.	2.	1.18
	HYDROGRAPH AT							
+		D44i	0.	12.67	0.	0.	0.	1.18
	DIVERSION TO							
+		D44iS	0.	12.67	0.	0.	0.	1.18
	HYDROGRAPH AT							
+		D44iW	0.	12.67	0.	0.	0.	1.18
	ROUTED TO							
+		R44iW	0.	13.08	0.	0.	0.	1.18
	HYDROGRAPH AT							
+		48i	27.	12.58	10.	4.	1.	.54
	2 COMBINED AT							
+		C48i	27.	12.58	10.	4.	1.	1.72
	DIVERSION TO							
+		D48iP	27.	12.58	10.	4.	1.	1.72
	HYDROGRAPH AT							
+		D48i	0.	.00	0.	0.	0.	1.72
	DIVERSION TO							
+		D48iS	0.	.00	0.	0.	0.	1.72
	HYDROGRAPH AT							
+		D48iW	0.	.00	0.	0.	0.	1.72
	ROUTED TO							
+		R48iW	0.	.00	0.	0.	0.	1.72
	HYDROGRAPH AT							
+		BD48iP	27.	12.58	10.	4.	1.	1.72
	ROUTED TO							
+		P48iW	27.	12.67	10.	4.	1.	1.72
	2 COMBINED AT							
+		C48iW	27.	12.67	10.	4.	1.	1.72
	HYDROGRAPH AT							
+		52g	24.	12.33	6.	2.	1.	.26
	ROUTED TO							
+		R52gS	21.	12.92	6.	2.	1.	.26
	HYDROGRAPH AT							
+		52i	34.	12.50	13.	4.	1.	.31
	3 COMBINED AT							
+		C52i	76.	12.75	28.	10.	3.	2.29
	DIVERSION TO							
+		DB52i	0.	.00	0.	0.	0.	2.29
	HYDROGRAPH AT							
+		B52i	76.	12.75	28.	10.	3.	2.29

+	HYDROGRAPH AT	BDB52i	0.	.00	0.	0.	0.	2.29
	ROUTED TO	S52i	0.	.00	0.	0.	0.	2.29
+	2 COMBINED AT	CC52i	76.	12.75	28.	10.	3.	2.29
+	DIVERSION TO	D52iP	76.	12.75	28.	10.	3.	2.29
+	HYDROGRAPH AT	D52i	0.	.00	0.	0.	0.	2.29
+	ROUTED TO	R52iS	0.	.00	0.	0.	0.	2.29
+	HYDROGRAPH AT	BD52iP	76.	12.75	28.	10.	3.	2.29
+	ROUTED TO	P52iS	76.	12.92	28.	10.	3.	2.29
+	2 COMBINED AT	C52iS	76.	12.92	28.	10.	3.	2.29
+	HYDROGRAPH AT	24k	58.	12.33	13.	4.	1.	.19
+	DIVERSION TO	D24kS	29.	12.33	7.	2.	1.	.19
+	HYDROGRAPH AT	D24kW	29.	12.33	7.	2.	1.	.19
+	ROUTED TO	R24kW	26.	12.75	7.	2.	1.	.19
+	HYDROGRAPH AT	ARC40	47.	13.00	12.	4.	1.	.10
	ROUTED TO	PARC40	46.	13.08	12.	4.	1.	.10
+	HYDROGRAPH AT	28k	53.	12.50	18.	6.	2.	.43
+	3 COMBINED AT	C28k	108.	12.92	36.	12.	4.	.72
+	DIVERSION TO	D28kP	108.	12.92	36.	12.	4.	.72
+	HYDROGRAPH AT	D28k	0.	.00	0.	0.	0.	.72
+	DIVERSION TO	D28kS	0.	.00	0.	0.	0.	.72
+	HYDROGRAPH AT	D28kW	0.	.00	0.	0.	0.	.72
+	ROUTED TO	R28kW	0.	.00	0.	0.	0.	.72
+	HYDROGRAPH AT	32k	52.	12.50	19.	7.	2.	.51
+	2 COMBINED AT	C32k	52.	12.50	19.	7.	2.	1.23
+	DIVERSION TO	D32kP	45.	12.33	18.	7.	2.	1.23
+	HYDROGRAPH AT	D32k	7.	12.50	0.	0.	0.	1.23
+	DIVERSION TO	D32kS	3.	12.50	0.	0.	0.	1.23
+	HYDROGRAPH AT	D32kW	4.	12.50	0.	0.	0.	1.23
+	ROUTED TO	R32kW	2.	13.08	0.	0.	0.	1.23

+	HYDROGRAPH AT	36k	61.	12.50	22.	8.	3.	.51
+	HYDROGRAPH AT	BD36iP	40.	12.50	14.	5.	2.	.34
+	ROUTED TO	P36iS	40.	12.67	14.	5.	2.	.34
+	HYDROGRAPH AT	BD36iS	2.	12.50	0.	0.	0.	.34
+	ROUTED TO	R36iS	1.	13.33	0.	0.	0.	.34
+	2 COMBINED AT	C36iS	40.	12.67	14.	5.	2.	.34
+	3 COMBINED AT	C36k	99.	12.58	35.	12.	4.	2.07
+	DIVERSION TO	D36kP	59.	12.25	30.	11.	4.	2.07
+	HYDROGRAPH AT	D36k	40.	12.58	5.	1.	0.	2.07
+	DIVERSION TO	D36kS	18.	12.58	2.	1.	0.	2.07
+	HYDROGRAPH AT	D36kW	22.	12.58	3.	1.	0.	2.07
+	ROUTED TO	R36kW	19.	13.00	3.	1.	0.	2.07
+	HYDROGRAPH AT	BD40iS	0.	13.00	0.	0.	0.	.56
+	ROUTED TO	R40iS	0.	13.92	0.	0.	0.	.56
+	HYDROGRAPH AT	40k	67.	12.58	24.	8.	3.	.50
+	3 COMBINED AT	C40k	77.	12.83	26.	9.	3.	2.80
+	DIVERSION TO	D40kP	29.	12.17	17.	7.	2.	2.80
+	HYDROGRAPH AT	D40k	48.	12.83	9.	2.	1.	2.80
+	DIVERSION TO	D40kS	20.	12.83	4.	1.	0.	2.80
+	HYDROGRAPH AT	D40kW	28.	12.83	5.	1.	0.	2.80
+	ROUTED TO	R40kW	26.	13.17	5.	1.	0.	2.80
+	HYDROGRAPH AT	44k	102.	12.50	33.	11.	4.	.51
+	HYDROGRAPH AT	BD44iP	45.	12.67	17.	6.	2.	1.18
+	ROUTED TO	P44iS	45.	12.75	17.	6.	2.	1.18
+	HYDROGRAPH AT	BD44iS	0.	12.67	0.	0.	0.	1.18
+	ROUTED TO	R44iS	0.	13.50	0.	0.	0.	1.18
+	2 COMBINED AT	C44iS	45.	12.75	17.	6.	2.	1.18
+	3 COMBINED AT	C44k	152.	12.75	54.	18.	6.	3.93
	DIVERSION TO							

+		D44kP	71.	12.17	39.	15.	5.	3.93
		HYDROGRAPH AT						
		D44k	81.	12.75	14.	4.	1.	3.93
		DIVERSION TO						
+		D44kS	31.	12.75	5.	1.	0.	3.93
		HYDROGRAPH AT						
+		D44kW	50.	12.75	9.	2.	1.	3.93
		ROUTED TO						
+		R44kW	46.	13.08	9.	2.	1.	3.93
		HYDROGRAPH AT						
+		48k	132.	12.50	43.	15.	5.	.50
		ROUTED TO						
+		S48k	132.	12.58	43.	14.	5.	.50
		HYDROGRAPH AT						
+		BD48iS	0.	.00	0.	0.	0.	1.72
		ROUTED TO						
+		R48iS	0.	.00	0.	0.	0.	1.72
		3 COMBINED AT						
+		C48k	155.	12.83	50.	15.	5.	4.96
		DIVERSION TO						
+		D48kS	70.	12.83	23.	7.	2.	4.96
		HYDROGRAPH AT						
+		D48kW	85.	12.83	28.	8.	3.	4.96
		ROUTED TO						
+		R48kW	84.	13.00	28.	8.	3.	4.96
		HYDROGRAPH AT						
+		52k	68.	12.58	23.	8.	3.	.29
		3 COMBINED AT						
		C52k	217.	12.92	78.	26.	9.	5.83
		DIVERSION TO						
+		D52kP	201.	12.67	77.	25.	9.	5.83
		HYDROGRAPH AT						
+		D52k	16.	12.92	1.	0.	0.	5.83
		DIVERSION TO						
+		D52kS	7.	12.92	0.	0.	0.	5.83
		HYDROGRAPH AT						
+		D52kW	9.	12.92	1.	0.	0.	5.83
		ROUTED TO						
+		R52kW	6.	13.00	1.	0.	0.	5.83
		HYDROGRAPH AT						
+		BD54iP	48.	12.83	17.	6.	2.	.44
		ROUTED TO						
+		P54iS	48.	13.00	17.	6.	2.	.44
		HYDROGRAPH AT						
+		BD54iS	0.	.00	0.	0.	0.	.44
		ROUTED TO						
+		R54iS	0.	.00	0.	0.	0.	.44
		2 COMBINED AT						
+		C54iS	48.	13.00	17.	6.	2.	.44
		HYDROGRAPH AT						
+		54k	65.	12.58	23.	8.	3.	.25
		3 COMBINED AT						
+		C54k	114.	12.92	41.	14.	5.	1.18
		DIVERSION TO						
		D54kP	111.	12.92	41.	14.	5.	1.18
		HYDROGRAPH AT						
+		D54k	3.	12.92	0.	0.	0.	1.18

+	DIVERSION TO	D54kS	0.	.00	0.	0.	0.	1.18
.	HYDROGRAPH AT	D54kW	3.	12.92	0.	0.	0.	1.18
+	ROUTED TO	R54kW	0.	14.92	0.	0.	0.	1.18
+	HYDROGRAPH AT	BD56iP	164.	12.67	58.	20.	7.	1.62
+	ROUTED TO	P56iS	164.	12.75	58.	20.	7.	1.62
+	HYDROGRAPH AT	BD56iS	0.	.00	0.	0.	0.	1.62
+	ROUTED TO	R56iS	0.	.00	0.	0.	0.	1.62
+	2 COMBINED AT	C56iS	164.	12.75	58.	20.	7.	1.62
+	HYDROGRAPH AT	56k	107.	12.42	31.	10.	3.	.42
+	3 COMBINED AT	C56k	259.	12.58	87.	30.	10.	2.78
+	HYDROGRAPH AT	BD60iP	211.	12.42	75.	26.	9.	3.02
+	DIVERSION TO	D60iP2	143.	12.42	51.	18.	6.	3.02
+	HYDROGRAPH AT	D60iP1	68.	12.42	24.	8.	3.	3.02
+	ROUTED TO	P60iS1	68.	12.50	24.	8.	3.	3.02
+	HYDROGRAPH AT	B60iP2	143.	12.42	51.	18.	6.	3.02
+	ROUTED TO	P60iS2	143.	12.50	51.	18.	6.	3.02
+	HYDROGRAPH AT	BD60iS	9.	12.58	1.	0.	0.	3.02
+	ROUTED TO	R60iS	4.	13.00	1.	0.	0.	3.02
+	3 COMBINED AT	C60iS	213.	12.75	76.	26.	9.	3.02
+	HYDROGRAPH AT	60k	88.	12.42	24.	8.	3.	.27
+	2 COMBINED AT	C60k	295.	12.50	99.	34.	11.	3.29
+	DIVERSION TO	D60k	160.	12.50	26.	6.	2.	3.29
+	HYDROGRAPH AT	D60kP	135.	12.17	73.	27.	9.	3.29
+	DIVERSION TO	D60kP2	125.	12.17	68.	25.	8.	3.29
+	HYDROGRAPH AT	D60kP1	10.	12.17	5.	2.	1.	3.29
+	ROUTED TO	P60kE	10.	12.33	5.	2.	1.	3.29
+	2 COMBINED AT	CC56k	267.	12.58	92.	32.	11.	4.46
+	DIVERSION TO	D56kP	267.	12.58	92.	32.	11.	4.46
+	HYDROGRAPH AT	D56k	0.	.00	0.	0.	0.	4.46

+	DIVERSION TO	D56kS	0.	.00	0.	0.	0.	4.46
	HYDROGRAPH AT	D56kW	0.	.00	0.	0.	0.	4.46
+	ROUTED TO	R56kW	0.	.00	0.	0.	0.	4.46
+	HYDROGRAPH AT	BD60k	160.	12.50	26.	6.	2.	3.29
+	2 COMBINED AT	CC60k	160.	12.50	25.	6.	2.	4.46
+	DIVERSION TO	D60kS	78.	12.50	10.	2.	1.	4.46
+	HYDROGRAPH AT	D60kW	82.	12.50	16.	4.	1.	4.46
+	ROUTED TO	R60kW	79.	13.08	16.	4.	1.	4.46
+	HYDROGRAPH AT	64k	55.	12.42	14.	5.	2.	.21
+	HYDROGRAPH AT	BD64iS	0.	.00	0.	0.	0.	4.79
+	ROUTED TO	R64iS	0.	.00	0.	0.	0.	4.79
+	3 COMBINED AT	C64k	107.	13.00	29.	8.	3.	6.43
+	ROUTED TO	S64k	9.	14.75	6.	2.	1.	6.43
+	HYDROGRAPH AT	BD64iP	127.	12.67	56.	20.	7.	4.79
+	ROUTED TO	P64iS	127.	12.67	56.	20.	7.	4.79
+	2 COMBINED AT	CC64k	126.	12.67	59.	22.	7.	6.43
+	DIVERSION TO	D64kP	126.	12.67	59.	22.	7.	6.43
+	HYDROGRAPH AT	D64k	0.	.00	0.	0.	0.	6.43
+	DIVERSION TO	D64kS	0.	.00	0.	0.	0.	6.43
+	HYDROGRAPH AT	D64kW	0.	.00	0.	0.	0.	6.43
+	ROUTED TO	R64kW	0.	.00	0.	0.	0.	6.43
+	HYDROGRAPH AT	68k	82.	12.42	18.	5.	2.	.20
+	3 COMBINED AT	C68k	181.	12.75	89.	31.	10.	12.71
+	DIVERSION TO	D68kP	114.	12.25	74.	27.	9.	12.71
+	HYDROGRAPH AT	D68k	67.	12.75	15.	4.	1.	12.71
+	DIVERSION TO	D68kS	11.	12.75	1.	0.	0.	12.71
+	HYDROGRAPH AT	D68kW	56.	12.75	14.	4.	1.	12.71
+	ROUTED TO	R68kW	50.	13.33	14.	4.	1.	12.71
	HYDROGRAPH AT							

+		72k	114.	12.42	27.	8.	3.	.28
+	ROUTED TO	S72k	90.	12.83	18.	5.	2.	.28
+	HYDROGRAPH AT	B72iP1	226.	12.58	139.	56.	19.	8.68
+	ROUTED TO	P72iS	226.	12.75	139.	56.	19.	8.68
+	HYDROGRAPH AT	BD72iS	37.	13.08	10.	3.	1.	8.68
+	ROUTED TO	R72iS	33.	13.58	10.	3.	1.	8.68
+	2 COMBINED AT	C72iS	259.	13.58	149.	59.	20.	8.68
+	3 COMBINED AT	C72k	349.	13.33	176.	66.	22.	12.99
+	2 COMBINED AT	CC72k	381.	13.33	208.	82.	28.	12.99
+	DIVERSION TO	D72kP	281.	12.67	188.	78.	26.	12.99
+	HYDROGRAPH AT	D72k	100.	13.33	19.	5.	2.	12.99
+	DIVERSION TO	D72kS	31.	13.33	4.	1.	0.	12.99
+	HYDROGRAPH AT	D72kW	70.	13.25	15.	4.	1.	12.99
+	ROUTED TO	R72kW	67.	13.92	15.	4.	1.	12.99
-	HYDROGRAPH AT	B76k1	214.	12.75	72.	18.	6.	5.74
+	2 COMBINED AT	CC76k	207.	13.75	84.	21.	7.	13.31
+	DIVERSION TO	D76kP	43.	12.00	25.	6.	2.	13.31
+	HYDROGRAPH AT	D76k	164.	13.75	59.	15.	5.	13.31
+	DIVERSION TO	D76kS	102.	13.75	34.	8.	3.	13.31
+	HYDROGRAPH AT	D76kW	62.	13.75	25.	6.	2.	13.31
+	ROUTED TO	R76kW	60.	14.50	25.	6.	2.	13.31
+	HYDROGRAPH AT	80k	182.	12.42	43.	13.	4.	.43
+	HYDROGRAPH AT	BD80i	358.	13.75	157.	39.	13.	3.25
+	ROUTED TO	R80iS	354.	13.92	156.	39.	13.	3.25
+	HYDROGRAPH AT	B80kP1	28.	12.25	18.	7.	2.	9.18
+	3 COMBINED AT	C80k	418.	13.83	215.	59.	20.	3.68
+	DIVERSION TO	D80kP	63.	12.00	59.	20.	7.	3.68
+	HYDROGRAPH AT	D80k	355.	13.83	156.	39.	13.	3.68
+	2 COMBINED AT	CC80k	411.	13.83	181.	45.	15.	4.68

+	DIVERSION TO	D80kS	104.	13.83	31.	8.	3.	4.68
	HYDROGRAPH AT	D80kW	307.	13.83	151.	38.	13.	4.68
+	ROUTED TO	R80kW	306.	14.00	151.	38.	13.	4.68
+	HYDROGRAPH AT	84k	84.	12.67	33.	10.	3.	.31
+	HYDROGRAPH AT	BD84iS	0.	.00	0.	0.	0.	1.11
+	ROUTED TO	R84iS	0.	.00	0.	0.	0.	1.11
+	3 COMBINED AT	C84k	349.	13.83	181.	48.	16.	4.99
+	ROUTED TO	R84kS	348.	14.08	181.	48.	16.	4.99
+	HYDROGRAPH AT	84m	75.	12.50	24.	7.	2.	.21
+	2 COMBINED AT	C84m	376.	13.17	203.	54.	18.	5.20
+	HYDROGRAPH AT	I17	164.	12.33	52.	18.	6.	.29
+	DIVERSION TO	D84mP	164.	12.33	52.	18.	6.	.29
+	HYDROGRAPH AT	D84m	0.	.00	0.	0.	0.	.29
+	2 COMBINED AT	CC84m	376.	13.17	203.	54.	18.	5.49
+	DIVERSION TO	D84mS	144.	13.17	78.	21.	7.	5.49
+	HYDROGRAPH AT	D84mE	231.	13.17	125.	33.	11.	5.49
+	ROUTED TO	R84mE	229.	14.08	125.	33.	11.	5.49
+	HYDROGRAPH AT	80m	234.	12.42	55.	16.	5.	.54
+	HYDROGRAPH AT	BD80kS	104.	13.83	31.	8.	3.	4.68
+	ROUTED TO	R80kS	98.	14.25	30.	8.	3.	4.68
+	3 COMBINED AT	C80m	359.	14.00	205.	57.	19.	6.03
+	DIVERSION TO	D80mS	207.	14.00	119.	33.	11.	6.03
+	HYDROGRAPH AT	D80mE	152.	14.00	87.	24.	8.	6.03
+	ROUTED TO	R80mE	151.	14.33	86.	24.	8.	6.03
+	HYDROGRAPH AT	76I	116.	12.25	17.	5.	2.	.18
+	HYDROGRAPH AT	BD80kP	63.	12.00	59.	20.	7.	3.68
+	HYDROGRAPH AT	BD76kP	43.	12.00	25.	6.	2.	13.31
+	2 COMBINED AT	C76kP	106.	12.00	83.	26.	9.	17.25
+	ROUTED TO	P76kS	106.	12.08	83.	26.	9.	17.25

+	HYDROGRAPH AT	BD76kS	102.	13.75	34.	8.	3.	13.31
+	ROUTED TO	R76kS	100.	13.83	34.	8.	3.	13.31
+	2 COMBINED AT	C76kS	216.	13.83	121.	36.	12.	4.68
+	2 COMBINED AT	C761	262.	12.42	137.	40.	13.	4.86
+	DIVERSION TO	D761P	156.	12.08	110.	34.	11.	4.86
+	HYDROGRAPH AT	D761	106.	12.42	26.	7.	2.	4.86
+	ROUTED TO	R761S	88.	13.00	26.	7.	2.	4.86
+	HYDROGRAPH AT	BD761P	156.	12.08	110.	34.	11.	4.86
+	ROUTED TO	P761S	156.	12.25	110.	34.	11.	4.86
+	2 COMBINED AT	C761S	244.	13.00	137.	40.	13.	4.86
+	HYDROGRAPH AT	76m	202.	12.42	48.	14.	5.	.49
+	ROUTED TO	S76m	201.	12.50	48.	14.	5.	.49
+	3 COMBINED AT	C76m	483.	12.92	266.	77.	26.	6.71
+	DIVERSION TO	D76m	292.	12.92	107.	27.	9.	6.71
+	HYDROGRAPH AT	D76mP	191.	12.08	159.	50.	17.	6.71
+	DIVERSION TO	D76mP2	32.	12.08	27.	8.	3.	6.71
+	HYDROGRAPH AT	D76mP1	159.	12.08	133.	42.	14.	6.71
+	HYDROGRAPH AT	721	35.	12.67	13.	4.	1.	.22
+	HYDROGRAPH AT	BD72kP	281.	12.67	188.	78.	26.	12.99
+	ROUTED TO	P72kS	281.	12.75	188.	78.	26.	12.99
+	HYDROGRAPH AT	BD72kS	31.	13.33	4.	1.	0.	12.99
+	ROUTED TO	R72kS	27.	13.58	4.	1.	0.	12.99
+	2 COMBINED AT	C72kS	308.	13.58	193.	79.	27.	12.99
+	2 COMBINED AT	C721	327.	13.50	204.	83.	28.	13.21
+	DIVERSION TO	D721P	305.	12.75	201.	82.	28.	13.21
+	HYDROGRAPH AT	D721	22.	13.50	3.	1.	0.	13.21
+	ROUTED TO	R721S	14.	14.17	3.	1.	0.	13.21
+	HYDROGRAPH AT	BD721P	305.	12.75	201.	82.	28.	13.21
+	ROUTED TO							

+		P721S	305.	12.83	201.	82.	28.	13.21
	2 COMBINED AT							
		C721S	317.	14.08	204.	83.	28.	13.21
	HYDROGRAPH AT							
		72m	185.	12.50	51.	15.	5.	.47
+	3 COMBINED AT							
		C72m	622.	12.75	383.	138.	47.	13.67
	HYDROGRAPH AT							
		601	73.	12.42	20.	6.	2.	.23
	HYDROGRAPH AT							
		B60kP2	125.	12.17	68.	25.	8.	3.29
	ROUTED TO							
		P60kS	125.	12.25	68.	25.	8.	3.29
	HYDROGRAPH AT							
		BD60kS	78.	12.50	10.	2.	1.	4.46
	ROUTED TO							
		R60kS	75.	12.67	10.	2.	1.	4.46
+	2 COMBINED AT							
		C60kS	200.	12.67	78.	27.	9.	4.46
+	2 COMBINED AT							
		C601	265.	12.67	96.	33.	11.	4.69
	DIVERSION TO							
		D601P	93.	12.08	62.	25.	8.	4.69
	HYDROGRAPH AT							
		D601	172.	12.67	34.	8.	3.	4.69
	DIVERSION TO							
		D601S	125.	12.67	25.	6.	2.	4.69
	HYDROGRAPH AT							
		D601W	47.	12.67	9.	2.	1.	4.69
	ROUTED TO							
		R601W	42.	13.17	9.	2.	1.	4.69
	HYDROGRAPH AT							
		641	30.	12.75	13.	4.	1.	.29
	HYDROGRAPH AT							
		BD64kS	0.	.00	0.	0.	0.	6.43
	ROUTED TO							
		R64kS	0.	.00	0.	0.	0.	6.43
+	3 COMBINED AT							
		C641	67.	13.08	21.	6.	2.	6.96
	ROUTED TO							
		S641	0.	.00	0.	0.	0.	6.96
	HYDROGRAPH AT							
		BD64kP	126.	12.67	59.	22.	7.	6.43
	ROUTED TO							
		P64kS	126.	12.75	59.	22.	7.	6.43
+	2 COMBINED AT							
		CC641	126.	12.75	59.	22.	7.	6.96
	DIVERSION TO							
		D641P	126.	12.75	59.	22.	7.	6.96
	HYDROGRAPH AT							
		D641	0.	.00	0.	0.	0.	6.96
	DIVERSION TO							
		D641S	0.	.00	0.	0.	0.	6.96
	HYDROGRAPH AT							
		D641W	0.	.00	0.	0.	0.	6.96
	ROUTED TO							
		R641W	0.	.00	0.	0.	0.	6.96

+	HYDROGRAPH AT	681	102.	12.58	31.	9.	3.	.32
	HYDROGRAPH AT	BD68kP	114.	12.25	74.	27.	9.	12.71
+	ROUTED TO	P68kS	114.	12.33	74.	27.	9.	12.71
+	HYDROGRAPH AT	BD68kS	11.	12.75	1.	0.	0.	12.71
+	ROUTED TO	R68kS	7.	13.08	1.	0.	0.	12.71
+	2 COMBINED AT	C68kS	121.	13.08	75.	27.	9.	12.71
+	3 COMBINED AT	C681	210.	12.58	104.	36.	12.	13.56
+	DIVERSION TO	D681P	114.	12.17	80.	30.	10.	13.56
+	HYDROGRAPH AT	D681	96.	12.58	24.	6.	2.	13.56
+	ROUTED TO	R681S	85.	13.25	24.	6.	2.	13.56
+	HYDROGRAPH AT	BD681P	114.	12.17	80.	30.	10.	13.56
+	ROUTED TO	P681S	114.	12.33	80.	30.	10.	13.56
+	2 COMBINED AT	C681S	199.	13.25	104.	36.	12.	13.56
+	HYDROGRAPH AT	24m	59.	12.50	21.	8.	3.	.50
+	ROUTED TO	S24m	59.	12.58	21.	7.	2.	.50
+	HYDROGRAPH AT	BD24kS	29.	12.33	7.	2.	1.	.19
+	ROUTED TO	R24kS	25.	12.92	7.	2.	1.	.19
+	2 COMBINED AT	C24m	79.	12.83	28.	9.	3.	.69
+	DIVERSION TO	D24mS	34.	12.83	12.	4.	1.	.69
+	HYDROGRAPH AT	D24mW	45.	12.83	16.	5.	2.	.69
+	ROUTED TO	R24mW	42.	13.17	16.	5.	2.	.69
+	HYDROGRAPH AT	28m	55.	12.50	20.	7.	2.	.51
+	HYDROGRAPH AT	BD28kP	108.	12.92	36.	12.	4.	.72
+	ROUTED TO	P28kS	108.	13.00	36.	12.	4.	.72
+	HYDROGRAPH AT	BD28kS	0.	.00	0.	0.	0.	.72
+	ROUTED TO	R28kS	0.	.00	0.	0.	0.	.72
+	2 COMBINED AT	C28kS	108.	13.00	36.	12.	4.	.72
+	3 COMBINED AT	C28m	192.	13.00	71.	24.	8.	1.73
+	DIVERSION TO	D28mP	192.	13.00	71.	24.	8.	1.73

+	HYDROGRAPH AT	D28m	0.	.00	0.	0.	0.	1.73
	DIVERSION TO	D28mS	0.	.00	0.	0.	0.	1.73
+	HYDROGRAPH AT	D28mW	0.	.00	0.	0.	0.	1.73
+	ROUTED TO	R28mW	0.	.00	0.	0.	0.	1.73
+	HYDROGRAPH AT	32m	71.	12.50	25.	9.	3.	.51
+	ROUTED TO	S32m	71.	12.50	25.	9.	3.	.51
+	HYDROGRAPH AT	BD32kP	45.	12.33	18.	7.	2.	1.23
+	ROUTED TO	P32kS	45.	12.50	18.	7.	2.	1.23
+	HYDROGRAPH AT	BD32kS	3.	12.50	0.	0.	0.	1.23
+	ROUTED TO	R32kS	1.	13.42	0.	0.	0.	1.23
+	2 COMBINED AT	C32kS	46.	13.00	18.	7.	2.	1.23
+	3 COMBINED AT	C32m	114.	12.50	43.	15.	5.	2.75
+	DIVERSION TO	D32mP	66.	12.25	36.	13.	4.	2.75
+	HYDROGRAPH AT	D32m	48.	12.50	7.	2.	1.	2.75
+	DIVERSION TO	D32mS	21.	12.50	3.	1.	0.	2.75
+	HYDROGRAPH AT	D32mW	27.	12.50	4.	1.	0.	2.75
+	ROUTED TO	R32mW	21.	13.17	4.	1.	0.	2.75
+	HYDROGRAPH AT	36m	61.	12.58	23.	8.	3.	.51
+	HYDROGRAPH AT	BD36kP	59.	12.25	30.	11.	4.	2.07
+	ROUTED TO	P36kS	59.	12.42	30.	11.	4.	2.07
+	HYDROGRAPH AT	BD36kS	18.	12.58	2.	1.	0.	2.07
+	ROUTED TO	R36kS	13.	13.25	2.	1.	0.	2.07
+	2 COMBINED AT	C36kS	72.	13.25	32.	11.	4.	2.07
+	3 COMBINED AT	C36m	140.	13.00	58.	20.	7.	4.11
+	DIVERSION TO	D36mP	114.	12.42	55.	19.	7.	4.11
+	HYDROGRAPH AT	D36m	26.	13.00	3.	1.	0.	4.11
+	DIVERSION TO	D36mS	13.	13.00	2.	0.	0.	4.11
+	HYDROGRAPH AT	D36mW	14.	13.00	2.	0.	0.	4.11
	ROUTED TO							

+		R36mW	10.	13.42	2.	0.	0.	4.11
+	HYDROGRAPH AT	40m	114.	12.50	34.	11.	4.	.51
+	HYDROGRAPH AT	BD40kP	29.	12.17	17.	7.	2.	2.80
+	ROUTED TO	P40kS	29.	12.42	17.	7.	2.	2.80
+	HYDROGRAPH AT	BD40kS	20.	12.83	4.	1.	0.	2.80
+	ROUTED TO	R40kS	18.	13.42	4.	1.	0.	2.80
+	2 COMBINED AT	C40kS	47.	13.42	21.	7.	3.	2.80
+	3 COMBINED AT	C40m	137.	12.50	55.	19.	6.	5.35
+	DIVERSION TO	D40mP	66.	12.17	40.	15.	5.	5.35
+	HYDROGRAPH AT	D40m	71.	12.50	15.	4.	1.	5.35
+	DIVERSION TO	D40mS	31.	12.50	7.	2.	1.	5.35
+	HYDROGRAPH AT	D40mW	41.	12.50	9.	2.	1.	5.35
+	ROUTED TO	R40mW	37.	13.00	9.	2.	1.	5.35
+	HYDROGRAPH AT	44m	68.	12.58	25.	9.	3.	.50
+	HYDROGRAPH AT	BD44kP	71.	12.17	39.	15.	5.	3.93
+	ROUTED TO	P44kS	71.	12.33	40.	15.	5.	3.93
+	HYDROGRAPH AT	BD44kS	31.	12.75	5.	1.	0.	3.93
+	ROUTED TO	R44kS	26.	13.33	5.	1.	0.	3.93
+	2 COMBINED AT	C44kS	97.	13.33	45.	16.	5.	3.93
+	3 COMBINED AT	C44m	182.	13.00	77.	26.	9.	6.98
+	DIVERSION TO	D44mP	124.	12.33	67.	24.	8.	6.98
+	HYDROGRAPH AT	D44m	58.	13.00	10.	3.	1.	6.98
+	DIVERSION TO	D44mS	24.	13.00	4.	1.	0.	6.98
+	HYDROGRAPH AT	D44mW	34.	13.00	6.	2.	1.	6.98
+	ROUTED TO	R44mW	27.	13.50	6.	2.	1.	6.98
+	HYDROGRAPH AT	24o	82.	12.58	29.	10.	3.	.50
+	HYDROGRAPH AT	BD24mS	34.	12.83	12.	4.	1.	.69
+	ROUTED TO	R24mS	31.	13.33	12.	4.	1.	.69
+	2 COMBINED AT	C24o	96.	12.83	41.	14.	5.	1.20

+	DIVERSION TO	D24oP	48.	12.17	30.	11.	4.	1.20
	HYDROGRAPH AT	D24o	48.	12.83	10.	3.	1.	1.20
+	DIVERSION TO	D24oS	18.	12.83	4.	1.	0.	1.20
+	HYDROGRAPH AT	D24oW	30.	12.83	6.	2.	1.	1.20
+	ROUTED TO	R24oW	28.	13.25	6.	2.	1.	1.20
+	HYDROGRAPH AT	28o	52.	12.58	20.	7.	2.	.50
+	HYDROGRAPH AT	BD28mP	192.	13.00	71.	24.	8.	1.73
+	ROUTED TO	P28mS	192.	13.08	71.	24.	8.	1.73
+	HYDROGRAPH AT	BD28mS	0.	.00	0.	0.	0.	1.73
+	ROUTED TO	R28mS	0.	.00	0.	0.	0.	1.73
+	2 COMBINED AT	C28mS	192.	13.08	71.	24.	8.	1.73
+	3 COMBINED AT	C28o	262.	13.00	97.	32.	11.	2.73
+	DIVERSION TO	D28oP	262.	13.00	97.	32.	11.	2.73
+	HYDROGRAPH AT	D28o	0.	.00	0.	0.	0.	2.73
+	DIVERSION TO	D28oS	0.	.00	0.	0.	0.	2.73
+	HYDROGRAPH AT	D28oW	0.	.00	0.	0.	0.	2.73
+	ROUTED TO	R28oW	0.	.00	0.	0.	0.	2.73
+	HYDROGRAPH AT	32o	68.	12.58	25.	9.	3.	.50
+	HYDROGRAPH AT	BD32mS	21.	12.50	3.	1.	0.	2.75
+	ROUTED TO	R32mS	15.	13.33	3.	1.	0.	2.75
+	HYDROGRAPH AT	BD32mP	66.	12.25	36.	13.	4.	2.75
+	ROUTED TO	P32mS	66.	12.42	36.	13.	4.	2.75
+	2 COMBINED AT	C32mS	81.	13.33	39.	14.	5.	2.75
+	3 COMBINED AT	C32o	134.	12.92	62.	22.	7.	4.25
+	DIVERSION TO	D32oP	134.	12.92	62.	22.	7.	4.25
+	HYDROGRAPH AT	D32o	0.	.00	0.	0.	0.	4.25
+	DIVERSION TO	D32oS	0.	.00	0.	0.	0.	4.25
+	HYDROGRAPH AT	D32oW	0.	.00	0.	0.	0.	4.25
+	ROUTED TO	R32oW	0.	.00	0.	0.	0.	4.25

+	HYDROGRAPH AT	36o	115.	12.50	34.	11.	4.	.50
+	HYDROGRAPH AT	BD36mP	114.	12.42	55.	19.	7.	4.11
+	ROUTED TO	P36mS	114.	12.58	55.	19.	7.	4.11
+	HYDROGRAPH AT	BD36mS	13.	13.00	2.	0.	0.	4.11
+	ROUTED TO	R36mS	8.	13.75	2.	0.	0.	4.11
+	2 COMBINED AT	C36mS	121.	13.67	57.	20.	7.	4.11
+	3 COMBINED AT	C36o	223.	12.50	89.	30.	10.	6.12
+	DIVERSION TO	D36oP	139.	12.25	75.	27.	9.	6.12
+	HYDROGRAPH AT	D36o	84.	12.50	14.	4.	1.	6.12
+	DIVERSION TO	D36oS	36.	12.50	6.	2.	1.	6.12
+	HYDROGRAPH AT	D36oW	48.	12.50	8.	2.	1.	6.12
+	ROUTED TO	R36oW	42.	13.00	8.	2.	1.	6.12
+	HYDROGRAPH AT	B40mP	66.	12.17	40.	15.	5.	5.35
+	ROUTED TO	P40mS	66.	12.33	40.	15.	5.	5.35
+	HYDROGRAPH AT	BD40mS	31.	12.50	7.	2.	1.	5.35
+	ROUTED TO	R40mS	27.	13.33	7.	2.	1.	5.35
+	2 COMBINED AT	C40mS	93.	13.33	47.	17.	6.	5.35
+	HYDROGRAPH AT	40o	66.	12.50	22.	7.	2.	.47
+	3 COMBINED AT	C40o	179.	13.00	75.	26.	9.	7.82
+	DIVERSION TO	D40oP	70.	12.08	48.	19.	6.	7.82
+	HYDROGRAPH AT	D40o	109.	13.00	27.	7.	2.	7.82
+	DIVERSION TO	D40oS	29.	13.00	4.	1.	0.	7.82
+	HYDROGRAPH AT	D40oW	81.	13.00	23.	6.	2.	7.82
+	ROUTED TO	R40oW	77.	13.50	23.	6.	2.	7.82
+	HYDROGRAPH AT	44o	25.	12.50	9.	3.	1.	.23
+	HYDROGRAPH AT	BD44mP	124.	12.33	67.	24.	8.	6.98
+	ROUTED TO	P44mS	124.	12.42	67.	24.	8.	6.98
+	HYDROGRAPH AT	BD44mS	24.	13.00	4.	1.	0.	6.98
	ROUTED TO							

+		R44mS	23.	13.33	4.	1.	0.	6.98
	2 COMBINED AT							
		C44mS	147.	13.33	71.	25.	8.	6.98
	3 COMBINED AT							
		C44o	236.	13.42	101.	33.	11.	9.68
	DIVERSION TO							
+		D44oP	124.	12.25	76.	27.	9.	9.68
	HYDROGRAPH AT							
+		D44o	112.	13.42	25.	6.	2.	9.68
	DIVERSION TO							
+		D44oS	59.	13.42	11.	3.	1.	9.68
	HYDROGRAPH AT							
+		D44oW	53.	13.42	14.	4.	1.	9.68
	ROUTED TO							
+		R44oW	50.	14.17	14.	4.	1.	9.68
	2 COMBINED AT							
+		C44mW	69.	13.92	20.	5.	2.	9.68
	HYDROGRAPH AT							
+		48m	85.	12.50	27.	9.	3.	.48
	HYDROGRAPH AT							
+		BD48kS	70.	12.83	23.	7.	2.	4.96
	ROUTED TO							
+		R48kS	65.	13.25	23.	7.	2.	4.96
	3 COMBINED AT							
+		C48m	149.	13.67	66.	20.	7.	11.19
	HYDROGRAPH AT							
+		BD52kP	201.	12.67	77.	25.	9.	5.83
	ROUTED TO							
+		P52kS	201.	12.83	77.	25.	9.	5.83
	HYDROGRAPH AT							
+		BD52kS	7.	12.92	0.	0.	0.	5.83
	ROUTED TO							
+		R52kS	3.	13.17	0.	0.	0.	5.83
	2 COMBINED AT							
+		C52kS	204.	13.17	78.	26.	9.	5.83
	HYDROGRAPH AT							
+		52m	60.	12.33	11.	3.	1.	.18
	2 COMBINED AT							
+		C52m	239.	12.75	88.	29.	10.	6.01
	2 COMBINED AT							
+		CC52m	359.	13.00	152.	48.	16.	12.24
	DIVERSION TO							
+		D52mP	359.	13.00	152.	48.	16.	12.24
	HYDROGRAPH AT							
+		D52m	0.	.00	0.	0.	0.	12.24
	DIVERSION TO							
+		D52mS	0.	.00	0.	0.	0.	12.24
	HYDROGRAPH AT							
+		D52mW	0.	.00	0.	0.	0.	12.24
	ROUTED TO							
+		R52mW	0.	.00	0.	0.	0.	12.24
	HYDROGRAPH AT							
+		54m	106.	12.33	22.	7.	2.	.27
	HYDROGRAPH AT							
+		BD54kP	111.	12.92	41.	14.	5.	1.18
	ROUTED TO							
+		P54kS	111.	13.00	41.	14.	5.	1.18

+	HYDROGRAPH AT	BD54kS	0.	.00	0.	0.	0.	1.18
+	ROUTED TO	R54kS	0.	.00	0.	0.	0.	1.18
+	2 COMBINED AT	C54kS	111.	13.00	41.	14.	5.	1.18
+	3 COMBINED AT	C54m	182.	12.58	62.	21.	7.	1.66
+	DIVERSION TO	D54mP	124.	12.25	55.	19.	6.	1.66
+	HYDROGRAPH AT	D54m	58.	12.58	7.	2.	1.	1.66
+	DIVERSION TO	D54mS	23.	12.58	3.	1.	0.	1.66
+	HYDROGRAPH AT	D54mW	35.	12.58	4.	1.	0.	1.66
+	ROUTED TO	R54mW	26.	13.00	4.	1.	0.	1.66
+	HYDROGRAPH AT	56m	91.	12.67	35.	12.	4.	.58
+	HYDROGRAPH AT	BD56kP	267.	12.58	92.	32.	11.	4.46
+	ROUTED TO	P56kS	266.	12.75	92.	32.	11.	4.46
+	HYDROGRAPH AT	BD56kS	0.	.00	0.	0.	0.	4.46
+	ROUTED TO	R56kS	0.	.00	0.	0.	0.	4.46
+	2 COMBINED AT	C56kS	266.	12.75	92.	32.	11.	4.46
+	3 COMBINED AT	C56m	371.	12.75	129.	44.	15.	5.50
+	DIVERSION TO	D56mP	371.	12.75	129.	44.	15.	5.50
+	HYDROGRAPH AT	D56m	0.	.00	0.	0.	0.	5.50
+	DIVERSION TO	D56mS	0.	.00	0.	0.	0.	5.50
+	HYDROGRAPH AT	D56mW	0.	.00	0.	0.	0.	5.50
+	ROUTED TO	R56mW	0.	.00	0.	0.	0.	5.50
+	HYDROGRAPH AT	60m	74.	12.67	26.	8.	3.	.50
+	HYDROGRAPH AT	BD601P	93.	12.08	62.	25.	8.	4.69
+	ROUTED TO	P601S	93.	12.25	62.	25.	8.	4.69
+	HYDROGRAPH AT	BD601S	125.	12.67	25.	6.	2.	4.69
+	ROUTED TO	R601S	113.	13.08	25.	6.	2.	4.69
+	2 COMBINED AT	C601S	206.	13.08	87.	31.	10.	4.69
+	3 COMBINED AT	C60m	267.	13.08	111.	39.	13.	6.24
+	DIVERSION TO	D60mP	124.	12.25	83.	32.	11.	6.24

+	HYDROGRAPH AT	D60m	143.	13.08	28.	7.	2.	6.24
	DIVERSION TO	D60mS	74.	13.08	15.	4.	1.	6.24
+	HYDROGRAPH AT	D60mW	69.	13.08	14.	3.	1.	6.24
+	ROUTED TO	R60mW	58.	13.58	14.	3.	1.	6.24
+	HYDROGRAPH AT	64m	198.	12.58	64.	21.	7.	.50
+	HYDROGRAPH AT	BD641P	126.	12.75	59.	22.	7.	6.96
+	ROUTED TO	P641S	126.	12.83	59.	22.	7.	6.96
+	HYDROGRAPH AT	BD641S	0.	.00	0.	0.	0.	6.96
+	ROUTED TO	R641S	0.	.00	0.	0.	0.	6.96
+	2 COMBINED AT	C641S	126.	12.83	59.	22.	7.	6.96
+	HYDROGRAPH AT	68m	233.	12.58	77.	25.	8.	.55
+	DIVERSION TO	D68m	199.	12.58	48.	12.	4.	.55
+	HYDROGRAPH AT	D68mP2	34.	11.75	29.	13.	4.	.55
+	4 COMBINED AT	C64m	344.	12.67	163.	58.	19.	9.55
	DIVERSION TO	D64mP	344.	12.67	163.	58.	19.	9.55
+	HYDROGRAPH AT	D64m	0.	.00	0.	0.	0.	9.55
+	DIVERSION TO	D64mS	0.	.00	0.	0.	0.	9.55
+	HYDROGRAPH AT	D64mW	0.	.00	0.	0.	0.	9.55
+	ROUTED TO	R64mW	0.	.00	0.	0.	0.	9.55
+	HYDROGRAPH AT	BD68m	199.	12.58	48.	12.	4.	.55
+	3 COMBINED AT	C68m	329.	13.00	147.	47.	16.	16.15
+	DIVERSION TO	D68mP	144.	12.17	98.	35.	12.	16.15
+	HYDROGRAPH AT	D68m2	185.	13.00	49.	12.	4.	16.15
+	DIVERSION TO	D68mS	154.	13.00	41.	10.	3.	16.15
+	HYDROGRAPH AT	D68mW	31.	13.00	8.	2.	1.	16.15
+	ROUTED TO	R68mW	29.	13.50	8.	2.	1.	16.15
+	2 COMBINED AT	CC72m	623.	12.83	388.	139.	47.	17.12
+	DIVERSION TO	D72mP	308.	12.08	269.	110.	37.	17.12
	HYDROGRAPH AT							

+		D72m	315.	12.83	118.	30.	10.	17.12
+	ROUTED TO	R72mS	297.	13.50	118.	30.	10.	17.12
+	HYDROGRAPH AT	BD72mP	308.	12.08	269.	110.	37.	17.12
+	ROUTED TO	P72mS	308.	12.25	269.	110.	37.	17.12
+	2 COMBINED AT	C72mS	605.	13.50	387.	139.	47.	17.12
+	HYDROGRAPH AT	BD24oS	18.	12.83	4.	1.	0.	1.20
+	ROUTED TO	R24oS	17.	13.25	4.	1.	0.	1.20
+	HYDROGRAPH AT	BD28oP	262.	13.00	97.	32.	11.	2.73
+	ROUTED TO	P28oS	262.	13.08	97.	32.	11.	2.73
+	HYDROGRAPH AT	BD28oS	0.	.00	0.	0.	0.	2.73
+	ROUTED TO	R28oS	0.	.00	0.	0.	0.	2.73
+	2 COMBINED AT	C28oS	262.	13.08	97.	32.	11.	2.73
+	2 COMBINED AT	C28p	278.	13.08	101.	33.	11.	2.73
+	HYDROGRAPH AT	28p	69.	12.50	21.	7.	2.	.37
-	ROUTED TO	S28p	69.	12.50	21.	7.	2.	.37
+	2 COMBINED AT	CC28p	326.	13.00	121.	40.	13.	3.11
+	DIVERSION TO	D28pP	279.	12.67	116.	39.	13.	3.11
+	HYDROGRAPH AT	D28p	47.	13.00	4.	1.	0.	3.11
+	ROUTED TO	R28pW	38.	13.33	4.	1.	0.	3.11
+	HYDROGRAPH AT	32p	41.	12.58	12.	3.	1.	.23
+	HYDROGRAPH AT	BD32oS	0.	.00	0.	0.	0.	4.25
+	ROUTED TO	R32oS	0.	.00	0.	0.	0.	4.25
+	2 COMBINED AT	C32p	41.	12.58	12.	3.	1.	4.49
+	ROUTED TO	S32p	9.	14.50	5.	1.	0.	4.49
+	HYDROGRAPH AT	BD32oP	134.	12.92	62.	22.	7.	4.25
+	ROUTED TO	P32oS	134.	13.00	62.	22.	7.	4.25
+	3 COMBINED AT	CC32p	164.	13.25	70.	24.	8.	4.86
+	DIVERSION TO	D32pS	20.	13.25	8.	3.	1.	4.86
+	HYDROGRAPH AT	D32pW	144.	13.25	62.	22.	7.	4.86

+	DIVERSION TO	D32pP	144.	13.25	62.	22.	7.	4.86
	HYDROGRAPH AT	D32p	0.	.00	0.	0.	0.	4.86
+	ROUTED TO	R32pW	0.	.00	0.	0.	0.	4.86
+	HYDROGRAPH AT	BD32pP	144.	13.25	62.	22.	7.	4.86
+	ROUTED TO	P32pW	143.	13.33	62.	22.	7.	4.86
+	2 COMBINED AT	C32pW	143.	13.33	62.	22.	7.	4.86
+	HYDROGRAPH AT	28q	145.	12.33	32.	10.	3.	.32
+	ROUTED TO	S28q	145.	12.33	32.	10.	3.	.32
+	HYDROGRAPH AT	BD28pP	279.	12.67	116.	39.	13.	3.11
+	DIVERSION TO	D28pP2	68.	12.67	28.	9.	3.	3.11
+	HYDROGRAPH AT	D28pP1	211.	12.67	88.	29.	10.	3.11
+	ROUTED TO	P28pS	211.	12.75	88.	29.	10.	3.11
+	2 COMBINED AT	C28q	316.	12.67	120.	40.	13.	.82
+	DIVERSION TO	D28qP	316.	12.67	120.	40.	13.	.82
+	HYDROGRAPH AT	D28q	0.	.00	0.	0.	0.	.82
+	DIVERSION TO	D28qS	0.	.00	0.	0.	0.	.82
+	HYDROGRAPH AT	D28qW	0.	.00	0.	0.	0.	.82
+	ROUTED TO	R28qW	0.	.00	0.	0.	0.	.82
+	HYDROGRAPH AT	32q	41.	12.50	11.	3.	1.	.17
+	HYDROGRAPH AT	BD32pS	20.	13.25	8.	3.	1.	4.86
+	3 COMBINED AT	C32q	55.	12.50	18.	5.	2.	.99
+	ROUTED TO	S32q	26.	13.83	13.	4.	1.	.99
+	DIVERSION TO	D32q	0.	.00	0.	0.	0.	.99
+	HYDROGRAPH AT	D32qP	26.	13.83	13.	4.	1.	.99
+	ROUTED TO	P32qW	26.	13.83	13.	4.	1.	.99
+	2 COMBINED AT	C32pqW	163.	13.33	73.	25.	8.	4.86
+	HYDROGRAPH AT	36p	52.	12.42	13.	4.	1.	.19
+	HYDROGRAPH AT	BD36oS	36.	12.50	6.	2.	1.	6.12
+	ROUTED TO	R36oS	34.	12.83	6.	2.	1.	6.12

+	3 COMBINED AT	C36p	204.	13.25	90.	30.	10.	6.91
+	DIVERSION TO	DB36p	0.	.00	0.	0.	0.	6.91
+	HYDROGRAPH AT	E36p	204.	13.25	90.	30.	10.	6.91
+	HYDROGRAPH AT	BDB36p	0.	.00	0.	0.	0.	6.91
+	ROUTED TO	S36p	0.	.00	0.	0.	0.	6.91
+	HYDROGRAPH AT	BD36oP	139.	12.25	75.	27.	9.	6.12
+	ROUTED TO	P36oS	139.	12.33	75.	27.	9.	6.12
+	3 COMBINED AT	CC36p	343.	13.25	164.	57.	19.	6.91
+	DIVERSION TO	D36pP	343.	13.25	164.	57.	19.	6.91
+	HYDROGRAPH AT	D36p	0.	.00	0.	0.	0.	6.91
+	ROUTED TO	R36pW	0.	.00	0.	0.	0.	6.91
+	HYDROGRAPH AT	BD36pP	343.	13.25	164.	57.	19.	6.91
+	DIVERSION TO	D36pP2	78.	13.25	37.	13.	4.	6.91
+	HYDROGRAPH AT	D36pP1	265.	13.25	127.	44.	15.	6.91
+	ROUTED TO	P36pW	264.	13.25	127.	44.	15.	6.91
+	2 COMBINED AT	C36pW	264.	13.25	127.	44.	15.	6.91
+	HYDROGRAPH AT	40p	56.	12.42	14.	4.	1.	.22
+	HYDROGRAPH AT	BD40oP	70.	12.08	48.	19.	6.	7.82
+	ROUTED TO	P40oS	70.	12.17	48.	19.	6.	7.82
+	HYDROGRAPH AT	BD40oS	29.	13.00	4.	1.	0.	7.82
+	ROUTED TO	R40oS	26.	13.25	4.	1.	0.	7.82
+	2 COMBINED AT	C40oS	96.	13.25	52.	20.	7.	7.82
+	3 COMBINED AT	C40p	384.	13.25	192.	68.	23.	8.83
+	DIVERSION TO	D40pP	384.	13.25	192.	68.	23.	8.83
+	HYDROGRAPH AT	D40p	0.	.00	0.	0.	0.	8.83
+	ROUTED TO	R40pW	0.	.00	0.	0.	0.	8.83
+	HYDROGRAPH AT	BD40pP	384.	13.25	192.	68.	23.	8.83
+	ROUTED TO	P40pW	384.	13.25	192.	68.	23.	8.83
+	2 COMBINED AT							

+		C40pW	384.	13.25	192.	68.	23.	8.83
		HYDROGRAPH AT						
		44p	121.	12.50	37.	11.	4.	.41
		HYDROGRAPH AT						
		BD44oP	124.	12.25	76.	27.	9.	9.68
		ROUTED TO						
+		P44oS	124.	12.42	76.	27.	9.	9.68
		HYDROGRAPH AT						
+		BD44oS	59.	13.42	11.	3.	1.	9.68
		ROUTED TO						
+		R44oS	52.	13.92	11.	3.	1.	9.68
		2 COMBINED AT						
+		C44oS	176.	13.92	87.	30.	10.	9.68
		3 COMBINED AT						
+		C44p	599.	12.75	311.	107.	36.	11.10
		DIVERSION TO						
+		D44pP	599.	12.75	311.	107.	36.	11.10
		HYDROGRAPH AT						
+		D44p	0.	.00	0.	0.	0.	11.10
		ROUTED TO						
+		R44pW	0.	.00	0.	0.	0.	11.10
		HYDROGRAPH AT						
+		BD44pP	599.	12.75	311.	107.	36.	11.10
		DIVERSION TO						
+		D44pP2	55.	12.75	29.	10.	3.	11.10
		HYDROGRAPH AT						
+		D44pP1	544.	12.75	283.	97.	33.	11.10
		ROUTED TO						
		P44pW	544.	12.75	283.	97.	33.	11.10
		2 COMBINED AT						
+		C44pW	544.	12.75	283.	97.	33.	11.10
		HYDROGRAPH AT						
+		48o	192.	12.50	52.	16.	5.	.68
		HYDROGRAPH AT						
+		BD52mS	0.	.00	0.	0.	0.	12.24
		ROUTED TO						
+		R52mS	0.	.00	0.	0.	0.	12.24
		HYDROGRAPH AT						
+		BD52mP	359.	13.00	152.	48.	16.	12.24
		ROUTED TO						
+		P52mS	358.	13.17	152.	48.	16.	12.24
		2 COMBINED AT						
+		C52mS	358.	13.17	152.	48.	16.	12.24
		3 COMBINED AT						
+		C48o	1041.	12.83	477.	158.	53.	14.34
		DIVERSION TO						
+		DB48o	0.	.00	0.	0.	0.	14.34
		HYDROGRAPH AT						
+		E48o	1041.	12.83	477.	158.	53.	14.34
		HYDROGRAPH AT						
+		BDB48o	0.	.00	0.	0.	0.	14.34
		ROUTED TO						
+		S48o	0.	.00	0.	0.	0.	14.34
		2 COMBINED AT						
+		CC48o	1041.	12.83	477.	158.	53.	14.34
		DIVERSION TO						
+		D48oPT	1041.	12.83	477.	158.	53.	14.34

+	HYDROGRAPH AT	D48o	0.	.00	0.	0.	0.	14.34
.	ROUTED TO	R48oW	0.	.00	0.	0.	0.	14.34
+	HYDROGRAPH AT	52o	174.	12.58	55.	17.	6.	.64
+	HYDROGRAPH AT	BD54mP	124.	12.25	55.	19.	6.	1.66
+	ROUTED TO	P54mS	124.	12.42	55.	19.	6.	1.66
+	HYDROGRAPH AT	BD54mS	23.	12.58	3.	1.	0.	1.66
+	ROUTED TO	R54mS	14.	13.50	3.	1.	0.	1.66
+	2 COMBINED AT	C54mS	136.	13.33	58.	19.	7.	1.66
+	3 COMBINED AT	C52o	295.	12.58	111.	36.	12.	2.30
+	DIVERSION TO	D52oP	295.	12.58	111.	36.	12.	2.30
+	HYDROGRAPH AT	D52o	0.	.00	0.	0.	0.	2.30
+	ROUTED TO	R52oW	0.	.00	0.	0.	0.	2.30
+	HYDROGRAPH AT	BD52oP	295.	12.58	111.	36.	12.	2.30
+	ROUTED TO	P52oW	294.	12.58	111.	36.	12.	2.30
+	2 COMBINED AT	C52oW	294.	12.58	111.	36.	12.	2.30
+	HYDROGRAPH AT	56o	146.	12.67	49.	15.	5.	.64
+	HYDROGRAPH AT	BD56mP	371.	12.75	129.	44.	15.	5.50
+	ROUTED TO	P56mS	370.	12.92	129.	44.	15.	5.50
+	HYDROGRAPH AT	BD56mS	0.	.00	0.	0.	0.	5.50
+	ROUTED TO	R56mS	0.	.00	0.	0.	0.	5.50
+	2 COMBINED AT	C56mS	370.	12.92	129.	44.	15.	5.50
+	3 COMBINED AT	C56o	789.	12.75	286.	94.	32.	6.79
+	DIVERSION TO	D56oP	751.	12.75	275.	91.	31.	6.79
+	HYDROGRAPH AT	D56o	38.	12.75	11.	3.	1.	6.79
+	ROUTED TO	R56oW	36.	13.25	11.	3.	1.	6.79
+	HYDROGRAPH AT	BD56oP	751.	12.75	275.	91.	31.	6.79
+	ROUTED TO	P56oW	750.	12.83	275.	91.	31.	6.79
+	2 COMBINED AT	C56oW	775.	12.83	286.	94.	32.	6.79
+	HYDROGRAPH AT	60o	91.	12.75	38.	13.	4.	.64

+	HYDROGRAPH AT	BD60mP	124.	12.25	83.	32.	11.	6.24
	ROUTED TO	P60mS	124.	12.42	83.	32.	11.	6.24
+	HYDROGRAPH AT	BD60mS	74.	13.08	15.	4.	1.	6.24
+	ROUTED TO	R60mS	55.	14.08	15.	4.	1.	6.24
+	2 COMBINED AT	C60mS	179.	14.08	97.	35.	12.	6.24
+	3 COMBINED AT	C60o	982.	12.83	418.	142.	48.	8.16
+	DIVERSION TO	D60oPT	982.	12.83	418.	142.	48.	8.16
+	HYDROGRAPH AT	D60o	0.	.00	0.	0.	0.	8.16
+	ROUTED TO	R60oW	0.	.00	0.	0.	0.	8.16
+	HYDROGRAPH AT	64o	125.	12.75	53.	19.	6.	.65
+	ROUTED TO	S64o	125.	12.75	52.	19.	6.	.65
+	HYDROGRAPH AT	BD64mP	344.	12.67	163.	58.	19.	9.55
+	ROUTED TO	P64mS	343.	12.83	163.	58.	19.	9.55
+	HYDROGRAPH AT	BD64mS	0.	.00	0.	0.	0.	9.55
+	ROUTED TO	R64mS	0.	.00	0.	0.	0.	9.55
+	2 COMBINED AT	C64mS	343.	12.83	163.	58.	19.	9.55
+	3 COMBINED AT	C64o	458.	12.83	210.	75.	25.	12.13
+	DIVERSION TO	D64oPT	458.	12.83	210.	75.	25.	12.13
+	HYDROGRAPH AT	D64o	0.	.00	0.	0.	0.	12.13
+	ROUTED TO	R64oW	0.	.00	0.	0.	0.	12.13
+	HYDROGRAPH AT	68o	209.	12.58	67.	20.	7.	.69
+	ROUTED TO	S68o	157.	13.25	49.	13.	4.	.69
+	HYDROGRAPH AT	BD68mP	144.	12.17	98.	35.	12.	16.15
+	ROUTED TO	P68mS	144.	12.42	98.	35.	12.	16.15
+	HYDROGRAPH AT	BD68mS	154.	13.00	41.	10.	3.	16.15
+	ROUTED TO	R68mS	145.	13.58	41.	10.	3.	16.15
+	2 COMBINED AT	C68mS	289.	13.58	139.	45.	15.	16.15
+	3 COMBINED AT	C68o	422.	13.42	182.	57.	19.	16.84
	DIVERSION TO							

+		D68oPT	422.	13.42	182.	57.	19.	16.84
	HYDROGRAPH AT							
+		D68o	0.	.00	0.	0.	0.	16.84
	ROUTED TO							
+		R68oW	0.	.00	0.	0.	0.	16.84
	HYDROGRAPH AT							
+		72o	217.	12.58	60.	16.	6.	.66
	3 COMBINED AT							
+		C72o	727.	13.25	441.	154.	52.	17.78
	DIVERSION TO							
+		D72oP	433.	12.33	358.	133.	45.	17.78
	HYDROGRAPH AT							
+		D72o	294.	13.25	84.	21.	7.	17.78
	ROUTED TO							
+		S72o	288.	13.42	84.	21.	7.	17.78
	DIVERSION TO							
+		D72o1	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		D72oPT	288.	13.42	84.	21.	7.	17.78
	ROUTED TO							
+		PT72oE	287.	13.42	84.	21.	7.	17.78
	HYDROGRAPH AT							
+		B68oPT	422.	13.42	182.	57.	19.	16.84
	2 COMBINED AT							
+		CPT68o	705.	13.42	264.	77.	26.	18.47
	ROUTED TO							
+		PT68oE	704.	13.50	264.	77.	26.	18.47
	HYDROGRAPH AT							
+		BD72o1	0.	.00	0.	0.	0.	17.78
	DIVERSION TO							
+		D72oW	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		D72oE	0.	.00	0.	0.	0.	17.78
	ROUTED TO							
+		S-110	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		B64oPT	458.	12.83	210.	75.	25.	12.13
	HYDROGRAPH AT							
+		B60oPT	982.	12.83	418.	142.	48.	8.16
	ROUTED TO							
+		PT60oW	981.	12.92	418.	142.	48.	8.16
	4 COMBINED AT							
+		C-WT	1929.	13.25	862.	285.	96.	21.04
	ROUTED TO							
+		PT64o	1928.	13.33	862.	285.	96.	21.04
	DIVERSION TO							
+		DPT64o	1928.	13.33	862.	285.	96.	21.04
	HYDROGRAPH AT							
+		DN_64o	0.	.00	0.	0.	0.	21.04
	HYDROGRAPH AT							
+		36q	135.	12.33	30.	9.	3.	.27
	HYDROGRAPH AT							
+		BD32q	0.	.00	0.	0.	0.	.99
	ROUTED TO							
+		R32qS	0.	.00	0.	0.	0.	.99
	HYDROGRAPH AT							
+		B36pP2	78.	13.25	37.	13.	4.	6.91

+	ROUTED TO	P36pS	78.	13.33	37.	13.	4.	6.91
	3 COMBINED AT	C36q	195.	12.42	68.	22.	7.	1.56
+	DIVERSION TO	D36qP	195.	12.42	68.	22.	7.	1.56
+	HYDROGRAPH AT	D36q	0.	.00	0.	0.	0.	1.56
+	DIVERSION TO	D36qS	0.	.00	0.	0.	0.	1.56
+	HYDROGRAPH AT	D36qW	0.	.00	0.	0.	0.	1.56
+	ROUTED TO	R36qW	0.	.00	0.	0.	0.	1.56
+	HYDROGRAPH AT	40q	166.	12.42	40.	12.	4.	.35
+	2 COMBINED AT	C40q	163.	12.42	39.	12.	4.	1.91
+	DIVERSION TO	D40qP	32.	11.92	18.	6.	2.	1.91
+	HYDROGRAPH AT	D40q	131.	12.42	21.	5.	2.	1.91
+	DIVERSION TO	D40qS	80.	12.42	13.	3.	1.	1.91
+	HYDROGRAPH AT	D40qW	51.	12.42	8.	2.	1.	1.91
+	ROUTED TO	R40qW	45.	12.83	8.	2.	1.	1.91
+	HYDROGRAPH AT	BD40qP	32.	11.92	18.	6.	2.	1.91
+	ROUTED TO	P40qW	32.	12.08	18.	6.	2.	1.91
+	2 COMBINED AT	C40qW	77.	12.83	26.	8.	3.	1.91
+	HYDROGRAPH AT	44q	173.	12.42	48.	15.	5.	.36
+	HYDROGRAPH AT	B44pP2	55.	12.75	29.	10.	3.	11.10
+	ROUTED TO	P44pS	55.	12.83	29.	10.	3.	11.10
+	3 COMBINED AT	C44q	278.	12.67	102.	33.	11.	2.57
+	DIVERSION TO	D44qP	201.	12.25	94.	31.	10.	2.57
+	HYDROGRAPH AT	D44q	77.	12.67	9.	2.	1.	2.57
+	DIVERSION TO	D44qS	48.	12.67	5.	1.	0.	2.57
+	HYDROGRAPH AT	D44qW	29.	12.67	3.	1.	0.	2.57
+	ROUTED TO	R44qW	23.	13.08	3.	1.	0.	2.57
+	HYDROGRAPH AT	48q	120.	12.50	34.	10.	3.	.30
+	2 COMBINED AT	C48q	120.	12.75	36.	10.	3.	2.87
+	DIVERSION TO	D48qPT	120.	12.75	36.	10.	3.	2.87

+	HYDROGRAPH AT	DB48q	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	S48q	0.	.00	0.	0.	0.	2.87
+	DIVERSION TO	D48qS	0.	.00	0.	0.	0.	2.87
+	HYDROGRAPH AT	D48qW	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	R48qW	0.	.00	0.	0.	0.	2.87
+	HYDROGRAPH AT	52q	144.	12.58	45.	14.	5.	.39
+	2 COMBINED AT	C52q	144.	12.58	45.	14.	5.	.39
+	DIVERSION TO	D52qP	144.	12.58	45.	14.	5.	.39
+	HYDROGRAPH AT	D52q	0.	.00	0.	0.	0.	.39
+	DIVERSION TO	D52qS	0.	.00	0.	0.	0.	.39
+	HYDROGRAPH AT	D52qW	0.	.00	0.	0.	0.	.39
+	ROUTED TO	R52qW	0.	.00	0.	0.	0.	.39
+	HYDROGRAPH AT	56q	106.	12.50	30.	9.	3.	.35
+	2 COMBINED AT	C56q	105.	12.50	29.	9.	3.	.75
+	DIVERSION TO	D56qP	68.	12.25	26.	8.	3.	.75
+	HYDROGRAPH AT	D56q	37.	12.50	4.	1.	0.	.75
+	DIVERSION TO	D56qS	12.	12.50	1.	0.	0.	.75
+	HYDROGRAPH AT	D56qW	25.	12.50	3.	1.	0.	.75
+	ROUTED TO	R56qW	16.	13.25	3.	1.	0.	.75
+	HYDROGRAPH AT	60q	109.	12.50	27.	8.	3.	.35
+	2 COMBINED AT	C60q	108.	12.50	30.	9.	3.	1.10
+	DIVERSION TO	D60qP	108.	12.50	30.	9.	3.	1.10
+	HYDROGRAPH AT	D60q	0.	.00	0.	0.	0.	1.10
+	DIVERSION TO	D60qS	0.	.00	0.	0.	0.	1.10
+	HYDROGRAPH AT	D60qW	0.	.00	0.	0.	0.	1.10
+	ROUTED TO	R60qW	0.	.00	0.	0.	0.	1.10
+	HYDROGRAPH AT	64q	186.	12.42	47.	15.	5.	.41
+	3 COMBINED AT	C64q	183.	12.42	46.	15.	5.	1.51
+	DIVERSION TO							

+		D64qPT	0.	.00	0.	0.	0.	1.51
		HYDROGRAPH AT						
		D64q	193.	12.42	46.	15.	5.	1.51
		DIVERSION TO						
		D64qP	68.	12.08	31.	11.	4.	1.51
		HYDROGRAPH AT						
		D64q1	115.	12.42	15.	4.	1.	1.51
		DIVERSION TO						
		D64qS	38.	12.42	5.	1.	0.	1.51
		HYDROGRAPH AT						
		D64qW	77.	12.42	10.	3.	1.	1.51
		ROUTED TO						
		R64qW	65.	12.92	10.	3.	1.	1.51
		HYDROGRAPH AT						
		BD64qP	68.	12.08	31.	11.	4.	1.51
		ROUTED TO						
		P64qW	68.	12.25	31.	11.	4.	1.51
		2 COMBINED AT						
		C64qW	133.	12.92	41.	13.	4.	1.51
		HYDROGRAPH AT						
		68q	125.	12.42	30.	10.	3.	.29
		2 COMBINED AT						
		C68q	225.	12.83	71.	23.	8.	1.80
		DIVERSION TO						
		D68qP	68.	12.00	40.	15.	5.	1.80
		HYDROGRAPH AT						
		D68q	157.	12.83	31.	8.	3.	1.80
		DIVERSION TO						
		D68qS	52.	12.83	10.	3.	1.	1.80
		HYDROGRAPH AT						
		D68qW	105.	12.83	21.	5.	2.	1.80
		ROUTED TO						
		R68qW	99.	13.08	21.	5.	2.	1.80
		HYDROGRAPH AT						
		BD68qP	68.	12.00	40.	15.	5.	1.80
		ROUTED TO						
		P68qW	68.	12.17	40.	15.	5.	1.80
		2 COMBINED AT						
		C68qW	167.	13.08	61.	20.	7.	1.80
		HYDROGRAPH AT						
		72q	148.	12.50	37.	11.	4.	.33
		HYDROGRAPH AT						
		B72oP	433.	12.33	358.	133.	45.	17.78
		ROUTED TO						
		P72oS	433.	12.42	358.	133.	45.	17.78
		3 COMBINED AT						
		C72q	709.	12.83	457.	167.	56.	3.13
		DIVERSION TO						
		D72qP	662.	12.50	453.	166.	56.	3.13
		HYDROGRAPH AT						
		D72q	47.	12.83	5.	1.	0.	3.13
		DIVERSION TO						
		D72qS	15.	12.83	2.	0.	0.	3.13
		HYDROGRAPH AT						
		D72qW	31.	12.83	3.	1.	0.	3.13
		ROUTED TO						
		R72qW	19.	13.42	3.	1.	0.	3.13

+	HYDROGRAPH AT	80o	312.	12.33	62.	19.	6.	.54
.	HYDROGRAPH AT	BD84mP	164.	12.33	52.	18.	6.	.29
+	ROUTED TO	P84mS	164.	12.42	52.	18.	6.	.29
+	HYDROGRAPH AT	BD84mS	144.	13.17	78.	21.	7.	5.49
+	ROUTED TO	R84mS	143.	14.17	77.	21.	7.	5.49
+	2 COMBINED AT	C84mS	208.	13.42	125.	39.	13.	5.49
+	HYDROGRAPH AT	BD80mS	207.	14.00	119.	33.	11.	6.03
+	ROUTED TO	R80mS	207.	14.17	118.	33.	11.	6.03
+	3 COMBINED AT	C80o	568.	12.42	300.	89.	30.	6.58
+	DIVERSION TO	DB80o	319.	12.42	99.	25.	8.	6.58
+	HYDROGRAPH AT	E80o	249.	12.08	201.	64.	22.	6.58
+	HYDROGRAPH AT	BDB80o	319.	12.42	99.	25.	8.	6.58
+	ROUTED TO	S80o	216.	13.42	86.	25.	8.	6.58
+	2 COMBINED AT	CC80o	465.	13.42	284.	89.	30.	6.58
+	DIVERSION TO	D80oP	249.	12.08	213.	71.	24.	6.58
+	HYDROGRAPH AT	D80o	216.	13.42	71.	18.	6.	6.58
+	ROUTED TO	R80oS	204.	13.83	71.	18.	6.	6.58
+	HYDROGRAPH AT	76o	258.	12.58	75.	22.	7.	.67
+	HYDROGRAPH AT	BD76m	292.	12.92	107.	27.	9.	6.71
+	ROUTED TO	R76mS	264.	13.42	106.	27.	9.	6.71
+	HYDROGRAPH AT	B76mP2	32.	12.08	27.	8.	3.	6.71
+	ROUTED TO	P76mS	32.	12.33	27.	8.	3.	6.71
+	2 COMBINED AT	C76mS	296.	13.42	133.	35.	12.	6.71
+	HYDROGRAPH AT	BD72oW	0.	.00	0.	0.	0.	17.78
+	ROUTED TO	R72oW	0.	.00	0.	0.	0.	17.78
+	4 COMBINED AT	C76o	587.	13.58	273.	74.	25.	7.92
+	DIVERSION TO	D76o	358.	13.58	109.	27.	9.	7.92
+	HYDROGRAPH AT	D76oP	229.	12.33	164.	46.	15.	7.92
+	ROUTED TO	P76oS	229.	12.50	164.	46.	15.	7.92

+	HYDROGRAPH AT	BD76o	358.	13.58	109.	27.	9.	7.92
	DIVERSION TO	D76oW	36.	13.58	11.	3.	1.	7.92
+	HYDROGRAPH AT	D76oS	323.	13.58	99.	25.	8.	7.92
+	ROUTED TO	R76oS	304.	13.92	98.	25.	8.	7.92
+	2 COMBINED AT	C76oS	533.	13.92	262.	71.	24.	7.92
+	HYDROGRAPH AT	76q	232.	12.42	52.	16.	5.	.40
+	3 COMBINED AT	C76q	560.	13.83	306.	85.	28.	11.45
+	DIVERSION TO	D76qP	229.	12.17	176.	52.	18.	11.45
+	HYDROGRAPH AT	D76q	331.	13.83	130.	33.	11.	11.45
+	DIVERSION TO	D76qS	172.	13.83	68.	17.	6.	11.45
+	HYDROGRAPH AT	D76qW	159.	13.83	63.	16.	5.	11.45
+	ROUTED TO	R76qW	155.	14.08	62.	16.	5.	11.45
+	HYDROGRAPH AT	80p	239.	12.33	54.	17.	6.	.40
+	HYDROGRAPH AT	BD76oW	36.	13.58	11.	3.	1.	7.92
	ROUTED TO	R76oW	34.	13.92	11.	3.	1.	7.92
+	2 COMBINED AT	C80p	239.	12.33	67.	21.	7.	8.32
+	ROUTED TO	S80p	227.	12.42	59.	18.	7.	8.32
+	HYDROGRAPH AT	BD80oP	249.	12.08	213.	71.	24.	6.58
+	ROUTED TO	P80oS	249.	12.25	213.	71.	24.	6.58
+	2 COMBINED AT	CC80p	476.	12.42	272.	88.	31.	8.32
+	DIVERSION TO	D80pP	249.	12.08	217.	75.	26.	8.32
+	HYDROGRAPH AT	D80p	227.	12.42	55.	14.	5.	8.32
+	ROUTED TO	R80pS	193.	13.08	55.	14.	5.	8.32
+	HYDROGRAPH AT	BD80pP	249.	12.08	217.	75.	26.	8.32
+	ROUTED TO	P80pS	249.	12.25	217.	75.	26.	8.32
+	2 COMBINED AT	C80pS	442.	13.08	272.	88.	31.	8.32
+	HYDROGRAPH AT	80q	185.	12.58	59.	18.	6.	.50
+	3 COMBINED AT	C80q	681.	13.08	386.	120.	41.	12.34
	HYDROGRAPH AT							

+		28s	98.	12.25	18.	6.	2.	.16
+	HYDROGRAPH AT	BD28qP	316.	12.67	120.	40.	13.	.82
+	DIVERSION TO	D28qP2	30.	12.67	11.	4.	1.	.82
+	HYDROGRAPH AT	D28qP1	287.	12.67	109.	36.	12.	.82
+	ROUTED TO	P28qS	286.	12.67	109.	36.	12.	.82
+	HYDROGRAPH AT	BD28qS	0.	.00	0.	0.	0.	.82
+	ROUTED TO	R28qS	0.	.00	0.	0.	0.	.82
+	2 COMBINED AT	C28qS	286.	12.67	109.	36.	12.	.82
+	2 COMBINED AT	C28s	347.	12.58	126.	42.	14.	.98
+	DIVERSION TO	D28sP	347.	12.58	126.	42.	14.	.98
+	HYDROGRAPH AT	D28s	0.	.00	0.	0.	0.	.98
+	DIVERSION TO	D28sS	0.	.00	0.	0.	0.	.98
+	HYDROGRAPH AT	D28sW	0.	.00	0.	0.	0.	.98
+	ROUTED TO	R28sW	0.	.00	0.	0.	0.	.98
+	HYDROGRAPH AT	32s	137.	12.42	41.	13.	4.	.34
+	2 COMBINED AT	C32s	135.	12.42	40.	13.	4.	1.32
+	ROUTED TO	S32s	54.	13.67	16.	5.	2.	1.32
+	DIVERSION TO	D32sP	48.	13.58	16.	5.	2.	1.32
+	HYDROGRAPH AT	D32s	6.	13.67	0.	0.	0.	1.32
+	ROUTED TO	R32sW	3.	14.08	0.	0.	0.	1.32
+	HYDROGRAPH AT	BD32sP	48.	13.58	16.	5.	2.	1.32
+	ROUTED TO	P32sW	48.	13.67	16.	5.	2.	1.32
+	2 COMBINED AT	C32sW	50.	13.92	16.	5.	2.	1.32
+	HYDROGRAPH AT	36s	132.	12.42	31.	9.	3.	.24
+	HYDROGRAPH AT	BD36qP	195.	12.42	68.	22.	7.	1.56
+	ROUTED TO	P36qS	195.	12.50	68.	22.	7.	1.56
+	HYDROGRAPH AT	BD36qS	0.	.00	0.	0.	0.	1.56
+	ROUTED TO	R36qS	0.	.00	0.	0.	0.	1.56
+	2 COMBINED AT	C36qS	195.	12.50	68.	22.	7.	1.56

+	3 COMBINED AT	C36s	321.	12.42	111.	35.	12.	2.30
	DIVERSION TO	D36sP	303.	12.33	110.	35.	12.	2.30
+	HYDROGRAPH AT	D36s	18.	12.42	1.	0.	0.	2.30
+	ROUTED TO	R36sW	4.	12.83	1.	0.	0.	2.30
+	HYDROGRAPH AT	40s	137.	12.42	34.	11.	4.	.24
+	HYDROGRAPH AT	BD40qS	80.	12.42	13.	3.	1.	1.91
+	ROUTED TO	R40qS	73.	12.75	13.	3.	1.	1.91
+	3 COMBINED AT	C40s	192.	12.67	47.	14.	5.	2.89
+	DIVERSION TO	D40sP	68.	12.08	29.	9.	3.	2.89
+	HYDROGRAPH AT	D40s	124.	12.67	17.	4.	1.	2.89
+	ROUTED TO	R40sW	106.	12.92	17.	4.	1.	2.89
+	HYDROGRAPH AT	BD40sP	68.	12.08	29.	9.	3.	2.89
+	ROUTED TO	P40sW	68.	12.25	29.	9.	3.	2.89
+	2 COMBINED AT	C40sW	174.	12.92	47.	14.	5.	2.89
+	HYDROGRAPH AT	44s	122.	12.42	33.	10.	3.	.24
+	HYDROGRAPH AT	BD44qP	201.	12.25	94.	31.	10.	2.57
+	ROUTED TO	P44qS	201.	12.33	94.	31.	10.	2.57
+	HYDROGRAPH AT	BD44qS	48.	12.67	5.	1.	0.	2.57
+	ROUTED TO	R44qS	40.	13.00	5.	1.	0.	2.57
+	2 COMBINED AT	C44qS	241.	13.00	99.	33.	11.	2.57
+	3 COMBINED AT	C44s	501.	12.92	177.	56.	19.	3.79
+	DIVERSION TO	D44sP	201.	12.08	116.	41.	14.	3.79
+	HYDROGRAPH AT	D44s	300.	12.92	61.	15.	5.	3.79
+	ROUTED TO	R44sW	292.	13.08	61.	15.	5.	3.79
+	HYDROGRAPH AT	48s	119.	12.42	29.	9.	3.	.21
+	HYDROGRAPH AT	BD48qS	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	R48qS	0.	.00	0.	0.	0.	2.87
+	3 COMBINED AT	C48s	353.	13.00	89.	24.	8.	4.31
+	DIVERSION TO	D48sPT	353.	13.00	89.	24.	8.	4.31

+	HYDROGRAPH AT	DB48s	0.	.00	0.	0.	0.	4.31
+	ROUTED TO	S48s	0.	.00	0.	0.	0.	4.31
+	ROUTED TO	R48sW	0.	.00	0.	0.	0.	4.31
+	HYDROGRAPH AT	52s	142.	12.42	36.	11.	4.	.26
+	HYDROGRAPH AT	BD52qP	144.	12.58	45.	14.	5.	.39
+	ROUTED TO	P52qS	144.	12.58	45.	14.	5.	.39
+	HYDROGRAPH AT	BD52qS	0.	.00	0.	0.	0.	.39
+	ROUTED TO	R52qS	0.	.00	0.	0.	0.	.39
+	2 COMBINED AT	C52qS	144.	12.58	45.	14.	5.	.39
+	3 COMBINED AT	C52s	280.	12.50	80.	25.	8.	.66
+	DIVERSION TO	D52sP	191.	12.25	72.	23.	8.	.66
+	HYDROGRAPH AT	D52s	89.	12.50	8.	2.	1.	.66
+	ROUTED TO	R52sW	77.	12.83	8.	2.	1.	.66
+	HYDROGRAPH AT	56s	146.	12.42	37.	11.	4.	.25
+	HYDROGRAPH AT	BD56qP	68.	12.25	26.	8.	3.	.75
+	ROUTED TO	P56qS	68.	12.33	26.	8.	3.	.75
+	HYDROGRAPH AT	BD56qS	12.	12.50	1.	0.	0.	.75
+	ROUTED TO	R56qS	9.	13.08	1.	0.	0.	.75
+	2 COMBINED AT	C56qS	77.	13.08	27.	8.	3.	.75
+	3 COMBINED AT	C56s	258.	12.83	71.	21.	7.	1.27
+	DIVERSION TO	D56sP	201.	12.33	67.	20.	7.	1.27
+	HYDROGRAPH AT	D56s	57.	12.83	4.	1.	0.	1.27
+	DIVERSION TO	D56sS	9.	12.83	1.	0.	0.	1.27
+	HYDROGRAPH AT	D56sW	48.	12.83	3.	1.	0.	1.27
+	ROUTED TO	R56sW	29.	13.17	3.	1.	0.	1.27
+	HYDROGRAPH AT	60s	164.	12.33	37.	12.	4.	.25
+	HYDROGRAPH AT	BD60qP	108.	12.50	30.	9.	3.	1.10
+	ROUTED TO	P60qS	107.	12.50	30.	9.	3.	1.10
+	HYDROGRAPH AT							

+		BD60qS	0.	.00	0.	0.	0.	1.10
	ROUTED TO							
		R60qS	0.	.00	0.	0.	0.	1.10
	2 COMBINED AT							
		C60qS	107.	12.50	30.	9.	3.	1.10
	3 COMBINED AT							
		C60s	255.	12.42	69.	21.	7.	1.87
	DIVERSION TO							
		D60sP	217.	12.33	66.	21.	7.	1.87
	HYDROGRAPH AT							
		D60s	38.	12.42	2.	1.	0.	1.87
	DIVERSION TO							
		D60sS	11.	12.42	1.	0.	0.	1.87
	HYDROGRAPH AT							
		D60sW	28.	12.42	2.	0.	0.	1.87
	ROUTED TO							
		R60sW	9.	13.00	2.	0.	0.	1.87
	HYDROGRAPH AT							
		BD60sP	217.	12.33	66.	21.	7.	1.87
	ROUTED TO							
		P60sW	217.	12.42	66.	21.	7.	1.87
	2 COMBINED AT							
		C60sW	220.	12.67	68.	21.	7.	1.87
	HYDROGRAPH AT							
		64s	165.	12.33	39.	13.	4.	.26
	HYDROGRAPH AT							
		BD64qS	38.	12.42	5.	1.	0.	1.51
	ROUTED TO							
		R64qS	31.	12.92	5.	1.	0.	1.51
	3 COMBINED AT							
		C64s	380.	12.33	110.	35.	12.	2.54
	DIVERSION TO							
		D64sPT	0.	.00	0.	0.	0.	2.54
	HYDROGRAPH AT							
		D64s	380.	12.33	110.	35.	12.	2.54
	DIVERSION TO							
		D64sP	327.	12.25	105.	33.	11.	2.54
	HYDROGRAPH AT							
		D64s1	53.	12.33	5.	1.	0.	2.54
	DIVERSION TO							
		D64sS	22.	12.33	2.	0.	0.	2.54
	HYDROGRAPH AT							
		D64sW	31.	12.33	3.	1.	0.	2.54
	ROUTED TO							
		R64sW	23.	12.83	3.	1.	0.	2.54
	HYDROGRAPH AT							
		68s	122.	12.33	30.	10.	3.	.24
	HYDROGRAPH AT							
		BD68qS	52.	12.83	10.	3.	1.	1.80
	ROUTED TO							
		R68qS	47.	13.17	10.	3.	1.	1.80
	3 COMBINED AT							
		C68s	144.	12.75	42.	13.	4.	3.07
	DIVERSION TO							
		D68sP	124.	12.42	41.	13.	4.	3.07
	HYDROGRAPH AT							
		D68s	20.	12.75	1.	0.	0.	3.07

+	DIVERSION TO	D68sS	5.	12.75	0.	0.	0.	3.07
-	HYDROGRAPH AT	D68sW	14.	12.75	1.	0.	0.	3.07
+	ROUTED TO	R68sW	5.	13.33	1.	0.	0.	3.07
+	HYDROGRAPH AT	72s	157.	12.42	35.	11.	4.	.28
+	HYDROGRAPH AT	BD72qP	662.	12.50	453.	166.	56.	3.13
+	DIVERSION TO	D72qP2	229.	12.50	157.	57.	19.	3.13
+	HYDROGRAPH AT	D72qP1	433.	12.50	296.	108.	37.	3.13
+	ROUTED TO	P72qS1	433.	12.58	296.	108.	37.	3.13
+	HYDROGRAPH AT	B72qP2	229.	12.50	157.	57.	19.	3.13
+	ROUTED TO	P72qS2	229.	12.58	157.	57.	19.	3.13
+	HYDROGRAPH AT	BD72qS	15.	12.83	2.	0.	0.	3.13
+	ROUTED TO	R72qS	10.	13.33	2.	0.	0.	3.13
+	3 COMBINED AT	C72qS	672.	13.25	454.	166.	56.	3.13
+	3 COMBINED AT	C72s	809.	12.50	488.	176.	59.	4.68
+	DIVERSION TO	D72sP	662.	12.25	467.	171.	58.	4.68
+	HYDROGRAPH AT	D72s	147.	12.50	21.	5.	2.	4.68
+	DIVERSION TO	D72sS	59.	12.50	8.	2.	1.	4.68
+	HYDROGRAPH AT	D72sW	88.	12.50	12.	3.	1.	4.68
+	ROUTED TO	R72sW	67.	13.08	12.	3.	1.	4.68
+	HYDROGRAPH AT	76s	162.	12.42	39.	13.	4.	.28
+	ROUTED TO	S76s	162.	12.42	39.	12.	4.	.28
+	HYDROGRAPH AT	BD76qP	229.	12.17	176.	52.	18.	11.45
+	ROUTED TO	P76qS	229.	12.25	176.	52.	18.	11.45
+	HYDROGRAPH AT	BD76qS	172.	13.83	68.	17.	6.	11.45
+	ROUTED TO	R76qS	170.	14.00	68.	17.	6.	11.45
+	2 COMBINED AT	C76qS	399.	14.00	244.	69.	23.	11.45
+	3 COMBINED AT	C76s	484.	12.92	288.	83.	28.	13.28
+	DIVERSION TO	D76sP	204.	12.08	165.	52.	17.	13.28
+	HYDROGRAPH AT	D76s	280.	12.92	123.	31.	10.	13.28

+	DIVERSION TO	D76sS	62.	12.92	27.	7.	2.	13.28
	HYDROGRAPH AT	D76sW	218.	12.92	96.	24.	8.	13.28
+	ROUTED TO	R76sW	213.	13.25	96.	24.	8.	13.28
+	2 COMBINED AT	CC80q	886.	13.08	476.	142.	49.	14.17
+	DIVERSION TO	D80qP	364.	12.33	304.	99.	34.	14.17
+	HYDROGRAPH AT	D80q	522.	13.08	172.	43.	14.	14.17
+	DIVERSION TO	D80qW	522.	13.08	172.	43.	14.	14.17
+	HYDROGRAPH AT	D80qS	0.	.00	0.	0.	0.	14.17
+	ROUTED TO	R80qS	0.	.00	0.	0.	0.	14.17
+	HYDROGRAPH AT	BD80qP	364.	12.33	304.	99.	34.	14.17
+	ROUTED TO	P80qS	364.	12.42	304.	99.	34.	14.17
+	2 COMBINED AT	C80qS	364.	12.42	304.	99.	34.	14.17
+	HYDROGRAPH AT	52t	140.	12.42	37.	11.	4.	.30
+	ROUTED TO	S52t	139.	12.50	35.	9.	3.	.30
+	HYDROGRAPH AT	BD52sP	191.	12.25	72.	23.	8.	.66
+	ROUTED TO	P52sS	191.	12.33	72.	23.	8.	.66
+	2 COMBINED AT	C52t	328.	12.50	105.	32.	11.	.96
+	DIVERSION TO	D52tP	281.	12.33	100.	31.	10.	.96
+	HYDROGRAPH AT	D52t	47.	12.50	4.	1.	0.	.96
+	DIVERSION TO	D52tS	19.	12.50	2.	0.	0.	.96
+	HYDROGRAPH AT	D52tW	28.	12.50	2.	1.	0.	.96
+	ROUTED TO	R52tW	20.	12.92	2.	1.	0.	.96
+	HYDROGRAPH AT	56t	90.	12.42	25.	8.	3.	.18
+	HYDROGRAPH AT	BD56sP	201.	12.33	67.	20.	7.	1.27
+	ROUTED TO	P56sS	201.	12.42	67.	20.	7.	1.27
+	HYDROGRAPH AT	BD56sS	9.	12.83	1.	0.	0.	1.27
+	ROUTED TO	R56sS	4.	13.33	1.	0.	0.	1.27
+	2 COMBINED AT	C56sS	203.	13.08	67.	20.	7.	1.27
+	3 COMBINED AT							

+		C56t	292.	12.75	94.	29.	10.	1.74
	DIVERSION TO							
+		D56tP	292.	12.75	94.	29.	10.	1.74
	HYDROGRAPH AT							
+		D56t	0.	.00	0.	0.	0.	1.74
	DIVERSION TO							
+		D56tS	0.	.00	0.	0.	0.	1.74
	HYDROGRAPH AT							
+		D56tW	0.	.00	0.	0.	0.	1.74
	ROUTED TO							
+		R56tW	0.	.00	0.	0.	0.	1.74
	HYDROGRAPH AT							
+		60t	143.	12.50	40.	13.	4.	.33
	ROUTED TO							
+		S60t	144.	12.50	40.	12.	4.	.33
	HYDROGRAPH AT							
+		BD60sS	11.	12.42	1.	0.	0.	1.87
	ROUTED TO							
+		R60sS	4.	12.92	1.	0.	0.	1.87
	3 COMBINED AT							
+		C60t	144.	12.50	41.	12.	4.	2.68
	DIVERSION TO							
+		D60tS	38.	12.50	11.	3.	1.	2.68
	HYDROGRAPH AT							
+		D60tW	103.	12.50	29.	9.	3.	2.68
	ROUTED TO							
+		R60tW	99.	12.75	29.	9.	3.	2.68
	HYDROGRAPH AT							
+		64t	123.	12.42	33.	11.	4.	.27
	HYDROGRAPH AT							
+		BD64sP	327.	12.25	105.	33.	11.	2.54
	ROUTED TO							
+		P64sS	327.	12.33	105.	33.	11.	2.54
	HYDROGRAPH AT							
+		BD64sS	22.	12.33	2.	0.	0.	2.54
	ROUTED TO							
+		R64sS	15.	12.92	2.	0.	0.	2.54
	2 COMBINED AT							
+		C64sS	342.	12.83	107.	34.	11.	2.54
	3 COMBINED AT							
+		C64t	541.	12.67	167.	53.	18.	3.61
	DIVERSION TO							
+		D64tPT	0.	.00	0.	0.	0.	3.61
	HYDROGRAPH AT							
+		D64t	541.	12.67	167.	53.	18.	3.61
	DIVERSION TO							
+		D64tP	375.	12.25	146.	47.	16.	3.61
	HYDROGRAPH AT							
+		D64t1	166.	12.67	21.	5.	2.	3.61
	DIVERSION TO							
+		D64tS	73.	12.67	9.	2.	1.	3.61
	HYDROGRAPH AT							
+		D64tW	93.	12.67	12.	3.	1.	3.61
	ROUTED TO							
+		R64tW	86.	13.00	12.	3.	1.	3.61
	HYDROGRAPH AT							
+		68t	132.	12.42	30.	9.	3.	.25

+	HYDROGRAPH AT	BD68sP	124.	12.42	41.	13.	4.	3.07
	ROUTED TO	P68sS	124.	12.50	41.	13.	4.	3.07
+	HYDROGRAPH AT	BD68sS	5.	12.75	0.	0.	0.	3.07
+	ROUTED TO	R68sS	3.	13.17	0.	0.	0.	3.07
+	2 COMBINED AT	C68sS	126.	13.00	41.	13.	4.	3.07
+	3 COMBINED AT	C68t	293.	12.83	82.	24.	8.	4.39
+	DIVERSION TO	D68tP	124.	12.08	54.	17.	6.	4.39
+	HYDROGRAPH AT	D68t	169.	12.83	28.	7.	2.	4.39
+	DIVERSION TO	D68tS	78.	12.83	13.	3.	1.	4.39
+	HYDROGRAPH AT	D68tW	91.	12.83	15.	4.	1.	4.39
+	ROUTED TO	R68tW	85.	13.08	15.	4.	1.	4.39
+	HYDROGRAPH AT	72t	97.	12.50	27.	8.	3.	.22
+	HYDROGRAPH AT	BD72sS	59.	12.50	8.	2.	1.	4.68
+	ROUTED TO	R72sS	49.	12.83	8.	2.	1.	4.68
+	HYDROGRAPH AT	BD72sP	662.	12.25	467.	171.	58.	4.68
+	DIVERSION TO	D72sP2	229.	12.25	162.	59.	20.	4.68
+	HYDROGRAPH AT	D72sP1	433.	12.25	306.	112.	38.	4.68
+	ROUTED TO	P72sS1	433.	12.33	305.	112.	38.	4.68
+	HYDROGRAPH AT	B72sP2	229.	12.25	162.	59.	20.	4.68
+	ROUTED TO	P72sS2	229.	12.33	162.	59.	20.	4.68
+	3 COMBINED AT	C72sS	711.	12.83	475.	173.	58.	4.68
+	3 COMBINED AT	C72t	863.	12.83	515.	184.	62.	6.23
+	DIVERSION TO	D72tP	714.	12.33	491.	178.	60.	6.23
+	HYDROGRAPH AT	D72t	149.	12.83	24.	6.	2.	6.23
+	DIVERSION TO	D72tS	79.	12.83	13.	3.	1.	6.23
+	HYDROGRAPH AT	D72tW	70.	12.83	11.	3.	1.	6.23
+	ROUTED TO	R72tW	63.	13.25	11.	3.	1.	6.23
+	HYDROGRAPH AT	76t	134.	12.42	34.	10.	3.	.27
+	HYDROGRAPH AT	BD76sP	204.	12.08	165.	52.	17.	13.28

+	ROUTED TO	P76sS	204.	12.17	165.	52.	17.	13.28
+	HYDROGRAPH AT	BD76sS	62.	12.92	27.	7.	2.	13.28
+	ROUTED TO	R76sS	61.	13.17	27.	7.	2.	13.28
+	2 COMBINED AT	C76sS	265.	13.17	192.	59.	20.	13.28
+	3 COMBINED AT	C76t	389.	13.08	233.	71.	24.	15.10
+	DIVERSION TO	D76tP	297.	12.25	215.	67.	22.	15.10
+	HYDROGRAPH AT	D76t	92.	13.08	17.	4.	1.	15.10
+	DIVERSION TO	D76tS	49.	13.08	9.	2.	1.	15.10
+	HYDROGRAPH AT	D76tW	43.	13.08	8.	2.	1.	15.10
+	ROUTED TO	R76tW	38.	13.50	8.	2.	1.	15.10
+	HYDROGRAPH AT	80t	98.	12.42	25.	8.	3.	.25
+	3 COMBINED AT	C80t	455.	12.42	333.	108.	37.	16.24
+	DIVERSION TO	D80tP	364.	12.25	306.	101.	35.	16.24
+	HYDROGRAPH AT	D80t	91.	12.42	27.	7.	2.	16.24
+	ROUTED TO	R80tS	86.	12.75	27.	7.	2.	16.24
+	HYDROGRAPH AT	52u	95.	12.50	25.	7.	2.	.39
+	HYDROGRAPH AT	BD52tS	19.	12.50	2.	0.	0.	.96
+	ROUTED TO	R52tS	12.	13.17	2.	0.	0.	.96
+	2 COMBINED AT	C52u	95.	12.50	27.	8.	3.	1.35
+	ROUTED TO	S52u	54.	13.50	20.	5.	2.	1.35
+	HYDROGRAPH AT	BD52tP	281.	12.33	100.	31.	10.	.96
+	ROUTED TO	P52tS	281.	12.42	100.	31.	10.	.96
+	2 COMBINED AT	CC52u	327.	13.08	120.	36.	12.	1.35
+	DIVERSION TO	D52uP	281.	12.42	116.	35.	12.	1.35
+	HYDROGRAPH AT	D52u	46.	13.08	4.	1.	0.	1.35
+	DIVERSION TO	D52uS	15.	13.08	1.	0.	0.	1.35
+	HYDROGRAPH AT	D52uW	31.	13.08	3.	1.	0.	1.35
+	ROUTED TO	R52uW	18.	13.42	3.	1.	0.	1.35
	HYDROGRAPH AT							

+		56u	83.	12.58	25.	8.	3.	.33
	HYDROGRAPH AT							
		BD56tS	0.	.00	0.	0.	0.	1.74
	ROUTED TO							
		R56tS	0.	.00	0.	0.	0.	1.74
	3 COMBINED AT							
+		C56u	83.	12.58	28.	8.	3.	2.46
	ROUTED TO							
+		S56u	75.	12.92	22.	8.	3.	2.46
	HYDROGRAPH AT							
+		BD56tP	292.	12.75	94.	29.	10.	1.74
	ROUTED TO							
+		P56tS	292.	12.75	94.	29.	10.	1.74
	2 COMBINED AT							
+		CC56u	364.	12.83	115.	36.	12.	2.46
	DIVERSION TO							
+		D56uP	364.	12.83	115.	36.	12.	2.46
	HYDROGRAPH AT							
+		D56u	0.	.00	0.	0.	0.	2.46
	DIVERSION TO							
+		D56uS	0.	.00	0.	0.	0.	2.46
	HYDROGRAPH AT							
+		D56uW	0.	.00	0.	0.	0.	2.46
	ROUTED TO							
+		R56uW	0.	.00	0.	0.	0.	2.46
	HYDROGRAPH AT							
+		60u	82.	12.50	22.	7.	2.	.28
	HYDROGRAPH AT							
		BD60tS	38.	12.50	11.	3.	1.	2.68
	ROUTED TO							
+		R60tS	35.	13.00	11.	3.	1.	2.68
	3 COMBINED AT							
+		C60u	100.	12.83	32.	10.	3.	3.68
	ROUTED TO							
+		S60u	99.	12.92	32.	10.	3.	3.68
	DIVERSION TO							
+		D60uP	99.	12.92	32.	10.	3.	3.68
	HYDROGRAPH AT							
+		D60u	0.	.00	0.	0.	0.	3.68
	DIVERSION TO							
+		D60uS	0.	.00	0.	0.	0.	3.68
	HYDROGRAPH AT							
+		D60uW	0.	.00	0.	0.	0.	3.68
	ROUTED TO							
+		R60uW	0.	.00	0.	0.	0.	3.68
	HYDROGRAPH AT							
+		64u	114.	12.50	31.	10.	3.	.30
	HYDROGRAPH AT							
+		BD64tP	375.	12.25	146.	47.	16.	3.61
	ROUTED TO							
+		P64tS	375.	12.33	146.	47.	16.	3.61
	HYDROGRAPH AT							
+		BD64tS	73.	12.67	9.	2.	1.	3.61
	ROUTED TO							
+		R64tS	65.	13.00	9.	2.	1.	3.61
	2 COMBINED AT							
+		C64tS	440.	13.00	155.	50.	17.	3.61

+	3 COMBINED AT	C64u	523.	12.92	185.	59.	20.	4.91
.	DIVERSION TO	D64uPT	0.	.00	0.	0.	0.	4.91
+	HYDROGRAPH AT	D64u	523.	12.92	185.	59.	20.	4.91
+	DIVERSION TO	D64uP	375.	12.25	160.	53.	18.	4.91
+	HYDROGRAPH AT	D64u1	148.	12.92	25.	6.	2.	4.91
+	DIVERSION TO	D64uS	37.	12.92	6.	2.	1.	4.91
+	HYDROGRAPH AT	D64uW	111.	12.92	19.	5.	2.	4.91
+	ROUTED TO	R64uW	106.	13.17	19.	5.	2.	4.91
+	HYDROGRAPH AT	68u	125.	12.50	33.	10.	3.	.28
+	HYDROGRAPH AT	BD68tP	124.	12.08	54.	17.	6.	4.39
+	ROUTED TO	P68tS	124.	12.17	54.	17.	6.	4.39
+	HYDROGRAPH AT	BD68tS	78.	12.83	13.	3.	1.	4.39
+	ROUTED TO	R68tS	71.	13.08	13.	3.	1.	4.39
+	2 COMBINED AT	C68tS	195.	13.08	67.	21.	7.	4.39
+	3 COMBINED AT	C68u	380.	13.00	116.	35.	12.	5.97
+	DIVERSION TO	D68uP	146.	12.08	72.	24.	8.	5.97
+	HYDROGRAPH AT	D68u	234.	13.00	45.	11.	4.	5.97
+	DIVERSION TO	D68uS	49.	13.00	9.	2.	1.	5.97
+	HYDROGRAPH AT	D68uW	185.	13.00	35.	9.	3.	5.97
+	ROUTED TO	R68uW	179.	13.25	35.	9.	3.	5.97
+	HYDROGRAPH AT	72u	115.	12.42	29.	8.	3.	.26
+	2 COMBINED AT	C72u	241.	13.08	63.	17.	6.	6.23
+	HYDROGRAPH AT	BD72tP	714.	12.33	491.	178.	60.	6.23
+	DIVERSION TO	D72tP2	281.	12.33	193.	70.	24.	6.23
+	HYDROGRAPH AT	D72tP1	433.	12.33	298.	108.	36.	6.23
+	ROUTED TO	P72tS1	433.	12.42	298.	108.	36.	6.23
+	HYDROGRAPH AT	B72tP2	281.	12.33	193.	70.	24.	6.23
+	ROUTED TO	P72tS2	281.	12.42	193.	70.	24.	6.23
+	HYDROGRAPH AT	B72tS	79.	12.83	13.	3.	1.	6.23

+	ROUTED TO	R72tS	69.	13.33	13.	3.	1.	6.23
	3 COMBINED AT	C72tS	783.	13.33	503.	181.	61.	6.23
+	2 COMBINED AT	CC72u	1018.	13.17	565.	198.	67.	8.06
+	DIVERSION TO	D72uP	714.	12.25	504.	183.	62.	8.06
+	HYDROGRAPH AT	D72u	304.	13.17	61.	15.	5.	8.06
+	DIVERSION TO	D72uS	94.	13.17	19.	5.	2.	8.06
+	HYDROGRAPH AT	D72uW	210.	13.17	42.	11.	4.	8.06
+	ROUTED TO	R72uW	204.	13.42	42.	11.	4.	8.06
+	HYDROGRAPH AT	BD76tP	297.	12.25	215.	67.	22.	15.10
+	DIVERSION TO	D76tP2	48.	12.25	35.	11.	4.	15.10
+	HYDROGRAPH AT	D76tP1	249.	12.25	180.	56.	19.	15.10
+	ROUTED TO	P76tS1	249.	12.33	180.	56.	19.	15.10
+	HYDROGRAPH AT	B76tP2	48.	12.25	35.	11.	4.	15.10
+	ROUTED TO	P76tS2	48.	12.42	35.	11.	4.	15.10
+	HYDROGRAPH AT	BD76tS	49.	13.08	9.	2.	1.	15.10
+	ROUTED TO	R76tS	43.	13.50	9.	2.	1.	15.10
+	3 COMBINED AT	C76tS	340.	13.50	224.	69.	23.	15.10
+	HYDROGRAPH AT	76u	126.	12.50	31.	9.	3.	.28
+	3 COMBINED AT	C76u	580.	13.33	290.	86.	29.	17.22
+	DIVERSION TO	D76uP	297.	12.17	222.	69.	23.	17.22
+	HYDROGRAPH AT	D76u	283.	13.33	69.	17.	6.	17.22
+	DIVERSION TO	D76uS	0.	.00	0.	0.	0.	17.22
+	HYDROGRAPH AT	D76uW	283.	13.33	69.	17.	6.	17.22
+	ROUTED TO	R76uW	280.	13.50	69.	17.	6.	17.22
+	HYDROGRAPH AT	80u	129.	12.42	32.	10.	3.	.25
+	3 COMBINED AT	C80u	390.	13.42	124.	33.	11.	18.61
+	HYDROGRAPH AT	BD80tP	364.	12.25	306.	101.	35.	16.24
+	ROUTED TO	P80tS	364.	12.33	306.	101.	35.	16.24
	HYDROGRAPH AT							

+		BD80qW	522.	13.08	172.	43.	14.	14.17
+	3 COMBINED AT							
+		CC80u	1240.	13.17	590.	174.	59.	18.61
+	ROUTED TO							
+		S-117	461.	15.50	437.	174.	59.	18.61
+	DIVERSION TO							
+		D80uP	461.	15.50	437.	174.	59.	18.61
+	HYDROGRAPH AT							
+		D80u	0.	.00	0.	0.	0.	18.61
+	ROUTED TO							
+		R80uW	0.	.00	0.	0.	0.	18.61
+	HYDROGRAPH AT							
+		84t	123.	12.42	37.	12.	4.	.27
+	HYDROGRAPH AT							
+		P84tN	252.	13.00	64.	19.	6.	.50
+	2 COMBINED AT							
+		C84t	341.	13.00	100.	31.	10.	.77
+	DIVERSION TO							
+		D84tP	252.	12.50	93.	29.	10.	.77
+	HYDROGRAPH AT							
+		D84t	89.	13.00	7.	2.	1.	.77
+	DIVERSION TO							
+		D84tW	12.	13.00	1.	0.	0.	.77
+	HYDROGRAPH AT							
+		D84tS	77.	13.00	6.	1.	0.	.77
+	ROUTED TO							
+		R84tS	44.	13.25	6.	1.	0.	.77
+	HYDROGRAPH AT							
+		84u	104.	12.50	29.	9.	3.	.26
+	3 COMBINED AT							
+		C84u	100.	13.17	33.	10.	3.	9.04
+	ROUTED TO							
+		S84u	99.	13.17	32.	10.	3.	9.04
+	HYDROGRAPH AT							
+		BD84tP	252.	12.50	93.	29.	10.	.77
+	ROUTED TO							
+		P84tS	252.	12.58	93.	29.	10.	.77
+	2 COMBINED AT							
+		CC84u	351.	13.17	125.	39.	13.	9.04
+	DIVERSION TO							
+		D84uP	252.	12.50	109.	35.	12.	9.04
+	HYDROGRAPH AT							
+		D84u	99.	13.17	16.	4.	1.	9.04
+	DIVERSION TO							
+		D84uS	20.	13.17	3.	1.	0.	9.04
+	HYDROGRAPH AT							
+		D84uW	79.	13.17	13.	3.	1.	9.04
+	ROUTED TO							
+		R84uW	76.	13.42	13.	3.	1.	9.04
+	HYDROGRAPH AT							
+		88t	83.	12.58	29.	9.	3.	.26
+	HYDROGRAPH AT							
+		BD84tW	12.	13.00	1.	0.	0.	.77
+	ROUTED TO							
+		R84tW	5.	13.58	1.	0.	0.	.77
+	2 COMBINED AT							
+		C88t	83.	12.58	29.	10.	3.	1.03

+	DIVERSION TO	D88tW	25.	12.58	9.	3.	1.	1.03
	HYDROGRAPH AT	D88tS	57.	12.58	20.	7.	2.	1.03
+	ROUTED TO	R88tS	55.	12.92	20.	7.	2.	1.03
+	HYDROGRAPH AT	88u	100.	12.50	30.	9.	3.	.25
+	3 COMBINED AT	C88u	188.	13.08	61.	19.	6.	9.55
+	DIVERSION TO	D88uP	36.	12.00	26.	10.	3.	9.55
+	HYDROGRAPH AT	D88u	152.	13.08	35.	9.	3.	9.55
+	DIVERSION TO	D88uS	115.	13.08	27.	7.	2.	9.55
+	HYDROGRAPH AT	D88uW	36.	13.08	9.	2.	1.	9.55
+	ROUTED TO	R88uW	33.	13.50	9.	2.	1.	9.55
+	HYDROGRAPH AT	BD88uP	36.	12.00	26.	10.	3.	9.55
+	ROUTED TO	P88uW	36.	12.17	26.	10.	3.	9.55
+	2 COMBINED AT	C88uW	69.	13.50	34.	12.	4.	9.55
+	HYDROGRAPH AT	92t	45.	12.58	16.	5.	2.	.17
+	HYDROGRAPH AT	BD88tW	25.	12.58	9.	3.	1.	1.03
+	ROUTED TO	R88tW	23.	12.92	9.	3.	1.	1.03
+	2 COMBINED AT	C92t	65.	12.75	24.	8.	3.	1.21
+	ROUTED TO	R92tS	64.	13.00	24.	8.	3.	1.21
+	HYDROGRAPH AT	92u	89.	12.50	28.	9.	3.	.25
+	HYDROGRAPH AT	P92uN	141.	13.00	47.	15.	5.	2.50
+	4 COMBINED AT	C92u	326.	13.00	131.	42.	15.	10.17
+	DIVERSION TO	D92uP	201.	12.42	112.	38.	13.	10.17
+	HYDROGRAPH AT	D92u	125.	13.00	19.	5.	2.	10.17
+	ROUTED TO	R92uS	119.	13.08	19.	5.	2.	10.17
+	HYDROGRAPH AT	B92uP	201.	12.42	112.	38.	13.	10.17
+	ROUTED TO	P92uS	201.	12.50	112.	38.	13.	10.17
+	2 COMBINED AT	C92uS	320.	13.08	131.	42.	15.	10.17
+	HYDROGRAPH AT	76v	71.	12.58	24.	8.	3.	.24
+	HYDROGRAPH AT	B76uP	297.	12.17	222.	69.	23.	17.22

+	DIVERSION TO	D76uP1	249.	12.17	186.	58.	19.	17.22
+	HYDROGRAPH AT	D76uP2	48.	12.17	36.	11.	4.	17.22
+	ROUTED TO	P76uS2	48.	12.25	36.	11.	4.	17.22
+	HYDROGRAPH AT	BD76uS	0.	.00	0.	0.	0.	17.22
+	ROUTED TO	R76uS	0.	.00	0.	0.	0.	17.22
+	2 COMBINED AT	C76uS	48.	12.25	36.	11.	4.	17.22
+	2 COMBINED AT	C76v	116.	12.58	59.	19.	6.	8.24
+	DIVERSION TO	D76vP	109.	12.42	59.	19.	6.	8.24
+	HYDROGRAPH AT	D76v	7.	12.58	0.	0.	0.	8.24
+	DIVERSION TO	D76vS	4.	12.58	0.	0.	0.	8.24
+	HYDROGRAPH AT	D76vW	3.	12.58	0.	0.	0.	8.24
+	ROUTED TO	R76vW	1.	13.50	0.	0.	0.	8.24
+	HYDROGRAPH AT	80v	113.	12.42	32.	11.	4.	.23
+	HYDROGRAPH AT	B76uP1	249.	12.17	186.	58.	19.	17.22
+	ROUTED TO	P76uS1	249.	12.33	186.	58.	19.	17.22
+	3 COMBINED AT	C80v	358.	12.42	220.	70.	23.	8.23
+	DIVERSION TO	D80vP	249.	12.17	196.	64.	21.	8.23
+	HYDROGRAPH AT	D80v	109.	12.42	24.	6.	2.	8.23
+	DIVERSION TO	D80vS	61.	12.42	14.	3.	1.	8.23
+	HYDROGRAPH AT	D80vW	48.	12.42	11.	3.	1.	8.23
+	ROUTED TO	R80vW	40.	13.25	11.	3.	1.	8.23
+	HYDROGRAPH AT	84v	43.	12.58	16.	6.	2.	.25
+	HYDROGRAPH AT	BD80uP	461.	15.50	437.	174.	59.	18.61
+	ROUTED TO	P80uS	461.	15.58	437.	174.	59.	18.61
+	3 COMBINED AT	C84v	491.	14.25	466.	193.	65.	8.73
+	HYDROGRAPH AT	BD84uP	252.	12.50	109.	35.	12.	9.04
+	ROUTED TO	P84uS	252.	12.58	109.	35.	12.	9.04
+	HYDROGRAPH AT	BD84uS	20.	13.17	3.	1.	0.	9.04
	ROUTED TO							

+		R84uS	18.	13.42	3.	1.	0.	9.04
	2 COMBINED AT							
		C84uS	270.	13.42	112.	36.	12.	9.04
	2 COMBINED AT							
+		CC84v	741.	13.58	559.	228.	77.	9.76
	DIVERSION TO							
+		D84vP	741.	13.58	559.	228.	77.	9.76
	HYDROGRAPH AT							
+		D84v	0.	.00	0.	0.	0.	9.76
	DIVERSION TO							
+		D84vS	0.	.00	0.	0.	0.	9.76
	HYDROGRAPH AT							
+		D84vW	0.	.00	0.	0.	0.	9.76
	ROUTED TO							
+		R84vW	0.	.00	0.	0.	0.	9.76
	HYDROGRAPH AT							
+		88v	96.	12.58	31.	9.	3.	.25
	HYDROGRAPH AT							
+		BD88uS	115.	13.08	27.	7.	2.	9.55
	ROUTED TO							
+		R88uS	111.	13.33	27.	7.	2.	9.55
	3 COMBINED AT							
+		C88v	179.	13.17	57.	16.	5.	10.52
	DIVERSION TO							
+		D88vP	51.	12.25	28.	9.	3.	10.52
	HYDROGRAPH AT							
+		D88v	128.	13.17	29.	7.	2.	10.52
	ROUTED TO							
+		R88vW	122.	13.42	29.	7.	2.	10.52
	HYDROGRAPH AT							
+		92v	88.	12.33	25.	8.	3.	.16
	3 COMBINED AT							
+		C92v	468.	13.17	183.	57.	20.	11.30
	DIVERSION TO							
+		D92v	267.	13.17	58.	15.	5.	11.30
	HYDROGRAPH AT							
+		D92vP	201.	12.17	125.	43.	15.	11.30
	ROUTED TO							
+		P92vS	201.	12.33	125.	43.	15.	11.30
	HYDROGRAPH AT							
+		88w	192.	12.58	60.	19.	6.	.60
	HYDROGRAPH AT							
+		BD88vP	51.	12.25	28.	9.	3.	10.52
	ROUTED TO							
+		P88vS	51.	12.33	28.	9.	3.	10.52
	3 COMBINED AT							
+		C88w	436.	12.58	210.	70.	24.	11.90
	HYDROGRAPH AT							
+		44v	27.	12.58	10.	4.	1.	.24
	HYDROGRAPH AT							
+		BD44sP	201.	12.08	116.	41.	14.	3.79
	ROUTED TO							
+		P44sS	201.	12.33	116.	41.	14.	3.79
	2 COMBINED AT							
+		C44v	227.	12.58	126.	44.	15.	4.03
	HYDROGRAPH AT							
+		B48oPT	1041.	12.83	477.	158.	53.	14.34

+	ROUTED TO	PT48o	1040.	12.83	477.	158.	53.	14.34
.	HYDROGRAPH AT	B48qPT	120.	12.75	36.	10.	3.	2.87
+	2 COMBINED AT	CPT48q	1144.	12.83	507.	167.	56.	16.11
+	ROUTED TO	PT48q	1142.	12.92	507.	167.	56.	16.11
+	HYDROGRAPH AT	B48sPT	353.	13.00	89.	24.	8.	4.31
+	2 COMBINED AT	CPT48s	1463.	12.92	587.	189.	63.	17.54
+	ROUTED TO	PT48s	1461.	13.00	587.	189.	63.	17.54
+	HYDROGRAPH AT	48v	105.	12.50	36.	13.	4.	.30
+	2 COMBINED AT	C48v	1539.	13.00	621.	200.	67.	17.84
+	2 COMBINED AT	NUL48v	1761.	13.00	743.	243.	82.	18.08
+	HYDROGRAPH AT	52v	35.	12.58	13.	4.	1.	.30
+	HYDROGRAPH AT	BD52uP	281.	12.42	116.	35.	12.	1.35
+	ROUTED TO	P52uS	281.	12.50	116.	35.	12.	1.35
+	HYDROGRAPH AT	BD52uS	15.	13.08	1.	0.	0.	1.35
+	ROUTED TO	R52uS	8.	13.42	1.	0.	0.	1.35
+	2 COMBINED AT	C52uS	289.	13.33	117.	35.	12.	1.35
+	2 COMBINED AT	C52v	315.	13.25	129.	40.	13.	1.64
+	2 COMBINED AT	NUL52v	2062.	13.00	862.	280.	94.	19.72
+	HYDROGRAPH AT	56v	51.	12.67	18.	6.	2.	.23
+	HYDROGRAPH AT	BD56uP	364.	12.83	115.	36.	12.	2.46
+	ROUTED TO	P56uS	363.	12.92	115.	36.	12.	2.46
+	HYDROGRAPH AT	BD56uS	0.	.00	0.	0.	0.	2.46
+	ROUTED TO	R56uS	0.	.00	0.	0.	0.	2.46
+	2 COMBINED AT	C56uS	363.	12.92	115.	36.	12.	2.46
+	2 COMBINED AT	C56v	410.	12.83	133.	41.	14.	2.69
+	2 COMBINED AT	NUL56v	2445.	12.92	983.	318.	107.	21.07
+	HYDROGRAPH AT	60v	71.	12.50	24.	8.	3.	.23
+	HYDROGRAPH AT	BD60uP	99.	12.92	32.	10.	3.	3.68
+	ROUTED TO	P60uS	99.	13.00	32.	10.	3.	3.68

+	HYDROGRAPH AT	BD60uS	0.	.00	0.	0.	0.	3.68
	ROUTED TO	R60uS	0.	.00	0.	0.	0.	3.68
+	2 COMBINED AT	C60uS	99.	13.00	32.	10.	3.	3.68
+	2 COMBINED AT	C60v	159.	12.83	55.	17.	6.	3.91
+	2 COMBINED AT	NUL60v	2586.	12.92	1031.	333.	112.	22.51
+	HYDROGRAPH AT	BPT64o	1928.	13.33	862.	285.	96.	21.04
+	HYDROGRAPH AT	B64qPT	0.	.00	0.	0.	0.	1.51
+	2 COMBINED AT	CPT64q	1928.	13.33	862.	285.	96.	22.55
+	ROUTED TO	PT64q	1916.	13.33	858.	284.	95.	22.55
+	HYDROGRAPH AT	B64sPT	0.	.00	0.	0.	0.	2.54
+	2 COMBINED AT	CPT64s	1916.	13.33	858.	284.	95.	23.58
+	ROUTED TO	PT64s	1906.	13.42	856.	283.	95.	23.58
+	HYDROGRAPH AT	B64tPT	0.	.00	0.	0.	0.	3.61
+	2 COMBINED AT	CPT64t	1906.	13.42	856.	283.	95.	24.65
+	ROUTED TO	PT64t	1899.	13.42	853.	282.	95.	24.65
+	HYDROGRAPH AT	B64uPT	0.	.00	0.	0.	0.	4.91
+	2 COMBINED AT	CPT64u	1899.	13.42	853.	282.	95.	25.95
+	ROUTED TO	PT64u	1890.	13.42	850.	281.	94.	25.95
+	HYDROGRAPH AT	64v	82.	12.42	25.	8.	3.	.19
+	HYDROGRAPH AT	BD64uP	375.	12.25	160.	53.	18.	4.91
+	ROUTED TO	P64uS	375.	12.33	160.	53.	18.	4.91
+	HYDROGRAPH AT	BD64uS	37.	12.92	6.	2.	1.	4.91
+	ROUTED TO	R64uS	37.	13.00	6.	2.	1.	4.91
+	2 COMBINED AT	C64uS	412.	13.00	166.	54.	18.	4.91
+	3 COMBINED AT	C64v	2314.	13.42	1029.	341.	114.	26.15
+	2 COMBINED AT	NUL64v	4525.	13.17	1957.	642.	216.	44.28
+	HYDROGRAPH AT	68v	56.	12.58	19.	6.	2.	.22
+	HYDROGRAPH AT	BD68uP	146.	12.08	72.	24.	8.	5.97
	ROUTED TO							

+		P68uS	146.	12.17	72.	24.	8.	5.97
		HYDROGRAPH AT						
+		BD68uS	49.	13.00	9.	2.	1.	5.97
		ROUTED TO						
+		R68uS	48.	13.17	9.	2.	1.	5.97
		2 COMBINED AT						
+		C68uS	194.	13.17	81.	26.	9.	5.97
		2 COMBINED AT						
+		C68v	237.	13.08	99.	32.	11.	6.19
		2 COMBINED AT						
+		NUL68v	4735.	13.17	2043.	670.	225.	45.56
		HYDROGRAPH AT						
+		72v	163.	12.42	50.	17.	6.	.41
		HYDROGRAPH AT						
+		BD72uP	714.	12.25	504.	183.	62.	8.06
		DIVERSION TO						
+		D72uP2	281.	12.25	198.	72.	24.	8.06
		HYDROGRAPH AT						
+		D72uP1	433.	12.25	306.	111.	37.	8.06
		ROUTED TO						
+		P72uS1	433.	12.42	305.	111.	37.	8.06
		HYDROGRAPH AT						
+		B72uP2	281.	12.25	198.	72.	24.	8.06
		ROUTED TO						
+		P72uS2	281.	12.42	198.	72.	24.	8.06
		HYDROGRAPH AT						
+		BD72uS	94.	13.17	19.	5.	2.	8.06
		ROUTED TO						
.		R72uS	91.	13.58	19.	5.	2.	8.06
		3 COMBINED AT						
+		C72uS	805.	13.58	523.	187.	63.	8.06
		2 COMBINED AT						
+		C72v	883.	13.17	569.	203.	69.	8.47
		2 COMBINED AT						
+		NUL72v	5580.	13.17	2574.	860.	289.	47.06
		HYDROGRAPH AT						
+		76w	26.	12.58	7.	2.	1.	.33
		HYDROGRAPH AT						
+		BD76vS	4.	12.58	0.	0.	0.	8.24
		ROUTED TO						
+		R76vS	2.	13.08	0.	0.	0.	8.24
		HYDROGRAPH AT						
+		BD76vP	109.	12.42	59.	19.	6.	8.24
		ROUTED TO						
+		P76vS	109.	12.50	59.	19.	6.	8.24
		2 COMBINED AT						
+		C76vS	111.	12.92	59.	19.	6.	8.24
		2 COMBINED AT						
+		C76w	132.	12.67	65.	21.	7.	8.57
		2 COMBINED AT						
+		NUL76w	5604.	13.17	2593.	866.	291.	56.10
		HYDROGRAPH AT						
+		80w	143.	12.42	42.	14.	5.	.36
		HYDROGRAPH AT						
+		BD80vS	61.	12.42	14.	3.	1.	8.23
		ROUTED TO						
+		R80vS	54.	12.92	14.	3.	1.	8.23

+	2 COMBINED AT	C80w	169.	12.67	54.	17.	6.	8.59
	2 COMBINED AT	NUL80w	5707.	13.08	2631.	879.	296.	58.09
+	HYDROGRAPH AT	BD84vS	0.	.00	0.	0.	0.	9.76
+	ROUTED TO	R84vS	0.	.00	0.	0.	0.	9.76
+	HYDROGRAPH AT	BD84vP	741.	13.58	559.	228.	77.	9.76
+	DIVERSION TO	D84vP2	594.	13.58	448.	183.	62.	9.76
+	HYDROGRAPH AT	D84vP1	147.	13.58	111.	45.	15.	9.76
+	ROUTED TO	P84vS1	147.	13.67	111.	45.	15.	9.76
+	HYDROGRAPH AT	B84vP2	594.	13.58	448.	183.	62.	9.76
+	ROUTED TO	P84vS2	594.	13.67	448.	183.	62.	9.76
+	3 COMBINED AT	C84vS	741.	13.67	559.	228.	77.	9.76
+	HYDROGRAPH AT	84w	106.	12.50	33.	11.	4.	.34
+	HYDROGRAPH AT	BD80vP	249.	12.17	196.	64.	21.	8.23
+	ROUTED TO	P80vS	249.	12.33	196.	64.	21.	8.23
+	3 COMBINED AT	C84w	1037.	13.42	773.	302.	102.	10.10
+	2 COMBINED AT	NUL84w	6677.	13.17	3317.	1136.	383.	59.72
+	2 COMBINED AT	NUL88w	7041.	13.08	3507.	1200.	405.	61.86
+	HYDROGRAPH AT	24s	82.	12.33	18.	6.	2.	.19
+	ROUTED TO	S24s	42.	13.00	11.	3.	1.	.19
+	HYDROGRAPH AT	B28qP2	30.	12.67	11.	4.	1.	.82
+	ROUTED TO	P28qE	30.	12.67	11.	4.	1.	.82
+	2 COMBINED AT	C24s	70.	12.92	22.	7.	2.	.20
+	DIVERSION TO	D24sP	70.	12.92	22.	7.	2.	.20
+	HYDROGRAPH AT	D24s	0.	.00	0.	0.	0.	.20
+	ROUTED TO	R24sS	0.	.00	0.	0.	0.	.20
+	HYDROGRAPH AT	BD24sP	70.	12.92	22.	7.	2.	.20
+	DIVERSION TO	D24sPE	9.	12.92	3.	1.	0.	.20
+	HYDROGRAPH AT	D24sPS	61.	12.92	19.	6.	2.	.20
+	ROUTED TO	P24sS	60.	13.00	19.	6.	2.	.20

+	2 COMBINED AT	C24sS	60.	13.00	19.	6.	2.	.20
+	HYDROGRAPH AT	24t	62.	12.33	9.	3.	1.	.26
+	2 COMBINED AT	C24t	81.	12.92	28.	9.	3.	.46
+	ROUTED TO	S24t	19.	14.58	16.	8.	3.	.46
+	HYDROGRAPH AT	04s	169.	12.17	20.	6.	2.	.28
+	ROUTED TO	S04s	154.	12.25	19.	6.	2.	.28
+	ROUTED TO	R04sS	131.	12.33	19.	6.	2.	.28
+	HYDROGRAPH AT	08q	220.	12.25	41.	14.	5.	.44
+	ROUTED TO	R08qS	210.	12.33	41.	14.	5.	.44
+	HYDROGRAPH AT	08s	348.	12.25	63.	21.	7.	.65
+	3 COMBINED AT	C08s	663.	12.33	121.	40.	14.	1.37
+	ROUTED TO	S08s	324.	12.75	81.	40.	13.	1.37
+	DIVERSION TO	D08sP	324.	12.75	81.	40.	13.	1.37
+	HYDROGRAPH AT	D08s	0.	.00	0.	0.	0.	1.37
+	ROUTED TO	R08sW	0.	.00	0.	0.	0.	1.37
+	HYDROGRAPH AT	12q	141.	12.25	20.	6.	2.	.40
+	ROUTED TO	R12qS	132.	12.42	20.	6.	2.	.40
+	HYDROGRAPH AT	12s	154.	12.17	29.	10.	3.	.21
+	ROUTED TO	S12s	36.	13.08	14.	9.	3.	.21
+	2 COMBINED AT	C12s	140.	12.42	33.	14.	5.	.61
+	ROUTED TO	R12sW	129.	12.58	33.	14.	5.	.61
+	2 COMBINED AT	C12sW	126.	12.58	32.	14.	5.	1.97
+	DIVERSION TO	D16sP2	126.	12.58	32.	14.	5.	1.97
+	HYDROGRAPH AT	D16s2	0.	.00	0.	0.	0.	1.97
+	HYDROGRAPH AT	16o	269.	12.00	32.	11.	4.	.21
+	ROUTED TO	R16oS	234.	12.17	32.	11.	4.	.21
+	HYDROGRAPH AT	16q	199.	12.33	41.	13.	4.	.65
+	2 COMBINED AT	C16q	385.	12.17	72.	24.	8.	.86
	ROUTED TO							

+		S16q	39.	13.92	17.	6.	2.	.86
	DIVERSION TO							
		D16qF	39.	13.92	17.	6.	2.	.86
	HYDROGRAPH AT							
+		D16q	0.	.00	0.	0.	0.	.86
	ROUTED TO							
+		R16qS	0.	.00	0.	0.	0.	.86
	HYDROGRAPH AT							
+		16s	308.	12.17	52.	17.	6.	.42
	3 COMBINED AT							
+		C16s	301.	12.17	51.	17.	6.	3.26
	ROUTED TO							
+		S16s	161.	12.58	25.	7.	2.	3.26
	HYDROGRAPH AT							
+		BD16qP	39.	13.92	17.	6.	2.	.86
	DIVERSION TO							
+		D16qPW	10.	13.92	5.	2.	1.	.86
	HYDROGRAPH AT							
+		D16qPS	29.	13.92	13.	4.	1.	.86
	ROUTED TO							
+		P16qS	29.	13.92	13.	4.	1.	.86
	2 COMBINED AT							
+		CC16s	161.	12.58	35.	12.	4.	3.26
	DIVERSION TO							
+		D16sP	161.	12.58	35.	12.	4.	3.26
	HYDROGRAPH AT							
+		D16s	0.	.00	0.	0.	0.	3.26
	ROUTED TO							
+		R16sS	0.	.00	0.	0.	0.	3.26
	HYDROGRAPH AT							
+		BD16sP	161.	12.58	35.	12.	4.	3.26
	ROUTED TO							
+		P16sS	157.	12.58	35.	12.	4.	3.26
	2 COMBINED AT							
+		C16sS	157.	12.58	35.	12.	4.	3.26
	HYDROGRAPH AT							
+		20p	179.	12.33	38.	12.	4.	.53
	ROUTED TO							
+		S20p1	177.	12.42	38.	11.	4.	.53
	HYDROGRAPH AT							
+		B16qPW	10.	13.92	5.	2.	1.	.86
	ROUTED TO							
+		P16qW	10.	14.00	5.	2.	1.	.86
	2 COMBINED AT							
+		C20p	177.	12.42	41.	13.	4.	1.39
	ROUTED TO							
+		S20p2	69.	13.17	40.	12.	4.	1.39
	HYDROGRAPH AT							
+		OCCC48	2493.	13.00	970.	383.	128.	3.00
	HYDROGRAPH AT							
+		BD24oP	48.	12.17	30.	11.	4.	1.20
	ROUTED TO							
+		P24oS	48.	12.33	30.	11.	4.	1.20
	2 COMBINED AT							
+		C24oS	2541.	13.00	1000.	394.	132.	3.00
	ROUTED TO							
+		ROCCC	2492.	13.00	1000.	394.	132.	3.00

+	2 COMBINED AT	CC20p	2560.	13.08	1037.	406.	135.	4.39
-	ROUTED TO	R20pS	2576.	13.08	1037.	406.	135.	4.39
+	HYDROGRAPH AT	20q	96.	12.33	17.	5.	2.	.28
+	HYDROGRAPH AT	B28pP2	68.	12.67	28.	9.	3.	3.11
+	ROUTED TO	P28pE	68.	12.92	28.	9.	3.	3.11
+	3 COMBINED AT	C20q	2677.	13.08	1081.	420.	140.	4.67
+	ROUTED TO	R20qS	2657.	13.08	1081.	420.	140.	4.67
+	HYDROGRAPH AT	20s	358.	12.17	55.	18.	6.	.48
+	ROUTED TO	S20s	343.	12.25	55.	17.	6.	.48
+	2 COMBINED AT	C20s	2718.	13.08	1135.	436.	146.	5.15
+	HYDROGRAPH AT	B24sPE	9.	12.92	3.	1.	0.	.20
+	ROUTED TO	P24sE	9.	13.00	3.	1.	0.	.20
+	2 COMBINED AT	CC20s	2727.	13.08	1137.	437.	146.	5.35
+	ROUTED TO	R20sS	2716.	13.17	1137.	437.	146.	5.35
+	HYDROGRAPH AT	20t	11.	12.67	3.	1.	0.	.26
+	ROUTED TO	S20t	0.	.00	0.	0.	0.	.26
+	3 COMBINED AT	C20t	2769.	13.17	1165.	448.	150.	8.01
+	2 COMBINED AT	NUL20t	2781.	13.17	1176.	455.	152.	8.27

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

**APPENDIX G**

**HEC-1 Model Output File for the 2-Year, 24-Hour Storm**

```

*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
* JUN 1998
* VERSION 4.1
*
* RUN DATE 11JUL06 TIME 08:17:55
*
*****

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

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

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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.

HEC-1 INPUT

PAGE 1

```

1
LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID Project ID: METRO ADMS/P - Major Basin: 01 - Return Period: 2 Years
2 ID METRO PHOENIX ADMS/P - FCD2004C040: Wood/Patel in association with EEC
3 ID 2-Year 24-Hour Storm
4 ID SCS Type II Precipitation Distribution
5 ID Green and Ampt Loss Method
6 ID Clark Unit Hydrograph
7 ID Future Land Use Conditions
8 ID Model Name: FT24BASE.DAT, June 2006
9 ID
10 ID *****
11 ID Important Notes:
12 ID 1) Peak flow for each subbasin may not concentrate on one single point,
13 ID for illustration purposes, it is assumed that the concentration point
14 ID is located on the hydrologic low point of the subbasin;
15 ID 2) Surface flow diversions may occur at several locations along one of the
16 ID subbasin downstream boundaries. For simplicity, one split flow is
17 ID modeled for each subbasin to one direction;
18 ID 3) A fixed flow split ratio for most of the subbasin is used for all
19 ID frequencies except some of the subbasins along Grand Canal.
20 ID 4) Some subbasins have multiple pipes to one direction, a composite storm
21 ID drain pipe may have been used to model these conditions;
22 ID 5) Some subbasins have multiple detention/retention basins, an equivalent
23 ID detention/retention basin may have been used to model these conditions;
24 ID 6) Surface flow routing may occur at multiple streets and as sheet flow,
25 ID a composite channel cross section is used to represent the streets
26 ID flow conveyance.
27 ID
28 ID *****
29 ID HEC-1 ELEMENT NOMENCLATURE
30 ID
31 ID SUB-BASIN HYDROGRAPH:
32 ID Example: "80c" is the hydrograph from subbasin 80c
33 ID
34 ID SUB-BASIN FLOW DIVERSION:
35 ID Example: "D80cS" is the south component of diversion in Subbasin 80c
36 ID
37 ID PIPE FLOW DIVERSION:
38 ID Example: "80cP" is the pipe flow from Subbasin 80c
39 ID
40 ID PIPE FLOW ROUTING:
41 ID Example: "P80cS" is the south component of pipe routing from Subbasin 80c
42 ID
43 ID CHANNEL ROUTE:
44 ID Example: "R80cS" is the south component of surface flow routing from 80c
45 ID
46 ID STORAGE ROUTE:
47 ID Example: "S80c" is the storage routing in Subbasin 80c
48 ID

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49 ID HYDROGRAPH COMBINE:  
 50 ID Example: "C80c" is the combined flow in Subbasin 80c  
 51 ID  
 52 ID HYDROGRAPH RETRIEVAL:  
 53 ID Example: "B80c" is the retrieved flow from Subbasin 80c  
 54 ID  
 55 ID "DUMMY" COMBINE:

HEC-1 INPUT

1

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

56 ID Example: "NUL80C" is the dummy hydrograph combining to free up a HEC-1  
 57 ID computational path.  
 58 ID \*\*\*\*\*  
 59 ID  
 60 IT 5 2000  
 61 IN 15  
 62 IO 5  
 \*DIAGRAM  
 \*  
 63 JD 1.40 0.01  
 64 PC 0.000 0.002 0.005 0.008 0.011 0.014 0.017 0.020 0.023 0.026  
 65 PC 0.029 0.032 0.035 0.038 0.041 0.044 0.048 0.052 0.056 0.060  
 66 PC 0.064 0.068 0.072 0.076 0.080 0.085 0.090 0.095 0.100 0.105  
 67 PC 0.110 0.115 0.120 0.126 0.133 0.140 0.147 0.155 0.163 0.172  
 68 PC 0.181 0.191 0.203 0.218 0.236 0.257 0.283 0.317 0.363 0.407  
 69 PC 0.735 0.758 0.776 0.791 0.804 0.815 0.825 0.834 0.842 0.849  
 70 PC 0.856 0.863 0.869 0.875 0.881 0.887 0.893 0.898 0.903 0.908  
 71 PC 0.913 0.918 0.922 0.926 0.930 0.934 0.938 0.942 0.946 0.950  
 72 PC 0.953 0.956 0.959 0.962 0.965 0.968 0.971 0.974 0.977 0.980  
 73 PC 0.983 0.986 0.989 0.992 0.995 0.998 1.000  
 74 JD 1.316 10  
 75 JD 1.260 30  
 76 JD 1.204 60  
 77 JD 1.184 90  
 \*  
 78 KK 64c BASIN  
 79 BA 0.264  
 80 KM Subbasin at NEC(northeast corner) of Northern Ave. & Central Ave.  
 81 LG 1.00 0.24 4.55 0.41 20  
 82 UC 1.152 0.902  
 83 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 84 UA 100  
 \*  
 85 KK D64cW DIVERT  
 86 KM Divert 68% of surface flow to south.  
 87 DT D64cS  
 88 DI 0 100 1000 10000  
 89 DQ 0 68 678 6776  
 \*  
 90 KK R64cW ROUTE  
 91 KM Route surface flow west from Subbasin 64c to Subbasin 68c.  
 92 RS 5 FLOW -1  
 93 RC 0.050 0.016 0.050 2640 0.0045  
 94 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 95 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

1

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

96 KK 68c BASIN  
 97 KM Subbasin at NEC corner of Northern Ave. & 7th Ave.  
 98 BA 0.434  
 99 LG 1.68 0.25 4.60 0.39 18  
 100 UC 1.045 0.694  
 101 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 102 UA 100  
 \*  
 103 KK C68c COMBINE  
 104 KM Combine hydrographs 68c and R64cW at Northern and Central Avenues.  
 105 HC 2 0.70  
 \*  
 106 KK D68c DIVERT  
 107 KM Divert 41 cfs into pipe (south).  
 108 DT D68cP  
 109 DI 0 41 1000 10000  
 110 DQ 0 41 41 41  
 \*

```

111 KK D68cW DIVERT
112 KM Divert surface flow to south.
113 DT D68cS
114 DI 0 100 1000 10000
115 DQ 0 46 458 4576
*

116 KK R68cW ROUTE
117 KM Route surface flow west from Subbasin 68c to Subbasin 72c.
118 RS 4 FLOW -1
119 RC 0.050 0.016 0.050 2640 0.0023
120 RX 0 1.85 74 181.3 188.7 296 368.15 370
121 RY 3 1 0.5 0 0 0.5 1 3
*

122 KK 72c BASIN
123 KM Subbasin at NEC corner of Northern Ave. & 15th Ave.
124 BA 0.542
125 LG 1.94 0.25 4.80 0.35 13
126 UC 1.462 1.141
127 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
128 UA 100
*

129 KK C72c COMBINE
130 KM Combine hydrographs 72c and R68cW at Northern and 15th Avenues.
131 HC 2 1.24
*

```

HEC-1 INPUT

PAGE 4

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

```

132 KK D72c DIVERT
133 KM Divert 90 cfs into pipe (south).
134 DT D72cP
135 DI 0 90 1000 10000
136 DQ 0 90 90 90
*

137 KK D72cW DIVERT
138 KM Divert 90% surface flow to south.
139 DT D72cS
140 DI 0 100 1000 10000
141 DQ 0 90 900 9000
*

142 KK R72cW ROUTE
143 KM Route surface flow west from Subbasin 72c to Subbasin 76c.
144 RS 9 FLOW -1
145 RC 0.050 0.016 0.050 2640 0.0008
146 RX 0 2.05 82 200.9 209.1 328 407.95 410
147 RY 3 1 0.5 0 0 0.5 1 3
*

148 KK 76c BASIN
149 KM Subbasin at NEC corner of Northern Ave. & 19th Ave.
150 BA 0.602
151 LG 0.77 0.19 6.60 0.17 18
152 UC 1.240 0.826
153 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
154 UA 100
*

155 KK C76c COMBINE
156 KM Combine hydrographs 76c and R72cW at Northern and 19th Avenues.
157 HC 2 1.84
*

158 KK D76cP DIVERT
159 KM Divert 39 (68% of 58) cfs into 19th Ave pipe (south).
160 DT D76c
161 DI 0 39 100 1000 10000
162 DQ 0 0 61 961 9961
*

163 KK 84c BASIN
164 KM Subbasin at NWC(northwest corner) of Northern Ave. & 23rd Ave.
165 BA 0.467
166 LG 0.24 0.25 6.00 0.23 42
167 UC 1.358 1.266
168 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
169 UA 100
*

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HEC-1 INPUT

PAGE 5

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

170 KK D84cE DIVERT  
 171 KM Divert surface flow to south.  
 172 DT D84cS  
 173 DI 0 100 1000 10000  
 174 DQ 0 77 768 7682  
 \*

175 KK R84cE ROUTE  
 176 KM Route surface flow east from Subbasin 84c to Subbasin 80c.  
 177 RS 4 FLOW -1  
 178 RC 0.050 0.016 0.050 2640 0.0008  
 179 RX 0 0.5 20 49 51 80 99.5 100  
 180 RY 3 1 0.5 0 0 0.5 1 3  
 \*

181 KK 80c BASIN  
 182 KM Subbasin at NEC corner of Northern Ave. & 15th Ave.  
 183 BA 0.661  
 184 LG 0.83 0.25 5.20 0.33 33  
 185 UC 1.249 0.851  
 186 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 187 UA 100  
 \*

188 KK S80c STORAGE  
 189 KM Online Local Retention Basin, 4 ac-ft.  
 190 RS 1 STOR 0  
 191 SV 0 1 2.6 4.3 11  
 192 SE 0 1 2 3 5  
 193 SS 3 100 2.7 1.5  
 \*

194 KK C80c COMBINE  
 195 KM Combine hydrographs 80c and R84cE at Northern and 19th Avenues.  
 196 HC 2 1.13  
 \*

197 KK D80cP DIVERT  
 198 KM Divert 19 (32% of 58) cfs into 19th Ave pipe (south).  
 199 DT D80c  
 200 DI 0 19 100 1000 10000  
 201 DQ 0 0 81 981 9981  
 \*

202 KK C76cP COMBINE  
 203 KM Combine hydrographs into Storm Drain at Northern and 19th Avenues.  
 204 HC 2 2.97  
 \*

1

HEC-1 INPUT

PAGE 6

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

205 KK P76cS ROUTE  
 206 KM Route pipe flow from Northern/19th Ave. to Glendale/19th Ave.  
 207 RK 5300 0.0044 0.015 CIRC 3.50  
 \*

208 KK D76eP1 DIVERT  
 209 KM Divert 32% of pipe flow to 80e from 80c.  
 210 DT D80eP1  
 211 DI 0 100 1000 10000  
 212 DQ 0 32 320 3200  
 \*

213 KK 56e BASIN  
 214 KM Subbasin at NEC of Glendale Ave. & 12th St.  
 215 BA 0.176  
 216 LG 1.72 0.24 4.35 0.47 18  
 217 UC 0.810 0.566  
 218 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 219 UA 100  
 \*

220 KK D56eW DIVERT  
 221 KM Divert surface flow to south.  
 222 DT D56eS  
 223 DI 0 100 1000 10000  
 224 DQ 0 53 525 5253  
 \*

225 KK R56eW ROUTE  
 226 KM Route surface flow west from Subbasin 56e to Subbasin 60e.

227	RS	6	FLOW	-1								
228	RC	0.050	0.016	0.050	2640	0.0053						
229	RX	0	1.75	70	171.5	178.5	280	348.25	350			
230	RY	3	1	0.5	0	0	0.5	1	3			
	*											
231	KK	60e	BASIN									
232	KM	Subbasin at NEC of Glendale Ave. & 7th St.										
233	BA	0.406										
234	LG	1.35	0.25	4.45	0.45	21						
235	UC	1.215	0.953									
236	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0	
237	UA	100										
	*											
238	KK	C60e COMBINE										
239	KM	Combine hydrographs 60e and R56eW.										
240	HC	2	0.58									
	*											

HEC-1 INPUT

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

241	KK	D60e	DIVERT									
242	KM	Divert 75 cfs into pipe (south).										
243	DT	D60eP										
244	DI	0	75	1000	10000							
245	DQ	0	75	75	75							
	*											
246	KK	D60eW	DIVERT									
247	KM	Divert surface flow to south.										
248	DT	D60eS										
249	DI	0	100	1000	10000							
250	DQ	0	34	342	3420							
	*											
251	KK	R60eW	ROUTE									
252	KM	Route surface flow west from Subbasin 60e to Subbasin 64e.										
253	RS	6	FLOW	-1								
254	RC	0.050	0.016	0.050	2640	0.0038						
255	RX	0	3.85	154	377.3	392.7	616	766.15	770			
256	RY	3	1	0.5	0	0	0.5	1	3			
	*											
257	KK	64e	BASIN									
258	KM	Subbasin at NEC of Glendale Ave. & Central Ave.										
259	BA	0.502										
260	LG	1.59	0.25	4.70	0.36	15						
261	UC	1.307	1.020									
262	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0	
263	UA	100										
	*											
264	KK	B64cS	RETRIEVE									
265	KM	Retrieve diverted surface flow from D64cS.										
266	DR	D64cS										
	*											
267	KK	R64cS	ROUTE									
268	KM	Route surface flow south from Subbasin 64c to Subbasin 64e.										
269	RS	6	FLOW	-1								
270	RC	0.050	0.016	0.050	5280	0.0072						
271	RX	0	1.8	72	176.4	183.6	288	358.2	360			
272	RY	3	1	0.5	0	0	0.5	1	3			
	*											
273	KK	C64e COMBINE										
274	KM	Combine hydrographs 64e, R64cS, and R60eW.										
275	HC	3	1.35									
	*											

HEC-1 INPUT

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

276	KK	D64eW	DIVERT									
277	KM	Divert surface flow to south.										
278	DT	D64eS										
279	DI	0	100	1000	10000							
280	DQ	0	50	500	5000							
	*											
281	KK	R64eW	ROUTE									
282	KM	Route surface flow west from Subbasin 64e to Subbasin 68e.										

283	RS	3	FLOW	-1							
284	RC	0.050	0.016	0.050	2640	0.0034					
285	RX	0	1.55	62	151.9	158.1	248	308.45	310		
286	RY	3	1	0.5	0	0	0.5	1	3		
	*										
287	KK	68e	BASIN								
288	KM	Subbasin at NEC of Glendale Ave. & 7th Ave.									
289	BA	0.496									
290	LG	1.58	0.25	4.80	0.35	14					
291	UC	1.358	1.072								
292	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
293	UA	100									
	*										
294	KK	B68cP RETRIEVE									
295	KM	Retrieve diverted pipe flow from D68cP.									
296	DR	D68cP									
	*										
297	KK	P68cS ROUTE									
298	KM	Route pipe flow from Northern/7th Ave. to Glendale/7th Ave.									
299	RK	5300	0.0033	0.015		CIRC	3.25				
	*										
300	KK	B68cS RETRIEVE									
301	KM	Retrieve diverted surface flow from D68cS.									
302	DR	D68cS									
	*										
303	KK	R68cS ROUTE									
304	KM	Route surface flow south from Subbasin 68c to Subbasin 68e.									
305	RS	6	FLOW	-1							
306	RC	0.050	0.016	0.050	5280	0.0066					
307	RX	0	1.05	42	102.9	107.1	168	208.95	210		
308	RY	3	1	0.5	0	0	0.5	1	3		
	*										
309	KK	C68cS COMBINE									
310	KM	Combine hydrographs R68cS and P68cS.									
311	HC	2	0.70								
	*										

HEC-1 INPUT

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

312	KK	C68e COMBINE									
313	KM	Combine hydrographs 68e, C68cS, and R64eW.									
314	HC	3	2.28								
	*										
315	KK	D68e DIVERT									
316	KM	Divert 63 cfs into pipe (south).									
317	DT	D68eP									
318	DI	0	63	1000	10000						
319	DQ	0	63	63	63						
	*										
320	KK	D68eW DIVERT									
321	KM	Divert surface flow to south.									
322	DT	D68eS									
323	DI	0	100	1000	10000						
324	DQ	0	54	539	5391						
	*										
325	KK	R68eW ROUTE									
326	KM	Route surface flow west from Subbasin 68e to Subbasin 72e.									
327	RS	3	FLOW	-1							
328	RC	0.050	0.016	0.050	2640	0.0019					
329	RX	0	1.55	62	151.9	158.1	248	308.45	310		
330	RY	3	1	0.5	0	0	0.5	1	3		
	*										
331	KK	72e BASIN									
332	KM	Subbasin at NEC of Glendale Ave. & 15th Ave.									
333	BA	0.499									
334	LG	1.62	0.25	4.80	0.35	19					
335	UC	1.331	1.045								
336	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
337	UA	100									
	*										
338	KK	B72cP RETRIEVE									
339	KM	Retrieve diverted pipe flow from D72cP.									
340	DR	D72cP									

```

*
341 KK P72cS ROUTE
342 KM Route pipe flow from Northern/15th Ave. to Glendale/15th Ave.
343 RK 5300 0.0052 0.015 CIRC 4.00
*
344 KK B72cS RETRIEVE
345 KM Retrieve diverted surface flow from D72cS.
346 DR D72cS
*

```

HEC-1 INPUT

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

```

347 KK R72cS ROUTE
348 KM Route surface flow south from Subbasin 72c to Subbasin 72e.
349 RS 6 FLOW -1
350 RC 0.050 0.016 0.050 5280 0.0055
351 RX 0 1.55 62 151.9 158.1 248 308.45 310
352 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

353 KK C72cS COMBINE
354 KM Combine hydrographs R72cS and P72cS.
355 HC 2 1.24
*

```

```

356 KK C72e COMBINE
357 KM Combine hydrographs 72e, C72cS, and R68eW.
358 HC 3 3.32
*

```

```

359 KK D72e DIVERT
360 KM Divert 195 cfs into pipe (south).
361 DT D72eP
362 DI 0 100 195 10000
363 DQ 0 100 195 195
*

```

```

364 KK D72eW DIVERT
365 KM Divert 90% surface flow to south.
366 DT D72eS
367 DI 0 100 1000 10000
368 DQ 0 90 900 9000
*

```

```

369 KK R72eW ROUTE
370 KM Route surface flow west from Subbasin 72e to Subbasin 76e.
371 RS 9 FLOW -1
372 RC 0.050 0.016 0.050 2640 0.0004
373 RX 0 1.65 66 161.7 168.3 264 328.35 330
374 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

375 KK 76e BASIN
376 KM Subbasin at NEC of Glendale Ave. & 19th Ave.
377 BA 0.499
378 LG 1.17 0.25 5.20 0.30 22
379 UC 1.349 0.922
380 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
381 UA 100
*

```

HEC-1 INPUT

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

```

382 KK B76c RETRIEVE
383 KM Retrieve diverted surface flow from D76c.
384 DR D76c
*

```

```

385 KK R76cS ROUTE
386 KM Route surface flow south from Subbasin 76c to Subbasin 76e.
387 RS 5 FLOW -1
388 RC 0.050 0.016 0.050 5280 0.0036
389 RX 0 1 40 98 102 160 199 200
390 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

391 KK C76e COMBINE
392 KM Combine hydrographs 76e, R72eW, D76eP1, and R76cS.
393 HC 4 4.42
*

```

394 KK D76eP DIVERT  
 395 KM Divert 21 (27% of 76) cfs into 19th Ave pipe (south).  
 396 DT D76e  
 397 DI 0 21 100 1000 10000  
 398 DQ 0 0 79 979 9979  
 \*

399 KK BD84cS RETRIEVE  
 400 KM Retrieve diverted surface flow from D84cS.  
 401 DR D84cS  
 \*

402 KK R84cS ROUTE  
 403 KM Route surface flow south from Subbasin 84c to Subbasin 84e.  
 404 RS 4 FLOW -1  
 405 RC 0.050 0.016 0.050 5280 0.0042  
 406 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 407 RY 3 1 0.5 0 0 0.5 1 3  
 \*

408 KK 84e BASIN  
 409 KM Subbasin at NWC of Glendale Ave. & 23rd Ave.  
 410 BA 0.214  
 411 LG 1.19 0.15 7.30 0.13 23  
 412 UC 1.432 1.607  
 413 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 414 UA 100  
 \*

415 KK C84e COMBINE  
 416 KM Combine hydrographs 84e and R84cS.  
 417 HC 2 0.68  
 \*

1

HEC-1 INPUT

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

418 KK D84eE DIVERT  
 419 KM Divert surface flow to south.  
 420 DT D84eS  
 421 DI 0 100 1000 10000  
 422 DQ 0 39 395 3950  
 \*

423 KK R84eE ROUTE  
 424 KM Route surface flow east from Subbasin 84e to Subbasin 80e.  
 425 RS 6 FLOW -1  
 426 RC 0.050 0.016 0.050 2640 0.0005  
 427 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 428 RY 3 1 0.5 0 0 0.5 1 3  
 \*

429 KK 80e BASIN  
 430 KM Subbasin at NWC of Glendale Ave. & 19th Ave.  
 431 BA 0.494  
 432 LG 0.74 0.25 6.00 0.22 23  
 433 UC 1.338 0.919  
 434 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 435 UA 100  
 \*

436 KK B80eP1 RETRIEVE  
 437 KM Retrieve diverted pipe flow from D80eP1.  
 438 DR D80eP1  
 \*

439 KK BD80c RETRIEVE  
 440 KM Retrieve diverted surface flow from D80c.  
 441 DR D80c  
 \*

442 KK R80cS ROUTE  
 443 KM Route surface flow south from Subbasin 80c to Subbasin 80e.  
 444 RS 4 FLOW -1  
 445 RC 0.050 0.016 0.050 5280 0.0036  
 446 RX 0 1 40 98 102 160 199 200  
 447 RY 3 1 0.5 0 0 0.5 1 3  
 \*

448 KK C80e COMBINE  
 449 KM Combine hydrographs 80e, R84eE, R80cS, and D80eP1.  
 450 HC 4 1.84  
 \*

451 KK D80eP DIVERT  
 452 KM Divert 55 (73% of 76) cfs into 19th Ave pipe (south).  
 453 DT D80e  
 454 DI 0 55 100 1000 10000  
 455 DQ 0 0 45 945 9945  
 \*

HEC-1 INPUT

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

456 KK C76eP COMBINE  
 457 KM Combine hydrographs D80eP and D76eP into 19th Ave pipe.  
 458 HC 2 6.26  
 \*

459 KK P76eS ROUTE  
 460 KM Route pipe flow from Glendale/19th Ave. to Bethany/19th Ave.  
 461 RK 5300 0.0037 0.015 CIRC 4.00  
 \*

462 KK D76gP1 DIVERT  
 463 KM Divert 73% of pipe flow to 80g from 80e.  
 464 DT D80gP1  
 465 DI 0 100 1000 10000  
 466 DQ 0 73 730 7300  
 \*

467 KK 76g BASIN  
 468 KM Subbasin at NWC of Bethany Home & 15th Ave.  
 469 BA 0.501  
 470 LG 1.08 0.25 5.60 0.26 28  
 471 UC 1.243 0.841  
 472 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 473 UA 100  
 \*

474 KK BD76e RETRIEVE  
 475 KM Retrieve diverted surface flow from D76e.  
 476 DR D76e  
 \*

477 KK R76eS ROUTE  
 478 KM Route surface flow south from Subbasin 76e to Subbasin 76g.  
 479 RS 5 FLOW -1  
 480 RC 0.050 0.016 0.050 5280 0.0040  
 481 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 482 RY 3 1 0.5 0 0 0.5 1 3  
 \*

483 KK C76g COMBINE  
 484 KM Combine hydrographs 76g, R76eS, and D76gP1.  
 485 HC 3 4.92  
 \*

486 KK D76g1 DIVERT  
 487 KM Divert 48 cfs into pipe (15th Ave).  
 488 DT D76gP2  
 489 DI 0 48 1000 10000  
 490 DQ 0 48 48 48  
 \*

HEC-1 INPUT

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

491 KK D76g DIVERT  
 492 KM Divert 57 (75% of 76) cfs into 19th Ave pipe (south).  
 493 DT D76gP  
 494 DI 0 57 100 1000 10000  
 495 DQ 0 57 57 57 57  
 \*

496 KK D76gE DIVERT  
 497 KM Divert surface flow to south.  
 498 DT D76gS  
 499 DI 0 100 1000 10000  
 500 DQ 0 70 700 7000  
 \*

501 KK R76gE ROUTE  
 502 KM Route surface flow east from Subbasin 76g to Subbasin 72g.  
 503 RS 3 FLOW -1  
 504 RC 0.050 0.016 0.050 1000 0.0008  
 505 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 506 RY 3 1 0.5 0 0 0.5 1 3

```

*
507 KK B76gP2 RETRIEVE
508 KM Retrieve diverted pipe flow from D76gP2.
509 DR D76gP2
*

510 KK C76gE COMBINE
511 KM Combine hydrographs D76gP2 and R76gE.
512 HC 2 4.92
*

513 KK 54g BASIN
514 KM Subbasin at NEC of Bethany Home & 16th St.
515 BA 0.247
516 LG 0.95 0.25 4.65 0.39 26
517 UC 0.834 0.655
518 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
519 UA 100
*

520 KK D54gW DIVERT
521 KM Divert surface flow to south.
522 DT D54gS
523 DI 0 100 1000 10000
524 DQ 0 40 405 4050
*

525 KK R54gW ROUTE
526 KM Route surface flow west from Subbasin 54g to Subbasin 56g.
527 RS 4 FLOW -1
528 RC 0.050 0.016 0.050 2636 0.0030
529 RX 0 1.95 78 191.1 198.9 312 388.05 390
530 RY 3 1 0.5 0 0 0.5 1 3
*

```

HEC-1 INPUT

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

```

531 KK 56g BASIN
532 KM Subbasin at NEC of Bethany Home & 12th St.
533 BA 0.500
534 LG 1.70 0.25 4.35 0.47 23
535 UC 1.082 0.829
536 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
537 UA 100
*

538 KK B56eS RETRIEVE
539 KM Retrieve diverted surface flow from D56eS.
540 DR D56eS
*

541 KK R56eS ROUTE
542 KM Route surface flow south from Subbasin 56e to Subbasin 56g.
543 RS 6 FLOW -1
544 RC 0.050 0.016 0.050 5280 0.0106
545 RX 0 1.8 72 176.4 183.6 288 358.2 360
546 RY 3 1 0.5 0 0 0.5 1 3
*

547 KK C56g COMBINE
548 KM Combine hydrographs 56g, R56eS, and R54gW.
549 HC 3 0.92
*

550 KK D56g DIVERT
551 KM Divert 130 cfs into pipe (south).
552 DT D56gP
553 DI 0 100 130 10000
554 DQ 0 100 130 130
*

555 KK D56gW DIVERT
556 KM Divert surface flow to south.
557 DT D56gS
558 DI 0 100 1000 10000
559 DQ 0 56 561 5614
*

560 KK R56gW ROUTE
561 KM Route surface flow west from Subbasin 56g to Subbasin 60g.
562 RS 5 FLOW -1
563 RC 0.050 0.016 0.050 2636 0.0030
564 RX 0 1.9 76 186.2 193.8 304 378.1 380

```

565 RY 3 1 0.5 0 0 0.5 1 3

\*

HEC-1 INPUT

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

566 KK 60g BASIN  
 567 KM Subbasin at NEC of Bethany Home & 7th St.  
 568 BA 0.500  
 569 LG 1.51 0.25 4.65 0.39 25  
 570 UC 1.162 0.897  
 571 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 572 UA 100  
 \*

573 KK B60eP RETRIEVE  
 574 KM Retrieve diverted pipe flow from D60eP.  
 575 DR D60eP  
 \*

576 KK P60eS ROUTE  
 577 KM Route pipe flow from Glendale/7th St. to Bethany/7th St.  
 578 RK 5300 0.0074 0.015 CIRC 3.50  
 \*

579 KK B60eS RETRIEVE  
 580 KM Retrieve diverted surface flow from D60eS.  
 581 DR D60eS  
 \*

582 KK R60eS ROUTE  
 583 KM Route surface flow south from Subbasin 60e to Subbasin 60g.  
 584 RS 6 FLOW -1  
 585 RC 0.050 0.016 0.050 5280 0.0091  
 586 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 587 RY 3 1 0.5 0 0 0.5 1 3  
 \*

588 KK C60eS COMBINE  
 589 KM Combine hydrographs R60eS and P60eS.  
 590 HC 2 0.58  
 \*

591 KK C60g COMBINE  
 592 KM Combine hydrographs 60g, R56gW, and C60eS.  
 593 HC 3 1.83  
 \*

594 KK D60g DIVERT  
 595 KM Divert 124 cfs into pipe (south).  
 596 DT D60gP  
 597 DI 0 100 124 10000  
 598 DQ 0 100 124 124  
 \*

HEC-1 INPUT

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

599 KK D60gW DIVERT  
 600 KM Divert surface flow to south.  
 601 DT D60gS  
 602 DI 0 100 1000 10000  
 603 DQ 0 47 470 4701  
 \*

604 KK R60gW ROUTE  
 605 KM Route surface flow west from Subbasin 60g to Subbasin 64g.  
 606 RS 3 FLOW -1  
 607 RC 0.050 0.016 0.050 2640 0.0023  
 608 RX 0 2.05 82 200.9 209.1 328 407.95 410  
 609 RY 3 1 0.5 0 0 0.5 1 3  
 \*

610 KK 64g BASIN  
 611 KM Subbasin at NEC of Bethany Home & Central Ave.  
 612 BA 0.502  
 613 LG 1.76 0.25 4.80 0.36 20  
 614 UC 1.236 0.959  
 615 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 616 UA 100  
 \*

617 KK B64eS RETRIEVE  
 618 KM Retrieve diverted surface flow from D64eS.

619 DR D64eS  
\*  
620 KK R64eS ROUTE  
621 KM Route surface flow south from Subbasin 64e to Subbasin 64g.  
622 RS 6 FLOW -1  
623 RC 0.050 0.016 0.050 5280 0.0076  
624 RX 0 1.75 70 171.5 178.5 280 348.25 350  
625 RY 3 1 0.5 0 0 0.5 1 3  
\*

626 KK C64g COMBINE  
627 KM Combine hydrographs 64g, R60gW, and R64eS.  
628 HC 3 3.10  
\*

629 KK D64g DIVERT  
630 KM Divert 153 cfs into pipe.  
631 DT D64gP  
632 DI 0 100 153 10000  
633 DQ 0 100 153 153  
\*

HEC-1 INPUT

PAGE 18

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

634 KK D64gW DIVERT  
635 KM Divert surface flow to south.  
636 DT D64gS  
637 DI 0 100 1000 10000  
638 DQ 0 48 480 4800  
\*

639 KK R64gW ROUTE  
640 KM Route surface flow west from Subbasin 64g to Subbasin 68g.  
641 RS 3 FLOW -1  
642 RC 0.050 0.016 0.050 2640 0.0019  
643 RX 0 1.3 52 127.4 132.6 208 258.7 260  
644 RY 3 1 0.5 0 0 0.5 1 3  
\*

645 KK 68g BASIN  
646 KM Subbasin at NEC of Bethany Home & 7th Ave.  
647 BA 0.502  
648 LG 1.98 0.25 4.80 0.36 17  
649 UC 1.380 1.084  
650 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
651 UA 100  
\*

652 KK B68eP RETRIEVE  
653 KM Retrieve diverted pipe flow from D68eP.  
654 DR D68eP  
\*

655 KK P68eS ROUTE  
656 KM Route pipe flow from Glendale/7th Ave. to Bethany/7th Ave.  
657 RK 5300 0.0052 0.015 CIRC 3.50  
\*

658 KK B68eS RETRIEVE  
659 KM Retrieve diverted surface flow from D68eS.  
660 DR D68eS  
\*

661 KK R68eS ROUTE  
662 KM Route surface flow south from Subbasin 68e to Subbasin 68g.  
663 RS 3 FLOW -1  
664 RC 0.050 0.016 0.050 5280 0.0063  
665 RX 0 1.3 52 127.4 132.6 208 258.7 260  
666 RY 3 1 0.5 0 0 0.5 1 3  
\*

667 KK C68eS COMBINE  
668 KM Combine hydrographs R68eS and P68eS.  
669 HC 2 2.28  
\*

HEC-1 INPUT

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

670 KK C68g COMBINE  
671 KM Combine hydrographs 68g, C68eS, and R64gW.  
672 HC 3 4.53

```

*
673 KK D68g DIVERT
674 KM Divert 82 cfs into pipe.
675 DT D68gP
676 DI 0 82 1000 10000
677 DQ 0 82 82 82
*

678 KK D68gW DIVERT
679 KM Divert surface flow to south.
680 DT D68gS
681 DI 0 100 1000 10000
682 DQ 0 56 560 5600
*

683 KK R68gW ROUTE
684 KM Route surface flow west from Subbasin 68g to Subbasin 72g.
685 RS 4 FLOW -1
686 RC 0.050 0.016 0.050 2640 0.0008
687 RX 0 1.05 42 102.9 107.1 168 208.95 210
688 RY 3 1 0.5 0 0 0.5 1 3
*

689 KK 72g BASIN
690 KM Subbasin at NEC of Bethany Home & 15th Ave.
691 BA 0.500
692 LG 1.30 0.25 5.60 0.27 20
693 UC 1.480 1.174
694 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
695 UA 100
*

696 KK B72eP RETRIEVE
697 KM Retrieve diverted pipe flow from D72eP.
698 DR D72eP
*

699 KK P72eS ROUTE
700 KM Route pipe flow from Glendale/15th Ave. to Bethany/15th Ave.
701 RK 5300 0.0058 0.015 CIRC 5.25
*

702 KK B72eS RETRIEVE
703 KM Retrieve diverted surface flow from D72eS.
704 DR D72eS
*

HEC-1 INPUT
PAGE 20

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

705 KK R72eS ROUTE
706 KM Route surface flow south from Subbasin 72e to Subbasin 72g.
707 RS 5 FLOW -1
708 RC 0.050 0.016 0.050 5280 0.0047
709 RX 0 1.75 70 171.5 178.5 280 348.25 350
710 RY 3 1 0.5 0 0 0.5 1 3
*

711 KK C72eS COMBINE
712 KM Combine hydrographs R72eS and P72eS.
713 HC 2 3.32
*

714 KK C72g COMBINE
715 KM Combine hydrographs 72g, C72eS, and R68gW.
716 HC 3 6.07
*

717 KK CC72g COMBINE
718 KM Combine hydrographs C72g and C76gE.
719 HC 2 7.67
*

720 KK D72g DIVERT
721 KM Divert 178 cfs into pipe.
722 DT D72gP
723 DI 0 100 178 10000
724 DQ 0 100 178 178
*

725 KK R72gS ROUTE
726 KM Route surface flow south from Subbasin 72g to Subbasin 72i.
727 RS 3 FLOW -1
728 RC 0.050 0.016 0.050 5280 0.0040

```

729	RX	0	1.3	52	127.4	132.6	208	258.7	260
730	RY	3	1	0.5	0	0	0.5	1	3
	*								
731	KK BD72gP RETRIEVE								
732	KM Retrieve diverted pipe flow from D72gP.								
733	DR	D72gP							
	*								
734	KK P72gS ROUTE								
735	KM Route pipe flow from Bethany/15th Ave. to Camelback/15th Ave.								
736	RK	5300	0.0024	0.015		CIRC	6.00		
	*								
737	KK C72gS COMBINE								
738	KM Combine hydrographs R72gS and P72gS.								
739	HC	2	7.67						
	*								

1

HEC-1 INPUT

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

740	KK 84g BASIN										
741	KM Subbasin at NWC of Bethany Home & 23rd Ave.										
742	BA	0.214									
743	LG	0.61	0.25	4.80	0.36	27					
744	UC	1.297	1.431								
745	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
746	UA	100									
	*										

747	KK B84eS RETRIEVE									
748	KM Retrieve diverted surface flow from D84eS.									
749	DR	D84eS								
	*									

750	KK R84eS ROUTE									
751	KM Route surface flow south from Subbasin 84e to Subbasin 84g.									
752	RS	6	FLOW -1							
753	RC	0.050	0.016	0.050	5280	0.0042				
754	RX	0	1	40	98	102	160	199	200	
755	RY	3	1	0.5	0	0	0.5	1	3	
	*									

756	KK C84g COMBINE									
757	KM Combine hydrographs 84g and R84eS.									
758	HC	2	0.90							
	*									

759	KK D84gE DIVERT									
760	KM Divert surface flow to south.									
761	DT	D84gS								
762	DI	0	100	1000	10000					
763	DQ	0	47	474	4742					
	*									

764	KK R84gE ROUTE									
765	KM Route surface flow east from Subbasin 84g to Subbasin 80g.									
766	RS	6	FLOW -1							
767	RC	0.050	0.016	0.050	2640	0.0005				
768	RX	0	1.4	56	137.2	142.8	224	278.6	280	
769	RY	3	1	0.5	0	0	0.5	1	3	
	*									

770	KK 80g BASIN										
771	KM Subbasin at NWC of Bethany Home & 19th Ave.										
772	BA	0.496									
773	LG	0.89	0.25	4.80	0.39	23					
774	UC	1.446	1.000								
775	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
776	UA	100									
	*										

1

HEC-1 INPUT

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

777	KK BD80e RETRIEVE									
778	KM Retrieve diverted surface flow from D80e.									
779	DR	D80e								
	*									

780	KK R80eS ROUTE									
781	KM Route surface flow south from Subbasin 80e to Subbasin 80g.									
782	RS	3	FLOW -1							

783	RC	0.050	0.016	0.050	5280	0.0040				
784	RX	0	1.05	42	102.9	107.1	168	208.95	210	
785	RY	3	1	0.5	0	0	0.5	1	3	

\*

786 KK B80gP1 RETRIEVE  
 787 KM Retrieve diverted pipe flow from D80gP1.  
 788 DR D80gP1

\*

789 KK C80g COMBINE  
 790 KM Combine hydrographs 80g, R84gE, R80eS, and D80gP1.  
 791 HC 4 2.55

\*

792 KK D80gP DIVERT  
 793 KM Divert 19 (25% of 76) cfs into pipe (south).  
 794 DT D80g  
 795 DI 0 19 100 1000 10000  
 796 DQ 0 0 81 981 9981

\*

797 KK B76gP RETRIEVE  
 798 KM Retrieve diverted pipe flow from D76gP.  
 799 DR D76gP

\*

800 KK C76gP COMBINE  
 801 KM Combine hydrographs D76gP and D80gP.  
 802 HC 2 7.47

\*

803 KK P76gS ROUTE  
 804 KM Route pipe flow from Bethany/19th Ave. to Camelback/19th Ave.  
 805 RK 5300 0.0037 0.015 CIRC 4.00

\*

806 KK D76iP1 DIVERT  
 807 KM Divert 25% of pipe flow from 80g to 80i.  
 808 DT D80iP1  
 809 DI 0 100 1000 10000  
 810 DQ 0 25 250 2500

\*

HEC-1 INPUT

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

811 KK 76i BASIN  
 812 KM Subbasin at NWC of Camelback Rd. & 15th Ave.  
 813 BA 0.499  
 814 LG 0.72 0.25 5.40 0.29 44  
 815 UC 1.252 0.849  
 816 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 817 UA 100

\*

818 KK BD76gS RETRIEVE  
 819 KM Retrieve diverted surface flow from D76gS.  
 820 DR D76gS

\*

821 KK R76gS ROUTE  
 822 KM Route surface flow south from Subbasin 76g to Subbasin 76i.  
 823 RS 3 FLOW -1  
 824 RC 0.050 0.016 0.050 5280 0.0034  
 825 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 826 RY 3 1 0.5 0 0 0.5 1 3

\*

827 KK C76i COMBINE  
 828 KM Combine hydrographs D76iP1, R76gS, and 76i.  
 829 HC 3 5.42

\*

830 KK D76iP2 DIVERT  
 831 KM Divert 48 cfs flow into 15th Ave pipe.  
 832 DT D76i1  
 833 DI 0 48 100 1000 10000  
 834 DQ 0 0 52 952 9952

\*

835 KK 72i BASIN  
 836 KM Subbasin at NEC of Camelback Rd. & 7th Ave.  
 837 BA 0.504  
 838 LG 0.92 0.25 4.80 0.36 22

839	UC	1.480	1.169									
840	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0	
841	UA	100										
	*											
842	KK	C72i COMBINE										
843	KM	Combine hydrographs 72i, C72gS, and D76iP2.										
844	HC	3	8.68									
	*											
845	KK	D72iP DIVERT										
846	KM	Divert flow into pipe.										
847	KM	Total Pipe flow is 258 cfs										
848	DT	D72i										
849	DI	0	258	1000	10000							
850	DQ	0	0	742	9742							
	*											

HEC-1 INPUT

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

851	KK	D72iP2 DIVERT										
852	KM	Divert flow into pipe.										
853	KM	Flow of pipe 2 to west is 32, flow of pipe 1 to south is 226 cfs										
854	DT	D72iP1										
855	DI	0	258	300								
856	DQ	0	226	226								
	*											

857	KK	P72iW ROUTE										
858	KM	Route pipe flow from Camelback/15th Ave. to Camelback/19th Ave.										
859	RK	2600	0.0030	0.015			CIRC	4.0				
	*											

860	KK	BD76i1 RETRIEVE										
861	KM	Retrieve diverted flow from D76i1.										
862	DR	D76i1										
	*											

863	KK	CC76i COMBINE										
864	KM	Combine hydrographs D76i1, and P72iW.										
865	HC	2	5.92									
	*											

866	KK	D76iP DIVERT										
867	KM	Divert 78 (74% of 106) cfs flow into pipe.										
868	DT	D76i										
869	DI	0	78	100	1000	10000						
870	DQ	0	0	22	922	9922						
	*											
	*											

871	KK	BD84gS RETRIEVE										
872	KM	Retrieve diverted surface flow from D84gS.										
873	DR	D84gS										
	*											

874	KK	R84gS ROUTE										
875	KM	Route surface flow south from Subbasin 84g to Subbasin 84i.										
876	RS	6	FLOW	-1								
877	RC	0.050	0.016	0.050	5280	0.0038						
878	RX	0	0.75	30	73.5	76.5	120	149.25	150			
879	RY	3	1	0.5	0	0	0.5	1	3			
	*											

880	KK	84i BASIN										
881	KM	Subbasin at NWC of Camelback Rd. & 23rd Ave.										
882	BA	0.211										
883	LG	0.99	0.25	5.20	0.31	27						
884	UC	1.397	1.586									
885	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0	
886	UA	100										
	*											

HEC-1 INPUT

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

887	KK	C84i COMBINE										
888	KM	Combine hydrographs 84i and R84gS.										
889	HC	2	1.11									
	*											

890	KK	S84i STORAGE										
891	KM	Online Regional Retention Basin - Phase A Basin of 24th Ave & Camelback Rd.										

892	RS	1	STOR	0															
893	SV	0	8	17	22	27	32	50											
894	SE	0	2	4	5	6	7	9											
895	SS	7	100	2.7	1.5														
	*																		
896	KK	D84iE	DIVERT																
897	KM	Divert surface flow to south.																	
898	DT	D84iS																	
899	DI	0	100	1000	10000														
900	DQ	0	39	387	3873														
	*																		
901	KK	R84iE	ROUTE																
902	KM	Route surface flow east from Subbasin 84i to Subbasin 80i.																	
903	RS	9	FLOW	-1															
904	RC	0.050	0.016	0.050	2640	0.0015													
905	RX	0	1.4	56	137.2	142.8	224	278.6	280										
906	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
907	KK	80i	BASIN																
908	KM	Subbasin at NWC of Camelback Rd. & 19th Ave.																	
909	BA	0.494																	
910	LG	0.47	0.25	5.70	0.24	23													
911	UC	1.332	0.915																
912	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0								
913	UA	100																	
	*																		
914	KK	BD80g	RETRIEVE																
915	KM	Retrieve diverted flow from D80g.																	
916	DR	D80g																	
	*																		
917	KK	S80g	STORAGE																
918	KM	Online Regional Detention Basin, 0.9 ac-ft.																	
919	RS	1	STOR	0															
920	SV	0	0.2	0.5	0.9	1.4	3.0												
921	SE	0	1	2	3	4	5												
922	SL	0	0.785	0.62	0.5														
923	SS	3	300	2.7	1.5														
	*																		
HEC-1 INPUT																			
PAGE 26																			
LINE	ID	.....1	.....2	.....3	.....4	.....5	.....6	.....7	.....8	.....9	.....10								
924	KK	R80gS	ROUTE																
925	KM	Route surface flow south from Subbasin 80g to Subbasin 80i.																	
926	RS	3	FLOW	-1															
927	RC	0.050	0.016	0.050	5280	0.0034													
928	RX	0	0.75	30	73.5	76.5	120	149.25	150										
929	RY	3	1	0.5	0	0	0.5	1	3										
	*																		
930	KK	B80iP1	RETRIEVE																
931	KM	Retrieve diverted pipe flow from D80iP1.																	
932	DR	D80iP1																	
	*																		
933	KK	C80i	COMBINE																
934	KM	Combine hydrographs 80i,R84E,R80gS, and D80iP1.																	
935	HC	4	3.25																
	*																		
936	KK	D80iP	DIVERT																
937	KM	Divert 28 (26% of 106) cfs into pipe.																	
938	DT	D80i																	
939	DI	0	28	100	1000	10000													
940	DQ	0	0	72	972	9972													
	*																		
941	KK	C76iP	COMBINE																
942	KM	Combine hydrographs D80iP and D76iP.																	
943	HC	2	9.18																
	*																		
944	KK	P76iS	ROUTE																
945	KM	Route pipe flow from Camelback/19th Ave. to Grand Canal/19th Ave.																	
946	RK	3500	0.0039	0.015		CIRC	4.50												
	*																		
947	KK	D76kP1	DIVERT																
948	KM	Divert 26% of pipe flow from 80i to 80k.																	
949	DT	D80kP1																	

950	DI	0	100	1000	10000						
951	DQ	0	26	260	2600						
	*										
952	KK	76k	BASIN								
953	KM	Subbasin at NEC of Grand Canal & 19th Ave.									
954	BA	0.317									
955	LG	0.55	0.15	7.00	0.14	28					
956	UC	1.092	0.709								
957	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
958	UA	100									
	*										

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HEC-1 INPUT

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

959	KK	BD76i	RETRIEVE								
960	KM	Retrieve diverted surface flow from D76i.									
961	DR	D76i									
	*										
962	KK	D76iS	DIVERT								
963	KM	Divert surface flow to east.									
964	DT	D76iE									
965	DI	0	100	1000	10000						
966	DQ	0	32	320	3200						
	*										
967	KK	R76iS	ROUTE								
968	KM	Route surface flow south from Subbasin 76i to Subbasin 76k.									
969	RS	3	FLOW	-1							
970	RC	0.050	0.016	0.050	3500	0.0038					
971	RX	0	0.75	30	73.5	76.5	120	149.25	150		
972	RY	3	1	0.5	0	0	0.5	1	3		
	*										
973	KK	C76k	COMBINE								
974	KM	Combine hydrographs D76kP1, R76iS, and 76k.									
975	HC	3	5.74								
	*										

976	KK	D76kP2	DIVERT								
977	KM	Divert flow into pipe.									
978	KM	Pipe flow to east is 32 cfs									
979	DT	D76k1									
980	DI	0	32	100	1000	10000					
981	DQ	0	0	68	968	9968					
	*										
982	KK	54i	BASIN								
983	KM	Subbasin at NEC of Camelback Rd. & 16th St.									
984	BA	0.192									
985	LG	1.22	0.25	4.80	0.39	33					
986	UC	1.012	1.089								
987	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
988	UA	100									
	*										

989	KK	BD54gS	RETRIEVE								
990	KM	Retrieve diverted surface flow from D54gS.									
991	DR	D54gS									
	*										
992	KK	R54gS	ROUTE								
993	KM	Route surface flow south from Subbasin 54g to Subbasin 54i.									
994	RS	6	FLOW	-1							
995	RC	0.050	0.016	0.050	5280	0.0072					
996	RX	0	0.75	30	73.5	76.5	120	149.25	150		
997	RY	3	1	0.5	0	0	0.5	1	3		
	*										

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HEC-1 INPUT

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

998	KK	C54i	COMBINE								
999	KM	Combine hydrographs 54i and R54gS.									
1000	HC	2	0.44								
	*										
1001	KK	D54i	DIVERT								
1002	KM	Divert 68 cfs into pipe.									
1003	DT	D54iP									
1004	DI	0	68	1000	10000						
1005	DQ	0	68	68	68						

```

*
1006 KK D54iW DIVERT
1007 KM Divert surface flow to south.
1008 DT D54iS
1009 DI 0 100 1000 10000
1010 DQ 0 37 372 3722
*

1011 KK R54iW ROUTE
1012 KM Route surface flow west from Subbasin 54i to Subbasin 56i.
1013 RS 6 FLOW -1
1014 RC 0.050 0.016 0.050 2636 0.0015
1015 RX 0 1.6 64 156.8 163.2 256 318.4 320
1016 RY 3 1 0.5 0 0 0.5 1 3
*

1017 KK 56i BASIN
1018 KM Subbasin at NEC of Camelback Rd. & 12th St.
1019 BA 0.500
1020 LG 1.20 0.25 4.80 0.37 28
1021 UC 1.131 0.871
1022 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1023 UA 100
*

1024 KK BD56gP RETRIEVE
1025 KM Retrieve diverted pipe flow from D56gP.
1026 DR D56gP
*

1027 KK P56gS ROUTE
1028 KM Route pipe flow from Bethany/12th St. to Camelback/12th St.
1029 RK 5300 0.0058 0.015 CIRC 4.50
*

1030 KK BD56gS RETRIEVE
1031 KM Retrieve diverted surface flow from D56gS.
1032 DR D56gS
*

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HEC-1 INPUT

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

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1033 KK R56gS ROUTE
1034 KM Route surface flow south from Subbasin 56g to Subbasin 56i.
1035 RS 6 FLOW -1
1036 RC 0.050 0.016 0.050 5280 0.0072
1037 RX 0 1.3 52 127.4 132.6 208 258.7 260
1038 RY 3 1 0.5 0 0 0.5 1 3
*

1039 KK C56gS COMBINE
1040 KM Combine hydrographs R56gS and P56gS.
1041 HC 2 0.92
*

1042 KK C56i COMBINE
1043 KM Combine hydrographs 56i, C56gS, and R54iW.
1044 HC 3 1.62
*

1045 KK D56i DIVERT
1046 KM Divert 204 cfs into pipe.
1047 DT D56iP
1048 DI 0 100 204 10000
1049 DQ 0 100 204 204
*

1050 KK D56iW DIVERT
1051 KM Divert surface flow to south.
1052 DT D56iS
1053 DI 0 100 1000 10000
1054 DQ 0 49 488 4881
*

1055 KK R56iW ROUTE
1056 KM Route surface flow west from Subbasin 56i to Subbasin 60i.
1057 RS 9 FLOW -1
1058 RC 0.050 0.016 0.050 2636 0.0015
1059 RX 0 2.4 96 235.2 244.8 384 477.6 480
1060 RY 3 1 0.5 0 0 0.5 1 3
*

1061 KK 60i BASIN

```

1062 KM Subbasin at NEC of Camelback Rd. & 7th St.  
 1063 BA 0.500  
 1064 LG 0.78 0.25 4.80 0.37 33  
 1065 UC 1.161 0.897  
 1066 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1067 UA 100  
 \*

1

HEC-1 INPUT

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

1068 KK BD60gP RETRIEVE  
 1069 KM Retrieve diverted pipe flow from D60gP.  
 1070 DR D60gP  
 \*

1071 KK P60gS ROUTE  
 1072 KM Route pipe flow from Bethany/7th St. to Camelback/7th St.  
 1073 RK 5300 0.0053 0.015 CIRC 4.50  
 \*

1074 KK BD60gS RETRIEVE  
 1075 KM Retrieve diverted surface flow from D60gS.  
 1076 DR D60gS  
 \*

1077 KK R60gS ROUTE  
 1078 KM Route surface flow south from Subbasin 60g to Subbasin 60i.  
 1079 RS 5 FLOW -1  
 1080 RC 0.050 0.016 0.050 5280 0.0064  
 1081 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 1082 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1083 KK C60gS COMBINE  
 1084 KM Combine hydrographs R60gS and P60gS.  
 1085 HC 2 1.83  
 \*

1086 KK C60i COMBINE  
 1087 KM Combine hydrographs 60i, C60gS, and R56iW.  
 1088 HC 3 3.02  
 \*

1089 KK D60i DIVERT  
 1090 KM Divert 211 cfs into pipe.  
 1091 KM Total flow for two pipes is 211 cfs  
 1092 DT D60iP  
 1093 DI 0 100 211 10000  
 1094 DQ 0 100 211 211  
 \*

1095 KK D60iW DIVERT  
 1096 KM Divert surface flow to south.  
 1097 DT D60iS  
 1098 DI 0 100 1000 10000  
 1099 DQ 0 59 592 5916  
 \*

1100 KK R60iW ROUTE  
 1101 KM Route surface flow west from Subbasin 60i to Subbasin 64i.  
 1102 RS 4 FLOW -1  
 1103 RC 0.050 0.016 0.050 2640 0.0015  
 1104 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1105 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1

HEC-1 INPUT

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

1106 KK BD64gP RETRIEVE  
 1107 KM Retrieve diverted pipe flow from D64gP.  
 1108 DR D64gP  
 \*

1109 KK P64gS ROUTE  
 1110 KM Route pipe flow from Bethany/Central Ave. to Camelback/Central Ave.  
 1111 RK 5300 0.0046 0.015 CIRC 5.00  
 \*

1112 KK BD64gS RETRIEVE  
 1113 KM Retrieve diverted surface flow from D64gS.  
 1114 DR D64gS  
 \*



1172 KK C68gS COMBINE  
 1173 KM Combine hydrographs R68gS and P68gS.  
 1174 HC 2 4.53

\*

HEC-1 INPUT

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

1175 KK C68i COMBINE  
 1176 KM Combine hydrographs 68i, C68gS, and R64iW.  
 1177 HC 3 6.72

\*

1178 KK BD72i RETRIEVE  
 1179 KM Retrieve diverted surface flow from D72i.  
 1180 DR D72i

\*

1181 KK B76iE RETRIEVE  
 1182 KM Retrieve diverted surface flow from D76iE.  
 1183 DR D76iE

\*

1184 KK R76iE ROUTE  
 1185 KM Route surface flow east from Subbasin 76i to Subbasin 72i.  
 1186 RS 4 FLOW -1  
 1187 RC 0.050 0.016 0.050 2640 0.0008  
 1188 RX 0 1.4 56 137.2 142.8 224 278.6 280  
 1189 RY 3 1 0.5 0 0 0.5 1 3

\*

1190 KK CC72i COMBINE  
 1191 KM Combine hydrographs R76iE and D72i.  
 1192 HC 2 8.68

\*

1193 KK D72iE DIVERT  
 1194 KM Divert surface flow to south.  
 1195 DT D72iS  
 1196 DI 0 100 1000 10000  
 1197 DQ 0 70 700 7000

\*

1198 KK R72iE ROUTE  
 1199 KM Route surface flow east from Subbasin 72i to Subbasin 68i.  
 1200 RS 5 FLOW -1  
 1201 RC 0.050 0.016 0.050 2640 0.0008  
 1202 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1203 RY 3 1 0.5 0 0 0.5 1 3

\*

1204 KK CC68i COMBINE  
 1205 KM Combine hydrographs C68i and R72iE.  
 1206 HC 2 10.87

\*

1207 KK D68i DIVERT  
 1208 KM Divert 99 cfs into pipe.  
 1209 DT D68iP  
 1210 DI 0 99 1000 10000  
 1211 DQ 0 99 99 99

\*

HEC-1 INPUT

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

1212 KK R68iS ROUTE  
 1213 KM Route surface flow south from Subbasin 68i to Subbasin 68k.  
 1214 RS 3 FLOW -1  
 1215 RC 0.050 0.016 0.050 2000 0.0030  
 1216 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1217 RY 3 1 0.5 0 0 0.5 1 3

\*

1218 KK BD68iP RETRIEVE  
 1219 KM Retrieve diverted pipe flow from D68iP.  
 1220 DR D68iP

\*

1221 KK P68iS ROUTE  
 1222 KM Route pipe flow from Camelback/7th Ave. to Grand Canal/7th Ave.  
 1223 RK 2400 0.0034 0.015 CIRC 4.50

\*

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1224 KK C68iS COMBINE
1225 KM Combine hydrographs R68iS and P68iS.
1226 HC 2 10.87
*

1227 KK 36i BASIN
1228 KM Subbasin at NEC of Camelback Rd. & 32nd St.
1229 BA 0.339
1230 LG 0.95 0.24 3.95 0.57 19
1231 UC 1.196 1.018
1232 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1233 UA 100
*

1234 KK D36i DIVERT
1235 KM Divert 41 cfs into pipe.
1236 DT D36iP
1237 DI 0 41 1000 10000
1238 DQ 0 41 41 41
*

1239 KK D36iW DIVERT
1240 KM Divert 84% surface flow to south.
1241 DT D36iS
1242 DI 0 100 1000 10000
1243 DQ 0 84 836 8357
*

1244 KK R36iW ROUTE
1245 KM Route surface flow west from Subbasin 36i to Subbasin 40i.
1246 RS 5 FLOW -1
1247 RC 0.050 0.016 0.050 2610 0.0077
1248 RX 0 1.05 42 102.9 107.1 168 208.95 210
1249 RY 3 1 0.5 0 0 0.5 1 3
*

```

HEC-1 INPUT

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

```

1250 KK 40i BASIN
1251 KM Subbasin at NEC of Camelback Rd. & 28th St.
1252 BA 0.224
1253 LG 2.53 0.25 4.10 0.58 26
1254 UC 0.875 0.790
1255 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1256 UA 100
*

1257 KK S40i STORAGE
1258 KM Online local Retention Basin, 11 ac-ft.
1259 RS 1 STOR 0
1260 SV 0 2.4 6.1 10.5 15.3
1261 SE 0 1 2 3 4
1262 SS 3 50 2.7 1.5
*

1263 KK C40i COMBINE
1264 KM Combine hydrographs 40i and R36iW.
1265 HC 2 0.56
*

1266 KK D40iW DIVERT
1267 KM Divert surface flow to south.
1268 DT D40iS
1269 DI 0 100 1000 10000
1270 DQ 0 76 759 7592
*

1271 KK R40iW ROUTE
1272 KM Route surface flow west from Subbasin 40i to Subbasin 44i.
1273 RS 5 FLOW -1
1274 RC 0.050 0.016 0.050 2715 0.0059
1275 RX 0 0.5 20 49 51 80 99.5 100
1276 RY 3 1 0.5 0 0 0.5 1 3
*

1277 KK 44i BASIN
1278 KM Subbasin at NEC of Camelback Rd. & 24th St.
1279 BA 0.349
1280 LG 1.92 0.25 4.35 0.50 23
1281 UC 1.086 1.022
1282 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1283 UA 100
*

```

1284 KK 42i BASIN  
 1285 KM Subbasin north of Biltmore & 28th St.  
 1286 BA 0.269  
 1287 LG 1.07 0.25 4.00 0.64 5  
 1288 UC 1.017 0.797  
 1289 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1290 UA 100  
 \*

HEC-1 INPUT

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

1291 KK R42iW ROUTE  
 1292 KM Route surface flow west from Subbasin 42i to Subbasin 44i.  
 1293 RS 3 FLOW -1  
 1294 RC 0.050 0.016 0.050 2715 0.0059  
 1295 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1296 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1297 KK C44i COMBINE  
 1298 KM Combine hydrographs 44i, R42iW, and R40iW.  
 1299 HC 3 1.18  
 \*

1300 KK D44i DIVERT  
 1301 KM Divert 48 cfs into pipe.  
 1302 DT D44iP  
 1303 DI 0 48 1000 10000  
 1304 DQ 0 48 48 48  
 \*

1305 KK D44iW DIVERT  
 1306 KM Divert surface flow to south.  
 1307 DT D44iS  
 1308 DI 0 100 1000 10000  
 1309 DQ 0 50 496 4957  
 \*

1310 KK R44iW ROUTE  
 1311 KM Route surface flow west from Subbasin 44i to Subbasin 48i.  
 1312 RS 3 FLOW -1  
 1313 RC 0.050 0.016 0.050 2640 0.0053  
 1314 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1315 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1316 KK 48i BASIN  
 1317 KM Subbasin at NEC of Camelback Rd. & 20th St.  
 1318 BA 0.535  
 1319 LG 1.55 0.25 4.35 0.45 11  
 1320 UC 1.222 0.995  
 1321 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1322 UA 100  
 \*

1323 KK C48i COMBINE  
 1324 KM Combine hydrographs 48i and R44iW.  
 1325 HC 2 1.72  
 \*

HEC-1 INPUT

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

1326 KK D48i DIVERT  
 1327 KM Divert 47 cfs into pipe.  
 1328 DT D48iP  
 1329 DI 0 47 1000 10000  
 1330 DQ 0 47 47 47  
 \*

1331 KK D48iW DIVERT  
 1332 KM Divert surface flow to south.  
 1333 DT D48iS  
 1334 DI 0 100 1000 10000  
 1335 DQ 0 49 487 4872  
 \*

1336 KK R48iW ROUTE  
 1337 KM Route surface flow west from Subbasin 48i to Subbasin 52i.  
 1338 RS 3 FLOW -1  
 1339 RC 0.050 0.016 0.050 1660 0.0036  
 1340 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1341 RY 3 1 0.5 0 0 0.5 1 3

```

*
1342 KK BD48iP RETRIEVE
1343 KM Retrieve diverted pipe flow from D48iP.
1344 DR D48iP
*
1345 KK P48iW ROUTE
1346 KM Route pipe flow from Camelback/20th St. to Camelback/SR51.
1347 RK 1550 0.0043 0.015 CIRC 3.3
*
1348 KK C48iW COMBINE
1349 KM Combine hydrographs P48iW and R48iW.
1350 HC 2 1.72
*
1351 KK 52g BASIN
1352 KM Subbasin at NEC of Bethany Home & SR51.
1353 BA 0.265
1354 LG 1.71 0.25 4.15 0.51 13
1355 UC 0.813 0.514
1356 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1357 UA 100
*
1358 KK R52gS ROUTE
1359 KM Route surface flow south from Subbasin 52g to Subbasin 52i.
1360 RS 6 FLOW -1
1361 RC 0.050 0.016 0.050 5280 0.0087
1362 RX 0 1.8 72 176.4 183.6 288 358.2 360
1363 RY 3 1 0.5 0 0 0.5 1 3
*

```

HEC-1 INPUT

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

```

1364 KK 52i BASIN
1365 KM Subbasin at NEC of Camelback Rd. & SR51.
1366 BA 0.309
1367 LG 1.29 0.25 4.70 0.37 22
1368 UC 1.114 1.011
1369 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1370 UA 100
*

```

```

1371 KK C52i COMBINE
1372 KM Combine hydrographs 52i, R52gS, and C48iW.
1373 HC 3 2.29
*

```

```

1374 KK E52i DIVERT
1375 KM Divert flow into pipe for routing through offline detention basin.
1376 KM Pipe flow = 95 cfs
1377 DT DB52i
1378 DI 0 95 1000 10000
1379 DQ 0 0 905 9905
*

```

```

1380 KK BDB52iRETRIEVE
1381 KM Retrieve diverted surface flow from DB52i.
1382 DR DB52i
*

```

```

1383 KK S52i STORAGE
1384 KM Offline Regional Detention Basin, 27 ac-ft.
1385 RS 1 STOR 0
1386 SV 0 1 5 12 21 27 33
1387 SE 0 4 8 12 16 18 20
1388 SQ 0 43 60 74 86 91 860
*

```

```

1389 KK CC52i COMBINE
1390 KM Combine hydrographs B52i and S52i.
1391 HC 2 2.29
*

```

```

1392 KK D52i DIVERT
1393 KM Divert 95 cfs into pipe.
1394 DT D52iP
1395 DI 0 95 1000 10000
1396 DQ 0 95 95 95
*

```

```

1397 KK R52iS ROUTE

```

1398 KM Route surface flow south from Subbasin 52i to Subbasin 52k.  
 1399 RS 4 FLOW -1  
 1400 RC 0.050 0.016 0.050 5280 0.0038  
 1401 RX 0 0.5 20 49 51 80 99.5 100  
 1402 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1403 KK BD52iP RETRIEVE  
 1404 KM Retrieve diverted pipe flow from D52iP.  
 1405 DR D52iP  
 \*

1406 KK P52iS ROUTE  
 1407 KM Route pipe flow from Camelback/SR51. to Indian School/SR51.  
 1408 RK 5250 0.0031 0.015 CIRC 4.50  
 \*

1409 KK C52iS COMBINE  
 1410 KM Combine hydrographs R52iS and P52iS.  
 1411 HC 2 2.29  
 \*

1412 KK 24k BASIN  
 1413 KM Subbasin at NEC of Indian School Rd. & 44th St.  
 1414 BA 0.192  
 1415 LG 0.60 0.25 4.60 0.40 23  
 1416 UC 0.934 0.772  
 1417 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1418 UA 100  
 \*

1419 KK D24kW DIVERT  
 1420 KM Divert surface flow to south.  
 1421 DT D24kS  
 1422 DI 0 100 1000 10000  
 1423 DQ 0 50 502 5018  
 \*

1424 KK R24kW ROUTE  
 1425 KM Route surface flow west from Subbasin 24k to Subbasin 28k.  
 1426 RS 4 FLOW -1  
 1427 RC 0.050 0.016 0.050 2640 0.0045  
 1428 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1429 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1430 KK ARC40 INFLOW  
 1431 KM Inflow from Arcadia area from 40th Street through storm drain system.  
 1432 KM Maximum flow 47 cfs.  
 1433 IN 60  
 1434 BA 0.1  
 1435 QI 0.0 0.1 0.2 0.5 1 1 1 1 1 1  
 1436 QI 1 1 2 47 16 5 2 1 1 1  
 1437 QI 1 1 0.5 0.1 0.0  
 \*

HEC-1 INPUT

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

1438 KK PARC40 ROUTE  
 1439 KM Route pipe flow from Arcadia to Indian School/40th St.  
 1440 RK 5400 0.0050 0.015 CIRC 4.00  
 \*

1441 KK 28k BASIN  
 1442 KM Subbasin at NEC of Indian School Rd. & 40th St.  
 1443 BA 0.428  
 1444 LG 1.19 0.25 4.60 0.40 22  
 1445 UC 1.172 0.910  
 1446 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1447 UA 100  
 \*

1448 KK C28k COMBINE  
 1449 KM Combine hydrographs 28k, PARC40, and R24kW.  
 1450 HC 3 0.72  
 \*

1451 KK D28k DIVERT  
 1452 KM Divert 131 cfs into pipe.  
 1453 DT D28kP

1454 DI 0 131 1000 10000  
 1455 DQ 0 131 131 131  
 \*

1456 KK D28kW DIVERT  
 1457 KM Divert surface flow to south.  
 1458 DT D28kS  
 1459 DI 0 100 1000 10000  
 1460 DQ 0 42 424 4242  
 \*

1461 KK R28kW ROUTE  
 1462 KM Route surface flow west from Subbasin 28k to Subbasin 32k.  
 1463 RS 4 FLOW -1  
 1464 RC 0.050 0.016 0.050 2640 0.0038  
 1465 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1466 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1467 KK 32k BASIN  
 1468 KM Subbasin at NEC of Indian School Rd. & 36th St.  
 1469 BA 0.506  
 1470 LG 1.88 0.25 4.50 0.43 21  
 1471 UC 1.189 0.914  
 1472 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1473 UA 100  
 \*

HEC-1 INPUT

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

1474 KK C32k COMBINE  
 1475 KM Combine hydrographs 32k and R28kW.  
 1476 HC 2 1.23  
 \*

1477 KK D32k DIVERT  
 1478 KM Divert 45 cfs into 48" pipe.  
 1479 DT D32kP  
 1480 DI 0 45 1000 10000  
 1481 DQ 0 45 45 45  
 \*

1482 KK D32kW DIVERT  
 1483 KM Divert surface flow to south.  
 1484 DT D32kS  
 1485 DI 0 100 1000 10000  
 1486 DQ 0 46 457 4571  
 \*

1487 KK R32kW ROUTE  
 1488 KM Route surface flow west from Subbasin 32k to Subbasin 36k.  
 1489 RS 3 FLOW -1  
 1490 RC 0.050 0.016 0.050 2640 0.0045  
 1491 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 1492 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1493 KK 36k BASIN  
 1494 KM Subbasin at NEC of Indian School Rd. & 32nd St.  
 1495 BA 0.508  
 1496 LG 1.39 0.25 4.65 0.39 24  
 1497 UC 1.173 0.899  
 1498 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1499 UA 100  
 \*

1500 KK BD361P RETRIEVE  
 1501 KM Retrieve diverted pipe flow from D361P.  
 1502 DR D361P  
 \*

1503 KK P361S ROUTE  
 1504 KM Route pipe flow from Camelback/32nd St. to Indian School/32nd St.  
 1505 RK 5350 0.0050 0.015 CIRC 3.0  
 \*

1506 KK BD361S RETRIEVE  
 1507 KM Retrieve diverted surface flow from D361S.  
 1508 DR D361S  
 \*

HEC-1 INPUT

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

1509 KK R36iS ROUTE  
 1510 KM Route surface flow south from Subbasin 36i to Subbasin 36k.  
 1511 RS 6 FLOW -1  
 1512 RC 0.050 0.016 0.050 5280 0.0080  
 1513 RX 0 2.05 82 200.9 209.1 328 407.95 410  
 1514 RY 3 1 0.5 0 0 0.5 1 3

1515 KK C36iS COMBINE  
 1516 KM Combine hydrographs R36iS and P36iS.  
 1517 HC 2 0.34  
 \*

1518 KK C36k COMBINE  
 1519 KM Combine hydrographs 36k, C36iS, and R32kW.  
 1520 HC 3 2.07  
 \*

1521 KK D36k DIVERT  
 1522 KM Divert 59 cfs into pipe.  
 1523 DT D36kP  
 1524 DI 0 59 1000 10000  
 1525 DQ 0 59 59 59  
 \*

1526 KK D36kW DIVERT  
 1527 KM Divert surface flow to south.  
 1528 DT D36kS  
 1529 DI 0 100 1000 10000  
 1530 DQ 0 44 439 4394  
 \*

1531 KK R36kW ROUTE  
 1532 KM Route surface flow west from Subbasin 36k to Subbasin 40k.  
 1533 RS 3 FLOW -1  
 1534 RC 0.050 0.016 0.050 2640 0.0045  
 1535 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1536 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1537 KK BD40iS RETRIEVE  
 1538 KM Retrieve diverted surface flow from D40iS.  
 1539 DR D40iS  
 \*

1540 KK R40iS ROUTE  
 1541 KM Route surface flow south from Subbasin 40i to Subbasin 40k.  
 1542 RS 8 FLOW -1  
 1543 RC 0.050 0.016 0.050 5280 0.0068  
 1544 RX 0 1 40 98 102 160 199 200  
 1545 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1

HEC-1 INPUT

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

1546 KK 40k BASIN  
 1547 KM Subbasin at NEC of Indian School Rd. & 28th St.  
 1548 BA 0.504  
 1549 LG 1.14 0.25 4.80 0.37 24  
 1550 UC 1.295 1.007  
 1551 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1552 UA 100  
 \*

1553 KK C40k COMBINE  
 1554 KM Combine hydrographs 40k, R40iS, and R36kW.  
 1555 HC 3 2.80  
 \*

1556 KK D40k DIVERT  
 1557 KM Divert 29 cfs into pipe.  
 1558 DT D40kP  
 1559 DI 0 29 100 1000 10000  
 1560 DQ 0 29 29 29 29  
 \*

1561 KK D40kW DIVERT  
 1562 KM Divert surface flow to south.  
 1563 DT D40kS  
 1564 DI 0 100 1000 10000  
 1565 DQ 0 42 421 4206  
 \*

1566 KK R40kW ROUTE

1567 KM Route surface flow west from Subbasin 40k to Subbasin 44k.  
 1568 RS 3 FLOW -1  
 1569 RC 0.050 0.016 0.050 2640 0.0053  
 1570 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1571 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1572 KK 44k BASIN  
 1573 KM Subbasin at NEC of Indian School Rd. & 24th St.  
 1574 BA 0.508  
 1575 LG 1.00 0.25 4.80 0.38 32  
 1576 UC 1.200 0.921  
 1577 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1578 UA 100  
 \*

1579 KK BD44iP RETRIEVE  
 1580 KM Retrieve diverted pipe flow from D44iP.  
 1581 DR D44iP  
 \*

HEC-1 INPUT

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

1582 KK P44iS ROUTE  
 1583 KM Route pipe flow from Camelback/24th St. to Indian School/24th St.  
 1584 RK 5300 0.0030 0.015 CIRC 3.50  
 \*

1585 KK BD44iS RETRIEVE  
 1586 KM Retrieve diverted surface flow from D44iS.  
 1587 DR D44iS  
 \*

1588 KK R44iS ROUTE  
 1589 KM Route surface flow south from Subbasin 44i to Subbasin 44k.  
 1590 RS 5 FLOW -1  
 1591 RC 0.050 0.016 0.050 5280 0.0064  
 1592 RX 0 0.5 20 49 51 80 99.5 100  
 1593 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1594 KK C44iS COMBINE  
 1595 KM Combine hydrographs R44iS and P44iS.  
 1596 HC 2 1.18  
 \*

1597 KK C44k COMBINE  
 1598 KM Combine hydrographs 44k, C44iS, and R40kW.  
 1599 HC 3 3.93  
 \*

1600 KK D44k DIVERT  
 1601 KM Divert 71 cfs into pipe.  
 1602 DT D44kP  
 1603 DI 0 71 1000 10000  
 1604 DQ 0 71 71 71  
 \*

1605 KK D44kW DIVERT  
 1606 KM Divert surface flow to south.  
 1607 DT D44kS  
 1608 DI 0 100 1000 10000  
 1609 DQ 0 38 380 3797  
 \*

1610 KK R44kW ROUTE  
 1611 KM Route surface flow west from Subbasin 44k to Subbasin 48k.  
 1612 RS 2 FLOW -1  
 1613 RC 0.050 0.016 0.050 2640 0.0045  
 1614 RX 0 1.35 54 132.3 137.7 216 268.65 270  
 1615 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

1616 KK 48k BASIN  
 1617 KM Subbasin at NEC of Indian School Rd. & 20th St.  
 1618 BA 0.500  
 1619 LG 0.82 0.25 4.80 0.38 41  
 1620 UC 1.233 0.959  
 1621 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1622 UA 100

```

*
1623 KK S48k STORAGE
1624 KM Online Local Retention Basin, 2 ac-ft.
1625 RS 1 STOR 0
1626 SV 0 0.8 2 4
1627 SE 0 2 4 6
1628 SS 4 100 2.7 1.5
*

1629 KK BD48iS RETRIEVE
1630 KM Retrieve diverted surface flow from D48iS.
1631 DR D48iS
*

1632 KK R48iS ROUTE
1633 KM Route surface flow south from Subbasin 48i to Subbasin 48k.
1634 RS 6 FLOW -1
1635 RC 0.050 0.016 0.050 5280 0.0053
1636 RX 0 0.8 32 78.4 81.6 128 159.2 160
1637 RY 3 1 0.5 0 0 0.5 1 3
*

1638 KK C48k COMBINE
1639 KM Combine hydrographs S48k, R48iS, and R44kW.
1640 HC 3 4.96
*

1641 KK D48kW DIVERT
1642 KM Divert surface flow to south.
1643 DT D48kS
1644 DI 0 100 1000 10000
1645 DQ 0 45 448 4475
*

1646 KK R48kW ROUTE
1647 KM Route surface flow west from Subbasin 48k to Subbasin 52k.
1648 RS 2 FLOW -1
1649 RC 0.050 0.016 0.050 1625 0.0049
1650 RX 0 1.4 56 137.2 142.8 224 278.6 280
1651 RY 3 1 0.5 0 0 0.5 1 3
*

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

1652 KK 52k BASIN
1653 KM Subbasin at NEC of Indian School Rd. & SR51
1654 BA 0.295
1655 LG 0.59 0.25 4.80 0.37 31
1656 UC 1.319 1.252
1657 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1658 UA 100
*

1659 KK C52k COMBINE
1660 KM Combine hydrographs 52k, C52iS, and R48kW.
1661 HC 3 5.83
*

1662 KK D52k DIVERT
1663 KM Divert 201 cfs into pipe.
1664 DT D52kP
1665 DI 0 100 201 10000
1666 DQ 0 100 201 201
*

1667 KK D52kW DIVERT
1668 KM Divert surface flow to south.
1669 DT D52kS
1670 DI 0 100 1000 10000
1671 DQ 0 45 451 4513
*

1672 KK R52kW ROUTE
1673 KM Route surface flow west from Subbasin 52k to Subbasin 54k.
1674 RS 1 FLOW -1
1675 RC 0.050 0.016 0.050 1100 0.0026
1676 RX 0 0.8 32 78.4 81.6 128 159.2 160
1677 RY 3 1 0.5 0 0 0.5 1 3
*

1678 KK BD54iP RETRIEVE
1679 KM Retrieve diverted pipe flow from D54iP.
1680 DR D54iP

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*
1681 KK P54iS ROUTE
1682 KM Route pipe flow from Camelback/16th St. to Indian School/16th St.
1683 RK 5800 0.0030 0.015 CIRC 4.0
*
1684 KK BD54iS RETRIEVE
1685 KM Retrieve diverted surface flow from D54iS.
1686 DR D54iS
*

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HEC-1 INPUT

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

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1687 KK R54iS ROUTE
1688 KM Route surface flow south from Subbasin 54i to Subbasin 54k.
1689 RS 9 FLOW -1
1690 RC 0.050 0.016 0.050 5800 0.0034
1691 RX 0 0.5 20 49 51 80 99.5 100
1692 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

1693 KK C54iS COMBINE
1694 KM Combine hydrographs R54iS and P54iS.
1695 HC 2 0.44
*

```

```

1696 KK 54k BASIN
1697 KM Subbasin at NEC of Grand Canal & 16th St.
1698 BA 0.245
1699 LG 0.33 0.24 4.80 0.38 39
1700 UC 1.291 1.300
1701 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1702 UA 100
*

```

```

1703 KK C54k COMBINE
1704 KM Combine hydrographs 54k, C54iS, and R52kW.
1705 HC 3 1.18
*

```

```

1706 KK D54k DIVERT
1707 KM Divert 124 cfs into pipe.
1708 DT D54kP
1709 DI 0 100 124 10000
1710 DQ 0 100 124 124
*

```

```

1711 KK D54kW DIVERT
1712 KM Divert surface flow to south.
1713 DT D54kS
1714 DI 0 37 118 382 658 1241
1715 DQ 0 0 40 207 393 800
*

```

```

1716 KK R54kW ROUTE
1717 KM Route surface flow west from Subbasin 54k to Subbasin 56k.
1718 RS 7 FLOW -1
1719 RC 0.050 0.016 0.050 3500 0.0005
1720 RX 0 1.6 64 156.8 163.2 256 318.4 320
1721 RY 3 1 0.5 0 0 0.5 1 3
*

```

HEC-1 INPUT

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

```

1722 KK BD56iP RETRIEVE
1723 KM Retrieve diverted pipe flow from D56iP.
1724 DR D56iP
*

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```

1725 KK P56iS ROUTE
1726 KM Route pipe flow from Camelback/12th St. to Grand Canal/12th St.
1727 RK 3400 0.0031 0.015 CIRC 6.0
*

```

```

1728 KK BD56iS RETRIEVE
1729 KM Retrieve diverted surface flow from D56iS.
1730 DR D56iS
*

```

```

1731 KK R56iS ROUTE
1732 KM Route surface flow south from Subbasin 56i to Subbasin 56k.

```

1733	RS	9	FLOW	-1							
1734	RC	0.050	0.016	0.050	4200	0.0052					
1735	RX	0	1.05	42	102.9	107.1	168	208.95	210		
1736	RY	3	1	0.5	0	0	0.5	1	3		
	*										
1737	KK	C56iS COMBINE									
1738	KM	Combine hydrographs R56iS and P56iS.									
1739	HC	2	1.62								
	*										
1740	KK	56k	BASIN								
1741	KM	Subbasin at NEC of Grand Canal & 12th St.									
1742	BA	0.423									
1743	LG	0.90	0.24	4.80	0.38	34					
1744	UC	1.188	0.784								
1745	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
1746	UA	100									
	*										
1747	KK	C56k COMBINE									
1748	KM	Combine hydrographs 56k, C56iS, and R54kW.									
1749	HC	3	2.78								
	*										
1750	KK	BD60iP RETRIEVE									
1751	KM	Retrieve diverted pipe flow from D60iP.									
1752	DR	D60iP									
	*										
1753	KK	D60iP1 DIVERT									
1754	KM	Divert flow into pipe.									
1755	KM	Total flow for two pipes is 211 cfs, and 143 cfs going to east (P2)									
1756	DT	D60iP2									
1757	DI	0	211	220							
1758	DQ	0	143	143							
	*										

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HEC-1 INPUT

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LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1759	KK P60iS1 ROUTE
1760	KM Route pipe flow from Camelback/7th St. to Grand Canal/7th St.
1761	RK 2600 0.0031 0.015 CIRC 6.0
	*
1762	KK B60iP2 RETRIEVE
1763	KM Retrieve diverted pipe flow from D60iP2.
1764	DR D60iP2
	*
1765	KK P60iS2 ROUTE
1766	KM Route pipe flow from Camelback/12th St. to Grand Canal/12th St.
1767	RK 2600 0.0031 0.015 CIRC 7.0
	*
1768	KK BD60iS RETRIEVE
1769	KM Retrieve diverted surface flow from D60iS.
1770	DR D60iS
	*
1771	KK R60iS ROUTE
1772	KM Route surface flow south from Subbasin 60i to Subbasin 60k.
1773	RS 3 FLOW -1
1774	RC 0.050 0.016 0.050 3000 0.0047
1775	RX 0 1.3 52 127.4 132.6 208 258.7 260
1776	RY 3 1 0.5 0 0 0.5 1 3
	*
1777	KK C60iS COMBINE
1778	KM Combine hydrographs R60iS and P60iS.
1779	HC 3 3.02
	*
1780	KK 60k BASIN
1781	KM Subbasin at NEC of Grand Canal & 7th St.
1782	BA 0.266
1783	LG 0.46 0.24 4.80 0.37 36
1784	UC 1.145 0.885
1785	UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1786	UA 100
	*
1787	KK C60k COMBINE
1788	KM Combine hydrographs 60k and C60iS.

1789 HC 2 3.29  
 \*  
 1790 KK D60kP DIVERT  
 1791 KM Divert flow into pipe.  
 1792 KM Total pipe flow is 284 (P1 = 159, P2 = 125)cfs  
 1793 DT D60k  
 1794 DI 0 100 284 1000 10000  
 1795 DQ 0 0 0 716 9716  
 \*

HEC-1 INPUT

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

1796 KK D60kP1 DIVERT  
 1797 KM Divert flow into pipe.  
 1798 KM Flow for P1 = 10.0 cfs going east for storms greater than 2-year  
 1799 KM Minimum flow to east to keep the model working  
 1800 DT D60kP2  
 1801 DI 0 284 300  
 1802 DQ 0 159 290  
 \*

1803 KK P60kE ROUTE  
 1804 KM Route pipe flow from Grand Canal/7th St. to Grand Canal/12th St.  
 1805 RK 3000 0.0030 0.015 CTIRC 7.0  
 \*

1806 KK CC56k COMBINE  
 1807 KM Combine hydrographs C56k and P60kE.  
 1808 HC 2 4.46  
 \*

1809 KK D56k DIVERT  
 1810 KM Divert 303 cfs into pipe.  
 1811 DT D56kP  
 1812 DI 0 100 303 10000  
 1813 DQ 0 100 303 303  
 \*

1814 KK D56kW DIVERT  
 1815 KM Divert surface flow to south.  
 1816 DT D56kS  
 1817 DI 0 73 124 325 649 1102  
 1818 DQ 0 0 24 157 393 734  
 \*

1819 KK R56kW ROUTE  
 1820 KM Route surface flow west from Subbasin 56k to Subbasin 60k.  
 1821 RS 5 FLOW -1  
 1822 RC 0.050 0.016 0.050 3000 0.0006  
 1823 RX 0 0.85 34 83.3 86.7 136 169.15 170  
 1824 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1825 KK BD60k RETRIEVE  
 1826 KM Retrieve diverted surface flow from D60k.  
 1827 DR D60k  
 \*

1828 KK CC60k COMBINE  
 1829 KM Combine hydrographs D60k and R56kW.  
 1830 HC 2 4.46  
 \*

HEC-1 INPUT

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

1831 KK D60kW DIVERT  
 1832 KM Divert surface flow to south.  
 1833 DT D60kS  
 1834 DI 0 49 106 362 554 788 1067  
 1835 DQ 0 0 36 235 390 583 814  
 \*

1836 KK R60kW ROUTE  
 1837 KM Route surface flow west from Subbasin 60k to Subbasin 64k.  
 1838 RS 6 FLOW -1  
 1839 RC 0.050 0.016 0.050 2800 0.0007  
 1840 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 1841 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1842 KK 64k BASIN

1843 KM Subbasin at NEC of Grand Canal & Central Ave.  
 1844 BA 0.206  
 1845 LG 1.25 0.14 7.60 0.12 31  
 1846 UC 0.980 0.639  
 1847 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1848 UA 100  
 \*

1849 KK BD64iS RETRIEVE  
 1850 KM Retrieve diverted surface flow from D64iS.  
 1851 DR D64iS  
 \*

1852 KK R64iS ROUTE  
 1853 KM Route surface flow south from Subbasin 64i to Subbasin 64k.  
 1854 RS 3 FLOW -1  
 1855 RC 0.050 0.016 0.050 2130 0.0047  
 1856 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 1857 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1858 KK C64k COMBINE  
 1859 KM Combine hydrographs 64k, R64iS, and R60kW.  
 1860 HC 3 6.43  
 \*

1861 KK S64k STORAGE  
 1862 KM Online Regional Retention Basin, 12 ac-ft.  
 1863 RS 1 STOR 0  
 1864 SV 0 12 149  
 1865 SE 0 0.5 2.5  
 1866 SS 0.5 500 2.7 1.5  
 \*

1

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

1867 KK BD64iP RETRIEVE  
 1868 KM Retrieve diverted pipe flow from D64iP.  
 1869 DR D64iP  
 \*

1870 KK P64iS ROUTE  
 1871 KM Route pipe flow from Camelback/Central Ave. to Grand Canal/Central Ave.  
 1872 RK 2000 0.0034 0.015 CIRC 6.0  
 \*

1873 KK CC64k COMBINE  
 1874 KM Combine hydrographs P64iS and S64i.  
 1875 HC 2 6.43  
 \*

1876 KK D64k DIVERT  
 1877 KM Divert 214 cfs into pipe.  
 1878 DT D64kP  
 1879 DI 0 100 214 10000  
 1880 DQ 0 100 214 214  
 \*

1881 KK D64kW DIVERT  
 1882 KM Divert surface flow to south.  
 1883 DT D64kS  
 1884 DI 0 138 214 344 519 1004  
 1885 DQ 0 0 38 125 251 617  
 \*

1886 KK R64kW ROUTE  
 1887 KM Route surface flow west from Subbasin 64k to Subbasin 68k.  
 1888 RS 3 FLOW -1  
 1889 RC 0.050 0.016 0.050 2800 0.0008  
 1890 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 1891 RY 3 1 0.5 0 0 0.5 1 3  
 \*

1892 KK 68k BASIN  
 1893 KM Subbasin at NEC of Grand Canal & 7th Ave.  
 1894 BA 0.204  
 1895 LG 0.79 0.14 8.40 0.09 26  
 1896 UC 1.144 0.734  
 1897 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 1898 UA 100  
 \*

1899 KK C68k COMBINE  
 1900 KM Combine hydrographs 68k, C68iS, and R64kW.

1901 HC 3 12.71  
\*

HEC-1 INPUT

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

1902 KK D68k DIVERT  
1903 KM Divert 114 cfs into pipe.  
1904 DT D68kP  
1905 DI 0 100 114 10000  
1906 DQ 0 100 114 114  
\*

1907 KK D68kW DIVERT  
1908 KM Divert surface flow to south.  
1909 DT D68kS  
1910 DI 0 49 105 209 352 747 1283  
1911 DQ 0 0 35 113 225 542 977  
\*

1912 KK R68kW ROUTE  
1913 KM Route surface flow west from Subbasin 68k to Subbasin 72k.  
1914 RS 4 FLOW -1  
1915 RC 0.050 0.016 0.050 3000 0.0007  
1916 RX 0 1.1 44 107.8 112.2 176 218.9 220  
1917 RY 3 1 0.5 0 0 0.5 1 3  
\*

1918 KK 72k BASIN  
1919 KM Subbasin at NEC of Grand Canal & 15th Ave.  
1920 BA 0.281  
1921 LG 0.66 0.14 8.40 0.09 27  
1922 UC 1.219 0.803  
1923 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
1924 LA 100  
\*

1925 KK S72k STORAGE  
1926 KM Online Local Retention Basin, 6 ac-ft.  
1927 RS 1 STOR 0  
1928 SV 0 6 12  
1929 SE 0 1 2  
1930 SS 1 400 2.7 1.5  
\*

1931 KK B72iP1 RETRIEVE  
1932 KM Retrieve diverted pipe flow from D72iP1.  
1933 DR D72iP1  
\*

1934 KK P72iS ROUTE  
1935 KM Route pipe flow from Camelback/15th Ave. to Grand Canal/15th Ave.  
1936 RK 3300 0.0024 0.015 CIRC 6.0  
\*

HEC-1 INPUT

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

1937 KK BD72iS RETRIEVE  
1938 KM Retrieve diverted surface flow from D72iS.  
1939 DR D72iS  
\*

1940 KK R72iS ROUTE  
1941 KM Route surface flow south from Subbasin 72i to Subbasin 72k.  
1942 RS 3 FLOW -1  
1943 RC 0.050 0.016 0.050 2900 0.0028  
1944 RX 0 1.05 .42 102.9 107.1 168 208.95 210  
1945 RY 3 1 0.5 0 0 0.5 1 3  
\*

1946 KK C72iS COMBINE  
1947 KM Combine hydrographs P72iS and R72iS.  
1948 HC 2 8.68  
\*

1949 KK C72k COMBINE  
1950 KM Combine hydrographs S72k, C72iS, and R68kW.  
1951 HC 3 12.99  
\*

1952 KK CC72k COMBINE  
1953 KM Combine hydrographs D76kP2 and C72k.  
1954 HC 2 12.99

```

*
1955 KK D72k DIVERT
1956 KM Divert 281 cfs into pipe.
1957 DT D72kP
1958 DI 0 100 281 10000
1959 DQ 0 100 281 281
*
1960 KK D72kW DIVERT
1961 KM Divert surface flow to south.
1962 DT D72kS
1963 DI 0 51 99 186 460 860 1108
1964 DQ 0 0 29 95 314 642 847
*
1965 KK R72kW ROUTE
1966 KM Route surface flow west from Subbasin 72k to Subbasin 76k.
1967 RS 6 FLOW -1
1968 RC 0.050 0.016 0.050 2800 0.0004
1969 RX 0 1.1 44 107.8 112.2 176 218.9 220
1970 RY 3 1 0.5 0 0 0.5 1 3
*

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HEC-1 INPUT

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

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1971 KK B76k1 RETRIEVE
1972 KM Retrieve diverted surface flow from D76k1.
1973 DR D76k1
*
1974 KK CC76k COMBINE
1975 KM Combine hydrographs D76k1 and R72kW.
1976 HC 2 13.31
*
1977 KK D76k DIVERT
1978 KM Divert flow 43 (41% of 106) cfs into pipe.
1979 DT D76kP
1980 DI 0 43 100 1000 10000
1981 DQ 0 43 43 43 43
*
1982 KK D76kW DIVERT
1983 KM Divert surface flow to south.
1984 DT D76kS
1985 DI 0 28 132 348 669 1096
1986 DQ 0 0 76 253 519 877
*
1987 KK R76kW ROUTE
1988 KM Route surface flow west from Subbasin 76k to Subbasin 80k.
1989 RS 9 FLOW -1
1990 RC 0.050 0.016 0.050 3500 0.0003
1991 RX 0 1.35 54 132.3 137.7 216 268.65 270
1992 RY 3 1 0.5 0 0 0.5 1 3
*
1993 KK 80k BASIN
1994 KM Subbasin at NEC of Grand Canal & 23rd Ave.
1995 BA 0.428
1996 LG 0.47 0.15 8.40 0.09 26
1997 UC 1.220 0.831
1998 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
1999 UA 100
*
2000 KK BD80i RETRIEVE
2001 KM Retrieve diverted surface flow from D80i.
2002 DR D80i
*
2003 KK R80iS ROUTE
2004 KM Route surface flow south from Subbasin 80i to Subbasin 80k.
2005 RS 2 FLOW -1
2006 RC 0.050 0.016 0.050 3500 0.0038
2007 RX 0 0.75 30 73.5 76.5 120 149.25 150
2008 RY 3 1 0.5 0 0 0.5 1 3
*

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HEC-1 INPUT

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

2009 KK B80kP1 RETRIEVE  
2010 KM Retrieve diverted pipe flow from D80kP1.  
2011 DR D80kP1  
\*

2012 KK C80k COMBINE  
2013 KM Combine hydrographs 80k,R80iS, and D80kP1.  
2014 HC 3 3.68  
\*

2015 KK D80k DIVERT  
2016 KM Divert 63 (59% of 106) cfs into pipe.  
2017 DT D80kP  
2018 DI 0 63 100 1000 10000  
2019 DQ 0 63 63 63 63  
\*

2020 KK CC80k COMBINE  
2021 KM Combine hydrographs R76kW and D80k.  
2022 HC 2 4.68  
\*

2023 KK D80kW DIVERT  
2024 KM Divert surface flow to south.  
2025 DT D80kS  
2026 DI 0 152 286 833 1526  
2027 DQ 0 0 41 316 721  
\*

2028 KK R80kW ROUTE  
2029 KM Route surface flow west from Subbasin 80k to Subbasin 84k.  
2030 RS 2 FLOW -1  
2031 RC 0.050 0.016 0.050 1500 0.0010  
2032 RX 0 1.85 74 181.3 188.7 296 368.15 370  
2033 RY 3 1 0.5 0 0 0.5 1 3  
\*

2034 KK 84k BASIN  
2035 KM Subbasin at NWC of Grand Canal & 23rd Ave.  
2036 BA 0.311  
2037 LG 0.57 0.15 8.40 0.09 35  
2038 UC 1.499 1.602  
2039 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2040 UA 100  
\*

2041 KK BD84iS RETRIEVE  
2042 KM Retrieve diverted surface flow from D84iS.  
2043 DR D84iS  
\*

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

2044 KK R84iS ROUTE  
2045 KM Route surface flow south from Subbasin 84i to Subbasin 84k.  
2046 RS 9 FLOW -1  
2047 RC 0.050 0.016 0.050 6900 0.0029  
2048 RX 0 0.75 30 73.5 76.5 120 149.25 150  
2049 RY 3 1 0.5 0 0 0.5 1 3  
\*

2050 KK C84k COMBINE  
2051 KM Combine hydrographs 84k, R84iS, and R80kW.  
2052 HC 3 4.99  
\*

2053 KK R84kS ROUTE  
2054 KM Route surface flow south from Subbasin 84k to Subbasin 84m.  
2055 RS 3 FLOW -1  
2056 RC 0.050 0.016 0.050 4570 0.0035  
2057 RX 0 0.5 20 49 51 80 99.5 100  
2058 RY 3 1 0.5 0 0 0.5 1 3  
\*

2059 KK 84m BASIN  
2060 KM Subbasin at NWC of Thomas Rd. & 23rd Ave.  
2061 BA 0.209  
2062 LG 0.24 0.15 9.70 0.06 24  
2063 UC 1.222 1.288  
2064 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2065 UA 100  
\*

2066 KK C84m COMBINE

2067 KM Combine hydrographs 84m and R84kS.  
 2068 HC 2 5.20  
 \*

2069 KK I17 BASIN  
 2070 KM Subbasin for I-17 from GC to ACDC.  
 2071 BA 0.293  
 2072 LG 0.10 0.25 4.80 0.25 99  
 2073 UC 0.895 0.911  
 2074 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2075 UA 100  
 \*

2076 KK D84m DIVERT  
 2077 KM Divert 249 cfs into pipe.  
 2078 DT D84mP  
 2079 DI 0 100 249 10000  
 2080 DQ 0 100 249 249  
 \*

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HEC-1 INPUT

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

2081 KK CC84m COMBINE  
 2082 KM Combine hydrographs C84m and D84m.  
 2083 HC 2 5.49  
 \*

2084 KK D84mE DIVERT  
 2085 KM Divert surface flow to south.  
 2086 DT D84mS  
 2087 DI 0 100 1000 10000  
 2088 DQ 0 38 384 3841  
 \*

2089 KK R84mE ROUTE  
 2090 KM Route surface flow east from Subbasin 84m to Subbasin 80m.  
 2091 RS 3 FLOW -1  
 2092 RC 0.050 0.016 0.050 2540 0.0008  
 2093 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2094 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2095 KK 80m BASIN  
 2096 KM Subbasin at NWC of Thomas Rd. & 19th Ave.  
 2097 BA 0.541  
 2098 LG 0.46 0.15 8.40 0.09 26  
 2099 UC 1.193 0.817  
 2100 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2101 UA 100  
 \*

2102 KK BD80kS RETRIEVE  
 2103 KM Retrieve diverted surface flow from D80kS.  
 2104 DR D80kS  
 \*

2105 KK R80kS ROUTE  
 2106 KM Route surface flow south from Subbasin 80k to Subbasin 80m.  
 2107 RS 3 FLOW -1  
 2108 RC 0.050 0.016 0.050 5900 0.0037  
 2109 RX 0 1 40 98 102 160 199 200  
 2110 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2111 KK C80m COMBINE  
 2112 KM Combine hydrographs R84mE, R80kS, and 80m.  
 2113 HC 3 6.03  
 \*

2114 KK D80mE DIVERT  
 2115 KM Divert surface flow to south.  
 2116 DT D80mS  
 2117 DI 0 100 1000 10000  
 2118 DQ 0 58 576 5763  
 \*

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HEC-1 INPUT

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

2119 KK R80mE ROUTE  
 2120 KM Route surface flow east from Subbasin 80m to Subbasin 76m.  
 2121 RS 3 FLOW -1  
 2122 RC 0.050 0.016 0.050 2640 0.0008

2123	RX	0	0.8	32	78.4	81.6	128	159.2	160		
2124	RY	3	1	0.5	0	0	0.5	1	3		
	*										
2125	KK	761	BASIN								
2126	KM	Subbasin at NEC of Indian School Rd. & 19th Ave.									
2127	BA	0.183									
2128	LG	0.66	0.15	8.80	0.07	22					
2129	UC	0.840	0.446								
2130	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
2131	UA	100									
	*										

2132	KK	BD80kP RETRIEVE									
2133	KM	Retrieve diverted pipe flow from D80kP.									
2134	DR	D80kP									
	*										

2135	KK	BD76kP RETRIEVE									
2136	KM	Retrieve diverted pipe flow from D76kP.									
2137	DR	D76kP									
	*										

2138	KK	C76kP COMBINE									
2139	KM	Combine hydrographs D76kP and D80kP.									
2140	HC	2	17.25								
	*										

2141	KK	P76kS	ROUTE								
2142	KM	Route pipe flow from Subbasin 80k to Indian School/19th Ave.									
2143	RK	1600	0.0039	0.015		CIRC	4.5				
	*										

2144	KK	BD76kS RETRIEVE									
2145	KM	Retrieve diverted surface flow from D76kS.									
2146	DR	D76kS									
	*										

2147	KK	R76kS	ROUTE								
2148	KM	Route surface flow south from Subbasin 76k to Subbasin 76l.									
2149	RS	1	FLOW	-1							
2150	RC	0.050	0.016	0.050	1700	0.0050					
2151	RX	0	1	40	98	102	160	199	200		
2152	RY	3	1	0.5	0	0	0.5	1	3		
	*										

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

2153	KK	C76kS COMBINE									
2154	KM	Combine hydrographs P76kS and R76kS.									
2155	HC	2	4.68								
	*										

2156	KK	C76l COMBINE									
2157	KM	Combine hydrographs 76l and C76kS.									
2158	HC	2	4.86								
	*										

2159	KK	D76l DIVERT									
2160	KM	Divert 156 cfs into pipe.									
2161	DT	D76lP									
2162	DI	0	100	156	10000						
2163	DQ	0	100	156	156						
	*										

2164	KK	R76lS	ROUTE								
2165	KM	Route surface flow south from Subbasin 76l to Subbasin 76m.									
2166	RS	3	FLOW	-1							
2167	RC	0.050	0.016	0.050	5280	0.0034					
2168	RX	0	1	40	98	102	160	199	200		
2169	RY	3	1	0.5	0	0	0.5	1	3		
	*										

2170	KK	BD76lP RETRIEVE									
2171	KM	Retrieve diverted pipe flow from D76lP.									
2172	DR	D76lP									
	*										

2173	KK	P76lS	ROUTE								
2174	KM	Route pipe flow from Indian School/19th Ave. to Thomas/19th Ave.									
2175	RK	5300	0.0037	0.015		CIRC	5.25				
	*										

2176	KK	C76lS COMBINE									
------	----	---------------	--	--	--	--	--	--	--	--	--

2177 KM Combine hydrographs R761S and P761S.  
 2178 HC 2 4.86  
 \*

2179 KK 76m BASIN  
 2180 KM Subbasin at NWC of Thomas Rd. & 15th Ave.  
 2181 BA 0.492  
 2182 LG 0.60 0.15 8.80 0.07 24  
 2183 UC 1.242 0.848  
 2184 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2185 UA 100  
 \*

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HEC-1 INPUT

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

2186 KK S76m STORAGE  
 2187 KM Online Local Retention Basin, 0.5 ac-ft.  
 2188 RS 1 STOR 0  
 2189 SV 0 0.47 2.27  
 2190 SE 0 2 4  
 2191 SS 2 100 2.7 1.5  
 \*

2192 KK C76m COMBINE  
 2193 KM Combine hydrographs R80mE, S76m, and C761S.  
 2194 HC 3 6.71  
 \*

2195 KK D76mP DIVERT  
 2196 KM Divert flow into pipe.  
 2197 KM Total Pipe flow = 191 cfs (32 cfs to east, 159 cfs to south)  
 2198 DT D76m  
 2199 DI 0 100 191 1000 10000  
 2200 DQ 0 0 0 809 9809  
 \*

2201 KK D76mP1 DIVERT  
 2202 KM Divert flow into pipe.  
 2203 KM Total Pipe flow = 191 cfs (32 cfs to east, 159 cfs to south)  
 2204 DT D76mP2  
 2205 DI 0 191 200  
 2206 DQ 0 32 34  
 \*

2207 KK 721 BASIN  
 2208 KM Subbasin at NWC of Indian School Rd. & 7th Ave.  
 2209 BA 0.215  
 2210 LG 1.24 0.15 8.80 0.07 26  
 2211 UC 1.375 1.275  
 2212 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2213 UA 100  
 \*

2214 KK BD72kP RETRIEVE  
 2215 KM Retrieve diverted pipe flow from D72kP.  
 2216 DR D72kP  
 \*

2217 KK P72kS ROUTE  
 2218 KM Route pipe flow from Grand Canal/15th Ave. to Indian School/15th Ave.  
 2219 RK 2850 0.0031 0.015 CIRC 6.75  
 \*

2220 KK BD72kS RETRIEVE  
 2221 KM Retrieve diverted surface flow from D72kS.  
 2222 DR D72kS  
 \*

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

2223 KK R72kS ROUTE  
 2224 KM Route surface flow south from Subbasin 72k to Subbasin 721.  
 2225 RS 2 FLOW -1  
 2226 RC 0.050 0.016 0.050 2900 0.0034  
 2227 RX 0 0.5 20 49 51 80 99.5 100  
 2228 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2229 KK C72kS COMBINE  
 2230 KM Combine hydrographs R72kS and P72kS.  
 2231 HC 2 12.99  
 \*

2232 KK C721 COMBINE  
 2233 KM Combine hydrographs 721 and C72kS.  
 2234 HC 2 13.21  
 \*

2235 KK D721 DIVERT  
 2236 KM Divert 305 cfs into pipe.  
 2237 DT D721P  
 2238 DI 0 100 305 10000  
 2239 DQ 0 100 305 305  
 \*

2240 KK R721S ROUTE  
 2241 KM Route surface flow south from Subbasin 721 to Subbasin 72m.  
 2242 RS 3 FLOW -1  
 2243 RC 0.050 0.016 0.050 5280 0.0030  
 2244 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2245 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2246 KK BD721P RETRIEVE  
 2247 KM Retrieve diverted pipe flow from D721P.  
 2248 DR D721P  
 \*

2249 KK P721S ROUTE  
 2250 KM Route pipe flow from Indian School/15th Ave. to Thomas/15th Ave.  
 2251 RK 5280 0.0045 0.015 CIRC 6.50  
 \*

2252 KK C721S COMBINE  
 2253 KM Combine hydrographs R721S and P721S.  
 2254 HC 2 13.21  
 \*

2255 KK 72m BASIN  
 2256 KM Subbasin at NWC of Thomas Rd. & 15th Ave.  
 2257 BA 0.468  
 2258 LG 0.31 0.15 8.80 0.08 27  
 2259 UC 1.308 0.995  
 2260 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 HEC-1 INPUT

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

2261 UA 100  
 \*

2262 KK C72m COMBINE  
 2263 KM Combine hydrographs 72m, C721S, and D76mP1.  
 2264 HC 3 13.67  
 \*

2265 KK 601 BASIN  
 2266 KM Subbasin at NEC of Indian School Rd. & 7th St.  
 2267 BA 0.234  
 2268 LG 0.37 0.25 4.80 0.37 30  
 2269 UC 1.184 0.897  
 2270 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2271 UA 100  
 \*

2272 KK B60kP2 RETRIEVE  
 2273 KM Retrieve diverted pipe flow from D60kP2.  
 2274 DR D60kP2  
 \*

2275 KK P60kS ROUTE  
 2276 KM Route pipe flow from Grand Canal/7th St. to Indian School/7th St.  
 2277 RK 2750 0.0030 0.015 CIRC 4.50  
 \*

2278 KK BD60kS RETRIEVE  
 2279 KM Retrieve diverted surface flow from D60kS.  
 2280 DR D60kS  
 \*

2281 KK R60kS ROUTE  
 2282 KM Route surface flow south from Subbasin 60k to Subbasin 601.  
 2283 RS 2 FLOW -1  
 2284 RC 0.050 0.016 0.050 1855 0.0054  
 2285 RX 0 0.5 20 49 51 80 99.5 100  
 2286 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2287 KK C60kS COMBINE  
 2288 KM Combine hydrographs R60kS and P60kS.  
 2289 HC 2 4.46  
 \*

2290 KK C601 COMBINE  
 2291 KM Combine hydrographs C60kS and 601.  
 2292 HC 2 4.69  
 \*

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HEC-1 INPUT

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

2293 KK D601 DIVERT  
 2294 KM Divert 93 cfs into pipe.  
 2295 DT D601P  
 2296 DI 0 93 1000 10000  
 2297 DQ 0 93 93 93  
 \*

2298 KK D601W DIVERT  
 2299 KM Divert surface flow to south.  
 2300 DT D601S  
 2301 DI 0 100 1000 10000  
 2302 DQ 0 73 727 7275  
 \*

2303 KK R601W ROUTE  
 2304 KM Route surface flow west from Subbasin 601 to Subbasin 641.  
 2305 RS 5 FLOW -1  
 2306 RC 0.050 0.016 0.050 2640 0.0008  
 2307 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 2308 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2309 KK 641 BASIN  
 2310 KM Subbasin at NEC of Indian School Rd. & Central Ave.  
 2311 BA 0.295  
 2312 LG 1.36 0.15 8.00 0.11 21  
 2313 UC 1.500 1.286  
 2314 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2315 UA 100  
 \*

2316 KK BD64kS RETRIEVE  
 2317 KM Retrieve diverted surface flow from D64kS.  
 2318 DR D64kS  
 \*

2319 KK R64kS ROUTE  
 2320 KM Route surface flow south from Subbasin 64k to Subbasin 641.  
 2321 RS 2 FLOW -1  
 2322 RC 0.050 0.016 0.050 2780 0.0043  
 2323 RX 0 0.5 20 49 51 80 99.5 100  
 2324 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2325 KK C641 COMBINE  
 2326 KM Combine hydrographs 641, R64kS, and R601W.  
 2327 HC 3 6.96  
 \*

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

2328 KK S641 STORAGE  
 2329 KM Online Regional Retention Basin, 35 ac-ft.  
 2330 RS 1 STOR 0  
 2331 SV 0 35 92  
 2332 SE 0 2 4  
 2333 SS 2 900 2.7 1.5  
 \*

2334 KK BD64kP RETRIEVE  
 2335 KM Retrieve diverted pipe flow from D64kP.  
 2336 DR D64kP  
 \*

2337 KK P64kS ROUTE  
 2338 KM Route pipe flow from Grand Canal/Central Ave. to Indian School/Central Ave.  
 2339 RK 3300 0.0034 0.015 CIRC 6.00  
 \*

2340 KK CC641 COMBINE



2398 KK BD681P RETRIEVE  
 2399 KM Retrieve diverted pipe flow from D681P.  
 2400 DR D681P  
 \*

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

2401 KK P681S ROUTE  
 2402 KM Route pipe flow from Indian School/7th Ave. to Thomas/7th Ave.  
 2403 RK 5300 0.0034 0.015 CIRC 4.75  
 \*

2404 KK C681S COMBINE  
 2405 KM Combine hydrographs R681S and P681S.  
 2406 HC 2 13.56  
 \*

2407 KK 24m BASIN  
 2408 KM Subbasin at NEC of Thomas Rd. & 44th St.  
 2409 BA 0.502  
 2410 LG 1.65 0.25 4.80 0.38 24  
 2411 UC 1.180 0.911  
 2412 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2413 UA 100  
 \*

2414 KK S24m STORAGE  
 2415 KM Online Local Retention Basin, 0.5 ac-ft.  
 2416 RS 1 STOR 0  
 2417 SV 0 0.5 1.2  
 2418 SE 0 2 4  
 2419 SS 2 100 2.7 1.5  
 \*

2420 KK BD24kS RETRIEVE  
 2421 KM Retrieve diverted surface flow from D24kS.  
 2422 DR D24kS  
 \*

2423 KK R24kS ROUTE  
 2424 KM Route surface flow south from Subbasin 24k to Subbasin 24m.  
 2425 RS 6 FLOW -1  
 2426 RC 0.050 0.016 0.050 5280 0.0087  
 2427 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 2428 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2429 KK C24m COMBINE  
 2430 KM Combine hydrographs S24m and R24kS.  
 2431 HC 2 0.69  
 \*

2432 KK D24mW DIVERT  
 2433 KM Divert surface flow to south.  
 2434 DT D24mS  
 2435 DI 0 100 1000 10000  
 2436 DQ 0 43 428 4278  
 \*

HEC-1 INPUT

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

2437 KK R24mW ROUTE  
 2438 KM Route surface flow west from Subbasin 24m to Subbasin 28m.  
 2439 RS 3 FLOW -1  
 2440 RC 0.050 0.016 0.050 2840 0.0045  
 2441 RX 0 1.8 72 176.4 183.6 288 358.2 360  
 2442 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2443 KK 28m BASIN  
 2444 KM Subbasin at NEC of Thomas Rd. & 40th St.  
 2445 BA 0.508  
 2446 LG 1.85 0.25 4.80 0.36 22  
 2447 UC 1.190 0.913  
 2448 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2449 UA 100  
 \*

2450 KK BD28kP RETRIEVE  
 2451 KM Retrieve diverted pipe flow from D28kP.  
 2452 DR D28kP

```

*
2453 KK P28kS ROUTE
2454 KM Route pipe flow from Indian School/40th St. to Thomas/40th St.
2455 RK 5300 0.0059 0.015 CIRC 4.50
*
2456 KK BD28kS RETRIEVE
2457 KM Retrieve diverted surface flow from D28kS.
2458 DR D28kS
*
2459 KK R28kS ROUTE
2460 KM Route surface flow south from Subbasin 28k to Subbasin 28m.
2461 RS 6 FLOW -1
2462 RC 0.050 0.016 0.050 5280 0.0076
2463 RX 0 1 40 98 102 160 199 200
2464 RY 3 1 0.5 0 0 0.5 1 3
*
2465 KK C28kS COMBINE
2466 KM Combine hydrographs R28kS and P28kS.
2467 HC 2 0.72
*
2468 KK C28m COMBINE
2469 KM Combine hydrographs 28m, C28kS, and R24mW.
2470 HC 3 1.73
*

```

HEC-1 INPUT

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

```

2471 KK D28m DIVERT
2472 KM Divert 211 cfs into pipe.
2473 DT D28mP
2474 DI 0 100 211 10000
2475 DQ 0 100 211 211
*

```

```

2476 KK D28mW DIVERT
2477 KM Divert surface flow to south.
2478 DT D28mS
2479 DI 0 100 1000 10000
2480 DQ 0 44 443 4427
*

```

```

2481 KK R28mW ROUTE
2482 KM Route surface flow west from Subbasin 28m to Subbasin 32m.
2483 RS 3 FLOW -1
2484 RC 0.050 0.016 0.050 2640 0.0038
2485 RX 0 1.3 52 127.4 132.6 208 258.7 260
2486 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

2487 KK 32m BASIN
2488 KM Subbasin at NEC of Thomas Rd. & 36th St.
2489 BA 0.514
2490 LG 1.32 0.25 4.80 0.36 27
2491 UC 1.182 0.900
2492 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
2493 UA 100
*

```

```

2494 KK S32m STORAGE
2495 KM Online Local Retention Basin, 0.6 ac-ft.
2496 RS 1 STOR 0
2497 SV 0 0.2 0.6 1.2
2498 SE 0 2 4 6
2499 SS 4 50 2.7 1.5
*

```

```

2500 KK BD32kP RETRIEVE
2501 KM Retrieve diverted pipe flow from D32kP.
2502 DR D32kP
*

```

```

2503 KK P32kS ROUTE
2504 KM Route pipe flow from Indian School/36th St. to Thomas/36th St.
2505 RK 5400 0.0044 0.015 CIRC 4.00
*

```

HEC-1 INPUT

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

```

2506      KK  BD32kS RETRIEVE
2507      KM  Retrieve diverted surface flow from D32kS.
2508      DR  D32kS
          *

2509      KK  R32kS  ROUTE
2510      KM  Route surface flow south from Subbasin 32k to Subbasin 32m.
2511      RS  6    FLOW      -1
2512      RC  0.050  0.016  0.050  5280  0.0076
2513      RX  0    1.05    42    102.9  107.1    168  208.95  210
2514      RY  3    1    0.5    0    0    0.5    1    3
          *

2515      KK  C32kS COMBINE
2516      KM  Combine hydrographs R32kS and P32kS.
2517      HC  2    1.23
          *

2518      KK  C32m COMBINE
2519      KM  Combine hydrographs S32m, C32kS, and R28mW.
2520      HC  3    2.75
          *

2521      KK  D32m DIVERT
2522      KM  Divert 66 cfs into 54" pipe.
2523      DT  D32mP
2524      DI  0    66    1000  10000
2525      DQ  0    66    66    66
          *

2526      KK  D32mW DIVERT
2527      KM  Divert surface flow to south.
2528      DT  D32mS
2529      DI  0    100  1000  10000
2530      DQ  0    43  430  4300
          *

2531      KK  R32mW  ROUTE
2532      KM  Route surface flow west from Subbasin 32m to Subbasin 36m.
2533      RS  2    FLOW      -1
2534      RC  0.050  0.016  0.050  2640  0.0023
2535      RX  0    1.35    54    132.3  137.7    216  268.65  270
2536      RY  3    1    0.5    0    0    0.5    1    3
          *

2537      KK  36m  BASIN
2538      KM  Subbasin at NEC of Thomas Rd. & 32nd St.
2539      BA  0.514
2540      LG  1.59  0.25  4.80  0.36  25
2541      UC  1.263  0.969
2542      UA  0    5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
2543      UA  100
          *

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

2544      KK  BD36kP RETRIEVE
2545      KM  Retrieve diverted pipe flow from D36kP.
2546      DR  D36kP
          *

2547      KK  P36kS  ROUTE
2548      KM  Route pipe flow from Indian School/32nd St. to Thomas/32nd St.
2549      RK  5300  0.0046  0.015    CIRC  3.50
          *

2550      KK  BD36kS RETRIEVE
2551      KM  Retrieve diverted surface flow from D36kS.
2552      DR  D36kS
          *

2553      KK  R36kS  ROUTE
2554      KM  Route surface flow south from Subbasin 36k to Subbasin 36m.
2555      RS  3    FLOW      -1
2556      RC  0.050  0.016  0.050  5280  0.0068
2557      RX  0    0.8    32    78.4  81.6    128  159.2  160
2558      RY  3    1    0.5    0    0    0.5    1    3
          *

2559      KK  C36kS COMBINE
2560      KM  Combine hydrographs R36kS and P36kS.
2561      HC  2    2.07
          *

```

2562 KK C36m COMBINE  
 2563 KM Combine hydrographs 36m, C36kS, and R32mW.  
 2564 HC 3 4.11  
 \*  
 2565 KK D36m DIVERT  
 2566 KM Divert 114 cfs into pipe.  
 2567 DT D36mP  
 2568 DI 0 100 114 10000  
 2569 DQ 0 100 114 114  
 \*  
 2570 KK D36mW DIVERT  
 2571 KM Divert surface flow to south.  
 2572 DT D36mS  
 2573 DI 0 100 1000 10000  
 2574 DQ 0 48 480 4800  
 \*  
 2575 KK R36mW ROUTE  
 2576 KM Route surface flow west from Subbasin 36m to Subbasin 40m.  
 2577 RS 2 FLOW -1  
 2578 RC 0.050 0.016 0.050 2640 0.0045  
 2579 RX 0 1.9 76 186.2 193.8 304 378.1 380  
 2580 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

2581 KK 40m BASIN  
 2582 KM Subbasin at NEC of Thomas Rd. & 28th St.  
 2583 BA 0.511  
 2584 LG 0.85 0.25 4.80 0.36 29  
 2585 UC 1.203 0.922  
 2586 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2587 UA 100  
 \*

2588 KK BD40kP RETRIEVE  
 2589 KM Retrieve diverted pipe flow from D40kP.  
 2590 DR D40kP  
 \*

2591 KK P40kS ROUTE  
 2592 KM Route pipe flow from Indian School/28th St. to Thomas/28th St.  
 2593 RK 5400 0.0041 0.015 CIRC 3.0  
 \*

2594 KK BD40kS RETRIEVE  
 2595 KM Retrieve diverted surface flow from D40kS.  
 2596 DR D40kS  
 \*

2597 KK R40kS ROUTE  
 2598 KM Route surface flow south from Subbasin 40k to Subbasin 40m.  
 2599 RS 5 FLOW -1  
 2600 RC 0.050 0.016 0.050 5280 0.0068  
 2601 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 2602 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2603 KK C40kS COMBINE  
 2604 KM Combine hydrographs R40kS and P40kS.  
 2605 HC 2 2.80  
 \*

2606 KK C40m COMBINE  
 2607 KM Combine hydrographs 40m, C40kS, and R36mW.  
 2608 HC 3 5.35  
 \*

2609 KK D40m DIVERT  
 2610 KM Divert 66 cfs flow into pipe.  
 2611 DT D40mP  
 2612 DI 0 66 500 1000  
 2613 DQ 0 66 66 66  
 \*

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

2614 KK D40mW DIVERT

```

2615      KM      Divert surface flow to south.
2616      DT      D40mS
2617      DI      0      100      1000      10000
2618      DQ      0      43      430      4300
          *

2619      KK      R40mW  ROUTE
2620      KM      Route surface flow west from Subbasin 40m to Subbasin 44m.
2621      RS      3      FLOW      -1
2622      RC      0.050  0.016  0.050  2640  0.0045
2623      RX      0      1.9      76      186.2  193.8      304  378.1      380
2624      RY      3      1      0.5      0      0      0.5      1      3
          *

2625      KK      44m  BASIN
2626      KM      Subbasin at NEC of Thomas Rd. & 24th St.
2627      BA      0.504
2628      LG      1.28      0.25      4.80      0.37      27
2629      UC      1.243  0.963
2630      UA      0      5.0      16.0      30.0      65.0      77.0      84.0      90.0      94.0      97.0
2631      UA      100
          *

2632      KK      BD44kP RETRIEVE
2633      KM      Retrieve diverted pipe flow from D44kP.
2634      DR      D44kP
          *

2635      KK      P44kS  ROUTE
2636      KM      Route pipe flow from Indian School/24th St. to Thomas/24th St.
2637      RK      5300  0.0033  0.015      CIRC  4.00
          *

2638      KK      BD44kS RETRIEVE
2639      KM      Retrieve diverted surface flow from D44kS.
2640      DR      D44kS
          *

2641      KK      R44kS  ROUTE
2642      KM      Route surface flow south from Subbasin 44k to Subbasin 44m.
2643      RS      3      FLOW      -1
2644      RC      0.050  0.016  0.050  5280  0.0064
2645      RX      0      0.75      30      73.5      76.5      120  149.25      150
2646      RY      3      1      0.5      0      0      0.5      1      3
          *

2647      KK      C44kS COMBINE
2648      KM      Combine hydrographs R44kS and P44kS.
2649      HC      2      3.93
          *

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

2650      KK      C44m COMBINE
2651      KM      Combine hydrographs 44m, C44kS, and R40mW.
2652      HC      3      6.98
          *

2653      KK      D44m DIVERT
2654      KM      Divert 124 cfs into pipe.
2655      DT      D44mP
2656      DI      0      100      124      10000
2657      DQ      0      100      124      124
          *

2658      KK      D44mW DIVERT
2659      KM      Divert surface flow to south.
2660      DT      D44mS
2661      DI      0      100      1000      10000
2662      DQ      0      42      424      4242
          *

2663      KK      R44mW  ROUTE
2664      KM      Route surface flow west from Subbasin 44m to Subbasin 48m.
2665      RS      2      FLOW      -1
2666      RC      0.050  0.016  0.050  2700  0.0023
2667      RX      0      2.1      84      205.8  214.2      336  417.9      420
2668      RY      3      1      0.5      0      0      0.5      1      3
          *

2669      KK      24o  BASIN
2670      KM      Subbasin at NEC of McDowell Rd. & 44th St.
2671      BA      0.504
2672      LG      1.13      0.25      4.80      0.37      30

```

2673 UC 1.282 0.997  
 2674 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2675 UA 100  
 \*

2676 KK BD24mS RETRIEVE  
 2677 KM Retrieve diverted surface flow from D24mS.  
 2678 DR D24mS  
 \*

2679 KK R24mS ROUTE  
 2680 KM Route surface flow south from Subbasin 24m to Subbasin 24o.  
 2681 RS 5 FLOW -1  
 2682 RC 0.050 0.016 0.050 5280 0.0061  
 2683 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2684 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

2685 KK C24o COMBINE  
 2686 KM Combine hydrographs 24o and R24mS.  
 2687 HC 2 1.20  
 \*

2688 KK D24o DIVERT  
 2689 KM Divert 48 cfs into pipe.  
 2690 DT D24oP  
 2691 DI 0 48 1000 10000  
 2692 DQ 0 48 48 48  
 \*

2693 KK D24oW DIVERT  
 2694 KM Divert surface flow to south.  
 2695 DT D24oS  
 2696 DI 0 100 1000 10000  
 2697 DQ 0 38 378 3782  
 \*

2698 KK R24oW ROUTE  
 2699 KM Route surface flow west from Subbasin 24o to Subbasin 28o.  
 2700 RS 2 FLOW -1  
 2701 RC 0.050 0.016 0.050 2640 0.0053  
 2702 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 2703 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2704 KK 28o BASIN  
 2705 KM Subbasin at NEC of McDowell Rd. & 40th St.  
 2706 BA 0.500  
 2707 LG 1.64 0.25 4.80 0.36 23  
 2708 UC 1.311 1.026  
 2709 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2710 UA 100  
 \*

2711 KK BD28mP RETRIEVE  
 2712 KM Retrieve diverted pipe flow from D28mP.  
 2713 DR D28mP  
 \*

2714 KK P28mS ROUTE  
 2715 KM Route pipe flow from Thomas/40th St. to McDowell/40th St.  
 2716 RK 5280 0.0033 0.015 CIRC 6.00  
 \*

2717 KK BD28mS RETRIEVE  
 2718 KM Retrieve diverted surface flow from D28mS.  
 2719 DR D28mS  
 \*

HEC-1 INPUT

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

2720 KK R28mS ROUTE  
 2721 KM Route surface flow south from Subbasin 28m to Subbasin 28o.  
 2722 RS 5 FLOW -1  
 2723 RC 0.050 0.016 0.050 5280 0.0061  
 2724 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 2725 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2726 KK C28mS COMBINE

2727 KM Combine hydrographs R28mS and P28mS.  
2728 HC 2 1.73  
\*

2729 KK C28o COMBINE  
2730 KM Combine hydrographs 28o, C28mS, and R24oW.  
2731 HC 3 2.73  
\*

2732 KK D28o DIVERT  
2733 KM Divert 367 cfs into pipe.  
2734 DT D28oP  
2735 DI 0 100 367 10000  
2736 DQ 0 100 367 367  
\*

2737 KK D28oW DIVERT  
2738 KM Divert surface flow to south.  
2739 DT D28oS  
2740 DI 0 100 1000 10000  
2741 DQ 0 42 419 4194  
\*

2742 KK R28oW ROUTE  
2743 KM Route surface flow west from Subbasin 28o to Subbasin 32o.  
2744 RS 3 FLOW -1  
2745 RC 0.050 0.016 0.050 2640 0.0038  
2746 RX 0 1.85 74 181.3 188.7 296 368.15 370  
2747 RY 3 1 0.5 0 0 0.5 1 3  
\*

2748 KK 32o BASIN  
2749 KM Subbasin at NEC of McDowell Rd. & 36th St.  
2750 BA 0.500  
2751 LG 1.19 0.25 4.80 0.37 26  
2752 UC 1.278 0.997  
2753 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
2754 UA 100  
\*

HEC-1 INPUT

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

2755 KK BD32mS RETRIEVE  
2756 KM Retrieve diverted surface flow from D32mS.  
2757 DR D32mS  
\*

2758 KK R32mS ROUTE  
2759 KM Route surface flow south from Subbasin 32m to Subbasin 32o.  
2760 RS 3 FLOW -1  
2761 RC 0.050 0.016 0.050 5280 0.0061  
2762 RX 0 1 40 98 102 160 199 200  
2763 RY 3 1 0.5 0 0 0.5 1 3  
\*

2764 KK BD32mP RETRIEVE  
2765 KM Retrieve diverted pipe flow from D32mP.  
2766 DR D32mP  
\*

2767 KK P32mS ROUTE  
2768 KM Route pipe flow from Thomas/36th St. to McDowell/36nd St.  
2769 RK 5280 0.0060 0.015 CIRC 4.5  
\*

2770 KK C32mS COMBINE  
2771 KM Combine hydrographs P32mW and R32mS.  
2772 HC 2 2.75  
\*

2773 KK C32o COMBINE  
2774 KM Combine hydrographs 32o, C32mS, and R28oW.  
2775 HC 3 4.25  
\*

2776 KK D32o DIVERT  
2777 KM Divert 160 cfs flow into 72" pipe (south).  
2778 DT D32oP  
2779 DI 0 160 1000 10000  
2780 DQ 0 160 160 160  
\*

2781 KK D32oW DIVERT  
2782 KM Divert surface flow to south.

2783	DT	D32oS								
2784	DI	0	100	1000	10000					
2785	DQ	0	44	442	4415					
	*									
2786	KK	R32oW	ROUTE							
2787	KM	Route	surface flow west from Subbasin 32o to Subbasin 36o.							
2788	RS	3	FLOW	-1						
2789	RC	0.050	0.016	0.050	2640	0.0030				
2790	RX	0	0.8	32	78.4	81.6	128	159.2	160	
2791	RY	3	1	0.5	0	0	0.5	1	3	
	*									

HEC-1 INPUT

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

2792	KK	36o	BASIN							
2793	KM	Subbasin	at NEC of McDowell Rd. & 32nd St.							
2794	BA	0.500								
2795	LG	0.66	0.25	4.80	0.36	24				
2796	UC	1.302	1.018							
2797	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	97.0
2798	UA	100								
	*									

2799	KK	BD36mP	RETRIEVE							
2800	KM	Retrieve	diverted pipe flow from D36mP.							
2801	DR	D36mP								
	*									

2802	KK	P36mS	ROUTE							
2803	KM	Route	pipe flow from Thomas/32nd St. to McDowell/32nd St.							
2804	RK	5300	0.0045	0.015		CIRC	4.50			
	*									

2805	KK	BD36mS	RETRIEVE							
2806	KM	Retrieve	diverted surface flow from D36mS.							
2807	DR	D36mS								
	*									

2808	KK	R36mS	ROUTE							
2809	KM	Route	surface flow south from Subbasin 36m to Subbasin 36o.							
2810	RS	4	FLOW	-1						
2811	RC	0.050	0.016	0.050	5280	0.0057				
2812	RX	0	1.25	50	122.5	127.5	200	248.75	250	
2813	RY	3	1	0.5	0	0	0.5	1	3	
	*									

2814	KK	C36mS	COMBINE							
2815	KM	Combine	hydrographs R36mS and P36mS.							
2816	HC	2	4.11							
	*									

2817	KK	C36o	COMBINE							
2818	KM	Combine	hydrographs 36o, C36mS, and R32oW.							
2819	HC	3	6.12							
	*									

2820	KK	D36o	DIVERT							
2821	KM	Divert	139 cfs into pipe.							
2822	DT	D36oP								
2823	DI	0	100	139	10000					
2824	DQ	0	100	139	139					
	*									

HEC-1 INPUT

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

2825	KK	D36oW	DIVERT							
2826	KM	Divert	surface flow to south.							
2827	DT	D36oS								
2828	DI	0	100	1000	10000					
2829	DQ	0	43	430	4300					
	*									

2830	KK	R36oW	ROUTE							
2831	KM	Route	surface flow west from Subbasin 36o to Subbasin 40o.							
2832	RS	3	FLOW	-1						
2833	RC	0.050	0.016	0.050	2000	0.0022				
2834	RX	0	1.65	66	161.7	168.3	264	328.35	330	
2835	RY	3	1	0.5	0	0	0.5	1	3	
	*									

2836	KK	B40mP	RETRIEVE							
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2837      KM      Retrieve diverted pipe flow from D40mP.
2838      DR      D40mP
          *

2839      KK      P40mS  ROUTE
2840      KM      Route pipe flow from Thomas/28th St. to McDowell/28th St.
2841      RK      3800  0.0041  0.015          CIRC  4.50
          *

2842      KK      BD40mS RETRIEVE
2843      KM      Retrieve diverted surface flow from D40mS.
2844      DR      D40mS
          *

2845      KK      R40mS  ROUTE
2846      KM      Route surface flow south from Subbasin 40m to Subbasin 40o.
2847      RS      5      FLOW      -1
2848      RC      0.050  0.016  0.050  4900  0.0053
2849      RX      0      1.55    62    151.9  158.1    248  308.45    310
2850      RY      3      1      0.5    0      0      0.5    1      3
          *

2851      KK      C40mS COMBINE
2852      KM      Combine hydrographs R40mS and P40mS.
2853      HC      2      5.35
          *

2854      KK      40o  BASIN
2855      KM      Subbasin at NEC of Grand Canal & 28th St.
2856      BA      0.465
2857      LG      1.13    0.24    4.80    0.36    23
2858      UC      1.269  0.909
2859      UA      0      5.0    16.0    30.0    65.0    77.0    84.0    90.0    94.0    97.0
2860      UA      100
          *

          HEC-1 INPUT

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

2861      KK      C40o COMBINE
2862      KM      Combine hydrographs 40o, C40mS, and R36oW.
2863      HC      3      7.82
          *

2864      KK      D40o DIVERT
2865      KM      Divert 70 cfs into pipe.
2866      DT      D40oP
2867      DI      0      70    1000  10000
2868      DQ      0      70    70    70
          *

2869      KK      D40oW DIVERT
2870      KM      Divert surface flow to south.
2871      DT      D40oS
2872      DI      0      51    224    454    788    1511
2873      DQ      0      0      85    225    441    927
          *

2874      KK      R40oW  ROUTE
2875      KM      Route surface flow west from Subbasin 40o to Subbasin 44o.
2876      RS      6      FLOW      -1
2877      RC      0.050  0.016  0.050  3500  0.0012
2878      RX      0      1.35    54    132.3  137.7    216  268.65    270
2879      RY      3      1      0.5    0      0      0.5    1      3
          *

2880      KK      44o  BASIN
2881      KM      Subbasin at NEC of Grand Canal & 24th St.
2882      BA      0.229
2883      LG      1.41    0.24    4.80    0.36    21
2884      UC      1.119  0.821
2885      UA      0      5.0    16.0    30.0    65.0    77.0    84.0    90.0    94.0    97.0
2886      UA      100
          *

2887      KK      BD44mP RETRIEVE
2888      KM      Retrieve diverted pipe flow from D44mP.
2889      DR      D44mP
          *

2890      KK      P44mS  ROUTE
2891      KM      Route pipe flow from Thomas/24th St to McDowell/24th St.
2892      RK      1150  0.0030  0.015          CIRC  5.0
          *

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2893 KK BD44mS RETRIEVE  
 2894 KM Retrieve diverted surface flow from D44mS.  
 2895 DR D44mS  
 \*

HEC-1 INPUT

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

2896 KK R44mS ROUTE  
 2897 KM Route surface flow south from Subbasin 44m to Subbasin 44o.  
 2898 RS 2 FLOW -1  
 2899 RC 0.050 0.016 0.050 2400 0.0058  
 2900 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 2901 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2902 KK C44mS COMBINE  
 2903 KM Combine hydrographs R44mS and P44mS.  
 2904 HC 2 6.98  
 \*

2905 KK C44o COMBINE  
 2906 KM Combine hydrographs 44o, C44mS, and R40oW.  
 2907 HC 3 9.68  
 \*

2908 KK D44o DIVERT  
 2909 KM Divert 124 cfs into pipe.  
 2910 DT D44oP  
 2911 DI 0 100 124 10000  
 2912 DQ 0 100 124 124  
 \*

2913 KK D44oW DIVERT  
 2914 KM Divert surface flow to south.  
 2915 DT D44oS  
 2916 DI 0 27 198 433 769 1484  
 2917 DQ 0 0 119 299 561 1124  
 \*

2918 KK R44oW ROUTE  
 2919 KM Route surface flow west from Subbasin 44o to Subbasin 48m.  
 2920 RS 8 FLOW -1  
 2921 RC 0.050 0.016 0.050 4000 0.0006  
 2922 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2923 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2924 KK C44mW COMBINE  
 2925 KM Combine hydrographs R44mW and R44oW.  
 2926 HC 2 9.68  
 \*

2927 KK 48m BASIN  
 2928 KM Subbasin at NEC of Grand Canal & 20th St.  
 2929 BA 0.481  
 2930 LG 1.04 0.24 4.80 0.36 26  
 2931 UC 1.248 0.875  
 2932 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 2933 UA 100  
 \*

HEC-1 INPUT

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

2934 KK BD48kS RETRIEVE  
 2935 KM Retrieve diverted surface flow from D48kS.  
 2936 DR D48kS  
 \*

2937 KK R48kS ROUTE  
 2938 KM Route surface flow south from Subbasin 48k to Subbasin 48m.  
 2939 RS 3 FLOW -1  
 2940 RC 0.050 0.016 0.050 4500 0.0048  
 2941 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 2942 RY 3 1 0.5 0 0 0.5 1 3  
 \*

2943 KK C48m COMBINE  
 2944 KM Combine hydrographs 48m, C44mW, and R48kS.  
 2945 HC 3 11.19  
 \*

2946 KK BD52kP RETRIEVE

```

2947      KM      Retrieve diverted pipe flow from D52kP.
2948      DR      D52kP
          *

2949      KK      P52kS  ROUTE
2950      KM      Route pipe flow from Indian School/SR51 to Grand Canal/SR51.
2951      RK      4500  0.0030  0.015          CIRC  6.0
          *

2952      KK      BD52kS RETRIEVE
2953      KM      Retrieve diverted surface flow from D52kS.
2954      DR      D52kS
          *

2955      KK      R52kS  ROUTE
2956      KM      Route surface flow south from Subbasin 52k to Subbasin 52m.
2957      RS      2      FLOW      -1
2958      RC      0.050  0.016  0.050  2600  0.0046
2959      RX      0      0.75   30     73.5  76.5   120  149.25  150
2960      RY      3      1      0.5    0      0      0.5   1      3
          *

2961      KK      C52kS COMBINE
2962      KM      Combine hydrographs R52kS and P52kS.
2963      HC      2      5.83
          *

2964      KK      52m  BASIN
2965      KM      Subbasin at NEC of Grand Canal & SR51.
2966      BA      0.177
2967      LG      0.54  0.23   4.80  0.35   16
2968      UC      1.037  0.668
2969      UA      0      5.0   16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
2970      UA      100
          *

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

2971      KK      C52m COMBINE
2972      KM      Combine hydrographs 52m and C52kS.
2973      HC      2      6.01
          *

2974      KK      CC52m COMBINE
2975      KM      Combine hydrographs C52m and C48m.
2976      HC      2      12.24
          *

2977      KK      D52m DIVERT
2978      KM      Divert 364 cfs into pipe.
2979      KM      Pipe flow along 52m to south
2980      DT      D52mP
2981      DI      0      100   364  10000
2982      DQ      0      100   364  364
          *

2983      KK      D52mW DIVERT
2984      KM      Total split flow of 48m and 52m, 10% to west
2985      DT      D52mS
2986      DI      0      100   1000  10000
2987      DQ      0      90    900   9000
          *

2988      KK      R52mW  ROUTE
2989      KM      Route surface flow west from Subbasin 52m to Subbasin 54m.
2990      RS      2      FLOW      -1
2991      RC      0.050  0.016  0.050  2650  0.0066
2992      RX      0      0.3   12     29.4  30.6   48   59.7   60
2993      RY      3      1      0.5    0      0      0.5   1      3
          *

2994      KK      54m  BASIN
2995      KM      Subbasin at NEC of Thomas Rd. & 16th St.
2996      BA      0.271
2997      LG      0.56   0.25   4.80  0.37   31
2998      UC      0.969  0.597
2999      UA      0      5.0   16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
3000      UA      100
          *

3001      KK      BD54kP RETRIEVE
3002      KM      Retrieve diverted pipe flow from D54kP.
3003      DR      D54kP
          *

```

3004 KK P54KS ROUTE  
 3005 KM Route pipe flow from Grand Canal/16th St. to Thomas/16th St.  
 3006 RK 5000 0.0030 0.015 CIRC 5.0  
 \*

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

3007 KK BD54KS RETRIEVE  
 3008 KM Retrieve diverted surface flow from D54KS.  
 3009 DR D54KS  
 \*

3010 KK R54KS ROUTE  
 3011 KM Route surface flow south from Subbasin 54k to Subbasin 54m.  
 3012 RS 3 FLOW -1  
 3013 RC 0.050 0.016 0.050 4500 0.0057  
 3014 RX 0 0.5 20 49 51 80 99.5 100  
 3015 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3016 KK C54KS COMBINE  
 3017 KM Combine hydrographs R54KS and P54KS.  
 3018 HC 2 1.18  
 \*

3019 KK C54m COMBINE  
 3020 KM Combine hydrographs 54m, C54KS, and R52mW.  
 3021 HC 3 1.66  
 \*

3022 KK D54m DIVERT  
 3023 KM Divert 124 cfs into pipe.  
 3024 DT D54mP  
 3025 DI 0 100 124 10000  
 3026 DQ 0 100 124 124  
 \*

3027 KK D54mW DIVERT  
 3028 KM Divert surface flow to south.  
 3029 DT D54mS  
 3030 DI 0 100 1000 10000  
 3031 DQ 0 40 400 4000  
 \*

3032 KK R54mW ROUTE  
 3033 KM Route surface flow west from Subbasin 54m to Subbasin 56m.  
 3034 RS 2 FLOW -1  
 3035 RC 0.050 0.016 0.050 2640 0.0030  
 3036 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3037 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3038 KK 56m BASIN  
 3039 KM Subbasin at NEC of Thomas Rd. & 12th St.  
 3040 BA 0.576  
 3041 LG 0.86 0.25 4.90 0.36 26  
 3042 UC 1.500 1.296  
 3043 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3044 UA 100  
 \*

HEC-1 INPUT

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

3045 KK BD56kP RETRIEVE  
 3046 KM Retrieve diverted pipe flow from D56kP.  
 3047 DR D56kP  
 \*

3048 KK P56KS ROUTE  
 3049 KM Route pipe flow from Grand Canal/12th St. to Thomas/12th St.  
 3050 RK 7350 0.0030 0.015 CIRC 7.0  
 \*

3051 KK BD56kS RETRIEVE  
 3052 KM Retrieve diverted surface flow from D56kS.  
 3053 DR D56kS  
 \*

3054 KK R56KS ROUTE  
 3055 KM Route surface flow south from Subbasin 56k to Subbasin 56m.  
 3056 RS 5 FLOW -1

3057	RC	0.050	0.016	0.050	6070	0.0033				
3058	RX	0	0.5	20	49	51	80	99.5	100	
3059	RY	3	1	0.5	0	0	0.5	1	3	
	*									
3060	KK	C56kS COMBINE								
3061	KM	Combine hydrographs R56kS and P56kS.								
3062	HC	2	4.46							
	*									
3063	KK	C56m COMBINE								
3064	KM	Combine hydrographs 56m, C56kS, and R54mW.								
3065	HC	3	5.50							
	*									
3066	KK	D56m DIVERT								
3067	KM	Divert 433 cfs into pipe.								
3068	DT	D56mP								
3069	DI	0	100	433	10000					
3070	DQ	0	100	433	433					
	*									
3071	KK	D56mW DIVERT								
3072	KM	Divert surface flow to south.								
3073	DT	D56mS								
3074	DI	0	100	1000	10000					
3075	DQ	0	39	389	3892					
	*									
3076	KK	R56mW ROUTE								
3077	KM	Route surface flow west from Subbasin 56m to Subbasin 60m.								
3078	RS	3	FLOW	-1						
3079	RC	0.050	0.016	0.050	2640	0.0023				
3080	RX	0	1.8	72	176.4	183.6	288	358.2	360	
3081	RY	3	1	0.5	0	0	0.5	1	3	
	*									

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

3082	KK	60m BASIN								
3083	KM	Subbasin at NEC of Thomas Rd. & 7th St.								
3084	BA	0.500								
3085	LG	0.84	0.25	5.80	0.25	16				
3086	UC	1.500	1.334							
3087	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
3088	UA	100								
	*									
3089	KK	BD601P RETRIEVE								
3090	KM	Retrieve diverted pipe flow from D601P.								
3091	DR	D601P								
	*									
3092	KK	P601S ROUTE								
3093	KM	Route pipe flow from Indian School/7th St. to Thomas/7th St.								
3094	RK	5300	0.0030	0.015		CIRC	4.50			
	*									
3095	KK	BD601S RETRIEVE								
3096	KM	Retrieve diverted surface flow from D601S.								
3097	DR	D601S								
	*									
3098	KK	R601S ROUTE								
3099	KM	Route surface flow south from Subbasin 601 to Subbasin 60m.								
3100	RS	5	FLOW	-1						
3101	RC	0.050	0.016	0.050	5280	0.0038				
3102	RX	0	1.3	52	127.4	132.6	208	258.7	260	
3103	RY	3	1	0.5	0	0	0.5	1	3	
	*									
3104	KK	C601S COMBINE								
3105	KM	Combine hydrographs R601S and P601S.								
3106	HC	2	4.69							
	*									
3107	KK	C60m COMBINE								
3108	KM	Combine hydrographs 60m, C601S, and R56mW.								
3109	HC	3	6.24							
	*									
3110	KK	D60m DIVERT								
3111	KM	Divert 124 cfs into pipe.								
3112	DT	D60mP								

3113 DI 0 100 124 10000  
 3114 DQ 0 100 124 124  
 \*

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

3115 KK D60mW DIVERT  
 3116 KM Divert surface flow to south.  
 3117 DT D60mS  
 3118 DI 0 100 1000 10000  
 3119 DQ 0 52 520 5199  
 \*

3120 KK R60mW ROUTE  
 3121 KM Route surface flow west from Subbasin 60m to Subbasin 64m.  
 3122 RS 4 FLOW -1  
 3123 RC 0.050 0.016 0.050 2640 0.0008  
 3124 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 3125 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3126 KK 64m BASIN  
 3127 KM Subbasin at NEC of Thomas Rd. & Central Ave.  
 3128 BA 0.500  
 3129 LG 0.29 0.15 8.40 0.09 49  
 3130 UC 1.355 1.064  
 3131 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3132 UA 100  
 \*

3133 KK BD641P RETRIEVE  
 3134 KM Retrieve diverted pipe flow from D641P.  
 3135 DR D641P  
 \*

3136 KK P641S ROUTE  
 3137 KM Route pipe flow from Indian School/Central Ave. to Thomas/Central Ave.  
 3138 RK 5280 0.0030 0.015 CIRC 7.00  
 \*

3139 KK BD641S RETRIEVE  
 3140 KM Retrieve diverted surface flow from D641S.  
 3141 DR D641S  
 \*

3142 KK R641S ROUTE  
 3143 KM Route surface flow south from Subbasin 641 to Subbasin 64m.  
 3144 RS 8 FLOW -1  
 3145 RC 0.050 0.016 0.050 5280 0.0030  
 3146 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 3147 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3148 KK C641S COMBINE  
 3149 KM Combine hydrographs R641S and P641S.  
 3150 HC 2 6.96  
 \*

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

3151 KK 68m BASIN  
 3152 KM Subbasin at NEC of Thomas Rd. & 7th Ave.  
 3153 BA 0.550  
 3154 LG 0.14 0.15 8.80 0.08 57  
 3155 UC 1.354 1.024  
 3156 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3157 UA 100  
 \*

3158 KK D68mP2 DIVERT  
 3159 KM Divert flow into pipe.  
 3160 KM pipe flow to east = 34 cfs  
 3161 DT D68m  
 3162 DI 0 34 100 1000 10000  
 3163 DQ 0 0 66 966 9966  
 \*

3164 KK C64m COMBINE  
 3165 KM Combine hydrographs 64m, C641S, D68mP2, and R60mW.  
 3166 HC 4 9.55  
 \*

3167 KK D64m DIVERT  
 3168 KM Divert 399 cfs into pipe.  
 3169 DT D64mP  
 3170 DI 0 100 399 10000  
 3171 DQ 0 100 399 399  
 \*

3172 KK D64mW DIVERT  
 3173 KM Divert surface flow to south.  
 3174 DT D64mS  
 3175 DI 0 100 1000 10000  
 3176 DQ 0 62 618 6176  
 \*

3177 KK R64mW ROUTE  
 3178 KM Route surface flow west from Subbasin 64m to Subbasin 68m.  
 3179 RS 5 FLOW -1  
 3180 RC 0.050 0.016 0.050 2640 0.0010  
 3181 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 3182 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3183 KK BD68m RETRIEVE  
 3184 KM Retrieve diverted surface flow from D68m.  
 3185 DR D68m  
 \*

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

3186 KK C68m COMBINE  
 3187 KM Combine hydrographs C681S, D68m, and R64mW.  
 3188 HC 3 16.15  
 \*

3189 KK D68m2 DIVERT  
 3190 KM Divert 144 cfs into pipe.  
 3191 DT D68mP  
 3192 DI 0 100 144 10000  
 3193 DQ 0 100 144 144  
 \*

3194 KK D68mW DIVERT  
 3195 KM Divert surface flow to south.  
 3196 DT D68mS  
 3197 DI 0 100 1000 10000  
 3198 DQ 0 83 830 8300  
 \*

3199 KK R68mW ROUTE  
 3200 KM Route surface flow west from Subbasin 68m to Subbasin 72m.  
 3201 RS 5 FLOW -1  
 3202 RC 0.050 0.016 0.050 2640 0.0008  
 3203 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3204 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3205 KK CC72m COMBINE  
 3206 KM Combine hydrographs C72m and R68mW.  
 3207 HC 2 17.12  
 \*

3208 KK D72m DIVERT  
 3209 KM Divert 308 cfs into pipe.  
 3210 DT D72mP  
 3211 DI 0 100 308 10000  
 3212 DQ 0 100 308 308  
 \*

3213 KK R72mS ROUTE  
 3214 KM Route surface flow south from Subbasin 72m to Subbasin 72o.  
 3215 RS 6 FLOW -1  
 3216 RC 0.050 0.016 0.050 6900 0.0020  
 3217 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 3218 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3219 KK BD72mP RETRIEVE  
 3220 KM Retrieve diverted pipe flow from D72mP.  
 3221 DR D72mP  
 \*

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

3222 KK P72mS ROUTE  
 3223 KM Route pipe flow from Thomas/15th Ave. to I-10/15th Ave.  
 3224 RK 6900 0.0030 0.015 CIRC 7.0  
 \*

3225 KK C72mS COMBINE  
 3226 KM Combine hydrographs R72mS and P72mS.  
 3227 HC 2 17.12  
 \*

3228 KK BD24oS RETRIEVE  
 3229 KM Retrieve diverted surface flow from D24oS.  
 3230 DR D24oS  
 \*

3231 KK R24oS ROUTE  
 3232 KM Route surface flow south from Subbasin 24o to Subbasin 28p.  
 3233 RS 3 FLOW -1  
 3234 RC 0.050 0.016 0.050 3500 0.0081  
 3235 RX 0 1 40 98 102 160 199 200  
 3236 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3237 KK BD28oS RETRIEVE  
 3238 KM Retrieve diverted pipe flow from D28oS.  
 3239 DR D28oS  
 \*

3240 KK P28oS ROUTE  
 3241 KM Route pipe flow from McDowell/40th St. to Loop 202/40th St.  
 3242 RK 2500 0.0044 0.015 CIRC 7.00  
 \*

3243 KK BD28oS RETRIEVE  
 3244 KM Retrieve diverted surface flow from D28oS.  
 3245 DR D28oS  
 \*

3246 KK R28oS ROUTE  
 3247 KM Route surface flow south from Subbasin 28o to Subbasin 28p.  
 3248 RS 2 FLOW -1  
 3249 RC 0.050 0.016 0.050 2800 0.0112  
 3250 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 3251 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3252 KK C28oS COMBINE  
 3253 KM Combine hydrographs R28oS and P28oS.  
 3254 HC 2 2.73  
 \*

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

3255 KK C28p COMBINE  
 3256 KM Combine hydrographs C28oS and R24oS.  
 3257 HC 2 2.73  
 \*

3258 KK 28p BASIN  
 3259 KM Subbasin at NEC of Loop 202 & 40th St.  
 3260 BA 0.372  
 3261 LG 1.02 0.25 4.80 0.36 26  
 3262 UC 1.150 0.855  
 3263 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3264 UA 100  
 \*

3265 KK S28p STORAGE  
 3266 KM Online Local Retention Basin, 0.8 ac-ft.  
 3267 RS 1 STOR 0  
 3268 SV 0 0.2 0.8 1.5  
 3269 SE 0 2 4 6  
 3270 SS 4 100 2.7 1.5  
 \*

3271 KK CC28p COMBINE  
 3272 KM Combine hydrographs C28p and S28p.  
 3273 HC 2 3.11  
 \*

3274 KK D28p DIVERT  
 3275 KM Divert flow into pipe.  
 3276 KM Total pipe flow = 279 cfs (201 cfs to south, 68 cfs to east)

3277	DT	D28pP								
3278	DI	0	100	279	10000					
3279	DQ	0	100	279	279					
	*									
3280	KK	R28pW	ROUTE							
3281	KM	Route	surface flow west from Subbasin 28p to Subbasin 32p.							
3282	RS	3	FLOW	-1						
3283	RC	0.050	0.016	0.050	2640	0.0030				
3284	RX	0	0.8	32	78.4	81.6	128	159.2	160	
3285	RY	3	1	0.5	0	0	0.5	1	3	
	*									
3286	KK	32p	BASIN							
3287	KM	Subbasin	at NEC of Loop 202 & 36th St.							
3288	BA	0.234								
3289	LG	0.28	0.25	4.80	0.33	3				
3290	UC	1.500	1.477							
3291	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0
3292	UA	100								
	*									

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

3293	KK	BD32oS	RETRIEVE							
3294	KM	Retrieve	diverted surface flow from D32oS.							
3295	DR	D32oS								
	*									
3296	KK	R32oS	ROUTE							
3297	KM	Route	surface flow south from Subbasin 32o to Subbasin 32p.							
3298	RS	2	FLOW	-1						
3299	RC	0.050	0.016	0.050	2540	0.0071				
3300	RX	0	0.5	20	49	51	80	99.5	100	
3301	RY	3	1	0.5	0	0	0.5	1	3	
	*									

3302	KK	C32p	COMBINE							
3303	KM	Combine	hydrographs 32p and R32oS.							
3304	HC	2	4.49							
	*									

3305	KK	S32p	STORAGE							
3306	KM	Online	Regional Detention Basin, 57 ac-ft.							
3307	RS	1	STOR	0						
3308	SV	0	3.5	13.8	32.9	57.4	83.7			
3309	SE	0	2	4	6	8	10			
3310	SL	2	12.56	0.62	0.5					
3311	SS	8	20	2.7	1.5					
	*									

3312	KK	BD32oP	RETRIEVE							
3313	KM	Retrieve	diverted pipe flow from D32oP.							
3314	DR	D32oP								
	*									

3315	KK	P32oS	ROUTE							
3316	KM	Route	pipe flow from McDowell/36th St. to SR202L/36th ST.							
3317	RK	2500	0.0060	0.015		CIRC	6.0			
	*									

3318	KK	CC32p	COMBINE							
3319	KM	Combine	hydrographs P32oS, R28pW and S32p.							
3320	HC	3	4.86							
	*									

3321	KK	D32pW	DIVERT							
3322	KM	Divert	flow to pipe.							
3323	DT	D32pS								
3324	DI	0	100	1000	10000					
3325	DQ	0	10	150	600					
	*									

1

HEC-1 INPUT

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

3326	KK	D32p	DIVERT							
3327	KM	Divert	379 cfs into pipe.							
3328	DT	D32pP								
3329	DI	0	100	379	1000	10000				
3330	DQ	0	100	379	379	379				
	*									

```

3331 KK R32pW ROUTE
3332 KM Route surface flow west from Subbasin 32p to Subbasin 36p.
3333 RS 3 FLOW -1
3334 RC 0.050 0.016 0.050 2700 0.0022
3335 RX 0 0.5 20 49 51 80 99.5 100
3336 RY 3 1 0.5 0 0 0.5 1 3
*

3337 KK BD32pP RETRIEVE
3338 KM Retrieve diverted pipe flow from D32pP.
3339 DR D32pP
*

3340 KK P32pW ROUTE
3341 KM Route pipe flow from Loop 202/36th St. to Loop 202/32nd St.
3342 RK 2750 0.0047 0.015 CIRC 7.0
*

3343 KK C32pW COMBINE
3344 KM Combine hydrographs R32pW and P32pW.
3345 HC 2 4.86
*

3346 KK 28q BASIN
3347 KM Subbasin at NEC of Grand Canal & 40th St.
3348 BA 0.318
3349 LG 0.35 0.25 4.80 0.39 42
3350 UC 0.942 0.595
3351 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
3352 UA 100
*

3353 KK S28q STORAGE
3354 KM Online Local Retention Basin, 0.3 ac-ft.
3355 RS 1 STOR 0
3356 SV 0 0.3 0.8
3357 SE 0 2 4
3358 SS 2 100 2.7 1.5
*

```

```

3359 KK BD28pP RETRIEVE
3360 KM Retrieve diverted pipe flow from D28pP.
3361 DR D28pP
*

```

HEC-1 INPUT

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

```

3362 KK D28pP1 DIVERT
3363 KM Divert flow into pipe.
3364 DT D28pP2
3365 DI 0 279 300
3366 DQ 0 68 75
*

3367 KK P28pS ROUTE
3368 KM Route pipe flow from Loop 202/40th St. to Grand Canal/40th St.
3369 RK 2700 0.0030 0.015 CIRC 6.00
*

3370 KK C28q COMBINE
3371 KM Combine hydrographs P28pS and S28q.
3372 HC 2 0.82
*

3373 KK D28q DIVERT
3374 KM Divert flow into pipe.
3375 KM Total pipe flow = 340 cfs (32 cfs to east,308 cfs to south)
3376 DT D28qP
3377 DI 0 100 340 10000
3378 DQ 0 100 340 340
*

3379 KK D28qW DIVERT
3380 KM Divert surface flow to south.
3381 DT D28qS
3382 DI 0 14 72 203 550 1348
3383 DQ 0 0 41 144 430 1103
*

3384 KK R28qW ROUTE
3385 KM Route surface flow west from Subbasin 28q to Subbasin 32q.
3386 RS 9 FLOW -1
3387 RC 0.050 0.016 0.050 3500 0.0003
3388 RX 0 0.75 30 73.5 76.5 120 149.25 150

```

```

3389 RY 3 1 0.5 0 0 0.5 1 3
*
3390 KK 32q BASIN
3391 KM Subbasin at NEC of Grand Canal & 36th St.
3392 BA 0.175
3393 LG 0.25 0.21 4.80 0.32 6
3394 UC 1.421 1.160
3395 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
3396 UA 100
*

```

1

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

```

3397 KK BD32pS RETRIEVE
3398 KM Retrieve diverted surface flow from D32pS.
3399 DR D32pS
*
3400 KK C32q COMBINE
3401 KM Combine hydrographs 32q, D32pS, and R28qW.
3402 HC 3 0.99
*
3403 KK S32q STORAGE
3404 KM Online Regional Detention Basin, 92 ac-ft.
3405 RS 1 STOR 0
3406 SV 0 10 24 41 59 80 92 110
3407 SE 0 4 8 12 16 20 22 24
3408 SL 1.5 7.068 0.62 0.5
3409 SS 22 750 2.7 1.5
*
3410 KK D32qP DIVERT
3411 KM Divert surface flow to southwest.
3412 KM Basin bleed-off pipe flow = 32 cfs
3413 DT D32q
3414 DI 0 32 100 1000 10000
3415 DQ 0 0 68 968 9968
*
* Q2 = 0.0, so routing is deleted
* KK P32qW ROUTE
* KM Route pipe flow from Subbasin 32q to Detention Basin in 36p.
* RK 800 0.0031 0.015 CIRC 3.0
*

```

```

3416 KK C32pqW COMBINE
3417 KM Combine hydrographs C32pW and P32qW.
3418 HC 2 4.86
*

```

```

3419 KK 36p BASIN
3420 KM Subbasin at NEC of Grand Canal and Loop 202
3421 BA 0.186
3422 LG 0.72 0.22 4.80 0.36 23
3423 UC 1.082 0.792
3424 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
3425 UA 100
*

```

```

3426 KK BD36oS RETRIEVE
3427 KM Retrieve diverted surface flow from D36oS.
3428 DR D36oS
*

```

1

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

```

3429 KK R36oS ROUTE
3430 KM Route surface flow south from Subbasin 36o to 36p.
3431 RS 3 FLOW -1
3432 RC 0.050 0.016 0.050 2500 0.0063
3433 RX 0 0.75 30 73.5 76.5 120 149.25 150
3434 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

3435 KK C36p COMBINE
3436 KM Combine hydrographs 36p, C32pqW, and R36oS.
3437 HC 3 6.91
*

```

```

3438 KK E36p DIVERT
3439 KM Divert flow into detention basin 40p and 36q, (Bypass 613 cfs pipe flow).

```

```

3440 DT DB36p
3441 DI 0 100 613 1000 10000
3442 DQ 0 0 0 387 9387
*

3443 KK BDB36pRETRIEVE
3444 KM Retrieve diverted flow from DB36p for offline detention.
3445 DR DB36p
*

3446 KK S36p STORAGE
3447 KM Offline Detention basins within 40p and 36q receive flows from subbasin
3448 KM 36p. They are treated as one detention basin, 68 ac-ft.
3449 RS 1 STOR 0
3450 SV 0 10 22 37 55 68 84
3451 SE 0 4 8 12 16 18 20
3452 SL 2 12.56 0.62 0.5
3453 SS 18 200 2.7 1.5
*

3454 KK BD36oP RETRIEVE
3455 KM Retrieve diverted pipe flow from D36oP.
3456 DR D36oP
*

3457 KK P36oS ROUTE
3458 KM Route pipe flow from 32nd st/McDowell to subbasin 36p.
3459 RK 900 0.0038 0.015 CIRC 5.00
*

3460 KK CC36p COMBINE
3461 KM Combine hydrographs E36p, P36oS, and S36p.
3462 HC 3 6.91
*

```

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```

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

3463 KK D36p DIVERT
3464 KM Divert 613 cfs into pipe (139 cfs to south, 474 cfs to west).
3465 DT D36pP
3466 DI 0 100 613 1000 10000
3467 DQ 0 100 613 613 613
*

3468 KK R36pW ROUTE
3469 KM Route surface flow west from Subbasin 36p to 40p.
3470 RS 2 FLOW -1
3471 RC 0.050 0.016 0.050 2640 0.0024
3472 RX 0 0.75 30 73.5 76.5 120 149.25 150
3473 RY 3 1 0.5 0 0 0.5 1 3
*

3474 KK BD36pP RETRIEVE
3475 KM Retrieve diverted pipe flow from D36pP.
3476 DR D36pP
*

3477 KK D36pP1 DIVERT
3478 KM Divert flow into pipe (south).
3479 DT D36pP2
3480 DI 0 613 620
3481 DQ 0 139 140
*

3482 KK P36pW ROUTE
3483 KM Route pipe flow from offline detention basin to subbasin 40p.
3484 RK 2700 0.0036 0.015 CIRC 8.0
*

3485 KK C36pW COMBINE
3486 KM Combine hydrographs R36pW and P36pW.
3487 HC 2 6.91
*

3488 KK 40p BASIN
3489 KM Subbasin at NEC of Loop 202 and 28th St
3490 BA 0.222
3491 LG 1.05 0.13 7.00 0.14 22
3492 UC 1.177 0.813
3493 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
3494 UA 100
*

3495 KK BD40oP RETRIEVE

```

3496 KM Retrieve diverted pipe flow from D40oP.  
3497 DR D40oP

\*

HEC-1 INPUT

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

3498 KK P40oS ROUTE  
3499 KM Route pipe flow from 28th st/Grand Canal to subbasin 40p.  
3500 RK 2800 0.0041 0.015 CIRC 5.00

\*

3501 KK BD40oS RETRIEVE  
3502 KM Retrieve diverted surface flow from D40oS.  
3503 DR D40oS

\*

3504 KK R40oS ROUTE  
3505 KM Route surface flow south from Subbasin 40o to 40p.  
3506 RS 3 FLOW -1  
3507 RC 0.050 0.016 0.050 2500 0.0072  
3508 RX 0 1.3 52 127.4 132.6 208 258.7 260  
3509 RY 3 1 0.5 0 0 0.5 1 3

\*

3510 KK C40oS COMBINE  
3511 KM Combine hydrographs R40oS and P40oS.  
3512 HC 2 7.82

\*

3513 KK C40p COMBINE  
3514 KM Combine hydrographs 40p and C40oS.  
3515 HC 3 8.83

\*

3516 KK D40p DIVERT  
3517 KM Divert 785 cfs to 9'x9' box (west).  
3518 DT D40pP  
3519 DI 0 100 785 10000  
3520 DQ 0 100 785 785

\*

3521 KK R40pW ROUTE  
3522 KM Route surface flow west from Subbasin 40p to 44p.  
3523 RS 4 FLOW -1  
3524 RC 0.050 0.016 0.050 2640 0.0023  
3525 RX 0 1 40 98 102 160 199 200  
3526 RY 3 1 0.5 0 0 0.5 1 3

\*

3527 KK BD40pP RETRIEVE  
3528 KM Retrieve diverted pipe flow from D40pP.  
3529 DR D40pP

\*

3530 KK P40pW ROUTE  
3531 KM Route pipe flow from 28th st/I-10 to subbasin 44p.  
3532 KM 9'x9' box equals to D =10' pipe  
3533 RK 2640 0.0030 0.015 CIRC 10.0

\*

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

3534 KK C40pW COMBINE  
3535 KM Combine hydrographs R40oW and P40pW.  
3536 HC 2 8.83

\*

3537 KK 44p BASIN  
3538 KM NEC corner of Loop 202 and 24th St  
3539 BA 0.407  
3540 LG 0.56 0.15 7.00 0.14 25  
3541 UC 1.457 1.157  
3542 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3543 UA 100

\*

3544 KK BD44oP RETRIEVE  
3545 KM Retrieve diverted pipe flow from D44oP.  
3546 DR D44oP

\*

3547 KK P44oS ROUTE

3548 KM Route pipe flow from 24th st/Grand Canal to subbasin 44p.  
3549 RK 5650 0.0030 0.015 CIRC 5.00  
\*

3550 KK BD44oS RETRIEVE  
3551 KM Retrieve diverted surface flow from D44oS.  
3552 DR D44oS  
\*

3553 KK R44oS ROUTE  
3554 KM Route surface flow south from Subbasin 44o to 44p.  
3555 RS 3 FLOW -1  
3556 RC 0.050 0.016 0.050 4230 0.0033  
3557 RX 0 1 40 98 102 160 199 200  
3558 RY 3 1 0.5 0 0 0.5 1 3  
\*

3559 KK C44oS COMBINE  
3560 KM Combine hydrographs R44oS and P44oS.  
3561 HC 2 9.68  
\*

3562 KK C44p COMBINE  
3563 KM Combine hydrographs C44oS, C40pW, and 44p.  
3564 HC 3 11.10  
\*

3565 KK D44p DIVERT  
3566 KM Divert 1344 cfs into pipe (124 cfs to south, 1220 cfs to west).  
3567 DT D44pP  
3568 DI 0 100 1344 10000  
3569 DQ 0 100 1344 1344  
\*

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

3570 KK R44pW ROUTE  
3571 KM Route surface flow west from Subbasin 44p to 48o.  
3572 RS 3 FLOW -1  
3573 RC 0.050 0.016 0.050 2640 0.0015  
3574 RX 0 0.8 32 78.4 81.6 128 159.2 160  
3575 RY 3 1 0.5 0 0 0.5 1 3  
\*

3576 KK BD44pP RETRIEVE  
3577 KM Retrieve diverted pipe flow from D44pP.  
3578 DR D44pP  
\*

3579 KK D44pP1 DIVERT  
3580 KM Divert flow into pipe (south).  
3581 DT D44pP2  
3582 DI 0 1344 1500  
3583 DQ 0 124 138  
\*

3584 KK P44pW ROUTE  
3585 KM Route pipe flow from 24th st/McDowell to subbasin 48o.  
3586 KM 11'x10' box approximately equals to 12' pipe  
3587 RK 2100 0.0030 0.015 CIRC 12.0  
\*

3588 KK C44pW COMBINE  
3589 KM Combine hydrographs R44pW and P44pW.  
3590 HC 2 11.10  
\*

3591 KK 48o BASIN  
3592 KM Subbasin at NEC of Loop 202 and SR51  
3593 BA 0.676  
3594 LG 0.74 0.17 6.80 0.16 23  
3595 UC 1.500 0.973  
3596 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
3597 UA 100  
\*

3598 KK BD52mS RETRIEVE  
3599 KM Retrieve diverted surface flow from D52mS.  
3600 DR D52mS  
\*

3601 KK R52mS ROUTE  
3602 KM Route surface flow south from Subbasin 52m to 48o.  
3603 RS 3 FLOW -1

3604	RC	0.050	0.016	0.050	7000	0.0026			
3605	RX	0	0.5	20	49	51	80	99.5	100
3606	RY	3	1	0.5	0	0	0.5	1	3

\*

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

3607 KK BD52mP RETRIEVE  
 3608 KM Retrieve diverted pipe flow from D52mP.  
 3609 DR D52mP  
 \*

3610 KK P52mS ROUTE  
 3611 KM Route pipe flow from subbasin 52m to subbasin 48o.  
 3612 RK 8600 0.0030 0.015 CIRC 7.50  
 \*

3613 KK C52mS COMBINE  
 3614 KM Combine hydrographs R52mS and P52mS.  
 3615 HC 2 12.24  
 \*

3616 KK C48o COMBINE  
 3617 KM Combine hydrographs C52mS, C44pW, and 48o.  
 3618 HC 3 14.34  
 \*

3619 KK E48o DIVERT  
 3620 KM Divert 2573 cfs into ADOT East Tunnel 21' pipe at Moreland St.  
 3621 DT DB48o  
 3622 DI 0 100 1000 2573 10000  
 3623 DQ 0 0 0 0 7427  
 \*

3624 KK BDB48o RETRIEVE  
 3625 KM Retrieve diverted flow from DB48o for detention.  
 3626 DR DB48o  
 \*

3627 KK S48o STORAGE  
 3628 KM Excess flood water at ADOT East Tunnel going west  
 3629 KM through McDowell Rd after ponding, online detention basin 35 ac-ft.  
 3630 RS 1 STOR 0  
 3631 SV 0 6 35 81  
 3632 SE 0 2 4 6  
 3633 SL 0.5 7.07 0.62 0.5  
 3634 SS 4 50 2.7 1.5  
 \*

3635 KK CC48o COMBINE  
 3636 KM Combine hydrographs E48o and S48o.  
 3637 HC 2 14.34  
 \*

3638 KK D48o DIVERT  
 3639 KM Divert 2573 cfs into ADOT East tunnel 21' pipe at Moreland St.  
 3640 DT D48oPT  
 3641 DI 0 100 2573 5000 10000  
 3642 DQ 0 100 2573 2573 2573  
 \*

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

3643 KK R48oW ROUTE  
 3644 KM Route surface flow west from Subbasin 48o to 52o.  
 3645 KM Excess flow routing to west through McDowell Rd.  
 3646 RS 3 FLOW -1  
 3647 RC 0.050 0.016 0.050 2640 0.0015  
 3648 RX 0 0.5 20 49 51 80 99.5 100  
 3649 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3650 KK 52o BASIN  
 3651 KM Subbasin at NEC of I-10 and 16th St  
 3652 BA 0.645  
 3653 LG 0.42 0.25 5.80 0.23 28  
 3654 UC 1.500 1.111  
 3655 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3656 UA 100  
 \*

3657 KK BD54mP RETRIEVE

3658 KM Retrieve diverted pipe flow from D54mP.  
 3659 DR D54mP  
 \*

3660 KK P54mS ROUTE  
 3661 KM Route pipe flow from 16th st/Thomas to subbasin 52o.  
 3662 RK 6350 0.0030 0.015 CIRC 5.00  
 \*

3663 KK BD54mS RETRIEVE  
 3664 KM Retrieve diverted surface flow from D54mS.  
 3665 DR D54mS  
 \*

3666 KK R54mS ROUTE  
 3667 KM Route surface flow south from Subbasin 54m to 52o.  
 3668 RS 6 FLOW -1  
 3669 RC 0.050 0.016 0.050 6845 0.0029  
 3670 RX 0 0.5 20 49 51 80 99.5 100  
 3671 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3672 KK C54mS COMBINE  
 3673 KM Combine hydrographs R54mS and P54mS.  
 3674 HC 2 1.66  
 \*

3675 KK C52o COMBINE  
 3676 KM Combine hydrographs C54mS, R48oW, and 52o.  
 3677 HC 3 2.30  
 \*

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

3678 KK D52o DIVERT  
 3679 KM Divert 517 cfs into pipe to West Tunnel.  
 3680 KM 72" SD at 19th St and 72" SD at 16th St, Q = 211+306 = 517 cfs  
 3681 DT D52oP  
 3682 DI 0 100 517 10000  
 3683 DQ 0 100 517 517  
 \*

3684 KK R52oW ROUTE  
 3685 KM Route surface flow west from Subbasin 52o to 56o.  
 3686 RS 6 FLOW -1  
 3687 RC 0.050 0.016 0.050 2640 0.0015  
 3688 RX 0 1.6 64 156.8 163.2 256 318.4 320  
 3689 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3690 KK BD52oP RETRIEVE  
 3691 KM Retrieve diverted pipe flow from D52oP.  
 3692 DR D52oP  
 \*

3693 KK P52oW ROUTE  
 3694 KM Route pipe flow from 16th st/McDowell to subbasin 56o.  
 3695 RK 2700 0.0031 0.015 CIRC 7.5  
 \*

3696 KK C52oW COMBINE  
 3697 KM Combine hydrographs R52oW and P52oW.  
 3698 HC 2 2.30  
 \*

3699 KK 56o BASIN  
 3700 KM Subbasin at NEC of I-10 and 12th St  
 3701 BA 0.638  
 3702 LG 0.29 0.25 5.00 0.33 24  
 3703 UC 1.500 1.250  
 3704 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3705 UA 100  
 \*

3706 KK BD56mP RETRIEVE  
 3707 KM Retrieve diverted pipe flow from D56mP.  
 3708 DR D56mP  
 \*

3709 KK P56mS ROUTE  
 3710 KM Route pipe flow from 12th st/Thomas to subbasin 56o.  
 3711 RK 6450 0.0030 0.015 CIRC 8.00  
 \*

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LINE	ID	1	2	3	4	5	6	7	8	9	10
3712	KK	BD56mS RETRIEVE									
3713	KM	Retrieve diverted surface flow from D56mS.									
3714	DR	D56mS									
	*										
3715	KK	R56mS	ROUTE								
3716	KM	Route surface flow south from Subbasin 56m to 56o.									
3717	RS	7	FLOW -1								
3718	RC	0.050	0.016	0.050	6770	0.0024					
3719	RX	0	1.1	44	107.8	112.2	176	218.9	220		
3720	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3721	KK	C56mS COMBINE									
3722	KM	Combine hydrographs R56mS and P56mS.									
3723	HC	2	5.50								
	*										
3724	KK	C56o COMBINE									
3725	KM	Combine hydrographs C56mS, C52oW, and 56o.									
3726	HC	3	6.79								
	*										
3727	KK	D56o DIVERT									
3728	KM	Divert flow into West Tunnel (517 cfs from U/S).									
3729	KM	10'x6' RCB at 12th St. Q = 433+517 = 950 cfs.									
3730	DT	D56oP									
3731	DI	0	100	1000	10000						
3732	DQ	0	100	950	950						
	*										
3733	KK	R56oW	ROUTE								
3734	KM	Route surface flow west from Subbasin 56o to 60o.									
3735	RS	3	FLOW -1								
3736	RC	0.050	0.016	0.050	2640	0.0023					
3737	RX	0	1.3	52	127.4	132.6	208	258.7	260		
3738	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3739	KK	BD56oP RETRIEVE									
3740	KM	Retrieve diverted pipe flow from D56oP.									
3741	DR	D56oP									
	*										
3742	KK	P56oW	ROUTE								
3743	KM	Route pipe flow from 12th st/McDowell to subbasin 60o.									
3744	KM	10'x10' box approximately equals to 11.5' pipe									
3745	RK	2700	0.0030	0.015	CIRC		11.5				
	*										

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LINE	ID	1	2	3	4	5	6	7	8	9	10
3746	KK	C56oW COMBINE									
3747	KM	Combine hydrographs R56oW and P56oW.									
3748	HC	2	6.79								
	*										
3749	KK	60o	BASIN								
3750	KM	Subbasin at NEC of I-10 and 7th St									
3751	BA	0.640									
3752	LG	1.22	0.25	5.30	0.31	32					
3753	UC	1.500	1.197								
3754	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3755	UA	100									
	*										
3756	KK	BD60mP RETRIEVE									
3757	KM	Retrieve diverted pipe flow from D60mP.									
3758	DR	D60mP									
	*										
3759	KK	P60mS	ROUTE								
3760	KM	Route pipe flow from 7th st/Thomas to subbasin 60o.									
3761	RK	6200	0.0030	0.015	CIRC		5.00				
	*										
3762	KK	BD60mS RETRIEVE									
3763	KM	Retrieve diverted surface flow from D60mS.									
3764	DR	D60mS									
	*										

3765 KK R60mS ROUTE  
 3766 KM Route surface flow south from Subbasin 60m to 60o.  
 3767 RS 6 FLOW -1  
 3768 RC 0.050 0.016 0.050 6720 0.0024  
 3769 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 3770 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3771 KK C60mS COMBINE  
 3772 KM Combine hydrographs R60mS and P60mS.  
 3773 HC 2 6.24  
 \*

3774 KK C60o COMBINE  
 3775 KM Combine hydrographs C60mS, C56oW, and 60o.  
 3776 HC 3 8.16  
 \*

3777 KK D60o DIVERT  
 3778 KM Divert flow into West ADOT Tunnel (950 cfs U/S).  
 3779 KM 84" at 7th St and 60" at 10th St, Q = 435+376 = 811+950= 1761 cfs.  
 3780 DT D60oPT  
 3781 DI 0 100 1761 10000  
 3782 DQ 0 100 1761 1761  
 \*

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

3783 KK R60oW ROUTE  
 3784 KM Route surface flow west from Subbasin 60o to 64o.  
 3785 RS 6 FLOW -1  
 3786 RC 0.050 0.016 0.050 2640 0.0015  
 3787 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3788 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3789 KK 64o BASIN  
 3790 KM Subbasin at NEC of I-10 and Central  
 3791 BA 0.651  
 3792 LG 1.21 0.25 5.80 0.25 44  
 3793 UC 1.500 1.200  
 3794 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3795 UA 100  
 \*

3796 KK S64o STORAGE  
 3797 KM Online Detention Basin 1 ac-ft.  
 3798 RS 1 STOR 0  
 3799 SV 0 0.25 1 3  
 3800 SE 0 2 4 6  
 3801 SQ 0 8 11 600  
 \*

3802 KK BD64mP RETRIEVE  
 3803 KM Retrieve diverted pipe flow from D64mP.  
 3804 DR D64mP  
 \*

3805 KK P64mS ROUTE  
 3806 KM Route pipe flow from Central/Thomas to subbasin 64o.  
 3807 RK 6450 0.0025 0.015 CIRC 8.00  
 \*

3808 KK BD64mS RETRIEVE  
 3809 KM Retrieve diverted surface flow from D64mS.  
 3810 DR D64mS  
 \*

3811 KK R64mS ROUTE  
 3812 KM Route surface flow south from Subbasin 64m to 64o.  
 3813 RS 8 FLOW -1  
 3814 RC 0.050 0.016 0.050 6860 0.0020  
 3815 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3816 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3817 KK C64mS COMBINE  
 3818 KM Combine hydrographs R64mS and P64mS.  
 3819 HC 2 9.55  
 \*

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

```

3820      KK      C64o COMBINE
3821      KM      Combine flows of C64mS, S64o, and R60oW
3822      HC          3   12.13
          *

3823      KK      D64o DIVERT
3824      KM      Divert flow to ADOT West Tunnel (south).
3825      KM      96" SD at Central and 8'x7' RCB at 3rd Ave. Q =535+500=1035 cfs.
3826      DT      D64oPT
3827      DI          0   100   1035   2000   10000
3828      DQ          0   100   1035   1035   1035
          *

3829      KK      R64oW ROUTE
3830      KM      Route surface flow west from Subbasin 64o to 68o.
3831      RS          2   FLOW          -1
3832      RC      0.050  0.016  0.050   2640  0.0015
3833      RX          0   1.05   42   102.9  107.1   168  208.95   210
3834      RY          3     1   0.5     0     0     0.5     1     3
          *

3835      KK      68o BASIN
3836      KM      Subbasin at NEC of I-10 & 7th Ave.
3837      BA      0.688
3838      LG      0.21   0.17   6.80   0.16   25
3839      UC      1.500  1.160
3840      UA          0   5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
3841      UA      100
          *

3842      KK      S68o STORAGE
3843      KM      Online Local Retention Basin, 13 ac-ft.
3844      RS          1   STOR          0
3845      SV          0     4   13     25
3846      SE          0     2     4     6
3847      SS          4   100   2.7   1.5
          *

3848      KK      BD68mP RETRIEVE
3849      KM      Retrieve diverted pipe flow from D68mP.
3850      DR      D68mP
          *

3851      KK      P68mS ROUTE
3852      KM      Route pipe flow from Thomas/7th Ave. to I-10/7th Ave.
3853      RK      6800  0.002  0.015          CIRC   4.0
          *

3854      KK      BD68mS RETRIEVE
3855      KM      Retrieve diverted surface flow from D68mS.
3856      DR      D68mS
          *

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

3857      KK      R68mS ROUTE
3858      KM      Route surface flow south from Subbasin 68m to Subbasin 68o.
3859      RS          7   FLOW          -1
3860      RC      0.050  0.016  0.050   6780  0.0021
3861      RX          0   1.3    52   127.4  132.6   208  258.7   260
3862      RY          3     1   0.5     0     0     0.5     1     3
          *

3863      KK      C68mS COMBINE
3864      KM      Combine hydrographs R68mS and P68mS.
3865      HC          2   16.15
          *

3866      KK      C68o COMBINE
3867      KM      Combine hydrographs S68o, C68mS, and R64oW.
3868      HC          3   16.84
          *

3869      KK      D68o DIVERT
3870      KM      Divert flow into ADOT west Tunnel storm water interceptor 14'
3871      KM      96" SD at 7th Ave and 96" SD at 3rd Ave. Q = 433 + 510 = 943 cfs
3872      DT      D68oPT
3873      DI          0   100   943   2000   10000
3874      DQ          0   100   943   943   943
          *

3875      KK      R68oW ROUTE

```

3876 KM Route surface flow west from Subbasin 68o to 72o.  
 3877 RS 6 FLOW -1  
 3878 RC 0.050 0.016 0.050 2640 0.0015  
 3879 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 3880 RY 3 1 0.5 0 0 0.5 1 3  
 \*

3881 KK 72o BASIN  
 3882 KM Subbasin at NEC of I-10 & 15th Ave.  
 3883 BA 0.662  
 3884 LG 0.41 0.15 8.80 0.08 12  
 3885 UC 1.500 1.117  
 3886 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 3887 UA 100  
 \*

3888 KK C72o COMBINE  
 3889 KM Combine hydrographs 72o, R68oW, and C72mS  
 3890 HC 3 17.78  
 \*

3891 KK D72o DIVERT  
 3892 KM Diver 433 cfs into storm drain  
 3893 DT D72oP  
 3894 DI 0 100 433 1000 10000  
 3895 DQ 0 100 433 433 433  
 \*

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

3896 KK S72o STORAGE  
 3897 KM ADOT West Tunnel Inlet Basin - Online Regional Detention Basin.  
 3898 RS 1 STOR 0  
 3899 SV 0 0.2 2 3 4.3 6.2 8.9 50  
 3900 SE 0 2 6 8 10 12 14 16  
 3901 SQ 0 50 250 380 530 1148 2156 3703  
 \*

3902 KK D72oPT DIVERT  
 3903 KM Divert flow into West Tunnel  
 3904 DT D72o1  
 3905 DI 0 50 250 380 530 1148 2156 3703  
 3906 DQ 0 0 0 0 0 458 1296 2763  
 \*

\* Q2 = 0.0 PT72oE is eliminated  
 \* KKPT72oE ROUTE  
 \* KM 14' pipe to ADOT West Tunnel from I-10/15th Ave. to I-10/7th Ave.  
 \* RK 2600 0.0030 0.015 CIRC 14.0  
 \*

3907 KK B68oPT RETRIEVE  
 3908 KM Retrieve diverted pipe flow from D68oPT.  
 3909 DR D68oPT  
 \*

3910 KK CPT68o COMBINE  
 3911 KM Combine hydrographs PT72oE and D68oPT in the North Tunnel.  
 3912 HC 2 18.47  
 \*

3913 KK PT68oE ROUTE  
 3914 KM Route pipe flow from I-10/7th Ave. to I-10/Central Ave.  
 3915 RK 850 0.0030 0.015 CIRC 14.0  
 \*

3916 KK BD72o1 RETRIEVE  
 3917 KM Retrieve diverted surface flow from D72o1.  
 3918 DR D72o1  
 \*

3919 KK D72oE DIVERT  
 3920 KM Divert flow overtopping West Tunnel Inlet Basin east and west,  
 3921 KM East flow into I-10 depressed segment  
 3922 DT D72oW  
 3923 DI 0 100 458 1296 2763  
 3924 DQ 0 0 0 0 382  
 \*

3925 KK S-I10 STORAGE  
 3926 KM Routing through I-10 depressed segment as a detention basin  
 3927 KM Flood water within the depressed area is pumped into ADOT  
 3928 KM West Tunnel. Two Pump Stations with total flow = 350 cfs, 1252 ac-ft.  
 3929 RS 1 SFOR 0  
 3930 SV 0 10 62 160 287 602 997 1252 1539

LINE	ID	1	2	3	4	5	6	7	8	9	10
3931	SE	0	1	4	8	12	20	28	32	36	
3932	SQ	0	50	175	350	350	350	350	350	4820	
	*										
3933	KK	B64oPT RETRIEVE									
3934	KM	Retrieve diverted pipe flow from D64oPT.									
3935	DR	D64oPT									
	*										
3936	KK	B60oPT RETRIEVE									
3937	KM	Retrieve diverted pipe flow from D60oPT.									
3938	DR	D60oPT									
	*										
3939	KK	PT60oW ROUTE									
3940	KM	Route pipe flow from 7th st/I-10 to 3rd st/I-10, subbasin 64o.									
3941	RK	2800	0.0030	0.015		CIRC	14.0				
	*										
3942	KK	C-WT COMBINE									
3943	KM	Total flow into ADOT west tunnel at 3rd st/I-10,									
3944	KM	Combine hydrographs S-I10, PT68oE, PT60oW, and D64oPT.									
3945	HC	4	21.04								
	*										
3946	KK	PT64o ROUTE									
3947	KM	Route ADOT West Tunnel flow from 3rd st/I-10 through subbasin 64q.									
3948	RK	3800	0.002	0.015		CIRC	21.0				
	*										
3949	KK	DN_64o DIVERT									
3950	KM	Divert all flow to West Tunnel ( to free up a HEC-1 hydrograph path).									
3951	DT	DPT64o									
3952	DI	0	100	1000	10000						
3953	DQ	0	100	1000	10000						
	*										
3954	KK	36q BASIN									
3955	KM	Subbasin at NEC of Van Buren and 32nd St									
3956	BA	0.267									
3957	LG	0.26	0.15	9.70	0.06	25					
3958	UC	1.015	0.786								
3959	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
3960	UA	100									
	*										
3961	KK	BD32q RETRIEVE									
3962	KM	Retrieve diverted surface flow from D32q.									
3963	DR	D32q									
	*										

LINE	ID	1	2	3	4	5	6	7	8	9	10
3964	KK	R32qS ROUTE									
3965	KM	Route surface flow west from Subbasin 32q to 36q.									
3966	RS	3	FLOW	-1							
3967	RC	0.050	0.016	0.050	3600	0.0044					
3968	RX	0	0.5	20	49	51	80	99.5	100		
3969	RY	3	1	0.5	0	0	0.5	1	3		
	*										
3970	KK	B36pP2 RETRIEVE									
3971	KM	Retrieve diverted pipe flow from D36pP2.									
3972	DR	D36pP2									
	*										
3973	KK	P36pS ROUTE									
3974	KM	Route pipe flow from 32nd st/SR-202 to subbasin 36q.									
3975	KM	Pipe size needs check									
3976	RK	4500	0.0036	0.015		CIRC	5.0				
	*										
3977	KK	C36q COMBINE									
3978	KM	Combine hydrographs D32pS, R28qW, and 36q.									
3979	HC	3	1.56								
	*										
3980	KK	D36q DIVERT									
3981	KM	Divert 295 cfs into pipe (south).									
3982	DT	D36qP									

```

3983      DI      0      100      295      10000
3984      DQ      0      100      295      295
*

3985      KK      D36qW  DIVERT
3986      KM      Divert 43% of surface flow south.
3987      DT      D36qS
3988      DI      0      100      1000      10000
3989      DQ      0      43      428      4276
*

3990      KK      R36qW  ROUTE
3991      KM      Route surface flow west from Subbasin 36q to 40q.
3992      RS      5      FLOW      -1
3993      RC      0.050  0.016  0.050  2640  0.0023
3994      RX      0      1.3      52      127.4  132.6      208  258.7      260
3995      RY      3      1      0.5      0      0      0.5      1      3
*

3996      KK      40q  BASIN
3997      KM      Subbasin at NEC of Van Buren and 28th St
3998      BA      0.349
3999      LG      0.31  0.15      9.70      0.06      29
4000      UC      1.107  0.833
4001      UA      0      5.0      16.0      30.0      65.0      77.0      84.0      90.0      94.0      97.0
4002      UA      100
*

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

```

4003      KK      C40q  COMBINE
4004      KM      Combine hydrographs R36qW and 40q.
4005      HC      2      1.91
*

4006      KK      D40q  DIVERT
4007      KM      Divert 32 cfs into pipe (west).
4008      DT      D40qP
4009      DI      0      32      1000      10000
4010      DQ      0      32      32      32
*

4011      KK      D40qW  DIVERT
4012      KM      Divert 61% of surface flow to south.
4013      DT      D40qS
4014      DI      0      100      1000      10000
4015      DQ      0      61      608      6077
*

4016      KK      R40qW  ROUTE
4017      KM      Route surface flow west from Subbasin 40q to 44q.
4018      RS      5      FLOW      -1
4019      RC      0.050  0.016  0.050  2640  0.0015
4020      RX      0      1.05      42      102.9  107.1      168  208.95      210
4021      RY      3      1      0.5      0      0      0.5      1      3
*

4022      KK      BD40qP  RETRIEVE
4023      KM      Retrieve diverted pipe flow from D40qP.
4024      DR      D40qP
*

4025      KK      P40qW  ROUTE
4026      KM      Route pipe flow from 28th st/Van Buren to subbasin 44q.
4027      RK      2700  0.0031  0.015      CIRC      3.0
*

4028      KK      C40qW  COMBINE
4029      KM      Combine hydrographs R40qW and P40qW.
4030      HC      2      1.91
*

4031      KK      44q  BASIN
4032      KM      Subbasin at NEC of Van Bure24th St
4033      BA      0.359
4034      LG      0.33  0.15      9.70      0.06      49
4035      UC      1.096  0.872
4036      UA      0      5.0      16.0      30.0      65.0      77.0      84.0      90.0      94.0      97.0
4037      UA      100
*

```

HEC-1 INPUT

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

```

4038 KK B44pP2 RETRIEVE
4039 KM Retrieve diverted pipe flow from D44pP2.
4040 DR D44pP2
*

4041 KK P44pS ROUTE
4042 KM Route pipe flow from 24th st/McDowell to subbasin 44q.
4043 RK 3700 0.0030 0.015 CIRC 5.00
*

4044 KK C44q COMBINE
4045 KM Combine hydrographs C40qW, 44q, and P44pS.
4046 HC 3 2.57
*

4047 KK D44q DIVERT
4048 KM Divert 201 cfs into pipe (south).
4049 DT D44qP
4050 DI 0 100 201 10000
4051 DQ 0 100 201 201
*

4052 KK D44qW DIVERT
4053 KM Divert 62% of surface flow to south.
4054 DT D44qS
4055 DI 0 100 1000 10000
4056 DQ 0 62 621 6211
*

4057 KK R44qW ROUTE
4058 KM Route surface flow west from Subbasin 44q to 48q.
4059 RS 3 FLOW -1
4060 RC 0.050 0.016 0.050 2500 0.0018
4061 RX 0 0.8 32 78.4 81.6 128 159.2 160
4062 RY 3 1 0.5 0 0 0.5 1 3
*

4063 KK 48q BASIN
4064 KM Subbasin at NEC of Van Buren and I-10
4065 BA 0.300
4066 LG 0.25 0.15 9.70 0.06 24
4067 UC 1.270 1.057
4068 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4069 UA 100
*

4070 KK C48q COMBINE
4071 KM Combine hydrographs R44qW and 48q.
4072 HC 2 2.87
*

1 HEC-1 INPUT PAGE114

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

4073 KK DB48q DIVERT
4074 KM Divert flow into East ADOT Tunnel.
4075 KM 78" SD at Pierce St and 96" SD at Taylor St. Q = 245+368=613 cfs.
4076 DT D48qPT
4077 DI 0 100 613 1000 10000
4078 DQ 0 100 613 613 613
*

4079 KK S48q STORAGE
4080 KM Online detention basin, 5 ac-ft.
4081 RS 1 STOR 0
4082 SV 0 2 4 5.2 8
4083 SE 0 2 4 5 7
4084 SQ 0 30 43 48 438
*

4085 KK D48qW DIVERT
4086 KM Divert 59% of flow to south.
4087 DT D48qS
4088 DI 0 100 1000 10000
4089 DQ 0 59 590 5900
*

4090 KK R48qW ROUTE
4091 KM Route surface flow west from Subbasin 48q to 52q.
4092 RS 2 FLOW -1
4093 RC 0.050 0.016 0.050 3050 0.0020
4094 RX 0 0.8 32 78.4 81.6 128 159.2 160
4095 RY 3 1 0.5 0 0 0.5 1 3
*

```

4096 KK 52q BASIN  
 4097 KM Subbasin at NEC of Van Buren and 16th St  
 4098 BA 0.394  
 4099 LG 0.43 0.15 8.80 0.08 35  
 4100 UC 1.397 1.104  
 4101 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4102 UA 100  
 \*

4103 KK C52q COMBINE  
 4104 KM Combine hydrographs D48qW and 52q.  
 4105 HC 2 0.39  
 \*

4106 KK D52q DIVERT  
 4107 KM Divert 191 cfs into pipe (south).  
 4108 DT D52qP  
 4109 DI 0 100 191 10000  
 4110 DQ 0 100 191 191  
 \*

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

4111 KK D52qW DIVERT  
 4112 KM Divert 51% of surface flow to south.  
 4113 DT D52qS  
 4114 DI 0 100 1000 10000  
 4115 DQ 0 51 510 5100  
 \*

4116 KK R52qW ROUTE  
 4117 KM Route surface flow west from Subbasin 52q to 56q.  
 4118 RS 7 FLOW -1  
 4119 RC 0.050 0.016 0.050 2640 0.0015  
 4120 RX 0 1.6 64 156.8 163.2 256 318.4 320  
 4121 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4122 KK 56q BASIN  
 4123 KM Subbasin at NEC of Van Buren and 12th St  
 4124 BA 0.354  
 4125 LG 0.24 0.25 6.00 0.21 22  
 4126 UC 1.401 1.027  
 4127 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4128 UA 100  
 \*

4129 KK C56q COMBINE  
 4130 KM Combine hydrographs R52qW and 56q.  
 4131 HC 2 0.75  
 \*

4132 KK D56q DIVERT  
 4133 KM Divert 68 cfs into pipe (south).  
 4134 DT D56qP  
 4135 DI 0 68 1000 10000  
 4136 DQ 0 68 68 68  
 \*

4137 KK D56qW DIVERT  
 4138 KM Divert 33% of surface flow to south.  
 4139 DT D56qS  
 4140 DI 0 100 1000 10000  
 4141 DQ 0 33 330 3300  
 \*

4142 KK R56qW ROUTE  
 4143 KM Route surface flow west from Subbasin 56q to 60q.  
 4144 RS 5 FLOW -1  
 4145 RC 0.050 0.016 0.050 2640 0.0015  
 4146 RX 0 2.1 84 205.8 214.2 336 417.9 420  
 4147 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

4148 KK 60q BASIN  
 4149 KM Subbasin at NEC of Van Buren and 7th St  
 4150 BA 0.353  
 4151 LG 0.24 0.25 5.00 0.33 23  
 4152 UC 1.355 0.832

4153	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
4154	UA	100									
	*										
4155	KK	C60q COMBINE									
4156	KM	Combine hydrographs R56qW and 60q.									
4157	HC	2	1.10								
	*										
4158	KK	D60q DIVERT									
4159	KM	Divert 281 cfs into pipe (south).									
4160	DT	D60qP									
4161	DI	0	100	281	10000						
4162	DQ	0	100	281	281						
	*										
4163	KK	D60qW DIVERT									
4164	KM	Divert 28% of surface flow to south.									
4165	DT	D60qS									
4166	DI	0	100	1000	10000						
4167	DQ	0	28	280	2800						
	*										
4168	KK	R60qW ROUTE									
4169	KM	Route surface flow west from Subbasin 60q to 64q.									
4170	RS	6	FLOW	-1							
4171	RC	0.050	0.016	0.050	2640	0.0015					
4172	RX	0	1.55	62	151.9	158.1	248	308.45	310		
4173	RY	3	1	0.5	0	0	0.5	1	3		
	*										
4174	KK	64q BASIN									
4175	KM	Subbasin at NEC of Van Buren and Central									
4176	BA	0.405									
4177	LG	0.17	0.17	6.80	0.17	42					
4178	UC	1.291	0.715								
4179	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
4180	UA	100									
	*										
4181	KK	C64q COMBINE									
4182	KM	Combine flows of 64q, R60qW, and DN_64o.									
4183	HC	3	1.51								
	*										

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LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
4184	KK D64q DIVERT
4185	KM Divert 0.0 cfs into West Tunnel.
4186	KM Assuming the storm drain is not connected to West Tunnel.
4187	DT D64qPT
4188	DI 0 100 1000 10000
4189	DQ 0 0 0 0
	*
4190	KK D64q1 DIVERT
4191	KM Divert 68 cfs into storm drain to west).
4192	DT D64qP
4193	DI 0 68 1000 10000
4194	DQ 0 68 68 68
	*
4195	KK D64qW DIVERT
4196	KM Divert 33% of surface flow to south.
4197	DT D64qS
4198	DI 0 100 1000 10000
4199	DQ 0 33 330 3300
	*
4200	KK R64qW ROUTE
4201	KM Route surface flow west from Subbasin 64q to 68q.
4202	RS 4 FLOW -1
4203	RC 0.050 0.016 0.050 2300 0.0009
4204	RX 0 1.35 54 132.3 137.7 216 268.65 270
4205	RY 3 1 0.5 0 0 0.5 1 3
	*
4206	KK BD64qP RETRIEVE
4207	KM Retrieve diverted pipe flow from D64qP.
4208	DR D64qP
	*
4209	KK P64qW ROUTE
4210	KM Route pipe flow from Central/Van Buren to subbasin 68q.

4211 RK 2650 0.0030 0.015 CIRC 4.0  
 \*  
 4212 KK C64qW COMBINE  
 4213 KM Combine hydrographs R64qW and P64qW.  
 4214 HC 2 1.51  
 \*  
 4215 KK 68q BASIN  
 4216 KM Subbasin at NEC of Van Buren and 7th Ave  
 4217 BA 0.295  
 4218 LG 0.18 0.23 6.20 0.22 36  
 4219 UC 1.214 0.715  
 4220 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4221 UA 100  
 \*

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

4222 KK C68q COMBINE  
 4223 KM Combine hydrographs C64qW and 68q.  
 4224 HC 2 1.80  
 \*

4225 KK D68q DIVERT  
 4226 KM Divert 68 cfs into pipe (west).  
 4227 DT D68qP  
 4228 DI 0 68 1000 10000  
 4229 DQ 0 68 68 68  
 \*

4230 KK D68qW DIVERT  
 4231 KM Divert 33% of surface flow to south.  
 4232 DT D68qS  
 4233 DI 0 100 1000 10000  
 4234 DQ 0 33 330 3300  
 \*

4235 KK R68qW ROUTE  
 4236 KM Route surface flow west from Subbasin 68q to 72q.  
 4237 RS 3 FLOW -1  
 4238 RC 0.050 0.016 0.050 2640 0.0015  
 4239 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 4240 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4241 KK BD68qP RETRIEVE  
 4242 KM Retrieve diverted pipe flow from D68qP.  
 4243 DR D68qP  
 \*

4244 KK P68qW ROUTE  
 4245 KM Route pipe flow from 7th ave/Van Buren to subbasin 72q.  
 4246 RK 3500 0.0030 0.015 CIRC 4.0  
 \*

4247 KK C68qW COMBINE  
 4248 KM Combine hydrographs R68qW and P68qW.  
 4249 HC 2 1.80  
 \*

4250 KK 72q BASIN  
 4251 KM Subbasin at NEC of Van Buren and 15th Ave  
 4252 BA 0.329  
 4253 LG 0.19 0.15 8.40 0.09 29  
 4254 UC 1.331 0.809  
 4255 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4256 UA 100  
 \*

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

4257 KK B72oP RETRIEVE  
 4258 KM Retrieve diverted pipe flow from D72oP.  
 4259 DR D72oP  
 \*

4260 KK P72oS ROUTE  
 4261 KM Route pipe flow from 15th ave/Thomas to subbasin 72q.  
 4262 RK 3700 0.0030 0.015 CIRC 8.00  
 \*

```

4263      KK      C72q COMBINE
4264      KM      Combine hydrographs C68qW, 72q, and P72oS.
4265      HC      3      3.13
          *

4266      KK      D72q DIVERT
4267      KM      Divert 662 cfs into two pipes (229 cfs for east, 433 for west).
4268      DT      D72qP
4269      DI      0      100      662      10000
4270      DQ      0      100      662      662
          *

4271      KK      D72qW DIVERT
4272      KM      Divert 33% of surface flow to south.
4273      DT      D72qS
4274      DI      0      100      1000      10000
4275      DQ      0      33      330      3300
          *

4276      KK      R72qW ROUTE
4277      KM      Route surface flow west from Subbasin 72q to 76q.
4278      RS      4      FLOW      -1
4279      RC      0.050  0.016  0.050  3000  0.0015
4280      RX      0      1.85      74      181.3  188.7      296  368.15  370
4281      RY      3      1      0.5      0      0      0.5      1      3
          *

4282      KK      80o BASIN
4283      KM      Subbasin at NEC of Mcdowell and 19th Ave
4284      BA      0.542
4285      LG      0.46  0.15  9.70  0.06  33
4286      UC      1.040  0.583
4287      UA      0      5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
4288      UA      100
          *

4289      KK      BD84mP RETRIEVE
4290      KM      Retrieve diverted pipe flow from D84mP.
4291      DR      D84mP
          *

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

4292      KK      P84mS ROUTE
4293      KM      Route pipe flow from I-17/Thomas to subbasin 80o.
4294      RK      1800  0.0030  0.015      CIRC  6.50
          *

4295      KK      BD84mS RETRIEVE
4296      KM      Retrieve diverted surface flow from D84mS.
4297      DR      D84mS
          *

4298      KK      R84mS ROUTE
4299      KM      Route surface flow south from Subbasin 84m to 80o.
4300      RS      3      FLOW      -1
4301      RC      0.050  0.016  0.050  6000  0.004
4302      RX      0      0.75  30  73.5  76.5  120  149.25  150
4303      RY      3      1      0.5      0      0      0.5      1      3
          *

4304      KK      C84mS COMBINE
4305      KM      Combine hydrographs R84mS and P84mS.
4306      HC      2      5.49
          *

4307      KK      BD80mS RETRIEVE
4308      KM      Retrieve diverted surface flow from D80mS.
4309      DR      D80mS
          *

4310      KK      R80mS ROUTE
4311      KM      Route surface flow south from Subbasin 80m to 80o.
4312      RS      2      FLOW      -1
4313      RC      0.050  0.016  0.050  3500  0.0065
4314      RX      0      0.5  20  49  51  80  99.5  100
4315      RY      3      1      0.5      0      0      0.5      1      3
          *

4316      KK      C80o COMBINE
4317      KM      Combine hydrographs R80mS, C84mS, and 80o.
4318      HC      3      6.58
          *

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4319 KK E80o DIVERT  
 4320 KM By-pass 249 cfs and the remaining flow diverted into offline detention.  
 4321 DT DB80o  
 4322 DI 0 100 249 1000 10000  
 4323 DQ 0 0 0 751 9751  
 \*

4324 KK BDB80oRETRIEVE  
 4325 KM Retrieve diverted flow from DB80 for offline detention.  
 4326 DR DB80o  
 \*

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

4327 KK S80o STORAGE  
 4328 KM Offline Regional Detention Basin, 18 ac-ft.  
 4329 RS 1 STOR 0  
 4330 SV 0 2.7 6.2 10.1 14.3 17.7 24.3  
 4331 SE 0 2 4 6 8 9.5 12  
 4332 SQ 0 15 26 34 55 120 1400  
 \*

4333 KK CC80o COMBINE  
 4334 KM Combine hydrographs S80o and E80o.  
 4335 HC 2 6.58  
 \*

4336 KK D80o DIVERT  
 4337 KM Divert 249 cfs into pipe (south).  
 4338 DT D80oP  
 4339 DI 0 100 249 10000  
 4340 DQ 0 100 249 249  
 \*

4341 KK R80oS ROUTE  
 4342 KM Route surface flow south from Subbasin 80o to 80p.  
 4343 RS 3 FLOW -1  
 4344 RC 0.050 0.016 0.050 4000 0.0037  
 4345 RX 0 1.5 60 147 153 240 298.5 300  
 4346 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4347 KK 76o BASIN  
 4348 KM Subbasin at NEC of I-10 and 19th Ave  
 4349 BA 0.673  
 4350 LG 0.17 0.15 8.80 0.08 26  
 4351 UC 1.454 1.023  
 4352 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4353 UA 100  
 \*

4354 KK BD76m RETRIEVE  
 4355 KM Retrieve diverted surface flow from D76m.  
 4356 DR D76m  
 \*

4357 KK R76mS ROUTE  
 4358 KM Route surface flow south from Subbasin 76m to 76o.  
 4359 RS 3 FLOW -1  
 4360 RC 0.050 0.016 0.050 6900 0.0023  
 4361 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4362 RY 3 1 0.5 0 0 0.5 1 3  
 \*

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

4363 KK B76mP2 RETRIEVE  
 4364 KM Retrieve diverted pipe flow from D76mP2.  
 4365 DR D76mP2  
 \*

4366 KK P76mS ROUTE  
 4367 KM Route pipe flow from 19th ave/Thomas to subbasin 76o.  
 4368 RK 7000 0.0030 0.015 CIRC 5.50  
 \*

4369 KK C76mS COMBINE  
 4370 KM Combine hydrographs R76mS and P76mS.  
 4371 HC 2 6.71  
 \*

4372 KK BD72oW RETRIEVE

```

4373      KM      Retrieve diverted surface flow from D72oW.
4374      DR      D72oW
          *

4375      KK      R72oW  ROUTE
4376      KM      Route surface flow west from Subbasin 72o to 76o.
4377      RS      2      FLOW      -1
4378      RC      0.050  0.016  0.050  2800  0.0007
4379      RX      0      0.8      32      78.4  81.6      128  159.2  160
4380      RY      3      1      0.5      0      0      0.5      1      3
          *

4381      KK      C76o COMBINE
4382      KM      Combine flows of 76o, C76mS, R80oS, and R72oW
4383      HC      4      7.92
          *

4384      KK      D76oP DIVERT
4385      KM      Divert 229 cfs into pipe (south).
4386      DT      D76o
4387      DI      0      100      229  10000
4388      DQ      0      0      0      9771
          *

4389      KK      P76oS  ROUTE
4390      KM      Route pipe flow from 19th ave/Thomas to subbasin 76q.
4391      RK      4000  0.0031  0.015      CIRC  6.25
          *

4392      KK      BD76o RETRIEVE
4393      KM      Retrieve diverted surface flow from D76o.
4394      DR      D76o
          *

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

4395      KK      D76oS DIVERT
4396      KM      Divert 10% of surface flow to west.
4397      DT      D76oW
4398      DI      0      100      1000  10000
4399      DQ      0      10      100   1000
          *

4400      KK      R76oS  ROUTE
4401      KM      Route surface flow south from Subbasin 76o to 76q.
4402      RS      2      FLOW      -1
4403      RC      0.050  0.016  0.050  4000  0.0022
4404      RX      0      1.05   42      102.9  107.1      168  208.95  210
4405      RY      3      1      0.5      0      0      0.5      1      3
          *

4406      KK      C76oS COMBINE
4407      KM      Combine hydrographs R76oS and P76oS.
4408      HC      2      7.92
          *

4409      KK      76q  BASIN
4410      KM      Subbasin at NEC of Van Buren and UPRR
4411      BA      0.396
4412      LG      0.19  0.13  10.10  0.05  39
4413      UC      1.097  0.616
4414      UA      0      5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
4415      UA      100
          *

4416      KK      C76q COMBINE
4417      KM      Combine hydrographs 76q, R72qW, and C76oS.
4418      HC      3      11.45
          *

4419      KK      D76q DIVERT
4420      KM      Divert 229 cfs into pipe (south).
4421      DT      D76qP
4422      DI      0      100      229  10000
4423      DQ      0      100      229   229
          *

4424      KK      D76qW DIVERT
4425      KM      Divert 52% of surface flow to south.
4426      DT      D76qS
4427      DI      0      100      1000  10000
4428      DQ      0      52      520   5200
          *

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4429 KK R76qW ROUTE  
 4430 KM Route surface flow west from Subbasin 76q to 80q.  
 4431 RS 2 FLOW -1  
 4432 RC 0.050 0.016 0.050 2300 0.0009  
 4433 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4434 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

4435 KK 80p BASIN  
 4436 KM Subbasin at NEC of I-10 and I-17  
 4437 BA 0.397  
 4438 LG 0.14 0.15 8.00 0.11 55  
 4439 UC 0.943 0.605  
 4440 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4441 UA 100  
 \*

4442 KK BD76oW RETRIEVE  
 4443 KM Retrieve diverted surface flow from D76oW.  
 4444 DR D76oW  
 \*

4445 KK R76oW ROUTE  
 4446 KM Route surface flow west from Subbasin 76o to 80p.  
 4447 RS 2 FLOW -1  
 4448 RC 0.050 0.016 0.050 2200 0.0036  
 4449 RX 0 1.8 72 176.4 183.6 288 358.2 360  
 4450 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4451 KK C80p COMBINE  
 4452 KM Combine flows of 80P and R76oW  
 4453 HC 2 8.32  
 \*

4454 KK S80p STORAGE  
 4455 KM Online Regional Detention Basin, 6 ac-ft.  
 4456 RS 1 STOR 0  
 4457 SV 0 1.9 3.8 5.7 7.8 10  
 4458 SE 0 2 4 6 8 10  
 4459 SQ 0 2 3 4 400 1100  
 \*

4460 KK BD80oP RETRIEVE  
 4461 KM Retrieve diverted pipe flow from D80oP.  
 4462 DR D80oP  
 \*

4463 KK P80oS ROUTE  
 4464 KM Route pipe flow from subbasin 80o to subbasin 80p along I-17.  
 4465 RK 5900 0.0030 0.015 CIRC 6.50  
 \*

4466 KK CC80p COMBINE  
 4467 KM Combine hydrographs P80oS and S80p.  
 4468 HC 2 8.32  
 \*

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

4469 KK D80p DIVERT  
 4470 KM Divert 249 cfs into pipe (south).  
 4471 DT D80pP  
 4472 DI 0 100 249 10000  
 4473 DQ 0 100 249 249  
 \*

4474 KK R80ps ROUTE  
 4475 KM Route surface flow south from Subbasin 80p to 80q.  
 4476 RS 8 FLOW -1  
 4477 RC 0.050 0.016 0.050 6200 0.0019  
 4478 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 4479 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4480 KK BD80pP RETRIEVE  
 4481 KM Retrieve diverted pipe flow from D80pP.  
 4482 DR D80pP  
 \*

```

4483 KK P80pS ROUTE
4484 KM Route pipe flow from I-17/I-10 to subbasin 80q.
4485 RK 6200 0.0030 0.015 CIRC 6.50
*

4486 KK C80pS COMBINE
4487 KM Combine hydrographs R36oS and P36oS.
4488 HC 2 8.32
*

4489 KK 80q BASIN
4490 KM Subbasin at NEC of UPRR and I-17
4491 BA 0.497
4492 LG 0.20 0.15 9.70 0.06 31
4493 UC 1.500 1.128
4494 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4495 UA 100
*

4496 KK C80q COMBINE
4497 KM Combine flows of 80q, C80pS, and R76qW
4498 HC 3 12.34
*

4499 KK 28s BASIN
4500 KM Subbasin at NEC of UPRR and 40th St
4501 BA 0.164
4502 LG 0.15 0.23 5.80 0.25 42
4503 UC 0.811 0.472
4504 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4505 UA 100
*

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

4506 KK BD28qP RETRIEVE
4507 KM Retrieve diverted pipe flow from D28qP.
4508 DR D28qP
*

4509 KK D28qP1 DIVERT
4510 KM Divert 32 cfs into pipe (east).
4511 DT D28qP2
4512 DI 0 340 1000
4513 DQ 0 32 32
*

4514 KK P28qS ROUTE
4515 KM Route pipe flow from 40th st/Grand Canal to subbasin 28s.
4516 RK 2500 0.0031 0.015 CIRC 7.00
*

4517 KK BD28qS RETRIEVE
4518 KM Retrieve diverted surface flow from D28qS.
4519 DR D28qS
*

4520 KK R28qS ROUTE
4521 KM Route surface flow south from Subbasin 28q to 28s.
4522 RS 1 FLOW -1
4523 RC 0.050 0.016 0.050 1240 0.0065
4524 RX 0 0.8 32 78.4 81.6 128 159.2 160
4525 RY 3 1 0.5 0 0 0.5 1 3
*

4526 KK C28qS COMBINE
4527 KM Combine hydrographs R28qS and P28qS.
4528 HC 2 0.82
*

4529 KK C28s COMBINE
4530 KM Combine hydrographs C28qS and 28s.
4531 HC 2 0.98
*

4532 KK D28s DIVERT
4533 KM Divert 492 cfs into pipe (south).
4534 DT D28sP
4535 DI 0 100 492 10000
4536 DQ 0 100 492 492
*

4537 KK D28sW DIVERT
4538 KM Divert 43% of surface flow to south.

```

4539 DT D28sS  
 4540 DI 0 100 1000 10000  
 4541 DQ 0 43 434 4340  
 \*

HEC-1 INPUT

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

4542 KK R28sW ROUTE  
 4543 KM Route surface flow west from Subbasin 28s to 32s.  
 4544 RS 5 FLOW -1  
 4545 RC 0.050 0.016 0.050 2640 0.0023  
 4546 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 4547 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4548 KK 32s BASIN  
 4549 KM Subbasin at NEC of UPRR and 36th St  
 4550 BA 0.336  
 4551 LG 0.52 0.15 8.00 0.11 48  
 4552 UC 1.191 0.955  
 4553 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4554 UA 100  
 \*

4555 KK C32s COMBINE  
 4556 KM Combine hydrographs 32s and R28sW.  
 4557 HC 2 1.32  
 \*

4558 KK S32s STORAGE  
 4559 KM Regional online retention basin, 16 ac-ft.  
 4560 RS 1 STOR 0  
 4561 SV 0 0.9 2.2 3.9 6.1 8.8 16 21.2  
 4562 SE 0 2 4 6 8 10 14 16  
 4563 SS 14 100 2.7 1.5  
 \*

4564 KK D32s DIVERT  
 4565 KM Divert 48 cfs into pipe (west).  
 4566 DT D32sP  
 4567 DI 0 48 1000 10000  
 4568 DQ 0 48 48 48  
 \*

4569 KK R32sW ROUTE  
 4570 KM Route surface flow west from Subbasin 32s to 36s.  
 4571 RS 4 FLOW -1  
 4572 RC 0.050 0.016 0.050 2640 0.0015  
 4573 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 4574 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4575 KK BD32sP RETRIEVE  
 4576 KM Retrieve diverted pipe flow from D32sP.  
 4577 DR D32sP  
 \* Q2 = 0.0 P32sW is eliminated  
 \* KK P32sW ROUTE  
 \* KM Route pipe flow from subbasin 32s to subbasin 36s.  
 \* RK 2650 0.0030 0.015 CIRC 3.5  
 \*

HEC-1 INPUT

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

4578 KK C32sW COMBINE  
 4579 KM Combine hydrographs R32sW and P32sW.  
 4580 HC 2 1.32  
 \*

4581 KK 36s BASIN  
 4582 KM Subbasin at NEC of UPRR and 32nd St  
 4583 BA 0.241  
 4584 LG 0.19 0.13 10.10 0.05 34  
 4585 UC 1.065 0.710  
 4586 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4587 UA 100  
 \*

4588 KK BD36qP RETRIEVE  
 4589 KM Retrieve diverted pipe flow from D36qP.  
 4590 DR D36qP  
 \*

```

4591 KK P36qS ROUTE
4592 KM Route pipe flow from 32nd st/Van Buren to subbasin 36s.
4593 RK 2500 0.0065 0.015 CIRC 6.00
*

4594 KK BD36qS RETRIEVE
4595 KM Retrieve diverted surface flow from D36qS.
4596 DR D36qS
*

4597 KK R36qS ROUTE
4598 KM Route surface flow south from Subbasin 36q to 36s.
4599 RS 4 FLOW -1
4600 RC 0.050 0.016 0.050 2530 0.0032
4601 RX 0 0.75 30 73.5 76.5 120 149.25 150
4602 RY 3 1 0.5 0 0 0.5 1 3
*

4603 KK C36qS COMBINE
4604 KM Combine hydrographs R36qS and P36qS.
4605 HC 2 1.56
*

4606 KK C36s COMBINE
4607 KM Combine hydrographs C36qS, 36s, and C32sW.
4608 HC 3 2.30
*

4609 KK D36s DIVERT
4610 KM Divert 303 cfs into pipe (south).
4611 DT D36sP
4612 DI 0 100 303 10000
4613 DQ 0 100 303 303
*

```

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

```

4614 KK R36sW ROUTE
4615 KM Route surface flow west from Subbasin 36s to 40s.
4616 RS 2 FLOW -1
4617 RC 0.050 0.016 0.050 2640 0.0015
4618 RX 0 0.8 32 78.4 81.6 128 159.2 160
4619 RY 3 1 0.5 0 0 0.5 1 3
*

4620 KK 40s BASIN
4621 KM Subbasin at NEC of UPRR and 28th St
4622 BA 0.244
4623 LG 0.15 0.13 10.10 0.05 48
4624 UC 1.069 0.707
4625 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4626 UA 100
*

4627 KK BD40qS RETRIEVE
4628 KM Retrieve diverted surface flow from D40qS.
4629 DR D40qS
*

4630 KK R40qS ROUTE
4631 KM Route surface flow south from Subbasin 40q to 40s.
4632 RS 3 FLOW -1
4633 RC 0.050 0.016 0.050 2540 0.0024
4634 RX 0 1.05 42 102.9 107.1 168 208.95 210
4635 RY 3 1 0.5 0 0 0.5 1 3
*

4636 KK C40s COMBINE
4637 KM Combine hydrographs R40qS, 40s, and R36sW.
4638 HC 3 2.89
*

4639 KK D40s DIVERT
4640 KM Divert 68 cfs into pipe (west).
4641 DT D40sP
4642 DI 0 68 1000 10000
4643 DQ 0 68 68 68
*

4644 KK R40sW ROUTE
4645 KM Route surface flow west from Subbasin 40s to 44s.
4646 RS 2 FLOW -1
4647 RC 0.050 0.016 0.050 2640 0.0015

```

4648	RX	0	1.1	44	107.8	112.2	176	218.9	220
4649	RY	3	1	0.5	0	0	0.5	1	3

HEC-1 INPUT

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

4650 KK BD40sP RETRIEVE  
 4651 KM Retrieve diverted pipe flow from D40sP.  
 4652 DR D40sP  
 \*

4653 KK P40sW ROUTE  
 4654 KM Route pipe flow from subbasin 40s to subbasin 44s.  
 4655 RK 2800 0.0030 0.015 CIRC 4.0  
 \*

4656 KK C40sW COMBINE  
 4657 KM Combine hydrographs R40sW and P40sW.  
 4658 HC 2 2.89  
 \*

4659 KK 44s BASIN  
 4660 KM Subbasin at NEC of UPRR and 24th St  
 4661 BA 0.240  
 4662 LG 0.16 0.13 10.10 0.05 44  
 4663 UC 1.186 0.801  
 4664 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4665 UA 100  
 \*

4666 KK BD44qP RETRIEVE  
 4667 KM Retrieve diverted pipe flow from D44qP.  
 4668 DR D44qP  
 \*

4669 KK P44qS ROUTE  
 4670 KM Route pipe flow from 24th st/Van Buren to subbasin 44s.  
 4671 RK 2500 0.0030 0.015 CIRC 6.00  
 \*

4672 KK BD44qS RETRIEVE  
 4673 KM Retrieve diverted surface flow from D44qS.  
 4674 DR D44qS  
 \*

4675 KK R44qS ROUTE  
 4676 KM Route surface flow south from Subbasin 44q to 44s.  
 4677 RS 3 FLOW -1  
 4678 RC 0.050 0.016 0.050 2550 0.0016  
 4679 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4680 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4681 KK C44qS COMBINE  
 4682 KM Combine hydrographs R44qS and P44qS.  
 4683 HC 2 2.57  
 \*

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

4684 KK C44s COMBINE  
 4685 KM Combine hydrographs C44qS, 44s, and C40sW.  
 4686 HC 3 3.79  
 \*

4687 KK D44s DIVERT  
 4688 KM Divert 201 cfs into pipe (south).  
 4689 DT D44sP  
 4690 DI 0 100 201 10000  
 4691 DQ 0 100 201 201  
 \*

4692 KK R44sW ROUTE  
 4693 KM Route surface flow west from Subbasin 44s to 48s.  
 4694 RS 3 FLOW -1  
 4695 RC 0.050 0.016 0.050 2400 0.0017  
 4696 RX 0 1.1 44 107.8 112.2 176 218.9 220  
 4697 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4698 KK 48s BASIN  
 4699 KM Subbasin at NEC of UPRR and I-10

4700 BA 0.212  
 4701 LG 0.15 0.15 9.70 0.06 49  
 4702 UC 1.032 0.689  
 4703 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4704 UA 100  
 \*

4705 KK BD48qS RETRIEVE  
 4706 KM Retrieve diverted flow from D48qS.  
 4707 DR D48qS  
 \*

4708 KK R48qS ROUTE  
 4709 KM Route surface flow south from Subbasin 48q to 48s.  
 4710 RS 2 FLOW -1  
 4711 RC 0.050 0.016 0.050 2550 0.0016  
 4712 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 4713 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4714 KK C48s COMBINE  
 4715 KM Combine hydrographs R48qS, 48s, and R44sW.  
 4716 HC 3 4.31  
 \*

4717 KK DB48s DIVERT  
 4718 KM Divert flow into East Tunnel.  
 4719 KM 102" SD at Admas St and 96" SD at Madison St. Q =600+468=1068 cfs  
 4720 DT D48sPT  
 4721 DI 0 100 1068 10000  
 4722 DQ 0 100 1068 1068  
 \*

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

4723 KK S48s STORAGE  
 4724 KM Regional online detention basin, 0.6 ac-ft.  
 4725 RS 1 STOR 0  
 4726 SV 0 0.6 2  
 4727 SE 0 1 3  
 4728 SQ 0 24 290  
 \*

4729 KK R48sW ROUTE  
 4730 KM Route surface flow west from Subbasin 48s to 52s.  
 4731 RS 6 FLOW -1  
 4732 RC 0.050 0.016 0.050 3000 0.0014  
 4733 RX 0 0.9 36 88.2 91.8 144 179.1 180  
 4734 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4735 KK 52s BASIN  
 4736 KM Subbasin at NEC of UPRR and 16th St  
 4737 BA 0.265  
 4738 LG 0.17 0.13 10.10 0.05 44  
 4739 UC 1.118 0.747  
 4740 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4741 UA 100  
 \*

4742 KK BD52qP RETRIEVE  
 4743 KM Retrieve diverted pipe flow from D52qP.  
 4744 DR D52qP  
 \*

4745 KK P52qS ROUTE  
 4746 KM Route pipe flow from subbasin 52q to subbasin 52s.  
 4747 RK 2500 0.0139 0.015 CIRC 4.42  
 \*

4748 KK BD52qS RETRIEVE  
 4749 KM Retrieve diverted surface flow from D52qS.  
 4750 DR D52qS  
 \*

4751 KK R52qS ROUTE  
 4752 KM Route surface flow south from Subbasin 52q to 52s.  
 4753 RS 5 FLOW -1  
 4754 RC 0.050 0.016 0.050 2500 0.0024  
 4755 RX 0 1.85 74 181.3 188.7 296 368.15 370  
 4756 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4757 KK C52qS COMBINE

4758 KM Combine hydrographs R52qS and P52qS.  
4759 HC 2 0.39  
\*

HEC-1 INPUT

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

4760 KK C52s COMBINE  
4761 KM Combine hydrographs C52s, C52qS, and R48sw.  
4762 HC 3 0.66  
\*

4763 KK D52s DIVERT  
4764 KM Divert 191 cfs into pipe (south).  
4765 DT D52sP  
4766 DI 0 100 191 10000  
4767 DQ 0 100 191 191  
\*

4768 KK R52sw ROUTE  
4769 KM Route surface flow west from Subbasin 52s to 56s.  
4770 RS 5 FLOW -1  
4771 RC 0.050 0.016 0.050 2640 0.0015  
4772 RX 0 0.8 32 78.4 81.6 128 159.2 160  
4773 RY 3 1 0.5 0 0 0.5 1 3  
\*

4774 KK 56s BASIN  
4775 KM Subbasin at NEC of UPRR and 12th St  
4776 BA 0.255  
4777 LG 0.18 0.10 11.20 0.03 39  
4778 UC 1.099 0.704  
4779 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
4780 UA 100  
\*

4781 KK BD56qP RETRIEVE  
4782 KM Retrieve diverted pipe flow from D56qP.  
4783 DR D56qP  
\*

4784 KK P56qS ROUTE  
4785 KM Route pipe flow from 12th st/Van Buren to subbasin 56s.  
4786 RK 2600 0.0030 0.015 CIRC 4.00  
\*

4787 KK BD56qS RETRIEVE  
4788 KM Retrieve diverted surface flow from D56qS.  
4789 DR D56qS  
\*

4790 KK R56qS ROUTE  
4791 KM Route surface flow south from Subbasin 56q to 56s.  
4792 RS 5 FLOW -1  
4793 RC 0.050 0.016 0.050 2500 0.0024  
4794 RX 0 1.25 50 122.5 127.5 200 248.75 250  
4795 RY 3 1 0.5 0 0 0.5 1 3  
\*

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

4796 KK C56qS COMBINE  
4797 KM Combine hydrographs R56qS and P56qS.  
4798 HC 2 0.75  
\*

4799 KK C56s COMBINE  
4800 KM Combine hydrographs C56qS, 56s, and R52sw.  
4801 HC 3 1.27  
\*

4802 KK D56s DIVERT  
4803 KM Divert 201 cfs into pipe (south).  
4804 DT D56sP  
4805 DI 0 100 201 10000  
4806 DQ 0 100 201 201  
\*

4807 KK D56sw DIVERT  
4808 KM Divert 15% of surface flow to south.  
4809 DT D56sS  
4810 DI 0 100 1000 10000  
4811 DQ 0 15 150 1500

```

*
4812 KK R56sW ROUTE
4813 KM Route surface flow west from Subbasin 56s to 60s.
4814 RS 3 FLOW -1
4815 RC 0.050 0.016 0.050 2640 0.0015
4816 RX 0 0.8 32 78.4 81.6 128 159.2 160
4817 RY 3 1 0.5 0 0 0.5 1 3
*
4818 KK 60s BASIN
4819 KM Subbasin at NEC of UPRR and 7th St
4820 BA 0.253
4821 LG 0.14 0.13 10.10 0.05 55
4822 UC 0.909 0.591
4823 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
4824 UA 100
*
4825 KK BD60qP RETRIEVE
4826 KM Retrieve diverted pipe flow from D60qP.
4827 DR D60qP
*
4828 KK P60qS ROUTE
4829 KM Route pipe flow from subbasin 60q to subbasin 60s.
4830 RK 2600 0.0031 0.015 CIRC 6.75
*

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

```

4831 KK BD60qS RETRIEVE
4832 KM Retrieve diverted surface flow from D60qS.
4833 DR D60qS
*
4834 KK R60qS ROUTE
4835 KM Route surface flow south from Subbasin 60q to 60s.
4836 RS 6 FLOW -1
4837 RC 0.050 0.016 0.050 2600 0.0037
4838 RX 0 1.25 50 122.5 127.5 200 248.75 250
4839 RY 3 1 0.5 0 0 0.5 1 3
*
4840 KK C60qS COMBINE
4841 KM Combine hydrographs R60qS and P60qS.
4842 HC 2 1.10
*
4843 KK C60s COMBINE
4844 KM Combine flows of 60s, c60qS, and R56sW
4845 HC 3 1.87
*
4846 KK D60s DIVERT
4847 KM Divert 217 cfs into pipe (west).
4848 DT D60sP
4849 DI 0 100 217 10000
4850 DQ 0 100 217 217
*
4851 KK D60sW DIVERT
4852 KM Divert 28% of surface flow to south.
4853 DT D60sS
4854 DI 0 100 1000 10000
4855 DQ 0 28 280 2800
*
4856 KK R60sW ROUTE
4857 KM Route surface flow west from Subbasin 60s to 64s.
4858 RS 3 FLOW -1
4859 RC 0.050 0.016 0.050 2640 0.0008
4860 RX 0 0.8 32 78.4 81.6 128 159.2 160
4861 RY 3 1 0.5 0 0 0.5 1 3
*
4862 KK BD60sP RETRIEVE
4863 KM Retrieve diverted pipe flow from D60sP.
4864 DR D60sP
*

```

1

HEC-1 INPUT

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

```

4865      KK  P60sW  ROUTE
4866      KM  Route pipe flow from subbasin 60s to subbasin 64s.
4867      RK  1150  0.0030  0.015          CIRC  6.2
          *

4868      KK  C60sW  COMBINE
4869      KM  Combine hydrographs R60sW and P60sW.
4870      HC  2    1.87
          *

4871      KK  64s   BASIN
4872      KM  Subbasin at NEC of UPRR and Central
4873      BA  0.258
4874      LG  0.11  0.15  9.70  0.07  65
4875      UC  0.944  0.597
4876      UA  0    5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
4877      UA  100
          *

4878      KK  BD64qS  RETRIEVE
4879      KM  Retrieve diverted surface flow from D64qS.
4880      DR  D64qS
          *

4881      KK  R64qS  ROUTE
4882      KM  Route surface flow south from Subbasin 64q to 64s.
4883      RS  3    FLOW  -1
4884      RC  0.050  0.016  0.050  2480  0.0032
4885      RX  0    1.55  62  151.9  158.1  248  308.45  310
4886      RY  3    1    0.5  0    0    0.5  1    3
          *

4887      KK  C64s  COMBINE
4888      KM  Combine flows of 64s, R64qS, and C60sW
4889      HC  3    2.54
          *

4890      KK  D64s  DIVERT
4891      KM  Divert 0.0 cfs into West Tunnel.
4892      KM  Assuming no connection to ADOT West Tunnel.
4893      DT  D64sPT
4894      DI  0    100  1000  10000
4895      DQ  0    0    0    0
          *

4896      KK  D64s1  DIVERT
4897      KM  Divert 327 cfs into storm drain.
4898      KM  600 cfs for two pipes combined but limited by D/S pipe capacity.
4899      DT  D64sP
4900      DI  0    100  327  1000  10000
4901      DQ  0    100  327  327  327
          *

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

4902      KK  D64sW  DIVERT
4903      KM  Divert 42% of surface flow to south.
4904      DT  D64sS
4905      DI  0    100  1000  10000
4906      DQ  0    42  420  4200
          *

4907      KK  R64sW  ROUTE
4908      KM  Route surface flow west from Subbasin 64s to 68s.
4909      RS  3    FLOW  -1
4910      RC  0.050  0.016  0.050  2280  0.0026
4911      RX  0    1.3  52  127.4  132.6  208  258.7  260
4912      RY  3    1    0.5  0    0    0.5  1    3
          *

4913      KK  68s   BASIN
4914      KM  Subbasin at NEC of UPRR and 7th Ave
4915      BA  0.236
4916      LG  0.12  0.25  5.20  0.35  60
4917      UC  0.984  0.636
4918      UA  0    5.0  16.0  30.0  65.0  77.0  84.0  90.0  94.0  97.0
4919      UA  100
          *

4920      KK  BD68qS  RETRIEVE
4921      KM  Retrieve diverted surface flow from D68qS.
4922      DR  D68qS
          *

```

4923 KK R68qS ROUTE  
 4924 KM Route surface flow south from Subbasin 68q to 68s.  
 4925 RS 3 FLOW -1  
 4926 RC 0.050 0.016 0.050 2800 0.0024  
 4927 RX 0 1.25 50 122.5 127.5 200 248.75 250  
 4928 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4929 KK C68s COMBINE  
 4930 KM Combine hydrographs 68s,R68qS, and R64sW  
 4931 HC 3 3.07  
 \*

4932 KK D68s DIVERT  
 4933 KM Divert 124 cfs into pipe (south).  
 4934 DT D68sP  
 4935 DI 0 100 124 10000  
 4936 DQ 0 100 124 124  
 \*

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HEC-1 INPUT

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

4937 KK D68sW DIVERT  
 4938 KM Divert 28% of surface flow to south.  
 4939 DT D68sS  
 4940 DI 0 100 1000 10000  
 4941 DQ 0 28 280 2800  
 \*

4942 KK R68sW ROUTE  
 4943 KM Route surface flow west from Subbasin 68s to 72s.  
 4944 RS 3 FLOW -1  
 4945 RC 0.050 0.016 0.050 2640 0.0015  
 4946 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 4947 RY 3 1 0.5 0 0 0.5 1 3  
 \*

4948 KK 72s BASIN  
 4949 KM Subbasin at NEC of UPRR and 15th Ave  
 4950 BA 0.283  
 4951 LG 0.16 0.15 9.70 0.06 35  
 4952 UC 1.061 0.665  
 4953 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 4954 UA 100  
 \*

4955 KK BD72qP RETRIEVE  
 4956 KM Retrieve diverted pipe flow from D72qP.  
 4957 KM Total pipe flow = 662 cfs  
 4958 DR D72qP  
 \*

4959 KK D72qP1 DIVERT  
 4960 KM Divert flow into pipe (south).  
 4961 DT D72qP2  
 4962 DI 0 662 700  
 4963 DQ 0 229 242  
 \*

4964 KK P72qS1 ROUTE  
 4965 KM Route pipe flow from 15th ave/Van Buren to subbasin 72s.  
 4966 RK 3000 0.0030 0.015 CIRC 8.00  
 \*

4967 KK B72qP2 RETRIEVE  
 4968 KM Retrieve diverted pipe flow from D72qP2.  
 4969 DR D72qP2  
 \*

4970 KK P72qS2 ROUTE  
 4971 KM Route pipe flow from subbasin 72q to subbasin 72s.  
 4972 RK 3000 0.0031 0.015 CIRC 6.3  
 \*

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

4973 KK BD72qS RETRIEVE  
 4974 KM Retrieve diverted surface flow from D72qS.  
 4975 DR D72qS  
 \*



5034 HC 2 11.45  
\*  
5035 KK C76s COMBINE  
5036 KM Combine hydrographs S76s, C76qS, and R72sW.  
5037 HC 3 13.28  
\*  
5038 KK D76s DIVERT  
5039 KM Divert 204 cfs into pipe (south).  
5040 DT D76sP  
5041 DI 0 100 204 10000  
5042 DQ 0 100 204 204  
\*  
5043 KK D76sW DIVERT  
5044 KM Divert 22% of surface flow to south.  
5045 DT D76sS  
5046 DI 0 100 1000 10000  
5047 DQ 0 22 220 2200  
\*

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

5048 KK R76sW ROUTE  
5049 KM Route surface flow west from Subbasin 76s to 80q.  
5050 RS 3 FLOW -1  
5051 RC 0.050 0.016 0.050 2290 0.0009  
5052 RX 0 1.25 50 122.5 127.5 200 248.75 250  
5053 RY 3 1 0.5 0 0 0.5 1 3  
\*

5054 KK CC80q COMBINE  
5055 KM CCombine flows of C80q and R76sW  
5056 HC 2 14.17  
\*

5057 KK D80q DIVERT  
5058 KM Divert 364 cfs into pipe (south).  
5059 DT D80qP  
5060 DI 0 100 364 10000  
5061 DQ 0 100 364 364  
\*

5062 KK D80qS DIVERT  
5063 KM Divert 100% of surface flow to west because of the SPRR.  
5064 DT D80qW  
5065 DI 0 100 1000 10000  
5066 DQ 0 100 1000 10000  
\*

5067 KK R80qS ROUTE  
5068 KM Route surface flow south from Subbasin 80q to 80t.  
5069 RS 2 FLOW -1  
5070 RC 0.050 0.016 0.050 2900 0.0042  
5071 RX 0 0.75 30 73.5 76.5 120 149.25 150  
5072 RY 3 1 0.5 0 0 0.5 1 3  
\*

5073 KK BD80qP RETRIEVE  
5074 KM Retrieve diverted pipe flow from D80qP.  
5075 DR D80qP  
\*

5076 KK P80qS ROUTE  
5077 KM Route pipe flow from SPRR/I-17 to subbasin 80t.  
5078 RK 2700 0.0030 0.015 CIRC 7.50  
\*

5079 KK C80qS COMBINE  
5080 KM Combine hydrographs R80qS and P80qS.  
5081 HC 2 14.17  
\*

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

5082 KK 52t BASIN  
5083 KM Subbasin at NEC of Buckeye and 16th St  
5084 BA 0.297  
5085 LG 0.15 0.15 8.00 0.11 42  
5086 UC 1.228 0.792  
5087 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0

5088 UA 100  
\*

5089 KK S52t STORAGE  
5090 KM Online Retention Basin, 4 ac-ft.  
5091 RS 1 STOR 0  
5092 SV 0 1.6 4 7  
5093 SE 0 2 4 6  
5094 SS 4 100 2.7 1.5  
\*

5095 KK BD52sP RETRIEVE  
5096 KM Retrieve diverted pipe flow from D52sP.  
5097 DR D52sP  
\*

5098 KK P52sS ROUTE  
5099 KM Route pipe flow from 16th st/SPRR to subbasin 52t.  
5100 RK 2850 0.0139 0.015 CIRC 4.42  
\*

5101 KK C52t COMBINE  
5102 KM Combine hydrographs S52t and P52sS.  
5103 HC 2 0.96  
\*

5104 KK D52t DIVERT  
5105 KM Divert 281 cfs into pipe (south).  
5106 DT D52tP  
5107 DI 0 100 281 10000  
5108 DQ 0 100 281 281  
\*

5109 KK D52tW DIVERT  
5110 KM Divert 41% of surface flow to south.  
5111 DT D52tS  
5112 DI 0 100 1000 10000  
5113 DQ 0 41 410 4100  
\*

5114 KK R52tW ROUTE  
5115 KM Route surface flow west from Subbasin 52t to 56t.  
5116 RS 3 FLOW -1  
5117 RC 0.050 0.016 0.050 2640 0.0023  
5118 RK 0 0.5 20 49 51 80 99.5 100  
5119 RY 3 1 0.5 0 0 0.5 1 3  
\*

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

5120 KK 56t BASIN  
5121 KM Subbasin at NEC of Buckeye and 12th St  
5122 BA 0.179  
5123 LG 0.12 0.15 8.80 0.08 57  
5124 UC 1.055 0.858  
5125 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5126 UA 100  
\*

5127 KK BD56sP RETRIEVE  
5128 KM Retrieve diverted pipe flow from D56sP.  
5129 DR D56sP  
\*

5130 KK P56sS ROUTE  
5131 KM Route pipe flow from subbasin 56s to subbasin 56t.  
5132 RK 2900 0.0030 0.015 CIRC 6.00  
\*

5133 KK BD56sS RETRIEVE  
5134 KM Retrieve diverted surface flow from D56sS.  
5135 DR D56sS  
\*

5136 KK R56sS ROUTE  
5137 KM Route surface flow south from Subbasin 56s to 56t.  
5138 RS 6 FLOW -1  
5139 RC 0.050 0.016 0.050 2900 0.0030  
5140 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5141 RY 3 1 0.5 0 0 0.5 1 3  
\*

5142 KK C56sS COMBINE  
5143 KM Combine hydrographs R56sS and P56sS.

5144 HC 2 1.27  
 \*  
 5145 KK C56t COMBINE  
 5146 KM Combine hydrographs 56t, R52tW, and C56sS.  
 5147 HC 3 1.74  
 \*  
 5148 KK D56t DIVERT  
 5149 KM Divert 612 cfs into pipe (south).  
 5150 DT D56tP  
 5151 DI 0 100 612 10000  
 5152 DQ 0 100 612 612  
 \*

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

5153 KK D56tW DIVERT  
 5154 KM Divert 35% of surface flow to south.  
 5155 DT D56tS  
 5156 DI 0 100 1000 10000  
 5157 DQ 0 35 350 3500  
 \*  
 5158 KK R56tW ROUTE  
 5159 KM Route surface flow west from Subbasin 56t to 60t.  
 5160 RS 2 FLOW -1  
 5161 RC 0.050 0.016 0.050 2640 0.0023  
 5162 RX 0 0.5 20 49 51 80 99.5 100  
 5163 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5164 KK 60t BASIN  
 5165 KM Subbasin at NEC of Buckeye and 7th St  
 5166 BA 0.328  
 5167 LG 0.17 0.15 8.00 0.11 42  
 5168 UC 1.267 0.886  
 5169 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5170 UA 100  
 \*

5171 KK S60t STORAGE  
 5172 KM Online Retention Basin, 0.7 ac-ft.  
 5173 RS 1 STOR 0  
 5174 SV 0 0.3 0.7 1.3  
 5175 SE 0 2 4 6  
 5176 SS 4 100 2.7 1.5  
 \*

5177 KK BD60sS RETRIEVE  
 5178 KM Retrieve diverted surface flow from D60sS.  
 5179 DR D60sS  
 \*

5180 KK R60sS ROUTE  
 5181 KM Route surface flow south from Subbasin 60s to 60t.  
 5182 RS 3 FLOW -1  
 5183 RC 0.050 0.016 0.050 2900 0.0035  
 5184 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5185 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5186 KK C60t COMBINE  
 5187 KM Combine hydrographs R60sS, S60t and R56tW.  
 5188 HC 3 2.68  
 \*

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

5189 KK D60tW DIVERT  
 5190 KM Divert 27% of surface flow to south.  
 5191 DT D60tS  
 5192 DI 0 100 1000 10000  
 5193 DQ 0 27 270 2700  
 \*

5194 KK R60tW ROUTE  
 5195 KM Route surface flow west from Subbasin 60t to 64t.  
 5196 RS 3 FLOW -1  
 5197 RC 0.050 0.016 0.050 2640 0.0023  
 5198 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5199 RY 3 1 0.5 0 0 0.5 1 3

\*  
 5200 KK 64t BASIN  
 5201 KM Subbasin at NEC of Buckeye and Central  
 5202 BA 0.271  
 5203 LG 0.15 0.21 6.40 0.21 49  
 5204 UC 1.171 0.761  
 5205 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5206 UA 100  
 \*

5207 KK BD64sP RETRIEVE  
 5208 KM Retrieve diverted pipe flow from D64sP.  
 5209 DR D64sP  
 \*

5210 KK P64sS ROUTE  
 5211 KM Route pipe flow from subbasin 64s to subbasin 64t.  
 5212 KM Two pipes equivalent D = 10'  
 5213 RK 2800 0.0035 0.015 CIRC 10.0  
 \*

5214 KK BD64sS RETRIEVE  
 5215 KM Retrieve diverted surface flow from D64sS.  
 5216 DR D64sS  
 \*

5217 KK R64sS ROUTE  
 5218 KM Route surface flow south from Subbasin 64s to 64t.  
 5219 RS 3 FLOW -1  
 5220 RC 0.050 0.016 0.050 2900 0.0035  
 5221 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5222 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5223 KK C64sS COMBINE  
 5224 KM Combine hydrographs R64sS and P64sS.  
 5225 HC 2 2.54  
 \*

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

5226 KK C64t COMBINE  
 5227 KM Combine flows of 64t, C64sS, and R60tW  
 5228 HC 3 3.61  
 \*

5229 KK D64t DIVERT  
 5230 KM Divert 0.0 cfs into ADOT West Tunnel (assuming no connection).  
 5231 DT D64tPT  
 5232 DI 0 100 1000 10000  
 5233 DQ 0 0 0 0  
 \*

5234 KK D64t1 DIVERT  
 5235 KM Divert 375 (327+48) cfs into pipes (south).  
 5236 DT D64tP  
 5237 DI 0 100 375 10000  
 5238 DQ 0 100 375 375  
 \*

5239 KK D64tW DIVERT  
 5240 KM Divert 44% of surface flow to south.  
 5241 DT D64tS  
 5242 DI 0 100 1000 10000  
 5243 DQ 0 44 440 4400  
 \*

5244 KK R64tW ROUTE  
 5245 KM Route surface flow west from Subbasin 64t to 68t.  
 5246 RS 3 FLOW -1  
 5247 RC 0.050 0.016 0.050 2640 0.0023  
 5248 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5249 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5250 KK 68t BASIN  
 5251 KM Subbasin at NEC of Buckeye and 7th Ave  
 5252 BA 0.251  
 5253 LG 0.20 0.15 8.80 0.08 33  
 5254 UC 1.051 0.705  
 5255 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5256 UA 100  
 \*

5257 KK BD68sP RETRIEVE  
 5258 KM Retrieve diverted pipe flow from D68sP.  
 5259 DR D68sP  
 \*  
 5260 KK P68sS ROUTE  
 5261 KM Route pipe flow from 7th ave/SPRR to subbasin 68t.  
 5262 RK 2500 0.0030 0.015 CIRC 5.00  
 \*

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

5263 KK BD68sS RETRIEVE  
 5264 KM Retrieve diverted surface flow from D68sS.  
 5265 DR D68sS  
 \*  
 5266 KK R68sS ROUTE  
 5267 KM Route surface flow south from Subbasin 68s to 68t.  
 5268 RS 3 FLOW -1  
 5269 RC 0.050 0.016 0.050 2600 0.0035  
 5270 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5271 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5272 KK C68sS COMBINE  
 5273 KM Combine hydrographs R68sS and P68sS.  
 5274 HC 2 3.07  
 \*

5275 KK C68t COMBINE  
 5276 KM Combine flows of 68t, C68sS, and R64tW  
 5277 HC 3 4.39  
 \*

5278 KK D68t DIVERT  
 5279 KM Divert 124 cfs into pipe (south).  
 5280 DT D68tP  
 5281 DI 0 100 124 10000  
 5282 DQ 0 100 124 124  
 \*

5283 KK D68tW DIVERT  
 5284 KM Divert 46% of surface flow to south.  
 5285 DT D68tS  
 5286 DI 0 100 1000 10000  
 5287 DQ 0 46 460 4600  
 \*

5288 KK R68tW ROUTE  
 5289 KM Route surface flow west from Subbasin 68t to 72t.  
 5290 RS 2 FLOW -1  
 5291 RC 0.050 0.016 0.050 2640 0.0023  
 5292 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5293 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5294 KK 72t BASIN  
 5295 KM Subbasin at NEC of Buckeye and 15th Ave  
 5296 BA 0.222  
 5297 LG 0.21 0.15 9.70 0.06 31  
 5298 UC 1.148 0.976  
 5299 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5300 UA 100  
 \*

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

5301 KK BD72sS RETRIEVE  
 5302 KM Retrieve diverted surface flow from D72sS.  
 5303 DR D72sS  
 \*  
 5304 KK R72sS ROUTE  
 5305 KM Route surface flow south from Subbasin 72s to 72t.  
 5306 RS 2 FLOW -1  
 5307 RC 0.050 0.016 0.050 2400 0.0051  
 5308 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5309 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5310 KK BD72sP RETRIEVE  
5311 KM Retrieve diverted pipe flow from D72sP.  
5312 DR D72sP  
\*

5313 KK D72sP1 DIVERT  
5314 KM Divert flow into pipe (south).  
5315 DT D72sP2  
5316 DI 0 662 700  
5317 DQ 0 229 242  
\*

5318 KK P72sS1 ROUTE  
5319 KM Route pipe flow from subbasin 72s to subbasin 72t.  
5320 RK 2350 0.0030 0.015 CIRC 8.00  
\*

5321 KK B72sP2 RETRIEVE  
5322 KM Retrieve diverted pipe flow from D72sP2.  
5323 DR D72sP2  
\*

5324 KK P72sS2 ROUTE  
5325 KM Route pipe flow from subbasin 72s to subbasin 72t.  
5326 RK 2350 0.0031 0.015 CIRC 6.3  
\*

5327 KK C72sS COMBINE  
5328 KM Combine flow of R72sS, P72sS1, and P72sS2  
5329 HC 3 4.68  
\*

5330 KK C72t COMBINE  
5331 KM Combine flows of C72sS, 72s, and R68tW  
5332 HC 3 6.23  
\*

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

5333 KK D72t DIVERT  
5334 KM Divert 714 cfs into pipe (433 cfs + 281 cfs) (south).  
5335 DT D72tP  
5336 DI 0 100 714 10000  
5337 DQ 0 100 714 714  
\*

5338 KK D72tW DIVERT  
5339 KM Divert 53% of surface flow to south.  
5340 DT D72tS  
5341 DI 0 100 1000 10000  
5342 DQ 0 53 530 5300  
\*

5343 KK R72tW ROUTE  
5344 KM Route surface flow west from Subbasin 72t to 76t.  
5345 RS 3 FLOW -1  
5346 RC 0.050 0.016 0.050 2640 0.0015  
5347 RX 0 1.3 52 127.4 132.6 208 258.7 260  
5348 RY 3 1 0.5 0 0 0.5 1 3  
\*

5349 KK 76t BASIN  
5350 KM Subbasin at NEC of Buckeye and 19th Ave  
5351 BA 0.272  
5352 LG 0.19 0.15 9.70 0.06 36  
5353 UC 1.161 0.798  
5354 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5355 UA 100  
\*

5356 KK BD76sP RETRIEVE  
5357 KM Retrieve diverted pipe flow from D76sP.  
5358 DR D76sP  
\*

5359 KK P76sS ROUTE  
5360 KM Route pipe flow from 19th ave/SPRR to subbasin 76t.  
5361 RK 3000 0.0031 0.015 CIRC 6.00  
\*

5362 KK BD76sS RETRIEVE  
5363 KM Retrieve diverted surface flow from D76sS.  
5364 DR D76sS  
\*

5365 KK R76sS ROUTE  
 5366 KM Route surface flow south from Subbasin 76s to 76t.  
 5367 RS 3 FLOW -1  
 5368 RC 0.050 0.016 0.050 2800 0.0033  
 5369 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5370 RY 3 1 0.5 0 0 0.5 1 3  
 \*

HEC-1 INPUT

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

5371 KK C76sS COMBINE  
 5372 KM Combine hydrographs R76sS and P76sS.  
 5373 HC 2 13.28  
 \*

5374 KK C76t COMBINE  
 5375 KM Combine hydrographs C76sS, 76t, and R72tW.  
 5376 HC 3 15.10  
 \*

5377 KK D76t DIVERT  
 5378 KM Divert 297 cfs into pipe (south) (249 cfs + 48 cfs).  
 5379 DT D76tP  
 5380 DI 0 100 297 10000  
 5381 DQ 0 100 297 297  
 \*

5382 KK D76tW DIVERT  
 5383 KM Divert 53% of surface flow to south.  
 5384 DT D76tS  
 5385 DI 0 100 1000 10000  
 5386 DQ 0 53 530 5300  
 \*

5387 KK R76tW ROUTE  
 5388 KM Route surface flow west from Subbasin 76t to 80t.  
 5389 RS 3 FLOW -1  
 5390 RC 0.050 0.016 0.050 2640 0.0015  
 5391 RX 0 1.55 62 151.9 158.1 248 308.45 310  
 5392 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5393 KK 80t BASIN  
 5394 KM Subbasin at NEC of Buckeye and I-17  
 5395 BA 0.252  
 5396 LG 0.19 0.25 5.80 0.24 35  
 5397 UC 1.103 0.817  
 5398 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5399 UA 100  
 \*

5400 KK C80t COMBINE  
 5401 KM Combine flows of 80t, c80qS, and R76tW  
 5402 HC 3 16.24  
 \*

5403 KK D80t DIVERT  
 5404 KM Divert 364 cfs into pipe (south).  
 5405 DT D80tP  
 5406 DI 0 100 364 10000  
 5407 DQ 0 100 364 364  
 \*

HEC-1 INPUT

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

5408 KK R80tS ROUTE  
 5409 KM Route surface flow south from Subbasin 80t to 80u.  
 5410 RS 2 FLOW -1  
 5411 RC 0.050 0.016 0.050 2100 0.0048  
 5412 RX 0 1 40 98 102 160 199 200  
 5413 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5414 KK 52u BASIN  
 5415 KM Subbasin at NEC of I-17 and 16th St  
 5416 BA 0.391  
 5417 LG 0.27 0.25 4.80 0.34 13  
 5418 UC 1.500 0.987  
 5419 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5420 UA 100  
 \*

5421 KK BD52tS RETRIEVE  
 5422 KM Retrieve diverted surface flow from D52tS.  
 5423 DR D52tS  
 \*

5424 KK R52tS ROUTE  
 5425 KM Route surface flow south from Subbasin 52t to 52u.  
 5426 RS 5 FLOW -1  
 5427 RC 0.050 0.016 0.050 3530 0.0023  
 5428 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5429 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5430 KK C52u COMBINE  
 5431 KM Combine hydrographs R52tS and 52u.  
 5432 HC 2 1.35  
 \*

5433 KK S52u STORAGE  
 5434 KM Online detention basin, 68 ac-ft.  
 5435 RS 1 STOR 0  
 5436 SV 0 8 21 35 50 68 90  
 5437 SE 0 2 4 6 8 10 12  
 5438 SL 1.0 12.56 0.62 0.5  
 5439 SS 10 200 2.7 1.5  
 \*

5440 KK BD52tP RETRIEVE  
 5441 KM Retrieve diverted pipe flow from D52tP.  
 5442 DR D52tP  
 \*

HEC-1 INPUT

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

5443 KK P52tS ROUTE  
 5444 KM Route pipe flow from 16th st/Buckeye to subbasin 52u.  
 5445 RK 3550 0.0038 0.015 CIRC 6.50  
 \*

5446 KK CC52u COMBINE  
 5447 KM Combine hydrographs S52u and P52tS.  
 5448 HC 2 1.35  
 \*

5449 KK D52u DIVERT  
 5450 KM Divert 281 cfs into pipe (south).  
 5451 DT D52uP  
 5452 DI 0 100 281 10000  
 5453 DQ 0 100 281 281  
 \*

5454 KK D52uW DIVERT  
 5455 KM Divert 32% of surface flow to south.  
 5456 DT D52uS  
 5457 DI 0 100 1000 10000  
 5458 DQ 0 32 320 3200  
 \*

5459 KK R52uW ROUTE  
 5460 KM Route surface flow west from Subbasin 52u to 56u.  
 5461 RS 2 FLOW -1  
 5462 RC 0.050 0.016 0.050 2660 0.0015  
 5463 RX 0 0.8 32 78.4 81.6 128 159.2 160  
 5464 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5465 KK 56u BASIN  
 5466 KM Subbasin at NEC of I-17 and 12th St  
 5467 BA 0.326  
 5468 LG 0.22 0.25 4.70 0.38 23  
 5469 UC 1.500 1.037  
 5470 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5471 UA 100  
 \*

5472 KK BD56tS RETRIEVE  
 5473 KM Retrieve diverted surface flow from D56tS.  
 5474 DR D56tS  
 \*

5475 KK R56tS ROUTE  
 5476 KM Route surface flow south from Subbasin 56t to 56u.  
 5477 RS 2 FLOW -1

5478	RC	0.050	0.016	0.050	3400	0.0017			
5479	RX	0	1.3	52	127.4	132.6	208	258.7	260
5480	RY	3	1	0.5	0	0	0.5	1	3

HEC-1 INPUT

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

5481	KK	C56u COMBINE							
5482	KM	Combine hydrographs R56tS, 56u, and R52uW.							
5483	HC	3	2.46						

5484	KK	S56u STORAGE							
5485	KM	Regional Online Detention Basin, 4 ac-ft.							
5486	RS	1	STOR	0					
5487	SV	0	4	12					
5488	SE	0	2	4					
5489	SL	0.33	0.785	0.62	0.5				
5490	SS	2	400	2.7	1.5				

5491	KK	BD56tP RETRIEVE							
5492	KM	Retrieve diverted pipe flow from D56tP.							
5493	DR	D56tP							

5494	KK	P56tS ROUTE							
5495	KM	Route pipe flow from 12th st/Buckeye to subbasin 56u.							
5496	RK	3300	0.0060	0.015		CIRC	8.00		

5497	KK	CC56u COMBINE							
5498	KM	Combine hydrographs S56u and P56tS.							
5499	HC	2	2.46						

5500	KK	D56u DIVERT							
5501	KM	Divert 612 cfs into pipe (south).							
5502	DT	D56uP							
5503	DI	0	100	612	10000				
5504	DQ	0	100	612	612				

5505	KK	D56uW DIVERT							
5506	KM	Divert 21% of surface flow to south.							
5507	DT	D56uS							
5508	DI	0	100	1000	10000				
5509	DQ	0	21	210	2100				

5510	KK	R56uW ROUTE							
5511	KM	Route surface flow west from Subbasin 56u to 60u.							
5512	RS	6	FLOW	-1					
5513	RC	0.050	0.016	0.050	2660	0.0010			
5514	RX	0	0.8	32	78.4	81.6	128	159.2	160
5515	RY	3	1	0.5	0	0	0.5	1	3

HEC-1 INPUT

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

5516	KK	60u BASIN							
5517	KM	Subbasin at NEC of I-17 and 7th St							
5518	BA	0.285							
5519	LG	0.44	0.25	6.00	0.22	22			
5520	UC	1.460	0.973						
5521	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0
5522	UA	100							

5523	KK	BD60tS RETRIEVE							
5524	KM	Retrieve diverted surface flow from D60tS.							
5525	DR	D60tS							

5526	KK	R60tS ROUTE							
5527	KM	Route surface flow south from Subbasin 60t to 60u.							
5528	RS	5	FLOW	-1					
5529	RC	0.050	0.016	0.050	3175	0.0013			
5530	RX	0	0.75	30	73.5	76.5	120	149.25	150
5531	RY	3	1	0.5	0	0	0.5	1	3

5532 KK C60u COMBINE  
 5533 KM Combine hydrographs R60tS, 60u, and R56uW.  
 5534 HC 3 3.68  
 \*

5535 KK S60u STORAGE  
 5536 KM Regional online detention, 1 ac-ft.  
 5537 RS 1 STOR 0  
 5538 SV 0 0.3 0.6 1 2  
 5539 SE 0 2 4 6 8  
 5540 SQ 0 45 90 145 290  
 \*

5541 KK D60u DIVERT  
 5542 KM Divert 124 cfs into pipe (south).  
 5543 DT D60uP  
 5544 DI 0 100 124 10000  
 5545 DQ 0 100 124 124  
 \*

5546 KK D60uW DIVERT  
 5547 KM Divert 33% of surface flow to south.  
 5548 DT D60uS  
 5549 DI 0 100 1000 10000  
 5550 DQ 0 33 330 3300  
 \*

HEC-1 INPUT

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

5551 KK R60uW ROUTE  
 5552 KM Route surface flow west from Subbasin 60u to 64u.  
 5553 RS 4 FLOW -1  
 5554 RC 0.050 0.016 0.050 2640 0.0015  
 5555 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5556 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5557 KK 64u BASIN  
 5558 KM Subbasin at NEC of I-17 and Central  
 5559 BA 0.296  
 5560 LG 0.19 0.23 6.20 0.21 36  
 5561 UC 1.316 0.824  
 5562 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5563 UA 100  
 \*

5564 KK BD64tP RETRIEVE  
 5565 KM Retrieve diverted pipe flow from D64tP.  
 5566 DR D64tP  
 \*

5567 KK P64tS ROUTE  
 5568 KM Route pipe flow from subbasin 64t to subbasin 64u.  
 5569 KM Two pipe equivalent b = 8.5'  
 5570 RK 3100 0.0035 0.015 CIRC 8.5  
 \*

5571 KK BD64tS RETRIEVE  
 5572 KM Retrieve diverted surface flow from D64tS.  
 5573 DR D64tS  
 \*

5574 KK R64tS ROUTE  
 5575 KM Route surface flow south from Subbasin 64t to 64u.  
 5576 RS 3 FLOW -1  
 5577 RC 0.050 0.016 0.050 3100 0.0035  
 5578 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5579 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5580 KK C64tS COMBINE  
 5581 KM Combine hydrographs R64tS and P64tS.  
 5582 HC 2 3.61  
 \*

5583 KK C64u COMBINE  
 5584 KM Combine hydrographs C64tS, 64u, and R60uW.  
 5585 HC 3 4.91  
 \*

HEC-1 INPUT

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

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5586 KK D64u DIVERT
5587 KM Divert 0.0 cfs into ADOT west Tunnel (assuming no connection).
5588 DT D64uPT
5589 DI 0 100 1000 10000
5590 DQ 0 0 0 0
*

5591 KK D64u1 DIVERT
5592 KM Divert 375 cfs into pipe (south).
5593 DT D64uP
5594 DI 0 100 375 1000 10000
5595 DQ 0 100 375 375 375
*

5596 KK D64uW DIVERT
5597 KM Divert 25% of surface flow to south.
5598 DT D64uS
5599 DI 0 100 1000 10000
5600 DQ 0 25 250 2500
*

5601 KK R64uW ROUTE
5602 KM Route surface flow west from Subbasin 64u to 68u.
5603 RS 3 FLOW -1
5604 RC 0.050 0.016 0.050 2650 0.0015
5605 RX 0 1.3 52 127.4 132.6 208 258.7 260
5606 RY 3 1 0.5 0 0 0.5 1 3
*

5607 KK 68u BASIN
5608 KM Subbasin at NEC of I-17 and 7th Ave
5609 BA 0.280
5610 LG 0.20 0.15 8.80 0.08 32
5611 UC 1.298 0.854
5612 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
5613 UA 100
*

5614 KK BD68tP RETRIEVE
5615 KM Retrieve diverted pipe flow from D68tP.
5616 DR D68tP
*

5617 KK P68tS ROUTE
5618 KM Route pipe flow from subbasin 68t to subbasin 68u.
5619 RK 2750 0.0030 0.015 CIRC 5.00
*

5620 KK BD68tS RETRIEVE
5621 KM Retrieve diverted surface flow from D68tS.
5622 DR D68tS
*

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HEC-1 INPUT

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

5623 KK R68tS ROUTE
5624 KM Route surface flow south from Subbasin 68t to 68u.
5625 RS 2 FLOW -1
5626 RC 0.050 0.016 0.050 2800 0.0035
5627 RX 0 1.3 52 127.4 132.6 208 258.7 260
5628 RY 3 1 0.5 0 0 0.5 1 3
*

5629 KK C68tS COMBINE
5630 KM Combine hydrographs R68tS and P68tS.
5631 HC 2 4.39
*

5632 KK C68u COMBINE
5633 KM Combine hydrographs 68u, R64uW, and C68tS.
5634 HC 3 5.97
*

5635 KK D68u DIVERT
5636 KM Divert 146 cfs into pipe (south).
5637 DT D68uP
5638 DI 0 100 146 10000
5639 DQ 0 100 146 146
*

5640 KK D68uW DIVERT
5641 KM Divert 21% of surface flow to south.
5642 DT D68uS
5643 DI 0 100 1000 10000

```

5644 DQ 0 21 210 2100  
\*

5645 KK R68uW ROUTE  
5646 KM Route surface flow west from Subbasin 68u to 72u.  
5647 RS 3 FLOW -1  
5648 RC 0.050 0.016 0.050 2640 0.0015  
5649 RX 0 0.8 32 78.4 81.6 128 159.2 160  
5650 RY 3 1 0.5 0 0 0.5 1 3  
\*

5651 KK 72u BASIN  
5652 KM Subbasin at NEC of I-17 and 15th Ave  
5653 BA 0.257  
5654 LG 0.27 0.15 9.70 0.06 24  
5655 UC 1.277 0.863  
5656 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
5657 UA 100  
\*

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

5658 KK C72u COMBINE  
5659 KM Combine hydrographs 72u and R68uW.  
5660 HC 2 6.23  
\*

5661 KK BD72tP RETRIEVE  
5662 KM Retrieve diverted pipe flow from D72tP.  
5663 DR D72tP  
\*

5664 KK D72tP1 DIVERT  
5665 KM Divert flow into pipe (south).  
5666 DT D72tP2  
5667 DI 0 714 800  
5668 DQ 0 281 315  
\*

5669 KK P72tS1 ROUTE  
5670 KM Route pipe flow from subbasin 72t to subbasin 72u.  
5671 RK 2700 0.0030 0.015 CIRC 8.0  
\*

5672 KK B72tP2 RETRIEVE  
5673 KM Retrieve diverted pipe flow from D72tP2.  
5674 DR D72tP2  
\*

5675 KK P72tS2 ROUTE  
5676 KM Route pipe flow from subbasin 72t to subbasin 72u.  
5677 RK 2700 0.0031 0.015 CIRC 6.8  
\*

5678 KK B72tS RETRIEVE  
5679 KM Retrieve diverted surface flow from D72tS.  
5680 DR D72tS  
\*

5681 KK R72tS ROUTE  
5682 KM Route surface flow south from Subbasin 72t to 72u.  
5683 RS 3 FLOW -1  
5684 RC 0.050 0.016 0.050 2820 0.0021  
5685 RX 0 2.3 92 225.4 234.6 368 457.7 460  
5686 RY 3 1 0.5 0 0 0.5 1 3  
\*

5687 KK C72tS COMBINE  
5688 KM Combine hydrographs R72tS, P72tS1, and P72tS2.  
5689 HC 3 6.23  
\*

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

5690 KK CC72u COMBINE  
5691 KM Combine hydrographs C72tS and C72u.  
5692 HC 2 8.06  
\*

5693 KK D72u DIVERT  
5694 KM Divert 714 cfs into pipe (south) (433 cfs + 281 cfs).  
5695 DT D72uP

5696 DI 0 100 714 10000  
 5697 DQ 0 100 714 714  
 \*  
 5698 KK D72uW DIVERT  
 5699 KM Divert 31% of surface flow to south.  
 5700 DT D72uS  
 5701 DI 0 100 1000 10000  
 5702 DQ 0 31 310 3100  
 \*  
 5703 KK R72uW ROUTE  
 5704 KM Route surface flow west from Subbasin 72u to 76u.  
 5705 RS 3 FLOW -1  
 5706 RC 0.050 0.016 0.050 2640 0.0015  
 5707 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5708 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5709 KK BD76tP RETRIEVE  
 5710 KM Retrieve diverted pipe flow from D76tP.  
 5711 DR D76tP  
 \*

5712 KK D76tP1 DIVERT  
 5713 KM Divert 297 cfs into pipe (south).  
 5714 DT D76tP2  
 5715 DI 0 297 300  
 5716 DQ 0 48 49  
 \*

5717 KK P76tS1 ROUTE  
 5718 KM Route pipe flow from subbasin 76t to subbasin 76u.  
 5719 RK 3000 0.0030 0.015 CIRC 6.50  
 \*

5720 KK B76tP2 RETRIEVE  
 5721 KM Retrieve diverted pipe flow from D76tP2.  
 5722 DR D76tP2  
 \*

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

5723 KK P76tS2 ROUTE  
 5724 KM Route pipe flow from subbasin 76t to subbasin 76u.  
 5725 RK 3000 0.0030 0.015 CIRC 3.5  
 \*

5726 KK BD76tS RETRIEVE  
 5727 KM Retrieve diverted surface flow from D76tS.  
 5728 DR D76tS  
 \*

5729 KK R76tS ROUTE  
 5730 KM Route surface flow south from Subbasin 76t to 76u.  
 5731 RS 3 FLOW -1  
 5732 RC 0.050 0.016 0.050 2665 0.0015  
 5733 RX 0 1.3 52 127.4 132.6 208 258.7 260  
 5734 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5735 KK C76tS COMBINE  
 5736 KM Combine hydrographs R76tS, P76tS1, and P76tS2.  
 5737 HC 3 15.10  
 \*

5738 KK 76u BASIN  
 5739 KM Subbasin at NEC of I-17 and 19th Ave  
 5740 BA 0.283  
 5741 LG 0.32 0.15 9.70 0.06 23  
 5742 UC 1.340 0.844  
 5743 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5744 UA 100  
 \*

5745 KK C76u COMBINE  
 5746 KM Combine hydrographs 76u, C76tS, and R72uW.  
 5747 HC 3 17.22  
 \*

5748 KK D76u DIVERT  
 5749 KM Divert 297 cfs into pipe (south) (48 cfs to 76v, 248 cfs to 80v).  
 5750 DT D76uP  
 5751 DI 0 100 297 10000

5752 DQ 0 100 297 297

\*

5753 KK D76uW DIVERT
5754 KM Divert 0.0% of surface flow to south.
5755 DT D76uS
5756 DI 0 100 1000 10000
5757 DQ 0 0.0 0.0 0.0

\*

HEC-1 INPUT

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

5758 KK R76uW ROUTE
5759 KM Route surface flow west from Subbasin 76u to 80u.
5760 RS 2 FLOW -1
5761 RC 0.050 0.016 0.050 2370 0.0025
5762 RX 0 0.75 30 73.5 76.5 120 149.25 150
5763 RY 3 1 0.5 0 0 0.5 1 3

\*

5764 KK 80u BASIN
5765 KM Subbasin at NEC of Durango and I-17
5766 BA 0.249
5767 LG 0.16 0.15 8.00 0.11 46
5768 UC 1.029 0.734
5769 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
5770 UA 100

\*

5771 KK C80u COMBINE
5772 KM Combine flows of 80u, R80tS, and R76uW
5773 HC 3 18.61

\*

5774 KK BD80tP RETRIEVE
5775 KM Retrieve diverted pipe flow from D80tP.
5776 DR D80tP

\*

5777 KK P80tS ROUTE
5778 KM Route pipe flow from I-17/Buckeye to subbasin 80u.
5779 RK 2100 0.0030 0.015 CIRC 7.50

\*

5780 KK BD80qW RETRIEVE
5781 KM Retrieve diverted flow from D80qW.
5782 DR D80qW

\*

5783 KK CC80u COMBINE
5784 KM Combine flows of C80u,D80qW, and P80tS
5785 HC 3 18.61

\*

5786 KK S-I17 STORAGE
5787 KM I-17 Depressed Segment and East Durango Curve ponding Areas
5788 KM Online Regional Detention Basin, 320 ac-ft.
5789 RS 1 STOR 0
5790 SV 0 6 29 45 112 169 320 360 396 425
5791 SE 0 2 6 8 12 14 16 17 17.6 18
5792 SQ 0.0 183 316 365 448 483 517 674 2224 4564

\*

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

5793 KK D80u DIVERT
5794 KM Divert 509 cfs into pipe (west).
5795 DT D80uP
5796 DI 0 100 509 10000
5797 DQ 0 100 509 509

\*

5798 KK R80uW ROUTE
5799 KM Route surface flow west from Subbasin 80u to 84u.
5800 RS 2 FLOW -1
5801 RC 0.050 0.016 0.050 2760 0.0014
5802 RX 0 1.0 40 98 102 160 199 200
5803 RY 3 1 0.5 0 0 0.5 1 3

\*

5804 KK 84t BASIN
5805 KM Subbasin at NEC of Buckeye and 27th Ave

5806 BA 0.273  
 5807 LG 0.14 0.15 7.60 0.13 55  
 5808 UC 1.141 0.933  
 5809 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5810 UA 100  
 \*

5811 KK P84tN INFLOW  
 5812 KM Inflow from storm drain north of SPRR along 27th Avenue.  
 5813 KM Maximum flow 252 cfs.  
 5814 IN 60  
 5815 BA 0.5  
 5816 QI 0 1 2 3 4 4 5 5 6 6  
 5817 QI 8 10 17 252 74 21 9 7 6 5  
 5818 QI 5 4 1 0.5 0.1  
 \*

5819 KK C84t COMBINE  
 5820 KM Combine hydrographs P84tN and 80t.  
 5821 HC 2 0.77  
 \*

5822 KK D84t DIVERT  
 5823 KM Divert 252 cfs into pipe (south).  
 5824 DT D84tP  
 5825 DI 0 100 252 10000  
 5826 DQ 0 100 252 252  
 \*

5827 KK D84tS DIVERT  
 5828 KM Divert 13% of surface flow to west.  
 5829 DT D84tW  
 5830 DI 0 100 1000 10000  
 5831 DQ 0 13 130 1300  
 \*

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

5832 KK R84tS ROUTE  
 5833 KM Route surface flow south from Subbasin 84t to 84u.  
 5834 RS 2 FLOW -1  
 5835 RC 0.050 0.016 0.050 2760 0.0018  
 5836 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5837 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5838 KK 84u BASIN  
 5839 KM Subbasin at NEC of Durango and 27th Ave  
 5840 BA 0.263  
 5841 LG 0.61 0.15 8.00 0.11 41  
 5842 UC 1.300 0.878  
 5843 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5844 UA 100  
 \*

5845 KK C84u COMBINE  
 5846 KM Combine hydrographs R84tS, 84u, and R80uW.  
 5847 HC 3 9.04  
 \*

5848 KK S84u STORAGE  
 5849 KM Online Regional Detention Basin, 3 ac-ft.  
 5850 RS 1 STOR 0  
 5851 SV 0 3 13  
 5852 SE 0 2 4  
 5853 SQ 0 30 3000  
 \*

5854 KK BD84tP RETRIEVE  
 5855 KM Retrieve diverted pipe flow from D84tP.  
 5856 DR D84tP  
 \*

5857 KK P84tS ROUTE  
 5858 KM Route pipe flow from I-17/Buckeye to subbasin 84u.  
 5859 RK 2650 0.0031 0.015 CIRC 6.50  
 \*

5860 KK CC84u COMBINE  
 5861 KM Combine hydrographs P84tS and S84u.  
 5862 HC 2 9.04  
 \*

5863 KK D84u DIVERT

5864 KM Divert 252 cfs into pipe (south).  
 5865 DT D84uP  
 5866 DI 0 100 252 10000  
 5867 DQ 0 100 252 252  
 \*

HEC-1 INPUT

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

5868 KK D84uW DIVERT  
 5869 KM Divert 20% of surface flow to south.  
 5870 DT D84uS  
 5871 DI 0 100 1000 10000  
 5872 DQ 0 20 200 2000  
 \*

5873 KK R84uW ROUTE  
 5874 KM Route surface flow west from Subbasin 84u to 88u.  
 5875 RS 3 FLOW -1  
 5876 RC 0.050 0.016 0.050 2760 0.0022  
 5877 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5878 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5879 KK 88t BASIN  
 5880 KM Subbasin at NEC of Buckeye and 35th Ave  
 5881 BA 0.259  
 5882 LG 0.18 0.25 6.00 0.23 44  
 5883 UC 1.350 1.159  
 5884 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5885 UA 100  
 \*

5886 KK BD84tW RETRIEVE  
 5887 KM Retrieve diverted surface flow from D84tW.  
 5888 DR D84tW  
 \*

5889 KK R84tW ROUTE  
 5890 KM Route surface flow west from Subbasin 84t to 88t.  
 5891 RS 4 FLOW -1  
 5892 RC 0.050 0.016 0.050 2760 0.0011  
 5893 RX 0 0.5 20 49 51 80 99.5 100  
 5894 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5895 KK C88t COMBINE  
 5896 KM Combine hydrographs 88t and R84tW.  
 5897 HC 2 1.03  
 \*

5898 KK D88tS DIVERT  
 5899 KM Divert 30% of surface flow to west.  
 5900 DT D88tW  
 5901 DI 0 100 1000 10000  
 5902 DQ 0 30 300 3000  
 \*

HEC-1 INPUT

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

5903 KK R88tS ROUTE  
 5904 KM Route surface flow south from Subbasin 88t to 88u.  
 5905 RS 3 FLOW -1  
 5906 RC 0.050 0.016 0.050 2760 0.0036  
 5907 RX 0 1.05 42 102.9 107.1 168 208.95 210  
 5908 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5909 KK 88u BASIN  
 5910 KM Subbasin at NEC of Durango and 35th Ave  
 5911 BA 0.250  
 5912 LG 0.31 0.15 8.40 0.09 40  
 5913 UC 1.217 1.055  
 5914 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5915 UA 100  
 \*

5916 KK C88u COMBINE  
 5917 KM Combine hydrographs 88u, R84uW, and R88tS.  
 5918 HC 3 9.55  
 \*

5919 KK D88u DIVERT

5920 KM Divert 36 cfs into pipe (west).  
 5921 DT D88uP  
 5922 DI 0 36 1000 10000  
 5923 DQ 0 36 36 36  
 \*

5924 KK D88uW DIVERT  
 5925 KM Divert 76% of surface flow to south.  
 5926 DT D88uS  
 5927 DI 0 100 1000 10000  
 5928 DQ 0 76 760 7600  
 \*

5929 KK R88uW ROUTE  
 5930 KM Route surface flow west from Subbasin 88u to 92u.  
 5931 RS 2 FLOW -1  
 5932 RC 0.050 0.016 0.050 2760 0.0014  
 5933 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5934 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5935 KK BD88uP RETRIEVE  
 5936 KM Retrieve diverted pipe flow from D88uP.  
 5937 DR D88uP  
 \*

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

5938 KK P88uW ROUTE  
 5939 KM Route pipe flow from subbasin 88u to subbasin 92u.  
 5940 RK 2600 0.0039 0.015 CIRC 3.0  
 \*

5941 KK C88uW COMBINE  
 5942 KM Combine hydrographs R88uW and P88uW.  
 5943 HC 2 9.55  
 \*

5944 KK 92t BASIN  
 5945 KM Subbasin at NEC of Buckeye and 43rd Ave  
 5946 BA 0.175  
 5947 LG 0.21 0.25 5.20 0.32 32  
 5948 UC 1.356 1.288  
 5949 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5950 UA 100  
 \*

5951 KK BD88tW RETRIEVE  
 5952 KM Retrieve diverted surface flow from D88tW.  
 5953 DR D88tW  
 \*

5954 KK R88tW ROUTE  
 5955 KM Route surface flow west from Subbasin 88t to 92t.  
 5956 RS 3 FLOW -1  
 5957 RC 0.050 0.016 0.050 1990 0.002  
 5958 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 5959 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5960 KK C92t COMBINE  
 5961 KM Combine hydrographs R88tW and 92t.  
 5962 HC 2 1.21  
 \*

5963 KK R92tS ROUTE  
 5964 KM Route surface flow south from Subbasin 92t to 92u.  
 5965 RS 3 FLOW -1  
 5966 RC 0.050 0.016 0.050 2760 0.0040  
 5967 RX 0 0.5 20 49 51 80 99.5 100  
 5968 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5969 KK 92u BASIN  
 5970 KM Subbasin at NEC of Durango and 43rd Ave  
 5971 BA 0.249  
 5972 LG 0.16 0.25 6.00 0.23 44  
 5973 UC 1.186 1.027  
 5974 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 5975 UA 100  
 \*

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

5976 KK P92uN INFLOW  
 5977 KM Inflow from storm drain north of Durango Street along 35th Avenue.  
 5978 KM Maximum flow 141 cfs.  
 5979 IN 60  
 5980 BA 2.5  
 5981 QI 0.0 1 2 3 3 4 4 5 5 5  
 5982 QI 7 9 30 141 69 27 8 6 5 5  
 5983 QI 4 3 2 0.5 0.0  
 \*

5984 KK C92u COMBINE  
 5985 KM Combine flows of 92u, C88uW, P92uN, and R92tS  
 5986 HC 4 10.17  
 \*

5987 KK D92u DIVERT  
 5988 KM Divert 201 cfs into pipe (south).  
 5989 DT D92uP  
 5990 DI 0 100 201 10000  
 5991 DQ 0 100 201 201  
 \*

5992 KK R92uS ROUTE  
 5993 KM Route surface flow south from Subbasin 92u to 92v.  
 5994 RS 1 FLOW -1  
 5995 RC 0.050 0.016 0.050 1650 0.0048  
 5996 RX 0 0.5 20 49 51 80 99.5 100  
 5997 RY 3 1 0.5 0 0 0.5 1 3  
 \*

5998 KK B92uP RETRIEVE  
 5999 KM Retrieve diverted pipe flow from D92uP.  
 6000 DR D92uP  
 \*

6001 KK P92uS ROUTE  
 6002 KM Route pipe flow from subbasin 92u to subbasin 92v.  
 6003 RK 1500 0.0030 0.015 CIRC 6.00  
 \*

6004 KK C92uS COMBINE  
 6005 KM Combine hydrographs R92uS and P92uS.  
 6006 HC 2 10.17  
 \*

6007 KK 76v BASIN  
 6008 KM Subbasin at NEC of Lower Buckeye and 19th Ave  
 6009 BA 0.240  
 6010 LG 0.21 0.25 4.90 0.40 41  
 6011 UC 1.310 1.118  
 6012 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6013 UA 100  
 \*

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

6014 KK B76uP RETRIEVE  
 6015 KM Retrieve diverted pipe flow from D76uP.  
 6016 DR D76uP  
 \*

6017 KK D76uP2 DIVERT  
 6018 KM Divert 297 cfs into pipes (249 cfs to west, 48 cfs to south).  
 6019 DT D76uP1  
 6020 DI 0 297 1000  
 6021 DQ 0 249 249  
 \*

6022 KK P76uS2 ROUTE  
 6023 KM Route pipe flow from 19th ave/I-17 to subbasin 76v.  
 6024 RK 2300 0.0030 0.015 CIRC 3.50  
 \*

6025 KK BD76uS RETRIEVE  
 6026 KM Retrieve diverted flow from D76uS.  
 6027 DR D76uS  
 \*

6028 KK R76uS ROUTE  
 6029 KM Route surface flow south from Subbasin 76u to 76v.  
 6030 RS 2 FLOW -1  
 6031 RC 0.050 0.016 0.050 2640 0.0023

```

6032 RX 0 0.5 20 49 51 80 99.5 100
6033 RY 3 1 0.5 0 0 0.5 1 3
*
6034 KK C76uS COMBINE
6035 KM Combine hydrographs P76uS2 and R76uS.
6036 HC 2 17.22
*
6037 KK C76v COMBINE
6038 KM Combine hydrographs 76v and C76uS.
6039 HC 2 8.24
*
6040 KK D76v DIVERT
6041 KM Divert 109 cfs into pipe (south).
6042 DT D76vP
6043 DI 0 100 109 10000
6044 DQ 0 100 109 109
*
6045 KK D76vW DIVERT
6046 KM Divert 53% of surface flow to south.
6047 DT D76vS
6048 DI 0 100 1000 10000
6049 DQ 0 53 530 5300
*

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

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6050 KK R76vW ROUTE
6051 KM Route surface flow west from Subbasin 76v to 80v.
6052 RS 6 FLOW -1
6053 RC 0.050 0.016 0.050 2570 0.0008
6054 RX 0 0.5 20 49 51 80 99.5 100
6055 RY 3 1 0.5 0 0 0.5 1 3
*
6056 KK 80v BASIN
6057 KM Subbasin at NEC of Lower Buckeye and 23rd Ave
6058 BA 0.231
6059 LG 0.16 0.15 8.00 0.12 59
6060 UC 1.099 0.847
6061 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6062 UA 100
*
6063 KK B76uP1 RETRIEVE
6064 KM Retrieve diverted pipe flow from D76uP1.
6065 DR D76uP1
*
6066 KK P76uS1 ROUTE
6067 KM Route pipe flow from subbasin 76u to subbasin 80v.
6068 RK 4000 0.0030 0.015 CIRC 6.5
*
6069 KK C80v COMBINE
6070 KM CCombine flows of 80v, P76uS1, and R76vW
6071 HC 3 8.23
*
6072 KK D80v DIVERT
6073 KM Divert 249 cfs into pipe (southwest).
6074 DT D80vP
6075 DI 0 100 249 10000
6076 DQ 0 100 249 249
*
6077 KK D80vW DIVERT
6078 KM Divert 56% of surface flow to south.
6079 DT D80vS
6080 DI 0 100 1000 10000
6081 DQ 0 56 560 5600
*
6082 KK R80vW ROUTE
6083 KM Route surface flow west from Subbasin 80v to 84v.
6084 RS 8 FLOW -1
6085 RC 0.050 0.016 0.050 2640 0.0004
6086 RX 0 1.25 50 122.5 127.5 200 248.75 250
6087 RY 3 1 0.5 0 0 0.5 1 3
*

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LINE	ID	1	2	3	4	5	6	7	8	9	10
6088	KK	84v	BASIN								
6089	KM	Subbasin at NEC of Lower Buckeye and 27th Ave									
6090	BA	0.254									
6091	LG	1.75	0.15	9.70	0.07	35					
6092	UC	1.350	0.905								
6093	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
6094	UA	100									
	*										
6095	KK	BD80uP	RETRIEVE								
6096	KM	Retrieve diverted pipe flow from D80uP.									
6097	DR	D80uP									
	*										
6098	KK	P80uS	ROUTE								
6099	KM	Route pipe flow from subbasin 80u to subbasin 84v.									
6100	RK	4000	0.0030	0.015			CIRC	8.5			
	*										
6101	KK	C84v	COMBINE								
6102	KM	Combine hydrographs 84v, P80uS, and R80vW.									
6103	HC	3	8.73								
	*										
6104	KK	BD84uP	RETRIEVE								
6105	KM	Retrieve diverted pipe flow from D84uP.									
6106	DR	D84uP									
	*										
6107	KK	P84uS	ROUTE								
6108	KM	Route pipe flow from subbasin 84u to subbasin 84v.									
6109	RK	2600	0.0030	0.015			CIRC	10.33			
	*										
6110	KK	BD84uS	RETRIEVE								
6111	KM	Retrieve diverted surface flow from D84uS.									
6112	DR	D84uS									
	*										
6113	KK	R84uS	ROUTE								
6114	KM	Route surface flow south from Subbasin 84u to 84v									
6115	RS	3	FLOW	-1							
6116	RC	0.050	0.016	0.050	2600	0.0023					
6117	RX	0	0.75	30	73.5	76.5	120	149.25	150		
6118	RY	3	1	0.5	0	0	0.5	1	3		
	*										
6119	KK	C84uS	COMBINE								
6120	KM	Combine hydrographs R84uS and P84uS.									
6121	HC	2	9.04								
	*										

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LINE	ID	1	2	3	4	5	6	7	8	9	10
6122	KK	CC84v	COMBINE								
6123	KM	Combine hydrographs C84uS and C84v.									
6124	HC	2	9.76								
	*										
6125	KK	D84v	DIVERT								
6126	KM	Divert 1269 cfs into pipes (252 + 509 + 508).									
6127	KM	Flows of 509 and 508 combined.									
6128	DT	D84vP									
6129	DI	0	100	1000	1269	10000					
6130	DQ	0	100	1000	1269	1269					
	*										
6131	KK	D84vW	DIVERT								
6132	KM	Divert 37% of surface flow to south.									
6133	DT	D84vS									
6134	DI	0	100	1000	10000						
6135	DQ	0	37	370	3700						
	*										
6136	KK	R84vW	ROUTE								
6137	KM	Route surface flow west from Subbasin 84v to 88v.									
6138	RS	2	FLOW	-1							
6139	RC	0.050	0.016	0.050	2760	0.0025					
6140	RX	0	0.5	20	49	51	80	99.5	100		
6141	RY	3	1	0.5	0	0	0.5	1	3		

```

*
6142 KK 88v BASIN
6143 KM Subbasin at NEC of Lower Buckeye and 35th Ave
6144 BA 0.248
6145 LG 0.20 0.13 10.10 0.05 34
6146 UC 1.350 1.189
6147 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6148 UA 100
*

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6149 KK BD88uS RETRIEVE
6150 KM Retrieve diverted surface flow from D88uS.
6151 DR D88uS
*

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6152 KK R88uS ROUTE
6153 KM Route surface flow south from Subbasin 88u to 88v.
6154 RS 2 FLOW -1
6155 RC 0.050 0.016 0.050 2760 0.0033
6156 RX 0 0.75 30 73.5 76.5 120 149.25 150
6157 RY 3 1 0.5 0 0 0.5 1 3
*

```

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

```

6158 KK C88v COMBINE
6159 KM Combine hydrographs 88v, R88uS, and R84vS.
6160 HC 3 10.52
*

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```

6161 KK D88v DIVERT
6162 KM Divert 51 cfs into pipe (south).
6163 DT D88vP
6164 DI 0 51 1000 10000
6165 DQ 0 51 51 51
*

```

```

6166 KK R88vW ROUTE
6167 KM Route surface flow west from Subbasin 88v to 92v.
6168 RS 3 FLOW -1
6169 RC 0.050 0.016 0.050 2750 0.0011
6170 RX 0 1.05 42 102.9 107.1 168 208.95 210
6171 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

6172 KK 92v BASIN
6173 KM Subbasin at NEC of Lower Buckeye and 43rd Ave
6174 BA 0.159
6175 LG 0.10 0.13 10.10 0.05 72
6176 UC 0.920 0.829
6177 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6178 UA 100
*

```

```

6179 KK C92v COMBINE
6180 KM Combine flows of C92uS, 92v and R88vW
6181 HC 3 11.30
*

```

```

6182 KK D92vP DIVERT
6183 KM Divert 201 cfs into pipe (west)
6184 DT D92v
6185 DI 0 201 1000 10000
6186 DQ 0 0 799 9799
*

```

```

6187 KK P92vS ROUTE
6188 KM Route pipe flow from subbasin 92v to subbasin 88w.
6189 RK 4900 0.0030 0.015 CIRC 6.00
*

```

```

6190 KK 88w BASIN
6191 KM Subbasin at NEC of Salt River and 43rd Ave
6192 BA 0.599
6193 LG 0.17 0.25 5.10 0.34 40
6194 UC 1.502 0.930
6195 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6196 UA 100
*

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

```

6197      KK  BD88vP RETRIEVE
6198      KM  Retrieve diverted pipe flow from D88vP.
6199      DR  D88vP
          *

6200      KK  P88vS  ROUTE
6201      KM  Route pipe flow from subbasin 88v to subbasin 88w.
6202      RK  2600 0.0034 0.015          CIRC  3.5
          *

6203      KK  C88w COMBINE
6204      KM  Combine hydrographs P88vS, P92vS, and 88w.
6205      HC  3 11.90
          *

6206      KK  44v  BASIN
6207      KM  Subbasin at NEC of Salt River and 20th St
6208      BA  0.236
6209      LG  0.21 0.29 2.49 1.68 24
6210      UC  1.384 0.971
6211      UA  0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6212      UA  100
          *

6213      KK  BD44sP RETRIEVE
6214      KM  Retrieve diverted pipe flow from D44sP.
6215      DR  D44sP
          *

6216      KK  P44sS  ROUTE
6217      KM  Route pipe flow from 24th st/SPRR to subbasin 44v.
6218      RK  9500 0.0030 0.015          CIRC  6.00
          *

6219      KK  C44v COMBINE
6220      KM  Combine hydrographs 44v and P44sS.
6221      HC  2 4.03
          *

6222      KK  B48oPT RETRIEVE
6223      KM  Retrieve diverted East Tunnel flow from D48oPT.
6224      DR  D48oPT
          *

6225      KK  PT48o  ROUTE
6226      KM  Route East Tunnel flow from 20th st/Moreland to subbasin 48q.
6227      RK  3800 0.0030 0.015          CIRC  21.0
          *

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

6228      KK  B48qPT RETRIEVE
6229      KM  Retrieve diverted flow to East Tunnel from D48qPT.
6230      DR  D48qPT
          *

6231      KK  CPT48q COMBINE
6232      KM  Combine hydrographs PT48o and D48qPT.
6233      HC  2 16.11
          *

6234      KK  PT48q  ROUTE
6235      KM  Route East Tunnel flow from subbasin 48q to subbasin 48s.
6236      RK  2500 0.003 0.015          CIRC  21.0
          *

6237      KK  B48sPT RETRIEVE
6238      KM  Retrieve diverted flow to East Tunnel from D48sPT.
6239      DR  D48sPT
          *

6240      KK  CPT48s COMBINE
6241      KM  Combine hydrographs PT48q and D48sPT.
6242      HC  2 17.54
          *

6243      KK  PT48s  ROUTE
6244      KM  Route East Tunnel flow from subbasin 48s to subbasin 48v.
6245      RK  9500 0.003 0.015          CIRC  21.00
          *

6246      KK  48v  BASIN
6247      KM  Subbasin at NEC of Salt River and 20th St

```

6248 BA 0.299  
 6249 LG 0.10 0.28 2.59 1.77 68  
 6250 UC 1.134 0.914  
 6251 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6252 UA 100  
 \*

6253 KK C48v COMBINE  
 6254 KM Combine hydrographs 48v and PT48s.  
 6255 HC 2 17.84  
 \*

6256 KK NUL48v COMBINE  
 6257 KM Combine hydrographs C48v and C44v.  
 6258 HC 2 18.08  
 \*

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

6259 KK 52v BASIN  
 6260 KM Subbasin at NEC of Salt River and 16th St  
 6261 BA 0.297  
 6262 LG 0.22 0.28 2.65 1.41 22  
 6263 UC 1.491 0.973  
 6264 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6265 UA 100  
 \*

6266 KK BD52uP RETRIEVE  
 6267 KM Retrieve diverted pipe flow from D52uP.  
 6268 DR D52uP  
 \*

6269 KK P52uS ROUTE  
 6270 KM Route pipe flow from 16th st/I-17 to subbasin 52v.  
 6271 RK 2700 0.0038 0.015 CIRC 6.50  
 \*

6272 KK BD52uS RETRIEVE  
 6273 KM Retrieve diverted surface flow from D52uS.  
 6274 DR D52uS  
 \*

6275 KK R52uS ROUTE  
 6276 KM Route surface flow south from Subbasin 52u to 52v.  
 6277 RS 2 FLOW -1  
 6278 RC 0.050 0.016 0.050 3080 0.0026  
 6279 RX 0 0.5 20 49 51 80 99.5 100  
 6280 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6281 KK C52uS COMBINE  
 6282 KM Combine hydrographs R52uS and P52uS.  
 6283 HC 2 1.35  
 \*

6284 KK C52v COMBINE  
 6285 KM Combine hydrographs 52v and C52uS.  
 6286 HC 2 1.64  
 \*

6287 KK NUL52v COMBINE  
 6288 KM Combine hydrographs C52v and NUL48v.  
 6289 HC 2 19.72  
 \*

6290 KK 56v BASIN  
 6291 KM Subbasin at NEC of Salt River and 12th St  
 6292 BA 0.231  
 6293 LG 0.20 0.24 4.40 0.47 28  
 6294 UC 1.489 1.358  
 6295 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6296 UA 100  
 \*

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

6297 KK BD56uP RETRIEVE  
 6298 KM Retrieve diverted pipe flow from D56uP.  
 6299 DR D56uP  
 \*

```

6300      KK   P56uS  ROUTE
6301      KM   Route pipe flow from subbasin 56u to subbasin 56v.
6302      RK   2500 0.0060 0.015          CIRC 8.00
        *

6303      KK   BD56uS RETRIEVE
6304      KM   Retrieve diverted surface flow from D56uS.
6305      DR   D56uS
        *

6306      KK   R56uS  ROUTE
6307      KM   Route surface flow south from Subbasin 56u to 56v.
6308      RS   4    FLOW    -1
6309      RC   0.050 0.016 0.050 2500 0.0034
6310      RX   0    0.5    20    49    51    80    99.5    100
6311      RY   3    1    0.5    0    0    0.5    1    3
        *

6312      KK   C56uS COMBINE
6313      KM   Combine hydrographs R56uS and P56uS.
6314      HC   2    2.46
        *

6315      KK   C56v COMBINE
6316      KM   Combine hydrographs 56v and C56uS.
6317      HC   2    2.69
        *

6318      KK   NUL56v COMBINE
6319      KM   Combine hydrographs C56v and NUL52v.
6320      HC   2    21.07
        *

6321      KK   60v  BASIN
6322      KM   Subbasin at NEC of Salt River and 7th St
6323      BA   0.228
6324      LG   0.15 0.24 4.90 0.38 43
6325      UC   1.291 1.095
6326      UA   0    5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6327      UA   100
        *

6328      KK   BD60uP RETRIEVE
6329      KM   Retrieve diverted pipe flow from D60uP.
6330      DR   D60uP
        *

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

6331      KK   P60uS  ROUTE
6332      KM   Route pipe flow from subbasin 60u to subbasin 60v.
6333      RK   2400 0.0030 0.015          CIRC 5.00
        *

6334      KK   BD60uS RETRIEVE
6335      KM   Retrieve diverted surface flow from D60uS.
6336      DR   D60uS
        *

6337      KK   R60uS  ROUTE
6338      KM   Route surface flow south from Subbasin 60u to 60v.
6339      RS   3    FLOW    -1
6340      RC   0.050 0.016 0.050 2400 0.0034
6341      RX   0    0.5    20    49    51    80    99.5    100
6342      RY   3    1    0.5    0    0    0.5    1    3
        *

6343      KK   C60uS COMBINE
6344      KM   Combine hydrographs R60uS and P60uS.
6345      HC   2    3.68
        *

6346      KK   C60v COMBINE
6347      KM   Combine hydrographs C60uS and 60v.
6348      HC   2    3.91
        *

6349      KK   NUL60v COMBINE
6350      KM   Combine hydrographs C60v and NUL56v.
6351      HC   2    22.51
        *

6352      KK   BPT64o RETRIEVE
6353      KM   Retrieve diverted West Tunnel flow from DPT64o.

```

6354 DR DPT64o  
\*  
6355 KK B64qPT RETRIEVE  
6356 KM Retrieve diverted West Tunnel flow from D64qPT.  
6357 DR D64qPT  
\*  
6358 KK CPT64q COMBINE  
6359 KM Combine hydrographs DPT64o and D64qPT.  
6360 HC 2 22.55  
\*  
6361 KK PT64q ROUTE  
6362 KM Route West Tunnel flow from subbasin 64q to subbasin 64s.  
6363 RK 2500 0.003 0.015 CIRC 21.0  
\*

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

6364 KK B64sPT RETRIEVE  
6365 KM Retrieve diverted West Tunnel flow from D64sPT.  
6366 DR D64sPT  
\*  
6367 KK CPT64s COMBINE  
6368 KM Combine hydrographs D64sPT and PT64q.  
6369 HC 2 23.58  
\*  
6370 KK PT64s ROUTE  
6371 KM Route West Tunnel flow from subbasin 64s to subbasin 64t.  
6372 RK 2800 0.003 0.015 CIRC 21.0  
\*  
6373 KK B64tPT RETRIEVE  
6374 KM Retrieve diverted West Tunnel flow from D64tPT.  
6375 DR D64tPT  
\*  
6376 KK CPT64t COMBINE  
6377 KM Combine hydrographs PT64s and D64tPT.  
6378 HC 2 24.65  
\*  
6379 KK PT64t ROUTE  
6380 KM Route West Tunnel flow from subbasin 64t to subbasin 64u.  
6381 RK 3100 0.003 0.015 CIRC 21.0  
\*  
6382 KK B64uPT RETRIEVE  
6383 KM Retrieve diverted pipe flow from D64uPT.  
6384 DR D64uPT  
\*  
6385 KK CPT64u COMBINE  
6386 KM Combine hydrographs PT64t and D64uPT.  
6387 HC 2 25.95  
\*  
6388 KK PT64u ROUTE  
6389 KM Route West Tunnel flow from subbasin 64u to subbasin 64v.  
6390 RK 2000 0.003 0.015 CIRC 21.0  
\*  
6391 KK 64v BASIN  
6392 KM Subbasin at NEC of Salt River and Central  
6393 BA 0.195  
6394 LG 0.10 0.25 4.55 0.49 61  
6395 UC 1.125 0.841  
6396 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6397 UA 100  
\*

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

6398 KK BD64uP RETRIEVE  
6399 KM Retrieve diverted pipe flow from D64uP.  
6400 DR D64uP  
\*  
6401 KK P64uS ROUTE

```

6402      KM      Route pipe flow from subbasin 64u to subbasin 64v.
6403      RK      2000 0.0035 0.015          CIRC      8.0
          *

6404      KK      BD64uS RETRIEVE
6405      KM      Retrieve diverted surface flow from D64uS.
6406      DR      D64uS
          *

6407      KK      R64uS  ROUTE
6408      KM      Route surface flow south from Subbasin 64u to 64v.
6409      RS      3      FLOW      -1
6410      RC      0.050 0.016 0.050 2100 0.0034
6411      RX      0      0.5      20      49      51      80      99.5      100
6412      RY      3      1      0.5      0      0      0.5      1      3
          *

6413      KK      C64uS COMBINE
6414      KM      Combine hydrographs R64uS and P64uS.
6415      HC      2      4.91
          *

6416      KK      C64v COMBINE
6417      KM      Combine hydrographs C64uS, PT64u, and 64v.
6418      HC      3      26.15
          *

6419      KK      NUL64v COMBINE
6420      KM      Combine hydrographs C64v and NUL60v.
6421      HC      2      44.28
          *

6422      KK      68v  BASIN
6423      KM      Subbasin at NEC of Salt River and 7th Ave
6424      BA      0.218
6425      LG      0.19 0.25 4.60 0.42 33
6426      UC      1.441 1.216
6427      UA      0      5.0      16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6428      UA      100
          *

6429      KK      BD68uP RETRIEVE
6430      KM      Retrieve diverted pipe flow from D68uP.
6431      DR      D68uP
          *

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

6432      KK      P68uS  ROUTE
6433      KM      Route pipe flow from Central/I-17 to subbasin 68v.
6434      RK      3300 0.0073 0.015          CIRC      4.50
          *

6435      KK      BD68uS RETRIEVE
6436      KM      Retrieve diverted surface flow from D68uS.
6437      DR      D68uS
          *

6438      KK      R68uS  ROUTE
6439      KM      Route surface flow south from Subbasin 68u to 68v.
6440      RS      3      FLOW      -1
6441      RC      0.050 0.016 0.050 3300 0.0070
6442      RX      0      0.5      20      49      51      80      99.5      100
6443      RY      3      1      0.5      0      0      0.5      1      3
          *

6444      KK      C68uS COMBINE
6445      KM      Combine hydrographs R68uS and P68uS.
6446      HC      2      5.97
          *

6447      KK      C68v COMBINE
6448      KM      Combine hydrographs P68uS and 68v.
6449      HC      2      6.19
          *

6450      KK      NUL68v COMBINE
6451      KM      Combine hydrographs C68v and NUL64v.
6452      HC      2      45.56
          *

6453      KK      72v  BASIN
6454      KM      Subbasin at NEC of Salt River and 15th Ave
6455      BA      0.407

```

6456 LG 0.13 0.25 4.40 0.52 59  
 6457 UC 1.174 0.860  
 6458 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6459 UA 100  
 \*

6460 KK BD72uP RETRIEVE  
 6461 KM Retrieve diverted pipe flow from D72uP.  
 6462 DR D72uP  
 \*

6463 KK D72uP1 DIVERT  
 6464 KM Divert 714 cfs into pipe (south) (281 cfs + 433 cfs).  
 6465 DT D72uP2  
 6466 DI 0 714 1000  
 6467 DQ 0 281 281  
 \*

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

6468 KK P72uS1 ROUTE  
 6469 KM Route pipe flow from subbasin 72u to subbasin 72v.  
 6470 RK 5000 0.0030 0.015 CIRC 8.00  
 \*

6471 KK B72uP2 RETRIEVE  
 6472 KM Retrieve diverted pipe flow from D72uP2.  
 6473 DR D72uP2  
 \*

6474 KK P72uS2 ROUTE  
 6475 KM Route pipe flow from subbasin 72u to subbasin 72v.  
 6476 RK 4500 0.0031 0.015 CIRC 6.8  
 \*

6477 KK BD72uS RETRIEVE  
 6478 KM Retrieve diverted flow from D72uS.  
 6479 DR D72uS  
 \*

6480 KK R72uS ROUTE  
 6481 KM Route surface flow south from Subbasin 72u to 72v.  
 6482 RS 5 FLOW -1  
 6483 RC 0.050 0.016 0.050 4500 0.0023  
 6484 RX 0 0.5 20 49 51 80 99.5 100  
 6485 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6486 KK C72uS COMBINE  
 6487 KM Combine hydrographs R72uS, P72uS1, and P72uS2.  
 6488 HC 3 8.06  
 \*

6489 KK C72v COMBINE  
 6490 KM Combine hydrographs C72uS and 72v.  
 6491 HC 2 8.47  
 \*

6492 KK NUL72v COMBINE  
 6493 KM Combine hydrographs C72v and NUL68v.  
 6494 HC 2 47.06  
 \*

6495 KK 76w BASIN  
 6496 KM Subbasin at NEC of Salt River and 19th Ave  
 6497 BA 0.334  
 6498 LG 0.10 0.26 3.17 1.09 2  
 6499 UC 1.500 1.181  
 6500 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6501 UA 100  
 \*

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

6502 KK BD76vS RETRIEVE  
 6503 KM Retrieve diverted surface flow from D76vS.  
 6504 DR D76vS  
 \*

6505 KK R76vS ROUTE  
 6506 KM Route surface flow south from Subbasin 76v to 76w.  
 6507 RS 4 FLOW -1

6508	RC	0.050	0.016	0.050	3800	0.0107					
6509	RX	0	0.5	20	49	51	80	99.5	100		
6510	RY	3	1	0.5	0	0	0.5	1	3		

\*

6511	KK	BD76vP RETRIEVE									
6512	KM	Retrieve diverted pipe flow from D76vP.									
6513	DR	D76vP									

\*

6514	KK	P76vS ROUTE									
6515	KM	Route pipe flow from subbasin 76v to subbasin 76w.									
6516	RK	4000	0.0041	0.015			CIRC	4.50			

\*

6517	KK	C76vS COMBINE									
6518	KM	Combine hydrographs R76vS and P76vS.									
6519	HC	2	8.24								

\*

6520	KK	C76w COMBINE									
6521	KM	Combine hydrographs 76w and C76vS.									
6522	HC	2	8.57								

\*

6523	KK	NUL76w COMBINE									
6524	KM	Combine hydrographs C76w and NUL72v.									
6525	HC	2	56.10								

\*

6526	KK	80w BASIN									
6527	KM	Subbasin at NEC of Salt River and 23rd Ave									
6528	BA	0.360									
6529	LG	0.12	0.27	3.43	0.95	60					
6530	UC	0.999	0.780								
6531	UA	0	5.0	16.0	30.0	65.0	77.0	84.0	90.0	94.0	97.0
6532	UA	100									

\*

6533	KK	BD80vS RETRIEVE									
6534	KM	Retrieve diverted surface flow from D80vS.									
6535	DR	D80vS									

\*

HEC-1 INPUT

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

6536	KK	R80vS ROUTE									
6537	KM	Route surface flow south from Subbasin 80v to 80w.									
6538	RS	3	FLOW	-1							
6539	RC	0.050	0.016	0.050	3920	0.0061					
6540	RX	0	0.75	30	73.5	76.5	120	149.25	150		
6541	RY	3	1	0.5	0	0	0.5	1	3		

\*

6542	KK	C80w COMBINE									
6543	KM	Combine hydrographs R80vS and 80w.									
6544	HC	2	8.59								

\*

6545	KK	NUL80w COMBINE									
6546	KM	Combine hydrographs C80w and NUL76w.									
6547	HC	2	58.09								

\*

6548	KK	BD84vS RETRIEVE									
6549	KM	Retrieve diverted surface flow from D84vS.									
6550	DR	D84vS									

\*

6551	KK	R84vS ROUTE									
6552	KM	Route surface flow south from Subbasin 84v to 84w.									
6553	RS	2	FLOW	-1							
6554	RC	0.050	0.016	0.050	3290	0.0033					
6555	RX	0	0.5	20	49	51	80	99.5	100		
6556	RY	3	1	0.5	0	0	0.5	1	3		

\*

6557	KK	BD84vP RETRIEVE									
6558	KM	Retrieve diverted pipe flow from D84vP.									
6559	DR	D84vP									

\*

6560	KK	D84vP1 DIVERT									
6561	KM	Divert flows into pipe (south).									

6562 DT D84vP2  
 6563 DI 0 1269 2000  
 6564 DQ 0 1017 1017  
 \*

6565 KK P84vS1 ROUTE  
 6566 KM Route pipe flow from subbasin 84v to subbasin 84w.  
 6567 RK 3100 0.0031 0.015 CIRC 6.50  
 \*

6568 KK B84vP2 RETRIEVE  
 6569 KM Retrieve diverted pipe flow from D84vP2.  
 6570 DR D84vP2  
 \*

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

6571 KK P84vS2 ROUTE  
 6572 KM Route pipe flow from subbasin 84v to subbasin 84w.  
 6573 RK 3100 0.0030 0.015 CIRC 11.0  
 \*

6574 KK C84vS COMBINE  
 6575 KM Combine hydrographs R84vS, P84vS1, and P84vS2.  
 6576 HC 3 9.76  
 \*

6577 KK 84w BASIN  
 6578 KM Subbasin at NEC of Salt River and 27th Ave  
 6579 BA 0.339  
 6580 LG 0.17 0.25 3.95 0.61 43  
 6581 UC 1.299 0.938  
 6582 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6583 UA 100  
 \*

6584 KK BD80vP RETRIEVE  
 6585 KM Retrieve diverted pipe flow from D80vP.  
 6586 DR D80vP  
 \*

6587 KK P80vS ROUTE  
 6588 KM Route pipe flow from subbasin 80v to subbasin 80w.  
 6589 RK 4600 0.0030 0.015 CIRC 6.5  
 \*

6590 KK C84w COMBINE  
 6591 KM Combine hydrographs 84w and C84vS.  
 6592 HC 3 10.10  
 \*

6593 KK NUL84w COMBINE  
 6594 KM Combine hydrographs C84w and NUL80w.  
 6595 HC 2 59.72  
 \*

6596 KK NUL88w COMBINE  
 6597 KM Combine hydrographs C88w and NUL84w.  
 6598 HC 2 61.86  
 \*

6599 KK 24s BASIN  
 6600 KM Subbasin at NEC of Grand Canal and 44th St  
 6601 BA 0.195  
 6602 LG 0.19 0.25 4.80 0.37 35  
 6603 UC 0.881 0.689  
 6604 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6605 UA 100  
 \*

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

6606 KK S24s STORAGE  
 6607 KM Regional online retention basin, 5 ac-ft.  
 6608 RS 1 STOR 0  
 6609 SV 0 5.1 14  
 6610 SE 0 2 4  
 6611 SS 2 100 2.7 1.5  
 \*

6612 KK B28qP2 RETRIEVE  
 6613 KM Retrieve diverted pipe flow from D28qP2.

6614 DR D28qP2  
\*  
6615 KK P28qE ROUTE  
6616 KM Route pipe flow from subbasin 28q to subbasin 24s.  
6617 RK 1300 0.0031 0.015 CIRC 3.0  
\*

6618 KK C24s COMBINE  
6619 KM Combine hydrographs P28qE and S24s.  
6620 HC 2 0.20  
\*

6621 KK D24s DIVERT  
6622 KM Divert 249 cfs into pipe (south).  
6623 DT D24sP  
6624 DI 0 100 249 10000  
6625 DQ 0 100 249 249  
\*

6626 KK R24sS ROUTE  
6627 KM Route surface flow south from Subbasin 24s to 24t.  
6628 RS 2 FLOW -1  
6629 RC 0.050 0.016 0.050 5000 0.0030  
6630 RK 0 0.5 20 49 51 80 99.5 100  
6631 RY 3 1 0.5 0 0 0.5 1 3  
\*

6632 KK BD24sP RETRIEVE  
6633 KM Retrieve diverted pipe flow from D24sP.  
6634 DR D24sP  
\*

6635 KK D24sPS DIVERT  
6636 KM Divert 32 cfs into pipe (east).  
6637 DT D24sPE  
6638 DI 0 249 250  
6639 DQ 0 32 32  
\*

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

6640 KK P24sS ROUTE  
6641 KM Route pipe flow from 44th st/Grand Canal to subbasin 24t.  
6642 RK 5000 0.0030 0.015 CIRC 6.50  
\*

6643 KK C24sS COMBINE  
6644 KM Combine hydrographs R24sS and P24sS.  
6645 HC 2 0.20  
\*

6646 KK 24t BASIN  
6647 KM Subbasin at NEC of Salt River and SR143  
6648 BA 0.260  
6649 LG 0.10 0.25 3.48 0.87 6  
6650 UC 1.065 0.530  
6651 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6652 UA 100  
\*

6653 KK C24t COMBINE  
6654 KM Combine hydrographs 24t and C24sS.  
6655 HC 2 0.46  
\*

6656 KK S24t STORAGE  
6657 KM Online Regional Detention Basin, 31 ac-ft.  
6658 RS 1 STOR 0  
6659 SV 0 13 30.6 53.6  
6660 SE 0 4 8 12  
6661 SQ 0 25 90 6594  
\*

6662 KK 04s BASIN  
6663 KM Subbasin at NEC of Washington and Center Pkwy  
6664 BA 0.278  
6665 LG 0.12 0.25 4.15 0.63 25  
6666 UC 0.477 0.265  
6667 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
6668 UA 100  
\*

6669 KK S04s STORAGE

6670 KM Online Detention Basin, 2 ac-ft.  
 6671 RS 1 STOR 0  
 6672 SV 0 0.5 2 6  
 6673 SE 0 4 8 12  
 6674 SL 0.5 0.785 0.62 0.5  
 6675 SS 8 60 2.7 1.5  
 \*

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

6676 KK R04sS ROUTE  
 6677 KM Route surface flow south from Subbasin 04s to 08s.  
 6678 RS 1 FLOW -1  
 6679 RC 0.050 0.016 0.050 1870 0.0064  
 6680 RX 0 0.5 20 49 51 80 99.5 100  
 6681 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6682 KK 08q BASIN  
 6683 KM Subbasin at NEC of Center and Phoenix Zoo  
 6684 BA 0.438  
 6685 LG 0.10 0.25 3.95 0.64 41  
 6686 UC 0.744 0.474  
 6687 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6688 UA 100  
 \*

6689 KK R08qS ROUTE  
 6690 KM Route surface flow south from Subbasin 08q to 08s.  
 6691 RS 2 FLOW -1  
 6692 RC 0.050 0.016 0.050 3500 0.0224  
 6693 RX 0 0.75 30 73.5 76.5 120 149.25 150  
 6694 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6695 KK 08s BASIN  
 6696 KM Subbasin at NEC of Loop 202 and Priest Dr  
 6697 BA 0.651  
 6698 LG 0.15 0.25 3.85 0.68 44  
 6699 UC 0.799 0.398  
 6700 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6701 UA 100  
 \*

6702 KK C08s COMBINE  
 6703 KM Combine hydrographs 08s and R08q, R04s.  
 6704 HC 3 1.37  
 \*

6705 KK S08s STORAGE  
 6706 KM Online Detention Regional Basin, 28 ac-ft.  
 6707 RS 1 STOR 0  
 6708 SV 0 1 3 6 12 20 28 38  
 6709 SE 0 2 4 6 8 10 12 14  
 6710 SL 0.5 3.14 0.62 0.5  
 6711 SS 12 200 2.7 1.5  
 \*

6712 KK D08s DIVERT  
 6713 KM Divert 862 cfs into pipe (south).  
 6714 DT D08sP  
 6715 DI 0 100 862 10000  
 6716 DQ 0 100 862 862  
 \*

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

6717 KK R08sW ROUTE  
 6718 KM Route surface flow west from Subbasin 08s to 16s.  
 6719 RS 3 FLOW -1  
 6720 RC 0.050 0.016 0.050 2800 0.0031  
 6721 RX 0 0.5 20 49 51 80 99.5 100  
 6722 RY 3 1 0.5 0 0 0.5 1 3  
 \*

6723 KK 12q BASIN  
 6724 KM Subbasin at NEC of Van Buren and 56th St  
 6725 BA 0.399  
 6726 LG 0.14 0.25 4.10 0.60 10  
 6727 UC 0.773 0.536  
 6728 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6729 UA 100

```

*
6730 KK R12qS ROUTE
6731 KM Route surface flow south from Subbasin 12q to 12s.
6732 RS 2 FLOW -1
6733 RC 0.050 0.016 0.050 3500 0.0175
6734 RX 0 0.5 20 49 51 80 99.5 100
6735 RY 3 1 0.5 0 0 0.5 1 3
*

6736 KK 12s BASIN
6737 KM Subbasin at NEC of UPRR and Galvin Pkwy
6738 BA 0.208
6739 LG 0.12 0.25 4.00 0.65 72
6740 UC 0.567 0.403
6741 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6742 UA 100
*

6743 KK S12s STORAGE
6744 KM Online Detention Basin, 10 ac-ft.
6745 RS 1 STOR 0
6746 SV 0 1.2 3 6 10 15
6747 SE 0 2 4 6 8 10
6748 SL 0.5 0.785 0.62 0.5
6749 SS 8 150 2.7 1.5
*

6750 KK C12s COMBINE
6751 KM Combine hydrographs S12s and R12qs.
6752 HC 2 0.61
*

6753 KK R12sW ROUTE
6754 KM Route surface flow west from Subbasin 12s to 16s.
6755 RS 2 FLOW -1
6756 RC 0.050 0.016 0.050 2500 0.0031
6757 RX 0 0.5 20 49 51 80 99.5 100
6758 RY 3 1 0.5 0 0 0.5 1 3
*

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

6759 KK C12sW COMBINE
6760 KM Combine hydrographs R12sW and P08sW.
6761 HC 2 1.97
*

6762 KK D16s2 DIVERT
6763 KM Divert 979 cfs into pipe (south).
6764 DT D16sP2
6765 DI 0 100 979 10000
6766 DQ 0 100 979 979
*

6767 KK 16o BASIN
6768 KM Subbasin at NEC of Mcdowell and 54th St
6769 BA 0.211
6770 LG 0.10 0.25 4.15 0.63 78
6771 UC 0.260 0.121
6772 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6773 UA 100
*

6774 KK R16oS ROUTE
6775 KM Route surface flow south from Subbasin 16o to 16q.
6776 RS 2 FLOW -1
6777 RC 0.050 0.016 0.050 5150 0.0252
6778 RX 0 0.5 20 49 51 80 99.5 100
6779 RY 3 1 0.5 0 0 0.5 1 3
*

6780 KK 16q BASIN
6781 KM Subbasin at NEC of Van Buren and 52nd St
6782 BA 0.651
6783 LG 0.13 0.25 3.95 0.67 21
6784 UC 0.965 0.678
6785 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6786 UA 100
*

6787 KK C16q COMBINE
6788 KM Combine hydrographs 16q and R16oS.
6789 HC 2 0.86

```

```

*
6790 KK S16q STORAGE
6791 KM Online Regional Retention Basin, 35 ac-ft.
6792 RS 1 STOR 0
6793 SV 0 0.5 2 3 9 20 35 58
6794 SE 0 2 4 6 10 14 18 22
6795 SS 18 100 2.7 1.5
*

```

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

```

6796 KK D16q DIVERT
6797 KM Divert 659 cfs into pipes (484 cfs to south, 175 cfs to west).
6798 DT D16qP
6799 DI 0 100 659 10000
6800 DQ 0 100 659 659
*

```

```

6801 KK R16qS ROUTE
6802 KM Route surface flow south from Subbasin 16q to 16s.
6803 RS 2 FLOW -1
6804 RC 0.050 0.016 0.050 3200 0.0194
6805 RX 0 1 40 98 102 160 199 200
6806 RY 3 1 0.5 0 0 0.5 1 3
*

```

```

6807 KK 16s BASIN
6808 KM Subbasin at NEC of Loop 202 and Sky Harbor Blvd
6809 BA 0.420
6810 LG 0.16 0.23 4.25 0.52 59
6811 UC 0.640 0.325
6812 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6813 UA 100
*

```

```

6814 KK C16s COMBINE
6815 KM Combine flows of 16s, R16qS, and D16s2
6816 HC 3 3.26
*

```

```

6817 KK S16s STORAGE
6818 KM Online Regional Retention Basin, 19 ac-ft.
6819 RS 1 STOR 0
6820 SV 0 2.4 7 12.7 19.2 26.5
6821 SE 0 2 4 6 8 10
6822 SS 8 300 2.7 1.5
*

```

```

6823 KK BD16qP RETRIEVE
6824 KM Retrieve diverted pipe flow from D16qP.
6825 DR D16qP
*

```

```

6826 KK D16qPS DIVERT
6827 KM Divert 659 cfs into pipes (484 cfs to south 175 cfs to west).
6828 KM Two pipes to west (82 cfs and 93 cfs).
6829 DT D16qPW
6830 DI 0 659 1000
6831 DQ 0 175 175
*
* Q2 = 0.0, P16qS is eliminated
* KK P16qS ROUTE
* KM Route pipe flow from subbasin 16q to subbasin 16s.
* RK 3400 0.0114 0.015 CIRC 6.50
*

```

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

```

6832 KK CC16s COMBINE
6833 KM Combine flows of S16s and P16qS.
6834 HC 2 3.26
*

```

```

6835 KK D16s DIVERT
6836 KM Divert 709 cfs into pipe (west).
6837 DT D16sP
6838 DI 0 100 709 10000
6839 DQ 0 100 709 709
*

```

```

6840 KK R16sS ROUTE

```

```

6841 KM Route surface flow south from Subbasin 16s to 20t.
6842 RS 2 FLOW -1
6843 RC 0.050 0.016 0.050 1800 0.0044
6844 RX 0 1 40 98 102 160 199 200
6845 RY 3 1 0.5 0 0 0.5 1 3
*
6846 KK BD16sP RETRIEVE
6847 KM Retrieve diverted pipe flow from D16sP.
6848 DR D16sP
*
* Q2 = 0.0, P16sS is eliminated
* KK P16sS ROUTE
* KM Route pipe flow from 52nd st/SPRR to subbasin 20t.
* RK 1500 0.0153 0.015 CIRC 8.00
*
6849 KK C16sS COMBINE
6850 KM Combine hydrographs R16sS and P16sS.
6851 HC 2 3.26
*
6852 KK 20p BASIN
6853 KM Subbasin at NEC of Loop 202 and SR143
6854 BA 0.532
6855 LG 0.54 0.24 4.40 0.46 26
6856 UC 1.027 0.628
6857 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0
6858 UA 100
*
6859 KK S20p1 STORAGE
6860 KM Online Retention Basin, 2 ac-ft.
6861 RS 1 STOR 0
6862 SV 0 0.1 0.6 2 4
6863 SE 0 2 4 6 8
6864 SS 6 100 2.7 1.5
*
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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
6865 KK B16qPW RETRIEVE
6866 KM Retrieve diverted pipe flow from D16qPW.
6867 DR D16qPW
*
* Q2 = 0.0, P16qW is eliminated
* KK P16qW ROUTE
* KM Route pipe flow from subbasin 16q to subbasin 20p.
* RK 5200 0.0127 0.015 CIRC 5.0
*
6868 KK C20p COMBINE
6869 KM Combine hydrographs P16qW and S20p1.
6870 HC 2 1.39
*
6871 KK S20p2 STORAGE
6872 KM Online Regional Detention Basin, 43 ac-ft.
6873 RS 1 STOR 0
6874 SV 0 1.4 4.1 9.6 20.7 42.7 79.4
6875 SE 0 2 4 6 8 10 12
6876 SL 1.5 7.065 0.62 0.5
6877 SS 10 200 2.7 1.5
*
6878 KK OCCC48 INFLOW
6879 KM Inflow from OCCC area at 48th Street and McDowell Rd.
6880 KM Maximum flow 976 cfs
6881 IN 60
6882 BA 3.0
6883 QI 0 2 9 18 36 63 90 117 144 162
6884 QI 201 207 226 976 443 232 187 162 126 90
6885 QI 54 36 18 1 0.1
*
6886 KK BD24oP RETRIEVE
6887 KM Retrieve diverted pipe flow from D24oP.
6888 DR D24oP
*
6889 KK P24oS ROUTE
6890 KM Route pipe flow from subbasin 24o to subbasin 20p.
6891 RK 3000 0.0030 0.015 CIRC 3.50
*

```

6892 KK C24oS COMBINE  
 6893 KM Combine hydrographs OCCC48 and P24oS.  
 6894 HC 2 3.00  
 \*

HEC-1 INPUT

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

6895 KK ROCCC ROUTE  
 6896 KM Route surface flow south from OCCC48 to 20p.  
 6897 RS 2 FLOW -1  
 6898 RC 0.013 0.013 0.013 3000 0.0038  
 6899 RX 0 1 2 10 19 28 29 30  
 6900 RY 20 20 0 0 0 0 20 20  
 \*

6901 KK CC20p COMBINE  
 6902 KM Combine hydrographs S20p2 and ROCCC.  
 6903 HC 2 4.39  
 \*

6904 KK R20pS ROUTE  
 6905 KM Route surface flow south from Subbasin 20p to 20q.  
 6906 RS 2 FLOW -1  
 6907 RC 0.013 0.013 0.013 3000 0.0020  
 6908 RX 0 1 2 10 19 28 29 30  
 6909 RY 20 20 0 0 0 0 20 20  
 \*

6910 KK 20q BASIN  
 6911 KM Subbasin at NEC of Van Buren and SR143  
 6912 BA 0.276  
 6913 LG 0.25 0.22 4.45 0.40 11  
 6914 UC 1.057 0.658  
 6915 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6916 UA 100  
 \*

6917 KK B28pP2 RETRIEVE  
 6918 KM Retrieve diverted pipe flow from D28pP2.  
 6919 DR D28pP2  
 \*

6920 KK P28pE ROUTE  
 6921 KM Route pipe flow from subbasin 28p to subbasin 20q.  
 6922 RK 6000 0.0030 0.015 CIRC 4.0  
 \*

6923 KK C20q COMBINE  
 6924 KM Combine hydrographs 20q and R20pS.  
 6925 HC 3 4.67  
 \*

6926 KK R20qS ROUTE  
 6927 KM Route surface flow south from Subbasin 20q to 20s.  
 6928 RS 2 FLOW -1  
 6929 RC 0.013 0.013 0.013 3200 0.0020  
 6930 RX 0 1 2 10 19 28 29 30  
 6931 RY 20 20 0 0 0 0 20 20  
 \*

HEC-1 INPUT

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

6932 KK 20s BASIN  
 6933 KM Subbasin at NEC of Grand Canal and SR143  
 6934 BA 0.484  
 6935 LG 0.16 0.24 4.55 0.44 52  
 6936 UC 0.654 0.292  
 6937 UA 0 5.0 16.0 30.0 65.0 77.0 84.0 90.0 94.0 97.0  
 6938 UA 100  
 \*

6939 KK S20s STORAGE  
 6940 KM Online Retention Basin, 3 ac-ft.  
 6941 RS 1 STOR 0  
 6942 SV 0 0.9 3 8  
 6943 SE 0 2 4 7  
 6944 SS 4 60 2.7 1.5  
 \*

6945 KK C20s COMBINE  
 6946 KM Combine hydrographs S20s and R20qS.

```

6947      HC      2      5.15
          *

6948      KK      B24sPE RETRIEVE
6949      KM      Retrieve diverted pipe flow from D24sPE.
6950      DR      D24sPE
          *

6951      KK      P24sE  ROUTE
6952      KM      Route pipe flow from subbasin 24s to subbasin 20s.
6953      RK      2700  0.0031  0.015          CIRC      3.0
          *

6954      KK      CC20s COMBINE
6955      KM      Combine hydrographs C20s and P24sE.
6956      HC      2      5.35
          *

6957      KK      R20sS  ROUTE
6958      KM      Route surface flow south from Subbasin 20s to 20t.
6959      RS      2      FLOW      -1
6960      RC      0.013  0.013  0.013  3200  0.0038
6961      RX      0      1      2      10      19      28      29      30
6962      RY      20     20     0      0      0      0      20     20
          *

6963      KK      20t   BASIN
6964      KM      Subbasin at NEC of Salt River and SR143
6965      BA      0.265
6966      LG      0.13   0.23   2.54   1.53   3
6967      UC      1.500  1.001
6968      UA      0      5.0   16.0   30.0   65.0   77.0   84.0   90.0   94.0   97.0
6969      UA      100
          *

          HEC-1 INPUT

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

6970      KK      S20t STORAGE
6971      KM      Online Retention Basin, 156 ac-ft.
6972      RS      1      STOR      0
6973      SV      0      20.7   50.1   88.4   156.1  249.1
6974      SE      0      2      4      6      8      10
6975      SS      8      600   2.7   1.5
          *

6976      KK      C20t COMBINE
6977      KM      Combine flows of 20t, C16sS, and 20sS
6978      HC      3      8.01
          *

6979      KK      NUL20t COMBINE
6980      KM      Combine hydrographs C20t and S24t.
6981      HC      2      8.27
          *

6982      ZZ

```

1

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## SCHEMATIC DIAGRAM OF STREAM NETWORK

INPUT LINE	(V) ROUTING	(--->) DIVERSION OR PUMP FLOW
NO.	(.) CONNECTOR	(<---) RETURN OF DIVERTED OR PUMPED FLOW
78	64c	
	.	
	.	
87	----->	D64cS
85	D64cW	
	V	
	V	
90	R64cW	
	.	
	.	
96	.	68c
	.	
	.	
103	C68c.....	
	.	
	.	
108	----->	D68cP
106	D68c	
	.	
	.	
113	----->	D68cS
111	D68cW	
	V	
	V	
116	R68cW	
	.	
	.	
122	.	72c
	.	
	.	
129	C72c.....	
	.	
	.	
134	----->	D72cP
132	D72c	
	.	
	.	
139	----->	D72cS
137	D72cW	
	V	
	V	
142	R72cW	
	.	
	.	
148	.	76c
	.	
	.	
155	C76c.....	
	.	
	.	
160	----->	D76c
158	D76cP	
	.	
	.	
163	.	84c
	.	
	.	
172	----->	D84cS
170	D84cE	
	V	
	V	
175	R84cE	
	.	
	.	
181	.	80c
	.	V
	.	V
188	.	S80c
	.	
	.	
194	C80c.....	
	.	
	.	
199	----->	D80c
197	D80cP	
	.	
	.	
202	C76cP.....	
	V	

```

205      V
      P76cS
      .
210      .-----> D80eP1
208      D76eP1
      .
213      .         56e
      .         .
222      .         .-----> D56eS
220      .         D56eW
      .         V
      .         V
225      .         R56eW
      .         .
231      .         .         60e
      .         .         .
238      .         C60e.....
      .         .
243      .         .-----> D60eP
241      .         D60e
      .         .
248      .         .-----> D60eS
246      .         D60eW
      .         V
      .         V
251      .         R60eW
      .         .
257      .         .         64e
      .         .         .
266      .         .         .-----< D64cS
264      .         .         B64cS
      .         .         V
      .         .         V
267      .         .         R64cS
      .         .         .
273      .         C64e.....
      .         .
278      .         .-----> D64eS
276      .         D64eW
      .         V
      .         V
281      .         R64eW
      .         .
287      .         .         68e
      .         .         .
296      .         .         .-----< D68cP
294      .         .         B68cP
      .         .         V
      .         .         V
297      .         .         P68cS
      .         .         .
302      .         .         .-----< D68cS
300      .         .         B68cS
      .         .         V
      .         .         V
303      .         .         R68cS
      .         .         .
309      .         .         C68cS.....
      .         .
312      .         C68e.....
      .         .
317      .         .-----> D68eP
315      .         D68e
      .         .
322      .         .-----> D68eS
320      .         D68eW
      .         V
      .         V

```

```

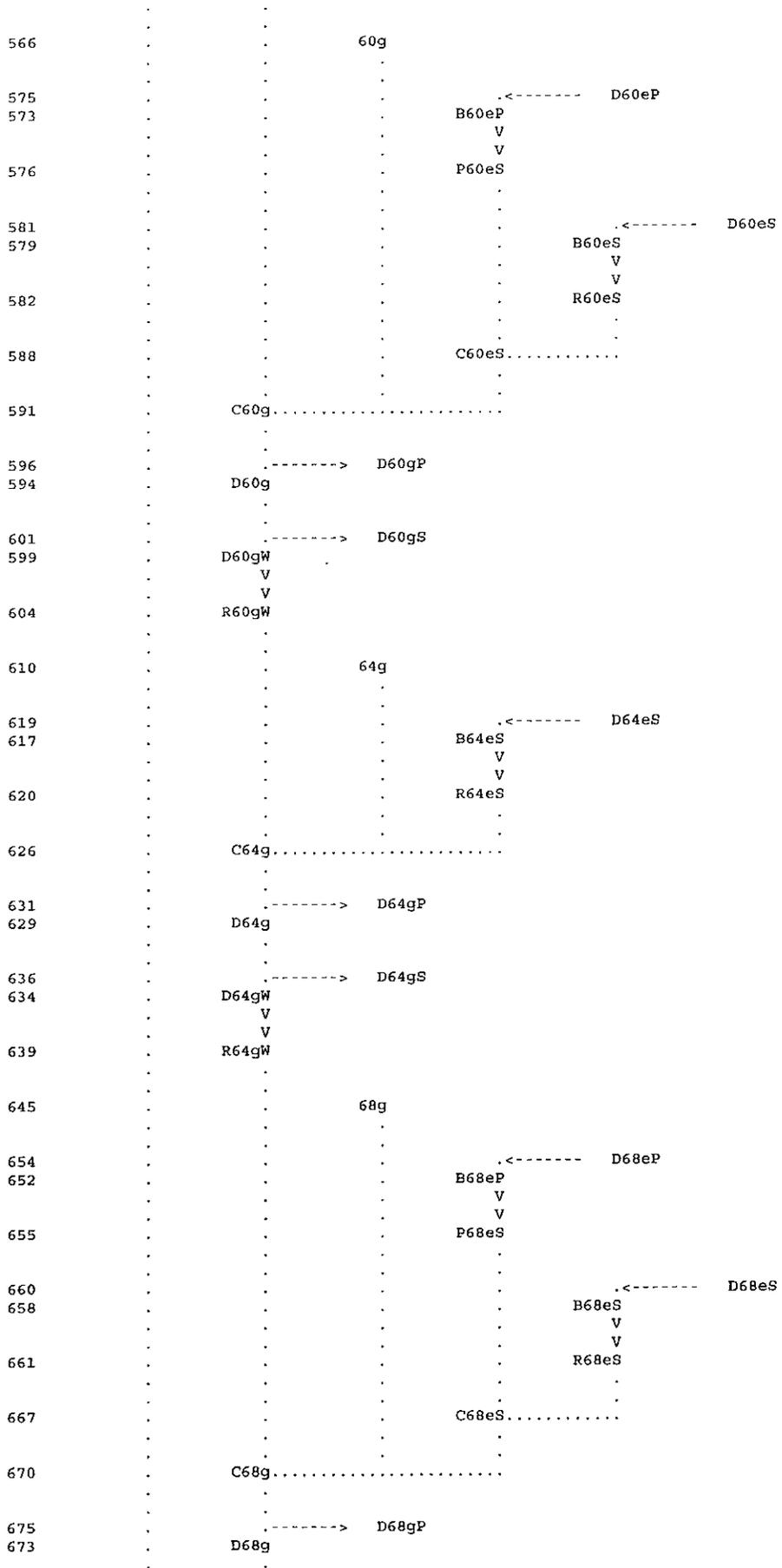
325 . . . . . R68eW
. . . . .
331 . . . . . 72e
. . . . .
340 . . . . . <----- D72cP
338 . . . . . B72cP
. . . . . V
. . . . . V
341 . . . . . P72cS
. . . . .
346 . . . . . <----- D72cS
344 . . . . . B72cS
. . . . . V
. . . . . V
347 . . . . . R72cS
. . . . .
353 . . . . . C72cS.....
. . . . .
356 . . . . . C72e.....
. . . . .
361 . . . . . -----> D72eP
359 . . . . . D72e
. . . . .
366 . . . . . -----> D72eS
364 . . . . . D72eW
. . . . . V
. . . . . V
369 . . . . . R72eW
. . . . .
375 . . . . . 76e
. . . . .
384 . . . . . <----- D76c
382 . . . . . B76c
. . . . . V
. . . . . V
385 . . . . . R76cS
. . . . .
391 . . . . . C76e.....
. . . . .
396 . . . . . -----> D76e
394 . . . . . D76eP
. . . . .
401 . . . . . <----- D84cS
399 . . . . . BD84cS
. . . . . V
. . . . . V
402 . . . . . R84cS
. . . . .
408 . . . . . 84e
. . . . .
415 . . . . . C84e.....
. . . . .
420 . . . . . -----> D84eS
418 . . . . . D84eE
. . . . . V
. . . . . V
423 . . . . . R84eE
. . . . .
429 . . . . . 80e
. . . . .
438 . . . . . <----- D80eP1
436 . . . . . B80eP1
. . . . .
441 . . . . . <----- D80c
439 . . . . . BD80c
. . . . . V
. . . . . V
442 . . . . . R80cS

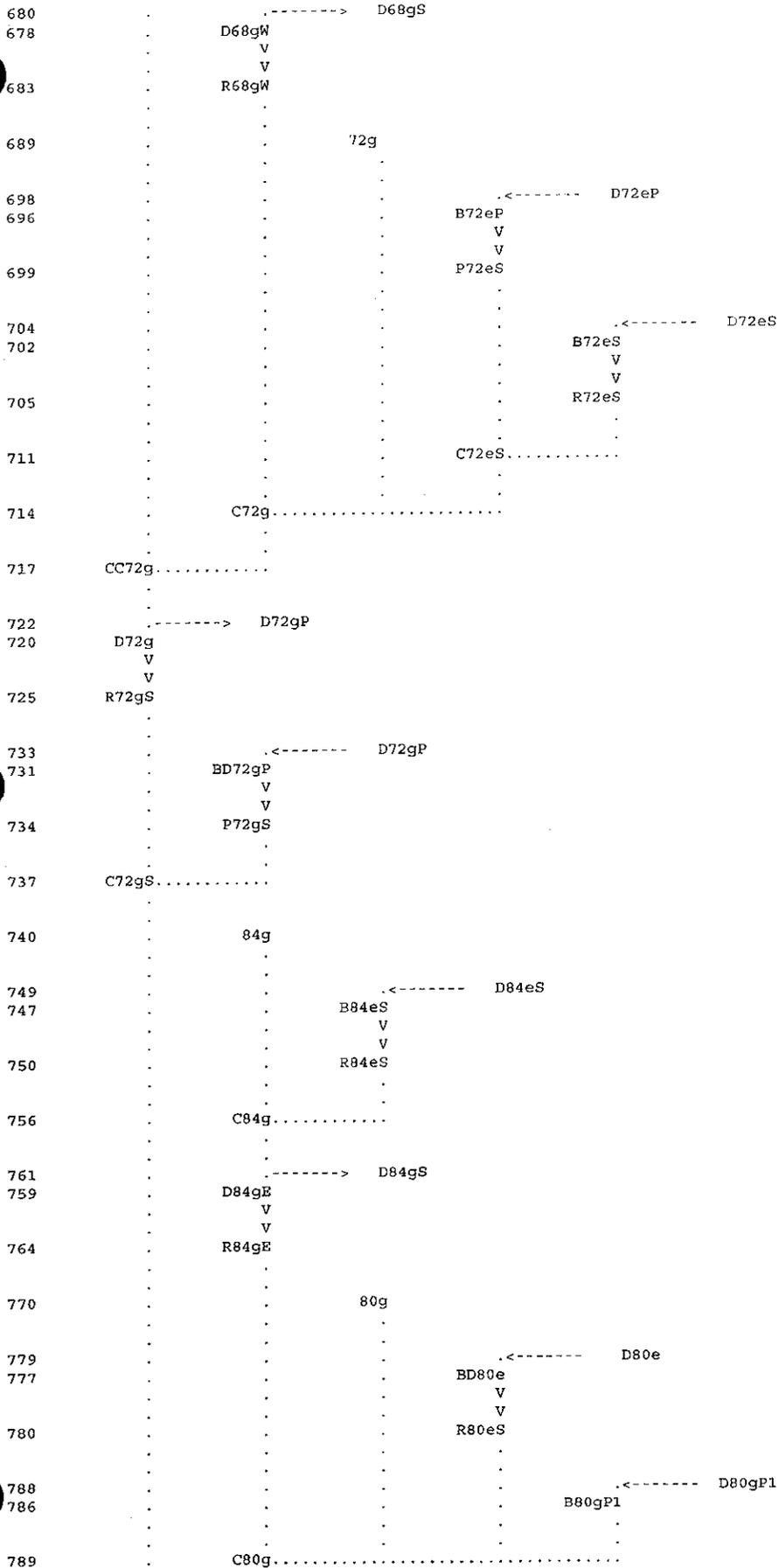
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448      .      .      .      .      .
      .      C80e.....
453      .      .      .      .      .
451      .      .      .      .      .
      .      .      .      .      .
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456      .      .      .      .      .
      .      C76eP.....
      .      .      .      .      .
      .      .      .      .      .
459      .      .      .      .      .
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464      .      .      .      .      .
462      .      .      .      .      .
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467      .      .      .      .      .
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476      .      .      .      .      .
474      .      .      .      .      .
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477      .      .      .      .      .
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483      .      .      .      .      .
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488      .      .      .      .      .
486      .      .      .      .      .
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493      .      .      .      .      .
491      .      .      .      .      .
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498      .      .      .      .      .
496      .      .      .      .      .
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513      .      .      .      .      .
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525      .      .      .      .      .
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531      .      .      .      .      .
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540      .      .      .      .      .
538      .      .      .      .      .
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541      .      .      .      .      .
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547      .      .      .      .      .
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552      .      .      .      .      .
550      .      .      .      .      .
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557      .      .      .      .      .
555      .      .      .      .      .
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560      .      .      .      .      .
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1136  
1134

-----> D64iP  
D64i

141  
1139

-----> D64iS  
D64iW  
V  
V  
R64iW

1144

1150

68i

1159  
1157

.<----- D68gP  
BD68gP  
V  
V  
P68gS

1160

1165  
1163

.<----- D68gS  
BD68gS  
V  
V  
R68gS

1166

1172

C68gS.....

1175

C68i.....

1180  
1178

.<----- D72i  
BD72i

1183  
1181

.<----- D76iE  
B76iE  
V  
V  
R76iE

1184

1190

CC72i.....

1195  
1193

-----> D72iS  
D72iE  
V  
V  
R72iE

1198

1204

CC68i.....

1209  
1207

-----> D68iP  
D68i  
V  
V  
R68iS

1212

1220  
1218

.<----- D68iP  
BD68iP  
V  
V  
P68iS

1221

1224

C68iS.....

1227

36i

1236  
1234

-----> D36iP  
D36i

1241  
1239

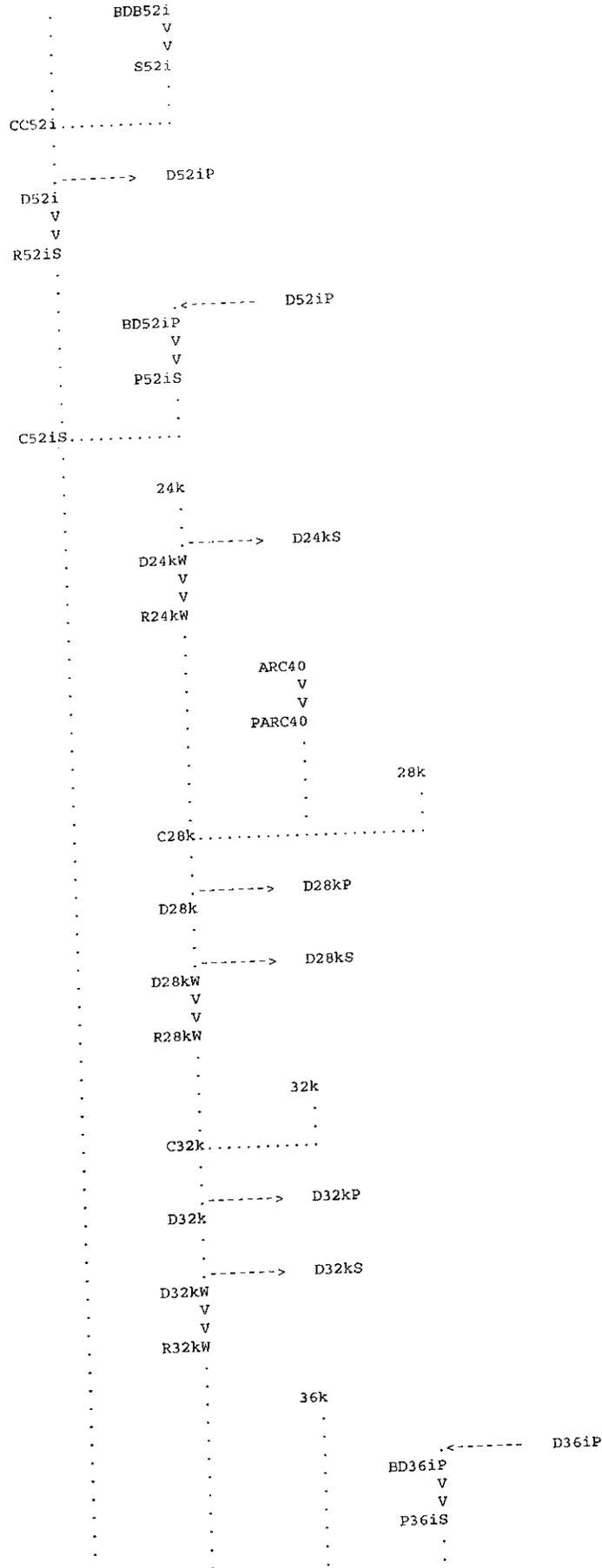
-----> D36iS  
D36iW  
V  
V

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1244 . . . . . R36iW
. . . . .
1250 . . . . . 40i
. . . . . V
. . . . . V
1257 . . . . . S40i
. . . . .
1263 . . . . . C40i.....
. . . . .
1268 . . . . . -----> D40iS
1266 . . . . . D40iW
. . . . . V
. . . . . V
1271 . . . . . R40iW
. . . . .
1277 . . . . . 44i
. . . . .
1284 . . . . . 42i
. . . . . V
. . . . . V
1291 . . . . . R42iW
. . . . .
1297 . . . . . C44i.....
. . . . .
1302 . . . . . -----> D44iP
1300 . . . . . D44i
. . . . .
1307 . . . . . -----> D44iS
1305 . . . . . D44iW
. . . . . V
. . . . . V
1310 . . . . . R44iW
. . . . .
1316 . . . . . 48i
. . . . .
1323 . . . . . C48i.....
. . . . .
1328 . . . . . -----> D48iP
1326 . . . . . D48i
. . . . .
1333 . . . . . -----> D48iS
1331 . . . . . D48iW
. . . . . V
. . . . . V
1336 . . . . . R48iW
. . . . .
1344 . . . . . <----- D48iP
1342 . . . . . BD48iP
. . . . . V
. . . . . V
1345 . . . . . P48iW
. . . . .
1348 . . . . . C48iW.....
. . . . .
1351 . . . . . 52g
. . . . . V
. . . . . V
1358 . . . . . R52gS
. . . . .
1364 . . . . . 52i
. . . . .
1371 . . . . . C52i.....
. . . . .
1377 . . . . . -----> DB52i
1374 . . . . . E52i
. . . . .
1382 . . . . . <----- DB52i

```

1380  
1383  
1389  
1394  
1392  
1397  
1405  
1403  
1406  
1409  
1412  
1421  
1419  
1424  
1430  
1438  
1441  
1448  
1453  
1451  
1458  
1456  
1461  
1467  
1474  
1479  
1477  
1484  
1482  
1487  
1493  
1502  
1500  
1503







```

1740 . . . . . 56k
1747 . . . . . C56k.....
1752 . . . . . <----- D60iP
1750 . . . . . BD60iP
1756 . . . . . -----> D60iP2
1753 . . . . . D60iP1
1759 . . . . . V
1759 . . . . . V
1759 . . . . . P60iS1
1764 . . . . . <----- D60iP2
1762 . . . . . B60iP2
1765 . . . . . V
1765 . . . . . V
1765 . . . . . P60iS2
1770 . . . . . <----- D60iS
1768 . . . . . BD60iS
1771 . . . . . V
1771 . . . . . V
1771 . . . . . R60iS
1777 . . . . . C60iS.....
1780 . . . . . 60k
1787 . . . . . C60k.....
1793 . . . . . -----> D60k
1790 . . . . . D60kP
1800 . . . . . -----> D60kP2
1796 . . . . . D60kP1
1803 . . . . . V
1803 . . . . . V
1803 . . . . . P60kE
1806 . . . . . CC56k.....
1811 . . . . . -----> D56kP
1809 . . . . . D56k
1816 . . . . . -----> D56kS
1814 . . . . . D56kW
1819 . . . . . V
1819 . . . . . V
1819 . . . . . R56kW
1827 . . . . . <----- D60k
1825 . . . . . BD60k
1828 . . . . . CC60k.....
1833 . . . . . -----> D60kS
1831 . . . . . D60kW
1836 . . . . . V
1836 . . . . . V
1836 . . . . . R60kW
1842 . . . . . 64k
1851 . . . . . <----- D64iS
1849 . . . . . BD64iS
1849 . . . . . V

```

1852	.	.	.	.	V
	.	.	.	.	R64iS
1858	.	.	.	.	.
	.	.	.	.	C64k
	.	.	.	.	V
	.	.	.	.	V
1861	.	.	.	.	S64k
	.	.	.	.	.
1869	.	.	.	.	.
1867	.	.	.	.	BD64iP
	.	.	.	.	V
	.	.	.	.	V
1870	.	.	.	.	P64iS
	.	.	.	.	.
1873	.	.	.	.	CC64k
	.	.	.	.	.
1878	.	.	.	.	.
1876	.	.	.	.	D64k
	.	.	.	.	.
1883	.	.	.	.	.
1881	.	.	.	.	D64kW
	.	.	.	.	V
	.	.	.	.	V
1886	.	.	.	.	R64kW
	.	.	.	.	.
1892	.	.	.	.	68k
	.	.	.	.	.
1899	.	.	.	.	C68k
	.	.	.	.	.
1904	.	.	.	.	.
1902	.	.	.	.	D68k
	.	.	.	.	.
1909	.	.	.	.	.
1907	.	.	.	.	D68kW
	.	.	.	.	V
	.	.	.	.	V
1912	.	.	.	.	R68kW
	.	.	.	.	.
1918	.	.	.	.	72k
	.	.	.	.	V
	.	.	.	.	V
1925	.	.	.	.	S72k
	.	.	.	.	.
1933	.	.	.	.	.
1931	.	.	.	.	B72iP1
	.	.	.	.	V
	.	.	.	.	V
1934	.	.	.	.	P72iS
	.	.	.	.	.
1939	.	.	.	.	.
1937	.	.	.	.	BD72iS
	.	.	.	.	V
	.	.	.	.	V
1940	.	.	.	.	R72iS
	.	.	.	.	.
1946	.	.	.	.	C72iS
	.	.	.	.	.
1949	.	.	.	.	C72k
	.	.	.	.	.
1952	.	.	.	.	CC72k
	.	.	.	.	.
1957	.	.	.	.	.
1955	.	.	.	.	D72k
	.	.	.	.	.
1962	.	.	.	.	.
1960	.	.	.	.	D72kW
	.	.	.	.	V
	.	.	.	.	V
1965	.	.	.	.	R72kW

```

1973 . . . . . <----- D76k1
1971 . . . . . B76k1
1974 . . . . . CC76k
1979 . . . . . -----> D76kP
1977 . . . . . D76k
1984 . . . . . -----> D76kS
1982 . . . . . D76kW
      . . . . . V
      . . . . . V
1987 . . . . . R76kW
1993 . . . . . 80k
2002 . . . . . <----- D80i
2000 . . . . . BD80i
      . . . . . V
      . . . . . V
2003 . . . . . R80iS
2011 . . . . . <----- D80kP1
2009 . . . . . B80kP1
2012 . . . . . C80k
2017 . . . . . -----> D80kP
2015 . . . . . D80k
2020 . . . . . CC80k
2025 . . . . . -----> D80kS
2023 . . . . . D80kW
      . . . . . V
      . . . . . V
2028 . . . . . R80kW
2034 . . . . . 84k
2043 . . . . . <----- D84iS
2041 . . . . . BD84iS
      . . . . . V
      . . . . . V
2044 . . . . . R84iS
2050 . . . . . C84k
      . . . . . V
      . . . . . V
2053 . . . . . R84kS
2059 . . . . . 84m
2066 . . . . . C84m
2069 . . . . . I17
2078 . . . . . -----> D84mP
2076 . . . . . D84m
2081 . . . . . CC84m
2086 . . . . . -----> D84mS
2084 . . . . . D84mE
      . . . . . V

```

2089	V	R84mE		
2095			80m	
2104				D80kS
2102			BD80kS	
			V	
			V	
2105			R80kS	
2111		C80m		
2116			D80mS	
2114		D80mE		
			V	
			V	
2119		R80mE		
2125			761	
2134				D80kP
2132			BD80kP	
2137				D76kP
2135			BD76kP	
2138			C76kP	
			V	
			V	
2141			P76kS	
2146				D76kS
2144			BD76kS	
			V	
			V	
2147			R76kS	
2153			C76kS	
2156		C761		
2161				D761P
2159		D761		
			V	
			V	
2164		R761S		
2172				D761P
2170			BD761P	
			V	
			V	
2173			P761S	
2176		C761S		
2179			76m	
			V	
			V	
2186			S76m	
2192		C76m		
2198				D76m
2195		D76mP		
2204				D76mP2
2201		D76mP1		



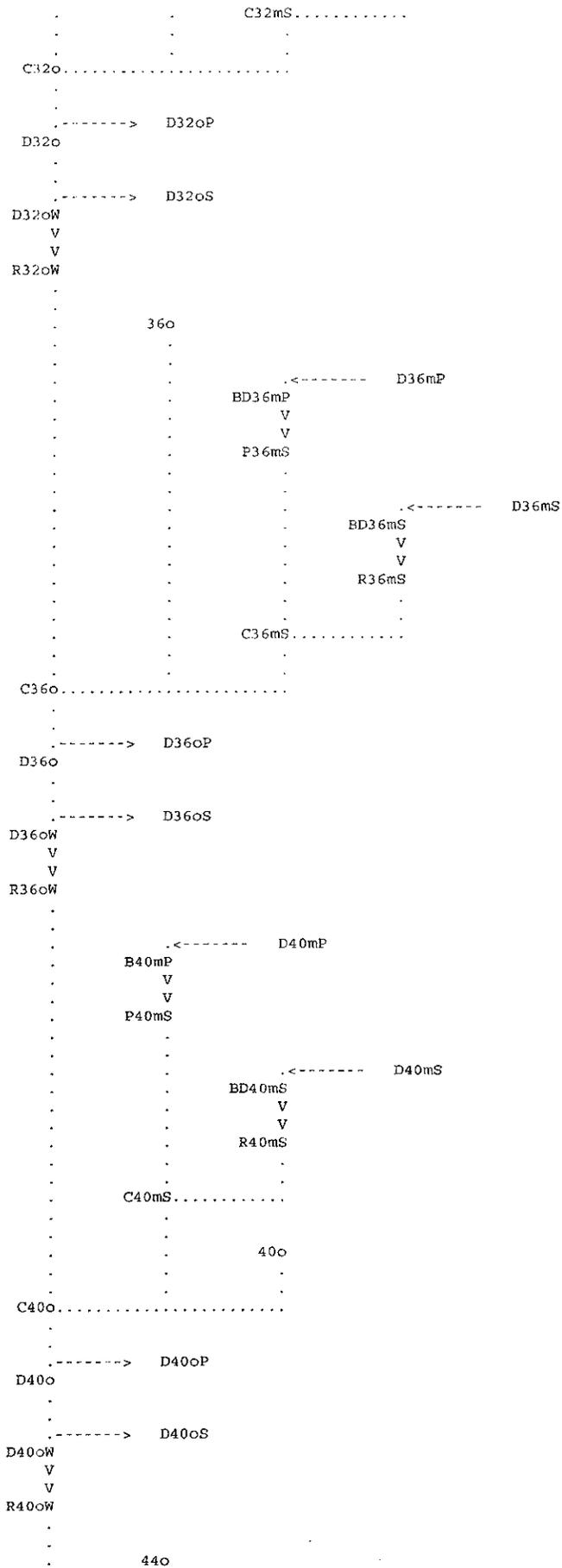
2316	.	.	BD64kS	
	.	.	V	
	.	.	V	
2319	.	.	R64kS	
	.	.	.	
2325	C641	.....		
	V			
	V			
2328	S641			
	.	.		
2336	.	.	<----- D64kP	
2334	.	.	BD64kP	
	.	.	V	
	.	.	V	
2337	.	.	P64kS	
	.	.	.	
2340	CC641	.....		
	.	.		
2345	.	.	-----> D641P	
2343	D641			
	.	.		
2350	.	.	-----> D641S	
2348	D641W			
	V			
	V			
2353	R641W			
	.	.		
2359	.	.	681	
	.	.	.	
2368	.	.	.	
2366	.	.	<----- D68kP	
	.	.	BD68kP	
	.	.	V	
	.	.	V	
2369	.	.	P68kS	
	.	.	.	
2374	.	.	.	
2372	.	.	.	
	.	.	.	
2375	.	.	.	
	.	.	.	
2381	.	.	.	
	.	.	.	
2384	C681	.....		
	.	.		
2389	.	.	-----> D681P	
2387	D681			
	V			
	V			
2392	R681S			
	.	.		
2400	.	.	<----- D681P	
2398	BD681P			
	V			
	V			
2401	P681S			
	.	.		
2404	C681S	.....		
	.	.		
2407	.	.	24m	
	.	.	V	
	.	.	V	
2414	.	.	S24m	
	.	.	.	
2422	.	.	.	
2420	.	.	<----- D24kS	
	.	.	BD24kS	
	.	.	V	
	.	.	V	
2423	.	.	R24kS	
	.	.	.	

2429	.	.	C24m.....	
	.	.	.	
2434	.	.	----->	D24mS
2432	.	.	D24mW	
	.	.	V	
	.	.	V	
2437	.	.	R24mW	
	.	.	.	
2443	.	.		28m
	.	.	.	
2452	.	.		-----<
2450	.	.	BD28kP	D28kP
	.	.	V	
	.	.	V	
2453	.	.	P28kS	
	.	.	.	
2458	.	.		-----<
2456	.	.	BD28kS	D28kS
	.	.	V	
	.	.	V	
2459	.	.	R28kS	
	.	.	.	
2465	.	.	C28kS.....	
	.	.	.	
2468	.	.	C28m.....	
	.	.	.	
2473	.	.	----->	D28mP
2471	.	.	D28m	
	.	.	.	
2478	.	.	----->	D28mS
2476	.	.	D28mW	
	.	.	V	
	.	.	V	
2481	.	.	R28mW	
	.	.	.	
2487	.	.		32m
	.	.	V	
	.	.	V	
2494	.	.	S32m	
	.	.	.	
2502	.	.		-----<
2500	.	.	BD32kP	D32kP
	.	.	V	
	.	.	V	
2503	.	.	P32kS	
	.	.	.	
2508	.	.		-----<
2506	.	.	BD32kS	D32kS
	.	.	V	
	.	.	V	
2509	.	.	R32kS	
	.	.	.	
2515	.	.	C32kS.....	
	.	.	.	
2518	.	.	C32m.....	
	.	.	.	
2523	.	.	----->	D32mP
2521	.	.	D32m	
	.	.	.	
2528	.	.	----->	D32mS
2526	.	.	D32mW	
	.	.	V	
	.	.	V	
2531	.	.	R32mW	
	.	.	.	
2537	.	.		36m
	.	.	.	
2546	.	.		-----<
2544	.	.	BD36kP	D36kP

2547	.	.	.	V	
	.	.	.	V	
	.	.	.	P36kS	
2552	.	.	.	.	.<----- D36kS
2550	.	.	.	BD36kS	
	.	.	.	V	
	.	.	.	V	
2553	.	.	.	R36kS	
	.	.	.	.	
2559	.	.	.	C36kS	.....
	.	.	.	.	
2562	.	.	.	C36m	.....
	.	.	.	.	
2567	.	.	.	.	-----> D36mP
2565	.	.	.	D36m	
	.	.	.	.	
2572	.	.	.	.	-----> D36mS
2570	.	.	.	D36mW	
	.	.	.	V	
	.	.	.	V	
2575	.	.	.	R36mW	
	.	.	.	.	
2581	.	.	.	.	40m
	.	.	.	.	
2590	.	.	.	.	.<----- D40kP
2588	.	.	.	BD40kP	
	.	.	.	V	
	.	.	.	V	
2591	.	.	.	P40kS	
	.	.	.	.	
2596	.	.	.	.	.<----- D40kS
2594	.	.	.	BD40kS	
	.	.	.	V	
	.	.	.	V	
2597	.	.	.	R40kS	
	.	.	.	.	
2603	.	.	.	C40kS	.....
	.	.	.	.	
2606	.	.	.	C40m	.....
	.	.	.	.	
2611	.	.	.	.	-----> D40mP
2609	.	.	.	D40m	
	.	.	.	.	
2616	.	.	.	.	-----> D40mS
2614	.	.	.	D40mW	
	.	.	.	V	
	.	.	.	V	
2619	.	.	.	R40mW	
	.	.	.	.	
2625	.	.	.	.	44m
	.	.	.	.	
2634	.	.	.	.	.<----- D44kP
2632	.	.	.	BD44kP	
	.	.	.	V	
	.	.	.	V	
2635	.	.	.	P44kS	
	.	.	.	.	
2640	.	.	.	.	.<----- D44kS
2638	.	.	.	BD44kS	
	.	.	.	V	
	.	.	.	V	
2641	.	.	.	R44kS	
	.	.	.	.	
2647	.	.	.	C44kS	.....
	.	.	.	.	
2650	.	.	.	C44m	.....

2655			----->	D44mP	
2653		D44m			
2660			----->	D44mS	
2658		D44mW			
		V			
		V			
2663		R44mW			
2669				24o	
2678					-----<
2676				BD24mS	D24mS
				V	
				V	
2679				R24mS	
2685				C24o	.....
2690			----->	D24oP	
2688		D24o			
2695			----->	D24oS	
2693		D24oW			
		V			
		V			
2698		R24oW			
2704				28o	
2713					-----<
2711				BD28mP	D28mP
				V	
				V	
2714				P28mS	
2719					-----<
2717				BD28mS	D28mS
				V	
				V	
2720				R28mS	
2726				C28mS	.....
2729				C28o	.....
2734			----->	D28oP	
2732		D28o			
2739			----->	D28oS	
2737		D28oW			
		V			
		V			
2742		R28oW			
2748				32o	
2757					-----<
2755				BD32mS	D32mS
				V	
				V	
2758				R32mS	
2766					-----<
2764				BD32mP	D32mP
				V	
				V	
2767				P32mS	

2770  
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2874  
2880

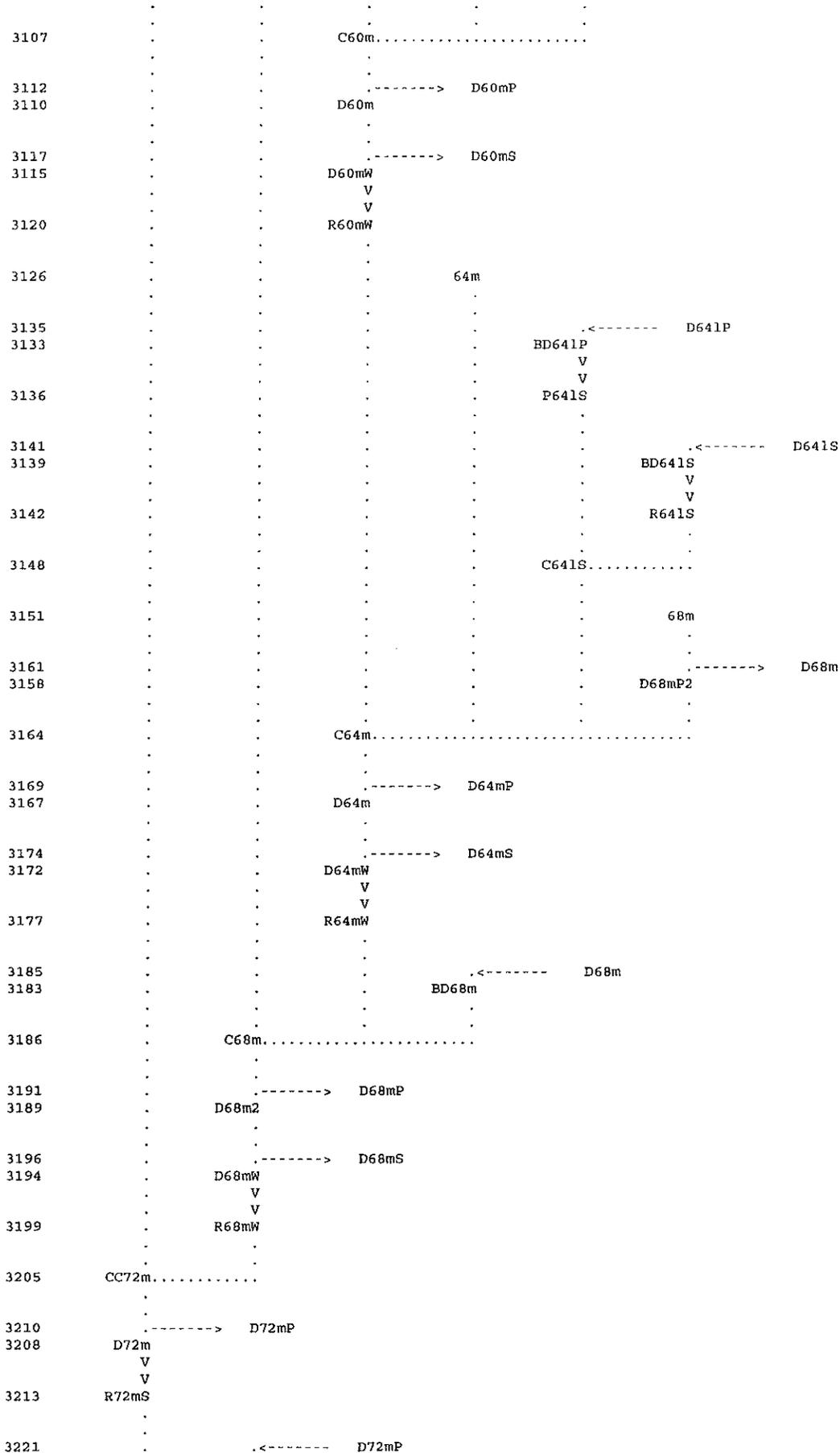


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2889 . . . . . <----- D44mP
2887 . . . . . BD44mP
. . . . . V
. . . . . V
2890 . . . . . P44mS
. . . . .
. . . . . <----- D44mS
2895 . . . . . BD44mS
2893 . . . . . V
. . . . . V
2896 . . . . . R44mS
. . . . .
. . . . .
2902 . . . . . C44mS.....
. . . . .
. . . . .
2905 . . . . . C44o.....
. . . . .
. . . . . <-----> D44oP
2910 . . . . . D44o
2908 . . . . .
. . . . . <-----> D44oS
2915 . . . . . D44oS
2913 . . . . . D44oW
. . . . . V
. . . . . V
2918 . . . . . R44oW
. . . . .
. . . . .
2924 . . . . . C44mW.....
. . . . .
. . . . .
2927 . . . . . 48m
. . . . .
. . . . . <----- D48kS
2936 . . . . . BD48kS
2934 . . . . . V
. . . . . V
2937 . . . . . R48kS
. . . . .
. . . . .
2943 . . . . . C48m.....
. . . . .
. . . . . <----- D52kP
2948 . . . . . BD52kP
2946 . . . . . V
. . . . . V
2949 . . . . . P52kS
. . . . .
. . . . . <----- D52kS
2954 . . . . . BD52kS
2952 . . . . . V
. . . . . V
2955 . . . . . R52kS
. . . . .
. . . . .
2961 . . . . . C52kS.....
. . . . .
. . . . . 52m
2964 . . . . .
. . . . .
. . . . .
2971 . . . . . C52m.....
. . . . .
. . . . .
2974 . . . . . CC52m.....
. . . . .
. . . . . <-----> D52mP
2980 . . . . . D52m
2977 . . . . .
. . . . .
. . . . . <-----> D52mS
2985 . . . . . D52mW
2983 . . . . . V
. . . . . V
2988 . . . . . R52mW
. . . . .
. . . . .

```

2994	.	.	.	54m	.	.
3003	.	.	.	.	.	.
3001	.	.	.	BD54kP	<-----	D54kP
	.	.	.	V		
	.	.	.	V		
3004	.	.	.	P54kS		
	.	.	.	.		
3009	.	.	.	.	.	.
3007	.	.	.	BD54kS	<-----	D54kS
	.	.	.	V		
	.	.	.	V		
3010	.	.	.	R54kS		
	.	.	.	.		
3016	.	.	.	C54kS	.....	
	.	.	.	.		
3019	.	.	.	C54m	.....	
	.	.	.	.		
3024	.	.	.	.	.	.
3022	.	.	.	D54m	----->	D54mP
	.	.	.	.		
3029	.	.	.	.	.	.
3027	.	.	.	D54mW	----->	D54mS
	.	.	.	V		
	.	.	.	V		
3032	.	.	.	R54mW		
	.	.	.	.		
3038	.	.	.	.		
	.	.	.	56m		
3047	.	.	.	.	.	.
3045	.	.	.	BD56kP	<-----	D56kP
	.	.	.	V		
	.	.	.	V		
3048	.	.	.	P56kS		
	.	.	.	.		
3053	.	.	.	.	.	.
3051	.	.	.	BD56kS	<-----	D56kS
	.	.	.	V		
	.	.	.	V		
3054	.	.	.	R56kS		
	.	.	.	.		
3060	.	.	.	C56kS	.....	
	.	.	.	.		
3063	.	.	.	C56m	.....	
	.	.	.	.		
3068	.	.	.	.	.	.
3066	.	.	.	D56m	----->	D56mP
	.	.	.	.		
3073	.	.	.	.	.	.
3071	.	.	.	D56mW	----->	D56mS
	.	.	.	V		
	.	.	.	V		
3076	.	.	.	R56mW		
	.	.	.	.		
3082	.	.	.	.		
	.	.	.	60m		
3091	.	.	.	.	.	.
3089	.	.	.	BD601P	<-----	D601P
	.	.	.	V		
	.	.	.	V		
3092	.	.	.	P601S		
	.	.	.	.		
3097	.	.	.	.	.	.
3095	.	.	.	BD601S	<-----	D601S
	.	.	.	V		
	.	.	.	V		
3098	.	.	.	R601S		
	.	.	.	.		
3104	.	.	.	C601S	.....	



3219	BD72mP		
	V		
	V		
3222	P72mS		
	.		
3225	C72mS.....		
	.		
3230		<-----	D24oS
3228	BD24oS		
	V		
	V		
3231	R24oS		
	.		
3239		<-----	D28oP
3237	BD28oP		
	V		
	V		
3240	P28oS		
	.		
3245		<-----	D28oS
3243			
3246			
3252	C28oS.....		
	.		
3255	C28p.....		
	.		
3258			
3265	S28p		
	.		
	.		
3271	CC28p.....		
	.		
3277		>-----	D28pP
3274	D28p		
	V		
	V		
3280	R28pW		
	.		
3286			
3295		<-----	D32oS
3293			
3296			
3302	C32p.....		
	V		
	V		
3305	S32p		
	.		
3314		<-----	D32oP
3312			
3315			
3318	CC32p.....		
	.		
3323		>-----	D32pS
3321	D32pW		
	.		
3328		>-----	D32pP
3326	D32p		
	V		
	V		



3456  
3454  
3457

.<----- D36oP  
BD36oP  
V  
V  
P36oS

3460

CC36p.....

3465  
3463

-----> D36pP  
D36p  
V  
V

3468

R36pW

3476  
3474

.<----- D36pP  
BD36pP

3479  
3477

-----> D36pP2  
D36pP1  
V  
V

3482

P36pW

3485

C36pW.....

3488

40p

3497  
3495

.<----- D40oP  
BD40oP  
V  
V

3498

P40oS

3503  
3501

.<----- D40oS  
BD40oS  
V  
V

3504

R40oS

3510

C40oS.....

3513

C40p.....

3518  
3516

-----> D40pP  
D40p  
V  
V

3521

R40pW

3529  
3527

.<----- D40pP  
BD40pP  
V  
V

3530

P40pW

3534

C40pW.....

3537

44p

3546  
3544

.<----- D44oP  
BD44oP  
V  
V

3547

P44oS

3552  
3550

.<----- D44oS  
BD44oS  
V

```

3553 . . . . . V
. . . . . R44oS
3559 . . . . . C44oS.....
. . . . .
3562 . . . . . C44p.....
. . . . .
3567 . . . . . > D44pP
3565 . . . . . D44p
. . . . . V
. . . . . V
3570 . . . . . R44pW
. . . . .
3578 . . . . . <----- D44pP
3576 . . . . . BD44pP
. . . . .
3581 . . . . . <----- D44pP2
3579 . . . . . D44pP1
. . . . . V
. . . . . V
3584 . . . . . P44pW
. . . . .
3588 . . . . . C44pW.....
. . . . .
3591 . . . . . 48o
. . . . .
3600 . . . . . <----- D52mS
3598 . . . . . BD52mS
. . . . . V
. . . . . V
3601 . . . . . R52mS
. . . . .
3609 . . . . . <----- D52mP
3607 . . . . . BD52mP
. . . . . V
. . . . . V
3610 . . . . . P52mS
. . . . .
3613 . . . . . C52mS.....
. . . . .
3616 . . . . . C48o.....
. . . . .
3621 . . . . . > DB48o
3619 . . . . . E48o
. . . . .
3626 . . . . . <----- DB48o
3624 . . . . . BDB48o
. . . . . V
. . . . . V
3627 . . . . . S48o
. . . . .
3635 . . . . . CC48o.....
. . . . .
3640 . . . . . > D48oPT
3638 . . . . . D48o
. . . . . V
. . . . . V
3643 . . . . . R48oW
. . . . .
3650 . . . . . 52o
. . . . .
3659 . . . . . <----- D54mP
3657 . . . . . BD54mP
. . . . . V
. . . . . V
3660 . . . . . P54mS
. . . . .
3665 . . . . . <----- D54mS

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3663	.	.	.	BD54mS
	.	.	.	V
	.	.	.	V
3666	.	.	.	R54mS
	.	.	.	.
3672	.	.	C54mS.....	.
	.	.	.	.
3675	.	C52o.....	.	.
	.	.	.	.
3681	.	----->	D52oP	.
3678	.	D52o	.	.
	.	V	.	.
	.	V	.	.
3684	.	R52oW	.	.
	.	.	.	.
3692	.	.	<-----	D52oP
3690	.	BD52oP	.	.
	.	V	.	.
	.	V	.	.
3693	.	P52oW	.	.
	.	.	.	.
3696	.	C52oW.....	.	.
	.	.	.	.
3699	.	56o	.	.
	.	.	.	.
3708	.	.	<-----	D56mP
3706	.	BD56mP	.	.
	.	V	.	.
	.	V	.	.
3709	.	P56mS	.	.
	.	.	.	.
3714	.	.	<-----	D56mS
3712	.	BD56mS	.	.
	.	V	.	.
	.	V	.	.
3715	.	R56mS	.	.
	.	.	.	.
3721	.	C56mS.....	.	.
	.	.	.	.
3724	.	C56o.....	.	.
	.	.	.	.
3730	.	----->	D56oP	.
3727	.	D56o	.	.
	.	V	.	.
	.	V	.	.
3733	.	R56oW	.	.
	.	.	.	.
3741	.	.	<-----	D56oP
3739	.	BD56oP	.	.
	.	V	.	.
	.	V	.	.
3742	.	P56oW	.	.
	.	.	.	.
3746	.	C56oW.....	.	.
	.	.	.	.
3749	.	60o	.	.
	.	.	.	.
3758	.	.	<-----	D60mP
3756	.	BD60mP	.	.
	.	V	.	.
	.	V	.	.
3759	.	P60mS	.	.
	.	.	.	.
3764	.	.	<-----	D60mS
3762	.	BD60mS	.	.
	.	V	.	.
	.	V	.	.
3765	.	R60mS	.	.
	.	.	.	.

```

3771 . . . . . C60mS.....
. . . . .
. . . . .
3774 . . . . . C60o.....
. . . . .
. . . . .
3780 . . . . . D60oPT
3777 . . . . . D60o
. . . . . V
. . . . . V
3783 . . . . . R60oW
. . . . .
. . . . .
3789 . . . . . 64o
. . . . . V
. . . . . V
3796 . . . . . S64o
. . . . .
. . . . .
3804 . . . . . D64mP
3802 . . . . . BD64mP
. . . . . V
. . . . . V
3805 . . . . . P64mS
. . . . .
. . . . .
3810 . . . . . D64mS
3808 . . . . . BD64mS
. . . . . V
. . . . . V
3811 . . . . . R64mS
. . . . .
. . . . .
3817 . . . . . C64mS.....
. . . . .
. . . . .
3820 . . . . . C64o.....
. . . . .
. . . . .
3826 . . . . . D64oPT
3823 . . . . . D64o
. . . . . V
. . . . . V
3829 . . . . . R64oW
. . . . .
. . . . .
3835 . . . . . 68o
. . . . . V
. . . . . V
3842 . . . . . S68o
. . . . .
. . . . .
3850 . . . . . D68mP
3848 . . . . . BD68mP
. . . . . V
. . . . . V
3851 . . . . . P68mS
. . . . .
. . . . .
3856 . . . . . D68mS
3854 . . . . . BD68mS
. . . . . V
. . . . . V
3857 . . . . . R68mS
. . . . .
. . . . .
3863 . . . . . C68mS.....
. . . . .
. . . . .
3866 . . . . . C68o.....
. . . . .
. . . . .
3872 . . . . . D68oPT
3869 . . . . . D68o
. . . . . V
. . . . . V
3875 . . . . . R68oW
. . . . .
. . . . .
3881 . . . . . 72o
. . . . .
. . . . .
3888 . . . . . C72o.....
. . . . .
. . . . .
3893 . . . . . D72oP

```

```

3891      D72o
          V
          V
3896      S72o
          .
          .
3904      ----->  D72o1
3902      D72oPT
          .
          .
3909      .<----- D68oPT
3907      .      B68oPT
          .
          .
3910      CPT68o.....
          V
          V
3913      PT68oE
          .
          .
3918      .<----- D72o1
3916      .      BD72o1
          .
          .
3922      .<----->  D72oW
3919      .      D72oE
          .      V
          .      V
3925      .      S-I10
          .
          .
3935      .<----- D64oPT
3933      .      B64oPT
          .
          .
3938      .<----->  D60oPT
3936      .      B60oPT
          .      V
          .      V
3939      .      PT60oW
          .
          .
3942      C-WT.....
          V
          V
3946      PT64o
          .
          .
3951      ----->  DPT64o
3949      DN_64o
          .
          .
3954      .      36q
          .
          .
3963      .<----->  D32q
3961      .      BD32q
          .      V
          .      V
3964      .      R32qS
          .
          .
3972      .<----->  D36pP2
3970      .      B36pP2
          .      V
          .      V
3973      .      P36pS
          .
          .
3977      C36q.....
          .
          .
3982      ----->  D36qP
3980      .      D36q
          .
          .
3987      ----->  D36qS
3985      .      D36qW
          .      V
          .      V
3990      .      R36qW
          .
          .
3996      .      40q
          .
          .

```

4003	C40q.....	
	.	
4008		-----> D40qP
4006	D40q	
	.	
4013		-----> D40qS
4011	D40qW	
	V	
	V	
4016	R40qW	
	.	
4024		.<----- D40qP
4022	BD40qP	
	V	
	V	
4025	P40qW	
	.	
4028	C40qW.....	
	.	
4031		44q
	.	
4040		.<----- D44pP2
4038		B44pP2
	.	V
	.	V
4041		P44pS
	.	.
4044	C44q.....	
	.	
4049		-----> D44qP
4047	D44q	
	.	
4054		-----> D44qS
4052	D44qW	
	V	
	V	
4057	R44qW	
	.	
4063		48q
	.	
4070	C48q.....	
	.	
4076		-----> D48qPT
4073	DB48q	
	V	
	V	
4079	S48q	
	.	
4087		-----> D48qS
4085	D48qW	
	V	
	V	
4090	R48qW	
	.	
4096		52q
	.	
4103	C52q.....	
	.	
4108		-----> D52qP
4106	D52q	
	.	
4113		-----> D52qS
4111	D52qW	
	V	
	V	
4116	R52qW	
	.	
4122		56q

4129	.	C56q.....	
4134	.	----->	D56qP
4132	.	D56q	
4139	.	----->	D56qS
4137	.	D56qW	
	.	V	
	.	V	
4142	.	R56qW	
4148	.		60q
4155	.	C60q.....	
4160	.	----->	D60qP
4158	.	D60q	
4165	.	----->	D60qS
4163	.	D60qW	
	.	V	
	.	V	
4168	.	R60qW	
4174	.		64q
4181	.	C64q.....	
4187	.	----->	D64qPT
4184	.	D64q	
4192	.	----->	D64qP
4190	.	D64q1	
4197	.	----->	D64qS
4195	.	D64qW	
	.	V	
	.	V	
4200	.	R64qW	
4208	.		<----- D64qP
4206	.	BD64qP	
	.	V	
	.	V	
4209	.	P64qW	
4212	.	C64qW.....	
4215	.		68q
4222	.	C68q.....	
4227	.	----->	D68qP
4225	.	D68q	
4232	.	----->	D68qS
4230	.	D68qW	
	.	V	
	.	V	
4235	.	R68qW	
4243	.		<----- D68qP
4241	.	BD68qP	
	.	V	
	.	V	
4244	.	P68qW	



4357	.	.	.	V	
	.	.	.	R76mS	
	.	.	.	.	
4365	.	.	.	.	←----- D76mP2
4363	.	.	.	B76mP2	
	.	.	.	V	
	.	.	.	V	
4366	.	.	.	P76mS	
	.	.	.	.	
4369	.	.	.	C76mS	.....
	.	.	.	.	
4374	.	.	.	.	←----- D72oW
4372	.	.	.	BD72oW	
	.	.	.	V	
	.	.	.	V	
4375	.	.	.	R72oW	
	.	.	.	.	
4381	.	.	.	C76o	.....
	.	.	.	.	
4386	.	.	.	-----> D76o	
4384	.	.	.	D76oP	
	.	.	.	V	
	.	.	.	V	
4389	.	.	.	P76oS	
	.	.	.	.	
4394	.	.	.	.	←----- D76o
4392	.	.	.	BD76o	
	.	.	.	.	
4397	.	.	.	.	-----> D76oW
4395	.	.	.	D76oS	
	.	.	.	V	
	.	.	.	V	
4400	.	.	.	R76oS	
	.	.	.	.	
4406	.	.	.	C76oS	.....
	.	.	.	.	
4409	.	.	.	76q	
	.	.	.	.	
4416	.	.	.	C76q	.....
	.	.	.	.	
4421	.	.	.	-----> D76qP	
4419	.	.	.	D76q	
	.	.	.	.	
4426	.	.	.	-----> D76qS	
4424	.	.	.	D76qW	
	.	.	.	V	
	.	.	.	V	
4429	.	.	.	R76qW	
	.	.	.	.	
4435	.	.	.	80p	
	.	.	.	.	
4444	.	.	.	.	←----- D76oW
4442	.	.	.	BD76oW	
	.	.	.	V	
	.	.	.	V	
4445	.	.	.	R76oW	
	.	.	.	.	
4451	.	.	.	C80p	.....
	.	.	.	V	
	.	.	.	V	
4454	.	.	.	S80p	
	.	.	.	.	
4462	.	.	.	.	←----- D80oP
4460	.	.	.	BD80oP	
	.	.	.	V	
	.	.	.	V	
4463	.	.	.	P80oS	
	.	.	.	.	
4466	.	.	.	CC80p	.....



```

4581 . . . . . 36s
. . . . .
. . . . .
4590 . . . . .
4588 . . . . . BD36qP <----- D36qP
. . . . . V
. . . . . V
4591 . . . . . P36qS
. . . . .
. . . . .
4596 . . . . .
4594 . . . . . BD36qS <----- D36qS
. . . . . V
. . . . . V
4597 . . . . . R36qS
. . . . .
. . . . .
4603 . . . . . C36qS .....
. . . . .
. . . . .
4606 . . . . . C36s .....
. . . . .
. . . . .
4611 . . . . . <-----> D36sP
4609 . . . . . D36s
. . . . . V
. . . . . V
4614 . . . . . R36sW
. . . . .
. . . . .
4620 . . . . . 40s
. . . . .
. . . . .
4629 . . . . .
4627 . . . . . BD40qS <----- D40qS
. . . . . V
. . . . . V
4630 . . . . . R40qS
. . . . .
. . . . .
4636 . . . . . C40s .....
. . . . .
. . . . .
4641 . . . . . <-----> D40sP
4639 . . . . . D40s
. . . . . V
. . . . . V
4644 . . . . . R40sW
. . . . .
. . . . .
4652 . . . . . <-----> D40sP
4650 . . . . . BD40sP
. . . . . V
. . . . . V
4653 . . . . . P40sW
. . . . .
. . . . .
4656 . . . . . C40sW .....
. . . . .
. . . . .
4659 . . . . . 44s
. . . . .
. . . . .
4668 . . . . .
4666 . . . . . BD44qP <----- D44qP
. . . . . V
. . . . . V
4669 . . . . . P44qS
. . . . .
. . . . .
4674 . . . . .
4672 . . . . . BD44qS <----- D44qS
. . . . . V
. . . . . V
4675 . . . . . R44qS
. . . . .
. . . . .
4681 . . . . . C44qS .....
. . . . .
. . . . .
4684 . . . . . C44s .....
. . . . .
. . . . .
4689 . . . . . <-----> D44sP
4687 . . . . . D44s
. . . . . V

```



4812	V		
	V		
4812	R56sW		
4818		60s	
4827			<----- D60qP
4825		BD60qP	
		V	
		V	
4828		P60qS	
4833			<----- D60qS
4831		BD60qS	
		V	
		V	
4834		R60qS	
4840		C60qS	
4843	C60s		
4848			-----> D60sP
4846	D60s		
4853			-----> D60sS
4851	D60sW		
	V		
	V		
4856	R60sW		
4864			<----- D60sP
4862		BD60sP	
		V	
		V	
4865		P60sW	
4868	C60sW		
4871		64s	
4880			<----- D64qS
4878		BD64qS	
		V	
		V	
4881		R64qS	
4887	C64s		
4893			-----> D64sPT
4890	D64s		
4899			-----> D64sP
4896	D64s1		
4904			-----> D64sS
4902	D64sW		
	V		
	V		
4907	R64sW		
4913		68s	
4922			<----- D68qS
4920		BD68qS	
		V	
		V	
4923		R68qS	

```

4929 . . . . . C68s . . . . .
. . . . .
. . . . .
4934 . . . . . -----> D68sP
4932 . . . . . D68s
. . . . .
. . . . .
4939 . . . . . -----> D68sS
4937 . . . . . D68sW
. . . . . V
. . . . . V
4942 . . . . . R68sW
. . . . .
. . . . .
4948 . . . . . 72s
. . . . .
. . . . .
4958 . . . . . <----- D72qP
4955 . . . . . BD72qP
. . . . .
. . . . .
4961 . . . . . -----> D72qP2
4959 . . . . . D72qP1
. . . . . V
. . . . . V
4964 . . . . . P72qS1
. . . . .
. . . . .
4969 . . . . . <----- D72qP2
4967 . . . . . B72qP2
. . . . . V
. . . . . V
4970 . . . . . P72qS2
. . . . .
. . . . .
4975 . . . . . <----- D72qS
4973 . . . . . BD72qS
. . . . . V
. . . . . V
4976 . . . . . R72qS
. . . . .
. . . . .
4982 . . . . . C72qS . . . . .
. . . . .
. . . . .
4985 . . . . . C72s . . . . .
. . . . .
. . . . .
4990 . . . . . -----> D72sP
4988 . . . . . D72s
. . . . .
. . . . .
4995 . . . . . -----> D72sS
4993 . . . . . D72sW
. . . . . V
. . . . . V
4998 . . . . . R72sW
. . . . .
. . . . .
5004 . . . . . 76s
. . . . . V
. . . . . V
5011 . . . . . S76s
. . . . .
. . . . .
5019 . . . . . <----- D76qP
5017 . . . . . BD76qP
. . . . . V
. . . . . V
5020 . . . . . P76qS
. . . . .
. . . . .
5025 . . . . . <----- D76qS
5023 . . . . . BD76qS
. . . . . V
. . . . . V
5026 . . . . . R76qS
. . . . .
. . . . .
5032 . . . . . C76qS . . . . .
. . . . .
. . . . .
5035 . . . . . C76s . . . . .
. . . . .
. . . . .

```

```

5040 . . . . . > D76sP
5038 . . . . . D76s
. . . . .
. . . . . > D76sS
5045 . . . . . D76sW
5043 . . . . . V
. . . . . V
5048 . . . . . R76sW
. . . . .
5054 . . . . . CC80q
. . . . .
5059 . . . . . > D80qP
5057 . . . . . D80q
. . . . .
5064 . . . . . > D80qW
5062 . . . . . D80qS
. . . . . V
. . . . . V
5067 . . . . . R80qS
. . . . .
5075 . . . . . <----- D80qP
5073 . . . . . BD80qP
. . . . . V
. . . . . V
5076 . . . . . P80qS
. . . . .
5079 . . . . . C80qS
. . . . .
5082 . . . . . 52t
. . . . . V
. . . . . V
5089 . . . . . S52t
. . . . .
5097 . . . . . <----- D52sP
5095 . . . . . BD52sP
. . . . . V
. . . . . V
5098 . . . . . P52sS
. . . . .
5101 . . . . . C52t
. . . . .
5106 . . . . . > D52tP
5104 . . . . . D52t
. . . . .
5111 . . . . . > D52tS
5109 . . . . . D52tW
. . . . . V
. . . . . V
5114 . . . . . R52tW
. . . . .
5120 . . . . . 56t
. . . . .
5129 . . . . . <----- D56sP
5127 . . . . . BD56sP
. . . . . V
. . . . . V
5130 . . . . . P56sS
. . . . .
5135 . . . . . <----- D56sS
5133 . . . . . BD56sS
. . . . . V
. . . . . V
5136 . . . . . R56sS
. . . . .
5142 . . . . . C56sS
. . . . .
145 . . . . . C56t
. . . . .
5150 . . . . . > D56tP

```

```

5148 . . . . . D56t
. . . . .
5155 . . . . . -----> D56tS
5153 . . . . . D56tW
. . . . . V
. . . . . V
5158 . . . . . R56tW
. . . . .
. . . . .
5164 . . . . . 60t
. . . . . V
. . . . . V
5171 . . . . . S60t
. . . . .
. . . . .
5179 . . . . . .<----- D60sS
5177 . . . . . BD60sS
. . . . . V
. . . . . V
5180 . . . . . R60sS
. . . . .
. . . . .
5186 . . . . . C60t.....
. . . . .
. . . . .
5191 . . . . . -----> D60tS
5189 . . . . . D60tW
. . . . . V
. . . . . V
5194 . . . . . R60tW
. . . . .
. . . . .
5200 . . . . . 64t
. . . . .
. . . . .
5209 . . . . . .<----- D64sP
5207 . . . . . BD64sP
. . . . . V
. . . . . V
5210 . . . . . P64sS
. . . . .
. . . . .
5216 . . . . . .<----- D64sS
5214 . . . . . BD64sS
. . . . . V
. . . . . V
5217 . . . . . R64sS
. . . . .
. . . . .
5223 . . . . . C64sS.....
. . . . .
. . . . .
5226 . . . . . C64t.....
. . . . .
. . . . .
5231 . . . . . -----> D64tPT
5229 . . . . . D64t
. . . . .
. . . . .
5236 . . . . . -----> D64tP
5234 . . . . . D64t1
. . . . .
. . . . .
5241 . . . . . -----> D64tS
5239 . . . . . D64tW
. . . . . V
. . . . . V
5244 . . . . . R64tW
. . . . .
. . . . .
5250 . . . . . 68t
. . . . .
. . . . .
5259 . . . . . .<----- D68sP
5257 . . . . . BD68sP
. . . . . V
. . . . . V
5260 . . . . . P68sS
. . . . .
. . . . .
5265 . . . . . .<----- D68sS
5263 . . . . . BD68sS
. . . . . V
. . . . . V
5266 . . . . . R68sS

```

5272

C68sS.....

5275

C68t.....

5280

-----> D68tP

5278

D68t

5285

-----> D68tS

5283

D68tW

V

V

5288

R68tW

5294

72t

5303

-----< D72sS

5301

BD72sS

V

V

5304

R72sS

5312

-----< D72sP

5310

BD72sP

5315

-----> D72sP2

5313

D72sP1

V

V

5318

P72sS1

5323

-----< D72sP2

5321

B72sP2

V

V

5324

P72sS2

5327

C72sS.....

5330

C72t.....

5335

-----> D72tP

5333

D72t

5340

-----> D72tS

5338

D72tW

V

V

5343

R72tW

5349

76t

5358

-----< D76sP

5356

BD76sP

V

V

5359

P76sS

5364

-----< D76sS

5362

BD76sS

V

V

5365

R76sS

5371

C76sS.....

5374

C76t.....





```

5622 . . . . . <----- D68tS
5620 . . . . . BD68tS
. . . . . V
. . . . . V
5623 . . . . . R68tS
. . . . .
5629 . . . . . C68tS.....
. . . . .
5632 . . . . . C68u.....
. . . . .
5637 . . . . . -----> D68uP
5635 . . . . . D68u
. . . . .
5642 . . . . . -----> D68uS
5640 . . . . . D68uW
. . . . . V
. . . . . V
5645 . . . . . R68uW
. . . . .
5651 . . . . . 72u
. . . . .
5658 . . . . . C72u.....
. . . . .
5663 . . . . . <----- D72tP
5661 . . . . . BD72tP
. . . . .
5666 . . . . . -----> D72tP2
5664 . . . . . D72tP1
. . . . . V
. . . . . V
5669 . . . . . P72tS1
. . . . .
5674 . . . . . <----- D72tP2
5672 . . . . . B72tP2
. . . . . V
. . . . . V
5675 . . . . . P72tS2
. . . . .
5680 . . . . . <----- D72tS
5678 . . . . . B72tS
. . . . . V
. . . . . V
5681 . . . . . R72tS
. . . . .
5687 . . . . . C72tS.....
. . . . .
5690 . . . . . CC72u.....
. . . . .
5695 . . . . . -----> D72uP
5693 . . . . . D72u
. . . . .
5700 . . . . . -----> D72uS
5698 . . . . . D72uW
. . . . . V
. . . . . V
5703 . . . . . R72uW
. . . . .
5711 . . . . . <----- D76tP
5709 . . . . . BD76tP
. . . . .
5714 . . . . . -----> D76tP2
5712 . . . . . D76tP1
. . . . . V
. . . . . V
5717 . . . . . P76tS1
. . . . .
5722 . . . . . <----- D76tP2

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5720 . . . . . B76tP2
      . . . . . V
      . . . . . V
5723 . . . . . P76tS2
      . . . . .
5728 . . . . . <----- D76tS
5726 . . . . . BD76tS
      . . . . . V
      . . . . . V
5729 . . . . . R76tS
      . . . . .
5735 . . . . . C76tS.....
      . . . . .
5738 . . . . . 76u
      . . . . .
5745 . . . . . C76u.....
      . . . . .
5750 . . . . . <-----> D76uP
5748 . . . . . D76u
      . . . . .
5755 . . . . . <-----> D76uS
5753 . . . . . D76uW
      . . . . . V
      . . . . . V
5758 . . . . . R76uW
      . . . . .
5764 . . . . . 80u
      . . . . .
5771 . . . . . C80u.....
      . . . . .
5776 . . . . . <-----> D80tP
5774 . . . . . BD80tP
      . . . . . V
      . . . . . V
5777 . . . . . P80tS
      . . . . .
5782 . . . . . <-----> D80qW
5780 . . . . . BD80qW
      . . . . .
5783 . . . . . CC80u.....
      . . . . . V
      . . . . . V
5786 . . . . . S-117
      . . . . .
5795 . . . . . <-----> D80uP
5793 . . . . . D80u
      . . . . . V
      . . . . . V
5798 . . . . . R80uW
      . . . . .
5804 . . . . . 84t
      . . . . .
5811 . . . . . P84tN
      . . . . .
5819 . . . . . C84t.....
      . . . . .
5824 . . . . . <-----> D84tP
5822 . . . . . D84t
      . . . . .
5829 . . . . . <-----> D84tW
5827 . . . . . D84tS
      . . . . . V
      . . . . . V
5832 . . . . . R84tS
      . . . . .
5838 . . . . . 84u
      . . . . .

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5845 C84u.....
      V
      V
5848 S84u
      .
5856 .<----- D84tP
5854 . BD84tP
      . V
      . V
5857 . P84tS
      .
5860 CC84u.....
      .
5865 .-----> D84uP
5863 D84u
      .
5870 .-----> D84uS
5868 D84uW
      . V
      . V
5873 R84uW
      .
5879 . 88t
      .
5888 .<----- D84tW
5886 . BD84tW
      . V
      . V
5889 . R84tW
      .
5895 C88t.....
      .
5900 .-----> D88tW
5898 D88tS
      . V
      . V
5903 R88tS
      .
5909 . 88u
      .
5916 C88u.....
      .
5921 .-----> D88uP
5919 D88u
      .
5926 .-----> D88uS
5924 D88uW
      . V
      . V
5929 R88uW
      .
5937 .<----- D88uP
5935 . BD88uP
      . V
      . V
5938 . P88uW
      .
5941 C88uW.....
      .
5944 . 92t
      .
5953 .<----- D88tW
5951 . BD88tW
      . V
      . V
5954 . R88tW
      .
5960 C92t.....
      . V

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5963      .      V
          .      R92tS
          .
5969      .      .      92u
          .      .
5976      .      .      P92uN
          .      .
5984      C92u .....
          .
5989      .      .      D92uP
5987      .      .      .
          .      .      .
          .      .      .
5992      R92uS
          .
6000      .      .      .      D92uP
5998      .      .      .      .
          .      .      .      .
          .      .      .      .
6001      .      .      .      P92uS
          .      .      .
6004      C92uS .....
          .
6007      .      .      76v
          .      .
6016      .      .      .      .      D76uP
6014      .      .      .      .      .
          .      .      .      .      .
          .      .      .      .      .
6019      .      .      .      .      .      D76uP1
6017      .      .      .      .      .      .
          .      .      .      .      .      .
          .      .      .      .      .      .
6022      .      .      .      .      .      P76uS2
          .      .      .      .      .
6027      .      .      .      .      .      .      D76uS
6025      .      .      .      .      .      .      .
          .      .      .      .      .      .      .
          .      .      .      .      .      .      .
6028      .      .      .      .      .      .      R76uS
          .      .      .      .      .
6034      .      .      .      .      .      C76uS .....
          .      .
6037      .      .      .      C76v .....
          .
6042      .      .      .      .      .      D76vP
6040      .      .      .      .      .      .
          .      .      .      .      .
6047      .      .      .      .      .      .      D76vS
6045      .      .      .      .      .      .      .
          .      .      .      .      .      .      .
          .      .      .      .      .      .      .
6050      .      .      .      .      .      .      R76vW
          .      .
6056      .      .      .      .      .      80v
          .      .
6065      .      .      .      .      .      .      .      D76uP1
6063      .      .      .      .      .      .      .      .
          .      .      .      .      .      .      .      .
          .      .      .      .      .      .      .      .
6066      .      .      .      .      .      .      .      P76uS1
          .      .
6069      .      .      .      .      .      C80v .....
          .
6074      .      .      .      .      .      .      .      D80vP
072      .      .      .      .      .      .      .      .
          .      .      .      .      .
6079      .      .      .      .      .      .      .      D80vS

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6077	.	D80vW	.		
	.	V	.		
	.	V	.		
6082	.	R80vW	.		
	.	.	.		
6088	.	.	.	84v	
	.	.	.	.	
6097	.	.	.	.	<----- D80uP
6095	.	.	.	BD80uP	
	.	.	.	V	
	.	.	.	V	
6098	.	.	.	P80uS	
	.	.	.	.	
6101	.	C84v	.....		
	.	.	.		
6106	.	.	.	.	<----- D84uP
6104	.	.	.	BD84uP	
	.	.	.	V	
	.	.	.	V	
6107	.	.	.	P84uS	
	.	.	.	.	
6112	.	.	.	.	<----- D84uS
6110	.	.	.	BD84uS	
	.	.	.	V	
	.	.	.	V	
6113	.	.	.	R84uS	
	.	.	.	.	
6119	.	.	.	C84uS	.....
	.	.	.	.	
6122	.	CC84v	.....		
	.	.	.		
6128	.	.	.	.	-----> D84vP
6125	.	D84v			
	.	.	.		
6133	.	.	.	.	-----> D84vS
6131	.	D84vW			
	.	V			
	.	V			
6136	.	R84vW			
	.	.	.		
6142	.	.	.	88v	
	.	.	.	.	
6151	.	.	.	.	<----- D88uS
6149	.	.	.	BD88uS	
	.	.	.	V	
	.	.	.	V	
6152	.	.	.	R88uS	
	.	.	.	.	
6158	.	C88v	.....		
	.	.	.		
6163	.	.	.	.	-----> D88vP
6161	.	D88v			
	.	V			
	.	V			
6166	.	R88vW			
	.	.	.		
6172	.	.	.	92v	
	.	.	.	.	
6179	.	C92v	.....		
	.	.	.		
6184	.	.	.	.	-----> D92v
6182	.	D92vP			
	.	V			
	.	V			
6187	.	P92vS			
	.	.	.		
6190	.	88w			
	.	.	.		
	.	.	.		

6199	.	.	.	.<-----	D88vP
6197	.	.	BD88vP	.	.
	.	.	V	.	.
	.	.	V	.	.
6200	.	.	P88vS	.	.
6203	.	C88w.....	.	.	.
6206	.	44v	.	.	.
6215	.	.	.	.<-----	D44sP
6213	.	.	BD44sP	.	.
	.	.	V	.	.
	.	.	V	.	.
6216	.	.	P44sS	.	.
6219	.	C44v.....	.	.	.
6224	.	.	.	.<-----	D48oPT
6222	.	.	B48oPT	.	.
	.	.	V	.	.
	.	.	V	.	.
6225	.	.	PT48o	.	.
6230	.	.	.	.<-----	D48qPT
6228	.	.	B48qPT	.	.
6231	.	.	CPT48q.....	.	.
	.	.	V	.	.
	.	.	V	.	.
6234	.	.	PT48q	.	.
6239	.	.	.	.<-----	D48sPT
6237	.	.	B48sPT	.	.
6240	.	.	CPT48s.....	.	.
	.	.	V	.	.
	.	.	V	.	.
6243	.	.	PT48s	.	.
6246	.	.	.	.	48v
6253	.	.	C48v.....	.	.
6256	.	NUL48v.....	.	.	.
6259	.	52v	.	.	.
6268	.	.	.	.<-----	D52uP
6266	.	.	BD52uP	.	.
	.	.	V	.	.
	.	.	V	.	.
6269	.	.	P52uS	.	.
6274	.	.	.	.<-----	D52uS
6272	.	.	BD52uS	.	.
	.	.	V	.	.
	.	.	V	.	.
6275	.	.	R52uS	.	.
6281	.	.	C52uS.....	.	.
6284	.	.	C52v.....	.	.
6287	.	NUL52v.....	.	.	.
6290	.	56v	.	.	.



6382	.	.	.	B64uPT	.
6385	.	.	.	CPT64u	.
6388	.	.	.	V	.
	.	.	.	V	.
	.	.	.	PT64u	.
6391	.	.	.	64v	.
6400	.	.	.	.	.
6398	.	.	.	BD64uP	.
	.	.	.	V	.
	.	.	.	V	.
6401	.	.	.	P64uS	.
6406	.	.	.	.	.
6404	.	.	.	BD64uS	.
	.	.	.	V	.
	.	.	.	V	.
6407	.	.	.	R64uS	.
6413	.	.	.	C64uS	.
6416	.	.	.	C64v	.
6419	.	.	.	NUL64v	.
6422	.	.	.	68v	.
6431	.	.	.	BD68uP	.
6429	.	.	.	V	.
	.	.	.	V	.
6432	.	.	.	P68uS	.
6437	.	.	.	BD68uS	.
6435	.	.	.	V	.
	.	.	.	V	.
6438	.	.	.	R68uS	.
6444	.	.	.	C68uS	.
6447	.	.	.	C68v	.
6450	.	.	.	NUL68v	.
6453	.	.	.	72v	.
6462	.	.	.	BD72uP	.
6460	.	.	.	.	.
6465	.	.	.	D72uP1	.
6463	.	.	.	V	.
	.	.	.	V	.
6468	.	.	.	P72uS1	.
6473	.	.	.	B72uP2	.
6471	.	.	.	V	.
	.	.	.	V	.
6474	.	.	.	P72uS2	.
6479	.	.	.	B72uS	.
6477	.	.	.	V	.
	.	.	.	V	.

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6480 . . . . . R72uS
. . . . .
6486 . . . . . C72uS.....
. . . . .
6489 . . . . . C72v.....
. . . . .
6492 . . . . . NUL72v.....
. . . . .
6495 . . . . . 76w
. . . . .
6504 . . . . . <----- D76vS
6502 . . . . . BD76vS
. . . . . V
. . . . . V
6505 . . . . . R76vS
. . . . .
6513 . . . . . <----- D76vP
6511 . . . . . BD76vP
. . . . . V
. . . . . V
6514 . . . . . P76vS
. . . . .
6517 . . . . . C76vS.....
. . . . .
6520 . . . . . C76w.....
. . . . .
6523 . . . . . NUL76w.....
. . . . .
6526 . . . . . 80w
. . . . .
6535 . . . . . <----- D80vS
6533 . . . . . BD80vS
. . . . . V
. . . . . V
6536 . . . . . R80vS
. . . . .
6542 . . . . . C80w.....
. . . . .
6545 . . . . . NUL80w.....
. . . . .
6550 . . . . . <----- D84vS
6548 . . . . . BD84vS
. . . . . V
. . . . . V
6551 . . . . . R84vS
. . . . .
6559 . . . . . <----- D84vP
6557 . . . . . BD84vP
. . . . .
6562 . . . . . -----> D84vP2
6560 . . . . . DB84vP1
. . . . . V
. . . . . V
6565 . . . . . P84vS1
. . . . .
6570 . . . . . <----- D84vP2
6568 . . . . . B84vP2
. . . . . V
. . . . . V
6571 . . . . . P84vS2
. . . . .
6574 . . . . . C84vS.....
. . . . .
6577 . . . . . 84w
. . . . .
6586 . . . . . <----- D80vP

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6584	.	.	.	.	BD80vP
	.	.	.	.	V
6587	.	.	.	.	V
	.	.	.	.	P80vS
6590	.	.	.	.	.
	.	.	.	.	C84w.....
6593	.	.	.	.	NUL84w.....
6596	.	.	.	.	NUL88w.....
6599	.	.	.	.	24s
	.	.	.	.	V
	.	.	.	.	V
6606	.	.	.	.	S24s
6614	.	.	.	.	.
6612	.	.	.	.	B28qP2
	.	.	.	.	V
	.	.	.	.	V
6615	.	.	.	.	P28qE
6618	.	.	.	.	C24s.....
6623	.	.	.	.	-----> D24sP
6621	.	.	.	.	D24s
	.	.	.	.	V
	.	.	.	.	V
6626	.	.	.	.	R24sS
6634	.	.	.	.	.
6632	.	.	.	.	BD24sP
6637	.	.	.	.	.
6635	.	.	.	.	D24sPS
	.	.	.	.	V
	.	.	.	.	V
6640	.	.	.	.	P24sS
6643	.	.	.	.	C24sS.....
6646	.	.	.	.	24t
6653	.	.	.	.	C24t.....
	.	.	.	.	V
	.	.	.	.	V
6656	.	.	.	.	S24t
6662	.	.	.	.	04s
	.	.	.	.	V
	.	.	.	.	V
6669	.	.	.	.	S04s
	.	.	.	.	V
	.	.	.	.	V
6676	.	.	.	.	R04sS
6682	.	.	.	.	08q
	.	.	.	.	V
	.	.	.	.	V
6689	.	.	.	.	R08qS
6695	.	.	.	.	08s
6702	.	.	.	.	C08s.....
	.	.	.	.	V
	.	.	.	.	V
705	.	.	.	.	S08s
6714	.	.	.	.	-----> D08sP

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6712 . . . . . D08s
        . . . . . V
        . . . . . V
6717 . . . . . R08sW
        . . . . .
6723 . . . . . 12q
        . . . . . V
        . . . . . V
6730 . . . . . R12qS
        . . . . .
6736 . . . . . 12s
        . . . . . V
        . . . . . V
6743 . . . . . S12s
        . . . . .
        . . . . .
6750 . . . . . C12s.....
        . . . . . V
        . . . . . V
6753 . . . . . R12sW
        . . . . .
6759 . . . . . C12sW.....
        . . . . .
6764 . . . . . -----> D16sP2
6762 . . . . . D16s2
        . . . . .
6767 . . . . . 16o
        . . . . . V
        . . . . . V
6774 . . . . . R16oS
        . . . . .
6780 . . . . . 16q
        . . . . .
6787 . . . . . C16q.....
        . . . . . V
        . . . . . V
6790 . . . . . S16q
        . . . . .
6798 . . . . . -----> D16qP
6796 . . . . . D16q
        . . . . . V
        . . . . . V
6801 . . . . . R16qS
        . . . . .
6807 . . . . . 16s
        . . . . .
6814 . . . . . C16s.....
        . . . . . V
        . . . . . V
6817 . . . . . S16s
        . . . . .
6825 . . . . . <----- D16qP
6823 . . . . . BD16qP
        . . . . .
6829 . . . . . -----> D16qPW
6826 . . . . . D16qPS
        . . . . .
6832 . . . . . CC16s.....
        . . . . .
6837 . . . . . -----> D16sP
6835 . . . . . D16s
        . . . . . V
        . . . . . V
6840 . . . . . R16sS
        . . . . .
6848 . . . . . <----- D16sP
6846 . . . . . BD16sP
        . . . . .
6849 . . . . . C16sS.....

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6852	.	.	.	20p	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6859	.	.	.	S20p1	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6867	.	.	.	.	.	.	.	.	.
6865	.	.	.	B16qPW	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6868	.	.	.	C20p	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6871	.	.	.	S20p2	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6878	.	.	.	OC48	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6888	.	.	.	.	.	.	.	.	.
6886	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6889	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6892	.	.	.	C24oS	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6895	.	.	.	ROCCC	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6901	.	.	.	CC20p	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6904	.	.	.	R20pS	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6910	.	.	.	20q	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6919	.	.	.	.	.	.	.	.	.
917	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6920	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6923	.	.	.	C20q	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6926	.	.	.	R20qS	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6932	.	.	.	20s	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6939	.	.	.	S20s	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6945	.	.	.	C20s	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6950	.	.	.	.	.	.	.	.	.
6948	.	.	.	B24sPE	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6951	.	.	.	P24sE	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6954	.	.	.	CC20s	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6957	.	.	.	R20sS	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6963	.	.	.	20t	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
	.	.	.	V	.	.	.	.	.
6970	.	.	.	S20t	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
6976	.	.	.	C20t	.	.	.	.	.

6979

NUL20t.....

(\*\*\*) RUNOFF ALSO COMPUTED AT THIS LOCATION

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1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
* JUN 1998
* VERSION 4.1
* RUN DATE 11JUL06 TIME 08:17:55
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*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
*
*****

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Project ID: METRO ADMS/P - Major Basin: 01 - Return Period: 2 Years
METRO PHOENIX ADMS/P - FCD2004C040: Wood/Patel in association with EEC
2-Year 24-Hour Storm
SCS Type II Precipitation Distribution
Green and Ampt Loss Method
Clark Unit Hydrograph
Future Land Use Conditions
Model Name: FT24BASE.DAT, June 2006

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Important Notes:

- 1) Peak flow for each subbasin may not concentrate on one single point, for illustration purposes, it is assumed that the concentration point is located on the hydrologic low point of the subbasin;
- 2) Surface flow diversions may occur at several locations along one of the subbasin downstream boundaries. For simplicity, one split flow is modeled for each subbasin to one direction;
- 3) A fixed flow split ratio for most of the subbasin is used for all frequencies except some of the subbasins along Grand Canal.
- 4) Some subbasins have multiple pipes to one direction, a composite storm drain pipe may have been used to model these conditions;
- 5) Some subbasins have multiple detention/retention basins, an equivalent detention/retention basin may have been used to model these conditions;
- 6) Surface flow routing may occur at multiple streets and as sheet flow, a composite channel cross section is used to represent the streets flow conveyance.

\*\*\*\*\*

HEC-1 ELEMENT NOMENCLATURE

SUB-BASIN HYDROGRAPH:

Example: "80c" is the hydrograph from subbasin 80c

SUB-BASIN FLOW DIVERSION:

Example: "D80cS" is the south component of diversion in Subbasin 80c

PIPE FLOW DIVERSION:

Example: "80cP" is the pipe flow from Subbasin 80c

PIPE FLOW ROUTING:

Example: "P80cS" is the south component of pipe routing from Subbasin 80c

CHANNEL ROUTE:

Example: "R80cS" is the south component of surface flow routing from 80c

STORAGE ROUTE:

Example: "S80c" is the storage routing in Subbasin 80c

HYDROGRAPH COMBINE:

Example: "C80c" is the combined flow in Subbasin 80c

HYDROGRAPH RETRIEVAL:

Example: "B80c" is the retrieved flow from Subbasin 80c

"DUMMY" COMBINE:

Example: "NUL80C" is the dummy hydrograph combining to free up a HEC-1 computational path.

\*\*\*\*\*

62 IO

OUTPUT CONTROL VARIABLES

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IPRNT      5  PRINT CONTROL
IPLLOT     0  PLOT CONTROL
QSCAL      0.  HYDROGRAPH PLOT SCALE

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IT

HYDROGRAPH TIME DATA

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NMNIN      5  MINUTES IN COMPUTATION INTERVAL
IDATE      1  0  STARTING DATE
ITIME      0000  STARTING TIME
NQ         2000  NUMBER OF HYDROGRAPH ORDINATES
NDDATE     7  0  ENDING DATE
NDTIME     2235  ENDING TIME

```







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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
				6-HOUR	24-HOUR	72-HOUR			
HYDROGRAPH AT	64c	14.	12.58	5.	2.	1.	.26		
DIVERSION TO	D64cS	10.	12.58	4.	1.	0.	.26		
HYDROGRAPH AT	D64cW	5.	12.58	2.	1.	0.	.26		
ROUTED TO	R64cW	4.	13.25	2.	1.	0.	.26		
HYDROGRAPH AT	68c	24.	12.50	8.	3.	1.	.43		
2 COMBINED AT	C68c	26.	12.50	10.	3.	1.	.70		
DIVERSION TO	D68cP	26.	12.50	10.	3.	1.	.70		
HYDROGRAPH AT	D68c	0.	.00	0.	0.	0.	.70		
DIVERSION TO	D68cS	0.	.00	0.	0.	0.	.70		
HYDROGRAPH AT	D68cW	0.	.00	0.	0.	0.	.70		
ROUTED TO	R68cW	0.	.00	0.	0.	0.	.70		
HYDROGRAPH AT	72c	16.	12.75	7.	3.	1.	.54		
2 COMBINED AT	C72c	16.	12.75	7.	3.	1.	1.24		
DIVERSION TO	D72cP	16.	12.75	7.	3.	1.	1.24		
HYDROGRAPH AT	D72c	0.	.00	0.	0.	0.	1.24		
DIVERSION TO	D72cS	0.	.00	0.	0.	0.	1.24		
HYDROGRAPH AT	D72cW	0.	.00	0.	0.	0.	1.24		
ROUTED TO	R72cW	0.	.00	0.	0.	0.	1.24		
HYDROGRAPH AT	76c	30.	12.58	11.	4.	1.	.60		
2 COMBINED AT	C76c	29.	12.58	11.	4.	1.	1.84		
DIVERSION TO	D76c	0.	.00	0.	0.	0.	1.84		
HYDROGRAPH AT	D76cP	29.	12.58	11.	4.	1.	1.84		
HYDROGRAPH AT	84c	52.	12.75	23.	8.	3.	.47		
DIVERSION TO	D84cS	40.	12.75	17.	6.	2.	.47		
HYDROGRAPH AT	D84cE	12.	12.75	5.	2.	1.	.47		
ROUTED TO	R84cE	11.	13.50	5.	2.	1.	.47		

+	HYDROGRAPH AT	80c	59.	12.58	22.	8.	3.	.66
+	ROUTED TO	S80c	54.	12.92	19.	6.	2.	.66
+	2 COMBINED AT	C80c	62.	13.00	24.	7.	2.	1.13
+	DIVERSION TO	D80c	43.	13.00	10.	3.	1.	1.13
+	HYDROGRAPH AT	D80cP	19.	12.50	14.	5.	2.	1.13
+	2 COMBINED AT	C76cP	48.	12.58	24.	9.	3.	2.97
+	ROUTED TO	P76cS	48.	12.67	24.	9.	3.	2.97
+	DIVERSION TO	D80eP1	15.	12.67	8.	3.	1.	2.97
+	HYDROGRAPH AT	D76eP1	33.	12.67	16.	6.	2.	2.97
+	HYDROGRAPH AT	56e	12.	12.33	3.	1.	0.	.18
+	DIVERSION TO	D56eS	6.	12.33	2.	1.	0.	.18
+	HYDROGRAPH AT	D56eW	5.	12.33	2.	1.	0.	.18
+	ROUTED TO	R56eW	5.	13.00	2.	1.	0.	.18
+	HYDROGRAPH AT	60e	22.	12.58	9.	3.	1.	.41
+	2 COMBINED AT	C60e	26.	12.75	10.	4.	1.	.58
+	DIVERSION TO	D60eP	26.	12.75	10.	4.	1.	.58
+	HYDROGRAPH AT	D60e	0.	.00	0.	0.	0.	.58
+	DIVERSION TO	D60eS	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	D60eW	0.	.00	0.	0.	0.	.58
+	ROUTED TO	R60eW	0.	.00	0.	0.	0.	.58
+	HYDROGRAPH AT	64e	18.	12.67	8.	3.	1.	.50
+	HYDROGRAPH AT	B64cS	10.	12.58	4.	1.	0.	.26
+	ROUTED TO	R64cS	8.	13.67	4.	1.	0.	.26
+	3 COMBINED AT	C64e	22.	13.08	11.	4.	1.	1.35
+	DIVERSION TO	D64eS	11.	13.08	6.	2.	1.	1.35
+	HYDROGRAPH AT	D64eW	11.	13.08	6.	2.	1.	1.35
+	ROUTED TO	R64eW	11.	13.50	6.	2.	1.	1.35
+	HYDROGRAPH AT	68e	16.	12.67	7.	2.	1.	.50
	HYDROGRAPH AT							

+		B68cP	26.	12.50	10.	3.	1.	.70
	ROUTED TO							
		P68cS	26.	12.58	10.	3.	1.	.70
	HYDROGRAPH AT							
+		B68cS	0.	.00	0.	0.	0.	.70
	ROUTED TO							
+		R68cS	0.	.00	0.	0.	0.	.70
	2 COMBINED AT							
+		C68cS	26.	12.58	10.	3.	1.	.70
	3 COMBINED AT							
+		C68e	49.	12.83	22.	8.	3.	2.28
	DIVERSION TO							
+		D68eP	49.	12.83	22.	8.	3.	2.28
	HYDROGRAPH AT							
+		D68e	0.	.00	0.	0.	0.	2.28
	DIVERSION TO							
+		D68eS	0.	.00	0.	0.	0.	2.28
	HYDROGRAPH AT							
+		D68eW	0.	.00	0.	0.	0.	2.28
	ROUTED TO							
+		R68eW	0.	.00	0.	0.	0.	2.28
	HYDROGRAPH AT							
+		72e	23.	12.67	10.	3.	1.	.50
	HYDROGRAPH AT							
+		B72cP	16.	12.75	7.	3.	1.	1.24
	ROUTED TO							
+		P72cS	16.	12.83	7.	3.	1.	1.24
	HYDROGRAPH AT							
+		B72cS	0.	.00	0.	0.	0.	1.24
	ROUTED TO							
+		R72cS	0.	.00	0.	0.	0.	1.24
	2 COMBINED AT							
+		C72cS	16.	12.83	7.	3.	1.	1.24
	3 COMBINED AT							
+		C72e	38.	12.75	16.	6.	2.	3.32
	DIVERSION TO							
+		D72eP	38.	12.75	16.	6.	2.	3.32
	HYDROGRAPH AT							
+		D72e	0.	.00	0.	0.	0.	3.32
	DIVERSION TO							
+		D72eS	0.	.00	0.	0.	0.	3.32
	HYDROGRAPH AT							
+		D72eW	0.	.00	0.	0.	0.	3.32
	ROUTED TO							
+		R72eW	0.	.00	0.	0.	0.	3.32
	HYDROGRAPH AT							
+		76e	28.	12.67	11.	4.	1.	.50
	HYDROGRAPH AT							
+		B76c	0.	.00	0.	0.	0.	1.84
	ROUTED TO							
+		R76cS	0.	.00	0.	0.	0.	1.84
	4 COMBINED AT							
+		C76e	60.	12.67	27.	10.	3.	4.42
	DIVERSION TO							
+		D76e	39.	12.67	10.	2.	1.	4.42
	HYDROGRAPH AT							
+		D76eP	21.	12.17	17.	7.	2.	4.42

+	HYDROGRAPH AT	BD84cS	40.	12.75	17.	6.	2.	.47
	ROUTED TO	R84cS	37.	13.42	17.	6.	2.	.47
+	HYDROGRAPH AT	84e	9.	12.92	5.	2.	1.	.21
+	2 COMBINED AT	C84e	46.	13.33	22.	8.	3.	.68
+	DIVERSION TO	D84eS	18.	13.33	9.	3.	1.	.68
+	HYDROGRAPH AT	D84eE	28.	13.33	13.	5.	2.	.68
+	ROUTED TO	R84eE	26.	14.17	13.	5.	2.	.68
+	HYDROGRAPH AT	80e	29.	12.67	12.	4.	1.	.49
+	HYDROGRAPH AT	B80eP1	15.	12.67	8.	3.	1.	2.97
+	HYDROGRAPH AT	BD80c	43.	13.00	10.	3.	1.	1.13
+	ROUTED TO	R80cS	37.	13.75	10.	3.	1.	1.13
+	4 COMBINED AT	C80e	86.	13.75	42.	14.	5.	1.84
+	DIVERSION TO	D80e	31.	13.75	5.	1.	0.	1.84
+	HYDROGRAPH AT	D80eP	55.	13.17	36.	13.	4.	1.84
+	2 COMBINED AT	C76eP	76.	13.17	53.	20.	7.	6.26
+	ROUTED TO	P76eS	76.	13.25	53.	20.	7.	6.26
+	DIVERSION TO	D80gP1	55.	13.25	39.	14.	5.	6.26
+	HYDROGRAPH AT	D76gP1	21.	13.25	14.	5.	2.	6.26
+	HYDROGRAPH AT	76g	38.	12.58	14.	5.	2.	.50
+	HYDROGRAPH AT	BD76e	39.	12.67	10.	2.	1.	4.42
+	ROUTED TO	R76eS	34.	13.50	10.	2.	1.	4.42
+	3 COMBINED AT	C76g	80.	13.33	38.	13.	4.	4.92
+	DIVERSION TO	D76gP2	48.	12.42	32.	11.	4.	4.92
+	HYDROGRAPH AT	D76g1	32.	13.33	6.	1.	0.	4.92
+	DIVERSION TO	D76gP	32.	13.33	6.	1.	0.	4.92
+	HYDROGRAPH AT	D76g	0.	.00	0.	0.	0.	4.92
+	DIVERSION TO	D76gS	0.	.00	0.	0.	0.	4.92
+	HYDROGRAPH AT	D76gE	0.	.00	0.	0.	0.	4.92
+	ROUTED TO	R76gE	0.	.00	0.	0.	0.	4.92

+	HYDROGRAPH AT	B76gP2	48.	12.42	32.	11.	4.	4.92
	2 COMBINED AT	C76gE	48.	12.42	32.	11.	4.	4.92
+	HYDROGRAPH AT	54g	22.	12.33	7.	2.	1.	.25
+	DIVERSION TO	D54gS	9.	12.33	3.	1.	0.	.25
+	HYDROGRAPH AT	D54gW	13.	12.33	4.	1.	0.	.25
+	ROUTED TO	R54gW	12.	12.92	4.	1.	0.	.25
+	HYDROGRAPH AT	56g	32.	12.50	12.	4.	1.	.50
+	HYDROGRAPH AT	B56eS	6.	12.33	2.	1.	0.	.18
+	ROUTED TO	R56eS	5.	13.25	2.	1.	0.	.18
+	3 COMBINED AT	C56g	45.	12.83	17.	6.	2.	.92
+	DIVERSION TO	D56gP	45.	12.83	17.	6.	2.	.92
+	HYDROGRAPH AT	D56g	0.	.00	0.	0.	0.	.92
+	DIVERSION TO	D56gS	0.	.00	0.	0.	0.	.92
+	HYDROGRAPH AT	D56gW	0.	.00	0.	0.	0.	.92
+	ROUTED TO	R56gW	0.	.00	0.	0.	0.	.92
+	HYDROGRAPH AT	60g	33.	12.58	13.	4.	2.	.50
+	HYDROGRAPH AT	B60eP	26.	12.75	10.	4.	1.	.58
+	ROUTED TO	P60eS	26.	12.83	10.	4.	1.	.58
+	HYDROGRAPH AT	B60eS	0.	.00	0.	0.	0.	.58
+	ROUTED TO	R60eS	0.	.00	0.	0.	0.	.58
+	2 COMBINED AT	C60eS	26.	12.83	10.	4.	1.	.58
+	3 COMBINED AT	C60g	58.	12.67	23.	8.	3.	1.83
+	DIVERSION TO	D60gP	58.	12.67	23.	8.	3.	1.83
+	HYDROGRAPH AT	D60g	0.	.00	0.	0.	0.	1.83
+	DIVERSION TO	D60gS	0.	.00	0.	0.	0.	1.83
+	HYDROGRAPH AT	D60gW	0.	.00	0.	0.	0.	1.83
+	ROUTED TO	R60gW	0.	.00	0.	0.	0.	1.83
+	HYDROGRAPH AT	64g	26.	12.67	10.	4.	1.	.50
	HYDROGRAPH AT							

+		B64eS	11.	13.08	6.	2.	1.	1.35
	ROUTED TO							
+		R64eS	11.	13.75	6.	2.	1.	1.35
	3 COMBINED AT							
+		C64g	29.	12.83	15.	5.	2.	3.10
	DIVERSION TO							
+		D64gP	29.	12.83	15.	5.	2.	3.10
	HYDROGRAPH AT							
+		D64g	0.	.00	0.	0.	0.	3.10
	DIVERSION TO							
+		D64gS	0.	.00	0.	0.	0.	3.10
	HYDROGRAPH AT							
+		D64gW	0.	.00	0.	0.	0.	3.10
	ROUTED TO							
+		R64gW	0.	.00	0.	0.	0.	3.10
	HYDROGRAPH AT							
+		68g	20.	12.75	9.	3.	1.	.50
	HYDROGRAPH AT							
+		B68eP	49.	12.83	22.	8.	3.	2.28
	ROUTED TO							
+		P68eS	49.	12.92	22.	8.	3.	2.28
	HYDROGRAPH AT							
+		B68eS	0.	.00	0.	0.	0.	2.28
	ROUTED TO							
+		R68eS	0.	.00	0.	0.	0.	2.28
	2 COMBINED AT							
+		C68eS	49.	12.92	22.	8.	3.	2.28
	3 COMBINED AT							
+		C68g	67.	12.92	30.	11.	4.	4.53
	DIVERSION TO							
+		D68gP	67.	12.92	30.	11.	4.	4.53
	HYDROGRAPH AT							
+		D68g	0.	.00	0.	0.	0.	4.53
	DIVERSION TO							
+		D68gS	0.	.00	0.	0.	0.	4.53
	HYDROGRAPH AT							
+		D68gW	0.	.00	0.	0.	0.	4.53
	ROUTED TO							
+		R68gW	0.	.00	0.	0.	0.	4.53
	HYDROGRAPH AT							
+		72g	22.	12.75	10.	4.	1.	.50
	HYDROGRAPH AT							
+		B72eP	38.	12.75	16.	6.	2.	3.32
	ROUTED TO							
+		P72eS	38.	12.83	16.	6.	2.	3.32
	HYDROGRAPH AT							
+		B72eS	0.	.00	0.	0.	0.	3.32
	ROUTED TO							
+		R72eS	0.	.00	0.	0.	0.	3.32
	2 COMBINED AT							
+		C72eS	38.	12.83	16.	6.	2.	3.32
	3 COMBINED AT							
+		C72g	59.	12.83	26.	9.	3.	6.07
	2 COMBINED AT							
+		CC72g	107.	12.83	58.	20.	7.	7.67
	DIVERSION TO							
+		D72gP	107.	12.83	58.	20.	7.	7.67

+	HYDROGRAPH AT	D72g	0.	.00	0.	0.	0.	0.	7.67
	ROUTED TO	R72gS	0.	.00	0.	0.	0.	0.	7.67
+	HYDROGRAPH AT	BD72gP	107.	12.83	58.	20.	7.	7.	7.67
+	ROUTED TO	P72gS	107.	12.92	58.	20.	7.	7.	7.67
+	2 COMBINED AT	C72gS	107.	12.92	58.	20.	7.	7.	7.67
+	HYDROGRAPH AT	84g	12.	12.75	6.	2.	1.	1.	.21
+	HYDROGRAPH AT	B84eS	18.	13.33	9.	3.	1.	1.	.68
+	ROUTED TO	R84eS	17.	14.17	9.	3.	1.	1.	.68
+	2 COMBINED AT	C84g	24.	14.00	14.	5.	2.	2.	.90
+	DIVERSION TO	D84gS	11.	14.00	7.	2.	1.	1.	.90
+	HYDROGRAPH AT	D84gE	13.	14.00	7.	3.	1.	1.	.90
+	ROUTED TO	R84gE	12.	14.83	7.	3.	1.	1.	.90
+	HYDROGRAPH AT	80g	28.	12.75	12.	4.	1.	1.	.50
+	HYDROGRAPH AT	BD80e	31.	13.75	5.	1.	0.	0.	1.84
+	ROUTED TO	R80eS	22.	14.50	5.	1.	0.	0.	1.84
+	HYDROGRAPH AT	B80gP1	55.	13.25	39.	14.	5.	5.	6.26
+	4 COMBINED AT	C80g	99.	14.42	62.	22.	8.	8.	2.55
+	DIVERSION TO	D80g	80.	14.42	43.	11.	4.	4.	2.55
+	HYDROGRAPH AT	D80gP	19.	11.67	19.	12.	4.	4.	2.55
+	HYDROGRAPH AT	B76gP	32.	13.33	6.	1.	0.	0.	4.92
+	2 COMBINED AT	C76gP	50.	13.33	25.	13.	4.	4.	7.47
+	ROUTED TO	P76gS	50.	13.42	25.	13.	4.	4.	7.47
+	DIVERSION TO	D80iP1	13.	13.42	6.	3.	1.	1.	7.47
+	HYDROGRAPH AT	D76iP1	38.	13.42	19.	10.	3.	3.	7.47
+	HYDROGRAPH AT	76i	59.	12.58	22.	8.	3.	3.	.50
+	HYDROGRAPH AT	BD76gS	0.	.00	0.	0.	0.	0.	4.92
+	ROUTED TO	R76gS	0.	.00	0.	0.	0.	0.	4.92
+	3 COMBINED AT	C76i	80.	13.25	40.	17.	6.	6.	5.42
+	DIVERSION TO	D76i1	32.	13.25	7.	2.	1.	1.	5.42

+	HYDROGRAPH AT	D76iP2	48.	12.25	33.	16.	5.	5.42
+	HYDROGRAPH AT	72i	25.	12.75	11.	4.	1.	.50
+	3 COMBINED AT	C72i	178.	12.92	102.	40.	14.	8.68
+	DIVERSION TO	D72i	0.	.00	0.	0.	0.	8.68
+	HYDROGRAPH AT	D72iP	178.	12.92	102.	40.	14.	8.68
+	DIVERSION TO	D72iP1	156.	12.92	89.	35.	12.	8.68
+	HYDROGRAPH AT	D72iP2	22.	12.92	13.	5.	2.	8.68
+	ROUTED TO	P72iW	22.	12.92	13.	5.	2.	8.68
+	HYDROGRAPH AT	BD76i1	32.	13.25	7.	2.	1.	5.42
+	2 COMBINED AT	CC76i	53.	13.25	20.	7.	2.	5.92
+	DIVERSION TO	D76i	0.	.00	0.	0.	0.	5.92
+	HYDROGRAPH AT	D76iP	53.	13.25	20.	7.	2.	5.92
+	HYDROGRAPH AT	BD84gS	11.	14.00	7.	2.	1.	.90
+	ROUTED TO	R84gS	11.	14.75	6.	2.	1.	.90
+	HYDROGRAPH AT	84i	11.	12.83	6.	2.	1.	.21
+	2 COMBINED AT	C84i	17.	14.42	12.	4.	1.	1.11
+	ROUTED TO	S84i	0.	.00	0.	0.	0.	1.11
+	DIVERSION TO	DB4iS	0.	.00	0.	0.	0.	1.11
+	HYDROGRAPH AT	D84iE	0.	.00	0.	0.	0.	1.11
+	ROUTED TO	R84iE	0.	.00	0.	0.	0.	1.11
+	HYDROGRAPH AT	80i	33.	12.67	13.	4.	1.	.49
+	HYDROGRAPH AT	BD80g	80.	14.42	43.	11.	4.	2.55
+	ROUTED TO	S80g	80.	14.42	42.	11.	4.	2.55
+	ROUTED TO	R80gS	79.	14.83	42.	11.	4.	2.55
+	HYDROGRAPH AT	B80iP1	13.	13.42	6.	3.	1.	7.47
+	4 COMBINED AT	C80i	95.	13.50	58.	18.	6.	3.25
+	DIVERSION TO	D80i	67.	13.50	32.	8.	3.	3.25
+	HYDROGRAPH AT	D80iP	28.	12.33	27.	10.	3.	3.25
	2 COMBINED AT							

+		C76iP	80.	13.25	46.	17.	6.	9.18
	ROUTED TO							
		P76iS	80.	13.25	46.	17.	6.	9.18
	DIVERSION TO							
+		D80kP1	21.	13.25	12.	4.	1.	9.18
	HYDROGRAPH AT							
+		D76kP1	59.	13.25	34.	13.	4.	9.18
	HYDROGRAPH AT							
+		76k	38.	12.50	11.	4.	1.	.32
	HYDROGRAPH AT							
+		BD76i	0.	.00	0.	0.	0.	5.92
	DIVERSION TO							
+		D76iE	0.	.00	0.	0.	0.	5.92
	HYDROGRAPH AT							
+		D76iS	0.	.00	0.	0.	0.	5.92
	ROUTED TO							
+		R76iS	0.	.00	0.	0.	0.	5.92
	3 COMBINED AT							
+		C76k	91.	12.67	44.	16.	5.	5.74
	DIVERSION TO							
+		D76k1	59.	12.67	15.	4.	1.	5.74
	HYDROGRAPH AT							
+		D76kP2	32.	12.08	30.	12.	4.	5.74
	HYDROGRAPH AT							
+		54i	16.	12.58	6.	2.	1.	.19
	HYDROGRAPH AT							
+		BD54gS	9.	12.33	3.	1.	0.	.25
	ROUTED TO							
+		R54gS	8.	13.08	3.	1.	0.	.25
	2 COMBINED AT							
+		C54i	22.	12.92	9.	3.	1.	.44
	DIVERSION TO							
+		D54iP	22.	12.92	9.	3.	1.	.44
	HYDROGRAPH AT							
+		D54i	0.	.00	0.	0.	0.	.44
	DIVERSION TO							
+		D54iS	0.	.00	0.	0.	0.	.44
	HYDROGRAPH AT							
+		D54iW	0.	.00	0.	0.	0.	.44
	ROUTED TO							
+		R54iW	0.	.00	0.	0.	0.	.44
	HYDROGRAPH AT							
+		56i	38.	12.58	14.	5.	2.	.50
	HYDROGRAPH AT							
+		BD56gP	45.	12.83	17.	6.	2.	.92
	ROUTED TO							
+		P56gS	45.	12.92	17.	6.	2.	.92
	HYDROGRAPH AT							
+		BD56gS	0.	.00	0.	0.	0.	.92
	ROUTED TO							
+		R56gS	0.	.00	0.	0.	0.	.92
	2 COMBINED AT							
+		C56gS	45.	12.92	17.	6.	2.	.92
	3 COMBINED AT							
+		C56i	80.	12.75	31.	11.	4.	1.62
	DIVERSION TO							
+		D56iP	80.	12.75	31.	11.	4.	1.62

+	HYDROGRAPH AT	D56i	0.	.00	0.	0.	0.	1.62
.	DIVERSION TO	D56iS	0.	.00	0.	0.	0.	1.62
+	HYDROGRAPH AT	D56iW	0.	.00	0.	0.	0.	1.62
+	ROUTED TO	R56iW	0.	.00	0.	0.	0.	1.62
+	HYDROGRAPH AT	60i	44.	12.58	17.	6.	2.	.50
+	HYDROGRAPH AT	BD60gP	58.	12.67	23.	8.	3.	1.83
+	ROUTED TO	P60gS	58.	12.75	23.	8.	3.	1.83
+	HYDROGRAPH AT	BD60gS	0.	.00	0.	0.	0.	1.83
+	ROUTED TO	R60gS	0.	.00	0.	0.	0.	1.83
+	2 COMBINED AT	C60gS	58.	12.75	23.	8.	3.	1.83
+	3 COMBINED AT	C60i	100.	12.67	39.	14.	5.	3.02
+	DIVERSION TO	D60iP	100.	12.67	39.	14.	5.	3.02
+	HYDROGRAPH AT	D60i	0.	.00	0.	0.	0.	3.02
+	DIVERSION TO	D60iS	0.	.00	0.	0.	0.	3.02
+	HYDROGRAPH AT	D60iW	0.	.00	0.	0.	0.	3.02
+	ROUTED TO	R60iW	0.	.00	0.	0.	0.	3.02
+	HYDROGRAPH AT	BD64gP	29.	12.83	15.	5.	2.	3.10
+	ROUTED TO	P64gS	29.	12.92	15.	5.	2.	3.10
+	HYDROGRAPH AT	BD64gS	0.	.00	0.	0.	0.	3.10
+	ROUTED TO	R64gS	0.	.00	0.	0.	0.	3.10
+	2 COMBINED AT	C64gS	29.	12.92	15.	5.	2.	3.10
+	HYDROGRAPH AT	64i	41.	12.58	16.	6.	2.	.50
+	3 COMBINED AT	C64i	68.	12.67	31.	11.	4.	4.79
+	DIVERSION TO	D64iP	68.	12.67	31.	11.	4.	4.79
+	HYDROGRAPH AT	D64i	0.	.00	0.	0.	0.	4.79
+	DIVERSION TO	D64iS	0.	.00	0.	0.	0.	4.79
+	HYDROGRAPH AT	D64iW	0.	.00	0.	0.	0.	4.79
+	ROUTED TO	R64iW	0.	.00	0.	0.	0.	4.79
+	HYDROGRAPH AT	68i	26.	12.75	12.	4.	1.	.50

+	HYDROGRAPH AT	BD68gP	67.	12.92	30.	11.	4.	4.53
	ROUTED TO	P68gS	67.	12.92	30.	11.	4.	4.53
+	HYDROGRAPH AT	BD68gS	0.	.00	0.	0.	0.	4.53
+	ROUTED TO	R68gS	0.	.00	0.	0.	0.	4.53
+	2 COMBINED AT	C68gS	67.	12.92	30.	11.	4.	4.53
+	3 COMBINED AT	C68i	92.	12.92	41.	15.	5.	6.72
+	HYDROGRAPH AT	BD72i	0.	.00	0.	0.	0.	8.68
+	HYDROGRAPH AT	B76iE	0.	.00	0.	0.	0.	5.92
+	ROUTED TO	R76iE	0.	.00	0.	0.	0.	5.92
+	2 COMBINED AT	CC72i	0.	.00	0.	0.	0.	8.68
+	DIVERSION TO	D72iS	0.	.00	0.	0.	0.	8.68
+	HYDROGRAPH AT	D72iE	0.	.00	0.	0.	0.	8.68
+	ROUTED TO	R72iE	0.	.00	0.	0.	0.	8.68
+	2 COMBINED AT	CC68i	92.	12.92	41.	15.	5.	10.87
+	DIVERSION TO	D68iP	92.	12.92	41.	15.	5.	10.87
+	HYDROGRAPH AT	D68i	0.	.00	0.	0.	0.	10.87
+	ROUTED TO	R68iS	0.	.00	0.	0.	0.	10.87
+	HYDROGRAPH AT	BD68iP	92.	12.92	41.	15.	5.	10.87
+	ROUTED TO	P68iS	91.	12.92	41.	15.	5.	10.87
+	2 COMBINED AT	C68iS	91.	12.92	41.	15.	5.	10.87
+	HYDROGRAPH AT	36i	16.	12.67	7.	2.	1.	.34
+	DIVERSION TO	D36iP	16.	12.67	7.	2.	1.	.34
+	HYDROGRAPH AT	D36i	0.	.00	0.	0.	0.	.34
+	DIVERSION TO	D36iS	0.	.00	0.	0.	0.	.34
+	HYDROGRAPH AT	D36iW	0.	.00	0.	0.	0.	.34
+	ROUTED TO	R36iW	0.	.00	0.	0.	0.	.34
+	HYDROGRAPH AT	40i	18.	12.42	6.	2.	1.	.22
+	ROUTED TO	S40i	0.	.00	0.	0.	0.	.22
	2 COMBINED AT							

+		C40i	0.	.00	0.	0.	0.	.56
	DIVERSION TO							
+		D40iS	0.	.00	0.	0.	0.	.56
	HYDROGRAPH AT							
+		D40iW	0.	.00	0.	0.	0.	.56
	ROUTED TO							
+		R40iW	0.	.00	0.	0.	0.	.56
	HYDROGRAPH AT							
+		44i	20.	12.58	8.	3.	1.	.35
	HYDROGRAPH AT							
+		42i	4.	12.50	1.	0.	0.	.27
	ROUTED TO							
+		R42iW	3.	13.17	1.	0.	0.	.27
	3 COMBINED AT							
+		C44i	23.	12.67	9.	3.	1.	1.18
	DIVERSION TO							
+		D44iP	23.	12.67	9.	3.	1.	1.18
	HYDROGRAPH AT							
+		D44i	0.	.00	0.	0.	0.	1.18
	DIVERSION TO							
+		D44iS	0.	.00	0.	0.	0.	1.18
	HYDROGRAPH AT							
+		D44iW	0.	.00	0.	0.	0.	1.18
	ROUTED TO							
+		R44iW	0.	.00	0.	0.	0.	1.18
	HYDROGRAPH AT							
+		48i	15.	12.67	6.	2.	1.	.54
	2 COMBINED AT							
+		C48i	15.	12.67	6.	2.	1.	1.72
	DIVERSION TO							
+		D48iP	15.	12.67	6.	2.	1.	1.72
	HYDROGRAPH AT							
+		D48i	0.	.00	0.	0.	0.	1.72
	DIVERSION TO							
+		D48iS	0.	.00	0.	0.	0.	1.72
	HYDROGRAPH AT							
+		D48iW	0.	.00	0.	0.	0.	1.72
	ROUTED TO							
+		R48iW	0.	.00	0.	0.	0.	1.72
	HYDROGRAPH AT							
+		BD48iP	15.	12.67	6.	2.	1.	1.72
	ROUTED TO							
+		P48iW	15.	12.67	6.	2.	1.	1.72
	2 COMBINED AT							
+		C48iW	15.	12.67	6.	2.	1.	1.72
	HYDROGRAPH AT							
+		52g	13.	12.33	4.	1.	0.	.26
	ROUTED TO							
+		R52gS	10.	13.25	4.	1.	0.	.26
	HYDROGRAPH AT							
+		52i	17.	12.58	7.	2.	1.	.31
	3 COMBINED AT							
+		C52i	38.	12.92	16.	6.	2.	2.29
	DIVERSION TO							
+		DB52i	0.	.00	0.	0.	0.	2.29
	HYDROGRAPH AT							
+		E52i	38.	12.92	16.	6.	2.	2.29

+	HYDROGRAPH AT	BDB52i	0.	.00	0.	0.	0.	0.	2.29
	ROUTED TO	SS2i	0.	.00	0.	0.	0.	0.	2.29
+	2 COMBINED AT	CCS2i	38.	12.92	16.	6.	2.	2.	2.29
+	DIVERSION TO	D52iP	38.	12.92	16.	6.	2.	2.	2.29
+	HYDROGRAPH AT	DS2i	0.	.00	0.	0.	0.	0.	2.29
+	ROUTED TO	R52iS	0.	.00	0.	0.	0.	0.	2.29
+	HYDROGRAPH AT	BD52iP	38.	12.92	16.	6.	2.	2.	2.29
+	ROUTED TO	P52iS	38.	13.00	16.	6.	2.	2.	2.29
+	2 COMBINED AT	C52iS	38.	13.00	16.	6.	2.	2.	2.29
+	HYDROGRAPH AT	24k	13.	12.42	5.	2.	1.	1.	.19
+	DIVERSION TO	D24kS	7.	12.42	2.	1.	0.	0.	.19
+	HYDROGRAPH AT	D24kW	7.	12.42	2.	1.	0.	0.	.19
+	ROUTED TO	R24kW	6.	13.17	2.	1.	0.	0.	.19
+	HYDROGRAPH AT	ARC40	47.	13.00	12.	4.	1.	1.	.10
+	ROUTED TO	PARC40	46.	13.08	12.	4.	1.	1.	.10
+	HYDROGRAPH AT	28k	25.	12.58	10.	3.	1.	1.	.43
+	3 COMBINED AT	C28k	73.	13.08	24.	8.	3.	3.	.72
+	DIVERSION TO	D28kP	73.	13.08	24.	8.	3.	3.	.72
+	HYDROGRAPH AT	D28k	0.	.00	0.	0.	0.	0.	.72
+	DIVERSION TO	D28kS	0.	.00	0.	0.	0.	0.	.72
+	HYDROGRAPH AT	D28kW	0.	.00	0.	0.	0.	0.	.72
+	ROUTED TO	R28kW	0.	.00	0.	0.	0.	0.	.72
+	HYDROGRAPH AT	32k	28.	12.58	11.	4.	1.	1.	.51
+	2 COMBINED AT	C32k	28.	12.58	11.	4.	1.	1.	1.23
+	DIVERSION TO	D32kP	28.	12.58	11.	4.	1.	1.	1.23
+	HYDROGRAPH AT	D32k	0.	.00	0.	0.	0.	0.	1.23
+	DIVERSION TO	D32kS	0.	.00	0.	0.	0.	0.	1.23
+	HYDROGRAPH AT	D32kW	0.	.00	0.	0.	0.	0.	1.23
+	ROUTED TO	R32kW	0.	.00	0.	0.	0.	0.	1.23

+	HYDROGRAPH AT	36k	33.	12.58	12.	4.	1.	.51
+	HYDROGRAPH AT	BD36iP	16.	12.67	7.	2.	1.	.34
+	ROUTED TO	P36iS	16.	12.75	7.	2.	1.	.34
+	HYDROGRAPH AT	BD36iS	0.	.00	0.	0.	0.	.34
+	ROUTED TO	R36iS	0.	.00	0.	0.	0.	.34
+	2 COMBINED AT	C36iS	16.	12.75	7.	2.	1.	.34
+	3 COMBINED AT	C36k	47.	12.67	19.	7.	2.	2.07
+	DIVERSION TO	D36kP	47.	12.67	19.	7.	2.	2.07
+	HYDROGRAPH AT	D36k	0.	.00	0.	0.	0.	2.07
+	DIVERSION TO	D36kS	0.	.00	0.	0.	0.	2.07
+	HYDROGRAPH AT	D36kW	0.	.00	0.	0.	0.	2.07
+	ROUTED TO	R36kW	0.	.00	0.	0.	0.	2.07
+	HYDROGRAPH AT	BD40iS	0.	.00	0.	0.	0.	.56
+	ROUTED TO	R40iS	0.	.00	0.	0.	0.	.56
+	HYDROGRAPH AT	40k	30.	12.67	12.	4.	1.	.50
+	3 COMBINED AT	C40k	29.	12.67	12.	4.	1.	2.80
+	DIVERSION TO	D40kP	29.	12.67	12.	4.	1.	2.80
+	HYDROGRAPH AT	D40k	0.	12.67	0.	0.	0.	2.80
+	DIVERSION TO	D40kS	0.	12.67	0.	0.	0.	2.80
+	HYDROGRAPH AT	D40kW	0.	12.67	0.	0.	0.	2.80
+	ROUTED TO	R40kW	0.	13.08	0.	0.	0.	2.80
+	HYDROGRAPH AT	44k	43.	12.58	16.	6.	2.	.51
+	HYDROGRAPH AT	BD44iP	23.	12.67	9.	3.	1.	1.18
+	ROUTED TO	P44iS	23.	12.83	9.	3.	1.	1.18
+	HYDROGRAPH AT	BD44iS	0.	.00	0.	0.	0.	1.18
+	ROUTED TO	R44iS	0.	.00	0.	0.	0.	1.18
+	2 COMBINED AT	C44iS	23.	12.83	9.	3.	1.	1.18
+	3 COMBINED AT	C44k	63.	12.67	25.	9.	3.	3.93
	DIVERSION TO							

+		D44kP	63.	12.67	25.	9.	3.	3.93
		HYDROGRAPH AT						
		D44k	0.	.00	0.	0.	0.	3.93
		DIVERSION TO						
		D44kS	0.	.00	0.	0.	0.	3.93
		HYDROGRAPH AT						
+		D44kW	0.	.00	0.	0.	0.	3.93
		ROUTED TO						
+		R44kW	0.	.00	0.	0.	0.	3.93
		HYDROGRAPH AT						
+		48k	52.	12.67	21.	7.	2.	.50
		ROUTED TO						
+		S48k	52.	12.67	21.	6.	2.	.50
		HYDROGRAPH AT						
+		BD48iS	0.	.00	0.	0.	0.	1.72
		ROUTED TO						
+		R48iS	0.	.00	0.	0.	0.	1.72
		3 COMBINED AT						
+		C48k	52.	12.67	21.	6.	2.	4.96
		DIVERSION TO						
+		D48kS	23.	12.67	9.	3.	1.	4.96
		HYDROGRAPH AT						
+		D48kW	28.	12.67	11.	3.	1.	4.96
		ROUTED TO						
+		R48kW	27.	12.92	11.	3.	1.	4.96
		HYDROGRAPH AT						
+		52k	20.	12.75	9.	3.	1.	.29
		3 COMBINED AT						
		C52k	84.	12.92	36.	12.	4.	5.83
		DIVERSION TO						
+		D52kP	84.	12.92	36.	12.	4.	5.83
		HYDROGRAPH AT						
+		D52k	0.	.00	0.	0.	0.	5.83
		DIVERSION TO						
+		D52kS	0.	.00	0.	0.	0.	5.83
		HYDROGRAPH AT						
+		D52kW	0.	.00	0.	0.	0.	5.83
		ROUTED TO						
+		R52kW	0.	.00	0.	0.	0.	5.83
		HYDROGRAPH AT						
+		BD54iP	22.	12.92	9.	3.	1.	.44
		ROUTED TO						
+		P54iS	22.	13.08	9.	3.	1.	.44
		HYDROGRAPH AT						
+		BD54iS	0.	.00	0.	0.	0.	.44
		ROUTED TO						
+		R54iS	0.	.00	0.	0.	0.	.44
		2 COMBINED AT						
+		C54iS	22.	13.08	9.	3.	1.	.44
		HYDROGRAPH AT						
+		54k	22.	12.75	10.	4.	1.	.25
		3 COMBINED AT						
+		C54k	42.	13.00	19.	7.	2.	1.18
		DIVERSION TO						
		D54kP	42.	13.00	19.	7.	2.	1.18
		HYDROGRAPH AT						
+		D54k	0.	.00	0.	0.	0.	1.18

+	DIVERSION TO	D54kS	0.	.00	0.	0.	0.	1.18
	HYDROGRAPH AT	D54kW	0.	.00	0.	0.	0.	1.18
+	ROUTED TO	R54kW	0.	.00	0.	0.	0.	1.18
+	HYDROGRAPH AT	BD56iP	80.	12.75	31.	11.	4.	1.62
+	ROUTED TO	P56iS	80.	12.83	31.	11.	4.	1.62
+	HYDROGRAPH AT	BD56iS	0.	.00	0.	0.	0.	1.62
+	ROUTED TO	R56iS	0.	.00	0.	0.	0.	1.62
+	2 COMBINED AT	C56iS	80.	12.83	31.	11.	4.	1.62
+	HYDROGRAPH AT	56k	41.	12.58	15.	5.	2.	.42
+	3 COMBINED AT	C56k	118.	12.75	45.	16.	5.	2.78
+	HYDROGRAPH AT	BD60iP	100.	12.67	39.	14.	5.	3.02
+	DIVERSION TO	D60iP2	68.	12.67	26.	9.	3.	3.02
+	HYDROGRAPH AT	D60iP1	32.	12.67	13.	4.	1.	3.02
+	ROUTED TO	P60iS1	32.	12.75	13.	4.	1.	3.02
+	HYDROGRAPH AT	B60iP2	68.	12.67	26.	9.	3.	3.02
+	ROUTED TO	P60iS2	68.	12.75	26.	9.	3.	3.02
+	HYDROGRAPH AT	BD60iS	0.	.00	0.	0.	0.	3.02
+	ROUTED TO	R60iS	0.	.00	0.	0.	0.	3.02
+	3 COMBINED AT	C60iS	100.	12.75	39.	14.	5.	3.02
+	HYDROGRAPH AT	60k	26.	12.58	10.	3.	1.	.27
+	2 COMBINED AT	C60k	125.	12.75	48.	17.	6.	3.29
+	DIVERSION TO	D60k	0.	.00	0.	0.	0.	3.29
+	HYDROGRAPH AT	D60kP	125.	12.75	48.	17.	6.	3.29
+	DIVERSION TO	D60kP2	70.	12.75	27.	10.	3.	3.29
+	HYDROGRAPH AT	D60kP1	55.	12.75	21.	8.	3.	3.29
+	ROUTED TO	P60kE	55.	12.75	21.	8.	3.	3.29
+	2 COMBINED AT	CC56k	172.	12.75	67.	24.	8.	4.46
+	DIVERSION TO	D56kP	172.	12.75	67.	24.	8.	4.46
+	HYDROGRAPH AT	D56k	0.	.00	0.	0.	0.	4.46

+	DIVERSION TO	D56kS	0.	.00	0.	0.	0.	4.46
	HYDROGRAPH AT	D56kW	0.	.00	0.	0.	0.	4.46
+	ROUTED TO	R56kW	0.	.00	0.	0.	0.	4.46
+	HYDROGRAPH AT	BD60k	0.	.00	0.	0.	0.	3.29
+	2 COMBINED AT	CC60k	0.	.00	0.	0.	0.	4.46
+	DIVERSION TO	D60kS	0.	.00	0.	0.	0.	4.46
+	HYDROGRAPH AT	D60kW	0.	.00	0.	0.	0.	4.46
+	ROUTED TO	R60kW	0.	.00	0.	0.	0.	4.46
+	HYDROGRAPH AT	64k	21.	12.42	7.	2.	1.	.21
+	HYDROGRAPH AT	BD64iS	0.	.00	0.	0.	0.	4.79
+	ROUTED TO	R64iS	0.	.00	0.	0.	0.	4.79
+	3 COMBINED AT	C64k	21.	12.42	7.	2.	1.	6.43
+	ROUTED TO	S64k	0.	.00	0.	0.	0.	6.43
+	HYDROGRAPH AT	BD64iP	68.	12.67	31.	11.	4.	4.79
	ROUTED TO	P64iS	68.	12.75	31.	11.	4.	4.79
+	2 COMBINED AT	CC64k	68.	12.75	31.	11.	4.	6.43
+	DIVERSION TO	D64kP	68.	12.75	31.	11.	4.	6.43
+	HYDROGRAPH AT	D64k	0.	.00	0.	0.	0.	6.43
+	DIVERSION TO	D64kS	0.	.00	0.	0.	0.	6.43
+	HYDROGRAPH AT	D64kW	0.	.00	0.	0.	0.	6.43
+	ROUTED TO	R64kW	0.	.00	0.	0.	0.	6.43
+	HYDROGRAPH AT	68k	17.	12.50	6.	2.	1.	.20
+	3 COMBINED AT	C68k	104.	12.83	46.	16.	6.	12.71
+	DIVERSION TO	D68kP	104.	12.83	46.	16.	6.	12.71
+	HYDROGRAPH AT	D68k	0.	.00	0.	0.	0.	12.71
+	DIVERSION TO	D68kS	0.	.00	0.	0.	0.	12.71
+	HYDROGRAPH AT	D68kW	0.	.00	0.	0.	0.	12.71
	ROUTED TO	R68kW	0.	.00	0.	0.	0.	12.71
	HYDROGRAPH AT							

+		72k	27.	12.58	9.	3.	1.	.28
	ROUTED TO							
		S72k	1.	20.25	0.	0.	0.	.28
	HYDROGRAPH AT							
+		B72iP1	156.	12.92	89.	35.	12.	8.68
	ROUTED TO							
+		P72iS	156.	12.92	89.	35.	12.	8.68
	HYDROGRAPH AT							
+		BD72iS	0.	.00	0.	0.	0.	8.68
	ROUTED TO							
+		R72iS	0.	.00	0.	0.	0.	8.68
	2 COMBINED AT							
+		C72iS	156.	12.92	89.	35.	12.	8.68
	3 COMBINED AT							
+		C72k	155.	13.00	88.	35.	12.	12.99
	2 COMBINED AT							
+		CC72k	187.	13.00	118.	47.	16.	12.99
	DIVERSION TO							
+		D72kP	187.	13.00	118.	47.	16.	12.99
	HYDROGRAPH AT							
+		D72k	0.	.00	0.	0.	0.	12.99
	DIVERSION TO							
+		D72kS	0.	.00	0.	0.	0.	12.99
	HYDROGRAPH AT							
+		D72kW	0.	.00	0.	0.	0.	12.99
	ROUTED TO							
+		R72kW	0.	.00	0.	0.	0.	12.99
	HYDROGRAPH AT							
		B76k1	59.	12.67	15.	4.	1.	5.74
	2 COMBINED AT							
+		CC76k	57.	12.67	14.	3.	1.	13.31
	DIVERSION TO							
+		D76kP	43.	12.50	12.	3.	1.	13.31
	HYDROGRAPH AT							
+		D76k	14.	12.67	1.	0.	0.	13.31
	DIVERSION TO							
+		D76kS	0.	.00	0.	0.	0.	13.31
	HYDROGRAPH AT							
+		D76kW	14.	12.67	1.	0.	0.	13.31
	ROUTED TO							
+		R76kW	5.	14.50	1.	0.	0.	13.31
	HYDROGRAPH AT							
+		80k	54.	12.58	17.	5.	2.	.43
	HYDROGRAPH AT							
+		BD80i	67.	13.50	32.	8.	3.	3.25
	ROUTED TO							
+		R80iS	64.	13.83	32.	8.	3.	3.25
	HYDROGRAPH AT							
+		B80kP1	21.	13.25	12.	4.	1.	9.18
	3 COMBINED AT							
+		C80k	105.	13.67	59.	18.	6.	3.68
	DIVERSION TO							
+		D80kP	63.	12.42	48.	15.	5.	3.68
	HYDROGRAPH AT							
+		D80k	42.	13.67	11.	3.	1.	3.68
	2 COMBINED AT							
+		CC80k	42.	13.67	13.	3.	1.	4.68

+	DIVERSION TO	D80kS	0.	.00	0.	0.	0.	4.68
	HYDROGRAPH AT	D80kW	42.	13.67	13.	3.	1.	4.68
+	ROUTED TO	R80kW	38.	14.08	13.	3.	1.	4.68
+	HYDROGRAPH AT	84k	26.	12.92	13.	4.	2.	.31
+	HYDROGRAPH AT	BD84iS	0.	.00	0.	0.	0.	1.11
+	ROUTED TO	R84iS	0.	.00	0.	0.	0.	1.11
+	3 COMBINED AT	C84k	55.	14.00	25.	7.	3.	4.99
+	ROUTED TO	R84kS	53.	14.33	25.	7.	3.	4.99
+	HYDROGRAPH AT	84m	27.	12.67	10.	3.	1.	.21
+	2 COMBINED AT	C84m	64.	14.25	34.	10.	4.	5.20
+	HYDROGRAPH AT	I17	81.	12.50	30.	10.	4.	.29
+	DIVERSION TO	D84mP	81.	12.50	30.	10.	4.	.29
+	HYDROGRAPH AT	D84m	0.	.00	0.	0.	0.	.29
+	2 COMBINED AT	CC84m	64.	14.25	34.	10.	4.	5.49
+	DIVERSION TO	D84mS	24.	14.25	13.	4.	1.	5.49
+	HYDROGRAPH AT	D84mE	39.	14.25	21.	6.	2.	5.49
+	ROUTED TO	R84mE	37.	14.75	21.	6.	2.	5.49
+	HYDROGRAPH AT	80m	71.	12.58	22.	7.	2.	.54
+	HYDROGRAPH AT	BD80kS	0.	.00	0.	0.	0.	4.68
+	ROUTED TO	R80kS	0.	.00	0.	0.	0.	4.68
+	3 COMBINED AT	C80m	74.	12.67	41.	13.	4.	6.03
+	DIVERSION TO	D80mS	43.	12.67	24.	8.	3.	6.03
+	HYDROGRAPH AT	D80mE	31.	12.67	17.	5.	2.	6.03
+	ROUTED TO	R80mE	29.	13.33	17.	5.	2.	6.03
+	HYDROGRAPH AT	76l	25.	12.33	5.	2.	1.	.18
+	HYDROGRAPH AT	BD80kP	63.	12.42	48.	15.	5.	3.68
+	HYDROGRAPH AT	BD76kP	43.	12.50	12.	3.	1.	13.31
+	2 COMBINED AT	C76kP	106.	12.58	59.	18.	6.	17.25
+	ROUTED TO	P76kS	106.	12.67	60.	18.	6.	17.25

+	HYDROGRAPH AT	BD76kS	0.	.00	0.	0.	0.	13.31
+	ROUTED TO	R76kS	0.	.00	0.	0.	0.	13.31
+	2 COMBINED AT	C76kS	106.	12.50	61.	18.	6.	4.68
+	2 COMBINED AT	C761	127.	12.50	66.	20.	7.	4.86
+	DIVERSION TO	D761P	127.	12.50	66.	20.	7.	4.86
+	HYDROGRAPH AT	D761	0.	.00	0.	0.	0.	4.86
+	ROUTED TO	R761S	0.	.00	0.	0.	0.	4.86
+	HYDROGRAPH AT	BD761P	127.	12.50	66.	20.	7.	4.86
+	ROUTED TO	P761S	126.	12.58	66.	20.	7.	4.86
+	2 COMBINED AT	C761S	126.	12.58	66.	20.	7.	4.86
+	HYDROGRAPH AT	76m	50.	12.58	16.	5.	2.	.49
+	ROUTED TO	S76m	49.	12.67	16.	5.	2.	.49
+	3 COMBINED AT	C76m	186.	12.83	97.	30.	10.	6.71
+	DIVERSION TO	D76m	1.	12.92	0.	0.	0.	6.71
+	HYDROGRAPH AT	D76mP	186.	12.83	97.	30.	10.	6.71
+	DIVERSION TO	D76mP2	31.	12.83	16.	5.	2.	6.71
+	HYDROGRAPH AT	D76mP1	155.	12.83	81.	25.	8.	6.71
+	HYDROGRAPH AT	721	12.	12.75	6.	2.	1.	.22
+	HYDROGRAPH AT	BD72kP	187.	13.00	118.	47.	16.	12.99
+	ROUTED TO	P72kS	187.	13.00	118.	47.	16.	12.99
+	HYDROGRAPH AT	BD72kS	0.	.00	0.	0.	0.	12.99
+	ROUTED TO	R72kS	0.	.00	0.	0.	0.	12.99
+	2 COMBINED AT	C72kS	187.	13.00	118.	47.	16.	12.99
+	2 COMBINED AT	C721	199.	13.00	123.	49.	17.	13.21
+	DIVERSION TO	D721P	199.	13.00	123.	49.	17.	13.21
+	HYDROGRAPH AT	D721	0.	.00	0.	0.	0.	13.21
+	ROUTED TO	R721S	0.	.00	0.	0.	0.	13.21
+	HYDROGRAPH AT	BD721P	199.	13.00	123.	49.	17.	13.21
+	ROUTED TO							

+		P721S	198.	13.08	123.	49.	17.	13.21
	2 COMBINED AT							
		C721S	198.	13.08	123.	49.	17.	13.21
	HYDROGRAPH AT							
+		72m	65.	12.67	22.	7.	2.	.47
	3 COMBINED AT							
+		C72m	405.	12.92	222.	80.	27.	13.67
	HYDROGRAPH AT							
+		601	20.	12.58	7.	3.	1.	.23
	HYDROGRAPH AT							
+		B60kP2	70.	12.75	27.	10.	3.	3.29
	ROUTED TO							
+		P60kS	70.	12.75	27.	10.	3.	3.29
	HYDROGRAPH AT							
+		BD60kS	0.	.00	0.	0.	0.	4.46
	ROUTED TO							
+		R60kS	0.	.00	0.	0.	0.	4.46
	2 COMBINED AT							
+		C60kS	70.	12.75	27.	10.	3.	4.46
	2 COMBINED AT							
+		C601	88.	12.75	34.	12.	4.	4.69
	DIVERSION TO							
+		D601P	88.	12.75	34.	12.	4.	4.69
	HYDROGRAPH AT							
+		D601	0.	12.75	0.	0.	0.	4.69
	DIVERSION TO							
+		D601S	0.	12.75	0.	0.	0.	4.69
	HYDROGRAPH AT							
+		D601W	0.	12.75	0.	0.	0.	4.69
	ROUTED TO							
+		R601W	0.	13.67	0.	0.	0.	4.69
	HYDROGRAPH AT							
+		641	13.	12.83	6.	2.	1.	.29
	HYDROGRAPH AT							
+		BD64kS	0.	.00	0.	0.	0.	6.43
	ROUTED TO							
+		R64kS	0.	.00	0.	0.	0.	6.43
	3 COMBINED AT							
+		C641	13.	12.83	6.	2.	1.	6.96
	ROUTED TO							
+		S641	0.	.00	0.	0.	0.	6.96
	HYDROGRAPH AT							
+		BD64kP	68.	12.75	31.	11.	4.	6.43
	ROUTED TO							
+		P64kS	68.	12.83	31.	11.	4.	6.43
	2 COMBINED AT							
+		CC641	68.	12.83	31.	11.	4.	6.96
	DIVERSION TO							
+		D641P	68.	12.83	31.	11.	4.	6.96
	HYDROGRAPH AT							
+		D641	0.	.00	0.	0.	0.	6.96
	DIVERSION TO							
+		D641S	0.	.00	0.	0.	0.	6.96
	HYDROGRAPH AT							
+		D641W	0.	.00	0.	0.	0.	6.96
	ROUTED TO							
+		R641W	0.	.00	0.	0.	0.	6.96

+	HYDROGRAPH AT	681	27.	12.75	11.	4.	1.	.32
.	HYDROGRAPH AT	BD68kP	104.	12.83	46.	16.	6.	12.71
+	ROUTED TO	P68kS	104.	12.92	46.	16.	6.	12.71
+	HYDROGRAPH AT	BD68kS	0.	.00	0.	0.	0.	12.71
+	ROUTED TO	R68kS	0.	.00	0.	0.	0.	12.71
+	2 COMBINED AT	C68kS	104.	12.92	46.	16.	6.	12.71
+	3 COMBINED AT	C681	127.	12.92	56.	20.	7.	13.56
+	DIVERSION TO	D681P	114.	12.67	55.	19.	7.	13.56
+	HYDROGRAPH AT	D681	13.	12.92	1.	0.	0.	13.56
+	ROUTED TO	R681S	5.	13.83	1.	0.	0.	13.56
+	HYDROGRAPH AT	BD681P	114.	12.67	55.	19.	7.	13.56
+	ROUTED TO	P681S	114.	12.83	55.	19.	7.	13.56
+	2 COMBINED AT	C681S	116.	13.42	56.	20.	7.	13.56
+	HYDROGRAPH AT	24m	32.	12.58	12.	4.	1.	.50
+	ROUTED TO	S24m	32.	12.58	12.	4.	1.	.50
+	HYDROGRAPH AT	BD24kS	7.	12.42	2.	1.	0.	.19
+	ROUTED TO	R24kS	6.	13.42	2.	1.	0.	.19
+	2 COMBINED AT	C24m	34.	12.75	14.	5.	2.	.69
+	DIVERSION TO	D24mS	15.	12.75	6.	2.	1.	.69
+	HYDROGRAPH AT	D24mW	20.	12.75	8.	3.	1.	.69
+	ROUTED TO	R24mW	19.	13.17	8.	3.	1.	.69
+	HYDROGRAPH AT	28m	29.	12.58	11.	4.	1.	.51
+	HYDROGRAPH AT	BD28kP	73.	13.08	24.	8.	3.	.72
+	ROUTED TO	P28kS	72.	13.17	24.	8.	3.	.72
+	HYDROGRAPH AT	BD28kS	0.	.00	0.	0.	0.	.72
+	ROUTED TO	R28kS	0.	.00	0.	0.	0.	.72
+	2 COMBINED AT	C28kS	72.	13.17	24.	8.	3.	.72
+	3 COMBINED AT	C28m	114.	13.17	43.	14.	5.	1.73
+	DIVERSION TO	D28mP	114.	13.17	43.	14.	5.	1.73

+	HYDROGRAPH AT	D28m	0.	.00	0.	0.	0.	1.73
	DIVERSION TO	D28mS	0.	.00	0.	0.	0.	1.73
+	HYDROGRAPH AT	D28mW	0.	.00	0.	0.	0.	1.73
+	ROUTED TO	R28mW	0.	.00	0.	0.	0.	1.73
+	HYDROGRAPH AT	32m	37.	12.58	14.	5.	2.	.51
+	ROUTED TO	S32m	37.	12.58	14.	5.	2.	.51
+	HYDROGRAPH AT	BD32kP	28.	12.58	11.	4.	1.	1.23
+	ROUTED TO	P32kS	28.	12.75	11.	4.	1.	1.23
+	HYDROGRAPH AT	BD32kS	0.	.00	0.	0.	0.	1.23
+	ROUTED TO	R32kS	0.	.00	0.	0.	0.	1.23
+	2 COMBINED AT	C32kS	28.	12.75	11.	4.	1.	1.23
+	3 COMBINED AT	C32m	64.	12.67	24.	8.	3.	2.75
+	DIVERSION TO	D32mP	64.	12.67	24.	8.	3.	2.75
+	HYDROGRAPH AT	D32m	0.	12.67	0.	0.	0.	2.75
+	DIVERSION TO	D32mS	0.	12.67	0.	0.	0.	2.75
+	HYDROGRAPH AT	D32mW	0.	12.67	0.	0.	0.	2.75
+	ROUTED TO	R32mW	0.	13.00	0.	0.	0.	2.75
+	HYDROGRAPH AT	36m	32.	12.67	13.	5.	2.	.51
+	HYDROGRAPH AT	BD36kP	47.	12.67	19.	7.	2.	2.07
+	ROUTED TO	P36kS	47.	12.75	19.	7.	2.	2.07
+	HYDROGRAPH AT	BD36kS	0.	.00	0.	0.	0.	2.07
+	ROUTED TO	R36kS	0.	.00	0.	0.	0.	2.07
+	2 COMBINED AT	C36kS	47.	12.75	19.	7.	2.	2.07
+	3 COMBINED AT	C36m	79.	12.75	31.	11.	4.	4.11
+	DIVERSION TO	D36mP	79.	12.75	31.	11.	4.	4.11
+	HYDROGRAPH AT	D36m	0.	.00	0.	0.	0.	4.11
+	DIVERSION TO	D36mS	0.	.00	0.	0.	0.	4.11
+	HYDROGRAPH AT	D36mW	0.	.00	0.	0.	0.	4.11
	ROUTED TO							

+		R36mW	0.	.00	0.	0.	0.	4.11
	HYDROGRAPH AT							
		40m	39.	12.58	15.	5.	2.	.51
	HYDROGRAPH AT							
+		BD40kP	29.	12.67	12.	4.	1.	2.80
	ROUTED TO							
+		P40kS	29.	12.83	12.	4.	1.	2.80
	HYDROGRAPH AT							
+		BD40kS	0.	12.67	0.	0.	0.	2.80
	ROUTED TO							
+		R40kS	0.	13.42	0.	0.	0.	2.80
	2 COMBINED AT							
+		C40kS	29.	12.83	12.	4.	1.	2.80
	3 COMBINED AT							
+		C40m	66.	12.67	27.	9.	3.	5.35
	DIVERSION TO							
+		D40mP	66.	12.67	27.	9.	3.	5.35
	HYDROGRAPH AT							
+		D40m	0.	12.67	0.	0.	0.	5.35
	DIVERSION TO							
+		D40mS	0.	12.67	0.	0.	0.	5.35
	HYDROGRAPH AT							
+		D40mW	0.	12.67	0.	0.	0.	5.35
	ROUTED TO							
+		R40mW	0.	13.08	0.	0.	0.	5.35
	HYDROGRAPH AT							
+		44m	35.	12.67	14.	5.	2.	.50
	HYDROGRAPH AT							
		BD44kP	63.	12.67	25.	9.	3.	3.93
	ROUTED TO							
+		P44kS	63.	12.83	25.	9.	3.	3.93
	HYDROGRAPH AT							
+		BD44kS	0.	.00	0.	0.	0.	3.93
	ROUTED TO							
+		R44kS	0.	.00	0.	0.	0.	3.93
	2 COMBINED AT							
+		C44kS	63.	12.83	25.	9.	3.	3.93
	3 COMBINED AT							
+		C44m	96.	12.75	39.	14.	5.	6.98
	DIVERSION TO							
+		D44mP	96.	12.75	39.	14.	5.	6.98
	HYDROGRAPH AT							
+		D44m	0.	.00	0.	0.	0.	6.98
	DIVERSION TO							
+		D44mS	0.	.00	0.	0.	0.	6.98
	HYDROGRAPH AT							
+		D44mW	0.	.00	0.	0.	0.	6.98
	ROUTED TO							
+		R44mW	0.	.00	0.	0.	0.	6.98
	HYDROGRAPH AT							
+		24o	37.	12.67	15.	5.	2.	.50
	HYDROGRAPH AT							
+		BD24mS	15.	12.75	6.	2.	1.	.69
	ROUTED TO							
+		R24mS	14.	13.42	6.	2.	1.	.69
	2 COMBINED AT							
+		C24o	46.	13.00	21.	7.	3.	1.20

+	DIVERSION TO	D24oP	46.	13.00	21.	7.	3.	1.20
	HYDROGRAPH AT	D24o	0.	13.00	0.	0.	0.	1.20
+	DIVERSION TO	D24oS	0.	13.00	0.	0.	0.	1.20
+	HYDROGRAPH AT	D24oW	0.	13.00	0.	0.	0.	1.20
+	ROUTED TO	R24oW	0.	13.17	0.	0.	0.	1.20
+	HYDROGRAPH AT	28o	28.	12.67	12.	4.	1.	.50
+	HYDROGRAPH AT	BD28mP	114.	13.17	43.	14.	5.	1.73
+	ROUTED TO	P28mS	114.	13.25	43.	14.	5.	1.73
+	HYDROGRAPH AT	BD28mS	0.	.00	0.	0.	0.	1.73
+	ROUTED TO	R28mS	0.	.00	0.	0.	0.	1.73
+	2 COMBINED AT	C28mS	114.	13.25	43.	14.	5.	1.73
+	3 COMBINED AT	C28o	137.	13.25	54.	18.	6.	2.73
+	DIVERSION TO	D28oP	137.	13.25	54.	18.	6.	2.73
+	HYDROGRAPH AT	D28o	0.	.00	0.	0.	0.	2.73
+	DIVERSION TO	D28oS	0.	.00	0.	0.	0.	2.73
+	HYDROGRAPH AT	D28oW	0.	.00	0.	0.	0.	2.73
+	ROUTED TO	R28oW	0.	.00	0.	0.	0.	2.73
+	HYDROGRAPH AT	32o	32.	12.67	13.	5.	2.	.50
+	HYDROGRAPH AT	BD32mS	0.	12.67	0.	0.	0.	2.75
+	ROUTED TO	R32mS	0.	13.17	0.	0.	0.	2.75
+	HYDROGRAPH AT	BD32mP	64.	12.67	24.	8.	3.	2.75
+	ROUTED TO	P32mS	63.	12.75	24.	8.	3.	2.75
+	2 COMBINED AT	C32mS	63.	12.75	24.	8.	3.	2.75
+	3 COMBINED AT	C32o	95.	12.75	37.	13.	4.	4.25
+	DIVERSION TO	D32oP	95.	12.75	37.	13.	4.	4.25
+	HYDROGRAPH AT	D32o	0.	.00	0.	0.	0.	4.25
+	DIVERSION TO	D32oS	0.	.00	0.	0.	0.	4.25
+	HYDROGRAPH AT	D32oW	0.	.00	0.	0.	0.	4.25
+	ROUTED TO	R32oW	0.	.00	0.	0.	0.	4.25

+	HYDROGRAPH AT	360	29.	12.67	12.	4.	1.	.50
+	HYDROGRAPH AT	BD36mP	79.	12.75	31.	11.	4.	4.11
+	ROUTED TO	P36mS	78.	12.83	31.	11.	4.	4.11
+	HYDROGRAPH AT	BD36mS	0.	.00	0.	0.	0.	4.11
+	ROUTED TO	R36mS	0.	.00	0.	0.	0.	4.11
+	2 COMBINED AT	C36mS	78.	12.83	31.	11.	4.	4.11
+	3 COMBINED AT	C360	106.	12.83	43.	15.	5.	6.12
+	DIVERSION TO	D360P	106.	12.83	43.	15.	5.	6.12
+	HYDROGRAPH AT	D360	0.	.00	0.	0.	0.	6.12
+	DIVERSION TO	D360S	0.	.00	0.	0.	0.	6.12
+	HYDROGRAPH AT	D360W	0.	.00	0.	0.	0.	6.12
+	ROUTED TO	R360W	0.	.00	0.	0.	0.	6.12
+	HYDROGRAPH AT	B40mP	66.	12.67	27.	9.	3.	5.35
+	ROUTED TO	P40mS	66.	12.75	27.	9.	3.	5.35
+	HYDROGRAPH AT	BD40mS	0.	12.67	0.	0.	0.	5.35
+	ROUTED TO	R40mS	0.	13.50	0.	0.	0.	5.35
+	2 COMBINED AT	C40mS	66.	12.75	27.	9.	3.	5.35
+	HYDROGRAPH AT	400	28.	12.58	11.	4.	1.	.47
+	3 COMBINED AT	C400	93.	12.75	37.	13.	4.	7.82
+	DIVERSION TO	D400P	70.	12.42	34.	13.	4.	7.82
+	HYDROGRAPH AT	D400	23.	12.75	3.	1.	0.	7.82
+	DIVERSION TO	D400S	0.	.00	0.	0.	0.	7.82
+	HYDROGRAPH AT	D400W	23.	12.75	3.	1.	0.	7.82
+	ROUTED TO	R400W	14.	13.67	3.	1.	0.	7.82
+	HYDROGRAPH AT	440	14.	12.50	5.	2.	1.	.23
+	HYDROGRAPH AT	BD44mP	96.	12.75	39.	14.	5.	6.98
+	ROUTED TO	P44mS	96.	12.75	39.	14.	5.	6.98
+	HYDROGRAPH AT	BD44mS	0.	.00	0.	0.	0.	6.98
+	ROUTED TO							

+		R44mS	0.	.00	0.	0.	0.	0.	6.98
	2 COMBINED AT								
		C44mS	96.	12.75	39.	14.	5.	6.98	
	3 COMBINED AT								
		C44o	108.	12.75	46.	16.	5.	9.68	
	DIVERSION TO								
+		D44oP	108.	12.75	46.	16.	5.	9.68	
	HYDROGRAPH AT								
+		D44o	0.	.00	0.	0.	0.	9.68	
	DIVERSION TO								
+		D44oS	0.	.00	0.	0.	0.	9.68	
	HYDROGRAPH AT								
+		D44oW	0.	.00	0.	0.	0.	9.68	
	ROUTED TO								
+		R44oW	0.	.00	0.	0.	0.	9.68	
	2 COMBINED AT								
+		C44mW	0.	.00	0.	0.	0.	9.68	
	HYDROGRAPH AT								
+		48m	33.	12.58	13.	4.	2.	.48	
	HYDROGRAPH AT								
+		BD48kS	23.	12.67	9.	3.	1.	4.96	
	ROUTED TO								
+		R48kS	20.	13.33	9.	3.	1.	4.96	
	3 COMBINED AT								
+		C48m	47.	13.00	21.	7.	2.	11.19	
	HYDROGRAPH AT								
+		BD52kP	84.	12.92	36.	12.	4.	5.83	
	ROUTED TO								
+		P52kS	84.	13.00	36.	12.	4.	5.83	
	HYDROGRAPH AT								
+		BD52kS	0.	.00	0.	0.	0.	5.83	
	ROUTED TO								
+		R52kS	0.	.00	0.	0.	0.	5.83	
	2 COMBINED AT								
+		C52kS	84.	13.00	36.	12.	4.	5.83	
	HYDROGRAPH AT								
+		52m	9.	12.42	3.	1.	0.	.18	
	2 COMBINED AT								
+		C52m	90.	13.00	39.	13.	4.	6.01	
	2 COMBINED AT								
+		CC52m	136.	13.00	59.	20.	7.	12.24	
	DIVERSION TO								
+		D52mP	136.	13.00	59.	20.	7.	12.24	
	HYDROGRAPH AT								
+		D52m	0.	.00	0.	0.	0.	12.24	
	DIVERSION TO								
+		D52mS	0.	.00	0.	0.	0.	12.24	
	HYDROGRAPH AT								
+		D52mW	0.	.00	0.	0.	0.	12.24	
	ROUTED TO								
+		R52mW	0.	.00	0.	0.	0.	12.24	
	HYDROGRAPH AT								
+		54m	29.	12.42	9.	3.	1.	.27	
	HYDROGRAPH AT								
+		BD54kP	42.	13.00	19.	7.	2.	1.18	
	ROUTED TO								
+		P54kS	42.	13.17	19.	7.	2.	1.18	

+	HYDROGRAPH AT	BD54KS	0.	.00	0.	0.	0.	1.18
.	ROUTED TO	R54KS	0.	.00	0.	0.	0.	1.18
+	2 COMBINED AT	C54KS	42.	13.17	19.	7.	2.	1.18
+	3 COMBINED AT	C54m	63.	12.75	27.	10.	3.	1.66
+	DIVERSION TO	D54mP	63.	12.75	27.	10.	3.	1.66
+	HYDROGRAPH AT	D54m	0.	.00	0.	0.	0.	1.66
+	DIVERSION TO	D54mS	0.	.00	0.	0.	0.	1.66
+	HYDROGRAPH AT	D54mW	0.	.00	0.	0.	0.	1.66
+	ROUTED TO	R54mW	0.	.00	0.	0.	0.	1.66
+	HYDROGRAPH AT	56m	31.	12.83	15.	5.	2.	.58
+	HYDROGRAPH AT	BD56kP	172.	12.75	67.	24.	8.	4.46
+	ROUTED TO	P56KS	171.	12.92	67.	24.	8.	4.46
+	HYDROGRAPH AT	BD56KS	0.	.00	0.	0.	0.	4.46
+	ROUTED TO	R56KS	0.	.00	0.	0.	0.	4.46
+	2 COMBINED AT	C56KS	171.	12.92	67.	24.	8.	4.46
+	3 COMBINED AT	C56m	202.	12.92	81.	29.	10.	5.50
+	DIVERSION TO	D56mP	202.	12.92	81.	29.	10.	5.50
+	HYDROGRAPH AT	D56m	0.	.00	0.	0.	0.	5.50
+	DIVERSION TO	D56mS	0.	.00	0.	0.	0.	5.50
+	HYDROGRAPH AT	D56mW	0.	.00	0.	0.	0.	5.50
+	ROUTED TO	R56mW	0.	.00	0.	0.	0.	5.50
+	HYDROGRAPH AT	60m	16.	12.83	8.	3.	1.	.50
+	HYDROGRAPH AT	BD601P	88.	12.75	34.	12.	4.	4.69
+	ROUTED TO	P601S	88.	12.83	34.	12.	4.	4.69
+	HYDROGRAPH AT	BD601S	0.	12.75	0.	0.	0.	4.69
+	ROUTED TO	R601S	0.	13.75	0.	0.	0.	4.69
+	2 COMBINED AT	C601S	88.	12.83	34.	12.	4.	4.69
+	3 COMBINED AT	C60m	103.	12.83	42.	15.	5.	6.24
+	DIVERSION TO	D60mP	103.	12.83	42.	15.	5.	6.24

+	HYDROGRAPH AT	D60m	0.	.00	0.	0.	0.	6.24
	DIVERSION TO	D60mS	0.	.00	0.	0.	0.	6.24
+	HYDROGRAPH AT	D60mW	0.	.00	0.	0.	0.	6.24
+	ROUTED TO	R60mW	0.	.00	0.	0.	0.	6.24
+	HYDROGRAPH AT	64m	81.	12.67	32.	11.	4.	.50
+	HYDROGRAPH AT	BD641P	68.	12.83	31.	11.	4.	6.96
+	ROUTED TO	P641S	67.	12.92	31.	11.	4.	6.96
+	HYDROGRAPH AT	BD641S	0.	.00	0.	0.	0.	6.96
+	ROUTED TO	R641S	0.	.00	0.	0.	0.	6.96
+	2 COMBINED AT	C641S	67.	12.92	31.	11.	4.	6.96
+	HYDROGRAPH AT	68m	103.	12.67	40.	13.	4.	.55
+	DIVERSION TO	D68m	69.	12.67	15.	4.	1.	.55
+	HYDROGRAPH AT	D68mP2	34.	12.08	24.	9.	3.	.55
+	4 COMBINED AT	C64m	178.	12.83	85.	30.	10.	9.55
	DIVERSION TO	D64mP	178.	12.83	85.	30.	10.	9.55
+	HYDROGRAPH AT	D64m	0.	.00	0.	0.	0.	9.55
+	DIVERSION TO	D64mS	0.	.00	0.	0.	0.	9.55
+	HYDROGRAPH AT	D64mW	0.	.00	0.	0.	0.	9.55
+	ROUTED TO	R64mW	0.	.00	0.	0.	0.	9.55
+	HYDROGRAPH AT	BD68m	69.	12.67	15.	4.	1.	.55
+	3 COMBINED AT	C68m	176.	12.75	69.	23.	8.	16.15
+	DIVERSION TO	D68mP	144.	12.58	66.	22.	7.	16.15
+	HYDROGRAPH AT	D68m2	32.	12.75	4.	1.	0.	16.15
+	DIVERSION TO	D68mS	27.	12.75	3.	1.	0.	16.15
+	HYDROGRAPH AT	D68mW	5.	12.75	1.	0.	0.	16.15
+	ROUTED TO	R68mW	3.	13.83	1.	0.	0.	16.15
	2 COMBINED AT	CC72m	405.	12.92	223.	80.	27.	17.12
	DIVERSION TO	D72mP	308.	12.50	205.	75.	25.	17.12
	HYDROGRAPH AT							

+		D72m	94.	12.92	16.	4.	1.	17.12
	ROUTED TO							
-		R72mS	71.	13.83	16.	4.	1.	17.12
	HYDROGRAPH AT							
+		BD72mP	308.	12.50	205.	75.	25.	17.12
	ROUTED TO							
+		P72mS	308.	12.67	205.	75.	25.	17.12
	2 COMBINED AT							
+		C72mS	379.	13.83	221.	79.	27.	17.12
	HYDROGRAPH AT							
+		BD24oS	0.	13.00	0.	0.	0.	1.20
	ROUTED TO							
+		R24oS	0.	13.33	0.	0.	0.	1.20
	HYDROGRAPH AT							
+		BD28oS	137.	13.25	54.	18.	6.	2.73
	ROUTED TO							
+		P28oS	137.	13.25	54.	18.	6.	2.73
	HYDROGRAPH AT							
+		BD28oS	0.	.00	0.	0.	0.	2.73
	ROUTED TO							
+		R28oS	0.	.00	0.	0.	0.	2.73
	2 COMBINED AT							
+		C28oS	137.	13.25	54.	18.	6.	2.73
	2 COMBINED AT							
+		C28p	137.	13.25	54.	18.	6.	2.73
	HYDROGRAPH AT							
+		28p	27.	12.58	10.	3.	1.	.37
	ROUTED TO							
-		S28p	27.	12.58	10.	3.	1.	.37
	2 COMBINED AT							
+		CC28p	156.	13.17	64.	21.	7.	3.11
	DIVERSION TO							
+		D28pP	156.	13.17	64.	21.	7.	3.11
	HYDROGRAPH AT							
+		D28p	0.	.00	0.	0.	0.	3.11
	ROUTED TO							
+		R28pW	0.	.00	0.	0.	0.	3.11
	HYDROGRAPH AT							
+		32p	5.	12.83	2.	1.	0.	.23
	HYDROGRAPH AT							
+		BD32oS	0.	.00	0.	0.	0.	4.25
	ROUTED TO							
+		R32oS	0.	.00	0.	0.	0.	4.25
	2 COMBINED AT							
+		C32p	5.	12.83	2.	1.	0.	4.49
	ROUTED TO							
+		S32p	0.	.00	0.	0.	0.	4.49
	HYDROGRAPH AT							
+		BD32oS	95.	12.75	37.	13.	4.	4.25
	ROUTED TO							
+		P32oS	94.	12.75	37.	13.	4.	4.25
	3 COMBINED AT							
+		CC32p	94.	12.75	37.	13.	4.	4.86
	DIVERSION TO							
+		D32pS	9.	12.75	4.	1.	0.	4.86
	HYDROGRAPH AT							
+		D32pW	85.	12.75	33.	12.	4.	4.86

+	DIVERSION TO	D32pP	85.	12.75	33.	12.	4.	4.86
	HYDROGRAPH AT	D32p	0.	.00	0.	0.	0.	4.86
+	ROUTED TO	R32pW	0.	.00	0.	0.	0.	4.86
+	HYDROGRAPH AT	BD32pP	85.	12.75	33.	12.	4.	4.86
+	ROUTED TO	P32pW	85.	12.83	33.	12.	4.	4.86
+	2 COMBINED AT	C32pW	85.	12.83	33.	12.	4.	4.86
+	HYDROGRAPH AT	28q	48.	12.42	14.	5.	2.	.32
+	ROUTED TO	S28q	48.	12.42	14.	5.	2.	.32
+	HYDROGRAPH AT	BD28pP	156.	13.17	64.	21.	7.	3.11
+	DIVERSION TO	D28pP2	38.	13.17	16.	5.	2.	3.11
+	HYDROGRAPH AT	D28pP1	118.	13.17	48.	16.	5.	3.11
+	ROUTED TO	P28pS	118.	13.25	48.	16.	5.	3.11
+	2 COMBINED AT	C28q	147.	12.92	62.	21.	7.	.82
+	DIVERSION TO	D28qP	147.	12.92	62.	21.	7.	.82
+	HYDROGRAPH AT	D28q	0.	.00	0.	0.	0.	.82
+	DIVERSION TO	D28qS	0.	.00	0.	0.	0.	.82
+	HYDROGRAPH AT	D28qW	0.	.00	0.	0.	0.	.82
+	ROUTED TO	R28qW	0.	.00	0.	0.	0.	.82
+	HYDROGRAPH AT	32q	8.	12.75	3.	1.	0.	.17
+	HYDROGRAPH AT	BD32pS	9.	12.75	4.	1.	0.	4.86
+	3 COMBINED AT	C32q	17.	12.75	6.	2.	1.	.99
+	ROUTED TO	S32q	1.	21.75	0.	0.	0.	.99
+	DIVERSION TO	D32q	0.	.00	0.	0.	0.	.99
+	HYDROGRAPH AT	D32qP	1.	21.75	0.	0.	0.	.99
+	2 COMBINED AT	C32pqW	85.	12.83	33.	12.	4.	4.86
+	HYDROGRAPH AT	36p	12.	12.50	4.	2.	1.	.19
+	HYDROGRAPH AT	BD36oS	0.	.00	0.	0.	0.	6.12
+	ROUTED TO	R36oS	0.	.00	0.	0.	0.	6.12
+	3 COMBINED AT	C36p	96.	12.83	38.	13.	4.	6.91

+	DIVERSION TO	DB36p	0.	.00	0.	0.	0.	6.91
+	HYDROGRAPH AT	E36p	96.	12.83	38.	13.	4.	6.91
+	HYDROGRAPH AT	BDB36p	0.	.00	0.	0.	0.	6.91
+	ROUTED TO	S36p	0.	.00	0.	0.	0.	6.91
+	HYDROGRAPH AT	BD36oP	106.	12.83	43.	15.	5.	6.12
+	ROUTED TO	P36oS	106.	12.83	43.	15.	5.	6.12
+	3 COMBINED AT	CC36p	202.	12.83	80.	28.	10.	6.91
+	DIVERSION TO	D36pP	202.	12.83	80.	28.	10.	6.91
+	HYDROGRAPH AT	D36p	0.	.00	0.	0.	0.	6.91
+	ROUTED TO	R36pW	0.	.00	0.	0.	0.	6.91
+	HYDROGRAPH AT	BD36pP	202.	12.83	80.	28.	10.	6.91
+	DIVERSION TO	D36pP2	46.	12.83	18.	6.	2.	6.91
+	HYDROGRAPH AT	D36pP1	156.	12.83	62.	22.	7.	6.91
+	ROUTED TO	P36pW	156.	12.83	62.	22.	7.	6.91
+	2 COMBINED AT	C36pW	156.	12.83	62.	22.	7.	6.91
+	HYDROGRAPH AT	40p	14.	12.58	5.	2.	1.	.22
+	HYDROGRAPH AT	BD40oP	70.	12.42	34.	13.	4.	7.82
+	ROUTED TO	P40oS	70.	12.50	34.	13.	4.	7.82
+	HYDROGRAPH AT	BD40oS	0.	.00	0.	0.	0.	7.82
+	ROUTED TO	R40oS	0.	.00	0.	0.	0.	7.82
+	2 COMBINED AT	C40oS	70.	12.50	34.	13.	4.	7.82
+	3 COMBINED AT	C40p	238.	12.83	101.	36.	12.	8.83
+	DIVERSION TO	D40pP	238.	12.83	101.	36.	12.	8.83
+	HYDROGRAPH AT	D40p	0.	.00	0.	0.	0.	8.83
+	ROUTED TO	R40pW	0.	.00	0.	0.	0.	8.83
+	HYDROGRAPH AT	BD40pP	238.	12.83	101.	36.	12.	8.83
+	ROUTED TO	P40pW	237.	12.92	101.	36.	12.	8.83
+	2 COMBINED AT	C40pW	237.	12.92	101.	36.	12.	8.83
+	HYDROGRAPH AT							

+		44p	31.	12.75	13.	4.	1.	.41
	HYDROGRAPH AT	BD44oP	108.	12.75	46.	16.	5.	9.68
	ROUTED TO	P44oS	108.	12.92	46.	16.	5.	9.68
	HYDROGRAPH AT	BD44oS	0.	.00	0.	0.	0.	9.68
	ROUTED TO	R44oS	0.	.00	0.	0.	0.	9.68
	2 COMBINED AT	C44oS	108.	12.92	46.	16.	5.	9.68
	3 COMBINED AT	C44p	372.	12.92	159.	56.	19.	11.10
	DIVERSION TO	D44pP	372.	12.92	159.	56.	19.	11.10
	HYDROGRAPH AT	D44p	0.	.00	0.	0.	0.	11.10
	ROUTED TO	R44pW	0.	.00	0.	0.	0.	11.10
	HYDROGRAPH AT	BD44pP	372.	12.92	159.	56.	19.	11.10
	DIVERSION TO	D44pP2	34.	12.92	15.	5.	2.	11.10
	HYDROGRAPH AT	D44pP1	338.	12.92	144.	51.	17.	11.10
	ROUTED TO	P44pW	338.	12.92	144.	51.	17.	11.10
	2 COMBINED AT	C44pW	338.	12.92	144.	51.	17.	11.10
	HYDROGRAPH AT	48o	38.	12.75	16.	6.	2.	.68
	HYDROGRAPH AT	BD52mS	0.	.00	0.	0.	0.	12.24
	ROUTED TO	R52mS	0.	.00	0.	0.	0.	12.24
	HYDROGRAPH AT	BD52mP	136.	13.00	59.	20.	7.	12.24
	ROUTED TO	P52mS	135.	13.17	59.	20.	7.	12.24
	2 COMBINED AT	C52mS	135.	13.17	59.	20.	7.	12.24
	3 COMBINED AT	C48o	500.	13.00	216.	76.	25.	14.34
	DIVERSION TO	DB48o	0.	.00	0.	0.	0.	14.34
	HYDROGRAPH AT	E48o	500.	13.00	216.	76.	25.	14.34
	HYDROGRAPH AT	BDB48o	0.	.00	0.	0.	0.	14.34
	ROUTED TO	S48o	0.	.00	0.	0.	0.	14.34
	2 COMBINED AT	CC48o	500.	13.00	216.	76.	25.	14.34
	DIVERSION TO	D48oPT	500.	13.00	216.	76.	25.	14.34
	HYDROGRAPH AT	D48o	0.	.00	0.	0.	0.	14.34

+	ROUTED TO	R48oW	0.	.00	0.	0.	0.	14.34
.	HYDROGRAPH AT	52o	48.	12.75	20.	7.	2.	.64
+	HYDROGRAPH AT	BD54mP	63.	12.75	27.	10.	3.	1.66
+	ROUTED TO	P54mS	62.	12.83	27.	10.	3.	1.66
+	HYDROGRAPH AT	BD54mS	0.	.00	0.	0.	0.	1.66
+	ROUTED TO	R54mS	0.	.00	0.	0.	0.	1.66
+	2 COMBINED AT	C54mS	62.	12.83	27.	10.	3.	1.66
+	3 COMBINED AT	C52o	108.	12.83	47.	16.	6.	2.30
+	DIVERSION TO	D52oP	108.	12.83	47.	16.	6.	2.30
+	HYDROGRAPH AT	D52o	0.	.00	0.	0.	0.	2.30
+	ROUTED TO	R52oW	0.	.00	0.	0.	0.	2.30
+	HYDROGRAPH AT	BD52oP	108.	12.83	47.	16.	6.	2.30
+	ROUTED TO	P52oW	108.	12.92	47.	16.	6.	2.30
+	2 COMBINED AT	C52oW	108.	12.92	47.	16.	6.	2.30
+	HYDROGRAPH AT	56o	39.	12.83	17.	6.	2.	.64
+	HYDROGRAPH AT	BD56mP	202.	12.92	81.	29.	10.	5.50
+	ROUTED TO	P56mS	201.	13.00	81.	29.	10.	5.50
+	HYDROGRAPH AT	BD56mS	0.	.00	0.	0.	0.	5.50
+	ROUTED TO	R56mS	0.	.00	0.	0.	0.	5.50
+	2 COMBINED AT	C56mS	201.	13.00	81.	29.	10.	5.50
+	3 COMBINED AT	C56o	343.	12.92	143.	51.	17.	6.79
+	DIVERSION TO	D56oP	329.	12.92	140.	50.	17.	6.79
+	HYDROGRAPH AT	D56o	13.	12.92	3.	1.	0.	6.79
+	ROUTED TO	R56oW	12.	13.58	3.	1.	0.	6.79
+	HYDROGRAPH AT	BD56oP	329.	12.92	140.	50.	17.	6.79
+	ROUTED TO	P56oW	329.	13.00	140.	50.	17.	6.79
+	2 COMBINED AT	C56oW	335.	13.08	143.	51.	17.	6.79
+	HYDROGRAPH AT	60o	44.	12.75	20.	7.	2.	.64
+	HYDROGRAPH AT	BD60mP	103.	12.83	42.	15.	5.	6.24

+	ROUTED TO	P60mS	103.	13.00	42.	15.	5.	6.24
	HYDROGRAPH AT	BD60mS	0.	.00	0.	0.	0.	6.24
+	ROUTED TO	R60mS	0.	.00	0.	0.	0.	6.24
+	2 COMBINED AT	C60mS	103.	13.00	42.	15.	5.	6.24
+	3 COMBINED AT	C60o	480.	13.00	205.	73.	24.	8.16
+	DIVERSION TO	D60oPT	480.	13.00	205.	73.	24.	8.16
+	HYDROGRAPH AT	D60o	0.	.00	0.	0.	0.	8.16
+	ROUTED TO	R60oW	0.	.00	0.	0.	0.	8.16
+	HYDROGRAPH AT	64o	62.	12.83	29.	10.	3.	.65
+	ROUTED TO	S64o	62.	12.83	27.	10.	3.	.65
+	HYDROGRAPH AT	BD64mP	178.	12.83	85.	30.	10.	9.55
+	ROUTED TO	P64mS	178.	12.92	85.	30.	10.	9.55
+	HYDROGRAPH AT	BD64mS	0.	.00	0.	0.	0.	9.55
+	ROUTED TO	R64mS	0.	.00	0.	0.	0.	9.55
+	2 COMBINED AT	C64mS	178.	12.92	85.	30.	10.	9.55
+	3 COMBINED AT	C64o	236.	12.92	111.	40.	14.	12.13
+	DIVERSION TO	D64oPT	236.	12.92	111.	40.	14.	12.13
+	HYDROGRAPH AT	D64o	0.	.00	0.	0.	0.	12.13
+	ROUTED TO	R64oW	0.	.00	0.	0.	0.	12.13
+	HYDROGRAPH AT	68o	74.	12.75	29.	9.	3.	.69
+	ROUTED TO	S68o	16.	15.33	8.	3.	1.	.69
+	HYDROGRAPH AT	BD68mP	144.	12.58	66.	22.	7.	16.15
+	ROUTED TO	P68mS	144.	12.83	66.	22.	7.	16.15
+	HYDROGRAPH AT	BD68mS	27.	12.75	3.	1.	0.	16.15
+	ROUTED TO	R68mS	12.	14.17	3.	1.	0.	16.15
+	2 COMBINED AT	C68mS	146.	13.67	68.	23.	8.	16.15
+	3 COMBINED AT	C68o	146.	13.67	72.	25.	8.	16.84
+	DIVERSION TO	D68oPT	146.	13.67	72.	25.	8.	16.84
	HYDROGRAPH AT							

+		D68o	0.	.00	0.	0.	0.	16.84
	ROUTED TO							
+		R68oW	0.	.00	0.	0.	0.	16.84
	HYDROGRAPH AT							
+		72o	60.	12.75	21.	6.	2.	.66
	3 COMBINED AT							
+		C72o	409.	13.83	239.	84.	28.	17.78
	DIVERSION TO							
+		D72oP	409.	13.83	239.	84.	28.	17.78
	HYDROGRAPH AT							
+		D72o	0.	.00	0.	0.	0.	17.78
	ROUTED TO							
+		S72o	0.	.00	0.	0.	0.	17.78
	DIVERSION TO							
+		D72o1	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		D72oPT	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		B68oPT	146.	13.67	72.	25.	8.	16.84
	2 COMBINED AT							
+		CPT68o	146.	13.58	72.	25.	8.	18.47
	ROUTED TO							
+		PT68oE	146.	13.58	72.	25.	8.	18.47
	HYDROGRAPH AT							
+		BD72o1	0.	.00	0.	0.	0.	17.78
	DIVERSION TO							
+		D72oW	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
		D72oE	0.	.00	0.	0.	0.	17.78
	ROUTED TO							
+		S-110	0.	.00	0.	0.	0.	17.78
	HYDROGRAPH AT							
+		B64oPT	236.	12.92	111.	40.	14.	12.13
	HYDROGRAPH AT							
+		B60oPT	480.	13.00	205.	73.	24.	8.16
	ROUTED TO							
+		PT60oW	479.	13.08	205.	73.	24.	8.16
	4 COMBINED AT							
+		C-WT	834.	13.00	376.	134.	45.	21.04
	ROUTED TO							
+		PT64o	834.	13.08	376.	134.	45.	21.04
	DIVERSION TO							
+		DPT64o	834.	13.08	376.	134.	45.	21.04
	HYDROGRAPH AT							
+		DN_64o	0.	.00	0.	0.	0.	21.04
	HYDROGRAPH AT							
+		36q	49.	12.50	13.	4.	1.	.27
	HYDROGRAPH AT							
+		BD32q	0.	.00	0.	0.	0.	.99
	ROUTED TO							
+		R32qS	0.	.00	0.	0.	0.	.99
	HYDROGRAPH AT							
+		B36pP2	46.	12.83	18.	6.	2.	6.91
	ROUTED TO							
+		P36pS	46.	12.92	18.	6.	2.	6.91
	3 COMBINED AT							
+		C36q	87.	12.75	31.	10.	4.	1.56

+	DIVERSION TO	D36qP	87.	12.75	31.	10.	4.	1.56
	HYDROGRAPH AT	D36q	0.	.00	0.	0.	0.	1.56
+	DIVERSION TO	D36qS	0.	.00	0.	0.	0.	1.56
+	HYDROGRAPH AT	D36qW	0.	.00	0.	0.	0.	1.56
+	ROUTED TO	R36qW	0.	.00	0.	0.	0.	1.56
+	HYDROGRAPH AT	40q	60.	12.50	18.	6.	2.	.35
+	2 COMBINED AT	C40q	59.	12.50	17.	5.	2.	1.91
+	DIVERSION TO	D40qP	32.	12.25	14.	5.	2.	1.91
+	HYDROGRAPH AT	D40q	27.	12.50	3.	1.	0.	1.91
+	DIVERSION TO	D40qS	16.	12.50	2.	1.	0.	1.91
+	HYDROGRAPH AT	D40qW	10.	12.50	1.	0.	0.	1.91
+	ROUTED TO	R40qW	8.	13.25	1.	0.	0.	1.91
+	HYDROGRAPH AT	BD40qP	32.	12.25	14.	5.	2.	1.91
+	ROUTED TO	P40qW	32.	12.33	14.	5.	2.	1.91
+	2 COMBINED AT	C40qW	40.	13.25	15.	5.	2.	1.91
+	HYDROGRAPH AT	44q	70.	12.50	23.	8.	3.	.36
+	HYDROGRAPH AT	B44pP2	34.	12.92	15.	5.	2.	11.10
+	ROUTED TO	P44pS	34.	13.00	15.	5.	2.	11.10
+	3 COMBINED AT	C44q	131.	12.83	53.	18.	6.	2.57
+	DIVERSION TO	D44qP	131.	12.83	53.	18.	6.	2.57
+	HYDROGRAPH AT	D44q	0.	.00	0.	0.	0.	2.57
+	DIVERSION TO	D44qS	0.	.00	0.	0.	0.	2.57
+	HYDROGRAPH AT	D44qW	0.	.00	0.	0.	0.	2.57
+	ROUTED TO	R44qW	0.	.00	0.	0.	0.	2.57
+	HYDROGRAPH AT	48q	43.	12.58	15.	4.	1.	.30
+	2 COMBINED AT	C48q	42.	12.67	14.	4.	1.	2.87
+	DIVERSION TO	D48qPT	42.	12.67	14.	4.	1.	2.87
+	HYDROGRAPH AT	DB48q	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	S48q	0.	.00	0.	0.	0.	2.87

+	DIVERSION TO	D48qS	0.	.00	0.	0.	0.	2.87
+	HYDROGRAPH AT	D48qW	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	R48qW	0.	.00	0.	0.	0.	2.87
+	HYDROGRAPH AT	52q	50.	12.67	19.	6.	2.	.39
+	2 COMBINED AT	C52q	50.	12.67	19.	6.	2.	.39
+	DIVERSION TO	D52qP	50.	12.67	19.	6.	2.	.39
+	HYDROGRAPH AT	D52q	0.	.00	0.	0.	0.	.39
+	DIVERSION TO	D52qS	0.	.00	0.	0.	0.	.39
+	HYDROGRAPH AT	D52qW	0.	.00	0.	0.	0.	.39
+	ROUTED TO	R52qW	0.	.00	0.	0.	0.	.39
+	HYDROGRAPH AT	56q	32.	12.67	12.	4.	1.	.35
+	2 COMBINED AT	C56q	31.	12.67	11.	4.	1.	.75
+	DIVERSION TO	D56qP	31.	12.67	11.	4.	1.	.75
+	HYDROGRAPH AT	D56q	0.	.00	0.	0.	0.	.75
+	DIVERSION TO	D56qS	0.	.00	0.	0.	0.	.75
+	HYDROGRAPH AT	D56qW	0.	.00	0.	0.	0.	.75
+	ROUTED TO	R56qW	0.	.00	0.	0.	0.	.75
+	HYDROGRAPH AT	60q	29.	12.58	10.	3.	1.	.35
+	2 COMBINED AT	C60q	28.	12.58	10.	3.	1.	1.10
+	DIVERSION TO	D60qP	28.	12.58	10.	3.	1.	1.10
+	HYDROGRAPH AT	D60q	0.	.00	0.	0.	0.	1.10
+	DIVERSION TO	D60qS	0.	.00	0.	0.	0.	1.10
+	HYDROGRAPH AT	D60qW	0.	.00	0.	0.	0.	1.10
+	ROUTED TO	R60qW	0.	.00	0.	0.	0.	1.10
+	HYDROGRAPH AT	64q	74.	12.58	23.	8.	3.	.41
+	3 COMBINED AT	C64q	73.	12.58	22.	7.	2.	1.51
+	DIVERSION TO	D64qPT	0.	.00	0.	0.	0.	1.51
+	HYDROGRAPH AT	D64q	73.	12.58	22.	7.	2.	1.51
	DIVERSION TO							

+		D64qP	68.	12.50	22.	7.	2.	1.51
		HYDROGRAPH AT						
+		D64q1	5.	12.58	0.	0.	0.	1.51
		DIVERSION TO						
+		D64qS	2.	12.58	0.	0.	0.	1.51
		HYDROGRAPH AT						
+		D64qW	3.	12.58	0.	0.	0.	1.51
		ROUTED TO						
+		R64qW	1.	13.50	0.	0.	0.	1.51
		HYDROGRAPH AT						
+		BD64qP	68.	12.50	22.	7.	2.	1.51
		ROUTED TO						
+		P64qW	68.	12.58	22.	7.	2.	1.51
		2 COMBINED AT						
+		C64qW	68.	12.75	22.	7.	2.	1.51
		HYDROGRAPH AT						
+		68q	45.	12.50	14.	5.	2.	.29
		2 COMBINED AT						
+		C68q	112.	12.58	36.	12.	4.	1.80
		DIVERSION TO						
+		D68qP	68.	12.33	30.	10.	3.	1.80
		HYDROGRAPH AT						
+		D68q	44.	12.58	6.	1.	0.	1.80
		DIVERSION TO						
+		D68qS	14.	12.58	2.	0.	0.	1.80
		HYDROGRAPH AT						
+		D68qW	29.	12.58	4.	1.	0.	1.80
		ROUTED TO						
+		R68qW	22.	13.17	4.	1.	0.	1.80
		HYDROGRAPH AT						
+		BD68qP	68.	12.33	30.	10.	3.	1.80
		ROUTED TO						
+		P68qW	68.	12.50	30.	10.	3.	1.80
		2 COMBINED AT						
+		C68qW	90.	13.17	34.	11.	4.	1.80
		HYDROGRAPH AT						
+		72q	56.	12.58	17.	5.	2.	.33
		HYDROGRAPH AT						
+		B72oP	409.	13.83	239.	84.	28.	17.78
		ROUTED TO						
+		P72oS	409.	13.83	239.	84.	28.	17.78
		3 COMBINED AT						
+		C72q	515.	13.58	297.	104.	35.	3.13
		DIVERSION TO						
+		D72qP	515.	13.58	297.	104.	35.	3.13
		HYDROGRAPH AT						
+		D72q	0.	.00	0.	0.	0.	3.13
		DIVERSION TO						
+		D72qS	0.	.00	0.	0.	0.	3.13
		HYDROGRAPH AT						
+		D72qW	0.	.00	0.	0.	0.	3.13
		ROUTED TO						
+		R72qW	0.	.00	0.	0.	0.	3.13
		HYDROGRAPH AT						
+		80o	105.	12.42	26.	8.	3.	.54
		HYDROGRAPH AT						
+		BD84mP	81.	12.50	30.	10.	4.	.29

+	ROUTED TO	P84mS	81.	12.50	30.	10.	4.	.29
.	HYDROGRAPH AT	BD84mS	24.	14.25	13.	4.	1.	5.49
+	ROUTED TO	R84mS	23.	14.83	13.	4.	1.	5.49
+	2 COMBINED AT	C84mS	81.	12.50	41.	14.	5.	5.49
+	HYDROGRAPH AT	BD80mS	43.	12.67	24.	8.	3.	6.03
+	ROUTED TO	R80mS	41.	13.08	24.	8.	3.	6.03
+	3 COMBINED AT	C80o	207.	12.58	88.	30.	10.	6.58
+	DIVERSION TO	DB80o	0.	.00	0.	0.	0.	6.58
+	HYDROGRAPH AT	E80o	207.	12.58	88.	30.	10.	6.58
+	HYDROGRAPH AT	BDB80o	0.	.00	0.	0.	0.	6.58
+	ROUTED TO	S80o	0.	.00	0.	0.	0.	6.58
+	2 COMBINED AT	CC80o	207.	12.58	88.	30.	10.	6.58
+	DIVERSION TO	D80oP	207.	12.58	88.	30.	10.	6.58
+	HYDROGRAPH AT	D80o	0.	.00	0.	0.	0.	6.58
+	ROUTED TO	R80oS	0.	.00	0.	0.	0.	6.58
+	HYDROGRAPH AT	76o	96.	12.67	34.	10.	3.	.67
+	HYDROGRAPH AT	BD76m	1.	12.92	0.	0.	0.	6.71
+	ROUTED TO	R76mS	0.	14.00	0.	0.	0.	6.71
+	HYDROGRAPH AT	B76mP2	31.	12.83	16.	5.	2.	6.71
+	ROUTED TO	P76mS	31.	13.00	16.	5.	2.	6.71
+	2 COMBINED AT	C76mS	31.	13.00	16.	5.	2.	6.71
+	HYDROGRAPH AT	BD72oW	0.	.00	0.	0.	0.	17.78
+	ROUTED TO	R72oW	0.	.00	0.	0.	0.	17.78
+	4 COMBINED AT	C76o	122.	12.75	49.	15.	5.	7.92
+	DIVERSION TO	D76o	0.	.00	0.	0.	0.	7.92
+	HYDROGRAPH AT	D76oP	122.	12.75	49.	15.	5.	7.92
+	ROUTED TO	P76oS	122.	12.83	49.	15.	5.	7.92
+	HYDROGRAPH AT	BD76o	0.	.00	0.	0.	0.	7.92
+	DIVERSION TO	D76oW	0.	.00	0.	0.	0.	7.92

+	HYDROGRAPH AT	D76oS	0.	.00	0.	0.	0.	7.92
	ROUTED TO	R76oS	0.	.00	0.	0.	0.	7.92
+	2 COMBINED AT	C76oS	122.	12.83	49.	15.	5.	7.92
+	HYDROGRAPH AT	76q	99.	12.50	25.	8.	3.	.40
+	3 COMBINED AT	C76q	200.	12.75	72.	22.	8.	11.45
+	DIVERSION TO	D76qP	200.	12.75	72.	22.	8.	11.45
+	HYDROGRAPH AT	D76q	0.	.00	0.	0.	0.	11.45
+	DIVERSION TO	D76qS	0.	.00	0.	0.	0.	11.45
+	HYDROGRAPH AT	D76qW	0.	.00	0.	0.	0.	11.45
+	ROUTED TO	R76qW	0.	.00	0.	0.	0.	11.45
+	HYDROGRAPH AT	80p	104.	12.42	28.	9.	3.	.40
+	HYDROGRAPH AT	BD76oW	0.	.00	0.	0.	0.	7.92
+	ROUTED TO	R76oW	0.	.00	0.	0.	0.	7.92
+	2 COMBINED AT	C80p	104.	12.42	28.	9.	3.	8.32
+	ROUTED TO	S80p	91.	12.67	20.	7.	3.	8.32
+	HYDROGRAPH AT	BD80oP	207.	12.58	88.	30.	10.	6.58
+	ROUTED TO	P80oS	207.	12.67	88.	30.	10.	6.58
+	2 COMBINED AT	CC80p	297.	12.67	107.	36.	13.	8.32
+	DIVERSION TO	D80pP	249.	12.50	104.	35.	13.	8.32
+	HYDROGRAPH AT	D80p	48.	12.67	3.	1.	0.	8.32
+	ROUTED TO	R80pS	14.	13.83	3.	1.	0.	8.32
+	HYDROGRAPH AT	BD80pP	249.	12.50	104.	35.	13.	8.32
+	ROUTED TO	P80pS	249.	12.67	104.	35.	13.	8.32
+	2 COMBINED AT	C80pS	249.	13.08	107.	36.	13.	8.32
+	HYDROGRAPH AT	80q	72.	12.75	27.	9.	3.	.50
+	3 COMBINED AT	C80q	317.	12.75	131.	44.	15.	12.34
+	HYDROGRAPH AT	28s	38.	12.33	9.	3.	1.	.16
+	HYDROGRAPH AT	BD28qP	147.	12.92	62.	21.	7.	.82
	DIVERSION TO							

+		D28qP2	14.	12.92	6.	2.	1.	.82
+	HYDROGRAPH AT							
+		D28qP1	134.	12.92	57.	19.	6.	.82
+	ROUTED TO							
+		P28qS	134.	13.00	57.	19.	6.	.82
+	HYDROGRAPH AT							
+		BD28qS	0.	.00	0.	0.	0.	.82
+	ROUTED TO							
+		R28qS	0.	.00	0.	0.	0.	.82
+	2 COMBINED AT							
+		C28qS	134.	13.00	57.	19.	6.	.82
+	2 COMBINED AT							
+		C28s	153.	12.83	65.	22.	7.	.98
+	DIVERSION TO							
+		D28sP	153.	12.83	65.	22.	7.	.98
+	HYDROGRAPH AT							
+		D28s	0.	.00	0.	0.	0.	.98
+	DIVERSION TO							
+		D28sS	0.	.00	0.	0.	0.	.98
+	HYDROGRAPH AT							
+		D28sW	0.	.00	0.	0.	0.	.98
+	ROUTED TO							
+		R28sW	0.	.00	0.	0.	0.	.98
+	HYDROGRAPH AT							
+		32s	50.	12.58	19.	6.	2.	.34
+	2 COMBINED AT							
+		C32s	49.	12.58	18.	6.	2.	1.32
+	ROUTED TO							
+		S32s	0.	.00	0.	0.	0.	1.32
+	DIVERSION TO							
+		D32sP	0.	.00	0.	0.	0.	1.32
+	HYDROGRAPH AT							
+		D32s	0.	.00	0.	0.	0.	1.32
+	ROUTED TO							
+		R32sW	0.	.00	0.	0.	0.	1.32
+	HYDROGRAPH AT							
+		BD32sP	0.	.00	0.	0.	0.	1.32
+	2 COMBINED AT							
+		C32sW	0.	.00	0.	0.	0.	1.32
+	HYDROGRAPH AT							
+		36s	55.	12.50	15.	5.	2.	.24
+	HYDROGRAPH AT							
+		BD36qP	87.	12.75	31.	10.	4.	1.56
+	ROUTED TO							
+		P36qS	87.	12.75	31.	10.	4.	1.56
+	HYDROGRAPH AT							
+		BD36qS	0.	.00	0.	0.	0.	1.56
+	ROUTED TO							
+		R36qS	0.	.00	0.	0.	0.	1.56
+	2 COMBINED AT							
+		C36qS	87.	12.75	31.	10.	4.	1.56
+	3 COMBINED AT							
+		C36s	135.	12.67	46.	15.	5.	2.30
+	DIVERSION TO							
+		D36sP	135.	12.67	46.	15.	5.	2.30
+	HYDROGRAPH AT							
+		D36s	0.	.00	0.	0.	0.	2.30

+	ROUTED TO	R36sW	0.	.00	0.	0.	0.	2.30
	HYDROGRAPH AT	40s	61.	12.50	17.	6.	2.	.24
+	HYDROGRAPH AT	BD40qS	16.	12.50	2.	1.	0.	1.91
+	ROUTED TO	R40qS	12.	13.08	2.	1.	0.	1.91
+	3 COMBINED AT	C40s	61.	12.75	19.	6.	2.	2.89
+	DIVERSION TO	D40sP	61.	12.75	19.	6.	2.	2.89
+	HYDROGRAPH AT	D40s	0.	.00	0.	0.	0.	2.89
+	ROUTED TO	R40sW	0.	.00	0.	0.	0.	2.89
+	HYDROGRAPH AT	BD40sP	61.	12.75	19.	6.	2.	2.89
+	ROUTED TO	P40sW	60.	12.75	19.	6.	2.	2.89
+	2 COMBINED AT	C40sW	60.	12.75	19.	6.	2.	2.89
+	HYDROGRAPH AT	44s	53.	12.50	16.	5.	2.	.24
+	HYDROGRAPH AT	BD44qP	131.	12.83	53.	18.	6.	2.57
+	ROUTED TO	P44qS	131.	12.83	53.	18.	6.	2.57
+	HYDROGRAPH AT	BD44qS	0.	.00	0.	0.	0.	2.57
+	ROUTED TO	R44qS	0.	.00	0.	0.	0.	2.57
+	2 COMBINED AT	C44qS	131.	12.83	53.	18.	6.	2.57
+	3 COMBINED AT	C44s	239.	12.75	87.	28.	10.	3.79
+	DIVERSION TO	D44sP	201.	12.42	83.	27.	9.	3.79
+	HYDROGRAPH AT	D44s	38.	12.75	4.	1.	0.	3.79
+	ROUTED TO	R44sW	30.	13.17	4.	1.	0.	3.79
+	HYDROGRAPH AT	48s	52.	12.42	15.	5.	2.	.21
+	HYDROGRAPH AT	BD48qS	0.	.00	0.	0.	0.	2.87
+	ROUTED TO	R48qS	0.	.00	0.	0.	0.	2.87
+	3 COMBINED AT	C48s	63.	13.00	18.	6.	2.	4.31
+	DIVERSION TO	D48sPT	63.	13.00	18.	6.	2.	4.31
+	HYDROGRAPH AT	DB48s	0.	.00	0.	0.	0.	4.31
+	ROUTED TO	S48s	0.	.00	0.	0.	0.	4.31
+	ROUTED TO	R48sW	0.	.00	0.	0.	0.	4.31

+	HYDROGRAPH AT	52s	62.	12.50	18.	6.	2.	.26
+	HYDROGRAPH AT	BD52qP	50.	12.67	19.	6.	2.	.39
+	ROUTED TO	P52qS	50.	12.75	19.	6.	2.	.39
+	HYDROGRAPH AT	BD52qS	0.	.00	0.	0.	0.	.39
+	ROUTED TO	R52qS	0.	.00	0.	0.	0.	.39
+	2 COMBINED AT	C52qS	50.	12.75	19.	6.	2.	.39
+	3 COMBINED AT	C52s	108.	12.58	37.	12.	4.	.66
+	DIVERSION TO	D52sP	108.	12.58	37.	12.	4.	.66
+	HYDROGRAPH AT	D52s	0.	.00	0.	0.	0.	.66
+	ROUTED TO	R52sW	0.	.00	0.	0.	0.	.66
+	HYDROGRAPH AT	56s	66.	12.50	18.	6.	2.	.25
+	HYDROGRAPH AT	BD56qP	31.	12.67	11.	4.	1.	.75
+	ROUTED TO	P56qS	31.	12.75	11.	4.	1.	.75
+	HYDROGRAPH AT	BD56qS	0.	.00	0.	0.	0.	.75
+	ROUTED TO	R56qS	0.	.00	0.	0.	0.	.75
+	2 COMBINED AT	C56qS	31.	12.75	11.	4.	1.	.75
+	3 COMBINED AT	C56s	93.	12.58	29.	9.	3.	1.27
+	DIVERSION TO	D56sP	93.	12.58	29.	9.	3.	1.27
+	HYDROGRAPH AT	D56s	0.	.00	0.	0.	0.	1.27
+	DIVERSION TO	D56sS	0.	.00	0.	0.	0.	1.27
+	HYDROGRAPH AT	D56sW	0.	.00	0.	0.	0.	1.27
+	ROUTED TO	R56sW	0.	.00	0.	0.	0.	1.27
+	HYDROGRAPH AT	60s	75.	12.42	19.	6.	2.	.25
+	HYDROGRAPH AT	BD60qP	28.	12.58	10.	3.	1.	1.10
+	ROUTED TO	P60qS	28.	12.67	10.	3.	1.	1.10
+	HYDROGRAPH AT	BD60qS	0.	.00	0.	0.	0.	1.10
+	ROUTED TO	R60qS	0.	.00	0.	0.	0.	1.10
+	2 COMBINED AT	C60qS	28.	12.67	10.	3.	1.	1.10
+	3 COMBINED AT							

+		C60s	96.	12.50	28.	9.	3.	1.87
	DIVERSION TO							
+		D60sP	96.	12.50	28.	9.	3.	1.87
	HYDROGRAPH AT							
		D60s	0.	.00	0.	0.	0.	1.87
	DIVERSION TO							
+		D60sS	0.	.00	0.	0.	0.	1.87
	HYDROGRAPH AT							
+		D60sW	0.	.00	0.	0.	0.	1.87
	ROUTED TO							
+		R60sW	0.	.00	0.	0.	0.	1.87
	HYDROGRAPH AT							
+		BD60sP	96.	12.50	28.	9.	3.	1.87
	ROUTED TO							
+		P60sW	95.	12.50	28.	9.	3.	1.87
	2 COMBINED AT							
+		C60sW	95.	12.50	28.	9.	3.	1.87
	HYDROGRAPH AT							
+		64s	76.	12.42	21.	7.	2.	.26
	HYDROGRAPH AT							
+		BD64qS	2.	12.58	0.	0.	0.	1.51
	ROUTED TO							
+		R64qS	1.	13.08	0.	0.	0.	1.51
	3 COMBINED AT							
+		C64s	168.	12.50	48.	16.	5.	2.54
	DIVERSION TO							
+		D64sPT	0.	.00	0.	0.	0.	2.54
	HYDROGRAPH AT							
		D64s	168.	12.50	48.	16.	5.	2.54
	DIVERSION TO							
+		D64sP	168.	12.50	48.	16.	5.	2.54
	HYDROGRAPH AT							
+		D64s1	0.	.00	0.	0.	0.	2.54
	DIVERSION TO							
+		D64sS	0.	.00	0.	0.	0.	2.54
	HYDROGRAPH AT							
+		D64sW	0.	.00	0.	0.	0.	2.54
	ROUTED TO							
+		R64sW	0.	.00	0.	0.	0.	2.54
	HYDROGRAPH AT							
+		68s	52.	12.42	15.	5.	2.	.24
	HYDROGRAPH AT							
+		BD68qS	14.	12.58	2.	0.	0.	1.80
	ROUTED TO							
+		R68qS	11.	13.25	2.	0.	0.	1.80
	3 COMBINED AT							
+		C68s	52.	12.42	17.	6.	2.	3.07
	DIVERSION TO							
+		D68sP	50.	12.42	17.	6.	2.	3.07
	HYDROGRAPH AT							
+		D68s	0.	.00	0.	0.	0.	3.07
	DIVERSION TO							
+		D68sS	0.	.00	0.	0.	0.	3.07
	HYDROGRAPH AT							
+		D68sW	0.	.00	0.	0.	0.	3.07
	ROUTED TO							
+		R68sW	0.	.00	0.	0.	0.	3.07

+	HYDROGRAPH AT	72s	65.	12.42	17.	5.	2.	.28
+	HYDROGRAPH AT	BD72qP	515.	13.58	297.	104.	35.	3.13
+	DIVERSION TO	D72qP2	178.	13.58	103.	36.	12.	3.13
+	HYDROGRAPH AT	D72qP1	337.	13.58	194.	68.	23.	3.13
+	ROUTED TO	P72qS1	337.	13.67	194.	68.	23.	3.13
+	HYDROGRAPH AT	B72qP2	178.	13.58	103.	36.	12.	3.13
+	ROUTED TO	P72qS2	178.	13.67	103.	36.	12.	3.13
+	HYDROGRAPH AT	BD72qS	0.	.00	0.	0.	0.	3.13
+	ROUTED TO	R72qS	0.	.00	0.	0.	0.	3.13
+	3 COMBINED AT	C72qS	515.	13.67	297.	104.	35.	3.13
+	3 COMBINED AT	C72s	546.	12.75	312.	109.	37.	4.68
+	DIVERSION TO	D72sP	546.	12.75	312.	109.	37.	4.68
+	HYDROGRAPH AT	D72s	0.	.00	0.	0.	0.	4.68
+	DIVERSION TO	D72sS	0.	.00	0.	0.	0.	4.68
+	HYDROGRAPH AT	D72sW	0.	.00	0.	0.	0.	4.68
+	ROUTED TO	R72sW	0.	.00	0.	0.	0.	4.68
+	HYDROGRAPH AT	76s	72.	12.42	20.	7.	2.	.28
+	ROUTED TO	S76s	72.	12.50	20.	6.	2.	.28
+	HYDROGRAPH AT	BD76qP	200.	12.75	72.	22.	8.	11.45
+	ROUTED TO	P76qS	200.	12.75	72.	22.	8.	11.45
+	HYDROGRAPH AT	BD76qS	0.	.00	0.	0.	0.	11.45
+	ROUTED TO	R76qS	0.	.00	0.	0.	0.	11.45
+	2 COMBINED AT	C76qS	200.	12.75	72.	22.	8.	11.45
+	3 COMBINED AT	C76s	260.	12.75	90.	28.	9.	13.28
+	DIVERSION TO	D76sP	204.	12.42	85.	27.	9.	13.28
+	HYDROGRAPH AT	D76s	56.	12.75	5.	1.	0.	13.28
+	DIVERSION TO	D76sS	12.	12.75	1.	0.	0.	13.28
+	HYDROGRAPH AT	D76sW	43.	12.75	4.	1.	0.	13.28
+	ROUTED TO	R76sW	26.	13.17	4.	1.	0.	13.28

+	2 COMBINED AT	CC80q	333.	13.08	133.	44.	16.	14.17
	DIVERSION TO	D80qP	333.	13.08	133.	44.	16.	14.17
+	HYDROGRAPH AT	D80q	0.	.00	0.	0.	0.	14.17
+	DIVERSION TO	D80qW	0.	.00	0.	0.	0.	14.17
+	HYDROGRAPH AT	D80qS	0.	.00	0.	0.	0.	14.17
+	ROUTED TO	R80qS	0.	.00	0.	0.	0.	14.17
+	HYDROGRAPH AT	BD80qP	333.	13.08	133.	44.	16.	14.17
+	ROUTED TO	P80qS	333.	13.08	133.	44.	16.	14.17
+	2 COMBINED AT	C80qS	333.	13.08	133.	44.	16.	14.17
+	HYDROGRAPH AT	52t	57.	12.58	18.	6.	2.	.30
+	ROUTED TO	S52t	51.	12.92	13.	4.	1.	.30
+	HYDROGRAPH AT	BD52sP	108.	12.58	37.	12.	4.	.66
+	ROUTED TO	P52sS	108.	12.67	37.	12.	4.	.66
+	2 COMBINED AT	C52t	153.	12.83	49.	16.	5.	.96
	DIVERSION TO	D52tP	153.	12.83	49.	16.	5.	.96
+	HYDROGRAPH AT	D52t	0.	.00	0.	0.	0.	.96
+	DIVERSION TO	D52tS	0.	.00	0.	0.	0.	.96
+	HYDROGRAPH AT	D52tW	0.	.00	0.	0.	0.	.96
+	ROUTED TO	R52tW	0.	.00	0.	0.	0.	.96
+	HYDROGRAPH AT	56t	40.	12.50	13.	4.	1.	.18
+	HYDROGRAPH AT	BD56sP	93.	12.58	29.	9.	3.	1.27
+	ROUTED TO	P56sS	92.	12.67	29.	9.	3.	1.27
+	HYDROGRAPH AT	BD56sS	0.	.00	0.	0.	0.	1.27
+	ROUTED TO	R56sS	0.	.00	0.	0.	0.	1.27
+	2 COMBINED AT	C56sS	92.	12.67	29.	9.	3.	1.27
+	3 COMBINED AT	C56t	130.	12.67	42.	13.	4.	1.74
	DIVERSION TO	D56tP	130.	12.67	42.	13.	4.	1.74
	HYDROGRAPH AT	D56t	0.	.00	0.	0.	0.	1.74
	DIVERSION TO							

+		D56tS	0.	.00	0.	0.	0.	1.74
	HYDROGRAPH AT							
+		D56tW	0.	.00	0.	0.	0.	1.74
	ROUTED TO							
+		R56tW	0.	.00	0.	0.	0.	1.74
	HYDROGRAPH AT							
+		60t	58.	12.58	20.	6.	2.	.33
	ROUTED TO							
+		S60t	58.	12.58	20.	6.	2.	.33
	HYDROGRAPH AT							
+		BD60sS	0.	.00	0.	0.	0.	1.87
	ROUTED TO							
+		R60sS	0.	.00	0.	0.	0.	1.87
	3 COMBINED AT							
+		C60t	58.	12.58	20.	6.	2.	2.68
	DIVERSION TO							
+		D60tS	15.	12.58	5.	2.	1.	2.68
	HYDROGRAPH AT							
+		D60tW	41.	12.58	14.	4.	1.	2.68
	ROUTED TO							
+		R60tW	39.	13.00	14.	4.	1.	2.68
	HYDROGRAPH AT							
+		64t	50.	12.50	16.	5.	2.	.27
	HYDROGRAPH AT							
+		BD64sP	168.	12.50	48.	16.	5.	2.54
	ROUTED TO							
+		P64sS	167.	12.50	48.	16.	5.	2.54
	HYDROGRAPH AT							
-		BD64sS	0.	.00	0.	0.	0.	2.54
	ROUTED TO							
+		R64sS	0.	.00	0.	0.	0.	2.54
	2 COMBINED AT							
+		C64sS	167.	12.50	48.	16.	5.	2.54
	3 COMBINED AT							
+		C64t	238.	12.58	77.	26.	9.	3.61
	DIVERSION TO							
+		D64tPT	0.	.00	0.	0.	0.	3.61
	HYDROGRAPH AT							
+		D64t	238.	12.58	77.	26.	9.	3.61
	DIVERSION TO							
+		D64tP	238.	12.58	77.	26.	9.	3.61
	HYDROGRAPH AT							
+		D64t1	0.	.00	0.	0.	0.	3.61
	DIVERSION TO							
+		D64tS	0.	.00	0.	0.	0.	3.61
	HYDROGRAPH AT							
+		D64tW	0.	.00	0.	0.	0.	3.61
	ROUTED TO							
+		R64tW	0.	.00	0.	0.	0.	3.61
	HYDROGRAPH AT							
+		68t	51.	12.42	14.	4.	1.	.25
	HYDROGRAPH AT							
+		BD68sP	50.	12.42	17.	6.	2.	3.07
	ROUTED TO							
+		P68sS	50.	12.50	17.	6.	2.	3.07
	HYDROGRAPH AT							
+		BD68sS	0.	.00	0.	0.	0.	3.07

+	ROUTED TO	R68sS	0.	.00	0.	0.	0.	0.	3.07
	2 COMBINED AT	C68sS	50.	12.50	17.	6.	2.		3.07
+	3 COMBINED AT	C68t	99.	12.50	30.	10.	3.		4.39
+	DIVERSION TO	D68tP	99.	12.50	30.	10.	3.		4.39
+	HYDROGRAPH AT	D68t	0.	.00	0.	0.	0.		4.39
+	DIVERSION TO	D68tS	0.	.00	0.	0.	0.		4.39
+	HYDROGRAPH AT	D68tW	0.	.00	0.	0.	0.		4.39
+	ROUTED TO	R68tW	0.	.00	0.	0.	0.		4.39
+	HYDROGRAPH AT	72t	38.	12.58	12.	4.	1.		.22
+	HYDROGRAPH AT	BD72sS	0.	.00	0.	0.	0.		4.68
+	ROUTED TO	R72sS	0.	.00	0.	0.	0.		4.68.
+	HYDROGRAPH AT	BD72sP	546.	12.75	312.	109.	37.		4.68
+	DIVERSION TO	D72sP2	189.	12.75	108.	38.	13.		4.68
+	HYDROGRAPH AT	D72sP1	357.	12.75	204.	71.	24.		4.68
+	ROUTED TO	P72sS1	357.	12.83	204.	71.	24.		4.68
+	HYDROGRAPH AT	B72sP2	189.	12.75	108.	38.	13.		4.68
+	ROUTED TO	P72sS2	189.	12.83	108.	38.	13.		4.68
+	3 COMBINED AT	C72sS	546.	12.83	312.	109.	37.		4.68
+	3 COMBINED AT	C72t	578.	12.83	323.	112.	38.		6.23
+	DIVERSION TO	D72tP	578.	12.83	323.	112.	38.		6.23
+	HYDROGRAPH AT	D72t	0.	.00	0.	0.	0.		6.23
+	DIVERSION TO	D72tS	0.	.00	0.	0.	0.		6.23
+	HYDROGRAPH AT	D72tW	0.	.00	0.	0.	0.		6.23
+	ROUTED TO	R72tW	0.	.00	0.	0.	0.		6.23
+	HYDROGRAPH AT	76t	55.	12.50	16.	5.	2.		.27
+	HYDROGRAPH AT	BD76sP	204.	12.42	85.	27.	9.		13.28
+	ROUTED TO	P76sS	204.	12.50	85.	27.	9.		13.28
+	HYDROGRAPH AT	BD76sS	12.	12.75	1.	0.	0.		13.28
+	ROUTED TO	R76sS	8.	13.17	1.	0.	0.		13.28

+	2 COMBINED AT	C76sS	212.	13.17	86.	27.	9.	13.28
+	3 COMBINED AT	C76t	255.	12.50	101.	32.	11.	15.10
+	DIVERSION TO	D76tP	255.	12.50	101.	32.	11.	15.10
+	HYDROGRAPH AT	D76t	0.	.00	0.	0.	0.	15.10
+	DIVERSION TO	D76tS	0.	.00	0.	0.	0.	15.10
+	HYDROGRAPH AT	D76tW	0.	.00	0.	0.	0.	15.10
+	ROUTED TO	R76tW	0.	.00	0.	0.	0.	15.10
+	HYDROGRAPH AT	80t	35.	12.50	11.	4.	1.	.25
+	3 COMBINED AT	C80t	355.	13.08	141.	47.	17.	16.24
+	DIVERSION TO	D80tP	355.	13.00	141.	47.	17.	16.24
+	HYDROGRAPH AT	D80t	0.	13.08	0.	0.	0.	16.24
+	ROUTED TO	R80tS	0.	13.33	0.	0.	0.	16.24
+	HYDROGRAPH AT	52u	19.	12.75	7.	2.	1.	.39
+	HYDROGRAPH AT	BD52tS	0.	.00	0.	0.	0.	.96
+	ROUTED TO	R52tS	0.	.00	0.	0.	0.	.96
+	2 COMBINED AT	C52u	19.	12.75	7.	2.	1.	1.35
+	ROUTED TO	S52u	1.	16.08	0.	0.	0.	1.35
+	HYDROGRAPH AT	BD52tP	153.	12.83	49.	16.	5.	.96
+	ROUTED TO	P52tS	152.	12.92	49.	16.	5.	.96
+	2 COMBINED AT	CC52u	151.	12.92	49.	16.	5.	1.35
+	DIVERSION TO	D52uP	151.	12.92	49.	16.	5.	1.35
+	HYDROGRAPH AT	D52u	0.	.00	0.	0.	0.	1.35
+	DIVERSION TO	D52uS	0.	.00	0.	0.	0.	1.35
+	HYDROGRAPH AT	D52uW	0.	.00	0.	0.	0.	1.35
+	ROUTED TO	R52uW	0.	.00	0.	0.	0.	1.35
+	HYDROGRAPH AT	56u	22.	12.75	9.	3.	1.	.33
+	HYDROGRAPH AT	BD56tS	0.	.00	0.	0.	0.	1.74
+	ROUTED TO	R56tS	0.	.00	0.	0.	0.	1.74
+	3 COMBINED AT							

+		C56u	22.	12.75	9.	3.	1.	2.46
	ROUTED TO							
		S56u	5.	15.33	4.	3.	1.	2.46
	HYDROGRAPH AT							
		BD56tP	130.	12.67	42.	13.	4.	1.74
	ROUTED TO							
+		P56tS	130.	12.67	42.	13.	4.	1.74
	2 COMBINED AT							
+		CC56u	132.	12.67	45.	15.	5.	2.46
	DIVERSION TO							
+		D56uP	132.	12.67	45.	15.	5.	2.46
	HYDROGRAPH AT							
+		D56u	0.	.00	0.	0.	0.	2.46
	DIVERSION TO							
+		D56uS	0.	.00	0.	0.	0.	2.46
	HYDROGRAPH AT							
+		D56uW	0.	.00	0.	0.	0.	2.46
	ROUTED TO							
+		R56uW	0.	.00	0.	0.	0.	2.46
	HYDROGRAPH AT							
+		60u	19.	12.75	7.	3.	1.	.28
	HYDROGRAPH AT							
+		BD60tS	15.	12.58	5.	2.	1.	2.68
	ROUTED TO							
+		R60tS	14.	13.33	5.	2.	1.	2.68
	3 COMBINED AT							
+		C60u	29.	13.17	12.	4.	1.	3.68
	ROUTED TO							
		S60u	28.	13.25	12.	4.	1.	3.68
	DIVERSION TO							
+		D60uP	28.	13.25	12.	4.	1.	3.68
	HYDROGRAPH AT							
+		D60u	0.	.00	0.	0.	0.	3.68
	DIVERSION TO							
+		D60uS	0.	.00	0.	0.	0.	3.68
	HYDROGRAPH AT							
+		D60uW	0.	.00	0.	0.	0.	3.68
	ROUTED TO							
+		R60uW	0.	.00	0.	0.	0.	3.68
	HYDROGRAPH AT							
+		64u	42.	12.58	14.	5.	2.	.30
	HYDROGRAPH AT							
+		BD64tP	238.	12.58	77.	26.	9.	3.61
	ROUTED TO							
+		P64tS	237.	12.67	77.	26.	9.	3.61
	HYDROGRAPH AT							
+		BD64tS	0.	.00	0.	0.	0.	3.61
	ROUTED TO							
+		R64tS	0.	.00	0.	0.	0.	3.61
	2 COMBINED AT							
+		C64tS	237.	12.67	77.	26.	9.	3.61
	3 COMBINED AT							
+		C64u	276.	12.67	91.	30.	10.	4.91
	DIVERSION TO							
		D64uPT	0.	.00	0.	0.	0.	4.91
	HYDROGRAPH AT							
+		D64u	276.	12.67	91.	30.	10.	4.91

+	DIVERSION TO	D64uP	276.	12.67	91.	30.	10.	4.91
	HYDROGRAPH AT	D64u1	0.	.00	0.	0.	0.	4.91
+	DIVERSION TO	D64uS	0.	.00	0.	0.	0.	4.91
+	HYDROGRAPH AT	D64uW	0.	.00	0.	0.	0.	4.91
+	ROUTED TO	R64uW	0.	.00	0.	0.	0.	4.91
+	HYDROGRAPH AT	68u	48.	12.58	15.	5.	2.	.28
+	HYDROGRAPH AT	BD68tP	99.	12.50	30.	10.	3.	4.39
+	ROUTED TO	P68tS	98.	12.58	30.	10.	3.	4.39
+	HYDROGRAPH AT	BD68tS	0.	.00	0.	0.	0.	4.39
+	ROUTED TO	R68tS	0.	.00	0.	0.	0.	4.39
+	2 COMBINED AT	C68tS	98.	12.58	30.	10.	3.	4.39
+	3 COMBINED AT	C68u	144.	12.58	44.	14.	5.	5.97
+	DIVERSION TO	D68uP	143.	12.58	44.	14.	5.	5.97
+	HYDROGRAPH AT	D68u	1.	12.58	0.	0.	0.	5.97
+	DIVERSION TO	D68uS	0.	12.58	0.	0.	0.	5.97
+	HYDROGRAPH AT	D68uW	1.	12.58	0.	0.	0.	5.97
+	ROUTED TO	R68uW	0.	13.17	0.	0.	0.	5.97
+	HYDROGRAPH AT	72u	41.	12.58	13.	4.	1.	.26
+	2 COMBINED AT	C72u	39.	12.58	12.	4.	1.	6.23
+	HYDROGRAPH AT	BD72tP	578.	12.83	323.	112.	38.	6.23
+	DIVERSION TO	D72tP2	228.	12.83	127.	44.	15.	6.23
+	HYDROGRAPH AT	D72tP1	351.	12.83	196.	68.	23.	6.23
+	ROUTED TO	P72tS1	350.	12.83	196.	68.	23.	6.23
+	HYDROGRAPH AT	B72tP2	228.	12.83	127.	44.	15.	6.23
+	ROUTED TO	P72tS2	227.	12.83	127.	44.	15.	6.23
+	HYDROGRAPH AT	B72tS	0.	.00	0.	0.	0.	6.23
+	ROUTED TO	R72tS	0.	.00	0.	0.	0.	6.23
+	3 COMBINED AT	C72tS	577.	12.83	323.	112.	38.	6.23
+	2 COMBINED AT	CC72u	613.	12.83	334.	115.	39.	8.06

+	DIVERSION TO	D72uP	613.	12.83	334.	115.	39.	8.06
	HYDROGRAPH AT	D72u	0.	.00	0.	0.	0.	8.06
+	DIVERSION TO	D72uS	0.	.00	0.	0.	0.	8.06
+	HYDROGRAPH AT	D72uW	0.	.00	0.	0.	0.	8.06
+	ROUTED TO	R72uW	0.	.00	0.	0.	0.	8.06
+	HYDROGRAPH AT	BD76tP	255.	12.50	101.	32.	11.	15.10
+	DIVERSION TO	D76tP2	41.	12.50	16.	5.	2.	15.10
+	HYDROGRAPH AT	D76tP1	214.	12.50	84.	27.	9.	15.10
+	ROUTED TO	P76tS1	214.	12.58	84.	27.	9.	15.10
+	HYDROGRAPH AT	B76tP2	41.	12.50	16.	5.	2.	15.10
+	ROUTED TO	P76tS2	41.	12.67	16.	5.	2.	15.10
+	HYDROGRAPH AT	BD76tS	0.	.00	0.	0.	0.	15.10
+	ROUTED TO	R76tS	0.	.00	0.	0.	0.	15.10
+	3 COMBINED AT	C76tS	255.	12.58	101.	32.	11.	15.10
	HYDROGRAPH AT	76u	43.	12.58	13.	4.	1.	.28
+	3 COMBINED AT	C76u	294.	12.58	112.	35.	12.	17.22
+	DIVERSION TO	D76uP	294.	12.58	112.	35.	12.	17.22
+	HYDROGRAPH AT	D76u	0.	.00	0.	0.	0.	17.22
+	DIVERSION TO	D76uS	0.	.00	0.	0.	0.	17.22
+	HYDROGRAPH AT	D76uW	0.	.00	0.	0.	0.	17.22
+	ROUTED TO	R76uW	0.	.00	0.	0.	0.	17.22
+	HYDROGRAPH AT	80u	54.	12.50	16.	5.	2.	.25
+	3 COMBINED AT	C80u	49.	12.50	15.	5.	2.	18.61
+	HYDROGRAPH AT	BD80tP	355.	13.00	141.	47.	17.	16.24
+	ROUTED TO	P80tS	355.	13.08	141.	47.	17.	16.24
+	HYDROGRAPH AT	BD80qW	0.	.00	0.	0.	0.	14.17
+	3 COMBINED AT	CC80u	389.	12.92	154.	51.	18.	18.61
+	ROUTED TO	S-I17	249.	13.83	153.	51.	18.	18.61
	DIVERSION TO							

+		D80uP	249.	13.83	153.	51.	18.	18.61
	HYDROGRAPH AT							
+		D80u	0.	.00	0.	0.	0.	18.61
	ROUTED TO							
+		R80uW	0.	.00	0.	0.	0.	18.61
	HYDROGRAPH AT							
+		84t	53.	12.58	19.	6.	2.	.27
	HYDROGRAPH AT							
+		P84tN	252.	13.00	64.	19.	6.	.50
	2 COMBINED AT							
+		C84t	297.	13.00	82.	25.	8.	.77
	DIVERSION TO							
+		D84tP	252.	12.83	81.	25.	8.	.77
	HYDROGRAPH AT							
+		D84t	45.	13.00	2.	0.	0.	.77
	DIVERSION TO							
+		D84tW	6.	13.00	0.	0.	0.	.77
	HYDROGRAPH AT							
+		D84tS	40.	13.00	1.	0.	0.	.77
	ROUTED TO							
+		R84tS	10.	13.33	1.	0.	0.	.77
	HYDROGRAPH AT							
+		84u	33.	12.58	12.	4.	1.	.26
	3 COMBINED AT							
+		C84u	33.	13.25	13.	4.	1.	9.04
	ROUTED TO							
+		S84u	22.	13.75	13.	4.	1.	9.04
	HYDROGRAPH AT							
		BD84tP	252.	12.83	81.	25.	8.	.77
	ROUTED TO							
+		P84tS	252.	12.92	81.	25.	8.	.77
	2 COMBINED AT							
+		CC84u	271.	13.17	92.	29.	10.	9.04
	DIVERSION TO							
+		D84uP	252.	12.83	91.	29.	10.	9.04
	HYDROGRAPH AT							
+		D84u	19.	13.17	1.	0.	0.	9.04
	DIVERSION TO							
+		D84uS	4.	13.17	0.	0.	0.	9.04
	HYDROGRAPH AT							
+		D84uW	15.	13.17	1.	0.	0.	9.04
	ROUTED TO							
+		R84uW	8.	13.50	1.	0.	0.	9.04
	HYDROGRAPH AT							
+		88t	32.	12.75	14.	5.	2.	.26
	HYDROGRAPH AT							
+		BD84tW	6.	13.00	0.	0.	0.	.77
	ROUTED TO							
+		R84tW	1.	13.83	0.	0.	0.	.77
	2 COMBINED AT							
+		C88t	32.	12.75	14.	5.	2.	1.03
	DIVERSION TO							
+		D88tW	10.	12.75	4.	1.	0.	1.03
	HYDROGRAPH AT							
+		D88tS	22.	12.75	9.	3.	1.	1.03
	ROUTED TO							
+		R88tS	21.	13.25	9.	3.	1.	1.03

+	HYDROGRAPH AT	88u	38.	12.58	14.	5.	2.	.25
	3 COMBINED AT	C88u	53.	13.00	24.	8.	3.	9.55
+	DIVERSION TO	D88uP	36.	12.42	20.	7.	2.	9.55
+	HYDROGRAPH AT	D88u	17.	13.00	3.	1.	0.	9.55
+	DIVERSION TO	D88uS	13.	13.00	3.	1.	0.	9.55
+	HYDROGRAPH AT	D88uW	4.	13.00	1.	0.	0.	9.55
+	ROUTED TO	R88uW	3.	13.75	1.	0.	0.	9.55
+	HYDROGRAPH AT	BD88uP	36.	12.42	20.	7.	2.	9.55
+	ROUTED TO	P88uW	36.	12.58	20.	7.	2.	9.55
+	2 COMBINED AT	C88uW	39.	13.75	21.	7.	2.	9.55
+	HYDROGRAPH AT	92t	15.	12.75	7.	2.	1.	.17
+	HYDROGRAPH AT	BD88tW	10.	12.75	4.	1.	0.	1.03
+	ROUTED TO	R88tW	9.	13.17	4.	1.	0.	1.03
+	2 COMBINED AT	C92t	23.	13.00	10.	4.	1.	1.21
	ROUTED TO	R92tS	22.	13.33	10.	4.	1.	1.21
+	HYDROGRAPH AT	92u	35.	12.58	13.	4.	2.	.25
+	HYDROGRAPH AT	P92uN	141.	13.00	47.	15.	5.	2.50
+	4 COMBINED AT	C92u	227.	13.00	90.	29.	10.	10.17
+	DIVERSION TO	D92uP	201.	12.83	89.	29.	10.	10.17
+	HYDROGRAPH AT	D92u	26.	13.00	1.	0.	0.	10.17
+	ROUTED TO	R92uS	16.	13.17	1.	0.	0.	10.17
+	HYDROGRAPH AT	B92uP	201.	12.83	89.	29.	10.	10.17
+	ROUTED TO	P92uS	201.	12.92	89.	29.	10.	10.17
+	2 COMBINED AT	C92uS	217.	13.17	90.	29.	10.	10.17
+	HYDROGRAPH AT	76v	25.	12.67	10.	4.	1.	.24
+	HYDROGRAPH AT	B76uP	294.	12.58	112.	35.	12.	17.22
+	DIVERSION TO	D76uP1	246.	12.58	94.	30.	10.	17.22
+	HYDROGRAPH AT	D76uP2	47.	12.58	18.	6.	2.	17.22
+	ROUTED TO	P76uS2	47.	12.67	18.	6.	2.	17.22

+	HYDROGRAPH AT	BD76uS	0.	.00	0.	0.	0.	17.22
+	ROUTED TO	R76uS	0.	.00	0.	0.	0.	17.22
+	2 COMBINED AT	C76uS	47.	12.67	18.	6.	2.	17.22
+	2 COMBINED AT	C76v	71.	12.67	29.	9.	3.	8.24
+	DIVERSION TO	D76vP	71.	12.67	29.	9.	3.	8.24
+	HYDROGRAPH AT	D76v	0.	.00	0.	0.	0.	8.24
+	DIVERSION TO	D76vS	0.	.00	0.	0.	0.	8.24
+	HYDROGRAPH AT	D76vW	0.	.00	0.	0.	0.	8.24
+	ROUTED TO	R76vW	0.	.00	0.	0.	0.	8.24
+	HYDROGRAPH AT	80v	49.	12.50	17.	6.	2.	.23
+	HYDROGRAPH AT	E76uP1	246.	12.58	94.	30.	10.	17.22
+	ROUTED TO	P76uS1	246.	12.67	94.	30.	10.	17.22
+	3 COMBINED AT	C80v	295.	12.67	112.	36.	12.	8.23
+	DIVERSION TO	D80vP	249.	12.50	107.	35.	12.	8.23
+	HYDROGRAPH AT	D80v	46.	12.67	5.	1.	0.	8.23
+	DIVERSION TO	D80vS	26.	12.67	3.	1.	0.	8.23
+	HYDROGRAPH AT	D80vW	20.	12.67	2.	1.	0.	8.23
+	ROUTED TO	R80vW	12.	13.75	2.	1.	0.	8.23
+	HYDROGRAPH AT	84v	23.	12.67	9.	3.	1.	.25
+	HYDROGRAPH AT	BD80uP	249.	13.83	153.	51.	18.	18.61
+	ROUTED TO	P80uS	249.	13.83	153.	51.	18.	18.61
+	3 COMBINED AT	C84v	281.	13.83	173.	58.	20.	8.73
+	HYDROGRAPH AT	BD84uP	252.	12.83	91.	29.	10.	9.04
+	ROUTED TO	P84uS	252.	12.92	91.	29.	10.	9.04
+	HYDROGRAPH AT	BD84uS	4.	13.17	0.	0.	0.	9.04
+	ROUTED TO	R84uS	2.	13.67	0.	0.	0.	9.04
+	2 COMBINED AT	C84uS	253.	13.33	91.	29.	10.	9.04
+	2 COMBINED AT	CC84v	512.	13.42	263.	86.	30.	9.76
	DIVERSION TO							

+		D84vP	512.	13.42	263.	86.	30.	9.76
	HYDROGRAPH AT							
		D84v	0.	.00	0.	0.	0.	9.76
	DIVERSION TO							
+		D84vS	0.	.00	0.	0.	0.	9.76
	HYDROGRAPH AT							
+		D84vW	0.	.00	0.	0.	0.	9.76
	ROUTED TO							
+		R84vW	0.	.00	0.	0.	0.	9.76
	HYDROGRAPH AT							
+		88v	39.	12.67	15.	5.	2.	.25
	HYDROGRAPH AT							
+		BD88uS	13.	13.00	3.	1.	0.	9.55
	ROUTED TO							
+		R88uS	12.	13.58	3.	1.	0.	9.55
	3 COMBINED AT							
+		C88v	43.	13.08	17.	5.	2.	10.52
	DIVERSION TO							
+		D88vP	43.	13.08	17.	5.	2.	10.52
	HYDROGRAPH AT							
+		D88v	0.	.00	0.	0.	0.	10.52
	ROUTED TO							
+		R88vW	0.	.00	0.	0.	0.	10.52
	HYDROGRAPH AT							
+		92v	42.	12.42	14.	5.	2.	.16
	3 COMBINED AT							
+		C92v	243.	13.08	103.	34.	12.	11.30
	DIVERSION TO							
+		D92v	42.	13.08	5.	1.	0.	11.30
	HYDROGRAPH AT							
+		D92vP	201.	12.58	98.	33.	11.	11.30
	ROUTED TO							
+		P92vS	201.	12.75	98.	33.	11.	11.30
	HYDROGRAPH AT							
+		88w	69.	12.67	27.	9.	3.	.60
	HYDROGRAPH AT							
+		BD88vP	43.	13.08	17.	5.	2.	10.52
	ROUTED TO							
+		P88vS	43.	13.17	17.	5.	2.	10.52
	3 COMBINED AT							
+		C88w	304.	12.92	140.	46.	16.	11.90
	HYDROGRAPH AT							
+		44v	14.	12.67	6.	2.	1.	.24
	HYDROGRAPH AT							
+		BD44sP	201.	12.42	83.	27.	9.	3.79
	ROUTED TO							
+		P44sS	201.	12.67	83.	27.	9.	3.79
	2 COMBINED AT							
+		C44v	215.	12.67	89.	29.	10.	4.03
	HYDROGRAPH AT							
+		B48oPT	500.	13.00	216.	76.	25.	14.34
	ROUTED TO							
+		PT48o	500.	13.00	216.	76.	25.	14.34
	HYDROGRAPH AT							
+		B48qPT	42.	12.67	14.	4.	1.	2.87
	2 COMBINED AT							
+		CPT48q	533.	13.00	229.	79.	27.	16.11

+	ROUTED TO	PT48q	532.	13.00	229.	79.	27.	16.11
+	HYDROGRAPH AT	B48sPT	63.	13.00	18.	6.	2.	4.31
+	2 COMBINED AT	CPT48s	583.	13.00	244.	84.	28.	17.54
+	ROUTED TO	PT48s	582.	13.17	244.	84.	28.	17.54
+	HYDROGRAPH AT	48v	54.	12.58	21.	7.	2.	.30
+	2 COMBINED AT	C48v	623.	13.08	263.	91.	31.	17.84
+	2 COMBINED AT	NUL48v	835.	13.08	349.	120.	40.	18.08
+	HYDROGRAPH AT	52v	16.	12.75	7.	2.	1.	.30
+	HYDROGRAPH AT	BD52uP	151.	12.92	49.	16.	5.	1.35
+	ROUTED TO	P52uS	150.	12.92	49.	16.	5.	1.35
+	HYDROGRAPH AT	BD52uS	0.	.00	0.	0.	0.	1.35
+	ROUTED TO	R52uS	0.	.00	0.	0.	0.	1.35
+	2 COMBINED AT	CS2uS	150.	12.92	49.	16.	5.	1.35
+	2 COMBINED AT	CS2v	165.	12.92	56.	18.	6.	1.64
+	2 COMBINED AT	NUL52v	981.	13.08	400.	136.	46.	19.72
+	HYDROGRAPH AT	56v	15.	12.83	7.	2.	1.	.23
+	HYDROGRAPH AT	BD56uP	132.	12.67	45.	15.	5.	2.46
+	ROUTED TO	P56uS	131.	12.75	45.	15.	5.	2.46
+	HYDROGRAPH AT	BD56uS	0.	.00	0.	0.	0.	2.46
+	ROUTED TO	R56uS	0.	.00	0.	0.	0.	2.46
+	2 COMBINED AT	C56uS	131.	12.75	45.	15.	5.	2.46
+	2 COMBINED AT	C56v	145.	12.75	51.	18.	6.	2.69
+	2 COMBINED AT	NUL56v	1099.	13.00	447.	152.	51.	21.07
+	HYDROGRAPH AT	60v	26.	12.67	11.	4.	1.	.23
+	HYDROGRAPH AT	BD60uP	28.	13.25	12.	4.	1.	3.68
+	ROUTED TO	P60uS	28.	13.33	12.	4.	1.	3.68
+	HYDROGRAPH AT	BD60uS	0.	.00	0.	0.	0.	3.68
+	ROUTED TO	R60uS	0.	.00	0.	0.	0.	3.68
+	2 COMBINED AT	C60uS	28.	13.33	12.	4.	1.	3.68

+	2 COMBINED AT	C60v	50.	13.17	22.	8.	3.	3.91
	2 COMBINED AT	NUL60v	1140.	13.00	466.	159.	54.	22.51
+	HYDROGRAPH AT	BPT64o	834.	13.08	376.	134.	45.	21.04
+	HYDROGRAPH AT	B64qPT	0.	.00	0.	0.	0.	1.51
+	2 COMBINED AT	CPT64q	834.	13.08	376.	134.	45.	22.55
+	ROUTED TO	PT64q	830.	13.08	375.	133.	45.	22.55
+	HYDROGRAPH AT	B64sPT	0.	.00	0.	0.	0.	2.54
+	2 COMBINED AT	CPT64s	830.	13.08	375.	133.	45.	23.58
+	ROUTED TO	PT64s	828.	13.17	374.	133.	45.	23.58
+	HYDROGRAPH AT	B64tPT	0.	.00	0.	0.	0.	3.61
+	2 COMBINED AT	CPT64t	828.	13.17	374.	133.	45.	24.65
+	ROUTED TO	PT64t	826.	13.17	373.	133.	45.	24.65
+	HYDROGRAPH AT	B64uPT	0.	.00	0.	0.	0.	4.91
+	2 COMBINED AT	CPT64u	826.	13.17	373.	133.	45.	25.95
+	ROUTED TO	PT64u	823.	13.17	372.	132.	45.	25.95
+	HYDROGRAPH AT	64v	34.	12.58	12.	4.	1.	.19
+	HYDROGRAPH AT	BD64uP	276.	12.67	91.	30.	10.	4.91
+	ROUTED TO	P64uS	276.	12.67	91.	30.	10.	4.91
+	HYDROGRAPH AT	BD64uS	0.	.00	0.	0.	0.	4.91
+	ROUTED TO	R64uS	0.	.00	0.	0.	0.	4.91
+	2 COMBINED AT	C64uS	276.	12.67	91.	30.	10.	4.91
+	3 COMBINED AT	C64v	1059.	13.08	467.	164.	55.	26.15
+	2 COMBINED AT	NUL64v	2116.	13.08	894.	310.	105.	44.28
+	HYDROGRAPH AT	68v	18.	12.75	8.	3.	1.	.22
+	HYDROGRAPH AT	BD68uP	143.	12.58	44.	14.	5.	5.97
+	ROUTED TO	P68uS	143.	12.58	44.	14.	5.	5.97
+	HYDROGRAPH AT	BD68uS	0.	12.58	0.	0.	0.	5.97
+	ROUTED TO	R68uS	0.	13.00	0.	0.	0.	5.97
	2 COMBINED AT							

+		C68uS	143.	12.58	44.	14.	5.	5.97
	2 COMBINED AT							
+		C68v	159.	12.58	52.	17.	6.	6.19
	2 COMBINED AT							
+		NUL68v	2231.	13.08	938.	325.	109.	45.56
	HYDROGRAPH AT							
+		72v	67.	12.58	25.	9.	3.	.41
	HYDROGRAPH AT							
+		BD72uP	613.	12.83	334.	115.	39.	8.06
	DIVERSION TO							
+		D72uP2	241.	12.83	131.	45.	15.	8.06
	HYDROGRAPH AT							
+		D72uP1	372.	12.83	202.	70.	24.	8.06
	ROUTED TO							
+		P72uS1	371.	12.92	202.	70.	24.	8.06
	HYDROGRAPH AT							
+		B72uP2	241.	12.83	131.	45.	15.	8.06
	ROUTED TO							
+		P72uS2	241.	12.92	131.	45.	15.	8.06
	HYDROGRAPH AT							
+		BD72uS	0.	.00	0.	0.	0.	8.06
	ROUTED TO							
+		R72uS	0.	.00	0.	0.	0.	8.06
	3 COMBINED AT							
+		C72uS	612.	12.92	334.	115.	39.	8.06
	2 COMBINED AT							
+		C72v	671.	12.92	356.	124.	42.	8.47
	2 COMBINED AT							
+		NUL72v	2849.	13.00	1259.	437.	147.	47.06
	HYDROGRAPH AT							
+		76w	1.	12.75	1.	0.	0.	.33
	HYDROGRAPH AT							
+		BD76vS	0.	.00	0.	0.	0.	8.24
	ROUTED TO							
+		R76vS	0.	.00	0.	0.	0.	8.24
	HYDROGRAPH AT							
+		BD76vP	71.	12.67	29.	9.	3.	8.24
	ROUTED TO							
+		P76vS	71.	12.75	29.	9.	3.	8.24
	2 COMBINED AT							
+		C76vS	71.	12.75	29.	9.	3.	8.24
	2 COMBINED AT							
+		C76w	73.	12.75	29.	10.	3.	8.57
	2 COMBINED AT							
+		NUL76w	2878.	13.00	1267.	440.	148.	56.10
	HYDROGRAPH AT							
+		80w	64.	12.50	22.	8.	3.	.36
	HYDROGRAPH AT							
+		BD80vS	26.	12.67	3.	1.	0.	8.23
	ROUTED TO							
+		R80vS	18.	13.25	3.	1.	0.	8.23
	2 COMBINED AT							
+		C80w	64.	13.00	25.	8.	3.	8.59
	2 COMBINED AT							
+		NUL80w	2922.	13.00	1284.	446.	150.	58.09
	HYDROGRAPH AT							
+		BD84vS	0.	.00	0.	0.	0.	9.76

+	ROUTED TO	R84vS	0.	.00	0.	0.	0.	0.	9.76
	HYDROGRAPH AT	BD84vP	512.	13.42	263.	86.	30.		9.76
+	DIVERSION TO	D84vP2	411.	13.42	210.	69.	24.		9.76
+	HYDROGRAPH AT	D84vP1	102.	13.42	52.	17.	6.		9.76
+	ROUTED TO	P84vS1	102.	13.42	52.	17.	6.		9.76
+	HYDROGRAPH AT	B84vP2	411.	13.42	210.	69.	24.		9.76
+	ROUTED TO	P84vS2	410.	13.42	210.	69.	24.		9.76
+	3 COMBINED AT	C84vS	512.	13.42	263.	86.	30.		9.76
+	HYDROGRAPH AT	84w	38.	12.67	15.	5.	2.		.34
+	HYDROGRAPH AT	BD80vP	249.	12.50	107.	35.	12.		8.23
+	ROUTED TO	P80vS	249.	12.67	107.	35.	12.		8.23
+	3 COMBINED AT	C84w	787.	13.42	383.	125.	43.		10.10
+	2 COMBINED AT	NUL84w	3667.	13.08	1622.	557.	188.		59.72
+	2 COMBINED AT	NUL88w	3948.	13.08	1749.	599.	203.		61.86
+	HYDROGRAPH AT	24s	27.	12.42	8.	3.	1.		.19
+	ROUTED TO	S24s	0.	20.75	0.	0.	0.		.19
+	HYDROGRAPH AT	B28qP2	14.	12.92	6.	2.	1.		.82
+	ROUTED TO	P28qE	14.	13.00	6.	2.	1.		.82
+	2 COMBINED AT	C24s	14.	13.00	6.	2.	1.		.20
+	DIVERSION TO	D24sP	14.	13.00	6.	2.	1.		.20
+	HYDROGRAPH AT	D24s	0.	.00	0.	0.	0.		.20
+	ROUTED TO	R24sS	0.	.00	0.	0.	0.		.20
+	HYDROGRAPH AT	BD24sP	14.	13.00	6.	2.	1.		.20
+	DIVERSION TO	D24sPE	2.	13.00	1.	0.	0.		.20
+	HYDROGRAPH AT	D24sPS	12.	13.00	5.	2.	1.		.20
+	ROUTED TO	P24sS	12.	13.17	5.	2.	1.		.20
+	2 COMBINED AT	C24sS	12.	13.17	5.	2.	1.		.20
+	HYDROGRAPH AT	24t	6.	12.42	2.	1.	0.		.26
+	2 COMBINED AT	C24t	16.	12.92	7.	2.	1.		.46

+	ROUTED TO	S24t	5.	15.00	4.	2.	1.	.46
+	HYDROGRAPH AT	04s	40.	12.17	7.	3.	1.	.28
+	ROUTED TO	S04s	10.	12.92	7.	3.	1.	.28
+	ROUTED TO	R04sS	10.	13.17	7.	3.	1.	.28
+	HYDROGRAPH AT	08q	73.	12.33	18.	7.	2.	.44
+	ROUTED TO	R08qS	70.	12.50	18.	6.	2.	.44
+	HYDROGRAPH AT	08s	124.	12.33	29.	10.	3.	.65
+	3 COMBINED AT	C08s	192.	12.42	54.	19.	6.	1.37
+	ROUTED TO	S08s	44.	13.83	41.	19.	6.	1.37
+	DIVERSION TO	D08sP	44.	13.83	41.	19.	6.	1.37
+	HYDROGRAPH AT	D08s	0.	.00	0.	0.	0.	1.37
+	ROUTED TO	R08sW	0.	.00	0.	0.	0.	1.37
+	HYDROGRAPH AT	12q	16.	12.33	4.	1.	0.	.40
+	ROUTED TO	R12qS	15.	12.58	4.	1.	0.	.40
+	HYDROGRAPH AT	12s	70.	12.25	15.	5.	2.	.21
+	ROUTED TO	S12s	9.	13.83	8.	5.	2.	.21
+	2 COMBINED AT	C12s	23.	12.67	12.	7.	2.	.61
+	ROUTED TO	R12sW	21.	13.00	12.	7.	2.	.61
+	2 COMBINED AT	C12sW	21.	13.00	12.	7.	2.	1.97
+	DIVERSION TO	D16sP2	21.	13.00	12.	7.	2.	1.97
+	HYDROGRAPH AT	D16s2	0.	.00	0.	0.	0.	1.97
+	HYDROGRAPH AT	16o	129.	12.08	17.	6.	2.	.21
+	ROUTED TO	R16oS	109.	12.17	17.	6.	2.	.21
+	HYDROGRAPH AT	16q	44.	12.42	14.	5.	2.	.65
+	2 COMBINED AT	C16q	142.	12.25	31.	11.	4.	.86
+	ROUTED TO	S16q	0.	.00	0.	0.	0.	.86
+	DIVERSION TO	D16qP	0.	.00	0.	0.	0.	.86
+	HYDROGRAPH AT	D16q	0.	.00	0.	0.	0.	.86
	ROUTED TO							

+		R16qS	0.	.00	0.	0.	0.	.86
	HYDROGRAPH AT							
		16s	126.	12.25	26.	9.	3.	.42
	3 COMBINED AT							
+		C16s	123.	12.25	25.	9.	3.	3.26
	ROUTED TO							
+		S16s	0.	.00	0.	0.	0.	3.26
	HYDROGRAPH AT							
+		BD16qP	0.	.00	0.	0.	0.	.86
	DIVERSION TO							
+		D16qPW	0.	.00	0.	0.	0.	.86
	HYDROGRAPH AT							
+		D16qPS	0.	.00	0.	0.	0.	.86
	2 COMBINED AT							
+		CC16s	0.	.00	0.	0.	0.	3.26
	DIVERSION TO							
+		D16sP	0.	.00	0.	0.	0.	3.26
	HYDROGRAPH AT							
+		D16s	0.	.00	0.	0.	0.	3.26
	ROUTED TO							
+		R16sS	0.	.00	0.	0.	0.	3.26
	HYDROGRAPH AT							
+		BD16sP	0.	.00	0.	0.	0.	3.26
	2 COMBINED AT							
+		C16sS	0.	.00	0.	0.	0.	3.26
	HYDROGRAPH AT							
+		20p	46.	12.42	14.	5.	2.	.53
	ROUTED TO							
+		S20p1	45.	12.50	14.	4.	1.	.53
	HYDROGRAPH AT							
+		B16qPW	0.	.00	0.	0.	0.	.86
	2 COMBINED AT							
+		C20p	45.	12.50	14.	4.	1.	1.39
	ROUTED TO							
+		S20p2	32.	13.08	12.	3.	1.	1.39
	HYDROGRAPH AT							
+		OCCC48	976.	13.00	380.	150.	50.	3.00
	HYDROGRAPH AT							
+		BD24oP	46.	13.00	21.	7.	3.	1.20
	ROUTED TO							
+		P24oS	46.	13.08	21.	7.	3.	1.20
	2 COMBINED AT							
+		C24oS	1021.	13.00	400.	157.	53.	3.00
	ROUTED TO							
+		ROCCC	1005.	13.08	400.	157.	53.	3.00
	2 COMBINED AT							
+		CC20p	1037.	13.08	411.	161.	54.	4.39
	ROUTED TO							
+		R20pS	1033.	13.08	411.	161.	54.	4.39
	HYDROGRAPH AT							
+		20q	17.	12.50	5.	1.	0.	.28
	HYDROGRAPH AT							
+		B28pP2	38.	13.17	16.	5.	2.	3.11
	ROUTED TO							
+		P28pE	38.	13.33	16.	5.	2.	3.11
	3 COMBINED AT							
+		C20q	1080.	13.08	430.	167.	56.	4.67

+	ROUTED TO	R20qS	1075.	13.17	430.	167.	56.	4.67
	HYDROGRAPH AT	20s	139.	12.25	27.	9.	3.	.48
+	ROUTED TO	S20s	130.	12.33	27.	8.	3.	.48
+	2 COMBINED AT	C20s	1110.	13.17	455.	175.	58.	5.15
+	HYDROGRAPH AT	B24sPE	2.	13.00	1.	0.	0.	.20
+	ROUTED TO	P24sE	2.	13.08	1.	0.	0.	.20
+	2 COMBINED AT	CC20s	1111.	13.17	456.	175.	58.	5.35
+	ROUTED TO	R20sS	1110.	13.17	456.	175.	58.	5.35
+	HYDROGRAPH AT	20t	2.	12.75	1.	0.	0.	.26
+	ROUTED TO	S20t	0.	.00	0.	0.	0.	.26
+	3 COMBINED AT	C20t	1110.	13.17	456.	175.	58.	8.01
+	2 COMBINED AT	NUL20t	1112.	13.17	458.	177.	59.	8.27

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