REPORT

CITY OF PHOENIX NPDES PART 2 PERMIT APPLICATION

VOLUME II -

Appendixes 4 - 12

Prepared for:

City of Phoenix
125 E. Washington Street
Phoenix, Arizona 85005

November 10, 1992
Reference No. 9155038

Woodward-Clyde Consultants

426 N. 44th St., Suite 300
Phoenix, AZ 85008

REPORT

Woodward-Clyde Consultants

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CITY OF PHOENIX NPDES PART 2 PERMIT APPLICATION

VOLUME II -

Appendixes 4 - 12

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APPENDIX 4
NPDES PERMITTED FACILITES
CITY OF PHOENIX NPDES PART 2

Woodward-Clyde Consultants

10/28/92

ITEM #: 1 PERMIT NO: AZ0021794

FACILITY NAME: AMERON INC.
FACILITY LOCATION: 2325 S 7TH STREET
ISSUANCE DATE: ACTIVE
RENEWAL DATE: 1/12/96
OWNER: AMERON INC.
OWNER ADDRESS: 2325 S. 7 ST., PHOENIX AZ 85034
OWNER PHONE: 252-7111
CONTACT: R.V. DENUIT
DISCHARGES INTO STORM DRAIN

ITEM #: 2 PERMIT NO: AZ0023159

FACILITY NAME: ARIZONA PUBLIC SERVICE CO. - WEST PHOENIX POWER PLANT
FACILITY LOCATION: 2324 E UNIVERSITY DR
ISSUANCE DATE: DRAFT
RENEWAL DATE: 7/24/87
OWNER: ARIZONA PUBLIC SERVICE COMPANY
OWNER ADDRESS: P.O. BOX53999 STA. 8060, PHOENIX AZ. 85062
OWNER PHONE: 271-7900
CONTACT: JOHN DENMAN
DISCHARGES INTO SALT RIVER

ITEM #: 3 PERMIT NO: AZ0020559

FACILITY NAME: CITY OF PHOENIX - 23RD AVE SEWER TREATMENT PLANT
FACILITY LOCATION: 2300 W LOWER BUCKEYE RD
ISSUANCE DATE: ACTIVE
RENEWAL DATE: 12/29/96
OWNER: CITY OF PHOENIX
OWNER ADDRESS: 2301 W. DURANGO, PHOENIX AZ 85009
OWNER PHONE: 262-1858
CONTACT: PAUL HENDRICKS
DISCHARGES INTO DITCH, TRIBUTARY OF SALT RIVER

ITEM #: 4 PERMIT NO: AZ0020524

FACILITY NAME: CITY OF PHOENIX - 91ST AVE SEWER TREATMENT PLANT
FACILITY LOCATION: 5615 S 91ST AVE
ISSUANCE DATE: ACTIVE
RENEWAL DATE: 12/29/96
OWNER: CITY OF PHOENIX
OWNER ADDRESS: 2301 W. DURANGO, PHOENIX AZ 85009
OWNER PHONE: 936-7145
CONTACT: PAUL HENDRICKS
DISCHARGES INTO UNNAMED DITCH, TRIBUTARY OF SALT RIVER

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10/28/92

ITEM #: 5 PERMIT NO: AZ0023434

FACILITY NAME: CITY OF PHOENIX - DEER VALLEY WATER TREATMENT PLANT
FACILITY LOCATION: 3100 W DUNLAP AVE.
ISSUANCE DATE: DRAFT
RENEWAL DATE: 5/13/88
OWNER: CITY OF PHOENIX
OWNER ADDRESS: 2301 W. DURANGO, PHOENIX AZ 85009
OWNER PHONE:
CONTACT:
DISCHARGES INTO ARIZONA CANAL

ITEM #: 6 PERMIT NO: AZ0023124

FACILITY NAME: CITY OF PHOENIX - FOOTHILLS TREATMENT PLANT
FACILITY LOCATION: 16950 S CENTRAL AVE.
ISSUANCE DATE: DRAFT
RENEWAL DATE: 5/02/86
OWNER: CITY OF PHOENIX
OWNER ADDRESS: 16950 S CENTRAL AVE, PHOENIX AZ 85044
OWNER PHONE: 495-2418
CONTACT: DAN DUFIELD
DISCHARGES INTO 2 UNNAMED CANALS, TRIBUTARY OF GILA R

ITEM #: 7 PERMIT NO: AZ0023426

FACILITY NAME: CITY OF PHOENIX - SQUAW PEAK WATER TREAMENT PLANT
FACILITY LOCATION: 2400 W MARYLAND AVE.
ISSUANCE DATE: DRAFT
RENEWAL DATE: 5/13/88
OWNER: CITY OF PHOENIX
OWNER ADDRESS:
OWNER PHONE: 262-6893
CONTACT:
DISCHARGES INTO SALT RIVER PROJECT CANAL

ITEM #: 8 PERMIT NO: AZ0023442

FACILITY NAME: CITY OF PHOENIX - VAL VISTA WATER TREATMENT PLANT
FACILITY LOCATION: 3200 E McDOWELL RD.
ISSUANCE DATE: DRAFT
RENEWAL DATE: 5/13/88
OWNER: CITY OF PHOENIX
OWNER ADDRESS:
OWNER PHONE:
CONTACT:
DISCHARGES INTO SRP CANAL

Woodward-Clyde Consultants

10/28/92

ITEM #: 9 PERMIT NO: AZ0023418

FACILITY NAME: CITY OF PHOENIX - VERDE VALLEY WATER TREATMENT PLANT
FACILITY LOCATION:
ISSUANCE DATE: DRAFT
RENEWAL DATE: 5/13/88
OWNER: CITY OF PHOENIX
OWNER ADDRESS:
OWNER PHONE: 945-0562
CONTACT:
DISCHARGES INTO SALT RIVER

ITEM #: 10 PERMIT NO: AZ0023167

FACILITY NAME: SPUR CROSS RANCH WASTE WATER TREATMENT PLANT
FACILITY LOCATION:
ISSUANCE DATE: DRAFT
RENEWAL DATE: 4/05/88
OWNER:
OWNER ADDRESS: 2600 N 44TH ST., PHOENIX AZ 85008
OWNER PHONE: 468-1688
CONTACT: JEFF COUCH
DISCHARGES INTO CAVE CREEK

ITEM #: 11 PERMIT NO: AZ0023205

FACILITY NAME: TATUM RANCH WASTE WATER RECYCLE PLANT
FACILITY LOCATION: 29201 N CAVE CREEK RD
ISSUANCE DATE: DRAFT
RENEWAL DATE: 4/25/88
OWNER:
OWNER ADDRESS: 4410 E. DIXILETA DR, PHOENIX AZ 85024
OWNER PHONE: 258-6393
CONTACT: SCOTT MECHAM
DISCHARGES INTO GOLF COURSE

ITEM #: 12 PERMIT NO: AZ0022730

FACILITY NAME: UNION ROCK & MATERIALS CORP.
FACILITY LOCATION: 2800 S CENTRAL AVE
ISSUANCE DATE: ACTIVE
RENEWAL DATE: 5/8/92
OWNER:
OWNER ADDRESS: PO BOX 8007, PHOENIX AZ 85066
OWNER PHONE: 276-4211
CONTACT:
DISCHARGES INTO SALT RIVER

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10/28/92

ITEM #: 0 PERMIT NO: AZ0020397

FACILITY NAME: WESTERN COTTON SERVICES CORP. - PHOENIX MILL
FACILITY LOCATION: 5000 W BUCKEYE RD
ISSUANCE DATE: DRAFT
RENEWAL DATE: 1/7/85
OWNER: ANDERSON, CLAYTON & CO. - WESTERN
OWNER ADDRESS: PO BOX 2988, PHOENIX AZ 85062
OWNER PHONE: 272-2641
CONTACT:
DISCHARGES INTO SRP CANAL/ROOSEVELT IRRIGATION CANAL

ITEM #: 14 PERMIT NO: AZ0023353

FACILITY NAME: U.S. BUREAU OF RECLAMATION NEW RIVER
FACILITY LOCATION:
ISSUANCE DATE: ACTIVE
RENEWAL DATE: 12/14/94
OWNER: U.S. BUREAU OF RECLAMATION
OWNER ADDRESS:
OWNER PHONE: 870-2509
CONTACT: TOM RENCKLEY
DISCHARGES INTO NEW RIVER

ITEM #: 15 PERMIT NO: AZ0023531

FACILITY NAME: SRP - AUGA FRIA STEAM PLANT
FACILITY LOCATION:
ISSUANCE DATE: DRAFT
RENEWAL DATE: 1/18/85
OWNER:
OWNER ADDRESS:
OWNER PHONE:
CONTACT:
DISCHARGES INTO SRP LATERAL # 20

ITEM #: 16 PERMIT NO: AZ0023248

FACILITY NAME: CITY OF TEMPE - KYRENE RECLAMATION PLANT
FACILITY LOCATION: 311 W GUADALUPE RD
ISSUANCE DATE:
RENEWAL DATE: 5/3/97
OWNER: CITY OF TEMPE
OWNER ADDRESS:
OWNER PHONE:
CONTACT:
DISCHARGES INTO STORM DRAIN TRIBUTARY OF SALT RIVER

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10/28/92

ITEM #: 17 PERMIT NO: AZ0020338

FACILITY NAME: CITY OF TOLLESON - WASTEWATER TREATMENT PLANT
FACILITY LOCATION: 9555 W VAN BUREN RD
ISSUANCE DATE:
RENEWAL DATE: 10/06/90
OWNER:
OWNER ADDRESS:
OWNER PHONE:
CONTACT:
DISCHARGES INTO SALT RIVER

ITEM # 1

CITY OF PHOENIX FILE #: 32366
FACILITY NAME: ESTRELLA BUSINESS PARK
LOCATION: NW COR OF 63RD AVE & SHERMAN ST
LOC CITY: PHOENIX
OWNER NAME: OPUS SOUTHWEST CORP
OWNER ADDRESS: 4742 N 24TH ST #270
PHOENIX,AZ 85016
PHONE: 6024687000
AREA (AC): 8 VOLUME: 66660

ITEM # 2

CITY OF PHOENIX FILE #: 31018
FACILITY NAME: CARL HAYDEN HIGH SCHOOL
LOCATION: 3333 W ROOSEVETT ST
LOC CITY: PHOENIX
OWNER NAME: PHOENIX UNION HIGH SCHOOL
OWNER ADDRESS: 415 E GRANT ST
PHOENIX,AZ 85004
PHONE: 6022713329
AREA (AC): 4 VOLUME: 26450

ITEM # 3

CITY OF PHOENIX FILE #: 28113
FACILITY NAME: WESTRIDGE FESTIVAL
LOCATION: 7455 W THOMAS
LOC CITY: PHOENIX
OWNER NAME: WESTRIDGE PARK INVESTORS
OWNER ADDRESS: 777 E THOMAS RD
PHOENIX,AZ 85014
PHONE: 0
AREA (AC): 26 VOLUME: 30985

ITEM # 4

CITY OF PHOENIX FILE #: 32019
FACILITY NAME: BYRON BARRY ELEM SCHOOL
LOCATION: 2533 N 60TH AV
LOC CITY: PHOENIX
OWNER NAME: CARTWRIGHT ELEM SCHOOL
OWNER ADDRESS: 3401 N 67TH AVE
PHOENIX,AZ 85033
PHONE: 6028462800
AREA (AC): 0 VOLUME: 0

ITEM # 5

CITY OF PHOENIX FILE #: 20330
FACILITY NAME: 87TH AV. & INDIAN SCHOOL
LOCATION: 87 AVE & INDIAN SCHOOL
LOC CITY: SCOTTSDALE
OWNER NAME: CONTINENTAL HOMES
OWNER ADDRESS: 11000 N SCOTTSDALE RD
SCOTTSD,AZ 85254
PHONE: 6024830006
AREA (AC): 23 VOLUME: 135036

ITEM # 6

CITY OF PHOENIX FILE #: 29786
FACILITY NAME: INDIAN PARK PLAZA
LOCATION: 6601 W INDIAN SCHOOL RD
LOC CITY: PHOENIX
OWNER NAME: ESTES DEVELOPMENT
OWNER ADDRESS: 15600 NORTH BLACK CANYON
PHOENIX,AZ 85023
PHONE: 6028660900
AREA (AC): 13 VOLUME: 105683

ITEM # 7

CITY OF PHOENIX FILE #: 13316
FACILITY NAME: NORTHERN EQUITIES
LOCATION: 4344 W INDIAN SCHOOL RD
LOC CITY: PHOENIX
OWNER NAME: NOTHERN EQUITIES & EVERGREEN
OWNER ADDRESS: 5110 NORTH 40TH ST #201
PHOENIX,AZ 0
PHONE: 6029521554
AREA (AC): 0 VOLUME: 0

ITEM # 8

CITY OF PHOENIX FILE #: 20027
FACILITY NAME: TATUM FOOTHILLS
LOCATION: 9000 N 9400/4600 48TH ST
LOC CITY:
OWNER NAME:
OWNER ADDRESS:
,AZ 0
PHONE: 0
AREA (AC): 40 VOLUME: 0

ITEM # 9

CITY OF PHOENIX FILE #: 31346
FACILITY NAME: SMITH SHOPPING CENTER
LOCATION: 12201 N 43 AVE
LOC CITY: PHOENIX
OWNER NAME: W.M. GRACE CONPANIES
OWNER ADDRESS: 7575 N 16TH ST
PHOENIX,AZ 85020
PHONE: 6029568254
AREA (AC): 13 VOLUME: 105830

ITEM # 10

CITY OF PHOENIX FILE #: 31077
FACILITY NAME: VILLAGE FAIR NORTH SHOP CENTER III
LOCATION: 13000 N. PARADISE VILLAGE PKWY
LOC CITY: PHOENIX
OWNER NAME: WEXTCOR PARTNERS
OWNER ADDRESS: 111411 N. TATUM BLVD.
PHOENIX,AZ 85254
PHONE: 6029536200
AREA (AC): 22 VOLUME: 0

ITEM # 11

CITY OF PHOENIX FILE #: 27836
FACILITY NAME: SHOPPING CENTER
LOCATION: 3363 W. GREENWAY RD.
LOC CITY: PHOENIX
OWNER NAME: ELLES CORP.
OWNER ADDRESS: 320 E MCDOWELL RD. #100
PHOENIX,AZ 85004
PHONE: 6022540001
AREA (AC): 0 VOLUME: 0

ITEM # 12

CITY OF PHOENIX FILE #: 33221
FACILITY NAME: TAPESTRY
LOCATION: 4601 E. ACOMA DR.
LOC CITY: PHOENIX
OWNER NAME: WATT/HANCOCK HOMES
OWNER ADDRESS: 2255 N 44TH ST. #300
PHOENIX,AZ 85008
PHONE: 6022756722
AREA (AC): 0 VOLUME: 0

ITEM # 13

CITY OF PHOENIX FILE #: 28302
FACILITY NAME: ALBERTSON'S
LOCATION: 5090 W. CATUS RD.
LOC CITY: PHOENIX
OWNER NAME: NEC 51ST AVE. & CATUS PARTNER
OWNER ADDRESS: 1130 E. MISSOURI #100
PHOENIX,AZ 85014
PHONE: 6022637626
AREA (AC): 13 VOLUME: 0

ITEM # 14

CITY OF PHOENIX FILE #: 24580
FACILITY NAME: UTOPIA ESTATES II
LOCATION: 29TH ST. & UTOPIA RD.
LOC CITY: PHOENIX
OWNER NAME: UTOPIA JOINT VENTURE
OWNER ADDRESS: 2906 E PIUTE AVE.
PHOENIX,AZ 0
PHONE: 6022792012
AREA (AC): 40 VOLUME: 161172

ITEM # 15

CITY OF PHOENIX FILE #: 20539
FACILITY NAME: NORTH CANYON RANCH INDUSTRIAL PARK
LOCATION: 3601 W 3502 SOFTWIND PINNACLE
LOC CITY: PHOENIX
OWNER NAME: COURTLAND HOMES
OWNER ADDRESS: 5333 N. 7TH ST #310
PHOENIX,AZ 85014
PHONE: 6022659467
AREA (AC): 20 VOLUME: 0

ITEM # 16

CITY OF PHOENIX FILE #: 30842
FACILITY NAME: PESO COMMERCE PARK
LOCATION: NWC 37TH AVE. FILLMERE ST.
LOC CITY: PEORIA
OWNER NAME: ROBERT YOUNG
OWNER ADDRESS: 6920 W. COMNE
PEORIA,AZ 85345
PHONE: 6029798116
AREA (AC): 7 VOLUME: 39029

ITEM # 17

CITY OF PHOENIX FILE #: 0
FACILITY NAME: CAMELBACK ESPLANADE
LOCATION: SE CORNER OF CAMELBACK RD & 24TH ST
LOC CITY: PHOENIX
OWNER NAME: SOUTHEAST 24TH & CAMELBACK LTD PARTNER
OWNER ADDRESS: 5060 N 40TH ST #214
PHOENIX,AZ 85018
PHONE: 0
AREA (AC): 20 VOLUME: 111027

ITEM # 18

CITY OF PHOENIX FILE #: 22323
FACILITY NAME: GLENROSA HEIGHTS
LOCATION: 2102 E GLENROSA
LOC CITY: PHOENIX
OWNER NAME: DIETHRICH DEVELOPMENT GROUP
OWNER ADDRESS: 2141 E HIGHLAND AV. #195
PHOENIX,AZ 85015
PHONE: 6023810016
AREA (AC): 5 VOLUME: 35042

ITEM # 19

CITY OF PHOENIX FILE #: 12479
FACILITY NAME: EIGHT THEATER COMPLEX
LOCATION: 6601 W THOMAS RD
LOC CITY: PHOENIX
OWNER NAME: JOHN F LONG HOMES
OWNER ADDRESS: 6253 W INDIAN SCHOOL RD.
PHOENIX,AZ 85033
PHONE: 6022720421
AREA (AC): 7 VOLUME: 55238

ITEM # 20

CITY OF PHOENIX FILE #: 22320
FACILITY NAME: CENTRAL PLACE
LOCATION: 7201 S CENTRAL AV.
LOC CITY: PHOENIX
OWNER NAME: US. WEST DEVELOPMENT CORP.
OWNER ADDRESS: 1308 W. CAMELBACK RD.
PHOENIX,AZ 85013
PHONE: 6022635277
AREA (AC): 12 VOLUME: 90850

ITEM # 21

CITY OF PHOENIX FILE #: 21636
FACILITY NAME: KMART PLAZA
LOCATION: NEC JESSE OWENS PKY BASELINE RD.
LOC CITY: PHOENIX
OWNER NAME: SOUTHGATE DEVELOPMENT CORP.
OWNER ADDRESS: 1308 W CAMELBACK RD.
PHOENIX,AZ 85016
PHONE: 6029561530
AREA (AC): 11 VOLUME: 0

ITEM # 22

CITY OF PHOENIX FILE #: 32278
FACILITY NAME: PINNACLE PEAK CROSSING
LOCATION: SW CORNER OF SECTION 10 T4N R2E
LOC CITY: SCOTTSDALE
OWNER NAME: PINNACLE HEIGHTS DEVELOPMENT
OWNER ADDRESS: 8010 E MORGAN TRAIL #12
SCOTTSD,AZ 85258
PHONE: 6024839146
AREA (AC): 0 VOLUME: 0

ITEM # 23

CITY OF PHOENIX FILE #: 31015
FACILITY NAME: THE SHOPS AT ARIZONA CENTER
LOCATION: 201 E. TAYLOR ST.
LOC CITY: PHOENIX
OWNER NAME: ROUSE PHOENIX DEVELOPMENT CORP.
OWNER ADDRESS: 422 E. VANBUREN ST.
PHOENIX,AZ 85004
PHONE: 6022542727
AREA (AC): 0 VOLUME: 0

ITEM # 24

CITY OF PHOENIX FILE #: 27531
FACILITY NAME: MERABANKS OPERATIONS CENTER PHASE I
LOCATION: SWC SQUAW PK FWY BUCKEYE RD SKY HARBOR
LOC CITY: PHOENIX
OWNER NAME: MERABANK
OWNER ADDRESS: 3033 N CENTRAL AVE #800
PHOENIX,AZ 85012
PHONE: 6022807200
AREA (AC): 57 VOLUME: 186270

ITEM # 25

CITY OF PHOENIX FILE #: 12889
FACILITY NAME: OTHER OIL INDEPENDENCE PARK
LOCATION: 5601 S 39TH AVE.
LOC CITY: PHOENIX
OWNER NAME: MELVIN CONCRETE INC.
OWNER ADDRESS: 9213 N 10TH DR.
PHOENIX,AZ 0
PHONE: 6029444661
AREA (AC): 0 VOLUME: 0

ITEM # 26

CITY OF PHOENIX FILE #: 31686
FACILITY NAME: SOUTH MTN. RANCH
LOCATION: NEC 40TH PL SN GABRIEL 41ST PL WESTERN STAR BLV
LOC CITY: PHOENIX
OWNER NAME: BRIGHTON DEVELOPMENT INC.
OWNER ADDRESS: 4647 N 32ND ST #235
PHOENIX,AZ 85018
PHONE: 6029573731
AREA (AC): 18 VOLUME: 0

ITEM # 27

CITY OF PHOENIX FILE #: 12757
FACILITY NAME: HUNTERS GREEN & FENWOOD
LOCATION: 15801 S 16002 44ST BETWN 40TH & 44TH ST N OF PE
LOC CITY: TEMPE
OWNER NAME: HUNTERS GREEN, A-M COMMUNITY DEVELOPERS
OWNER ADDRESS: 950 W SOUTHERN #108
TEMPE,AZ 85282
PHONE: 6029679438
AREA (AC): 44 VOLUME: 0

ITEM # 28

CITY OF PHOENIX FILE #: 26913
FACILITY NAME: CENTER COURT AT AHWATUKEE PHASE 3
LOCATION: 4401 E 4802 WARNER RD AND ELLIOTT RD
LOC CITY: PHOENIX
OWNER NAME: PRESLEY DEVELOPMENT COMPANY OF ARIZ. INC
OWNER ADDRESS: 11022 51ST ST
PHOENIX,AZ 85044
PHONE: 6028931000
AREA (AC): 0 VOLUME: 0

ITEM # 29

CITY OF PHOENIX FILE #: 10461
FACILITY NAME: CARLETON CENTER PHASE III
LOCATION: 3650 W THOMAS AVE.
LOC CITY: PHOENIX
OWNER NAME: WESTMOUNT INVESTMENTS INC.
OWNER ADDRESS: 3010 N SECOND ST # 101
PHOENIX,AZ 85012
PHONE: 6022771382
AREA (AC): 5 VOLUME: 33689

ITEM # 30

CITY OF PHOENIX FILE #: 11399
FACILITY NAME: UNION CROSSING SHOPPING CTR
LOCATION: 4302 W UNION HILLS DR.
LOC CITY: PHOENIX
OWNER NAME: AMERICAN CONTINENTAL PROPERTIES
OWNER ADDRESS: 2735 E CAMELBACK RD.
PHOENIX,AZ 85016
PHONE: 6029577170
AREA (AC): 8 VOLUME: 65457

ITEM # 31

CITY OF PHOENIX FILE #: 13254
FACILITY NAME: NORTHGATE BUSINESS CENTER
LOCATION:
LOC CITY:
OWNER NAME:
OWNER ADDRESS:
,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 32

CITY OF PHOENIX FILE #: 22090
FACILITY NAME: BETHANY BIBLE CHURCH
LOCATION: 6060N 7TH AVE.
LOC CITY: PHOENIX
OWNER NAME: BETHANY BIBLE CHURCH
OWNER ADDRESS: 6060 N 7TH AVE.
PHOENIX,AZ 89013
PHONE: 6029660569
AREA (AC): 10 VOLUME: 70456

ITEM # 33

CITY OF PHOENIX FILE #: 21607
FACILITY NAME: AIRPORT PARKING FACILITY
LOCATION: 4002 E VAN BUREN
LOC CITY: PHOENIX
OWNER NAME: AIPORT PARKING FACILITIES
OWNER ADDRESS: 4002 E VAN BUREN AV
PHOENIX,AZ 85008
PHONE: 0
AREA (AC): 10 VOLUME: 92820

ITEM # 34

CITY OF PHOENIX FILE #: 21040
FACILITY NAME: LAKEVIEW BUSINESS PARK
LOCATION: SWC 36TH ST UNIVERSITY DR AND 35TH ST
LOC CITY: PHOENIX
OWNER NAME: MERABANK
OWNER ADDRESS: 3033 N CENTRAL AVE. #800
PHOENIX,AZ 85012
PHONE: 6022807207
AREA (AC): 9 VOLUME: 146460

ITEM # 35

CITY OF PHOENIX FILE #: 20139
FACILITY NAME: NISBET GREENS
LOCATION: 15002 N 30TH AND 2902 E NISBET RD.
LOC CITY: PHOENIX
OWNER NAME: SUNDIAL ENTERPRISES
OWNER ADDRESS: 2529 E SHAW BUTTE DR.
PHOENIX,AZ 85028
PHONE: 0
AREA (AC): 5 VOLUME: 24746

ITEM # 36

CITY OF PHOENIX FILE #: 13266
FACILITY NAME: TERRACES AT NORTH CANYON
LOCATION:
LOC CITY:
OWNER NAME:
OWNER ADDRESS:
,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 37

CITY OF PHOENIX FILE #: 28209
FACILITY NAME: CALLENDER GRAHAM AUTOPLEX II
LOCATION: 5102 W BELL RD
LOC CITY: IRVINE, CA
OWNER NAME: U.R.O. INVESTMENTS
OWNER ADDRESS: 2102 BUSINESS CTR DR #100
IRVINE,,AZ 92715
PHONE: 7142534604
AREA (AC): 10 VOLUME: 34312

ITEM # 38

CITY OF PHOENIX FILE #: 0
FACILITY NAME: LONGVIEW ELEMENTARY SCHOOL
LOCATION: 1201 E INDIAN SCHOOL
LOC CITY: PHOENIX
OWNER NAME: OSBORN SCHOOL DISTRICT 8
OWNER ADDRESS: 1226 W OSBORN
PHOENIX,AZ 0
PHONE: 6022343366
AREA (AC): 14 VOLUME: 63498

ITEM # 39

CITY OF PHOENIX FILE #: 10330
FACILITY NAME: KNOLL TECH CENTER/KNOLL/ELLIOT
LOCATION: 50TH PLACE & SUNRISE DR.
LOC CITY: PHOENIX
OWNER NAME: KNOLL COMPANY
OWNER ADDRESS: 9201 N 25TH AVE #150
PHOENIX,AZ 85021
PHONE: 6029975901
AREA (AC): 10 VOLUME: 45330

ITEM # 40

CITY OF PHOENIX FILE #: 11956
FACILITY NAME: TERMAN APTS
LOCATION: 222 E CODY DR
LOC CITY:
OWNER NAME: T.C.M. ENTERPRISES INC.
OWNER ADDRESS: 1480 E BETHANY HOME RD.
,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 41

CITY OF PHOENIX FILE #: 29555
FACILITY NAME: CAMELBACK SQUARE
LOCATION: NWC 7TH AVE. CAMELBACK RD.
LOC CITY: PHOENIX
OWNER NAME: CAMELBACK VILLAGE LIMITED PARTNERSHIP
OWNER ADDRESS: 320 EAST MCDOWELL RD #100
PHOENIX,AZ 85004
PHONE: 6022540001
AREA (AC): 0 VOLUME: 0

ITEM # 42

CITY OF PHOENIX FILE #: 30285
FACILITY NAME: ENCANTO ELEMENTARY SCHOOL
LOCATION: SE CORNER OF 15TH AVE. & WHITTON
LOC CITY: PHOENIX
OWNER NAME: OSBORN SCH00L DISTRICT 8
OWNER ADDRESS: 1220 W OSBORN RD
PHOENIX,AZ 85013
PHONE: 6022343366
AREA (AC): 0 VOLUME: 28023

ITEM # 43

CITY OF PHOENIX FILE #: 27109
FACILITY NAME: METRO MARKET PLACE
LOCATION: 2820 DUNLAP AVE.
LOC CITY: PHOENIX
OWNER NAME: THE DUNLAP/FREEWAY PARTNERSHIP
OWNER ADDRESS: 5112 NORTH 40TH ST #105
PHOENIX,AZ 85018
PHONE: 6022240953
AREA (AC): 20 VOLUME: 188353

ITEM # 44

CITY OF PHOENIX FILE #: 20018
FACILITY NAME: MISSION HILLS
LOCATION: SWC 7TH ST UTOPIA
LOC CITY: PHOENIX
OWNER NAME: BRIGHTON DEVELOPMENT INC.
OWNER ADDRESS: 4647 N 32ND ST #235
PHOENIX,AZ 85018
PHONE: 6029573731
AREA (AC): 12 VOLUME: 34029

ITEM # 45

CITY OF PHOENIX FILE #: 20083
FACILITY NAME: GREENWAY PARK PLAZA
LOCATION: 15401 N 32ND ST
LOC CITY: SAN DIEGO, CA
OWNER NAME: LANDGRAND DEVELOPMENT
OWNER ADDRESS: 12625 HIGH BLUFF DR #212
SAN DIE,AZ 92130
PHONE: 6194810094
AREA (AC): 22 VOLUME: 187380

ITEM # 46

CITY OF PHOENIX FILE #: 22621
FACILITY NAME: GREENBRIER EAST UNIT 14
LOCATION: 4602 E GREENWAY RD.
LOC CITY: PHOENIX
OWNER NAME: EMERALD HOMES
OWNER ADDRESS: 5333 N 7TH ST
PHOENIX,AZ 85014
PHONE: 6022413207
AREA (AC): 0 VOLUME: 8256

ITEM # 47

CITY OF PHOENIX FILE #: 25379
FACILITY NAME: MOUNTAIN POINTE HIGH SCHOOL
LOCATION: 4355 E KNOX RD.
LOC CITY: PHOENIX
OWNER NAME: TEMPE UNION HIGH SCHOOL DISTRICT
OWNER ADDRESS: 500 W GUADALUPE RD.
PHOENIX,AZ 85041
PHONE: 6028390292
AREA (AC): 4 VOLUME: 326125

ITEM # 48

CITY OF PHOENIX FILE #: 30019
FACILITY NAME: GATEWAY COMMERCE PARK
LOCATION: 4000 E VAN BUREN ST.
LOC CITY: PHOENIX
OWNER NAME: SUNBELT HOLDINGS
OWNER ADDRESS: 426 N 44TH ST #375
PHOENIX,AZ 85008
PHONE: 6022441440
AREA (AC): 19 VOLUME: 0

ITEM # 49

CITY OF PHOENIX FILE #: 13359
FACILITY NAME: PHOENIX GATEWAY EAST
LOCATION: 4401 E VANBUREN ST.
LOC CITY: PHOENIX
OWNER NAME: SUNBELT HOLDINGS
OWNER ADDRESS: 426 N 44TH ST #375
PHOENIX,AZ 85008
PHONE: 6022441440
AREA (AC): 35 VOLUME: 313225

ITEM # 50

CITY OF PHOENIX FILE #: 22581
FACILITY NAME: WESTRIDGE PARK UNIT 7
LOCATION:
LOC CITY: PHOENIX
OWNER NAME: GILLANDERS & STARK DEVELOPMENT CO., INC
OWNER ADDRESS: 2402 SOUTH CENTRAL AVE.
PHOENIX,AZ 85003
PHONE: 0
AREA (AC): 23 VOLUME: 0

ITEM # 51

CITY OF PHOENIX FILE #: 25359
FACILITY NAME: LOT 11 AT 43RD AV. DISTRIBUTION CTR
LOCATION: 1640 S 39TH AV.
LOC CITY: PHOENIX
OWNER NAME: MESSENGER ARIZONA INC.
OWNER ADDRESS: 5755 N 25TH PLACE
PHOENIX,AZ 85016
PHONE: 6022249938
AREA (AC): 7 VOLUME: 58015

ITEM # 52

CITY OF PHOENIX FILE #: 29473
FACILITY NAME: ABCO/43RD AV. DISTRIBUTION BLDG.
LOCATION: 1825 S 43RD AV.
LOC CITY: PHOENIX
OWNER NAME: RONALD G ROTH COMPANY
OWNER ADDRESS: 1101 N 24TH AV. #612
PHOENIX,AZ 85029
PHONE: 6022584000
AREA (AC): 17 VOLUME: 134255

ITEM # 53

CITY OF PHOENIX FILE #: 25712
FACILITY NAME: SUN STATE BUSINESS PARK
LOCATION: 43RD AVE. & GIBSON LANE
LOC CITY: TEMPE
OWNER NAME: SUN STATE BUILDERS
OWNER ADDRESS: 505 S MADISON
TEMPE,AZ 85281
PHONE: 6028941286
AREA (AC): 13 VOLUME: 91135

ITEM # 54

CITY OF PHOENIX FILE #: 29373
FACILITY NAME: 12TH ST PLAZA
LOCATION: SEC 12TH ST & BUCKEYE RD
LOC CITY: PHOENIX
OWNER NAME: SELLERS-COLLIAS VENTURE
OWNER ADDRESS: 4028 E ELWOOD
PHOENIX,AZ 85040
PHONE: 6024371164
AREA (AC): 12 VOLUME: 42350

ITEM # 55

CITY OF PHOENIX FILE #: 27596
FACILITY NAME: BILTMORE MTN. ESTATES LOT 14
LOCATION: 24TH ST AND LINCOLN DR
LOC CITY: PHOENIX
OWNER NAME: DICOR
OWNER ADDRESS: 1645 E MISSOURI AV #220
PHOENIX,AZ 85016
PHONE: 6022663500
AREA (AC): 21 VOLUME: 146412

ITEM # 56

CITY OF PHOENIX FILE #: 28532
FACILITY NAME: AUTUMN CREEK
LOCATION: 5010 E CHEYENNE DR
LOC CITY: SCOTTSDALE
OWNER NAME: UNICUNE SCOTTSDALE
OWNER ADDRESS: 6337 N 75TH ST
SCOTTSD,AZ 85253
PHONE: 0
AREA (AC): 15 VOLUME: 95370

ITEM # 57

CITY OF PHOENIX FILE #: 24856
FACILITY NAME: ST. MARYS
LOCATION: 345 E SHERIDAN ST
LOC CITY: PHOENIX
OWNER NAME: ROMAN CATHOLIC DIOCESE OF PHOENIX
OWNER ADDRESS: 400 E MONROE
PHOENIX,AZ 85004
PHONE: 6022570030
AREA (AC): 6 VOLUME: 25042

ITEM # 58

CITY OF PHOENIX FILE #: 23298
FACILITY NAME: KYRENE CENTENNIAL JR HIGH SCHOOL
LOCATION: 14002 S 36TH ST
LOC CITY: TEMPE
OWNER NAME: KYRENE SCHOOL DISTRICT NO. 28
OWNER ADDRESS: 8700 S KYRENE RD
TEMPE,AZ 85284
PHONE: 6028930800
AREA (AC): 0 VOLUME: 182952

ITEM # 59

CITY OF PHOENIX FILE #: 25216
FACILITY NAME: MCDOWELL CORNERS
LOCATION: 4235 W MCDOWELL RD
LOC CITY: SCOTTSDALE
OWNER NAME: MCDOWELL CORNERS
OWNER ADDRESS: 7316 E 6TH AV #2
SCOTTSD,AZ 85251
PHONE: 6029463093
AREA (AC): 6 VOLUME: 52050

ITEM # 60

CITY OF PHOENIX FILE #: 28323
FACILITY NAME: PARADISE VALLEY SCHOOL DISTRICT 69
LOCATION: 1801 E SHARON DR
LOC CITY: PHOENIX
OWNER NAME: PARADISE VALLEY UNIFIED SCHOOL DIST. 69
OWNER ADDRESS: 1500 2 N 32ND ST
PHOENIX,AZ 85032
PHONE: 6028675100
AREA (AC): 10 VOLUME: 60500

ITEM # 61

CITY OF PHOENIX FILE #: 26504
FACILITY NAME: PLAZA AT MTN SIDE
LOCATION: 4055 E CHANDLER BLV.
LOC CITY: SCOTTSDALE
OWNER NAME: 40TH ST PARTNERS
OWNER ADDRESS: 7373 E DOUBLETREE RANCH
SCOTTSD,AZ 85016
PHONE: 6029560530
AREA (AC): 20 VOLUME: 153076

ITEM # 62

CITY OF PHOENIX FILE #: 13247
FACILITY NAME: FREEPORT BUCKEYE WEST
LOCATION: 5240 & 5302 W BUCKEYE RD
LOC CITY: PHOENIX
OWNER NAME: CARDON MEADOWS DEVELOPMENT CORP
OWNER ADDRESS: 5060 N 40TH ST #107
PHOENIX,AZ 85018
PHONE: 6029570028
AREA (AC): 11 VOLUME: 102889

ITEM # 63

CITY OF PHOENIX FILE #: 27982
FACILITY NAME: HACIENDA DE LOS ANGELES
LOCATION: 1402 E SOUTH MOUNTAIN AV.
LOC CITY: PHOENIX
OWNER NAME: HACIENDA DE LOS ANGELES
OWNER ADDRESS: 1402 E SOUTH MOUNTAIN AV
PHOENIX,AZ 85040
PHONE: 6022434231
AREA (AC): 5 VOLUME: 29750

ITEM # 64

CITY OF PHOENIX FILE #: 21491
FACILITY NAME: SHEARER PROJECT
LOCATION: 16TH ST & DEER VALLEY RD
LOC CITY: PHOENIX
OWNER NAME: BILL SHEARER
OWNER ADDRESS: 8803 N CENTRAL AV.
PHOENIX,AZ 85020
PHONE: 6029444435
AREA (AC): 9 VOLUME: 96557

ITEM # 65

CITY OF PHOENIX FILE #: 25540
FACILITY NAME: WINSOR SQUARE SHOPPING CENTER
LOCATION: SEC 35TH AV GLENDALE AV
LOC CITY: PHOENIX
OWNER NAME: WINSOR SQUARE PARTNERS
OWNER ADDRESS: 7220 N 16TH ST #F
PHOENIX,AZ 85020
PHONE: 6029975999
AREA (AC): 11 VOLUME: 20000

ITEM # 66

CITY OF PHOENIX FILE #: 11051
FACILITY NAME: CIMARRON TOWNE SQUARE
LOCATION: 4102 E SOUTHERN AV
LOC CITY: PHOENIX
OWNER NAME: DOUGLAS P PATTERSON DEVELOPMENT CORP.
OWNER ADDRESS: 8100 E INDIAN SCHOOL RD
PHOENIX,AZ 85215
PHONE: 6029490089
AREA (AC): 15 VOLUME: 14837

ITEM # 67

CITY OF PHOENIX FILE #: 13153
FACILITY NAME: 67TH AV SHOPPES
LOCATION: 67TH AV & THOMAS RD
LOC CITY: PHOENIX
OWNER NAME: THOMAS ASSOCIATES LTD
OWNER ADDRESS: 1255 W BASLINE RD
PHOENIX,AZ 85202
PHONE: 6023459655
AREA (AC): 12 VOLUME: 113604

ITEM # 68

CITY OF PHOENIX FILE #: 13266
FACILITY NAME: TERRACES AT NORTH CANYON
LOCATION: 12TH ST & UNION HILLS
LOC CITY: PHOENIX
OWNER NAME: COVENTRY HOMES
OWNER ADDRESS: 3875 N 44TH ST #200
PHOENIX,AZ 85018
PHONE: 6028408300
AREA (AC): 22 VOLUME: 136980

ITEM # 69

CITY OF PHOENIX FILE #: 13266
FACILITY NAME: WINDS OF NORTH CANYON II
LOCATION: 12TH ST & UNION HILLS
LOC CITY: PHOENIX
OWNER NAME: COVENTRY HOMES
OWNER ADDRESS: 3875 N 44TH ST #200
PHOENIX,AZ 85018
PHONE: 6028408300
AREA (AC): 10 VOLUME: 16483

ITEM # 70

CITY OF PHOENIX FILE #: 0
FACILITY NAME: TATUM RANCH
LOCATION: SEC 40TH ST & RANCHO CALIENTE DR
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4000 E RANCHO CALIENTE DR
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 483516

ITEM # 71

CITY OF PHOENIX FILE #: 0
FACILITY NAME: TATUM RANCH
LOCATION: NEC 40TH ST & TATUM BLVD
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4000 E TATUM
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 143780

ITEM # 72

CITY OF PHOENIX FILE #: 0
FACILITY NAME: TATUM RANCH
LOCATION: SEC 40TH ST & MONTGOMERY RD
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4000 E MONTGOMERY RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 69696

ITEM # 73

CITY OF PHOENIX FILE #: 0
FACILITY NAME: TATUM RANCH GOLF COURSE
LOCATION: TATUM RANCH GOLF COURSE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 60984

ITEM # 74

CITY OF PHOENIX FILE #: 0
FACILITY NAME: TATUM RANCH GOLF COURSE
LOCATION: TATUM RANCH GOLF COURSE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 178596

ITEM # 75

CITY OF PHOENIX FILE #: 0
FACILITY NAME: TATUM RANCH GOLF COURSE
LOCATION: TATUM RANCH GOLF COURSE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 76

CITY OF PHOENIX FILE #: 0
FACILITY NAME: PECOS RD PCD
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 1653538

ITEM # 77

CITY OF PHOENIX FILE #: 0
FACILITY NAME: PECOS RD PCD
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 1147806

ITEM # 78

CITY OF PHOENIX FILE #: 0
FACILITY NAME: THE POINTE AT SOUTH MOUNTAIN
LOCATION:
LOC CITY: PHOENIX
OWNER NAME: GOSNELL DEVELOPMENT CORP
OWNER ADDRESS: 2728 NORTH 24TH ST
PHOENIX,AZ 85008
PHONE: 6029564300
AREA (AC): 119 VOLUME: 465831

ITEM # 79

CITY OF PHOENIX FILE #: 0
FACILITY NAME: FOOTHILL DEVELOPMENT PCD
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 14697144

ITEM # 80

CITY OF PHOENIX FILE #: 44150
FACILITY NAME: NORTHERN MOUNTAIN DETENTION BASIN DAM 3
LOCATION: BETW CHOLLA ST & PEORIA AV. & BETW 16TH & 20TH
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 1600 E CHOLLA ST
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 81

CITY OF PHOENIX FILE #: 46660
FACILITY NAME: DETENTION BASIN, DET DAM 2A-1 2B
LOCATION: BTWN THUNDERBIRD RD & SWEETWATER, BTWN 7 -12 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 1000 E THUNDERBIRD RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 82

CITY OF PHOENIX FILE #: 54804
FACILITY NAME: DETENTION BASIN, DET DAM 7
LOCATION: BTWN SWEETWATER & CACTUS, BTWN CENTRAL & 7 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 700 E CACTUS RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 83

CITY OF PHOENIX FILE #: 40374
FACILITY NAME: SHAW BUTTE DETENTION BASIN EAST PARK DAM
LOCATION: BTWN 7 AVE & CENTRAL, BTWN PEORIA & MOUNTAIN VI
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 6000 W MOUNTAINVIEW RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 84

CITY OF PHOENIX FILE #: 51687
FACILITY NAME: DETENTION BASIN 4, DREAMY DRAW
LOCATION: BTWN 16 - 20 ST, BTWN BUTLER DR & NORTHERN
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 1600 E BUTLER DR
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 85

CITY OF PHOENIX FILE #: 51609
FACILITY NAME: DETENTION BASIN 99
LOCATION: MOUNTAIN VIEW RD & 32 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3200 E MOUNTAINVIEW RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 86

CITY OF PHOENIX FILE #: 0
FACILITY NAME: WEST PARK DAM (SHAW BUTTE)
LOCATION: 7 AVE & PEORIA
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 700 W PEORIA
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 87

CITY OF PHOENIX FILE #: 73996
FACILITY NAME: SO MOUNTAIN DETENTION BASIN & RETENTIOND DAM
LOCATION: SW OF 7 ST & MINERAL RD
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 700 E MINERAL
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 88

CITY OF PHOENIX FILE #: 0
FACILITY NAME: SEDIMENT/SILT BASIN @ CAVE CREEK
LOCATION: N OF CACTUS, S OF SWEETWATER, 25 AVE & SWEETWAT
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 2500 W SWEETWATER AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 89

CITY OF PHOENIX FILE #: 15197
FACILITY NAME: DIVERSION STRUCTURE
LOCATION: BTWN THOMAS & OAK AT 24 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 2400 E THOMAS AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 90

CITY OF PHOENIX FILE #: 0
FACILITY NAME: DETENTION BASIN
LOCATION: BTWN DURANGO ST & UNIVERSITY, BTWN 16 - 19 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 1700 E HILTON AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 91

CITY OF PHOENIX FILE #: 23164
FACILITY NAME: DETENTION BASIN
LOCATION: BTWN MCDOWELL & ROOSEVELT @ 32 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3200 E CULVER ST
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 92

CITY OF PHOENIX FILE #: 28653
FACILITY NAME: DETENTION BASIN
LOCATION: BTWN MCDOWELL RD & ROOSEVELT, BTWN 32 - 36 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3400 E ROOSEVELT AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 93

CITY OF PHOENIX FILE #: 0
FACILITY NAME: DETENTION BASINS
LOCATION: BTWN MOUNTAIN VIEW & DUNLAP, BTWN 32 - 36 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3400 E DUNLAP AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 94

CITY OF PHOENIX FILE #: 0
FACILITY NAME: DETENTION BASINS
LOCATION: S OF MOUNTAIN VIEW BTWN 32 - 36 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3400 E MOUNTAINVIEW RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 94

CITY OF PHOENIX FILE #: 11261
FACILITY NAME: DETENTION BASIN
LOCATION: BTWN UNIVERSITY & ELWOOD ST, BTWN 32 - 36 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3400 E ELWOOD ST
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 96

CITY OF PHOENIX FILE #: 79890
FACILITY NAME: RETAINING WALL
LOCATION: BTWN 64 ST & 66 ST, BTWN ACOMA DR & THUNDERBIRD
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 6500 E HEARN RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 97

CITY OF PHOENIX FILE #: 88385
FACILITY NAME: DETENTION BASIN
LOCATION: 60 ST & PARADISE LN, JACKRABBIT PARK
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 6000 E PARADISE LN
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 98

CITY OF PHOENIX FILE #: 38705
FACILITY NAME: DETENTION BASIN
LOCATION: CHOLLA AVE & 47 AVE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4700 W CHOLLA AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 99

CITY OF PHOENIX FILE #: 37823
FACILITY NAME: DETENTION BASIN
LOCATION: BTWN 39 - 43 AVE, BTWN PEORIA & MOUNTAIN VIEW
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4100 W PEORIA AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 100

CITY OF PHOENIX FILE #: 51701
FACILITY NAME: DIVERSION STRUCTURE
LOCATION: 43 AVE NORTH OF OSBORN
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4300 E OSBORNE ST
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 101

CITY OF PHOENIX FILE #: 19935
FACILITY NAME: DIVERSION STRUCTURE
LOCATION: 35 AVE NORTH OF OSBORN
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3500 W OSBORN ST
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 102

CITY OF PHOENIX FILE #: 19936
FACILITY NAME: DIVERSION STRUCTURE
LOCATION: BTWN INDIAN SCHOOL & OSBORN, @ 27 AVE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 2700 W WELDON AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 103

CITY OF PHOENIX FILE #: 0
FACILITY NAME: SURGE POND
LOCATION: BTWN MCDOWELL & ROOSEVELT, BTWN 15 AVE & 7 AVE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 1100 W MORELAND ST
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 104

CITY OF PHOENIX FILE #: 109133
FACILITY NAME: RETENTION BASIN
LOCATION: BTWN ROSE GARDEN LN & BEARDSLEY
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 105

CITY OF PHOENIX FILE #: 0
FACILITY NAME: DETENTION BASIN
LOCATION: W/S/O 32 ST N/O MOUNTAIN VIEW
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3200 E MOUNTAINVIEW RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 106

CITY OF PHOENIX FILE #: 0
FACILITY NAME: DETENTION BASIN
LOCATION: N/S/O THUNDERBIRD W/O 64 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 6400 E THUNDERBIRD RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 107

CITY OF PHOENIX FILE #: 0
FACILITY NAME: DETENTION BASIN
LOCATION: E/S/O CENTRAL AVE N/O SOUTHERN MOUNTAIN AVE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 100 SOUTHERN MOUNTAIN AVE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 108

CITY OF PHOENIX FILE #: 0
FACILITY NAME: REACH 11
LOCATION: N OF CENTRAL, CENTRAL AZ PROJECT CANAL
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 109

CITY OF PHOENIX FILE #: 0
FACILITY NAME: SUNBURST PARADISE
LOCATION: 47 AVE & PARADISE LANE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4700 W PARADISE LN
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 15 VOLUME: 0

ITEM # 110

CITY OF PHOENIX FILE #: 0
FACILITY NAME: CONOCITA
LOCATION: 35 AVE & PARADISE LANE
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3500 W PARADISE LN
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 30 VOLUME: 0

ITEM # 111

CITY OF PHOENIX FILE #: 0
FACILITY NAME: DESERT WILLOW
LOCATION: 40 ST & DESERT WILLOW
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4000 E DESERT WILLOW
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 12 VOLUME: 0

ITEM # 112

CITY OF PHOENIX FILE #: 0
FACILITY NAME: CROSSED ARROWS
LOCATION: 62 ST & ACOMA DR
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 6200 E ACOME DR
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 15 VOLUME: 0

ITEM # 113

CITY OF PHOENIX FILE #: 0
FACILITY NAME: SUNRAY
LOCATION: 40 ST & RAY RD
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 4000 E RAY RD
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 12 VOLUME: 0

ITEM # 114

CITY OF PHOENIX FILE #: 0
FACILITY NAME: VISTA CANYON
LOCATION: FRYE & 31 ST
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3100 E FRYE
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 30 VOLUME: 0

ITEM # 115

CITY OF PHOENIX FILE #: 0
FACILITY NAME: VENTUROSO
LOCATION: 32 ST & HEARN
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 3200 E HEARN
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 30 VOLUME: 0

ITEM # 116

CITY OF PHOENIX FILE #: 0
FACILITY NAME: SANDPIPER
LOCATION: 65 ST & HEARN
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS: 6500 E HEARN
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 10 VOLUME: 0

ITEM # 117

CITY OF PHOENIX FILE #: 0
FACILITY NAME: SKUNK CREEK CHANNEL
LOCATION: I-17, NORTH OF HAPPY VALLEY RD
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 118

CITY OF PHOENIX FILE #: 0
FACILITY NAME: ADOBE DAM
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 119

CITY OF PHOENIX FILE #: 0
FACILITY NAME: ARIZONA CANAL DIVERSION CHANNEL
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 120

CITY OF PHOENIX FILE #: 0
FACILITY NAME: INDIAN BEND WASH OUTLET CHANNEL
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 121

CITY OF PHOENIX FILE #: 0
FACILITY NAME: 48TH ST DRAIN, PHX; TEMPE DRAIN; SALT RIVER
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 122

CITY OF PHOENIX FILE #: 0
FACILITY NAME: OLD CROSS CUT CANAL
LOCATION:
LOC CITY: PHOENIX
OWNER NAME:
OWNER ADDRESS:
PHOENIX,AZ 0
PHONE: 0
AREA (AC): 0 VOLUME: 0

ITEM # 123

CITY OF PHOENIX FILE #: 0
FACILITY NAME: BASIN 1
LOCATION: NORTH OF BEARDSLEY RD. & 28TH ST.
LOC CITY: PHOENIX
OWNER NAME: CITY OF PHOENIX
OWNER ADDRESS: 125 E. WASHINGTON ST
PHOENIX,AZ 85004
PHONE: 6024953716
AREA (AC): 22 VOLUME: 3300000

ITEM # 124

CITY OF PHOENIX FILE #: 0
FACILITY NAME: BASIN 2
LOCATION: SOUTH WEST OF UNION HILLS DR. & 12TH ST.
LOC CITY: PHOENIX
OWNER NAME: CITY OF PHOENIX
OWNER ADDRESS: 125 E. WASHINGTON ST
PHOENIX,AZ 85004
PHONE: 6024953716
AREA (AC): 8 VOLUME: 2260000

ITEM # 125

CITY OF PHOENIX FILE #: 0
FACILITY NAME: BASIN 3A
LOCATION: NORTH WEST OF GROVERS AVE. & CAVE CREEK RD.
LOC CITY: PHOENIX
OWNER NAME: CITY OF PHOENIX
OWNER ADDRESS: 125 E. WASHINGTON ST
PHOENIX,AZ 85004
PHONE: 6024953716
AREA (AC): 18 VOLUME: 4660000

ITEM # 126

CITY OF PHOENIX FILE #: 0
FACILITY NAME: BASIN 3B
LOCATION: SOUTH EAST OF GROVERS AVE. & 20TH ST.
LOC CITY: PHOENIX
OWNER NAME: CITY OF PHOENIX
OWNER ADDRESS: 125 E. WASHINGTON ST
PHOENIX,AZ 85004
PHONE: 6024953716
AREA (AC): 17 VOLUME: 7360000

ITEM # 127

CITY OF PHOENIX FILE #: 0
FACILITY NAME: BASIN 4
LOCATION: NORTH EAST OF GROVERS AVE. & 32ND ST.
LOC CITY: PHOENIX
OWNER NAME: MARICOPA FLOOD CONTROL DISTRICT
OWNER ADDRESS: 2801 W. DURANGO ST
PHOENIX,AZ 85009
PHONE: 6025068764
AREA (AC): 22 VOLUME: 3310000

ITEM # 128

CITY OF PHOENIX FILE #: 0
FACILITY NAME: BASIN 5
LOCATION: NORTH WEST OF BELL RD. & 12TH ST.
LOC CITY: PHOENIX
OWNER NAME: CITY OF PHOENIX
OWNER ADDRESS: 125 E. WASHINGTON ST
PHOENIX,AZ 85004
PHONE: 6024953716
AREA (AC): 25 VOLUME: 4750000

ITEM # 129

CITY OF PHOENIX FILE #: 0
FACILITY NAME: CHANNEL
LOCATION: 28TH ST & BEARDSLEY RD TO GROVERS AVE & CAVE CR
LOC CITY: PHOENIX
OWNER NAME: MARICOPA FLOOD CONTROL DISTRICT
OWNER ADDRESS: 2801 W. DURANGO ST
PHOENIX,AZ 85009
PHONE: 6025068764
AREA (AC): 0 VOLUME: 0

ITEM #: 1
NAME: ADOBE DAM ARE (CTY)
LOCATION: 43 AVE & PINNACLE PEAK
CLASS: REG PARK
DISTRICT: NW COUNCIL: 2 ACREAGE: 1526

ITEM #: 2
NAME: AYA
LOCATION: 1925 E. CARVER
CLASS: MINI
DISTRICT: SO COUNCIL: 8 ACREAGE: 1

ITEM #: 3
NAME: CITY CTR TENNIS CT
LOCATION: 121 E ADAMS
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 1

ITEM #: 4
NAME: CIVIC PLAZA
LOCATION: 225 E ADMAS
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 8

ITEM #: 5
NAME: LUKE-KROHN REC CTR
LOCATION: 1940 1/2 E VILLA
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 0

ITEM #: 6
NAME: MARCOS DE NIZA REC
LOCATION: 1350 S 3 AVE
CLASS: SPECIAL
DISTRICT: EA COUNCIL: 6 ACREAGE: 0

ITEM #: 7
NAME: PERFORMING ARTS BLD
LOCATION: 1202 N 3 ST
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 0

ITEM #: 8
NAME: PIONEER
LOCATION: 19 AVE & MORNINGSIDE
CLASS: SPECIAL
DISTRICT: NW COUNCIL: 2 ACREAGE: 8

ITEM #: 9
NAME: PIONEER CEMETERY
LOCATION: 14 AVE & JEFFERSON
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 7 ACREAGE: 11

ITEM #: 10
NAME: REACH 11
LOCATION: CAP
CLASS: REG PARK
DISTRICT: NE COUNCIL: 1 ACREAGE: 1500

ITEM #: 11
NAME: ROOSEVELT POOL
LOCATION: 7 ST & ALTA VISTA
CLASS: COMMUNITY
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 12
NAME: S P OSBORN REC CTR
LOCATION: 1725 E ADAMS
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 0

ITEM #: 13
NAME: SHEMER ART CENTER
LOCATION: 5005 E CAMELBACK
CLASS: SPECIAL
DISTRICT: EA COUNCIL: 6 ACREAGE: 0

ITEM #: 14
NAME: ACACIA
LOCATION: 30 AVE & HEARN RD
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 2 ACREAGE: 8

ITEM #: 15
NAME: ACACIA BRANCH
LOCATION: 750 E TOWNLEY AVE
CLASS: LIBRARY
DISTRICT: NE COUNCIL: 3 ACREAGE: 1

ITEM #: 16
NAME: ACOMA
LOCATION: 39 AVE & ACOMA DR
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 2 ACREAGE: 7

ITEM #: 17
NAME: ALICIA
LOCATION: 21 AVE & ALICE AVE
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 3 ACREAGE: 7

ITEM #: 18
NAME: ALKIRE
LOCATION: 17 AVE & PAPAGO
CLASS: COMMUNITY
DISTRICT: WE COUNCIL: 7 ACREAGE: 5

ITEM #: 19
NAME: ALTADENA
LOCATION: 37TH ST & ALTADENA
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 7

ITEM #: 20
NAME: ALVORD
LOCATION: 35 AVE & BASELINE
CLASS: DISTRICT
DISTRICT: SO COUNCIL: 7 ACREAGE: 352

ITEM #: 21
NAME: ARCADIA
LOCATION: 56 ST & OSBORN
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 6 ACREAGE: 9

ITEM #: 22
NAME: BARRIOS UNIDOS
LOCATION: 14 ST & MOHAVE
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 8 ACREAGE: 15

ITEM #: 23
NAME: BIKE PATH
LOCATION: GLENDALE TO DUNLAP
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 3 ACREAGE: 9

ITEM #: 24
NAME: BLOOMFIELD LOT
LOCATION: 42 ST & BLOOMFIELD
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 2

ITEM #: 25
NAME: BOOK MOBILE DEPOSIT
LOCATION: 1330 N 29 DR
CLASS: LIBRARY
DISTRICT: WE COUNCIL: 4 ACREAGE: 0

ITEM #: 26
NAME: BUFFALO RIDGE
LOCATION: 16TH ST & BEARDSLEY
CLASS: COMMUNITY
DISTRICT: NE COUNCIL: 1 ACREAGE: 40

ITEM #: 27
NAME: CACTUS
LOCATION: 3801 W CACTUS
CLASS: COMMUNITY
DISTRICT: NW COUNCIL: 2 ACREAGE: 33

ITEM #: 28
NAME: CAVE BUTTES
LOCATION: 16 ST & HAPPY VALLEY
CLASS: REG PARK
DISTRICT: NE COUNCIL: 1 ACREAGE: 206

ITEM #: 29
NAME: CAVE CR GOLF COURSE
LOCATION: 15202 N 19TH AVE
CLASS: GOLF
DISTRICT: NW COUNCIL: 2 ACREAGE: 225

ITEM #: 30
NAME: CAVE CREEK PARK
LOCATION: 25 AVE & PEORIA
CLASS: DISTRICT
DISTRICT: NW COUNCIL: 2 ACREAGE: 302

ITEM #: 31
NAME: CE DISTRICT SHOP
LOCATION: 780 W VAN BUREN
CLASS: ADMIN
DISTRICT: CE COUNCIL: 7 ACREAGE: 0

ITEM #: 32
NAME: CE MAINTENANCE YARD
LOCATION: 3 ST & OAK
CLASS: ADMIN
DISTRICT: CE COUNCIL: 7 ACREAGE: 0

ITEM #: 33
NAME: CENTRAL
LOCATION: 1 - 2 ST & TONTO
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 8 ACREAGE: 3

ITEM #: 34
NAME: CENTRAL LIBRARY
LOCATION: 12 E MCDOWELL
CLASS: LIBRARY
DISTRICT: CE COUNCIL: 8 ACREAGE: 8

ITEM #: 35
NAME: CENTURY BRANCH
LOCATION: 1750 E HIGHLAND AVE
CLASS: LIBRARY
DISTRICT: EA COUNCIL: 6 ACREAGE: 1

ITEM #: 36
NAME: CHOLLA BRANCH
LOCATION: 10050 METRO PARKWAY EAST
CLASS: LIBRARY
DISTRICT: NW COUNCIL: 2 ACREAGE: 1

ITEM #: 37
NAME: CHOLLA COVE
LOCATION: 41ST ST & CHOLLA
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 7

ITEM #: 38
NAME: CHRISTY COVE
LOCATION: 24TH ST & DESERT COVE
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 8

ITEM #: 39
NAME: CIELITO
LOCATION: 3402 W CAMPBELL
CLASS: COMMUNITY
DISTRICT: WE COUNCIL: 4 ACREAGE: 45

ITEM #: 40
NAME: CIRCLE K
LOCATION: 12 ST & SOUTH MTN AVE
CLASS: COMMUNITY
DISTRICT: SO COUNCIL: 8 ACREAGE: 32

ITEM #: 41
NAME: CMLBK MTN/ECHO CYN
LOCATION: E MCDONALD AND TATUM BLVD
CLASS: REG PARK
DISTRICT: EA COUNCIL: 6 ACREAGE: 355

ITEM #: 42
NAME: COFFELT
LOCATION: 1510 S 19 DR
CLASS: NEIGHBOR
DISTRICT: WE COUNCIL: 7 ACREAGE: 3

ITEM #: 43
NAME: COFFELT-LANDREAUX CT
LOCATION: 1510 S 19 AVE
CLASS: SPECIAL
DISTRICT: WE COUNCIL: 7 ACREAGE: 0

ITEM #: 44
NAME: CONOCIDO
LOCATION: 31 AVE & MARCONI
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 2 ACREAGE: 33

ITEM #: 45
NAME: CORONADO
LOCATION: 12 ST & CORONADO
CLASS: COMMUNITY
DISTRICT: EA COUNCIL: 8 ACREAGE: 10

ITEM #: 46
NAME: CORTEZ
LOCATION: 35 AVE & DUNLAP
CLASS: COMMUNITY
DISTRICT: NW COUNCIL: 2 ACREAGE: 29

ITEM #: 47
NAME: COUNTRY CLUB OVAL
LOCATION: 2238 N ALVARADO RD
CLASS: OPEN SPACE
DISTRICT: EA COUNCIL: 8 ACREAGE: 2

ITEM #: 48
NAME: COUNTRY GABLES
LOCATION: 32 DR & BANIFF
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 2 ACREAGE: 4

ITEM #: 49
NAME: CROSSED ARROWS
LOCATION: 60TH PLACE & ACOMA DR
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 24

ITEM #: 50
NAME: DECK PARK
LOCATION: CENTRAL AVE & MORELAND
CLASS: REG PARK
DISTRICT: CE COUNCIL: 7 ACREAGE: 26

ITEM #: 51
NAME: DEEM HILLS
LOCATION: 59 AVE & JOMAX
CLASS: REG PARK
DISTRICT: NW COUNCIL: 2 ACREAGE: 640

ITEM #: 52
NAME: DEER VALLEY
LOCATION: 19 AVE & UTOPIA
CLASS: COMMUNITY
DISTRICT: NW COUNCIL: 2 ACREAGE: 54

ITEM #: 53
NAME: DEL RIO LANDFILL
LOCATION: 12 ST & ELWOOD
CLASS: OPEN SPACE
DISTRICT: SO COUNCIL: 8 ACREAGE: 52

ITEM #: 54
NAME: DESERT HORIZONS
LOCATION: 56TH ST & PARADISE LANE
CLASS: COMMUNITY
DISTRICT: NE COUNCIL: 1 ACREAGE: 35

ITEM #: 55
NAME: DESERT SPRG GRN BELT
LOCATION: 52-62 ST & GREENWAY
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 56

ITEM #: 56
NAME: DESERT WEST
LOCATION: 67 AVE & ENCANTO
CLASS: DISTRICT
DISTRICT: WE COUNCIL: 7 ACREAGE: 99

ITEM #: 57
NAME: DETENTION BASIN
LOCATION: 32 ST & MOUNTAIN VIEW
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 11

ITEM #: 58
NAME: DETENTION BASIN
LOCATION: 45 ST & THUNDERBIRD
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 6

ITEM #: 59
NAME: DETN BASIN (MT PRES)
LOCATION: 18 ST & NORTHERN
CLASS: REG PRES
DISTRICT: NE COUNCIL: 1 ACREAGE: 28

ITEM #: 60
NAME: DETN BASIN (MT PRES)
LOCATION: 7 ST & THUNDERBIRD
CLASS: RE PRES
DISTRICT: NE COUNCIL: 1 ACREAGE: 48

ITEM #: 61
NAME: DETN BASIN (MT PRES)
LOCATION: 16 ST & CAVE CREEK RD
CLASS: REG PRES
DISTRICT: NE COUNCIL: 1 ACREAGE: 40

ITEM #: 62
NAME: DREAMY DRAW REC AREA
LOCATION: 2421 E NORTHERN
CLASS: REG PARK
DISTRICT: NE COUNCIL: 3 ACREAGE: 80

ITEM #: 63
NAME: EA DISTRICT OFFICE
LOCATION: 1001 N 52 ST
CLASS: ADMIN
DISTRICT: EA COUNCIL: 6 ACREAGE: 0

ITEM #: 64
NAME: EA MAINTENANCE YARD
LOCATION: 1001 N 52 ST
CLASS: ADMIN
DISTRICT: EA COUNCIL: 6 ACREAGE: 0

ITEM #: 65
NAME: EASTLAKE
LOCATION: 1545 E JEFFERSON
CLASS: COMMUNITY
DISTRICT: CE COUNCIL: 8 ACREAGE: 9

ITEM #: 66
NAME: EDISON
LOCATION: 20 ST & ROOSEVELT
CLASS: NEIGHBOR
DISTRICT: CE COUNCIL: 8 ACREAGE: 5

ITEM #: 67
NAME: EL OSO
LOCATION: 75 AVE & OSBORN
CLASS: COMMUNITY
DISTRICT: WE COUNCIL: 4 ACREAGE: 33

ITEM #: 68
NAME: EL PRADO
LOCATION: 19 AVE & VINEYARD
CLASS: VCOMMUNITY
DISTRICT: SO COUNCIL: 7 ACREAGE: 39

ITEM #: 69
NAME: EL REPOSO
LOCATION: 5 ST & ALTA VISTA
CLASS: COMMUNITY
DISTRICT: SO COUNCIL: 8 ACREAGE: 23

ITEM #: 70
NAME: ENCANTO
LOCATION: 15 AVE & ENCANTO
CLASS: DISTRICT
DISTRICT: WE COUNCIL: 7 ACREAGE: 67

ITEM #: 71
NAME: ENCANTO GOLF CRS 18
LOCATION: 2705 N 15 AVE
CLASS: GOLF
DISTRICT: WE COUNCIL: 7 ACREAGE: 134

ITEM #: 72
NAME: ENCANTO GOLF CRS 9
LOCATION: 2300 N 17 AVE
CLASS: GOLF
DISTRICT: WE COUNCIL: 7 ACREAGE: 29

ITEM #: 73
NAME: ENCANTO MNTE YARD
LOCATION: 2300 N 17 AVE
CLASS: ADMIN
DISTRICT: WE COUNCIL: 7 ACREAGE: 0

ITEM #: 74
NAME: EOTOTO
LOCATION: 23 ST & PUEBLO AVE
CLASS: MINI
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 75
NAME: ESTEBAN
LOCATION: 32 ST & ROEBER
CLASS: DISTRICT
DISTRICT: SO COUNCIL: 8 ACREAGE: 64

ITEM #: 76
NAME: FALCO
LOCATION: 35 AVE & ROOSEVELT
CLASS: COMMUNITY
DISTRICT: WE COUNCIL: 7 ACREAGE: 16

ITEM #: 77
NAME: GRANADA HERBERGER
LOCATION: 6405 N 20TH
CLASS: COMMUNITY
DISTRICT: EA COUNCIL: 5 ACREAGE: 50

ITEM #: 78
NAME: GRANT
LOCATION: 701 S 3 AVE
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 7 ACREAGE: 3

ITEM #: 79
NAME: GREEN VALLEY
LOCATION: 14 ST & WATKINS
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 8 ACREAGE: 16

ITEM #: 80
NAME: GREENWAY
LOCATION: GREENWAY 60 - 63 ST
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 3

ITEM #: 81
NAME: HARMON
LOCATION: 5 AVE & YAVAPAI
CLASS: COMMUNITY
DISTRICT: EA COUNCIL: 7 ACREAGE: 11

ITEM #: 82
NAME: HARMON BRANCH
LOCATION: 411 W YAVAPAI ST
CLASS: LIBRARY
DISTRICT: EA COUNCIL: 7 ACREAGE: 0

ITEM #: 83
NAME: HAYDEN
LOCATION: 3 AVE & TAMARISK
CLASS: COMMUNITY
DISTRICT: SO COUNCIL: 7 ACREAGE: 14

ITEM #: 84
NAME: HERITAGE SQUARE
LOCATION: 6 ST & MONROE
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 2

ITEM #: 85
NAME: HERMOSO
LOCATION: 20 ST & SOUTHERN
CLASS: COMMUNITY
DISTRICT: SO COUNCIL: 8 ACREAGE: 24

ITEM #: 86
NAME: HOLIDAY
LOCATION: 57 AVE & MINNEZONA
CLASS: NEIGHBOR
DISTRICT: WE COUNCIL: 4 ACREAGE: 5

ITEM #: 87
NAME: HOPE
LOCATION: 128 W ILLINI ST
CLASS: MINI
DISTRICT: SO COUNCIL: 7 ACREAGE: 0

ITEM #: 88
NAME: HORSE TRAIL
LOCATION: 45 ST & SHEA TO CHOLLA
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 1

ITEM #: 89
NAME: HORSE TRAIL
LOCATION: DUNLAP & GLENDALE TO CAP
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 1

ITEM #: 90
NAME: HORSE TRAIL
LOCATION: 52 ST & CACTUS - WINDROSE
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 1

ITEM #: 91
NAME: HOSHONI
LOCATION: 39 AVE & BUTLER
CLASS: NIEHGBOR
DISTRICT: NW COUNCIL: 3 ACREAGE: 9

ITEM #: 92
NAME: HU O TE
LOCATION: 641 S 11 AVE
CLASS: MINI
DISTRICT: CE COUNCIL: 7 ACREAGE: 0

ITEM #: 93
NAME: INDIAN BEND
LOCATION: 37TH PLA & THUNDERBIRD
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 3

ITEM #: 94
NAME: INDIAN BEND WASH
LOCATION: 40 ST & CACTUS
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 7

ITEM #: 95
NAME: ISLAND IN STREET
LOCATION: 40 & MCDOWELL
CLASS: OPEN SPACE
DISTRICT: EA COUNCIL: 6 ACREAGE: 1

ITEM #: 96
NAME: JACKRABBIT
LOCATION: 60TH ST & PARADISE LN
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 19

ITEM #: 97
NAME: KANA
LOCATION: 17 ST & ADAMS
CLASS: MINI
DISTRICT: CE COUNCIL: 8 ACREAGE: 0

ITEM #: 98
NAME: KIPOK
LOCATION: 9 AVE & SOUTHGATE AVE
CLASS: MINI
DISTRICT: SO COUNCIL: 7 ACREAGE: 0

ITEM #: 99
NAME: LA PRADERA
LOCATION: 39 AVE & GLENDALE
CLASS: COMMUNITY
DISTRICT: NW COUNCIL: 3 ACREAGE: 38

ITEM #: 100
NAME: LANDFILL-PUBLIC/BLM
LOCATION: UNION HILLS & QW ST
CLASS: OPEN SPACE
DISTRICT: NE COUNCIL: 1 ACREAGE: 19

ITEM #: 101
NAME: LDFL - BEARDSLEY PK
LOCATION: 101 E BEARDSLEY
CLASS: OPEN SPACE
DISTRICT: NW COUNCIL: 2 ACREAGE: 157

ITEM #: 102
NAME: LENANG
LOCATION: 26 ST & SOTHGATE AVE
CLASS: MINI
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 103
NAME: LEWIS
LOCATION: 1107 S 13 PL
CLASS: MINI
DISTRICT: EA COUNCIL: 8 ACREAGE: 0

ITEM #: 104
NAME: LIBRARY PARK
LOCATION: 1101 W WASHINGTON
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 7 ACREAGE: 4

ITEM #: 105
NAME: LINDO
LOCATION: 23 AVE & ROESER
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 7 ACREAGE: 11

ITEM #: 106
NAME: LOS OLIVOS
LOCATION: 28 ST & GLENROSA
CLASS: COMMUNITY
DISTRICT: EA COUNCIL: 6 ACREAGE: 25

ITEM #: 107
NAME: LOS OLIVOS SENIOR CT
LOCATION: 2802 E DEVONSHIRE
CLASS: SPECIAL
DISTRICT: EA COUNCIL: 6 ACREAGE: 0

ITEM #: 108
NAME: M O BEST
LOCATION: 922 N 2 ST
CLASS: MINI
DISTRICT: CE COUNCIL: 8 ACREAGE: 0

ITEM #: 109
NAME: MA-HA-TUAK
LOCATION: 7 AVE & MCNEIL ST
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 7 ACREAGE: 12

ITEM #: 110
NAME: MADISON
LOCATION: 16 ST & GLENROSA
CLASS: COMMUNITY
DISTRICT: EA COUNCIL: 5 ACREAGE: 19

ITEM #: 111
NAME: MAIRPOSA
LOCATION: 3203 W MORTEN
CLASS: NEIGHHBOR
DISTRICT: NW COUNCIL: 3 ACREAGE: 21

ITEM #: 112
NAME: MARIVUE
LOCATION: 55 AVE & OSBORN
CLASS: COMMUNITY
DISTRICT: WE COUNCIL: 4 ACREAGE: 34

ITEM #: 113
NAME: MARYVALE
LOCATION: 51 AVE & CAMPBELL
CLASS: COMMUNITY
DISTRICT: WE COUNCIL: 4 ACREAGE: 12

ITEM #: 114
NAME: MARYVALE GOLF COURSE
LOCATION: 5902 W INDIAN SCHOOL
CLASS: GOLF
DISTRICT: WE COUNCIL: 4 ACREAGE: 141

ITEM #: 115
NAME: MARYVALE PLAY LOT
LOCATION: 65 AVE & CHEERY LANE
CLASS: MINI
DISTRICT: WE COUNCIL: 4 ACREAGE: 1

ITEM #: 116
NAME: MATHEW HENSON REC CT
LOCATION: 820 S 7 AVE
CLASS: SPECIAL
DISTRICT: WE COUNCIL: 7 ACREAGE: 0

ITEM #: 117
NAME: MESQUITE BRANCH
LOCATION: 4525 PARADISE VILLAGE PKWY N
CLASS: LIBRARY
DISTRICT: NE COUNCIL: 1 ACREAGE: 1

ITEM #: 118
NAME: MOMO
LOCATION: 5 ST & SUNLAND AVE
CLASS: MINI
DISTRICT: SO COUNCIL: 8 ACREAGE: 1

ITEM #: 119
NAME: MONG
LOCATION: 1432 E WOOD
CLASS: MINI
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 120
NAME: MONTEREY
LOCATION: 3 ST & SHERIDAN
CLASS: NEIGHBOR
DISTRICT: CE COUNCIL: 8 ACREAGE: 12

ITEM #: 121
NAME: MOON VALLEY
LOCATION: 502 W GREENWAY
CLASS: COMMUNITY
DISTRICT: NW COUNCIL: 1 ACREAGE: 30

ITEM #: 122
NAME: MOUNTAIN PARK RANCH
LOCATION: 40 ST & RAY RD
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 8 ACREAGE: 18

ITEM #: 123
NAME: MOUNTAIN VIEW
LOCATION: 7 AVE & PEORIA
CLASS: COMMUNITY
DISTRICT: NW COUNCIL: 3 ACREAGE: 96

ITEM #: 124
NAME: MURPHY'S BRIDAL PATH
LOCATION: NORTH CENTRAL AVE
CLASS: OPEN SPACE
DISTRICT: EA COUNCIL: 5 ACREAGE: 8

ITEM #: 125
NAME: NE DISTRICT OFFICE
LOCATION: 3201 E BLOOMFIELD
CLASS: ADMIN
DISTRICT: NE COUNCIL: 1 ACREAGE: 0

ITEM #: 126
NAME: NE MAINTENANCE YARD
LOCATION: 1602 E SAGUARO
CLASS: ADMIN
DISTRICT: NE COUNCIL: 1 ACREAGE: 0

ITEM #: 127
NAME: NEVITT
LOCATION: 44 PLACE & VINEYARD
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 8 ACREAGE: 9

ITEM #: 128
NAME: NINOS
LOCATION: 13 AVE & HADLEY
CLASS: MINI
DISTRICT: WE COUNCIL: 7 ACREAGE: 1

ITEM #: 129
NAME: NORTH MOUNTAIN PARK
LOCATION: 10060 N 7TH ST
CLASS: REG PARK
DISTRICT: NE COUNCIL: 1 ACREAGE: 295

ITEM #: 130
NAME: NORTH MTN PRESERVE
LOCATION: 13800 N 12 AVE
CLASS: REG PRES
DISTRICT: NW COUNCIL: 1 ACREAGE: 740

ITEM #: 131
NAME: NORTON
LOCATION: 12TH ST & HATCHER
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 3 ACREAGE: 8

ITEM #: 132
NAME: NORTON HOUSE
LOCATION: 2700 N 15 AVE
CLASS: ADMIN
DISTRICT: CE COUNCIL: 7 ACREAGE: 0

ITEM #: 133
NAME: NUESTRO
LOCATION: 9 ST & PIMA
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 8 ACREAGE: 4

ITEM #: 134
NAME: NUEVE
LOCATION: 9 ST & MARGUERITE AVE
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 8 ACREAGE: 10

ITEM #: 135
NAME: NW DISTRICT OFFICE
LOCATION: 3901 W GLENDALE
CLASS: ADMIN
DISTRICT: NW COUNCIL: 3 ACREAGE: 0

ITEM #: 136
NAME: NW DISTRICT SHOP
LOCATION: 2445 W PEORIA
CLASS: ADMIN
DISTRICT: NW COUNCIL: 2 ACREAGE: 0

ITEM #: 137
NAME: NW MAINTENANCE YARD
LOCATION: 9401 N 35 AVE
CLASS: ADMIN
DISTRICT: NW COUNCIL: 2 ACREAGE: 0

ITEM #: 138
NAME: OCOTILLO BRANCH
LOCATION: 102 W SOUTHERN AVE
CLASS: LIBRARY
DISTRICT: SO COUNCIL: 7 ACREAGE: 1

ITEM #: 139
NAME: OKEMAH
LOCATION: 38 ST & ANNE
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 8 ACREAGE: 13

ITEM #: 140
NAME: ORME LIN B
LOCATION: 47 AVE & OSBORN
CLASS: NEIGHBOR
DISTRICT: WE COUNCIL: 4 ACREAGE: 4

ITEM #: 141
NAME: PALMA
LOCATION: 12TH ST & DUNLAP
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 3 ACREAGE: 8

ITEM #: 142
NAME: PALMCROFT
LOCATION: 15 AVE & PALMCROFT
CLASS: OPEN SPACE
DISTRICT: WE COUNCIL: 7 ACREAGE: 0

ITEM #: 143
NAME: PALO VERDE BRANCH
LOCATION: 4402 N 51 AVE
CLASS: LIBRARY
DISTRICT: WE COUNCIL: 4 ACREAGE: 1

ITEM #: 144
NAME: PAPAGO
LOCATION: 6000 E VAN BUREN
CLASS: RE PARK
DISTRICT: EA COUNCIL: 6 ACREAGE: 914

ITEM #: 145
NAME: PAPAGO GOLF COURSE
LOCATION: 5595 E MORELAND
CLASS: GOLF
DISTRICT: EA COUNCIL: 6 ACREAGE: 206

ITEM #: 146
NAME: PARADISE VALLEY PARK
LOCATION: 17462 N 40TH ST
CLASS: DISTRICT
DISTRICT: NE COUNCIL: 1 ACREAGE: 120

ITEM #: 147
NAME: PARKS NURSERY
LOCATION: 10229 N 25 AVE
CLASS: ADMIN
DISTRICT: NW COUNCIL: 2 ACREAGE: 0

ITEM #: 148
NAME: PARKWAY
LOCATION: 10 AVE & WASHINGTON
CLASS: OPEN SPACE
DISTRICT: CE COUNCIL: 7 ACREAGE: 0

ITEM #: 149
NAME: PARKWAY
LOCATION: 3 ST & ALVERADO
CLASS: OPEN SPACE
DISTRICT: CE COUNCIL: 8 ACREAGE: 0

ITEM #: 150
NAME: PARKWAY
LOCATION: 5 AVE & MONTE VISTA
CLASS: OPEN SPACE
DISTRICT: CE COUNCIL: 7 ACREAGE: 0

ITEM #: 151
NAME: PARKWAY
LOCATION: 3 AVE & MORELAND
CLASS: OPEN SPACE
DISTRICT: CE COUNCIL: 7 ACREAGE: 2

ITEM #: 152
NAME: PARKWAY
LOCATION: 7 AVE & GLENROSA
CLASS: OPEN SPACE
DISTRICT: CE COUNCIL: 5 ACREAGE: 0

ITEM #: 153
NAME: PATRIOTS SQUARE
LOCATION: CENTRAL & WASHINGTON
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 3

ITEM #: 154
NAME: PERRY
LOCATION: 2700 N 32 ST
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 6 ACREAGE: 10

ITEM #: 155
NAME: PHOENIX TENNIS CTR
LOCATION: 6330 N 21 AVE
CLASS: SPECIAL
DISTRICT: NW COUNCIL: 3 ACREAGE: 0

ITEM #: 156
NAME: PHX MTN PRES (PART.)
LOCATION: DUNLAP TO SWEETWATER
CLASS: REG PRES
DISTRICT: NE COUNCIL: 1 ACREAGE: 2591

ITEM #: 157
NAME: PHX MTN PRES (PART.)
LOCATION: 2421 E NORTHERN
CLASS: REG PRES
DISTRICT: NE COUNCIL: 3 ACREAGE: 2511

ITEM #: 158
NAME: PIERCE
LOCATION: 2150 N 46 ST
CLASS: COMMUNITY
DISTRICT: EA COUNCIL: 6 ACREAGE: 20

ITEM #: 159
NAME: PLAYA MARGARITA
LOCATION: 37 AVE & ROESER RD
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 7 ACREAGE: 6

ITEM #: 160
NAME: PORTLAND PARKWAY
LOCATION: NORTH CENTRAL AVE
CLASS: OPEN SPACE
DISTRICT: CE COUNCIL: 7 ACREAGE: 1

ITEM #: 161
NAME: PUEBLO GRANDE
LOCATION: 4619 E WASHINGTON
CLASS: SPECIAL
DISTRICT: EA COUNCIL: 8 ACREAGE: 91

ITEM #: 162
NAME: PUERTO
LOCATION: 28 ST & SOUTH MOUNTAIN AVE
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 8 ACREAGE: 10

ITEM #: 163
NAME: RIO SALADO
LOCATION: 12 ST & ELWOOD
CLASS: COMMUNITY
DISTRICT: SO9 COUNCIL: 8 ACREAGE: 14

ITEM #: 164
NAME: ROADRUNNER
LOCATION: 3502 E. CACTUS
CLASS: COMMUNITY
DISTRICT: NE COUNCIL: 1 ACREAGE: 40

ITEM #: 165
NAME: ROESLEY
LOCATION: 1502 E ROMLEY RD
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 7 ACREAGE: 3

ITEM #: 166
NAME: ROOSEVELT
LOCATION: 3 AVE & MCKINLEY
CLASS: MINI
DISTRICT: CE COUNCIL: 7 ACREAGE: 1

ITEM #: 167
NAME: ROYAL PALM
LOCATION: 15 AVE & BUTLER
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 3 ACREAGE: 29

ITEM #: 168
NAME: S R HERBERGER
LOCATION: 56 ST & INDIAN SCHOOL
CLASS: NEIGHBOR
DISTRICT: EA COUNCIL: 5 ACREAGE: 7

ITEM #: 169
NAME: SAGUARO BRANCH
LOCATION: 2808 N 46 ST
CLASS: LIBRARY
DISTRICT: EA COUNCIL: 6 ACREAGE: 1

ITEM #: 170
NAME: SAHKOO PARK
LOCATION: 70TH ST & PARADISE LANE
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 7

ITEM #: 171
NAME: SANDPIPER
LOCATION: 66TH ST & HEARN
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 20

ITEM #: 172
NAME: SERENO PARK
LOCATION: 56TH ST & SWEETWATER
CLASS: COMMUNITY
DISTRICT: NE COUNCIL: 1 ACREAGE: 40

ITEM #: 173
NAME: SHAW BUTTE REC AREA
LOCATION: 13800 N 12 AVE
CLASS: REG PARK
DISTRICT: NW COUNCIL: 1 ACREAGE: 600

ITEM #: 174
NAME: SHERMAN PARKWAY
LOCATION: SHERMAN ST - 17 AVE FREEWAY
CLASS: OPEN SPACE
DISTRICT: WE COUNCIL: 7 ACREAGE: 4

ITEM #: 175
NAME: SMITH
LOCATION: 41 AVE & GRANT
CLASS: NEIGHBOR
DISTRICT: WE COUNCIL: 7 ACREAGE: 4

ITEM #: 176
NAME: SO DISTRICT OFFICE
LOCATION: 1346 E SOUTH MTN DR
CLASS: ADMIN
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 177
NAME: SO MINATENANCE YARD
LOCATION: 227 E CODY DR
CLASS: ADMIN
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 178
NAME: SO PHOENIX ADULT CTR
LOCATION: 212 E ALTA VISTA
CLASS: SPECIAL
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 179
NAME: SO PHOENIX YOUTH CTR
LOCATION: 5245 S 7 ST
CLASS: SPECIAL
DISTRICT: SO COUNCIL: 8 ACREAGE: 1

ITEM #: 180
NAME: SOHU
LOCATION: 1740 E MONROE ST
CLASS: MINI
DISTRICT: CE COUNCIL: 7 ACREAGE: 1

ITEM #: 181
NAME: SOLANO
LOCATION: 5625 N 17 AVE
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 5 ACREAGE: 10

ITEM #: 182
NAME: SONRISA
LOCATION: 52 ST & SWEETWATER
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 10

ITEM #: 183
NAME: SOUTH MOUNTAIN
LOCATION: 10919 S CENTRAL AVE
CLASS: REG PRES
DISTRICT: SO COUNCIL: 8 ACREAGE: ****

ITEM #: 184
NAME: SQUAW PEAK REC AREA
LOCATION: 2700 E SQUAW PEAK LN
CLASS: REG PARK
DISTRICT: NE COUNCIL: 3 ACREAGE: 546

ITEM #: 185
NAME: STARLIGHT
LOCATION: 7810 W OSBORN
CLASS: NEIGHBOR
DISTRICT: WE COUNCIL: 4 ACREAGE: 7

ITEM #: 186
NAME: STONEY MTN REC AREA
LOCATION: 16 ST & HATCHER
CLASS: REG PARK
DISTRICT: NE COUNCIL: 1 ACREAGE: 236

ITEM #: 187
NAME: SUENO
LOCATION: 43 AVE & ENCANTO
CLASS: COMMUNITY
DISTRICT: WE COUNCIL: 4 ACREAGE: 38

ITEM #: 188
NAME: SUMIDA
LOCATION: DREAMY DRAW & GARDENIA
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 3 ACREAGE: 5

ITEM #: 189
NAME: SUNBURST PARADISE
LOCATION: 47 AVE & PARADISE LANE
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 2 ACREAGE: 10

ITEM #: 190
NAME: SUNNYSLOPE COMM CTR
LOCATION: 802 E VOGEL
CLASS: SPECIAL
DISTRICT: NE COUNCIL: 3 ACREAGE: 4

ITEM #: 191
NAME: SUNNYSLOPE-POOL
LOCATION: 3RD & DUNLAP
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 3 ACREAGE: 3

ITEM #: 192
NAME: SURREY
LOCATION: 39 AVE & JOAN D'ARC
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 2 ACREAGE: 11

ITEM #: 193
NAME: SWEETWATER
LOCATION: 44TH ST & SWEETWATER
CLASS: COMMUNITY
DISTRICT: NE COUNCIL: 1 ACREAGE: 19

ITEM #: 194
NAME: TAWA
LOCATION: 4540 N 11TH AVE
CLASS: MINI
DISTRICT: WE COUNCIL: 5 ACREAGE: 0

ITEM #: 195
NAME: TOKO
LOCATION: 35 AVE & SHERMAN
CLASS: OPEN SPACE
DISTRICT: WE COUNCIL: 7 ACREAGE: 0

ITEM #: 196
NAME: TOWNSEND
LOCATION: 5 ST & MCDOWELL RD
CLASS: NEIGHBOR
DISTRICT: CE COUNCIL: 8 ACREAGE: 2

ITEM #: 197
NAME: UN-NAMED
LOCATION: 40TH ST & PARADISE LANE
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 17

ITEM #: 198
NAME: UN-NAMED
LOCATION: 32 ST & VINEYARD
CLASS: COMMUINITY
DISTRICT: SO COUNCIL: 8 ACREAGE: 30

ITEM #: 199
NAME: UNION HILLS
LOCATION: 16 ST & BEARSLEY
CLASS: REG PARK
DISTRICT: N3 COUNCIL: 1 ACREAGE: 181

ITEM #: 200
NAME: UNIVERSITY
LOCATION: 10 AVE & VAN BUREN
CLASS: COMMUNITY
DISTRICT: CE COUNCIL: 7 ACREAGE: 8

ITEM #: 201
NAME: VENTUROSO
LOCATION: 32ND ST & ACOMA DR
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 16

ITEM #: 202
NAME: VERDE
LOCATION: 903 E POLK ST
CLASS: NEIGHBOR
DISTRICT: CE COUNCIL: 8 ACREAGE: 4

ITEM #: 203
NAME: VIRGINIA
LOCATION: 15 ST & VIRGINIA
CLASS: MINI
DISTRICT: EA COUNCIL: 8 ACREAGE: 1

ITEM #: 204
NAME: VISUAL ARTS BLDG
LOCATION: 214 E MORELAND
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 8 ACREAGE: 0

ITEM #: 205
NAME: WASHINGTON
LOCATION: 23 AVE & MARYLAND
CLASS: COMMUNITY
DISTRICT: NEW COUNCIL: 3 ACREAGE: 57

ITEM #: 206
NAME: WASHINGTON ADULT CTR
LOCATION: 2240 W CITRUS WAY
CLASS: SPECIAL
DISTRICT: NW COUNCIL: 3 ACREAGE: 0

ITEM #: 207
NAME: WE DISTRICT OFFICE
LOCATION: 2700 N 15 AVE
CLASS: ADMIN
DISTRICT: WE COUNCIL: 7 ACREAGE: 0

ITEM #: 208
NAME: WE MAINTENANCE YARD
LOCATION: 43 AVE & GLENROSE
CLASS: ADMIN
DISTRICT: WE COUNCIL: 4 ACREAGE: 0

ITEM #: 209
NAME: WELL SITE
LOCATION: 31 AVE & CACTUS
CLASS: OPEN SPACE
DISTRICT: NW COUNCIL: 2 ACREAGE: 0

ITEM #: 210
NAME: WERNER
LOCATION: 7TH AVE & UNION HILLS
CLASS: NEIGHBOR
DISTRICT: NE COUNCIL: 1 ACREAGE: 12

ITEM #: 211
NAME: WEST PLAZA
LOCATION: 43 AVE & MARYLAND
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 3 ACREAGE: 5

ITEM #: 212
NAME: WESTERN STAR
LOCATION: 44 ST & WESTERN STAR
CLASS: NEIGHBOR
DISTRICT: SO COUNCIL: 8 ACREAGE: 10

ITEM #: 213
NAME: WESTOWN
LOCATION: 33 AVE & CORRINE
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 2 ACREAGE: 5

ITEM #: 214
NAME: WILLOW
LOCATION: 28 AVE & POLK
CLASS: NEIGHBOR
DISTRICT: WE COUNCIL: 7 ACREAGE: 2

ITEM #: 215
NAME: WOODLAND PARKWAY
LOCATION: VAN BUREN & 7-15 AVE
CLASS: OPEN SPACE
DISTRICT: CE COUNCIL: 7 ACREAGE: 3

ITEM #: 216
NAME: YAPA
LOCATION: 2732 E MOBILE LANE
CLASS: MINI
DISTRICT: SO COUNCIL: 8 ACREAGE: 0

ITEM #: 217
NAME: YUCCA BRANCH
LOCATION: 5648 N 15 AVE
CLASS: LIBRARY
DISTRICT: NW COUNCIL: 5 ACREAGE: 1

ITEM #: 218
NAME: YUNYA
LOCATION: 2831 W WASHINGTON
CLASS: MINI
DISTRICT: WE COUNCIL: 7 ACREAGE: 0

ITEM #: 219
NAME: ZUNI
LOCATION: 7 AVE & STELLA LANE
CLASS: MINI
DISTRICT: NW COUNCIL: 5 ACREAGE: 0

ITEM #: 220
NAME: lITTLE CANYON
LOCATION: 33 AVE & MISSOURI
CLASS: NEIGHBOR
DISTRICT: NW COUNCIL: 4 ACREAGE: 16

ITEM #: 221
NAME: CITY ARTS BUILDING
LOCATION: 1202 N 3RD ST
CLASS: COMMUNITY
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 222
NAME: COMMUNITY ARTS CNTR
LOCATION: 214 E MORELAND
CLASS: COMMUNITY
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 223
NAME: DESERT W MULTIGEN CN
LOCATION: 6501 W VIRGINIA
CLASS: COMMUNITY
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 224
NAME: DISTRICT OFFICE
LOCATION: 4020 W GLENROSA
CLASS: ADMINISTRATION
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 225
NAME: DURANGO CEMETERY
LOCATION: 15TH AVE & DURANGO
CLASS: COMMUNITY
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 226
NAME: ENCANTO CLUBHOUSE
LOCATION: 2605 N 15TH AVE
CLASS: NEIGHBOR
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 227
NAME: KACHINA PARK
LOCATION: 42ND ST AND CAMPBELL AVE
CLASS: NEIGHBORHOOD
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 228
NAME: MAINTENANCE YARD
LOCATION: 1001 N 52ND ST
CLASS: OPEN
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 229
NAME: MAINTENANCE YARD
LOCATION: 4023 & 4035 W GLENROSA
CLASS: OPEN
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 230
NAME: MARGARET T. HANCE PK
LOCATION: 322 E OAK
CLASS: NEIGHBOR
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 231
NAME: MONTEREY MAINT. YARD
LOCATION: 322 E OAK
CLASS: OPEN
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 232
NAME: MONTEREY PARK
LOCATION: 350 E OAK
CLASS: NEIGHBORHOOD
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 233
NAME: PIONEER CEMETERY
LOCATION: 15TH AVE & JEFFERSON
CLASS: COMMUNITY
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 234
NAME: S.P. OSBORN REC CNTR
LOCATION: 1726 E ADAMS
CLASS: PUBLIC
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 235
NAME: SHEMER ARTS CENTER
LOCATION: 5005 E CAMELBACK
CLASS: SPECIAL
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 236
NAME: UNIVERSITY PARK
LOCATION: 10TH AVE & VAN BUREN
CLASS: NEIGHBORHOOD
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 237
NAME: UNNAMED PARK SITE
LOCATION: 63RD AVE & GARFIELD
CLASS:
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 238
NAME: UNNAMED PARK SITE
LOCATION: 83RD AVE & ENCANTO
CLASS:
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 239
NAME: UNNAMED PARK SITE
LOCATION: 105TH AVE & CAMELBACK RD
CLASS:
DISTRICT: CE COUNCIL: 0 ACREAGE: 0

ITEM #: 240
NAME: BLOOMFIELD REC CNTR
LOCATION: 3201 E BLOOMFIELD
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 241
NAME: COYOTE BASIN PARK
LOCATION: 26TH ST & BEARDSLEY
CLASS: NEIGHBORHOOD
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 242
NAME: CROSSED ARROWS PARK
LOCATION: 61ST ST & ACOMA RD
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 243
NAME: DESERT STORM PARK
LOCATION: 1712 E COLTER
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 244
NAME: DESERT WILLOW PARK
LOCATION: 30832 E DESERT WILLOW PARKWAY
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 245
NAME: DISTRICT OFFICE
LOCATION: 17642 N 40TH ST
CLASS: ADMIN
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 246
NAME: EQUESTRIAN CENTER
LOCATION: 19224 N TATUM BOULEVARD
CLASS: SPECIAL
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 247
NAME: GRANADA-HERBERGER II
LOCATION: 6505 N 20TH ST
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 248
NAME: GROVERS PARK
LOCATION: CAVE CREEK RD & GROVERS AVE
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 249
NAME: HERBERGER I PARK
LOCATION: AZ CANAL, CENTRAL TO DUNLAP
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 250
NAME: LOOKOUT MTN PARK
LOCATION: 14441 N 18TH ST
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 251
NAME: MOUNTAIN VIEW COMM C
LOCATION: 1104 E GROVERS
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 252
NAME: N MOUNTAIN PARK
LOCATION: 10600 N 7TH ST
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 253
NAME: N MOUNTAIN PRESERVE
LOCATION: N PHX MOUNTAIN PRESERVE
CLASS: SPECIAL
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 254
NAME: NORTON PARK
LOCATION: 12TH ST & HATCHER
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 255
NAME: QUAIL RUN BASIN PARK
LOCATION: 12TH ST & BELL RD
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 256
NAME: RANGER STATION
LOCATION: 11659 N 16TH ST
CLASS: ADMIN
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 257
NAME: TURTLE ROCK PARK
LOCATION: 12TH ST & UNION HILLS
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 258
NAME: UNNAMED PARK SITE
LOCATION: 30TH ST & MARCONI
CLASS:
DISTRICT: NE COUNCIL: 0 ACREAGE: 0

ITEM #: 259
NAME: CAVE CREEK REC AREAS
LOCATION: 2402 W CACTUS
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 260
NAME: DEER VALLEY PARK
LOCATION: 19TH AVE & UTOPIA
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 261
NAME: DISTRICT OFFICE
LOCATION: 3901 W GLENDALE AVE
CLASS: ADMIN
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 262
NAME: HOSHONI PARK
LOCATION: 39TH AVE & BUTLER
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 263
NAME: LA PRADERA PARK
LOCATION: 40TH AVE & GLENDALE
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 264
NAME: LITTLE CANYON PARK
LOCATION: 33RD AVE & MISSOURI
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 265
NAME: MAINTENANCE YARD
LOCATION: 9401 N 35TH AVE
CLASS: ADMIN
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 266
NAME: MECHANIC SHOP
LOCATION: 2445 W PEORIA
CLASS: ADMIN
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 267
NAME: SOLANO PARK
LOCATION: 17TH AVE & MONTEBELLO
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 268
NAME: TELEPHONE PIONEER PK
LOCATION: 1946 W MORNINGSIDE DR
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 269
NAME: UNNAMED PARK SITE
LOCATION: 102 E BEARDSLEY
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 270
NAME: UNNAMED PARK SITE
LOCATION: 43RD AVE & YORKSIRE
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 271
NAME: UNNAMED PARK SITE
LOCATION: 7TH AVE & COLTER ST
CLASS:
DISTRICT: NW COUNCIL: 0 ACREAGE: 0

ITEM #: 272
NAME: DISTRICT OFFICE
LOCATION: 1346 E SOUTH MTN AVE
CLASS: ADMIN
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 273
NAME: ECHO CANYON PARK
LOCATION: McDONALD DRIVE & TATUM BLVD
CLASS:
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 274
NAME: HO-E PARK
LOCATION: THIRD AVE & ILLINI
CLASS:
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 275
NAME: MA-HA-TUAK PARK
LOCATION: 7TH AVE & McNEIL
CLASS:
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 276
NAME: MAINTENANCE YARD
LOCATION: 227 E CODY DR
CLASS: ADMIN
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 277
NAME: MARCOS DE NIZA CNTR
LOCATION: 1350 S 3RD AVE
CLASS: COMMUNITY
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 278
NAME: UNNAMED PARI SITE
LOCATION: 7TH ST & CHANDLER BLVD
CLASS:
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 279
NAME: VERNEL COLEMAN CNTER
LOCATION: 1003 S 9TH AVE
CLASS:
DISTRICT: S COUNCIL: 0 ACREAGE: 0

ITEM #: 280
NAME: CAVE CREEK SPRTS CMP
LOCATION: 9833 N 25TH AVE
CLASS: SPECIAL
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 281
NAME: CIELITO POOL
LOCATION: 4551 N 35TH AVE
CLASS: SPECIAL
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 282
NAME: ENCANTO POOL
LOCATION: 2125 N 15TH AVE
CLASS: SPECIAL
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 283
NAME: FALCON POOL
LOCATION: 3420 W ROOSEVELT
CLASS: SPECIAL
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 284
NAME: GRANT POOL
LOCATION: 714 S 2ND AVE
CLASS: SPECIAL
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 285
NAME: TELEPHONE PIONEER PL
LOCATION: 1946 W MORNINGSIDE
CLASS: SPECIAL
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 286
NAME: MTN VIEW TENNIS CNTR
LOCATION: 6330 N 21ST AVE
CLASS: GOLF & TENNIS
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 287
NAME: IRONWOOD LIBRARY
LOCATION: 4333 E CHANDLER BLVD
CLASS: LIBRARY
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 288
NAME: JUNIPER BRANCH
LOCATION: 18631 N 19TH AVE
CLASS: LIBRARY
DISTRICT: COUNCIL: 0 ACREAGE: 0

ITEM #: 289
NAME:
LOCATION:
CLASS:
DISTRICT: COUNCIL: 0 ACREAGE: 0

7.0
DISCHARGE CHARACTERIZATION

7.1 REGULATORY REQUIREMENTS

(d)(iv)(E) CHARACTERIZATION PLAN. Information and a proposed program to meet the requirements of paragraph (d)(2)(iii) of this section. Such description shall include: the location of outfalls or field screening points appropriate for representative data collection under paragraph (d)(2)(iii)(A) of this section, a description of why the outfall or field screening point is representative, the seasons during which sampling is intended, a description of the sampling equipment. The proposed location of outfalls or field screening points for such sampling should reflect water quality concerns (see paragraph (d)(1)(iv)(C) of this section) to the extent practicable.

7.2 OBJECTIVES

The City of Phoenix has several important reasons for monitoring storm water discharge. These can be expressed in terms of the following objectives, which have been used to guide the design and plans for the City's monitoring program:

- Characterize runoff and water quality from nonpoint sources.
- Generate data specific to land use types for use in future loads assessment modeling.
- Provide data for receiving water impact determination and future waste load allocations.

- Provide information for use in federal storm water NPDES permit application.

- Provide information for use in developing storm water management programs and for prioritizing implementation of control measures.

- Identify specific areas of the watershed which have water quality concerns.

- Provide data for comparison to future data (collected after implementation of a storm water management program) to evaluate long-term trends.

To help achieve these objectives, seven monitoring stations will be installed to measure flow and pollutant concentrations during the three representative storm events over the study period (i.e., from September 1991 through May 1992).

7.3 SITE SELECTION

This section describes the criteria used to select sites for flow and water quality monitoring. A total of seven sites are recommended for this monitoring plan.

7.3.1 Objectives

Sampling stations have been selected to fulfill the following present and future goals of the discharge characterization plan:

- Develop pollutant loading estimates for discrete key land use areas, and for use in pollutant load estimation models.

- Generate runoff concentration data for use in assessing impacts of storm water runoff on receiving water quality.

- Identify specific land use types which contain relatively high levels of potentially harmful pollutants.

- Facilitate calibration of basin-wide models by comparing model-estimated loads with measured loads at monitoring catchment stations.

- Meet federal NPDES permitting station selection requirements.

Stations have been classified into either single land use or multiple land use categories, depending on the catchment location and characteristics. Single land use sites consist of discrete drainage areas that were judged to be generally representative of a particular land use type. Such stations can be used to provide specific characterization data about a specific land use type for use in loads modeling or control measure selection/implementation. Multiple land use stations drain areas with mixed land uses. The multiple land use stations can be used to verify modeled pollutant loads as estimated for their particular catchment area.

7.3.2 Site Selection Criteria

Each sampling site should be representative of the single or multiple land use catchment it will be used to characterize, typical of major land use types to allow characterization of storm water runoff across the entire City of Phoenix area, and suitable for sampling. General factors which were considered in selection are:

- Representative of land use(s) in Phoenix as a whole. A catchment that is representative of the City as a whole would have approximately the same percentages of land uses in the catchment as are in the entire City. Thus, the catchment represents a microcosm of the entire City land use distribution.

- Size of the catchment area. Normally, each single land use station should encompass as large an area as possible while still maintaining homogeneous land use; and each multiple land use station should encompass as large an area as possible while still maintaining a representative percentage of the various contributing land uses. However, the arid southwest summer storms are characterized by short-duration, high-intensity rainfall over a small areal extent (less than one square

mile). Therefore, sampling locations should be selected which represent small enough watersheds or portions of water sheds to develop an understanding of the relationship between the rainfall, the runoff, and the land use.

- Proximity to other sampling sites. Stations should be grouped as close as possible without violating the site selection rule (listed above), whenever feasible, to minimize travel time for field personnel during storm event sampling.

- Areas which are suspected or have been identified (during the field screening analysis) as contributing relatively high pollutant levels to the receiving waters will be incorporated into this program when feasible.

The following hydraulic factors are critical considerations in the site selection process:

- Suitable hydraulic control where a reliable rating curve can be developed (such as open channels).

- Uniform and stable channel conditions for a distance equal to at least six channel widths upstream of the station.

- If possible, absence of backwater effects caused by downstream obstructions or high river flows.

- If possible, no evidence of surcharging or submergence over the normal range of precipitation (manhole installations).

- Adequate distance from upstream junctions in order to allow for complete mixing.

- For manhole stations, location of the station in a straight section of pipe having a minimal number of laterals and catch basin inlets.

Additionally, stations must be located in safely-accessible areas. This consideration is important not only to avoid accidents and injury, but also to ensure that field crews feel sufficiently safe in conducting the field effort. Safety considerations include:

- Providing direct vehicle access to stations in heavy traffic areas so field crews do not have to cross major thoroughfares on foot.

- Avoiding poor light and/or visibility conditions to prevent an accident with passing cars, trucks, or pedestrians.

- Locating stations on secured City of Phoenix property wherever possible, to provide security of field equipment.

Other considerations include the following:

- Each station should have uniform storm precipitation levels throughout its catchment area. The locations of the existing rain gauges operated by the National Weather Service and Maricopa County were obtained (see Table 7-1), and a map showing these rain gauges and their proximity to the recommended sampling stations is shown on Figure 7-1.

- Station equipment should be located in the manhole to allow for the necessary installation configuration as well as to not restrict any access into the manhole.

- Field equipment should be located within reasonable distance of telecommunication access.

7.3.3 Approach

Seven land use stations were selected based on City of Phoenix zoning information, storm drain system maps, delineated catchment area maps, field screening of major City storm drain outfalls, and the above criteria. Land use types identified within the city include: light industrial, heavy industrial, low density residential, medium density

residential, high density residential, commercial, open space, transportation, agriculture and publicly owned lands.

Outfalls which are 36-inch diameter or greater, which drain into the major receiving waters of Phoenix, were identified and located on City storm drain maps. Outfalls 12 inches and greater, which drain areas containing industrial uses, were also identified and located. Catchment areas drained by these identified outfalls were delineated and the existing land use percentages and total acreages were developed for each outfall (see Tables 7-2 and 7-3). Average land use percentages where computed for the entire city (see Table 7-3).

Twenty-five catchments where initially identified as candidate sites for monitoring stations (out of a total of 126 catchments in the City). These 25 were designated as candidates, based on their type of land use and the associated percentages, their catchment area acreage, and their proximity to existing rain gauges. Additionally, areas were considered which had water quality problems that were identified during the field screening analysis. Based on the City of Phoenix's average distribution of land uses which typically are pollution sources, sampling stations for two industrial, two residential, and one commercial catchment area were selected. Two representative catchment areas were selected for monitoring average pollution loads from catchment areas having city-wide average land use percentages.

For the single land use monitoring stations, a catchment having a single land use of seventy percent or greater was desirable. Phoenix is approximately 49 percent medium residential, 9 percent light industrial, and less than 10 percent of each of the other land uses designated in this study. These values were used to select monitoring station locations which best represented the City's overall average land use percentages. The average size of the catchments is approximately one thousand acres. Since the typical storm cell size for summer storms is on the order of one square mile (640 acres), catchments having sizes between six hundred and one thousand acres where given the most consideration. Large catchment areas are expected to provide better average values of pollution loads. However, due to the geographic basin in which the City lies and local meteorologic conditions, there are localized storm events having small areal extent which can result in variable runoff throughout the area being monitored, with

unpredictable land use contributions in the samples. Monitoring station locations within three miles of rain gauges were considered as candidates. The reliability of data gathered at stations further than 3 miles from a rain gauge would be unacceptable due to the highly localized nature of the Phoenix rainfall patterns. The alternative would be to install new rain gauges at sampling locations.

Water quality concerns were noted at twenty-two of the outfalls inspected during the field screening analysis program. These concerns range from possible sewage in the discharge, visual observations of oil or other petroleum products, or suspended matter in the discharge. Two of the seven proposed monitoring locations had water quality concerns from the field screening program. SR-21 had a thick layer of oil on the water's surface and globs of a tar-like substance were floating in the water. The discharge at SR-33 had grey plastic cuttings floating on the water surface.

Each of the candidate sites was visited in the field. Hydraulic and safety issues were identified and tabulated (see Table 7-4). Consideration was given to those locations which did not pose any danger due to high traffic patterns and offered adequate lit off-street parking. Also considered were those sites which provided a good location for the sampling equipment, either in the manhole or directly adjacent to the outfall. Photographs were taken of each candidate monitoring station. Photographs for the seven selected station sites are shown on Figure 7-2.

7.3.4 Locations for Single Land Use Stations

Five sampling sites have been identified as single land use monitoring locations. Two are industrial land use sites, two are residential sites, and one is a commercial site, as discussed below: (see Table 7-4)

7.3.4.1 Industrial Land Use

7.3.4.1.1 SR-45. Station SR-45 is located on the south side of the Salt River. The catchment area is approximately eight hundred acres extending from the south side of the river, south to Interstate 10. East-west limits of the catchment area extend from the City limits at 48th Street, west to 40th Street. The land use distribution of the

contributing catchment is approximately seventy percent light industrial, twenty percent high industrial, and ten percent other. The fifty-four inch RCP outfall is located at the toe of a reinforced embankment, just to the east of a gravel access road which extends to the river bottom. The access road is a north extension of 40th Street.

The sampling location is the first manhole from the outfall, approximately six hundred feet south (see Figure 7-3). The manhole is located in the south-bound lane of 40th Street. This section of 40th Street is used by local traffic to access a number of industrial facilities on the block and as access to the river. The lighting is primarily from the local industrial yards and could be considered adequate to low. Telecommunication lines would be run out to 40th Street.

No flow was found at the outfall during the field screening program. However due to the strong organic smell from stagnant water at the outfall, a sample was collected and analyzed in the field. The field sample tests indicated a 10 mg/l NH (see Section 5). No lab sample was collected at this outfall.

7.3.4.1.2 **SR-21.** Station SR-21 is located on the north side of Old Tower Road. The catchment area is approximately six hundred and thirty acres, extending from the north side of the river, north to the Southern Pacific Railroad line at the north boundary of the Sky Harbor International Airport. East-west limits of the catchment area are approximately between 24th Street and 32nd Street. The land use distribution of the contributing catchment is approximately 90 percent transportation, five percent light industrial, and five percent open space. (The catchment is almost entirely covered by the Sky Harbor Airport.) The 90-inch RCP outfall is located at the toe of the northeast abutment of the Interstate 10 crossing at the Salt River.

The sampling location is the second manhole from the outfall, approximately 500 feet north of the outfall (see Figure 7-3). The manhole is located in the undeveloped lot south of Old Tower Road and just northeast of the Interstate 10 embankment. The area is currently being graded for future development. There is the possibility that future inlets may be connected to the storm drain system downstream of the proposed sampling location. These new inlets would drain areas that are planned for industrial land use. Because SR-21 is a single land use sampling location (with a 90 percent industrial land

use designation), the addition of these new inlets probably would have minimal impact on future samples. The nearest lighting in the vicinity of the manhole is on Old Tower Road. Equipment would be located in the manhole. Telecommunication lines would be run out to Old Tower Road.

No flow was found at the outfall during the field screening program. However, a thick layer of oil on the water's standing surface was observed, and globs of tar-like substance were floating in the water (see Section 5).

7.3.4.2 Residential Land Use

7.3.4.2.1 IB-08. Station IB-08 is located on the north side of Indian Bend Wash. The catchment area is approximately eight hundred acres, extending north one thousand feet from Bell Road. East-west limits of the catchment are approximately between 40th Street and 42nd Street. The land use distribution of the contributing catchment is approximately 80 percent medium residential, 10 percent light residential, and 10 percent other. The 66-inch RCP outfall is located at the low water crossing at 40th Street and Indian Bend Wash. The outfall is a transition structure to an existing thirty-six inch concrete outfall. Flows that exceed the capacity of the 36-inch pipe spill out the top of the transition structure which has a four by six foot grated cover.

The sampling location is the transition structure immediately preceding the outfall (see Figure 7-4). The site is City-owned, has off-street access, and is located on the gently sloping north side of Indian Bend Wash. Lighting is from 40th Street, adjacent to the wash. Equipment would be located in a proposed security box attached to the concrete transition headwall. Telecommunication lines would be run to 40th Street.

No flow was found at the outfall during the field screening program.

7.3.4.2.2 IB-11. Station IB-11 is located on the north side of Indian Bend Wash. The catchment area is approximately 3,088 acres, extending north to Bell Road. East-west limits are approximately between 56th Street and 64th Street. The catchment area's land use is approximately 60 percent medium residential, 25 percent light residential, and 15 percent other. The 66-inch RCP outfall is located in a detention pond on a

developed section of Indian Bend Wash. The pond is at the end of 56th Street and Indian Bend Wash.

The monitoring station would be the second manhole from the outfall, located approximately 1,000 feet north of the wash (see Figure 7-4). This is just within the City limits. The outfall is located about a 1,000 feet south of the City limits. There is one manhole between the City limits and the outfall. This manhole was inundated with flow from the pond during the field screening program. There are no inlets to the storm drain pipe outside the City limits. Lighting is from a street light located at the next intersection (approximately 1,200 feet north of the manhole.) Telecommunication lines would be run to the underground telephone lines on 56th Street.

No flow was found at this manhole during the field screening program.

7.3.4.3 Commercial Land Use

7.3.4.3.1 AC-05. Station AC-05 is located on the north side of the Arizona Canal Diversion Channel (ACDC). The catchment area is approximately one hundred acres, extending from the ACDC north to Peoria Avenue. This catchment area is primarily the western half of the commercial area called the Metrocenter. East-west of the catchment limits are between 31st Street and the interior shopping buildings at the Metrocenter. The catchment area's land use distribution is 100 percent commercial. The 48-inch RCP outfall is located in the northern vertical channel wall section of the ACDC, just south of the intersection of Mission Lane and 31st Street.

The sampling station would be located in the first manhole north of the outfall, approximately eighty feet from the ACDC (see Figure 7-4). The manhole is one of four located in the intersection. The street is a local residential access road. Traffic is light and parking is available and on the street. Lighting is from the street light at the intersection. The telecommunication lines would be run from the manhole to the telephone line on 31st Street.

Low flow was present at two separate visits during the field screening program. Ammonia was detected at levels of 0.6 and 0.9 mg/l, and on the second visit chlorine was detected at 0.1 mg/l. No lab sample was collected at this outfall.

7.3.5 Locations for Representative Land Use Stations

Two stations have been identified as representative land use monitoring stations. They are described below (see Table 7-4):

7.3.5.1 Representative Land Use Stations

7.3.5.1.1 SR-03. Station SR-03 is located at the north side of the Salt River. The catchment area is approximately 1,850 acres, extending from the Salt River north to Roosevelt Street. East-west limits of the catchment are between 27th Avenue and 39th Avenue. The catchment area's land use distribution is approximately 35 percent medium residential, 25 percent light industrial, 8 percent agricultural, 8 percent high residential, 8 percent high industrial, 5 percent commercial, 6 percent open, and 5 percent public lands. The 75-inch RCP outfall is located at the northwest abutment of the 35th Avenue bridge over the Salt River. The outfall is a concrete outlet structure down at the toe of a rip-rap protected embankment, within the river drainage.

The monitoring station location would be the first manhole north, approximately seven hundred feet from the river embankment (see Figure 7-5). The manhole is located on the west side of 35th Avenue. The road is two lanes with a wide shoulder. Parking on the shoulder is adequate, and street lighting is close. Land use in the nearby vicinity of the station is sparse heavy industry. The manhole cover is a grate type inlet cover. The sampling equipment would be located in the manhole. Telecommunication lines would be run from the manhole to the buried telephone lines on the west side of 35th Street.

Flow was observed on two separate visits during the field screening program. Ammonia was detected at both visits, 0.7 and 0.2 mg/l. Detergents were detected on the first visit, 2.0 mg/l. No lab sample was collected at this outfall.

7.3.5.1.2 <u>**SR-33**</u>**.** Station SR-33 is located on the south side of the Salt River. The catchment area is approximately eight hundred and fifty acres, extending south to Western Canal. East-west limits of the catchment are between 7th Street and Central Avenue. The catchment area's land distribution is approximately forty-five percent medium residential, seventeen percent light industrial, seventeen percent commercial, nine percent open space, six percent high residential, and six percent public lands. The 66-inch RCP outfall is located at the toe of a sandy, used-tire-reinforced embankment, just west of the south abutment of the Central Avenue bridge crossing the Salt River. The outfall is a concrete grated outlet structure, surrounded by vegetative growth. The area surrounding is scattered with trash from the outfall.

The monitoring station location is the second manhole, approximately eight hundred feet south of the river embankment (see Figure 7-5). Three small inlets are between the sampling location and the outfall. These inlets collects isolated flows at the base of a private undercrossing next to the bridge. The manhole for sampling is located in the landscaped strip between Central Avenue and the Union Rock office parking lot on the west side of Central Avenue. Access, parking availability, and lighting are good. The sampling equipment would be located in the manhole or in a proposed locked security box, just adjacent to the manhole. Telecommunication lines would be run from the manhole to the telephone pole on the west side of Central Avenue.

Flow was observed on two different visits to the outfall during the field screening program. Ammonia was detected at 0.4 mg/l on both visits. No lab sample was collected at this outfall. The discharge from the outfall had grey plastic cuttings floating on the water surface.

7.4 EQUIPMENT RECOMMENDATIONS

This section describes the recommended equipment for the field sampling of storm events. Automatic samplers are recommended.

7.4.1 Objectives

The equipment selected for the City of Phoenix discharge characterization program should be capable of performing flow monitoring and water quality sampling to meet all the sampling program objectives. The ideal monitoring station system includes automatic sampling stations linked by telemetry for remote operation and data transfer.

Woodward-Clyde's equipment recommendations to the City of Phoenix for the monitoring stations are presented below. These recommendations are the result of review of the current program objectives, our previous experience with equipment, and evaluations from other projects.

7.4.2 Equipment Recommendations

7.4.2.1 Rain Gauges

At the present time the Flood Control District of Maricopa County is performing rainfall data collection from the 30 rain gauge stations that are distributed throughout the City of Phoenix and surrounding areas (see Table 7-1). These gauges are fully telemetered and transmit data to a central station. Additionally, there is a rain gauge at the Sky Harbor International Airport operated by the National Weather Service. Since summer storms are highly localized, it is important to have rain gauge stations not far from each runoff monitoring catchment.

The catchments selected for monitoring (Section 7.3) either have a rain gauge station in their vicinity or are located between two rain gauge stations, so the precipitation can be estimated by interpolating the rainfall between the two rain gauges (See Figure 7-1). Installation of additional rainfall gauge stations are not recommended at this time.

7.4.2.2 Flow Monitoring Hardware/Software and Equipment Control

The exact requirements for flow monitoring equipment are dependent on the particular station configuration. For those stations which are gravity driven and are not subject to backwater or surcharging effects, it will be sufficient to measure water depth to estimate flows. Flow estimates will be obtained by use of a rating curve, established for each station, which correlates flow with depth. If monitoring stations are chosen in areas that

are likely to be subject to surcharging or backwater effects, then both water depth and velocity need to be independently monitored to estimate flow. Other equipment necessary at all flow monitoring stations will include a system microprocessor; a water quality sampler control unit; equipment cabinets; site-specific software for hardware control; telemetry equipment; and batteries for power.

The process of establishing a reliable rating curve for each monitoring station could be expensive and time consuming. Our previous studies indicate the cost of preparing a rating curve is $10,000 to $15,000, depending on the configuration of the station.

Additionally, providing a rating curve for a large size pipe requires a large amount of water (during the full-scale calibration tests), which generally cannot be provided by fire hydrants. Therefore, the entire process must be conducted only during storm events (when there is substantial runoff). This could result in substantial delays before monitoring the catchments could begin.

As an alternative means of measuring the flow rate in each station, we recommend use of electronic flow monitoring units. Such units employ electronic velocity sensors to measure the average velocity of the runoff in a monitoring station and non-intrusive ultrasonic depth sensors to measure the depth. Flow rates can then be calculated by the product of the velocity and the cross-sectional area. These flow monitoring units should also be equipped with an intelligent, telemetered remote microprocessor unit capable of two-way communications. The data from the flow monitoring unit can then be transmitted to a central computer station. The setting of the control system of the flow monitoring unit can also be changed from the central computer station.

In order to check the velocity sensors, it is recommended that they be checked by measuring the flow velocities with a hand-held velocity meter at the time of installation. Flow in the monitoring station can be generated by using a fire hydrant for a short duration of time.

Figure 7-6 depicts the components of a monitoring station located in a manhole, including the velocity sensor, depth sensor, and a remote telemeter-linked microprocessor. The remote microprocessor units will be coupled to a water quality

sampling unit such that sampling activities can be initiated automatically on either predetermined flow-proportional or time-proportional bases.

7.4.2.3 Flow-Weighted Water Quality Samples

Automatic water quality samplers can be configured for either "discrete" or" composite" sampling. These samplers are usually versatile in the set-up configurations possible and have a wide range of sample bottle options available. If purchased in the discrete configuration, samplers can be configured to fill a number of bottles simultaneously, with each bottle receiving an identical composite sample. This in practice can be desirable, because it can minimize or even eliminate laboratory compositing and re-bottling procedures (which can contaminate samples and bias results). Our recommendation is to purchase the discrete water quality sampler with eight 2-liter bottles for each monitoring station. The advantages of the samplers with eight 2-liter bottles over samplers with a single large jar include:

- More composited separate samples will be collected.
- A combination of glass and plastic bottles can be used (thus reducing equipment cost).
- A pollutograph from the different parts of the runoff hydrograph can be developed.

Disadvantages include the following:

- Adequate sample volume must be obtained from the storm water flow to provide enough sample in each bottle.
- TDS can be affected by changing the velocity of the flow into discrete increments.

7.5 FLOW AND WATER QUALITY MONITORING STATION INSTALLATIONS

7.5.1 Introduction

Flow and water quality monitoring stations may be situated at a variety of locations, including existing collection system conduits, manholes, open channels, and waterways. Each individual station may vary, depending on the type of installation location and localized flow characteristics and overall hydraulics. Since conditions very considerably from site to site, the following discussion provides a generalized overview of installation procedures.

7.5.2 Existing Storm Drain Conduit/Manhole Installation Procedure

At existing manholes or outfalls, a depth-of-flow sensors will be installed upstream of the structure (i.e., inside the conduit). Installing the depth sensor upstream of the structure will help reduce the structure's hydraulic effects on stage/discharge relationships, and hence, the flow estimates.

The type of depth sensor determined by localized hydraulic characteristics and conditions. Since the possibility of surcharge in the monitoring stations selected is low, we recommend using non-intrusive, redundant, ultrasonic sensors for depth measurement.

The depth-of-flow sensor and velocity sensor will be mounted to an expansion ring sized for the individual conduit or will be mounted directly to the conduit surfaces with plates, flanges, or direct bolting. Expansion rings will be used to facilitate easy removal of the sensors for maintenance or replacement.

The water quality sampler suction line and strainer inlet will be located at or near the downstream exit conduit of the manhole or other structure.

Telephone telemetry cables will be placed, per City standards, from the nearest telephone drop connection to the flow monitor microprocessor.

7.5.3 Station Equipment and Telemetry Checkout and Operation

Operation of station equipment and telemetry will be verified prior to storm sampling. Equipment diagnostics will be performed remotely as a check on station equipment and the telemetry links. Additionally, the operation of water quality samplers will be verified by sampling during the station rating procedure. Routine station setup procedures and the procedures for event initiation, operation, shut down, and data transfer will be fully described in the standard operational practice manual when equipment selection is finalized.

7.5.4 Station Maintenance Schedule and Procedures

The proposed monitoring stations will be designed and installed to provide reliable depth and velocity of flow and data and to collect suitable samples for water quality analysis. As with any type of complex mechanical and electronic equipment, failures may occur that affect data quality. Guidelines and preventive maintenance will be used to help prevent problems from occurring and to provide a means of promptly detecting and solving problems that do occur. Although the preventive maintenance has some increased up-front costs, the time that might be spent fixing problems could result in lost data and resultant higher long-term costs.

To minimize problems, mechanical equipment with moving parts has been avoided, and an attempt has been made to emphasize low-maintenance solid-state equipment. For example, non-intrusive ultrasonic depth sensors are to be utilized whenever possible to avoid submergence and exposure of mechanical parts (e.g., pressure transducer diaphragms).

A series of preventive maintenance checklist schedules and procedures will be provided for each piece of equipment selected after determination of the particular type of equipment to be utilized. Specific items subject to preventive maintenance will include sensors, monitors, samplers, batteries, electronics, etc.

7.6 RAINFALL AND RUNOFF MEASUREMENT PROCEDURES

This section describes procedures used to measure rainfall and storm water runoff. Also included are the criteria for the selection of storms to be sampled.

7.6.1 Objectives

A major portion of the field program and the data analysis efforts will be directed toward determining reliable estimates of the relationship between rainfall and runoff in the study area. This will require collecting field data and analyzing these data in various ways to determine runoff coefficients. A runoff coefficient can be defined as the fraction of the total rainfall volume (the amount of rainfall over the watershed area) that becomes storm water runoff. Runoff volume estimates (given by the runoff coefficient and the predicted rainfall volume) are needed to set the sampling equipment so it will obtain representative flow-weighted composite samples. Runoff volumes are also used in conjunction with site median pollutant concentrations (SMC) as input to storm water runoff models to generate basin-wide pollutant loads.

The objectives for storm selection are to sample three representative storm events, as required by the EPA's Part 2 Permit Application.

7.6.2 Storm Selection Criteria

Criteria for storm sampling were developed based on statistical analysis of historical rainfall data (by SYNOP computer program, as discussed in Section 4.0). SYNOP analyses provide frequency distributions of key storm characteristics, including volume, duration, intensity, and antecedent dry period. Due to the variability in the storm pattern between Phoenix's summer and winter seasons, statistical analyses were conducted to estimate two sets of different parameters for average rainfall volume and duration. Summer monsoon storms (July through September) have relatively short durations and high intensities, whereas winter storms (October through March) have longer durations and lower intensities.

A weather forecasting service will be used to obtain real-time weather predictions to assist in selection of storms for sampling.

7.6.3 Rainfall and Runoff Measurement Procedures

Rainfall measurement will be conducted using the existing 31 rain gauges operated by the Flood Control District of Maricopa County and the National Weather Service within the Phoenix area. Each of the recommended monitoring stations are within a few miles distance from one or more of the existing rain gauges. The corresponding rain gauges for each recommended monitoring stations is presented below.

Catchment	Rain Gauges & Locations
IB08	Sweetwater/36th St. & Sweetwater
AC05	AZ Canal Diversion Channel/Cave Creek & AZ Canal Diversion Channel/43th Avenue
SR03	MCFCD/35th Avenue & Durango
SR33	Fire Station/2nd Street & Roeser
SR21	National Weather Service/Airport
SR45	National Weather Service/Airport Guadalupe FRS/Baseline to Guadalupe at I-10
IB11	Sweetwater/36th Street & Sweetwater Paradise Valley/36th Street & Bell Road Thunderbird Drive & Scottsdale Road

Runoff estimates will be based on field measurements and use of the continuity equation. At each monitoring station, flow rates will be calculated by measuring average stream velocity (using an ultrasonic velocity sensor) and water depth. The advantage of this procedure is that the measurement of the flow rate is not affected by backwater effects or surcharging.

Runoff data will be collected at each sampling station at fifteen-minute intervals during storm events and stored in the station data logger. Data will be retrieved initially using phone lines for data transferral and ultimately by interfacing with the City of Phoenix central computer station.

Maricopa County ALERT System

Date Time

10/14/92 09:03:30

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DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/17/92									
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1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	____
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	____
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	____
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	____
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Maricopa County ALERT System

Date Time

10/14/92 09:08:35

Woodward-Clyde Consultants

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DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/18/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
0400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:03:48

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/19/92									
2400	0.16	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.24
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.24	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.24

Maricopa County ALERT System

Date Time

10/14/92 09:03:58

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/20/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.04	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:04:07

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/21/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
2300	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00	0.00
2200	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00	0.00
2100	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00	0.00
2000	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00	0.00
1900	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00	0.00
1800	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00	0.00
1700	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
0300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:04:18

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/22/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.12	0.31	0.04	0.31	0.00	0.00	0.04	0.00	0.04
2200	0.04	0.00	0.04	0.00	0.04	0.04	0.00	0.00	0.04
2100	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.04	0.12	0.04	0.12	0.16	0.12
0900	0.20	0.24	0.00	0.04	0.00	0.59	0.39	0.08	0.16
0800	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
0700	_____	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.67
0600	_____	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.04
0500	_____	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
0400	_____	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0300	_____	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
0200	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
0100	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
TOTALS:	0.43	0.59	0.08	0.43	0.16	0.67	0.87	0.24	1.14

Maricopa County ALERT System

Date Time

10/14/92 09:04:30

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/23/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
2300	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00
2200	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.04	0.08	0.04	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.04	0.04	0.00	0.04	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04
1300	0.00	0.04	0.00	0.00	0.04	0.04	0.00	0.00	0.00
1200	0.04	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
1100	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1000	0.12	0.00	0.04	0.04	0.00	0.04	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
0800	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.04	0.00	0.04	0.04	0.04	0.04
0600	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00
0500	0.00	0.04	0.08	0.08	0.04	0.04	0.00	0.04	0.04
0400	0.00	0.00	0.04	0.00	0.08	0.08	0.04	0.00	0.04
0300	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.20	0.24	0.28	0.31	0.28	0.28	0.20	0.12	0.28

Maricopa County ALERT System
Group Name Date Time
CCS5: ACDC 08/25/92 14:09:51

Woodward-Clyde Consultants

DeviceID	6320	6330
StatType	dif	dif
DataType	precip	precip
Units	in	in
08/24/92		
2400	0.00	0.00
2300	0.00	0.00
2200	0.00	0.00
2100	0.00	0.00
2000	0.00	0.00
1900	0.00	0.00
1800	0.00	0.00
1700	0.00	0.00
1600	0.00	0.00
1500	0.00	0.00
1400	0.00	0.00
1300	0.00	0.00
1200	0.00	0.00
1100	0.00	0.00
1000	0.00	0.00
0900	0.00	0.00
0800	0.00	0.00
0700	0.00	0.00
0600	0.04	0.00
0500	0.00	0.00
0400	0.00	0.00
0300	0.00	0.00
0200	0.00	0.00
0100	0.00	0.00
TOTALS:	0.04	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:01:49

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/09/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:02:02

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/10/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:02:14

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/11/92									
2400	_____	0.00	0.00	_____	0.00	0.00	_____	0.00	0.00
2300	_____	0.00	0.00	_____	0.00	0.00	_____	0.00	0.00
2200	_____	0.00	0.00	_____	0.00	0.00	_____	0.00	0.00
2100	_____	0.12	0.00	_____	0.00	0.00	_____	0.00	0.00
2000	_____	0.28	0.00	_____	0.20	0.00	_____	0.00	0.08
1900	_____	0.00	0.00	_____	0.00	0.00	_____	0.00	0.00
1800	0.00	0.00	0.00	_____	0.00	0.00	_____	0.00	0.00
1700	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.39	0.39	0.00	0.20	0.00	0.16	0.00	0.08

Maricopa County ALERT System

Date Time

10/14/92 09:02:24

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/12/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	_____	0.00	0.04	_____	0.00
1700	0.00	0.00	0.00	0.00	_____	0.00	0.04	_____	0.00
1600	0.00	0.00	0.00	0.00	_____	0.00	0.04	_____	0.00
1500	0.00	0.00	0.00	0.00	_____	0.00	0.04	_____	0.00
1400	0.00	0.00	0.00	0.00	_____	_____	0.04	_____	0.00
1300	0.00	0.00	0.00	_____	_____	_____	0.04	_____	0.00
1200	_____	_____	_____	_____	_____	_____	0.04	_____	_____
1100	_____	_____	_____	_____	_____	_____	0.04	_____	_____
1000	_____	_____	_____	_____	_____	_____	_____	_____	_____
0900	_____	0.00	_____	_____	_____	_____	_____	_____	_____
0800	_____	0.00	_____	_____	0.00	_____	_____	_____	0.00
0700	_____	0.00	_____	_____	0.00	_____	_____	0.00	0.00
0600	_____	0.00	_____	_____	0.00	_____	_____	0.00	0.00
0500	_____	0.00	_____	_____	0.00	_____	_____	0.00	0.00
0400	_____	0.00	_____	_____	0.00	_____	_____	0.00	0.00
0300	_____	0.00	_____	_____	0.00	0.00	_____	0.00	0.00
0200	_____	0.00	_____	_____	0.00	0.00	_____	0.00	0.00
0100	_____	0.00	0.00	_____	0.00	0.00	_____	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:02:35

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/13/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	_____	_____	_____	0.00	0.00	0.00	0.04	0.00	_____
1100	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
1000	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0900	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0800	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0700	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0600	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0500	_____	_____	_____	0.00	0.00	0.00	0.04	0.00	_____
0400	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0300	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0200	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0100	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:02:57

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/14/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1800	0.00	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1700	0.00	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1600	0.00	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1500	0.20	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1400	0.08	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1300	0.31	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1200	_____	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1100	_____	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
1000	_____	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
0900	_____	_____	_____	0.00	_____	0.00	0.00	0.00	0.00
0800	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0500	_____	_____	_____	0.00	0.00	0.00	0.12	0.00	_____
0400	_____	_____	_____	0.00	0.00	0.00	0.04	0.00	_____
0300	_____	_____	_____	0.00	0.00	0.00	0.04	0.00	_____
0200	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
0100	_____	_____	_____	0.00	0.00	0.00	0.00	0.00	_____
TOTALS:	0.59	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:03:07

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/15/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
0400	_____	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:03:18

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/16/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:59:23

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
02/06/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:59:36

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
02/07/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.08	0.04	0.00	0.00	0.00	0.00
1700	0.04	0.04	0.00	0.00	0.00	0.00	0.20	0.00	0.04
1600	0.04	0.08	0.00	0.20	0.12	0.12	0.20	0.12	0.04
1500	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.04	0.00	0.04	0.00	0.04	0.00	0.04	0.04
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
0800	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0600	0.04	0.04	0.00	0.04	0.04	0.00	0.04	0.00	0.00
0500	0.04	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.04
0400	0.04	0.04	0.00	0.08	0.04	0.08	0.08	0.04	0.08
0300	0.04	0.04	0.04	0.04	0.04	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04
0100	0.04	0.04	0.00	0.04	0.04	0.04	0.04	0.04	0.00
TOTALS:	0.35	0.39	0.08	0.63	0.31	0.35	0.67	0.28	0.31

Maricopa County ALERT System

Date Time

10/14/92 08:59:53

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
03/22/92									
2400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0400	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:08:18

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
03/23/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0400	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0300	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0200	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0100	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:00:19

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
03/24/92									
2400	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00
1800	0.00	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00
1700	0.00	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:00:31

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
03/25/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	_____	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:00:44

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
03/26/92									
2400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2200	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2100	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2000	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1900	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1800	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1700	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1600	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1500	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1400	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:00:59

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
03/27/92									
2400	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	_____	0.00	0.04	0.00	0.00	0.00
2200	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.04
2100	0.00	0.04	0.00	_____	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	_____	0.04	0.00	0.04	0.00	0.04
1900	0.04	0.00	0.00	0.00	0.00	0.04	0.12	0.00	0.00
1800	0.04	0.12	0.04	0.00	0.08	0.04	0.08	0.04	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.04	0.08	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.04	0.04	0.04	0.00	0.04	0.04	0.04	0.00	0.04
0700	0.20	0.16	0.12	0.16	0.20	0.08	0.16	0.08	0.04
0600	0.12	0.12	0.04	0.16	0.08	0.12	0.16	0.04	0.04
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00
0400	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.08	0.00
0300	0.12	0.12	0.08	0.00	0.08	0.08	0.12	0.12	0.04
0200	0.00	0.00	0.00	0.00	0.04	0.08	0.04	0.04	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.55	0.63	0.35	0.31	0.55	0.55	0.87	0.47	0.31

Woodward-Clyde Consultants

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Group Name	Date	Time
Phoenix Metro #1	5/ 4/92	1406

Sensor #	6010	6020	6500	6130
StatType	dif	dif	dif	dif
DataType	precip	precip	precip	precip
Units	in	in	in	in
3/28/92				
2400	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.04
1500	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.04
0500	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00
0300	0.04	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00
0100	0.00	0.12	0.00	0.00
TOTALS:	0.04	0.12	0.00	0.08

Maricopa County ALERT System

Date Time

10/14/92 09:01:24

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/07/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 09:01:36

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
08/08/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:49:39

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
12/30/91									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1600	0.04	0.04	0.00	0.04	0.00	0.00	0.12	_____	0.08
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0300	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
TOTALS:	0.08	0.08	0.04	0.08	0.00	0.00	0.12	0.00	0.12

Maricopa County ALERT System

Date Time

10/14/92 08:56:57

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
12/31/91									
2400	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
2300	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
2200	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
2100	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
2000	0.00	_____	0.00	0.00	0.00	0.00	_____	_____	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	_____	_____	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	_____	_____	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	_____	_____	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	_____	_____	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:57:20

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
01/01/92									
2400	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
1400	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0700	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
0600	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
0500	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
0400	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
0300	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
0200	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
0100	0.00	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:57:53

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
01/02/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:58:06

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
01/03/92									
2400	0.08	0.04	0.12	0.00	0.04	0.04	0.04	0.04	0.04
2300	0.12	0.12	0.08	0.12	0.08	0.08	0.12	0.04	0.12
2200	0.08	0.12	0.04	0.16	0.16	0.20	0.31	0.24	0.08
2100	0.08	0.08	0.04	0.16	0.12	0.12	0.08	0.08	0.00
2000	0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1300	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
1200	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
1100	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
1000	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
0900	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
0800	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
0700	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
0600	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
0500	0.00	0.00	_____	0.00	0.00	0.00	0.00	_____	0.00
0400	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.35	0.35	0.28	0.47	0.39	0.47	0.55	0.39	0.24

Maricopa County ALERT System

Date Time

10/14/92 08:58:20

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
01/04/92									
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.08
0300	0.00	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.00
0200	0.04	0.00	0.08	0.00	0.04	0.04	0.00	0.00	0.00
0100	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.08	0.08	0.24	0.08	0.04	0.04	0.04	0.00	0.08

Maricopa County ALERT System

Date Time

10/14/92 08:58:34

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
02/02/92									
2400	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:58:48

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
02/03/92									
2400	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1500	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1400	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1300	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1200	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	_____	0.00
0800	_____	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00
0700	_____	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00
0600	_____	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00
0500	_____	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00
0400	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:59:00

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
02/04/92									
2400	0.00	0.00	_____	_____	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	_____	_____	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	_____	_____	0.00	0.00	_____	0.00	0.00
2100	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00	0.00
2000	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00	0.00
1900	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00	0.00
1800	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00	0.00
1700	0.00	0.00	_____	0.00	0.00	0.00	_____	0.00	0.00
1600	_____	0.00	_____	0.00	0.00	0.00	_____	0.00	0.00
1500	_____	0.00	_____	0.00	0.00	0.00	_____	0.00	0.00
1400	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1300	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1200	_____	0.00	0.00	0.00	0.00	0.00	_____	0.00	0.00
1100	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Maricopa County ALERT System

Date Time

10/14/92 08:59:11

Woodward-Clyde Consultants

DeviceID	6140	6150	6320	6330	6200	6010	6500	6020	6130
StatType	dif	dif	dif	dif	dif	dif	dif	dif	dif
DataType	precip	precip	precip	precip	precip	precip	precip	precip	precip
Units	in	in	in	in	in	in	in	in	in
02/05/92									
2400	0.00	0.00	_____	0.00	_____	0.00	0.00	0.00	0.00
2300	0.00	0.00	_____	0.00	_____	0.00	0.00	0.00	_____
2200	0.00	0.00	_____	0.00	_____	0.00	_____	0.00	_____
2100	0.00	_____	_____	_____	_____	0.00	_____	0.00	_____
2000	0.00	_____	_____	_____	_____	0.00	_____	0.00	_____
1900	0.00	_____	_____	_____	_____	0.00	_____	0.00	_____
1800	0.00	_____	_____	_____	_____	0.00	_____	0.00	_____
1700	0.00	_____	_____	_____	_____	0.00	_____	0.00	_____
1600	_____	_____	_____	_____	_____	0.00	_____	0.00	_____
1500	_____	_____	_____	_____	_____	0.00	_____	0.00	_____
1400	_____	_____	0.00	_____	_____	0.00	_____	0.00	_____
1300	_____	_____	0.00	_____	0.00	0.00	_____	0.00	_____
1200	_____	_____	0.00	_____	0.00	0.00	_____	0.00	0.00
1100	_____	_____	0.00	_____	0.00	0.00	0.00	0.00	0.00
1000	_____	_____	0.00	_____	0.00	0.00	0.00	0.00	0.00
0900	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0800	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0700	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0600	_____	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	_____	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	_____	_____	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

DEC 1991
PHOENIX, AZ
NATIONAL WEATHER SERVICE OFC.
2633 EAST BUCKEYE ROAD

ISSN 0198-0475

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

SKY HARBOR INTL AIRPORT

LATITUDE 33° 26'N LONGITUDE 112° 01'W ELEVATION (GROUND) 1110 FEET TIME ZONE MOUNTAIN 23183

DATE 1	TEMPERATURE °F MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEPARTURE FROM NORMAL 5	AVERAGE DEW POINT 6	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JUL) 7A	COOLING (SEASON BEGINS WITH JAN) 7B	WEATHER TYPES 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW 8	SNOW ICE PELLETS OR ICE ON GROUND AT 0500 INCHES 9	PRECIPITATION WATER EQUIVALENT (INCHES) 10	SNOW, ICE PELLETS (INCHES) 11	AVERAGE STATION PRESSURE IN INCHES ELEV. 1107 FEET ABOVE M.S.L. 12	WIND (M.P.H.) RESULTANT DIR. 13	RESULTANT SPEED 14	AVERAGE SPEED 15	PEAK GUST SPEED 16	PEAK GUST DIRECTION 17	FASTEST 1-MIN SPEED 18	FASTEST 1-MIN DIRECTION 19	SUNSHINE MINUTES 20	PERCENT OF TOTAL POSSIBLE 21	SKY COVER (TENTHS) SUNRISE TO SUNSET 22	MIDNIGHT TO MIDNIGHT 23
01	54	40	47	-9	33	18	0		0	0.00	0.0	28.930	27	1.9	4.8	12	E	9	22	386	64	7	6
02	55	36*	46*	-10	29	19	0		0	0.00	0.0	29.040	12	1.1	2.9	13	E	9	07	605	100	0	0
03	65	37	51	-4	29	14	0		0	0.00	0.0	29.070	05	2.8	4.3	16	N	10	06	605	100	1	1
04	69	44	57	2	29	8	0		0	0.00	0.0	28.880	07	1.7	3.6	18	E	10	07	447	74	9	8
05	68	49	59	4	35	6	0		0	0.00	0.0	28.810	09	1.2	2.5	14	E	10	09	449	74	10	10
06	74	50	62	7	36	3	0		0	0.00	0.0	28.800	10	1.2	3.5	10	E	7	11	602	100	2	3
07	72	48	60	6	39	5	0		0	0.00	0.0	28.740	10	4.0	4.5	12	E	10	10	601	100	0	0
08	74	49	62	8	39	3	0		0	0.00	0.0	28.790	10	4.3	5.8	13	E	9	09	466	78	3	4
09	75*	55	65*	11	44	0	0		0	0.00	0.0	28.895	09	2.1	4.0	15	E	9	09	442	74	6	8
10	66	58	62	8	52	3	0	1	0	0.59	0.0	28.710	07	1.5	4.5	18	W	10	08	266	44	10	9
11	64	53	59	5	51	6	0	2	0	0.01	0.0	28.670	26	4.1	5.8	17	W	15	27	322	54	9	8
12	64	49	57	3	47	8	0		0	0.00	0.0	28.900	28	0.9	3.7	12	N	8	26	599	100	2	2
13	66	47	57	4	46	8	0	8	0	0.00	0.0	29.030	10	1.7	3.5	12	E	9	09	598	100	0	0
14	72	44	58	5	33	7	0		0	0.00	0.0	29.050	07	5.8	6.6	21	E	16	07	597	100	0	0
15	73	50	62	9	32	3	0		0	0.00	0.0	29.010	08	6.9	7.4	20	NE	15	07	549	92	6	5
16	73	55	64	11	38	1	0		0	0.00	0.0	28.970	09	4.8	5.6	16	E	12	08	513	86	10	9
17	71	55	63	10	45	2	0		0	0.00	0.0	28.880	13	1.6	3.4	13	E	9	10	474	80	9	9
18	63	56	60	7	54	5	0	1	0	0.51	0.0	28.810	22	0.4	6.4	17	E	13	09	218	37	10	10
19	60	48	54	1	49	11	0	1 3	0	0.46	0.0	28.670	02	0.9	6.4	23	NW	14	30	160	27	10	10
20	63	46	55	2	47	10	0		0	0.03	0.0	28.810	13	0.3	5.1	13	E	8	10	293	49	9	9
21	62	50	56	4	48	9	0		0	T	0.0	28.910	25	2.7	3.8	10	NW	8	32	339	57	9	10
22	62	49	56	4	46	9	0		0	T	0.0	29.000	11	3.3	4.1	9	SE	8	11	458	77	7	7
23	64	45	55	3	42	10	0		0	0.00	0.0	28.910	09	2.2	4.2	13	E	9	06	487	82	6	5
24	69	51	60	8	38	5	0		0	0.00	0.0	28.750	08	4.7	5.6	16	E	15	07	560	94	3	5
25	65	46	56	4	40	9	0		0	0.00	0.0	28.800	25	0.9	3.9	14	E	10	07	555	93	0	0
26	64	46	55	3	37	10	0		0	0.00	0.0	28.920	10	3.3	5.5	14	E	10	08	597	100	0	0
27	68	48	58	6	34	7	0		0	0.00	0.0	28.910	08	8.2	8.7	17	E	14	07	596	100	1	2
28	69	50	60	8	37	5	0		0	0.00	0.0	28.790	15	3.4	5.7	15	W	10	24	538	90	8	8
29	64	50	57	5	46	8	0		0	0.00	0.0	28.780	12	3.7	4.7	12	E	10	24	454	76	7	7
30	64	48	56	4	46	9	0		0	0.03	0.0	28.850	02	0.9	5.4	23	N	12	25	429	72	7	6
31	63	43	53	1	41	12	0		0	0.00	0.0	28.985	22	0.9	4.5	9	W	7	12	598	100	0	0
	SUM	SUM				TOTAL	TOTAL	NUMBER OF DAYS		TOTAL	TOTAL	FOR THE MONTH:								TOTAL	%	SUM	SUM
	2055	1495				233	0			1.63	0.0	28.870	10	1.8	4.8	23	N	16	07	14803	FOR	161	161
	AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	PRECIPITATION		DEP.						DATE:30+		DATE: 14		POSSIBLE	MONTH	AVG.	AVG.
	66.3	48.2	57.3	4.0	40.6	-135	-6	≥ .01 INCH.	6	0.80										18565	80	5.2	5.2

NUMBER OF DAYS				SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		TOTAL	TOTAL	≥ 1.0 INCH	0	PRECIPITATION		SNOW, ICE PELLETS	
≥ 90°	≤ 32°	≤ 32°	≤ 0°	374	4619	THUNDERSTORMS	1	0.60	10-11	0.0	0
0	0	0	0	DEP. -166	DEP. 873	HEAVY FOG	1				
						CLEAR 13	PARTLY CLOUDY 7	CLOUDY 11			

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. COLS 16 & 17: PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED. ONE OF TWO WIND SPEEDS IS GIVEN UNDER COLS 18 & 19: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). ERRORS WILL BE CORRECTED IN SUBSEQUENT PUBLICATIONS.

I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER

Kenneth D Wadell
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

noaa
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

DEC 1991
PHOENIX, AZ

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

DEC 1991 PHOENIX, AZ 23183

DATE	A.M. HOUR ENDING AT 1	2	3	4	5	6	7	8	9	10	11	12	P.M. HOUR ENDING AT 1	2	3	4	5	6	7	8	9	10	11	12	DATE
01																									01
02																									02
03																									03
04																									04
05																									05
06																									06
07																									07
08																									08
09																									09
10					T	T	T	T	T	T	T	T	0.02	0.14	0.01			T			0.31	0.09	0.02		10
11											T	0.01													11
12																									12
13																									13
14																									14
15																									15
16																									16
17																									17
18		0.01	0.03	0.11	0.10	0.08	0.07	0.05	0.03	0.02	T	T	0.01	T	T										18
19	0.07	T						0.02	T			T	T	0.01	0.03	0.21	0.09	0.03	T	T					19
20									0.01	0.01	T					T	T				T	T	T	0.01	20
21	T	T																							21
22						T																			22
23																									23
24																									24
25																									25
26																									26
27																									27
28																									28
29																									29
30		T	0.02		0.01	T											T								30
31																									31

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.10	0.15	0.20	0.22	0.25	0.30	0.36	0.37	0.39	0.40	0.42	0.42
ENDED: DATE	10	10	10	10	10	10	10	10	10	10	10	10
ENDED: TIME	2028	2030	2035	2039	2050	2055	2115	2132	2155	2155	2241	2241

THE PRECIPITATION AMOUNTS FOR THE INDICATED TIME INTERVALS MAY OCCUR AT ANY TIME DURING THE MONTH. THE TIME INDICATED IS THE ENDING TIME OF THE INTERVAL. DATE AND TIME ARE NOT ENTERED FOR TRACE AMOUNTS.

VALIDATED BY:
MATTHEW BODOSKY

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JAN 1992
PHOENIX, AZ
NATIONAL WEATHER SERVICE OFC.
2633 EAST BUCKEYE ROAD

ISSN 0198-0475

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

SKY HARBOR INTL AIRPORT

LATITUDE 33° 26'N LONGITUDE 112° 01'W ELEVATION (GROUND) 1110 FEET TIME ZONE MOUNTAIN 23183

DATE 1	TEMPERATURE °F MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEPARTURE FROM NORMAL 5	AVERAGE DEW POINT 6	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JUL) 7A	COOLING (SEASON BEGINS WITH JAN) 7B	WEATHER TYPES 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW 8	SNOW ICE PELLETS OR ICE ON GROUND AT 0500 INCHES 9	PRECIPITATION WATER EQUIVALENT (INCHES) 10	SNOW, ICE PELLETS (INCHES) 11	AVERAGE STATION PRESSURE IN INCHES ELEV. 1107 FEET ABOVE M.S.L. 12	WIND (M.P.H.) RESULTANT DIR. 13	RESULTANT SPEED 14	AVERAGE SPEED 15	PEAK GUST SPEED 16	PEAK GUST DIRECTION 17	FASTEST 1-MIN SPEED 18	FASTEST 1-MIN DIRECTION 19	SUNSHINE MINUTES 20	PERCENT OF TOTAL POSSIBLE 21	SKY COVER (TENTHS) SUNRISE TO SUNSET 22	MIDNIGHT TO MIDNIGHT 23
01	66	42	54	2	33	11	0		0	0.00	0.0	28.975	06	3.7	4.1	14	NE	8	06	578	97	2	1
02	65	46	56	4	24	9	0		0	0.00	0.0	28.890	07	7.7	8.3	23	E	17	07	478	80	10	7
03	64	50	57	5	34	8	0	1	0	0.35	0.0	28.730	07	3.9	8.1	18	NE	12	27	161	27	10	10
04	62	50	56	4	50	9	0	1	0	0.03	0.0	28.770	14	0.8	4.1	13	E	9	10	391	65	9	8
05	65	50	58	7	51	7	0	1	0	0.04	0.0	28.705	13	4.4	6.2	12	E	9	13	321	54	10	9
06	58	45	52	1	45	13	0	3	0	0.63	0.0	28.660	09	2.5	7.5	35	W	23	26	311	52	9	8
07	57	44	51	-1	40	14	0		0	0.00	0.0	28.780	08	3.7	4.8	14	NW	9	10	409	68	10	8
08	62	42	52	0	35	13	0		0	0.00	0.0	28.860	05	3.8	5.7	20	NE	12	06	603	100	0	0
09	67	41	54	2	31	11	0		0	0.00	0.0	28.900	02	1.6	4.4	15	NE	12	04	604	100	0	0
10	70	51	61	9	28	4	0		0	0.00	0.0	28.840	06	11.5	11.8	28	E	17	07	534	88	4	4
11	62	49	56	4	39	9	0		0	0.23	0.0	28.660	11	8.3	9.3	17	E	16	06	407	67	8	9
12	58	45	52	0	35	13	0	3	0	0.29	0.0	28.675	26	8.4	10.2	25	NW	16	28	546	90	5	5
13	58	40	49	-3	29	16	0		0	0.00	0.0	29.000	10	1.8	3.3	12	E	8	07	608	100	1	1
14	59	39	49*	-3	32	16	0		0	0.00	0.0	28.925	11	0.9	4.4	14	E	8	24	609	100	0	0
15	63	39*	51	-1	29	14	0		0	0.00	0.0	29.040	06	7.1	7.8	32	NE	23	06	610	100	0	0
16	63	44	54	2	22	11	0		0	0.00	0.0	28.990	08	7.7	8.2	21	E	15	07	611	100	0	0
17	67	40	54	2	25	11	0		0	0.00	0.0	28.710	11	1.6	4.5	13	E	10	11	586	96	2	2
18	63	50	57	5	27	8	0		0	0.00	0.0	28.820	08	11.3	11.8	23	E	18	07	533	87	8	7
19	64	51	58	6	28	7	0		0	0.00	0.0	28.950	07	11.0	11.2	23	NE	16	07	580	94	2	5
20	60	50	55	3	38	10	0		0	0.05	0.0	28.900	07	7.6	8.1	21	E	14	06	384	62	8	8
21	63	46	55	3	43	10	0		0	0.00	0.0	28.940	13	1.8	3.9	8	E	7	10	534	86	2	2
22	64	43	54	2	40	11	0	1	0	0.00	0.0	28.970	11	2.0	3.8	8	E	8	11	618	100	0	0
23	70	41	56	3	34	9	0		0	0.00	0.0	29.010	12	1.6	3.4	10	N	7	23	620	100	0	0
24	76	48	62	9	30	3	0		0	0.00	0.0	28.930	12	1.3	3.6	12	E	7	09	621	100	0	0
25	77	47	62	9	36	3	0		0	0.00	0.0	28.840	13	2.5	3.5	10	E	6	10	604	97	1	0
26	76	51	64	11	34	1	0		0	0.00	0.0	28.810	12	4.2	5.1	14	E	10	10	583	93	5	4
27	74	49	62	9	38	3	0		0	0.00	0.0	28.910	09	2.8	3.9	9	E	8	11	608	97	7	6
28	75	48	62	9	36	3	0		0	0.00	0.0	28.910	10	3.0	4.1	13	E	10	11	627	100	0	1
29	75	48	62	9	33	3	0		0	0.00	0.0	28.880	07	4.3	6.4	20	E	15	07	629	100	1	1
30	74	56	65	11	29	0	0		0	0.00	0.0	28.970	06	5.5	7.0	21	E	18	07	630	100	0	0
31	77*	52	65*	11	32	0	0		0	0.00	0.0	28.890	08	4.4	6.1	16	E	14	08	632	100	0	0
	SUM 2054	SUM 1437	—	—	—	TOTAL 260	TOTAL 0	NUMBER OF DAYS		TOTAL 1.62	TOTAL 0.0	FOR THE MONTH: 28.870	08	3.7	6.3	35	W	23	06	TOTAL 16570	% FOR MONTH	SUM 114	SUM 106
	AVG. 66.3	AVG. 46.4	AVG. 56.4	DEP. 4.1	AVG. 34.1	DEP. -134	DEP. 0	PRECIPITATION ≥ .01 INCH 7		DEP. 0.89	—	—	—	—	—	DATE: 6		DATE: 15+		POSSIBLE 19018	87	AVG. 3.7	AVG. 3.4

NUMBER OF DAYS				SEASON TO DATE TOTAL	SEASON TO DATE TOTAL	SNOW, ICE PELLETS ≥ 1.0 INCH 0	GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP. ≥ 90°	MAXIMUM TEMP. ≤ 32°	MINIMUM TEMP. ≤ 32°	MINIMUM TEMP. ≤ 0°	634	0	THUNDERSTORMS 2	PRECIPITATION 0.67	SNOW, ICE PELLETS 05-06	0.0	0
				DEP. -300	DEP. 0	HEAVY FOG 0				
0	0	0	0			CLEAR 18 PARTLY CLOUDY 4 CLOUDY 9				

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
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NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE
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JAN 1992
PHOENIX, AZ

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JAN 1992 23183
PHOENIX, AZ
USCOMM - NOAA - ASHEVILLE, NC 250

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

DATE	A.M. HOUR ENDING AT												P.M. HOUR ENDING AT												DATE
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
01																									01
02																									02
03																	T	T	T	0.02	0.06	0.20	0.06	0.01	03
04	0.01	T	T	0.01	0.01	T	T																		04
05							T		T	T							T	0.01	0.01		T	0.02			05
06				T		0.15	0.16	0.12	T	T		T	T	0.15	0.05		T								06
07																									07
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11											T	T										T	T	0.23	11
12	0.24	0.05																							12
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20						T	T			T				T	0.04	0.01									20
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FEB 1992
PHOENIX, AZ
NATIONAL WEATHER SERVICE OFC.
2633 EAST BUCKEYE ROAD

ISSN 0198-0475

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

SKY HARBOR INTL AIRPORT

LATITUDE 33° 26'N LONGITUDE 112° 01'W ELEVATION (GROUND) 1110 FEET TIME ZONE MOUNTAIN 23183

DATE 1	TEMPERATURE °F MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEPARTURE FROM NORMAL 5	AVERAGE DEW POINT 6	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JUL) 7A	COOLING (SEASON BEGINS WITH JAN) 7B	WEATHER TYPES 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW 8	SNOW ICE PELLETS OR ICE ON GROUND AT 0500 INCHES 9	PRECIPITATION WATER EQUIVALENT (INCHES) 10	SNOW, ICE PELLETS (INCHES) 11	AVERAGE STATION PRESSURE IN INCHES ELEV. 1107 FEET ABOVE M.S.L. 12	WIND (M.P.H.) RESULTANT DIR. 13	RESULTANT SPEED 14	AVERAGE SPEED 15	PEAK GUST SPEED 16	PEAK GUST DIRECTION 17	FASTEST 1-MIN SPEED 18	FASTEST 1-MIN DIRECTION 19	SUNSHINE MINUTES 20	PERCENT OF TOTAL POSSIBLE 21	SKY COVER (TENTHS) SUNRISE TO SUNSET 22	MIDNIGHT TO MIDNIGHT 23
01	77	50	64	10	34	1	0		0	0.00	0.0	28.730	12	2.8	3.7	13	E	9	10	601	95	4	4
02	71	53	62	8	41	3	0		0	0.00	0.0	28.670	15	1.8	4.6	13	E	9	11	493	78	10	9
03	75	50	63	9	42	2	0		0	0.00	0.0	28.680	09	2.6	4.6	24	SE	14	14	593	93	7	7
04	75	58	67	12	40	0	2		0	0.00	0.0	28.830	10	2.8	5.1	17	E	13	09	609	95	3	4
05	72	53	63	8	39	2	0		0	0.00	0.0	28.810	10	4.9	5.3	13	E	10	11	592	92	9	7
06	73	57	65	10	42	0	0		0	0.02	0.0	28.700	11	3.3	5.3	21	SW	9	08	447	70	10	10
07	63	56	60	5	54	5	0	1 3	0	0.33	0.0	28.650	09	6.8	7.6	18	SW	13	09	202	31	10	10
08	67	55	61	6	53	4	0	1	0	0.02	0.0	28.765	10	3.1	3.6	9	SW	7	07	134	21	10	9
09	72	51	62	7	48	3	0		0	0.00	0.0	28.755	10	5.4	6.3	13	E	9	09	564	87	2	3
10	67	55	61	6	49	4	0		0	0.12	0.0	28.800	13	3.9	6.9	14	S	10	22	391	60	10	9
11	67	52	60	4	51	5	0		0	0.05	0.0	28.900	09	5.2	5.9	14	SE	9	10	348	53	10	9
12	67	51	59	3	49	6	0		0	T	0.0	28.840	10	5.3	5.7	13	E	9	10	503	77	10	9
13	65	54	60	4	49	5	0		0	0.30	0.0	28.700	17	6.7	10.3	37	SE	26	14	341	52	8	7
14	68	50	59	3	45	6	0		0	0.00	0.0	28.820	10	3.0	4.2	9	E	8	10	535	81	3	4
15	68	49	59	3	43	6	0		0	0.03	0.0	28.760	14	5.3	8.2	48	W	23	27	452	69	9	9
16	62	46*	54*	-2	41	11	0		0	0.03	0.0	28.870	22	1.6	5.2	15	W	23	27	589	89	4	4
17	65	47	56	-1	40	9	0		0	0.00	0.0	28.940	12	1.8	5.1	13	E	8	24	595	90	5	5
18	71	47	59	2	37	6	0		0	0.00	0.0	28.950	12	0.9	3.6	9	SW	7	11	606	91	4	4
19	75	48	62	5	37	3	0		0	0.00	0.0	28.920	23	0.9	4.1	10	W	9	25	667	100	1	0
20	70	50	60	3	42	5	0		0	0.00	0.0	28.875	15	2.0	5.0	12	E	9	10	427	64	10	6
21	77	50	64	7	44	1	0		0	0.00	0.0	28.920	12	2.6	4.6	9	E	8	11	640	95	1	1
22	76	54	65	8	47	0	0		0	0.00	0.0	28.840	11	2.1	5.7	13	E	9	26	619	92	9	5
23	76	53	65	8	33	0	0		0	0.00	0.0	28.765	36	6.2	9.9	29	N	16	01	632	94	0	0
24	76	57	67	10	26	0	2		0	0.00	0.0	28.910	36	5.0	6.8	22	N	13	36	676	100	0	0
25	77	49	63	5	29	2	0		0	0.00	0.0	28.910	20	0.4	5.4	12	SW	9	24	678	100	0	0
26	76	54	65	7	30	0	0		0	0.00	0.0	28.950	08	3.5	7.7	25	E	16	07	680	100	0	0
27	79	53	66	8	29	0	1		0	0.00	0.0	29.010	09	1.4	4.8	16	E	12	11	683	100	0	0
28	82	54	68	10	32	0	3		0	0.00	0.0	28.950	13	2.5	4.6	14	E	9	10	685	100	0	0
29	83*	56	70*	12	35	0	5		0	0.00	0.0	28.790	11	4.1	5.0	15	E	12	09	653	95	9	7
	SUM 2092	SUM 1512				TOTAL 89	TOTAL 13	NUMBER OF DAYS		TOTAL 0.90	TOTAL 0.0	FOR THE MONTH: 28.830	11	2.5	5.7	48	W	26	14	TOTAL 15635	% FOR	SUM 158	SUM 142
	AVG. 72.1	AVG. 52.1	AVG. 62.1	DEP. 6.0	AVG. 40.6	DEP. -188	DEP. -8	PRECIPITATION ≥ .01 INCH	8	DEP. 0.31						DATE:15		DATE: 13		POSSIBLE 19157	MONTH 82	AVG. 5.4	AVG 4.9

NUMBER OF DAYS				SEASON TO DATE TOTAL	TOTAL	SNOW, ICE PELLETS ≥ 1.0 INCH	0	GREATEST IN 24 HOURS AND DATES		GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		723	13	THUNDERSTORMS	1	PRECIPITATION	SNOW, ICE PELLETS	
≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	HEAVY FOG	0	0.35 06-07	0.0	0
0	0	0	0	-488	-8	CLEAR 11	PARTLY CLOUDY 5	CLOUDY 13		

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
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Kenneth D. Wadell
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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

FEB 1992
PHOENIX, AZ

NATIONAL CLIMATIC DATA CENTER
FEDERAL BUILDING
37 BATTERY PARK AVE
ASHEVILLE, NORTH CAROLINA 28801-2733

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

FIRST CLASS
POSTAGE AND FEES PAID
NOAA
PERMIT G-19

FEB 1992 23183
PHOENIX, AZ
USCOMM - NOAA - ASHEVILLE, NC 250

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

DATE	A.M. HOUR ENDING AT												P.M. HOUR ENDING AT												DATE
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
01																									01
02																									02
03																									03
04																									04
05																									05
06																				T	0.01	0.01			06
07	0.05	0.02	0.01	0.05	0.03	0.01	T	T	T	T	T				T	0.16	T		T	T	T				07
08								T	T	T	0.01	0.01													08
09																									09
10							T	T							T			T		0.05	0.02	0.04	0.01	T	10
11	T	T				0.02	T											0.03	T						11
12																				T	T	T			12
13		T	T	0.16	0.04	0.02	T	T	0.01	T	0.04	0.01	0.02		T										13
14																									14
15																								0.03	15
16	0.03																								16
17																									17
18																									18
19																									19
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27																									27
28																									28
29																									29

MAR 1992
PHOENIX, AZ
NATIONAL WEATHER SERVICE OFC.
2633 EAST BUCKEYE ROAD

ISSN 0198-0475

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

SKY HARBOR INTL AIRPORT

LATITUDE 33° 26'N LONGITUDE 112° 01'W ELEVATION (GROUND) 1110 FEET TIME ZONE MOUNTAIN 23183

DATE 1	TEMPERATURE °F MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEPARTURE FROM NORMAL 5	AVERAGE DEW POINT 6	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JUL) 7A	COOLING (SEASON BEGINS WITH JAN) 7B	WEATHER TYPES 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW 8	SNOW ICE PELLETS OR ICE ON GROUND AT 0500 INCHES 9	PRECIPITATION WATER EQUIVALENT (INCHES) 10	SNOW, ICE PELLETS (INCHES) 11	AVERAGE STATION PRESSURE IN INCHES ELEV. 1107 FEET ABOVE M.S.L. 12	WIND (M.P.H.) RESULTANT DIR. 13	RESULTANT SPEED 14	AVERAGE SPEED 15	PEAK GUST SPEED 16	PEAK GUST DIRECTION 17	FASTEST 1-MIN SPEED 18	FASTEST 1-MIN DIRECTION 19	SUNSHINE MINUTES 20	SUNSHINE PERCENT OF TOTAL POSSIBLE 21	SKY COVER (TENTHS) SUNRISE TO SUNSET 22	SKY COVER (TENTHS) MIDNIGHT TO MIDNIGHT 23
01	78	58	68	10	38	0	3		0	0.01	0.0	28.720	09	5.1	7.1	14	E	10	09	617	90	9	9
02	68	51	60	2	51	5	0		0	0.30	0.0	28.740	11	7.9	10.0	39	SW	20	21	351	51	10	10
03	67	50	59	1	48	6	0	1	0	0.27	0.0	28.750	16	4.2	6.3	15	S	12	16	613	88	8	7
04	68	51	60	2	48	5	0		0	0.05	0.0	28.760	16	1.6	6.5	16	W	12	26	608	87	9	7
05	71	51	61	2	47	4	0		0	0.00	0.0	28.790	11	2.9	4.7	10	SE	8	11	630	90	4	3
06	76	51	64	5	43	1	0		0	0.00	0.0	28.720	12	4.6	5.5	12	S	10	12	663	95	6	5
07	75	51	63	4	46	2	0	3	0	0.10	0.0	28.590	19	2.3	8.5	45	W	35	26	547	78	4	5
08	61	49	55	-4	46	10	0		0	0.36	0.0	28.710	14	4.9	7.2	32	SW	15	22	528	75	8	8
09	61	49	55*	-4	46	10	0		0	0.66	0.0	28.830	10	5.3	6.1	15	E	10	06	366	52	8	7
10	71	46*	59	0	43	6	0		0	0.00	0.0	28.860	15	1.1	4.6	13	E	10	24	708	100	0	0
11	77	50	64	4	42	1	0		0	0.00	0.0	28.740	27	3.3	4.2	14	W	12	27	709	100	1	1
12	80	52	66	6	40	0	1		0	0.00	0.0	28.815	12	3.7	4.7	14	E	9	08	711	100	0	0
13	83	53	68	8	40	0	3		0	0.00	0.0	28.860	13	2.3	5.0	13	E	9	10	713	100	3	2
14	84	55	70	10	39	0	5		0	0.00	0.0	28.820	10	4.1	5.8	14	E	10	14	670	94	4	4
15	83	58	71	11	39	0	6		0	0.00	0.0	28.760	12	2.6	5.7	13	SW	10	08	677	94	4	5
16	82	58	70	10	40	0	5		0	0.00	0.0	28.690	13	2.3	6.7	16	NW	10	11	663	92	8	8
17	74	58	66	5	40	0	1		0	0.00	0.0	28.680	27	3.9	6.7	21	W	14	28	673	93	3	4
18	75	52	64	3	39	1	0		0	0.00	0.0	28.810	02	0.6	6.2	16	W	9	22	662	91	3	3
19	80	55	68	7	36	0	3		0	0.00	0.0	28.895	10	4.7	5.6	14	SE	9	12	725	100	0	0
20	83	56	70	9	36	0	5		0	0.00	0.0	28.730	17	2.1	6.5	17	W	14	26	728	100	0	0
21	73	58	66	5	48	0	1	3	0	0.06	0.0	28.720	14	6.0	9.2	23	W	13	28	382	52	8	6
22	75	53	64	2	46	1	0		0	0.00	0.0	28.780	10	2.2	5.4	12	W	9	09	657	90	3	2
23	75	55	65	3	43	0	0		0	0.00	0.0	28.800	25	0.9	7.5	23	W	14	27	640	87	5	3
24	77	53	65	3	39	0	0		0	0.00	0.0	28.885	24	2.3	3.7	10	SW	9	24	736	100	2	1
25	85*	55	70	8	39	0	5		0	0.00	0.0	28.770	13	3.1	6.1	14	SW	9	09	708	96	5	4
26	78	59	69	6	42	0	4		0	T	0.0	28.670	05	1.0	6.3	16	W	10	27	374	50	10	9
27	67	56	62	-1	54	3	0	1 3	0	0.65	0.0	28.650	10	5.9	8.0	20	E	17	13	174	23	10	10
28	73	55	64	1	53	1	0	1	0	0.01	0.0	28.770	13	4.1	5.8	17	NE	12	06	628	84	8	8
29	79	58	69	6	51	0	4		0	0.00	0.0	28.855	12	2.3	5.7	14	E	12	06	707	95	4	6
30	82	60	71*	7	51	0	6	3	0	0.02	0.0	28.760	13	2.5	7.1	18	SW	15	23	460	61	7	8
31	74	60	67	3	49	0	2		0	T	0.0	28.740	24	1.9	6.4	18	SW	12	24	629	84	6	6
	SUM	SUM				TOTAL	TOTAL			TOTAL	TOTAL									TOTAL	%	SUM	SUM
	2335	1676				56	54	NUMBER OF DAYS		2.49	0.0	28.760	13	2.3	6.3	45	W	35	26	18657	FOR MONTH	160	151
	AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	PRECIPITATION		DEP						DATE: 7		DATE: 7		POSSIBLE		AVG.	AVG.
	75.3	54.1	64.7	4.1	43.8	-131	3	≥ .01 INCH	11	1.68										22281	84	5.2	4.9

NUMBER OF DAYS				SEASON TO DATE TOTAL	SEASON TO DATE TOTAL	SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		779	67	≥ 1.0 INCH	0	PRECIPITATION		SNOW, ICE PELLETS	
≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	THUNDERSTORMS	4	0.86	08-09	0.0	0
0	0	0	0	-611	-4	HEAVY FOG	0				
						CLEAR 10	PARTLY CLOUDY 10	CLOUDY 11			

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
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NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

MAR 1992
PHOENIX, AZ

NATIONAL CLIMATIC DATA CENTER
FEDERAL BUILDING
37 BATTERY PARK AVE
ASHEVILLE, NORTH CAROLINA 28801-2733

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

FIRST CLASS
POSTAGE AND FEES PAID
NOAA
PERMIT G-19

MAR 1992 23183
PHOENIX, AZ
USCOMM - NOAA - ASHEVILLE, NC 250

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

DATE	A.M. HOUR ENDING AT												P.M. HOUR ENDING AT												DATE
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
01																					T	T	0.01	T	01
02	T	0.01	T	T							T	T	T	0.09	0.02	0.07	0.02				T		0.02	0.07	02
03	0.10	0.04	0.10	0.03				T																	03
04				0.01	0.02	0.02																			04
05																									05
06																									06
07																	0.09	0.01	T						07
08			T	0.03	0.04	0.03	0.06	T				T	T	0.02	0.17	0.01								T	08
09				0.05	0.12	0.06	0.11	0.16	0.07	0.08	0.01	T													09
10																									10
11																									11
12																									12
13																									13
14																									14
15																									15
16																									16
17																									17
18																									18
19																									19
20																									20
21												T	0.06	T	T	T		T							21
22																									22
23																									23
24																									24
25																									25
26																					T		T	T	26
27	0.01	0.02	0.14	0.01	T	0.12	0.14	0.03	T						0.01	0.01	0.04	0.06	0.03	0.01	T	T	0.02	T	27
28	T	T	0.01	T																				T	28
29																									29
30																	T	0.01			0.01	T			30
31										T	T														31

Preliminary Local Climatological Data (WS Form: F-6)

Station: WSO, PHOENIX, AZ
Month: AUG
Year: 1992

Latitude [illegible] Longitude +11201 Gnd Elev. 1107 ft. Std Time: MST

Temperature in Fahrenheit							: Precip(in.):	Snow	: Wind	: Fastest 1-Min:			Sunshine :		Sky		: Peak Wind	
Columns																		
-1- Day	-2- Max	-3- Min	-4- Avg	-5- Dep.	-6a- HDD	-6b- CDD	-7- Water	-8- Snow	-9- Depth	-10- Avg.	-11- Speed	-12- Dir	-13- Mins.	-14- %PSBL	-15- SR-SS	-16- Weather	-17- Speed	-18- Dir
1	106	84	95	3	0	30	0.06	0.0	0	5.5	23	10	827	100	2	3	35	E
2	107	81	94	2	0	29	0.00	0.0	0	5.1	10	27	825	100	1		17	E
3	107	82	95	3	0	30	0.00	0.0	0	7.3	20	26	793	96	1	3	35	W
4	99	80	90	-2	0	25	T	0.0	0	6.5	12	29	766	93	3	3	21	W
5	95	74	85	-6	0	20	0.29	0.0	0	2.4	09	27	443	54	7	3	16	W
6	102	77	90	-1	0	25	T	0.0	0	5.8	17	09	504	61	6	3	32	E
7	101	77	89	-2	0	24	T	0.0	0	4.7	12	11	747	91	3	3	16	E
8	104	83	94	3	0	29	0.00	0.0	0	5.1	08	11	728	89	2		18	W
9	109	86	97	6	0	32	T	0.0	0	5.1	09	02	750	92	3		15	NE
10	109	86	98	7	0	33	0.00	0.0	0	4.5	12	25	786	97	1		17	W
11	111	81	96	5	0	31	0.05	0.0	0	6.0	30	01	716	88	3	3	47	N
12	106	83	95	5	0	30	0.00	0.0	0	6.7	18	11	706	87	9		30	E
13	106	89	98	8	0	33	0.00	0.0	0	7.0	13	08	753	93	3		19	E
14	109	87	98	8	0	33	0.00	0.0	0	3.6	07	28	806	100	1		12	W
15	112	90	101	11	0	36	0.00	0.0	0	3.0	09	08	631	78	3		13	NW
16	113	88	101	11	0	36	0.00	0.0	0	4.6	10	24	759	95	3		17	SW
17	113	91	102	12	0	37	0.00	0.0	0	6.6	17	06	678	85	3	3	38	NE
18	109	88	99	9	0	34	0.00	0.0	0	5.2	14	08	454	57	8		22	E
19	109	79	94	5	0	29	0.12	0.0	0	7.7	21	05	696	87	2	3	29	NE
20	107	79	93	4	0	28	T	0.0	0	4.9	21	05	582	73	3	3	16	SW
21	101	84	93	4	0	28	T	0.0	0	8.4	17	11	449	57	6	3	30	S
22	92	72	82	-7	0	17	0.50	0.0	0	9.2	14	12	288	36	8	3	22	NE
23	78	69	74	-15	0	9	0.28	0.0	0	8.9	13	06	0	0	10		21	E
24	93	71	82	-7	0	17	T	0.0	0	7.0	12	26	728	93	3		15	W
25	98	76	87	-2	0	22	0.00	0.0	0	7.2	12	09	785	100	1		13	E
26	101	77	89	0	0	24	0.00	0.0	0	6.4	10	08	784	100	3		13	E
27	104	80	92	4	0	27	0.00	0.0	0	6.0	10	09	781	100	0		14	E
28	107	79	93	5	0	28	0.00	0.0	0	6.1	12	10	670	86	6		16	E
29	99	83	91	3	0	26	0.00	0.0	0	8.7	14	10	424	54	7		23	E
30	101	77	89	1	0	24	T	0.0	0	7.5	10	10	671	86	4		16	E
31	101	79	90	2	0	25	0.00	0.0	0	8.2	15	26	773	100	1		22	W
Sum	3200	2512			0	851	1.30	0.0		190.9			20303		116			
Avg	103.5	81.0								6.2	Fast	Dir.	Psbl	%	3.7		Max (mph)	
									Misc --------)		30	01	24847	82			047	N

Notes:
Column 9 readings are taken at 0500
Col[illegible]7 Peak Wind in M.P.H.

Preliminary Local Climatological Data (WS Form: F-6), Page 2

Station: WSO, PHOENIX, AZ
Month: AUG
Year: 1992

[Temperature Data]

Average Monthly: 92.3
Departure from Normal: +2.4
Highest: 113 on 16 , 17
Lowest: 69 on 23

[Precipitation Data]

Total for Month: 1.30
Departure from Normal: +0.28
Greatest in 24 hrs. 0.74 on 22-23

SNOWFALL, ICE PELLETS, HAIL
Total for month: 0.0 inches
Greatest snowfall in 24 hrs: 0.0 on
Greatest snow depth: 0 on

SYMBOLS USED IN COLUMN 16

1 = FOG
2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
3 = THUNDER
4 = ICE PELLETS
5 = HAIL
6 = GLAZE OR RIME
7 = BLOWING DUST OR BLOWING SAND REDUCING VISIBILITY TO 1/2 MILE OR LESS
8 = SMOKE OR HAZE
9 = BLOWING SNOW
X = TORNADO

[No. of Days with]

Max 32 or below: 0
Max 90 or above: 30
Min 32 or below: 0
Min 0 or below: 0

[WEATHER - No. of Days with]

0.01 inch or more Precip: 6
0.10 inch or more Precip: 4
0.50 inch or more Precip: 1
1.00 inch or more Precip: 0

[Heating Degree Days (Base 65)]

Total this Month: 0
Departure from Normal: 0
Seasonal Total: 0
Departure from Normal: 0

Clear (scale 0-3) 21
Partly Cloudy (scale 4-7) 6
Cloudy (scale 8-10) 4

[Cooling Degree Days (Base 65)]

Total this Month: 851
Departure from Normal: +79
Seasonal Total: 3488
Departure from Normal: +636

[Pressure Data]

Highest Sea-Level 30.01 in. on 27
Lowest Sea-Level 29.68 in. on 11 , 16

Maximum Precipitation
(Delta T) (Minutes)
Precipitation (Inches)
Ended Date
Time

==========

1

```
**************************************************
*          ENVIRONMENTAL PROTECTION AGENCY       *
*           STORM WATER MANAGEMENT MODEL         *
*                  VERSION 4.04                  *
**************************************************

                 DEVELOPED BY

**************************************************
*             METCALF & EDDY, INC.               *
*            UNIVERSITY OF FLORIDA               *
*       WATER RESOURCES ENGINEERS, INC.          *
*              SEPTEMBER 1970                    *
**************************************************

                 UPDATED BY

**************************************************
*            UNIVERSITY OF FLORIDA               *
*           CAMP DRESSER & MCKEE, INC.           *
*                                                *
*   MARCH     1975          NOVEMBER  1977       *
*   NOVEMBER  1981          SEPTEMBER 1989       *
**************************************************

**************************************************
*    THIS IS A NEW RELEASE OF SWMM.  IF ANY      *
*     PROBLEMS OCCUR IN RUNNING THIS MODEL       *
*            CONTACT WAYNE HUBER                 *
*           UNIVERSITY OF FLORIDA                *
*            PHONE 1-904-392-0846                *
**************************************************

**************************************************
*  THIS IS AN IMPLEMENTATION OF EPA SWMM 4.04    *
*  "NATURE IS FULL OF INFINITE CAUSES WHICH      *
*   HAVE NEVER OCCURED IN EXPERIENCE" da Vinci   *
**************************************************

**************************************************
*       DISK OR TAPE ASSIGNMENTS BY BLOCK        *
*         JIN  -> INPUT TO A BLOCK               *
*        JOUT  -> OUTPUT FROM A BLOCK            *
**************************************************

 BLOCK( 1)      JIN( 1)  8      JOUT( 1)  9
 BLOCK( 2)      JIN( 2)  9      JOUT( 2) 10
 BLOCK( 3)      JIN( 3) 10      JOUT( 3) 11

**************************************************
*             SCRATCH DISKS OR TAPES             *
```

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```
*        THESE CAN BE USED BY ANY BLOCK        *
**************************************************

NSCRAT(1) NCSRAT(2) NSCRAT(3) NSCRAT(4) NSCRAT(5) NSCRAT(6) NSCRAT(7)
    9        20        30        31        32        33        34

****************************************************
*    PARAMETER VALUES ON THE TAPES COMMON BLOCK    *
****************************************************

 NUMBER OF SUBCATCHMENTS IN THE RUNOFF BLOCK (NW)....  150
 NUMBER OF CHANNEL/PIPES IN THE RUNOFF BLOCK (NG)....  150
 RUNOFF WATER QUALITY CONSTITUENTS (NRQ).............   10
 NUMBER OF ELEMENTS IN THE TRANSPORT BLOCK (NET).....  200
 NUMBER OF STORAGE JUNCTIONS IN TRANSPORT (NTSE).....   30
 NUMBER OF INPUT HYDROGRAPHS IN TRANSPORT (NTH)......   80
 NUMBER OF ELEMENTS IN THE EXTRAN BLOCK (NEE)........  175
 NUMBER OF GROUNDWATER SUBCATCHMENTS IN RUNOFF (NGW).  100
 NUMBER OF INTERFACE LOCATIONS FOR ALL BLOCKS (NIE)..  200
 NUMBER OF PUMPS IN EXTRAN (NEP).....................   20
 NUMBER OF ORIFICES IN EXTRAN (NEO)..................   60
 NUMBER OF TIDE GATES/FREE OUTFALLS IN EXTRAN (NTG)..   25
 NUMBER OF EXTRAN WEIRS (NEW)........................   60
 NUMBER OF EXTRAN PRINTOUT LOCATIONS (NPO)...........   30
 NUMBER OF TIDE ELEMENTS IN EXTRAN (NTE).............   20
 NUMBER OF NATURAL CHANNELS (NNC)....................   50
 NUMBER OF STORAGE JUNCTIONS IN EXTRAN (NVSE)........   10
 NUMBER OF DATA POINTS FOR VARIABLE STORAGE ELEMENTS
 IN THE EXTRAN BLOCK (NVST)..........................   10
 NUMBER OF INPUT HYDROGRAPHS IN EXTRAN (NEH).........  100


**************************************************
* ENTRY MADE TO THE RAINFALL BLOCK               *
* CREATED BY THE UNIVERSITY OF FLORIDA - 1988    *
**************************************************


        BASIN SR-45
        RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

     ****************************************
     *  PRECIPITATION BLOCK INPUT COMMANDS  *
     ****************************************

    STATION, ISTA.........................     46481

    BEGINNING DATE, IYBEG (YR/MO/DY)......    76/ 1/ 1
```

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```
ENDING DATE, IYEND (YR/MO/DY).........    76/12/31

MINIMUM INTEREVENT TIME, MIT..........     6

NUMBER OF RANKED STORMS, NPTS.........    10

NWS FORMAT, IFORM (SEE TEXT)..........     3

PRINT STORM SUMMARY, ISUM (O-NO 1-YES)     1

PRINT ALL RAINFALL, IYEAR (O-NO 1-YES)     0

SAVE STORM EVENT DATA, IFILE..........     0
(O-DO NOT SAVE 1- SAVE DATA)..........

IDECID 0 - CREATE INTERFACE FILE
       1 - CREATE FILE AND ANALYZE
       2 - SYNOPTIC ANALYSIS..........     1

PLOTTING POSITION PARAMETER, A........  0.00

STORM EVENT STATISTICS, NOSTAT........     0


*********************************************************
*  PRECIPITATION OUTPUT CREATED USING THE RAIN BLOCK    *
*  NUMBER OF PRECIPITATION STATIONS...        1         *
*********************************************************

LOCATION STATION NUMBER
-------- --------------
       1.        46481


     ****************************
     * USER DEFINED INPUT FORMAT *
     ****************************

    USER FORMAT (FIRMAT)...................(I6,4I10,I3,F7.0)

    INPUT/OUTPUT UNITS 0 = U.S. CUSTOMARY..
                       1 = METRIC UNITS....     0

    UNITS OF RAINFALL (KUNIT)..............     0
     0 -> INTENSITY; 1 --> VOLUME..........

     CONVERSION FACTOR (CONV)..............  0.01

     RAINFALL INTERVAL IN MINUTES(THISTO).. 60.00
```

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FIELD POSITION FOR STATION NUMBER, F1. 1

FIELD POSITION FOR YEAR, F2..... 2

FIELD POSITION FOR MONTH, F3..... 3

FIELD POSITION FOR DAY, F4..... 4

FIELD POSITION FOR HOUR, F5..... 5

FIELD POSITION FOR MINUTE, F6..... 6

FIELD POSITION FOR RAINFALL,F7..... 7

1

```
************************************************************
* S T O R M   E V E N T   S U M M A R Y *
************************************************************
```

BASIN SR-45
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

STORM NO	DATE	START HOUR	DUR-ATION HOURS	VOLUME INCHES	AVE INTEN IN/HR	MAX INTEN IN/HR	TIME >0 IN HOURS	HOURS MISSING DATA	HOURS METER STUCK
1	2/ 4/76	3	10.	0.09	0.01	0.03	UNDEF	0	0
2	2/ 5/76	7	1.	0.02	0.02	0.02	18.	0	0
3	2/ 9/76	1	11.	0.36	0.03	0.11	89.	0	0
4	3/ 3/76	12	9.	0.40	0.04	0.23	552.	0	0
5	4/14/76	6	9.	0.38	0.04	0.16	993.	0	0
6	4/16/76	1	2.	0.25	0.13	0.19	34.	0	0
7	4/16/76	13	1.	0.04	0.04	0.04	10.	0	0
8	5/ 3/76	20	2.	0.05	0.03	0.04	414.	0	0
9	5/ 4/76	6	2.	0.40	0.20	0.31	8.	0	0
10	5/ 4/76	16	4.	0.51	0.13	0.38	8.	0	0
11	5/ 7/76	21	2.	0.04	0.02	0.03	73.	0	0
12	5/18/76	19	4.	0.06	0.02	0.04	260.	0	0
13	6/29/76	19	1.	0.09	0.09	0.09	1004.	0	0
14	7/12/76	0	1.	0.08	0.08	0.08	292.	0	0
15	7/22/76	21	1.	0.01	0.01	0.01	260.	0	0
16	7/24/76	2	4.	0.96	0.24	0.65	28.	0	0
17	7/25/76	0	1.	0.07	0.07	0.07	18.	0	0
18	7/28/76	22	2.	0.36	0.18	0.31	93.	0	0
19	8/ 8/76	21	2.	0.03	0.02	0.02	261.	0	0
20	8/28/76	19	2.	0.09	0.05	0.08	476.	0	0
21	9/ 5/76	14	7.	0.34	0.05	0.29	185.	0	0
22	9/10/76	15	1.	0.04	0.04	0.04	114.	0	0
23	9/11/76	2	1.	0.01	0.01	0.01	10.	0	0
24	9/23/76	17	13.	1.00	0.08	0.26	302.	0	0
25	9/24/76	19	1.	0.02	0.02	0.02	13.	0	0

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26	9/25/76	2	4.	0.28	0.07	0.24	6.	0	0
27	10/21/76	4	6.	0.04	0.01	0.02	622.	0	0
28	10/22/76	19	1.	0.09	0.09	0.09	33.	0	0
29	10/23/76	2	10.	0.52	0.05	0.11	6.	0	0
30	10/27/76	15	1.	0.05	0.05	0.05	99.	0	0
31	11/12/76	16	10.	0.43	0.04	0.13	384.	0	0
32	12/19/76	5	3.	0.05	0.02	0.03	867.	0	0
TOTAL				7.16				0	0
ESTIMATED MISSING RAINFALL								0.00	0.00

1

```
*****************************************
*         PRECIPITATION SUMMARY         *
*****************************************

RAINFALL SUMMARY FOR STATION        46481
TOTAL MISSING HOURS                     0  HOURS
TOTAL HOURS OF METER MALFUNCTION        0  HOURS
TOTAL RAINFALL                       7.16  INCHES
TOTAL NUMBER OF YEARS                   1  YEARS
```

===> RAINFALL BLOCK ENDED NORMALLY.

1

```
****************************************************
* ENTRY MADE TO THE RUNOFF BLOCK, LAST UPDATED BY *
* THE UNIVERSITY OF FLORIDA DURING MAY 1989.      *
****************************************************
* "And wherever water goes, amoebae go along for  *
*  the ride"                      Tom Robbins     *
****************************************************
```

BASIN SR-45

RUNOFF BLOCK

SNOWMELT PARAMETER - ISNOW..... 0

NUMBER OF RAIN GAGES - NRGAG..... 1

GREEN-AMPT INFILTRATION EQUATION USED - INFILM... 1

QUALITY IS NOT SIMULATED - KWALTY..... 0

READ MONTHLY EVAPORATION DATA ON CARD F1..... 1

HOUR OF DAY AT START OF STORM - NHR..... 0

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MINUTE OF HOUR AT START OF STORM - NMN..... 0

TIME TZERO AT START OF STORM (HOURS)..... 0.000

USE U.S. CUSTOMARY UNITS FOR MOST I/O - METRIC... 0

RUNOFF INPUT PRINT CONTROL... 24

RUNOFF GRAPH PLOT CONTROL.... 1

RUNOFF OUTPUT PRINT CONTROL.. 2

MONTH, DAY, YEAR OF START OF STORM IS: 1/ 1/76

WET TIME STEP LENGTH (SECONDS)..... 900.

DRY TIME STEP LENGTH (SECONDS)..... 10800.

WET/DRY TIME STEP LENGTH (SECONDS)... 1800.

SIMULATION LENGTH IS..... 761231.0 YR/MO/DY

PERCENT OF IMPERVIOUS AREA WITH ZERO DETENTION DEPTH 25.0

```
*********************************************************
*   PROCESSED PRECIPITATION WILL BE READ ON NSCRAT(1)  *
*********************************************************
```

```
*****************************
*        DATA GROUP F1      *
* EVAPORATION RATE (IN/DAY) *
*****************************
```

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.
0.09	0.13	0.17	0.26	0.32	0.33	0.32	0.28	0.25	0.18	0.12	0.08

1

```
*********************************************************
*        C H A N N E L  A N D  P I P E  D A T A         *
*********************************************************
```

INPUT SEQUEN NUMBER	NAMEG: CHANNEL ID #	DRAINS TO NGTO:	CHANNEL TYPE	WIDTH (FT)	LENGTH (FT)	INVERT SLOPE (FT/FT)	L SIDE SLOPE (FT/FT)	R SIDE SLOPE (FT/FT)	INTIAL DEPTH (FT)	MAX DEPTH (FT)	MANN-INGS "N"	FULL FLOW (CFS)
1	381	395	CIRCULAR	4.5	3550.0	0.0022	0.0000	0.0000	0.0	0.0	0.0150	8.60E+01

1

```
*****************************************************
*         S U B C A T C H M E N T   D A T A         *
```

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****

SUBCATCH-MENT NO.	GUTTER OR INLET	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	DEPRES. STORAGE(IN) IMPERV.	DEPRES. STORAGE(IN) PERV.	GREEN-AMPT INFIL PARAMS SUCTION (IN)	GREEN-AMPT INFIL PARAMS HYD.CON (IN/HR)	GREEN-AMPT INFIL PARAMS IMD	GAGE NO.
1 3051	381	5700.00	49.60	55.00	0.0100	0.050	0.100	0.100	0.200	6.74	0.15	0.286	1
2 3151	395	6000.00	69.50	55.00	0.0100	0.050	0.100	0.100	0.200	6.74	0.15	0.286	1
3 3152	395	300.00	1.00	0.00	0.0100	0.050	0.100	0.100	0.200	6.74	0.15	0.286	1

TOTAL NUMBER OF SUBCATCHMENTS.. 3
TOTAL TRIBUTARY AREA (ACRES).... 120.10
IMPERVIOUS AREA (ACRES)..... 65.50
PERVIOUS AREA (ACRES)..... 54.60
TOTAL WIDTH (FEET)..... 12000.00
PERCENT IMPERVIOUSNESS..... 54.54

1

```
*************************************************************
*     ARRANGEMENT OF SUBCATCHMENTS AND CHANNEL/PIPES        *
*************************************************************
```

CHANNEL
OR PIPE
381 NO TRIBUTARY CHANNEL/PIPES
TRIBUTARY SUBAREAS..... 3051

INLET
395 TRIBUTARY CHANNEL/PIPES... 381
TRIBUTARY SUBAREAS..... 3151 3152

```
*************************************************************
* HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING   1 INLETS *
*************************************************************
```

395

```
*************************************************
*  QUALITY SIMULATION NOT INCLUDED IN THIS RUN *
*************************************************
```

```
************************
*    DATA GROUP M1     *
************************
```

TOTAL NUMBER OF PRINTED GUTTERS/INLETS...NPRNT.. 1

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```
NUMBER OF TIME STEPS BETWEEN PRINTINGS..INTERV..        0
STARTING AND STOPPING PRINTOUT DATES............        0        0


    ************************
    *    DATA GROUP M3     *
    ************************

CHANNEL/INLET PRINT DATA GROUPS......    395


*****************************************************
*  PRECIPITATION INTERFACE FILE SUMMARY             *
*  NUMBER OF PRECIPITATION STATIONS...        1     *
*****************************************************

LOCATION STATION NUMBER
-------- --------------
       1.         46481


1
 ************************************************
 * SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
 *            JANUARY    1976                   *
 ************************************************

 DAY  INLET RAIN      FLOW
            INCH      INCH
  ---- ---  ----    --------
TOTAL  395  0.00000   0.000

1
 ************************************************
 * SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
 *            FEBRUARY   1976                   *
 ************************************************

 DAY  INLET RAIN      FLOW
            INCH      INCH
  ---- ---  ----    --------
   4   395  0.09000   0.005
   5   395  0.02000   0.001
   6   395  0.00000   0.000
   9   395  0.36000   0.117
  10   395  0.00000   0.000
  11   395  0.00000   0.000
TOTAL  395  0.47000   0.123

1
 ************************************************
```

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```
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MARCH       1976                  *
************************************************

 DAY   INLET RAIN      FLOW
             INCH      INCH
  ---- ---  ----    --------
   3   395  0.40000   0.147
   4   395  0.00000   0.000
   5   395  0.00000   0.000
   6   395  0.00000   0.000
TOTAL  395  0.40000   0.147

1
************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            APRIL       1976                  *
************************************************

 DAY   INLET RAIN      FLOW
             INCH      INCH
  ---- ---  ----    --------
  14   395  0.38000   0.096
  15   395  0.00000   0.000
  16   395  0.29000   0.071
  17   395  0.00000   0.000
TOTAL  395  0.67000   0.167

1
************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MAY         1976                  *
************************************************

 DAY   INLET RAIN      FLOW
             INCH      INCH
  ---- ---  ----    --------
   3   395  0.05000   0.002
   4   395  0.91000   0.355
   5   395  0.00000   0.000
   6   395  0.00000   0.000
   7   395  0.04000   0.000
   8   395  0.00000   0.000
   9   395  0.00000   0.000
  10   395  0.00000   0.000
  11   395  0.00000   0.000
  18   395  0.06000   0.001
  19   395  0.00000   0.000
  20   395  0.00000   0.000
  21   395  0.00000   0.000
TOTAL  395  1.06000   0.359
```

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1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JUNE       1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
29	395	0.09000	0.006
30	395	0.00000	0.000
TOTAL	395	0.09000	0.006

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JULY       1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	395	0.00000	0.000
2	395	0.00000	0.000
12	395	0.08000	0.005
13	395	0.00000	0.000
14	395	0.00000	0.000
22	395	0.01000	0.000
24	395	0.96000	0.449
25	395	0.07000	0.004
26	395	0.00000	0.000
27	395	0.00000	0.000
28	395	0.31000	0.055
29	395	0.05000	0.072
30	395	0.00000	0.000
31	395	0.00000	0.000
TOTAL	395	1.48000	0.585

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            AUGUST     1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
8	395	0.03000	0.000
9	395	0.00000	0.000
10	395	0.00000	0.000
11	395	0.00000	0.000
28	395	0.09000	0.007

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29	395	0.00000	0.000
30	395	0.00000	0.000
TOTAL	395	0.12000	0.007

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            SEPTEMBER  1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
5	395	0.34000	0.110
6	395	0.00000	0.001
7	395	0.00000	0.000
10	395	0.04000	0.002
11	395	0.01000	0.000
23	395	0.72000	0.295
24	395	0.30000	0.135
25	395	0.28000	0.083
26	395	0.00000	0.000
27	395	0.00000	0.000
TOTAL	395	1.69000	0.626

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            OCTOBER    1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
21	395	0.04000	0.000
22	395	0.09000	0.008
23	395	0.52000	0.206
24	395	0.00000	0.000
25	395	0.00000	0.000
26	395	0.00000	0.000
27	395	0.05000	0.003
28	395	0.00000	0.000
29	395	0.00000	0.000
TOTAL	395	0.70000	0.217

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            NOVEMBER   1976                     *
**************************************************
```

DAY	INLET	RAIN	FLOW

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```
            INCH      INCH
  ---- ---  ----    --------
  12   395  0.39000   0.123
  13   395  0.04000   0.034
TOTAL  395  0.43000   0.158

1
 ************************************************
 * SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
 *           DECEMBER   1976                   *
 ************************************************

 DAY  INLET RAIN      FLOW
            INCH      INCH
  ---- ---  ----    --------
  19   395  0.05000   0.004
  20   395  0.00000   0.000
  21   395  0.00000   0.000
  31   395  0.80000   0.348
TOTAL  395  0.85000   0.352
 YEAR  395  7.96000   2.749
   1   395  0.00000   0.000
TOTAL  395  0.00000   0.000
 YEAR  395  7.96000   2.749

 ************************************************
 *      END OF TIME STEP DO-LOOP IN RUNOFF      *
 ************************************************

 FINAL DATE (MO/DAY/YEAR)   =                    1/ 1/77
 TOTAL NUMBER OF TIME STEPS =                       3485
 FINAL JULIAN DATE  =                              77001
 FINAL TIME OF DAY  =                                 0. SECONDS.
 FINAL RUNNING TIME =                          8784.0000   HOURS.
 FINAL RUNNING TIME =                           366.0000    DAYS.

 ************************************************
 *     EXTRAPOLATION SUMMARY FOR WATERSHEDS     *
 * # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
 * # CALLS ==> TOTAL NUMBER OF OVERLND CALLS    *
 ************************************************

  SUBCATCH   # STEPS   # CALLS  SUBCATCH   # STEPS   # CALLS  SUBCATCH   # STEPS   # CALLS
  --------   -------   -------  --------   -------   -------  --------   -------   -------
      3051      5871       861      3151      5974       886      3152         0         0

 ************************************************
 *     EXTRAPOLATION SUMMARY FOR CHANNEL/PIPES  *
 * # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
 * # CALLS ==> TOTAL NUMBER OF GUTNR CALLS      *
 ************************************************
```

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CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS
381	8238	1022						

1

```
***********************************************
*       CONTINUITY CHECK FOR SURFACE WATER    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
TOTAL PRECIPITATION (RAIN PLUS SNOW)	3.470266E+06	7.960
TOTAL INFILTRATION	1.388120E+06	3.184
TOTAL EVAPORATION	8.564770E+05	1.965
SURFACE RUNOFF FROM WATERSHEDS	1.194612E+06	2.740
TOTAL WATER REMAINING IN SURFACE STORAGE	2.099637E+04	0.048
INFILTRATION OVER THE PERVIOUS AREA...	1.388120E+06	7.004

INFILTRATION + EVAPORATION + SURFACE RUNOFF + SNOW REMOVAL + WATER REMAINING IN SURFACE STORAGE + WATER REMAINING IN SNOW COVER.....	3.460205E+06	7.937
TOTAL PRECIPITATION + INTIAL STORAGE..	3.470265E+06	7.960

```
THE ERROR IN CONTINUITY IS CALCULATED AS
****************************************
* PRECIPITATION + INITIAL SNOW COVER   *
*       - INFILTRATION -               *
*EVAPORATION - SNOW REMOVAL -          *
*SURFACE RUNOFF FROM WATERSHEDS -      *
*WATER IN SURFACE STORAGE -            *
*WATER REMAINING IN SNOW COVER         *
*--------------------------------------*
* PRECIPITATION + INITIAL SNOW COVER   *
****************************************
ERROR.................................                0.290 PERCENT
```

```
***********************************************
*       CONTINUITY CHECK FOR CHANNEL/PIPES    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
INITIAL CHANNEL/PIPE STORAGE.....	0.000000E-01	0.000
FINAL CHANNEL/PIPE STORAGE.....	6.205309E+02	0.001
SURFACE RUNOFF FROM WATERSHEDS.....	1.194612E+06	2.740
GROUNDWATER SUBSURFACE INFLOW.....	0.000000E-01	0.000
EVAPORATION LOSS FROM CHANNELS.....	0.000000E-01	0.000
CHANNEL/PIPE/INLET OUTFLOW.....	1.198356E+06	2.749
INITIAL STORAGE + INFLOW.....	1.194612E+06	2.740
FINAL STORAGE + OUTFLOW.....	1.198976E+06	2.750

```
*********************************************
* FINAL STORAGE + OUTFLOW  + EVAPORATION - *
```

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```
* WATERSHED RUNOFF - GROUNDWATER INFLOW  - *
*     INITIAL CHANNEL/PIPE STORAGE         *
*     ---------------------------------    *
*  FINAL STORAGE + OUTFLOW  + EVAPORATION  *
*******************************************
ERROR.......................................          0.364 PERCENT
1
*********************************************
*  SUMMARY OF QUANTITY RESULTS (FLOW IN CFS) *
*********************************************

   BASIN SR-45
   RUNOFF BLOCK


                      CHAN/INLT
                           395
   DATE      TIME         FLOW
 MO/DA/YR  HR:MIN         CFS
 --------  ------        ----

FLOW WT'D MEANS          0.0379
FLOW WT'D STD-DEVS       0.5763
MAXIMUM VALUE           38.4697
MINIMUM VALUE            0.0000
TOTAL LOADS            1.20E+06
                       CUBIC-FT

===> RUNOFF SIMULATION ENDED NORMALLY.


     ************************************
     *      STATS BLOCK INPUT COMMANDS  *
     ************************************

    MINIMUM INTEREVENT TIME (HOURS).......      8.50
    NPOINT (NUMBER OF PRINTED EVENTS).....         0
    METRIC (0-U.S. STANDARD, 1-METRIC)....         0
    LRET (RETURN PERIOD UNITS)............         1
    A (PLOTTING POSITION PARAMETER).......     0.000


    PRINT SEQUENTIAL SERIES (KSEQ)........         1
    TERMINATE PROGRAM PARAMETER (KTERM)...         0
    KTSEQS................................         1


*********************************************
* HEADER INFORMATION FROM INTERFACE FILE: *
*********************************************
```

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```
TITLE FROM FIRST COMPUTATIONAL BLOCK:
BASIN SR-45
RUNOFF BLOCK

TITLE FROM IMMEDIATELY PRECEDING COMPUTATIONAL BLOCK
BASIN SR-45
RUNOFF BLOCK

NAME OF PRECEDING BLOCK:................RUNOFF BLOCK
INITIAL JULIAN DATE (IDATEZ)......................   76001
INITIAL TIME OF DAY IN SECONDS (TZERO)............     0.0
NO. TRANSFERED INPUT LOCATIONS....................       1
NO. TRANSFERED POLLUTANTS.........................       0
SIZE OF TOTAL CATCHMENT AREA (ACRES)..............  120.10

**************************************************
* ELEMENT NUMBERS OF INTERFACE INLET LOCATIONS: *
**************************************************
    395

CONVERSION FACTOR TO CFS FOR FLOW UNITS
ON INTERFACE FILE.  MULTIPLY BY:     1.00000


*********************************************************
* STATISTICAL ANALYSIS BLOCK WRITTEN BY THE UNIVERSITY *
* OF FLORIDA.  LAST UPDATED MAY, 1989.                 *
*********************************************************


1
**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING DATE...............     0   STARTING TIME... 0.00 HOURS
 ENDING DATE.................     0   ENDING TIME..... 0.00 HOURS


**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING JULIAN DATE........     0   STARTING TIME... 0.00 SECONDS
 ENDING JULIAN DATE..........     0   ENDING TIME..... 0.00 SECONDS

===> A ZERO STARTING DATE INDICATES THAT THE ANALYSIS
     COMMENCES AT THE BEGINNING OF THE RECORD.  A ZERO
     ENDING DATE INDICATES THAT THE ANALYSIS CONTINUES TO
     THE END OF THE RECORD.
```

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THE MINIMUM INTEREVENT TIME HAS BEEN DEFINED AS 8.50 HOURS.

```
*****************************************************
* THE FLOW LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:     395                               *
*****************************************************

*****************************************************
* THE RAIN LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:       0                               *
*****************************************************
```

U.S. CUSTOMARY UNITS ARE USED IN INPUT/OUTPUT

THE NUMBER OF POLLUTANTS REQUESTED FOR STATISTICAL ANALYSIS IS 0

THE BASE FLOW TO SEPARATE EVENTS IS 0.0010 CFS.

THE STATISTICAL OPTIONS REQUESTED FOR FLOW RATE ARE INDICATED BY A '1'

	TOTAL FLOW	AVERAGE FLOW	PEAK FLOW	EVENT DURATION	INTEREVENT DURATION
TABLE OF RETURN PERIOD AND FREQUENCY	1	0	0	0	0
GRAPH OF RETURN PERIOD	0	0	0	0	0
GRAPH OF FREQUENCY	0	0	0	0	0
MOMENTS	0	0	0	0	0

===> PROGRAM EXECUTION CONTINUING. DATA WILL BE
READ FROM THE INTERFACE FILE AND SEPARATED INTO EVENTS.

===> THE FIRST DATE AND TIME ON THE INTERFACE FILE ARE 76001 0.00 SECONDS

===> END OF INTERFACE FILE REACHED.

===> LAST JULIAN DATE AND TIME READ ARE 77001 0.23 SECONDS

===> PROGRAM CONTINUING WITH ANALYSIS OF EVENTS

===> THE NUMBER OF MONTHS WITHIN THE PERIOD OF
ANALYSIS ROUNDED TO THE NEAREST MONTH, IS 12.

===> THE NUMBER OF EVENTS WITHIN THE PERIOD OF
ANALYSIS IS 25.

1

SEQUENTIAL SERIES OF EVENTS
==========

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DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760204	4.50	0.005	18.75	820.50
760209	2.50	0.117	22.75	84.50
760414	7.25	0.096	21.30	989.74
760503	21.25	0.357	34.00	406.23
760518	21.25	0.001	12.02	257.24
760712	1.25	0.005	12.00	284.21
760725	1.25	0.004	12.10	10.12
760808	22.25	0.000	8.52	252.74
760905	20.25	0.111	13.54	182.73
760923	19.25	0.514	47.03	308.25
761022	20.25	0.213	28.55	29.50
761112	17.25	0.158	21.51	375.74
761231	2.25	0.348	22.00	274.73

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760205	8.25	0.001	9.00	12.25
760303	13.25	0.147	15.52	543.25
760416	2.25	0.071	24.02	25.05
760507	23.25	0.001	8.02	67.25
760629	20.25	0.006	12.06	998.23
760724	3.25	0.449	15.42	281.25
760728	23.25	0.127	13.52	85.18
760828	20.25	0.007	12.53	472.74
760910	16.25	0.002	11.00	105.72
761021	5.75	0.000	12.50	614.73
761027	16.25	0.003	12.51	90.72
761219	6.25	0.004	12.53	858.75

```
************************************************************
* TOTAL FLOW AT LOCATION       395 IS      2.75 (INCHES)  *
************************************************************
```

1

```
=====================================================
TABLE OF MAGNITUDE, RETURN PERIOD AND FREQUENCY
=====================================================
```

CONSTITUENT ANALYZED : FLOW (INCHES)
EVENT PARAMETER ANALYZED: TOTAL FLOW

DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =
760923	19.25	0.514	13.000	100.00	##	760724	3.25	0.449	6.500	96.00	##	760503	21.25	0.357	4.333	92.00
761231	2.25	0.348	3.250	88.00	##	761022	20.25	0.213	2.600	84.00	##	761112	17.25	0.158	2.167	80.00
760303	13.25	0.147	1.300	76.00	##	760728	23.25	0.127	1.182	72.00	##	760209	2.50	0.117	1.083	68.00
760905	20.25	0.111	0.684	64.00	##	760414	7.25	9.592E-02	0.650	60.00	##	760416	2.25	7.117E-02	0.619	56.00
760828	20.25	6.676E-03	0.419	52.00	##	760629	20.25	6.384E-03	0.406	48.00	##	760712	1.25	5.346E-03	0.394	44.00
760204	4.50	4.901E-03	0.283	40.00	##	760725	1.25	4.252E-03	0.277	36.00	##	761219	6.25	3.876E-03	0.271	32.00
761027	16.25	3.182E-03	0.203	28.00	##	760910	16.25	1.645E-03	0.200	24.00	##	760518	21.25	1.328E-03	0.197	20.00
760205	8.25	5.980E-04	0.153	16.00	##	760507	23.25	5.162E-04	0.151	12.00	##	761021	5.75	4.589E-04	0.149	8.00
760808	22.25	2.724E-04	0.119	4.00	##											

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```
===>  STATS BLOCK TERMINATED NORMALLY.

===> SWMM 4.04 SIMULATION ENDED NORMALLY.

===> YOUR INPUT FILE WAS NAMED : SR45.76
===> YOUR OUTPUT FILE WAS NAMED: SR45.OUT

*******************************************************
*        SWMM 4.04 SIMULATION DATE AND TIME SUMMARY   *
*******************************************************
* STARTING DATE... October    14, 1992                *
*          TIME...         18:14:59:95                *
*   ENDING DATE... October    14, 1992                *
*          TIME...         18:17:22:81                *
*  ELAPSED TIME...               2.383 MINUTES        *
*******************************************************
```

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1

```
**************************************************
*          ENVIRONMENTAL PROTECTION AGENCY       *
*           STORM WATER MANAGEMENT MODEL         *
*                  VERSION 4.04                  *
**************************************************

                 DEVELOPED BY

**************************************************
*             METCALF & EDDY, INC.               *
*            UNIVERSITY OF FLORIDA               *
*       WATER RESOURCES ENGINEERS, INC.          *
*              SEPTEMBER 1970                    *
**************************************************

                 UPDATED BY

**************************************************
*            UNIVERSITY OF FLORIDA               *
*          CAMP DRESSER & MCKEE, INC.            *
*                                                *
*   MARCH     1975           NOVEMBER  1977      *
*   NOVEMBER  1981           SEPTEMBER 1989      *
**************************************************

**************************************************
*    THIS IS A NEW RELEASE OF SWMM.  IF ANY      *
*     PROBLEMS OCCUR IN RUNNING THIS MODEL       *
*            CONTACT WAYNE HUBER                 *
*           UNIVERSITY OF FLORIDA                *
*            PHONE 1-904-392-0846                *
**************************************************

**************************************************
*  THIS IS AN IMPLEMENTATION OF EPA SWMM 4.04    *
*  "NATURE IS FULL OF INFINITE CAUSES WHICH      *
*   HAVE NEVER OCCURED IN EXPERIENCE" da Vinci   *
**************************************************

**************************************************
*       DISK OR TAPE ASSIGNMENTS BY BLOCK        *
*         JIN  -> INPUT TO A BLOCK               *
*        JOUT  -> OUTPUT FROM A BLOCK            *
**************************************************

 BLOCK( 1)      JIN( 1)  8      JOUT( 1)  9
 BLOCK( 2)      JIN( 2)  9      JOUT( 2) 10
 BLOCK( 3)      JIN( 3) 10      JOUT( 3) 11
 BLOCK( 4)      JIN( 4) 11      JOUT( 4)  0

**************************************************
*             SCRATCH DISKS OR TAPES             *
```

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```
*        THESE CAN BE USED BY ANY BLOCK        *
**************************************************

NSCRAT(1) NCSRAT(2) NSCRAT(3) NSCRAT(4) NSCRAT(5) NSCRAT(6) NSCRAT(7)
    9        20        30        31        32        33        34

****************************************************
*    PARAMETER VALUES ON THE TAPES COMMON BLOCK    *
****************************************************

 NUMBER OF SUBCATCHMENTS IN THE RUNOFF BLOCK (NW)....  150
 NUMBER OF CHANNEL/PIPES IN THE RUNOFF BLOCK (NG)....  150
 RUNOFF WATER QUALITY CONSTITUENTS (NRQ)............   10
 NUMBER OF ELEMENTS IN THE TRANSPORT BLOCK (NET).....  200
 NUMBER OF STORAGE JUNCTIONS IN TRANSPORT (NTSE).....   30
 NUMBER OF INPUT HYDROGRAPHS IN TRANSPORT (NTH)......   80
 NUMBER OF ELEMENTS IN THE EXTRAN BLOCK (NEE)........  175
 NUMBER OF GROUNDWATER SUBCATCHMENTS IN RUNOFF (NGW).  100
 NUMBER OF INTERFACE LOCATIONS FOR ALL BLOCKS (NIE)..  200
 NUMBER OF PUMPS IN EXTRAN (NEP)......................   20
 NUMBER OF ORIFICES IN EXTRAN (NEO)...................   60
 NUMBER OF TIDE GATES/FREE OUTFALLS IN EXTRAN (NTG)..   25
 NUMBER OF EXTRAN WEIRS (NEW)........................   60
 NUMBER OF EXTRAN PRINTOUT LOCATIONS (NPO)...........   30
 NUMBER OF TIDE ELEMENTS IN EXTRAN (NTE).............   20
 NUMBER OF NATURAL CHANNELS (NNC)....................   50
 NUMBER OF STORAGE JUNCTIONS IN EXTRAN (NVSE)........   10
 NUMBER OF DATA POINTS FOR VARIABLE STORAGE ELEMENTS
 IN THE EXTRAN BLOCK (NVST)..........................   10
 NUMBER OF INPUT HYDROGRAPHS IN EXTRAN (NEH).........  100


**************************************************
* ENTRY MADE TO THE RAINFALL BLOCK               *
* CREATED BY THE UNIVERSITY OF FLORIDA - 1988    *
**************************************************


        BASIN SR-33
        RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR


     ****************************************
     *  PRECIPITATION BLOCK INPUT COMMANDS  *
     ****************************************

    STATION, ISTA........................     46481

    BEGINNING DATE, IYBEG (YR/MO/DY)......    76/ 1/ 1
```

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```
ENDING DATE, IYEND (YR/MO/DY).........    76/12/31

MINIMUM INTEREVENT TIME, MIT..........     6

NUMBER OF RANKED STORMS, NPTS.........    10

NWS FORMAT, IFORM (SEE TEXT)..........     3

PRINT STORM SUMMARY, ISUM (O-NO 1-YES)     1

PRINT ALL RAINFALL, IYEAR (O-NO 1-YES)     0

SAVE STORM EVENT DATA, IFILE..........     0
(O-DO NOT SAVE 1- SAVE DATA)..........

IDECID 0 - CREATE INTERFACE FILE
       1 - CREATE FILE AND ANALYZE
       2 - SYNOPTIC ANALYSIS..........     1

PLOTTING POSITION PARAMETER, A........  0.00

STORM EVENT STATISTICS, NOSTAT........     0


************************************************************
*  PRECIPITATION OUTPUT CREATED USING THE RAIN BLOCK   *
*  NUMBER OF PRECIPITATION STATIONS...        1        *
************************************************************

LOCATION STATION NUMBER
-------- --------------
       1.         46481


     ******************************
     * USER DEFINED INPUT FORMAT *
     ******************************

    USER FORMAT (FIRMAT)...................(I6,4I10,I3,F7.0)

    INPUT/OUTPUT UNITS 0 = U.S. CUSTOMARY..
                       1 = METRIC UNITS....     0

    UNITS OF RAINFALL (KUNIT)..............     0
     0 -> INTENSITY; 1 --> VOLUME..........

     CONVERSION FACTOR (CONV)..............  0.01

     RAINFALL INTERVAL IN MINUTES(THISTO).. 60.00
```

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FIELD POSITION FOR STATION NUMBER, F1. 1

FIELD POSITION FOR YEAR, F2..... 2

FIELD POSITION FOR MONTH, F3..... 3

FIELD POSITION FOR DAY, F4..... 4

FIELD POSITION FOR HOUR, F5..... 5

FIELD POSITION FOR MINUTE, F6..... 6

FIELD POSITION FOR RAINFALL,F7..... 7

1

```
*************************************************************
* S T O R M   E V E N T   S U M M A R Y *
*************************************************************
```

BASIN SR-33
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

STORM NO	DATE	START HOUR	DUR-ATION HOURS	VOLUME INCHES	AVE INTEN IN/HR	MAX INTEN IN/HR	TIME >0 IN HOURS	HOURS MISSING DATA	HOURS METER STUCK
1	2/ 4/76	3	10.	0.09	0.01	0.03	UNDEF	0	0
2	2/ 5/76	7	1.	0.02	0.02	0.02	18.	0	0
3	2/ 9/76	1	11.	0.36	0.03	0.11	89.	0	0
4	3/ 3/76	12	9.	0.40	0.04	0.23	552.	0	0
5	4/14/76	6	9.	0.38	0.04	0.16	993.	0	0
6	4/16/76	1	2.	0.25	0.13	0.19	34.	0	0
7	4/16/76	13	1.	0.04	0.04	0.04	10.	0	0
8	5/ 3/76	20	2.	0.05	0.03	0.04	414.	0	0
9	5/ 4/76	6	2.	0.40	0.20	0.31	8.	0	0
10	5/ 4/76	16	4.	0.51	0.13	0.38	8.	0	0
11	5/ 7/76	21	2.	0.04	0.02	0.03	73.	0	0
12	5/18/76	19	4.	0.06	0.02	0.04	260.	0	0
13	6/29/76	19	1.	0.09	0.09	0.09	1004.	0	0
14	7/12/76	0	1.	0.08	0.08	0.08	292.	0	0
15	7/22/76	21	1.	0.01	0.01	0.01	260.	0	0
16	7/24/76	2	4.	0.96	0.24	0.65	28.	0	0
17	7/25/76	0	1.	0.07	0.07	0.07	18.	0	0
18	7/28/76	22	2.	0.36	0.18	0.31	93.	0	0
19	8/ 8/76	21	2.	0.03	0.02	0.02	261.	0	0
20	8/28/76	19	2.	0.09	0.05	0.08	476.	0	0
21	9/ 5/76	14	7.	0.34	0.05	0.29	185.	0	0
22	9/10/76	15	1.	0.04	0.04	0.04	114.	0	0
23	9/11/76	2	1.	0.01	0.01	0.01	10.	0	0
24	9/23/76	17	13.	1.00	0.08	0.26	302.	0	0
25	9/24/76	19	1.	0.02	0.02	0.02	13.	0	0

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26	9/25/76	2	4.	0.28	0.07	0.24	6.	0	0
27	10/21/76	4	6.	0.04	0.01	0.02	622.	0	0
28	10/22/76	19	1.	0.09	0.09	0.09	33.	0	0
29	10/23/76	2	10.	0.52	0.05	0.11	6.	0	0
30	10/27/76	15	1.	0.05	0.05	0.05	99.	0	0
31	11/12/76	16	10.	0.43	0.04	0.13	384.	0	0
32	12/19/76	5	3.	0.05	0.02	0.03	867.	0	0
TOTAL				7.16				0	0
ESTIMATED MISSING RAINFALL								0.00	0.00

1

```
*****************************************
*          PRECIPITATION SUMMARY        *
*****************************************

RAINFALL SUMMARY FOR STATION        46481
TOTAL MISSING HOURS                     0  HOURS
TOTAL HOURS OF METER MALFUNCTION        0  HOURS
TOTAL RAINFALL                       7.16  INCHES
TOTAL NUMBER OF YEARS                   1  YEARS
```

===> RAINFALL BLOCK ENDED NORMALLY.

1

```
****************************************************
* ENTRY MADE TO THE RUNOFF BLOCK, LAST UPDATED BY *
* THE UNIVERSITY OF FLORIDA DURING MAY 1989.      *
****************************************************
* "And wherever water goes, amoebae go along for  *
*  the ride"                      Tom Robbins     *
****************************************************
```

BASIN SR-33

RUNOFF BLOCK

SNOWMELT PARAMETER - ISNOW..... 0

NUMBER OF RAIN GAGES - NRGAG..... 1

GREEN-AMPT INFILTRATION EQUATION USED - INFILM... 1

QUALITY IS NOT SIMULATED - KWALTY..... 0

READ MONTHLY EVAPORATION DATA ON CARD F1..... 1

HOUR OF DAY AT START OF STORM - NHR..... 0

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MINUTE OF HOUR AT START OF STORM - NMN..... 0

TIME TZERO AT START OF STORM (HOURS)..... 0.000

USE U.S. CUSTOMARY UNITS FOR MOST I/O - METRIC... 0

RUNOFF INPUT PRINT CONTROL... 24

RUNOFF GRAPH PLOT CONTROL.... 1

RUNOFF OUTPUT PRINT CONTROL.. 2

MONTH, DAY, YEAR OF START OF STORM IS: 1/ 1/76

WET TIME STEP LENGTH (SECONDS)..... 900.

DRY TIME STEP LENGTH (SECONDS)..... 10800.

WET/DRY TIME STEP LENGTH (SECONDS)... 1800.

SIMULATION LENGTH IS..... 761231.0 YR/MO/DY

PERCENT OF IMPERVIOUS AREA WITH ZERO DETENTION DEPTH 25.0

```
*************************************************************
*   PROCESSED PRECIPITATION WILL BE READ ON NSCRAT(1)  *
*************************************************************
```

```
*****************************
*        DATA GROUP F1      *
* EVAPORATION RATE (IN/DAY) *
*****************************
```

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.
0.09	0.13	0.17	0.26	0.32	0.33	0.32	0.28	0.25	0.18	0.12	0.08

1

```
*************************************************************
*        C H A N N E L  A N D  P I P E  D A T A        *
*************************************************************
```

INPUT SEQUEN NUMBER	NAMEG: CHANNEL ID #	DRAINS TO NGTO:	CHANNEL TYPE	WIDTH (FT)	LENGTH (FT)	INVERT SLOPE (FT/FT)	L SIDE SLOPE (FT/FT)	R SIDE SLOPE (FT/FT)	INTIAL DEPTH (FT)	MAX DEPTH (FT)	MANN-INGS "N"	FULL FLOW (CFS)
1	774	778	CIRCULAR	2.2	2400.0	0.0110	0.0000	0.0000	0.0	0.0	0.0150	3.03E+01
2	778	782	CIRCULAR	2.5	3100.0	0.0110	0.0000	0.0000	0.0	0.0	0.0150	4.01E+01
3	782	786	CIRCULAR	3.0	2750.0	0.0110	0.0000	0.0000	0.0	0.0	0.0150	6.52E+01
4	786	794	CIRCULAR	6.0	2500.0	0.0015	0.0000	0.0000	0.0	0.0	0.0150	1.53E+02
5	794	796	CIRCULAR	6.0	2640.0	0.0015	0.0000	0.0000	0.0	0.0	0.0150	1.53E+02

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6	796	798	CIRCULAR	5.5	1290.0	0.0015	0.0000	0.0000	0.0	0.0	0.0150	1.21E+02	

1

```
*****************************************************
*          S U B C A T C H M E N T   D A T A        *
*****************************************************
```

SUBCATCH-MENT NO.	GUTTER OR INLET	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	DEPRES. STORAGE(IN) IMPERV.	DEPRES. STORAGE(IN) PERV.	GREEN-AMPT INFIL PARAMS SUCTION (IN)	GREEN-AMPT INFIL PARAMS HYD.CON (IN/HR)	GREEN-AMPT INFIL PARAMS IMD	GAGE NO.
1 7051	778	3600.00	86.30	5.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
2 7052	778	5600.00	128.10	23.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
3 7053	778	600.00	7.60	50.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
4 7054	774	900.00	16.20	90.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
5 7151	782	1200.00	46.10	5.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
6 7152	782	5000.00	124.60	23.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
7 7153	782	3000.00	29.50	90.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
8 7251	786	3200.00	48.20	70.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
9 7252	786	650.00	12.50	5.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
10 7253	786	1200.00	14.30	65.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
11 7254	786	3400.00	83.50	23.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
12 7255	786	1300.00	31.10	90.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
13 7351	794	1000.00	9.90	70.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
14 7352	794	5000.00	73.20	23.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
15 7353	794	4400.00	56.30	90.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
16 7451	796	7200.00	125.70	80.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
17 7452	796	850.00	14.20	50.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
18 7453	796	900.00	7.80	90.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
19 7551	798	1200.00	17.10	80.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
20 7552	798	1400.00	19.60	5.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1
21 7553	798	2200.00	37.60	23.00	0.0100	0.050	0.100	0.030	0.200	6.60	0.26	0.285	1

```
TOTAL NUMBER OF SUBCATCHMENTS..            21
TOTAL TRIBUTARY AREA (ACRES)....        989.40
IMPERVIOUS AREA (ACRES).........        412.95
PERVIOUS AREA (ACRES)...........        576.45
TOTAL WIDTH (FEET)..............      53800.00
PERCENT IMPERVIOUSNESS..........         41.74
```

1

```
*********************************************************
*     ARRANGEMENT OF SUBCATCHMENTS AND CHANNEL/PIPES    *
*********************************************************


   CHANNEL
   OR PIPE
       774     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  7054
       778     TRIBUTARY CHANNEL/PIPES...   774
               TRIBUTARY SUBAREAS........  7051  7052  7053
```

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```
      782     TRIBUTARY CHANNEL/PIPES...   778
              TRIBUTARY SUBAREAS........  7151  7152  7153
      786     TRIBUTARY CHANNEL/PIPES...   782
              TRIBUTARY SUBAREAS........  7251  7252  7253  7254  7255
      794     TRIBUTARY CHANNEL/PIPES...   786
              TRIBUTARY SUBAREAS........  7351  7352  7353
      796     TRIBUTARY CHANNEL/PIPES...   794
              TRIBUTARY SUBAREAS........  7451  7452  7453


   INLET
      798     TRIBUTARY CHANNEL/PIPES...   796
              TRIBUTARY SUBAREAS........  7551  7552  7553


************************************************************
* HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING   1 INLETS *
************************************************************
          798


*************************************************
*  QUALITY SIMULATION NOT INCLUDED IN THIS RUN *
*************************************************


    ************************
    *    DATA GROUP M1     *
    ************************


TOTAL NUMBER OF PRINTED GUTTERS/INLETS...NPRNT..        1
NUMBER OF TIME STEPS BETWEEN PRINTINGS..INTERV..        0
STARTING AND STOPPING PRINTOUT DATES............

    ************************
    *    DATA GROUP M3     *
    ************************

CHANNEL/INLET PRINT DATA GROUPS......    798


*****************************************************
*  PRECIPITATION INTERFACE FILE SUMMARY             *
*  NUMBER OF PRECIPITATION STATIONS...        1     *
*****************************************************

LOCATION STATION NUMBER
-------- --------------
       1.         46481
```

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1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JANUARY    1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
TOTAL	798	0.00000	0.000

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            FEBRUARY   1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
4	798	0.09000	0.004
5	798	0.02000	0.001
6	798	0.00000	0.000
7	798	0.00000	0.000
8	798	0.00000	0.000
9	798	0.36000	0.111
10	798	0.00000	0.000
11	798	0.00000	0.000
12	798	0.00000	0.000
13	798	0.00000	0.000
14	798	0.00000	0.000
15	798	0.00000	0.000
16	798	0.00000	0.000
17	798	0.00000	0.000
18	798	0.00000	0.000
19	798	0.00000	0.000
20	798	0.00000	0.000
21	798	0.00000	0.000
22	798	0.00000	0.000
23	798	0.00000	0.000
24	798	0.00000	0.000
25	798	0.00000	0.000
26	798	0.00000	0.000
27	798	0.00000	0.000
28	798	0.00000	0.000
29	798	0.00000	0.000
TOTAL	798	0.47000	0.116

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
```

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Consultants

```
*            MARCH      1976                    *
**************************************************

DAY  INLET RAIN      FLOW
           INCH      INCH
 ---- ---  ----    --------
  1   798  0.00000   0.000
  2   798  0.00000   0.000
  3   798  0.40000   0.135
  4   798  0.00000   0.000
  5   798  0.00000   0.000
TOTAL 798  0.40000   0.135

1
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            APRIL      1976                    *
**************************************************

DAY  INLET RAIN      FLOW
           INCH      INCH
 ---- ---  ----    --------
 14   798  0.38000   0.103
 15   798  0.00000   0.000
 16   798  0.29000   0.078
 17   798  0.00000   0.000
 18   798  0.00000   0.000
 19   798  0.00000   0.000
TOTAL 798  0.67000   0.182

1
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MAY        1976                    *
**************************************************

DAY  INLET RAIN      FLOW
           INCH      INCH
 ---- ---  ----    --------
  3   798  0.05000   0.001
  4   798  0.91000   0.324
  5   798  0.00000   0.001
  6   798  0.00000   0.000
  7   798  0.04000   0.000
  8   798  0.00000   0.000
  9   798  0.00000   0.000
 10   798  0.00000   0.000
 11   798  0.00000   0.000
 12   798  0.00000   0.000
 13   798  0.00000   0.000
 14   798  0.00000   0.000
 15   798  0.00000   0.000
```

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Consultants

16	798	0.00000	0.000
17	798	0.00000	0.000
18	798	0.06000	0.001
19	798	0.00000	0.000
20	798	0.00000	0.000
21	798	0.00000	0.000
22	798	0.00000	0.000
TOTAL	798	1.06000	0.327

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JUNE        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
29	798	0.09000	0.011
30	798	0.00000	0.001
TOTAL	798	0.09000	0.012

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JULY        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	798	0.00000	0.000
2	798	0.00000	0.000
3	798	0.00000	0.000
4	798	0.00000	0.000
5	798	0.00000	0.000
6	798	0.00000	0.000
7	798	0.00000	0.000
8	798	0.00000	0.000
9	798	0.00000	0.000
10	798	0.00000	0.000
11	798	0.00000	0.000
12	798	0.08000	0.009
13	798	0.00000	0.000
14	798	0.00000	0.000
15	798	0.00000	0.000
16	798	0.00000	0.000
17	798	0.00000	0.000
18	798	0.00000	0.000
19	798	0.00000	0.000
20	798	0.00000	0.000
21	798	0.00000	0.000

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Consultants

```
  22    798  0.01000    0.000
  23    798  0.00000    0.000

 ======> CHANNEL/PIPE #      796 SURCHARGED.
 ======> TIME    = 4.92E+03  HOURS.  OCCURANCE =        1
 ======> VOLUME = 4.37E+04 CUB FT.  FULL FLOW =    121.2 CFS.
  24    798  0.96000    0.354
  25    798  0.07000    0.006
  26    798  0.00000    0.000
  27    798  0.00000    0.000
  28    798  0.32250    0.045
  29    798  0.03750    0.077
  30    798  0.00000    0.000
  31    798  0.00000    0.000
TOTAL   798  1.48000    0.491

1
 ************************************************
 * SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
 *            AUGUST      1976                  *
 ************************************************

 DAY  INLET RAIN      FLOW
            INCH      INCH
  ---- ---  ----    --------
   1    798  0.00000    0.000
   2    798  0.00000    0.000
   3    798  0.00000    0.000
   4    798  0.00000    0.000
   5    798  0.00000    0.000
   6    798  0.00000    0.000
   7    798  0.00000    0.000
   8    798  0.03000    0.000
   9    798  0.00000    0.000
  10    798  0.00000    0.000
  11    798  0.00000    0.000
  12    798  0.00000    0.000
  13    798  0.00000    0.000
  14    798  0.00000    0.000
  15    798  0.00000    0.000
  16    798  0.00000    0.000
  17    798  0.00000    0.000
  18    798  0.00000    0.000
  19    798  0.00000    0.000
  20    798  0.00000    0.000
  21    798  0.00000    0.000
  22    798  0.00000    0.000
  23    798  0.00000    0.000
  24    798  0.00000    0.000
  25    798  0.00000    0.000
  26    798  0.00000    0.000
  27    798  0.00000    0.000
```

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Consultants

28	798	0.09000	0.011
29	798	0.00000	0.001
30	798	0.00000	0.000
31	798	0.00000	0.000
TOTAL	798	0.12000	0.012

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            SEPTEMBER  1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	798	0.00000	0.000
2	798	0.00000	0.000
3	798	0.00000	0.000
4	798	0.00000	0.000
5	798	0.34000	0.104
6	798	0.00000	0.004
7	798	0.00000	0.000
8	798	0.00000	0.000
9	798	0.00000	0.000
10	798	0.04000	0.001
11	798	0.01000	0.000
12	798	0.00000	0.000
13	798	0.00000	0.000
23	798	0.72000	0.217
24	798	0.30000	0.139
25	798	0.28000	0.083
26	798	0.00000	0.000
27	798	0.00000	0.000
28	798	0.00000	0.000
29	798	0.00000	0.000
30	798	0.00000	0.000
TOTAL	798	1.69000	0.549

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            OCTOBER    1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	798	0.00000	0.000
2	798	0.00000	0.000
3	798	0.00000	0.000
4	798	0.00000	0.000
5	798	0.00000	0.000

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Consultants

6	798	0.00000	0.000
7	798	0.00000	0.000
8	798	0.00000	0.000
9	798	0.00000	0.000
10	798	0.00000	0.000
11	798	0.00000	0.000
12	798	0.00000	0.000
13	798	0.00000	0.000
14	798	0.00000	0.000
15	798	0.00000	0.000
16	798	0.00000	0.000
17	798	0.00000	0.000
18	798	0.00000	0.000
19	798	0.00000	0.000
20	798	0.00000	0.000
21	798	0.04000	0.000
22	798	0.09000	0.015
23	798	0.52000	0.172
24	798	0.00000	0.000
25	798	0.00000	0.000
26	798	0.00000	0.000
27	798	0.05000	0.003
28	798	0.00000	0.000
29	798	0.00000	0.000
30	798	0.00000	0.000
31	798	0.00000	0.000
TOTAL	798	0.70000	0.191

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            NOVEMBER   1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	798	0.00000	0.000
2	798	0.00000	0.000
3	798	0.00000	0.000
4	798	0.00000	0.000
5	798	0.00000	0.000
6	798	0.00000	0.000
7	798	0.00000	0.000
8	798	0.00000	0.000
9	798	0.00000	0.000
10	798	0.00000	0.000
11	798	0.00000	0.000
12	798	0.39000	0.113
13	798	0.04000	0.036
14	798	0.00000	0.000
15	798	0.00000	0.000

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16	798	0.00000	0.000
17	798	0.00000	0.000
18	798	0.00000	0.000
19	798	0.00000	0.000
20	798	0.00000	0.000
21	798	0.00000	0.000
22	798	0.00000	0.000
23	798	0.00000	0.000
24	798	0.00000	0.000
25	798	0.00000	0.000
26	798	0.00000	0.000
27	798	0.00000	0.000
28	798	0.00000	0.000
29	798	0.00000	0.000
30	798	0.00000	0.000
TOTAL	798	0.43000	0.148

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            DECEMBER   1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	798	0.00000	0.000
2	798	0.00000	0.000
3	798	0.00000	0.000
4	798	0.00000	0.000
5	798	0.00000	0.000
6	798	0.00000	0.000
7	798	0.00000	0.000
8	798	0.00000	0.000
9	798	0.00000	0.000
10	798	0.00000	0.000
11	798	0.00000	0.000
12	798	0.00000	0.000
13	798	0.00000	0.000
14	798	0.00000	0.000
15	798	0.00000	0.000
16	798	0.00000	0.000
17	798	0.00000	0.000
18	798	0.00000	0.000
19	798	0.05000	0.004
20	798	0.00000	0.000
21	798	0.00000	0.000
22	798	0.00000	0.000
23	798	0.00000	0.000
24	798	0.00000	0.000
25	798	0.00000	0.000
26	798	0.00000	0.000

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27	798	0.00000	0.000
28	798	0.00000	0.000
29	798	0.00000	0.000
30	798	0.00000	0.000
31	798	0.80000	0.285
TOTAL	798	0.85000	0.289
YEAR	798	7.96000	2.452

```
*************************************************
*      END OF TIME STEP DO-LOOP IN RUNOFF       *
*************************************************

FINAL DATE (MO/DAY/YEAR)   =                12/31/76
TOTAL NUMBER OF TIME STEPS =                    3575
FINAL JULIAN DATE  =                           76366
FINAL TIME OF DAY  =                          86400. SECONDS.
FINAL RUNNING TIME =                        8784.0000   HOURS.
FINAL RUNNING TIME =                         366.0000    DAYS.

*****************************************************
*     EXTRAPOLATION SUMMARY FOR WATERSHEDS          *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF OVERLND CALLS        *
*****************************************************
```

SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS
7051	6252	824	7052	6522	958	7053	6569	975
7054	6938	1118	7151	5996	856	7152	6534	966
7153	6767	1021	7251	6828	1044	7252	6344	812
7253	6692	1000	7254	6519	965	7255	6889	1175
7351	6670	994	7352	6193	895	7353	6878	1058
7451	6915	1093	7452	6702	1006	7453	6691	1001
7551	6880	1056	7552	6807	801	7553	6372	924

```
*****************************************************
*     EXTRAPOLATION SUMMARY FOR CHANNEL/PIPES       *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF GUTNR CALLS           *
*****************************************************
```

CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS
774	24775	2369	778	13375	2409	782	13376	2420
786	13588	2460	794	13232	2464	796	12960	2480

1

```
***********************************************
*       CONTINUITY CHECK FOR SURFACE WATER    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
TOTAL PRECIPITATION (RAIN PLUS SNOW)	2.858852E+07	7.960

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TOTAL INFILTRATION	1.465692E+07	4.081
TOTAL EVAPORATION	5.347748E+06	1.489
SURFACE RUNOFF FROM WATERSHEDS	8.405705E+06	2.340
TOTAL WATER REMAINING IN SURFACE STORAGE	6.883022E+04	0.019
INFILTRATION OVER THE PERVIOUS AREA...	1.465692E+07	7.004

INFILTRATION + EVAPORATION +		
SURFACE RUNOFF + SNOW REMOVAL +		
WATER REMAINING IN SURFACE STORAGE +		
WATER REMAINING IN SNOW COVER.....	2.847921E+07	7.930
TOTAL PRECIPITATION + INTIAL STORAGE..	2.858852E+07	7.960

THE ERROR IN CONTINUITY IS CALCULATED AS

```
****************************************
* PRECIPITATION + INITIAL SNOW COVER  *
*      - INFILTRATION -               *
*EVAPORATION - SNOW REMOVAL -         *
*SURFACE RUNOFF FROM WATERSHEDS -     *
*WATER IN SURFACE STORAGE -           *
*WATER REMAINING IN SNOW COVER        *
*-------------------------------------*
* PRECIPITATION + INITIAL SNOW COVER  *
****************************************
```

ERROR..... 0.382 PERCENT

```
***********************************************
*       CONTINUITY CHECK FOR CHANNEL/PIPES    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
INITIAL CHANNEL/PIPE STORAGE.....	0.000000E-01	0.000
FINAL CHANNEL/PIPE STORAGE.....	9.778614E+03	0.003
SURFACE RUNOFF FROM WATERSHEDS.....	8.405705E+06	2.340
GROUNDWATER SUBSURFACE INFLOW.....	0.000000E-01	0.000
EVAPORATION LOSS FROM CHANNELS.....	0.000000E-01	0.000
CHANNEL/PIPE/INLET OUTFLOW.....	8.806773E+06	2.452
INITIAL STORAGE + INFLOW.....	8.405705E+06	2.340
FINAL STORAGE + OUTFLOW.....	8.816552E+06	2.455

```
***********************************************
* FINAL STORAGE + OUTFLOW  + EVAPORATION - *
* WATERSHED RUNOFF - GROUNDWATER INFLOW  - *
*     INITIAL CHANNEL/PIPE STORAGE         *
*     --------------------------------     *
*  FINAL STORAGE + OUTFLOW  + EVAPORATION  *
***********************************************
```

ERROR..... 4.660 PERCENT

1

```
***********************************************
*  SUMMARY OF QUANTITY RESULTS (FLOW IN CFS) *
***********************************************
```

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```
   BASIN SR-33
   RUNOFF BLOCK


                        CHAN/INLT
                              798
   DATE      TIME           FLOW
 MO/DA/YR  HR:MIN           CFS
 --------  ------          ----

FLOW WT'D MEANS           0.2785
FLOW WT'D STD-DEVS        3.4965
MAXIMUM VALUE           135.1884
MINIMUM VALUE             0.0000
TOTAL LOADS             8.81E+06
                        CUBIC-FT

 ===> RUNOFF SIMULATION ENDED NORMALLY.


      ************************************
      *      STATS BLOCK INPUT COMMANDS  *
      ************************************

     MINIMUM INTEREVENT TIME (HOURS).......      6.00
     NPOINT (NUMBER OF PRINTED EVENTS).....         0
     METRIC (0-U.S. STANDARD, 1-METRIC)....         0
     LRET (RETURN PERIOD UNITS)............         1
     A (PLOTTING POSITION PARAMETER).......     0.000


     PRINT SEQUENTIAL SERIES (KSEQ)........         1
     TERMINATE PROGRAM PARAMETER (KTERM)...         0
     KTSEQS................................         1


 *******************************************
 * HEADER INFORMATION FROM INTERFACE FILE: *
 *******************************************

 TITLE FROM FIRST COMPUTATIONAL BLOCK:
 BASIN SR-33
 RUNOFF BLOCK

 TITLE FROM IMMEDIATELY PRECEDING COMPUTATIONAL BLOCK
 BASIN SR-33
 RUNOFF BLOCK

 NAME OF PRECEDING BLOCK:................RUNOFF BLOCK
 INITIAL JULIAN DATE (IDATEZ)......................   76001
 INITIAL TIME OF DAY IN SECONDS (TZERO)............     0.0
```

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```
NO. TRANSFERED INPUT LOCATIONS....................      1
NO. TRANSFERED POLLUTANTS........................      0
SIZE OF TOTAL CATCHMENT AREA (ACRES)..............  989.40

**************************************************
* ELEMENT NUMBERS OF INTERFACE INLET LOCATIONS: *
**************************************************
    798

CONVERSION FACTOR TO CFS FOR FLOW UNITS
ON INTERFACE FILE.  MULTIPLY BY:     1.00000


*********************************************************
* STATISTICAL ANALYSIS BLOCK WRITTEN BY THE UNIVERSITY *
* OF FLORIDA.  LAST UPDATED MAY, 1989.                 *
*********************************************************


1
**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING DATE...............     0   STARTING TIME... 0.00 HOURS
 ENDING DATE.................     0   ENDING TIME..... 0.00 HOURS


**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING JULIAN DATE........     0   STARTING TIME... 0.00 SECONDS
 ENDING JULIAN DATE..........     0   ENDING TIME..... 0.00 SECONDS

===> A ZERO STARTING DATE INDICATES THAT THE ANALYSIS
     COMMENCES AT THE BEGINNING OF THE RECORD.  A ZERO
     ENDING DATE INDICATES THAT THE ANALYSIS CONTINUES TO
     THE END OF THE RECORD.

THE MINIMUM INTEREVENT TIME HAS BEEN DEFINED AS      6.00 HOURS.

*******************************************************
* THE FLOW LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:     798                                *
*******************************************************

*******************************************************
* THE RAIN LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:       0                                *
```

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****

U.S. CUSTOMARY UNITS ARE USED IN INPUT/OUTPUT

THE NUMBER OF POLLUTANTS REQUESTED FOR STATISTICAL ANALYSIS IS 0

THE BASE FLOW TO SEPARATE EVENTS IS 0.0010 CFS.

THE STATISTICAL OPTIONS REQUESTED FOR FLOW RATE ARE INDICATED BY A '1'

	TOTAL FLOW	AVERAGE FLOW	PEAK FLOW	EVENT DURATION	INTEREVENT DURATION
TABLE OF RETURN PERIOD AND FREQUENCY	1	0	0	0	0
GRAPH OF RETURN PERIOD	0	0	0	0	0
GRAPH OF FREQUENCY	0	0	0	0	0
MOMENTS	0	0	0	0	0

===> PROGRAM EXECUTION CONTINUING. DATA WILL BE
READ FROM THE INTERFACE FILE AND SEPARATED INTO EVENTS.

===> THE FIRST DATE AND TIME ON THE INTERFACE FILE ARE 76001 0.00 SECONDS

===> END OF INTERFACE FILE REACHED.

===> LAST JULIAN DATE AND TIME READ ARE 76366 86399.93 SECONDS

===> PROGRAM CONTINUING WITH ANALYSIS OF EVENTS

===> THE NUMBER OF MONTHS WITHIN THE PERIOD OF
ANALYSIS ROUNDED TO THE NEAREST MONTH, IS 12.

===> THE NUMBER OF EVENTS WITHIN THE PERIOD OF
ANALYSIS IS 23.

1

SEQUENTIAL SERIES OF EVENTS

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)	DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760204	4.50	0.004	52.88	820.50	760209	2.25	0.111	38.60	68.21
760303	13.25	0.135	29.02	527.67	760414	7.25	0.104	36.67	976.24
760416	2.25	0.078	36.53	9.75	760503	21.25	0.326	48.65	393.73
760507	23.25	0.001	23.54	52.62	760518	21.25	0.001	24.53	241.72

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760629	20.25	0.012	25.54	985.73		760712	1.25	0.009	25.62	270.72
760724	3.25	0.361	47.00	267.64		760728	23.25	0.121	28.08	72.25
760808	22.25	0.000	23.57	238.18		760828	20.25	0.012	26.24	457.69
760905	20.25	0.108	28.60	169.04		760910	16.25	0.001	24.08	90.67
760923	19.25	0.440	61.59	294.19		761021	5.50	0.000	25.95	599.93
761022	20.25	0.187	44.00	16.25		761027	16.25	0.003	26.11	75.25
761112	17.25	0.148	34.00	362.15		761219	6.25	0.004	27.60	846.25
761231	2.25	0.286	22.00	259.67						

```
************************************************************
* TOTAL FLOW AT LOCATION       798 IS      2.45 (INCHES)  *
************************************************************
```

1

```
        ====================================================
        TABLE OF MAGNITUDE, RETURN PERIOD AND FREQUENCY
        ====================================================
```

CONSTITUENT ANALYZED : FLOW (INCHES)
EVENT PARAMETER ANALYZED: TOTAL FLOW

DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =
760923	19.25	0.440	13.000	100.00	##	760724	3.25	0.361	6.500	95.65	##	760503	21.25	0.326	4.333	91.30
761231	2.25	0.286	3.250	86.96	##	761022	20.25	0.187	2.600	82.61	##	761112	17.25	0.148	2.167	78.26
760303	13.25	0.135	1.300	73.91	##	760728	23.25	0.121	1.182	69.57	##	760209	2.25	0.111	1.083	65.22
760905	20.25	0.108	0.684	60.87	##	760414	7.25	0.104	0.650	56.52	##	760416	2.25	7.810E-02	0.619	52.17
760629	20.25	1.183E-02	0.419	47.83	##	760828	20.25	1.151E-02	0.406	43.48	##	760712	1.25	8.863E-03	0.394	39.13
760204	4.50	4.438E-03	0.283	34.78	##	761219	6.25	3.690E-03	0.277	30.43	##	761027	16.25	3.094E-03	0.271	26.09
760910	16.25	1.429E-03	0.203	21.74	##	760518	21.25	1.049E-03	0.200	17.39	##	760507	23.25	5.151E-04	0.197	13.04
761021	5.50	3.929E-04	0.153	8.70	##	760808	22.25	2.524E-04	0.151	4.35						
					##						##					

```
===>  STATS BLOCK TERMINATED NORMALLY.

===> SWMM 4.04 SIMULATION ENDED NORMALLY.

===> YOUR INPUT FILE WAS NAMED : sr33.76
===> YOUR OUTPUT FILE WAS NAMED: sr33.out

*********************************************************
*        SWMM 4.04 SIMULATION DATE AND TIME SUMMARY     *
*********************************************************
```

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```
* STARTING DATE... October    15, 1992              *
*          TIME...          9:13:48:27              *
*   ENDING DATE... October    15, 1992              *
*          TIME...          9:20: 1: 5              *
*  ELAPSED TIME...               6.217 MINUTES      *
*********************************************************
```

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```
**************************************************
*          ENVIRONMENTAL PROTECTION AGENCY       *
*           STORM WATER MANAGEMENT MODEL         *
*                  VERSION 4.04                  *
**************************************************

                 DEVELOPED BY

**************************************************
*             METCALF & EDDY, INC.               *
*            UNIVERSITY OF FLORIDA               *
*       WATER RESOURCES ENGINEERS, INC.          *
*              SEPTEMBER 1970                    *
**************************************************

                 UPDATED BY

**************************************************
*            UNIVERSITY OF FLORIDA               *
*          CAMP DRESSER & MCKEE, INC.            *
*                                                *
*   MARCH      1975          NOVEMBER  1977      *
*   NOVEMBER   1981          SEPTEMBER 1989      *
**************************************************

**************************************************
*    THIS IS A NEW RELEASE OF SWMM.  IF ANY      *
*     PROBLEMS OCCUR IN RUNNING THIS MODEL       *
*            CONTACT WAYNE HUBER                 *
*           UNIVERSITY OF FLORIDA                *
*            PHONE 1-904-392-0846                *
**************************************************

**************************************************
*  THIS IS AN IMPLEMENTATION OF EPA SWMM 4.04    *
*  "NATURE IS FULL OF INFINITE CAUSES WHICH      *
*   HAVE NEVER OCCURED IN EXPERIENCE" da Vinci   *
**************************************************

**************************************************
*       DISK OR TAPE ASSIGNMENTS BY BLOCK        *
*         JIN  -> INPUT TO A BLOCK               *
*        JOUT  -> OUTPUT FROM A BLOCK            *
**************************************************

 BLOCK( 1)      JIN( 1)  8      JOUT( 1)  9
 BLOCK( 2)      JIN( 2)  9      JOUT( 2) 10
 BLOCK( 3)      JIN( 3) 10      JOUT( 3) 11
 BLOCK( 4)      JIN( 4) 11      JOUT( 4) 12

**************************************************
*             SCRATCH DISKS OR TAPES             *
```

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```
*        THESE CAN BE USED BY ANY BLOCK        *
**************************************************

NSCRAT(1) NCSRAT(2) NSCRAT(3) NSCRAT(4) NSCRAT(5) NSCRAT(6) NSCRAT(7)
    9        20        30        31        32        33        34

*****************************************************
*    PARAMETER VALUES ON THE TAPES COMMON BLOCK    *
*****************************************************

 NUMBER OF SUBCATCHMENTS IN THE RUNOFF BLOCK (NW)....  150
 NUMBER OF CHANNEL/PIPES IN THE RUNOFF BLOCK (NG)....  150
 RUNOFF WATER QUALITY CONSTITUENTS (NRQ).............   10
 NUMBER OF ELEMENTS IN THE TRANSPORT BLOCK (NET).....  200
 NUMBER OF STORAGE JUNCTIONS IN TRANSPORT (NTSE).....   30
 NUMBER OF INPUT HYDROGRAPHS IN TRANSPORT (NTH)......   80
 NUMBER OF ELEMENTS IN THE EXTRAN BLOCK (NEE)........  175
 NUMBER OF GROUNDWATER SUBCATCHMENTS IN RUNOFF (NGW).  100
 NUMBER OF INTERFACE LOCATIONS FOR ALL BLOCKS (NIE)..  200
 NUMBER OF PUMPS IN EXTRAN (NEP)......................   20
 NUMBER OF ORIFICES IN EXTRAN (NEO)...................   60
 NUMBER OF TIDE GATES/FREE OUTFALLS IN EXTRAN (NTG)..   25
 NUMBER OF EXTRAN WEIRS (NEW).........................   60
 NUMBER OF EXTRAN PRINTOUT LOCATIONS (NPO)............   30
 NUMBER OF TIDE ELEMENTS IN EXTRAN (NTE)..............   20
 NUMBER OF NATURAL CHANNELS (NNC).....................   50
 NUMBER OF STORAGE JUNCTIONS IN EXTRAN (NVSE)........   10
 NUMBER OF DATA POINTS FOR VARIABLE STORAGE ELEMENTS
 IN THE EXTRAN BLOCK (NVST)...........................   10
 NUMBER OF INPUT HYDROGRAPHS IN EXTRAN (NEH).........  100


**************************************************
* ENTRY MADE TO THE RAINFALL BLOCK               *
* CREATED BY THE UNIVERSITY OF FLORIDA - 1988    *
**************************************************


        BASIN SR-21
        RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

     ****************************************
     *  PRECIPITATION BLOCK INPUT COMMANDS  *
     ****************************************

    STATION, ISTA.........................     46481

    BEGINNING DATE, IYBEG (YR/MO/DY)......    76/ 1/ 1
```

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```
ENDING DATE, IYEND (YR/MO/DY).........    76/12/31

MINIMUM INTEREVENT TIME, MIT..........     6

NUMBER OF RANKED STORMS, NPTS.........    10

NWS FORMAT, IFORM (SEE TEXT)..........     3

PRINT STORM SUMMARY, ISUM (O-NO 1-YES)     1

PRINT ALL RAINFALL, IYEAR (O-NO 1-YES)     0

SAVE STORM EVENT DATA, IFILE..........     0
(O-DO NOT SAVE 1- SAVE DATA)..........

IDECID 0 - CREATE INTERFACE FILE
       1 - CREATE FILE AND ANALYZE
       2 - SYNOPTIC ANALYSIS..........     1

PLOTTING POSITION PARAMETER, A........  0.00

STORM EVENT STATISTICS, NOSTAT........     0


*********************************************************
*  PRECIPITATION OUTPUT CREATED USING THE RAIN BLOCK    *
*  NUMBER OF PRECIPITATION STATIONS...        1         *
*********************************************************

LOCATION STATION NUMBER
-------- --------------
       1.        46481


     ******************************
     * USER DEFINED INPUT FORMAT *
     ******************************

    USER FORMAT (FIRMAT)...................(I6,4I10,I3,F7.0)

    INPUT/OUTPUT UNITS 0 = U.S. CUSTOMARY..
                       1 = METRIC UNITS....     0

    UNITS OF RAINFALL (KUNIT)..............     0
     0 -> INTENSITY; 1 --> VOLUME..........

     CONVERSION FACTOR (CONV)..............  0.01

     RAINFALL INTERVAL IN MINUTES(THISTO).. 60.00
```

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FIELD POSITION FOR STATION NUMBER, F1. 1

FIELD POSITION FOR YEAR, F2..... 2

FIELD POSITION FOR MONTH, F3..... 3

FIELD POSITION FOR DAY, F4..... 4

FIELD POSITION FOR HOUR, F5..... 5

FIELD POSITION FOR MINUTE, F6..... 6

FIELD POSITION FOR RAINFALL,F7..... 7

1

```
************************************************************
* S T O R M   E V E N T   S U M M A R Y *
************************************************************
```

BASIN SR-21
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

STORM NO	DATE	START HOUR	DURATION HOURS	VOLUME INCHES	AVE INTEN IN/HR	MAX INTEN IN/HR	TIME >0 IN HOURS	HOURS MISSING DATA	HOURS METER STUCK
1	2/ 4/76	3	10.	0.09	0.01	0.03	UNDEF	0	0
2	2/ 5/76	7	1.	0.02	0.02	0.02	18.	0	0
3	2/ 9/76	1	11.	0.36	0.03	0.11	89.	0	0
4	3/ 3/76	12	9.	0.40	0.04	0.23	552.	0	0
5	4/14/76	6	9.	0.38	0.04	0.16	993.	0	0
6	4/16/76	1	2.	0.25	0.13	0.19	34.	0	0
7	4/16/76	13	1.	0.04	0.04	0.04	10.	0	0
8	5/ 3/76	20	2.	0.05	0.03	0.04	414.	0	0
9	5/ 4/76	6	2.	0.40	0.20	0.31	8.	0	0
10	5/ 4/76	16	4.	0.51	0.13	0.38	8.	0	0
11	5/ 7/76	21	2.	0.04	0.02	0.03	73.	0	0
12	5/18/76	19	4.	0.06	0.02	0.04	260.	0	0
13	6/29/76	19	1.	0.09	0.09	0.09	1004.	0	0
14	7/12/76	0	1.	0.08	0.08	0.08	292.	0	0
15	7/22/76	21	1.	0.01	0.01	0.01	260.	0	0
16	7/24/76	2	4.	0.96	0.24	0.65	28.	0	0
17	7/25/76	0	1.	0.07	0.07	0.07	18.	0	0
18	7/28/76	22	2.	0.36	0.18	0.31	93.	0	0
19	8/ 8/76	21	2.	0.03	0.02	0.02	261.	0	0
20	8/28/76	19	2.	0.09	0.05	0.08	476.	0	0
21	9/ 5/76	14	7.	0.34	0.05	0.29	185.	0	0
22	9/10/76	15	1.	0.04	0.04	0.04	114.	0	0
23	9/11/76	2	1.	0.01	0.01	0.01	10.	0	0
24	9/23/76	17	13.	1.00	0.08	0.26	302.	0	0
25	9/24/76	19	1.	0.02	0.02	0.02	13.	0	0

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26	9/25/76	2	4.	0.28	0.07	0.24	6.	0	0
27	10/21/76	4	6.	0.04	0.01	0.02	622.	0	0
28	10/22/76	19	1.	0.09	0.09	0.09	33.	0	0
29	10/23/76	2	10.	0.52	0.05	0.11	6.	0	0
30	10/27/76	15	1.	0.05	0.05	0.05	99.	0	0
31	11/12/76	16	10.	0.43	0.04	0.13	384.	0	0
32	12/19/76	5	3.	0.05	0.02	0.03	867.	0	0
TOTAL				7.16				0	0
ESTIMATED MISSING RAINFALL								0.00	0.00

1

```
*****************************************
*         PRECIPITATION SUMMARY         *
*****************************************

RAINFALL SUMMARY FOR STATION        46481
TOTAL MISSING HOURS                     0  HOURS
TOTAL HOURS OF METER MALFUNCTION        0  HOURS
TOTAL RAINFALL                       7.16  INCHES
TOTAL NUMBER OF YEARS                   1  YEARS
```

===> RAINFALL BLOCK ENDED NORMALLY.

1

```
*****************************************************
* ENTRY MADE TO THE RUNOFF BLOCK, LAST UPDATED BY *
* THE UNIVERSITY OF FLORIDA DURING MAY 1989.      *
*****************************************************
* "And wherever water goes, amoebae go along for  *
*  the ride"                        Tom Robbins    *
*****************************************************
```

BASIN SR-21

RUNOFF BLOCK

SNOWMELT PARAMETER - ISNOW..... 0

NUMBER OF RAIN GAGES - NRGAG..... 1

GREEN-AMPT INFILTRATION EQUATION USED - INFILM... 1

QUALITY IS NOT SIMULATED - KWALTY..... 0

READ MONTHLY EVAPORATION DATA ON CARD F1..... 1

HOUR OF DAY AT START OF STORM - NHR..... 0

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MINUTE OF HOUR AT START OF STORM - NMN..... 0

TIME TZERO AT START OF STORM (HOURS)..... 0.000

USE U.S. CUSTOMARY UNITS FOR MOST I/O - METRIC... 0

RUNOFF INPUT PRINT CONTROL... 24

RUNOFF GRAPH PLOT CONTROL.... 1

RUNOFF OUTPUT PRINT CONTROL.. 2

MONTH, DAY, YEAR OF START OF STORM IS: 1/ 1/76

WET TIME STEP LENGTH (SECONDS)..... 900.

DRY TIME STEP LENGTH (SECONDS)..... 10800.

WET/DRY TIME STEP LENGTH (SECONDS)... 1800.

SIMULATION LENGTH IS..... 761231.0 YR/MO/DY

PERCENT OF IMPERVIOUS AREA WITH ZERO DETENTION DEPTH 25.0

```
*************************************************************
*   PROCESSED PRECIPITATION WILL BE READ ON NSCRAT(1)  *
*************************************************************
```

```
*****************************
*        DATA GROUP F1      *
* EVAPORATION RATE (IN/DAY) *
*****************************
```

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.
0.09	0.13	0.17	0.26	0.32	0.33	0.32	0.28	0.25	0.18	0.12	0.08

1

```
*************************************************************
*        C H A N N E L  A N D  P I P E  D A T A            *
*************************************************************
```

INPUT SEQUEN NUMBER	NAMEG: CHANNEL ID #	DRAINS TO NGTO:	CHANNEL TYPE	WIDTH (FT)	LENGTH (FT)	INVERT SLOPE (FT/FT)	L SIDE SLOPE (FT/FT)	R SIDE SLOPE (FT/FT)	INTIAL DEPTH (FT)	MAX DEPTH (FT)	MANN-INGS "N"	FULL FLOW (CFS)
1	279	281	CIRCULAR	4.5	3550.0	0.0011	0.0000	0.0000	0.0	0.0	0.0150	6.19E+01
2	281	285	CIRCULAR	4.5	1250.0	0.0011	0.0000	0.0000	0.0	0.0	0.0150	6.19E+01
3	275	285	CIRCULAR	5.0	2300.0	0.0011	0.0000	0.0000	0.0	0.0	0.0150	8.20E+01
4	285	291	CIRCULAR	6.5	2650.0	0.0011	0.0000	0.0000	0.0	0.0	0.0150	1.65E+02
5	291	296	CIRCULAR	7.5	1030.0	0.0011	0.0000	0.0000	0.0	0.0	0.0150	2.42E+02

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```
*****************************************************
*          S U B C A T C H M E N T   D A T A        *
*****************************************************
```

SUBCATCH-MENT NO.	GUTTER OR INLET	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	DEPRES. STORAGE(IN) IMPERV.	DEPRES. STORAGE(IN) PERV.	GREEN-AMPT INFIL PARAMS SUCTION (IN)	GREEN-AMPT INFIL PARAMS HYD.CON (IN/HR)	GREEN-AMPT INFIL PARAMS IMD	GAGE NO.
1 2001	279	1400.00	36.80	70.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
2 2002	279	1400.00	58.40	71.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
3 2051	281	6400.00	129.50	71.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
4 2101	275	5200.00	108.10	71.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
5 2201	285	600.00	21.40	5.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
6 2202	285	4200.00	98.50	71.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
7 2301	291	3800.00	22.60	70.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
8 2302	291	800.00	32.30	70.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1
9 2303	291	600.00	123.40	5.00	0.0100	0.050	0.100	0.100	0.250	5.22	0.26	0.322	1

```
TOTAL NUMBER OF SUBCATCHMENTS..              9
TOTAL TRIBUTARY AREA (ACRES)....        631.00
IMPERVIOUS AREA (ACRES).........        351.53
PERVIOUS AREA (ACRES)...........        279.47
TOTAL WIDTH (FEET)..............      24400.00
PERCENT IMPERVIOUSNESS..........         55.71
```

1

```
*********************************************************
*     ARRANGEMENT OF SUBCATCHMENTS AND CHANNEL/PIPES    *
*********************************************************


   CHANNEL
   OR PIPE
       279     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  2001  2002
       281     TRIBUTARY CHANNEL/PIPES...   279
               TRIBUTARY SUBAREAS........  2051
       275     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  2101
       285     TRIBUTARY CHANNEL/PIPES...   281   275
               TRIBUTARY SUBAREAS........  2201  2202
       291     TRIBUTARY CHANNEL/PIPES...   285
               TRIBUTARY SUBAREAS........  2301  2302  2303


    INLET
       296     TRIBUTARY CHANNEL/PIPES...   291
               NO TRIBUTARY SUBAREAS.....
```

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```
************************************************************
* HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING   1 INLETS *
************************************************************
          296

************************************************
*  QUALITY SIMULATION NOT INCLUDED IN THIS RUN *
************************************************


    ************************
    *    DATA GROUP M1     *
    ************************


TOTAL NUMBER OF PRINTED GUTTERS/INLETS...NPRNT..        1
NUMBER OF TIME STEPS BETWEEN PRINTINGS..INTERV..        0
STARTING AND STOPPING PRINTOUT DATES............        0        0


    ************************
    *    DATA GROUP M3     *
    ************************

CHANNEL/INLET PRINT DATA GROUPS......    296


*****************************************************
*  PRECIPITATION INTERFACE FILE SUMMARY             *
*  NUMBER OF PRECIPITATION STATIONS...        1     *
*****************************************************

LOCATION STATION NUMBER
-------- --------------
       1.        46481


1
************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*           JANUARY    1976                    *
************************************************

DAY  INLET RAIN      FLOW
           INCH      INCH
 ---- ---  ----    --------
TOTAL  296  0.00000   0.000

1
```

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```
***************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            FEBRUARY   1976                      *
***************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
4	296	0.09000	0.004
5	296	0.02000	0.000
6	296	0.00000	0.000
7	296	0.00000	0.000
8	296	0.00000	0.000
9	296	0.36000	0.113
10	296	0.00000	0.000
11	296	0.00000	0.000
12	296	0.00000	0.000
13	296	0.00000	0.000
14	296	0.00000	0.000
15	296	0.00000	0.000
16	296	0.00000	0.000
17	296	0.00000	0.000
18	296	0.00000	0.000
19	296	0.00000	0.000
20	296	0.00000	0.000
21	296	0.00000	0.000
22	296	0.00000	0.000
23	296	0.00000	0.000
24	296	0.00000	0.000
25	296	0.00000	0.000
26	296	0.00000	0.000
27	296	0.00000	0.000
28	296	0.00000	0.000
29	296	0.00000	0.000
TOTAL	296	0.47000	0.118

1

```
***************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MARCH      1976                      *
***************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	296	0.00000	0.000
2	296	0.00000	0.000
3	296	0.40000	0.144
4	296	0.00000	0.001
5	296	0.00000	0.000
6	296	0.00000	0.000
TOTAL	296	0.40000	0.145

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```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            APRIL       1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
14	296	0.38000	0.095
15	296	0.00000	0.000
16	296	0.29000	0.066
17	296	0.00000	0.000
18	296	0.00000	0.000
TOTAL	296	0.67000	0.162

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MAY         1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
3	296	0.05000	0.001
4	296	0.91000	0.367
5	296	0.00000	0.002
6	296	0.00000	0.000
7	296	0.04000	0.000
8	296	0.00000	0.000
9	296	0.00000	0.000
10	296	0.00000	0.000
11	296	0.00000	0.000
12	296	0.00000	0.000
13	296	0.00000	0.000
14	296	0.00000	0.000
15	296	0.00000	0.000
16	296	0.00000	0.000
17	296	0.00000	0.000
18	296	0.06000	0.000
19	296	0.00000	0.001
20	296	0.00000	0.000
21	296	0.00000	0.000
22	296	0.00000	0.000
23	296	0.00000	0.000
24	296	0.00000	0.000
25	296	0.00000	0.000
26	296	0.00000	0.000
27	296	0.00000	0.000
28	296	0.00000	0.000
29	296	0.00000	0.000

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30	296	0.00000	0.000
31	296	0.00000	0.000
TOTAL	296	1.06000	0.371

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JUNE        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	296	0.00000	0.000
2	296	0.00000	0.000
3	296	0.00000	0.000
4	296	0.00000	0.000
5	296	0.00000	0.000
6	296	0.00000	0.000
7	296	0.00000	0.000
8	296	0.00000	0.000
9	296	0.00000	0.000
10	296	0.00000	0.000
11	296	0.00000	0.000
12	296	0.00000	0.000
13	296	0.00000	0.000
14	296	0.00000	0.000
15	296	0.00000	0.000
16	296	0.00000	0.000
17	296	0.00000	0.000
18	296	0.00000	0.000
19	296	0.00000	0.000
20	296	0.00000	0.000
21	296	0.00000	0.000
22	296	0.00000	0.000
23	296	0.00000	0.000
24	296	0.00000	0.000
25	296	0.00000	0.000
26	296	0.00000	0.000
27	296	0.00000	0.000
28	296	0.00000	0.000
29	296	0.09000	0.005
30	296	0.00000	0.001
TOTAL	296	0.09000	0.005

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JULY        1976                    *
**************************************************
```

DAY	INLET	RAIN	FLOW

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Consultants

		INCH	INCH
1	296	0.00000	0.000
2	296	0.00000	0.000
3	296	0.00000	0.000
4	296	0.00000	0.000
5	296	0.00000	0.000
6	296	0.00000	0.000
7	296	0.00000	0.000
8	296	0.00000	0.000
9	296	0.00000	0.000
10	296	0.00000	0.000
11	296	0.00000	0.000
12	296	0.08000	0.004
13	296	0.00000	0.000
14	296	0.00000	0.000
22	296	0.01000	0.000
24	296	0.96000	0.447
25	296	0.07000	0.003
26	296	0.00000	0.000
27	296	0.00000	0.000
28	296	0.32250	0.025
29	296	0.03750	0.098
30	296	0.00000	0.000
TOTAL	296	1.48000	0.579

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            AUGUST     1976                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
8	296	0.03000	0.000
9	296	0.00000	0.000
10	296	0.00000	0.000
11	296	0.00000	0.000
12	296	0.00000	0.000
13	296	0.00000	0.000
14	296	0.00000	0.000
15	296	0.00000	0.000
16	296	0.00000	0.000
17	296	0.00000	0.000
18	296	0.00000	0.000
19	296	0.00000	0.000
20	296	0.00000	0.000
21	296	0.00000	0.000
22	296	0.00000	0.000
23	296	0.00000	0.000
24	296	0.00000	0.000

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Consultants

25	296	0.00000	0.000
26	296	0.00000	0.000
27	296	0.00000	0.000
28	296	0.09000	0.004
29	296	0.00000	0.001
30	296	0.00000	0.000
31	296	0.00000	0.000
TOTAL	296	0.12000	0.006

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            SEPTEMBER  1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	296	0.00000	0.000
2	296	0.00000	0.000
3	296	0.00000	0.000
4	296	0.00000	0.000
5	296	0.34000	0.097
6	296	0.00000	0.010
7	296	0.00000	0.000
8	296	0.00000	0.000
9	296	0.00000	0.000
10	296	0.04000	0.001
11	296	0.01000	0.000
12	296	0.00000	0.000
13	296	0.00000	0.000
14	296	0.00000	0.000
23	296	0.72000	0.234
24	296	0.30000	0.205
25	296	0.28000	0.076
26	296	0.00000	0.000
27	296	0.00000	0.000
TOTAL	296	1.69000	0.622

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*             OCTOBER    1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
21	296	0.04000	0.000
22	296	0.09000	0.006
23	296	0.52000	0.205
24	296	0.00000	0.000

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Consultants

25	296	0.00000	0.000
26	296	0.00000	0.000
27	296	0.05000	0.002
28	296	0.00000	0.000
29	296	0.00000	0.000
30	296	0.00000	0.000
31	296	0.00000	0.000
TOTAL	296	0.70000	0.214

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            NOVEMBER   1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	296	0.00000	0.000
2	296	0.00000	0.000
3	296	0.00000	0.000
4	296	0.00000	0.000
5	296	0.00000	0.000
6	296	0.00000	0.000
7	296	0.00000	0.000
8	296	0.00000	0.000
9	296	0.00000	0.000
10	296	0.00000	0.000
11	296	0.00000	0.000
12	296	0.39000	0.111
13	296	0.04000	0.055
14	296	0.00000	0.000
15	296	0.00000	0.000
16	296	0.00000	0.000
TOTAL	296	0.43000	0.166

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            DECEMBER   1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
19	296	0.05000	0.003
20	296	0.00000	0.000
21	296	0.00000	0.000
22	296	0.00000	0.000
23	296	0.00000	0.000
24	296	0.00000	0.000
25	296	0.00000	0.000

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26	296	0.00000	0.000
27	296	0.00000	0.000
28	296	0.00000	0.000
29	296	0.00000	0.000
30	296	0.00000	0.000
31	296	0.80000	0.340
TOTAL	296	0.85000	0.344
YEAR	296	7.96000	2.730
1	296	0.00000	0.000
TOTAL	296	0.00000	0.000
YEAR	296	7.96000	2.730

```
**************************************************
*      END OF TIME STEP DO-LOOP IN RUNOFF        *
**************************************************

FINAL DATE (MO/DAY/YEAR)   =                    1/ 1/77
TOTAL NUMBER OF TIME STEPS =                       3603
FINAL JULIAN DATE  =                              77001
FINAL TIME OF DAY  =                                 0. SECONDS.
FINAL RUNNING TIME =                           8784.0000   HOURS.
FINAL RUNNING TIME =                            366.0000    DAYS.

**************************************************
*     EXTRAPOLATION SUMMARY FOR WATERSHEDS       *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF OVERLND CALLS     *
**************************************************
```

SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS
2001	6355	1041	2002	6106	1130	2051	6306	998
2101	6298	1002	2201	5426	770	2202	6331	1021
2301	5825	847	2302	6119	1121	2303	6173	943

```
**************************************************
*     EXTRAPOLATION SUMMARY FOR CHANNEL/PIPES    *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF GUTNR CALLS       *
**************************************************
```

CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS
279	16810	2222	281	12206	2250	275	8709	1019
285	12622	2218	291	11948	2220			

1

```
**********************************************
*       CONTINUITY CHECK FOR SURFACE WATER   *
**********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
TOTAL PRECIPITATION (RAIN PLUS SNOW)	1.823262E+07	7.960

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TOTAL INFILTRATION	7.105867E+06	3.102
TOTAL EVAPORATION	4.905065E+06	2.141
SURFACE RUNOFF FROM WATERSHEDS	5.978208E+06	2.610
TOTAL WATER REMAINING IN SURFACE STORAGE	1.432516E+05	0.063
INFILTRATION OVER THE PERVIOUS AREA...	7.105867E+06	7.004

INFILTRATION + EVAPORATION +		
SURFACE RUNOFF + SNOW REMOVAL +		
WATER REMAINING IN SURFACE STORAGE +		
WATER REMAINING IN SNOW COVER.....	1.813239E+07	7.916
TOTAL PRECIPITATION + INTIAL STORAGE..	1.823262E+07	7.960

THE ERROR IN CONTINUITY IS CALCULATED AS

```
****************************************
* PRECIPITATION + INITIAL SNOW COVER  *
*      - INFILTRATION -               *
*EVAPORATION - SNOW REMOVAL -         *
*SURFACE RUNOFF FROM WATERSHEDS -     *
*WATER IN SURFACE STORAGE -           *
*WATER REMAINING IN SNOW COVER        *
*-------------------------------------*
* PRECIPITATION + INITIAL SNOW COVER  *
****************************************
```

ERROR..... 0.550 PERCENT

```
***********************************************
*       CONTINUITY CHECK FOR CHANNEL/PIPES    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
INITIAL CHANNEL/PIPE STORAGE.....	0.000000E-01	0.000
FINAL CHANNEL/PIPE STORAGE.....	1.381107E+04	0.006
SURFACE RUNOFF FROM WATERSHEDS.....	5.978208E+06	2.610
GROUNDWATER SUBSURFACE INFLOW.....	0.000000E-01	0.000
EVAPORATION LOSS FROM CHANNELS.....	0.000000E-01	0.000
CHANNEL/PIPE/INLET OUTFLOW.....	6.253816E+06	2.730
INITIAL STORAGE + INFLOW.....	5.978207E+06	2.610
FINAL STORAGE + OUTFLOW.....	6.267627E+06	2.736

```
*********************************************
* FINAL STORAGE + OUTFLOW  + EVAPORATION - *
* WATERSHED RUNOFF - GROUNDWATER INFLOW  - *
*     INITIAL CHANNEL/PIPE STORAGE         *
*     ---------------------------------    *
*  FINAL STORAGE + OUTFLOW  + EVAPORATION  *
*********************************************
```

ERROR..... 4.618 PERCENT

1

```
***********************************************
*  SUMMARY OF QUANTITY RESULTS (FLOW IN CFS) *
***********************************************
```

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BASIN SR-21
RUNOFF BLOCK

DATE MO/DA/YR	TIME HR:MIN	CHAN/INLT 296 FLOW CFS
FLOW WT'D MEANS		0.1978
FLOW WT'D STD-DEVS		2.5408
MAXIMUM VALUE		130.9583
MINIMUM VALUE		0.0000
TOTAL LOADS		6.25E+06 CUBIC-FT

===> RUNOFF SIMULATION ENDED NORMALLY.

```
*************************************
*      STATS BLOCK INPUT COMMANDS   *
*************************************
```

MINIMUM INTEREVENT TIME (HOURS).....	6.00
NPOINT (NUMBER OF PRINTED EVENTS).....	0
METRIC (0-U.S. STANDARD, 1-METRIC)....	0
LRET (RETURN PERIOD UNITS).....	1
A (PLOTTING POSITION PARAMETER).....	0.000
PRINT SEQUENTIAL SERIES (KSEQ).....	1
TERMINATE PROGRAM PARAMETER (KTERM)...	0
KTSEQS.....	1

```
*******************************************
* HEADER INFORMATION FROM INTERFACE FILE: *
*******************************************
```

TITLE FROM FIRST COMPUTATIONAL BLOCK:
BASIN SR-21
RUNOFF BLOCK

TITLE FROM IMMEDIATELY PRECEDING COMPUTATIONAL BLOCK
BASIN SR-21
RUNOFF BLOCK

NAME OF PRECEDING BLOCK:.....	RUNOFF BLOCK
INITIAL JULIAN DATE (IDATEZ).....	76001
INITIAL TIME OF DAY IN SECONDS (TZERO).....	0.0

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```
NO. TRANSFERED INPUT LOCATIONS....................      1
NO. TRANSFERED POLLUTANTS........................      0
SIZE OF TOTAL CATCHMENT AREA (ACRES)..............  631.00

**************************************************
* ELEMENT NUMBERS OF INTERFACE INLET LOCATIONS: *
**************************************************
    296

CONVERSION FACTOR TO CFS FOR FLOW UNITS
ON INTERFACE FILE.  MULTIPLY BY:     1.00000


*********************************************************
* STATISTICAL ANALYSIS BLOCK WRITTEN BY THE UNIVERSITY *
* OF FLORIDA.  LAST UPDATED MAY, 1989.                 *
*********************************************************


1
**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING DATE...............     0   STARTING TIME... 0.00 HOURS
 ENDING DATE.................     0   ENDING TIME..... 0.00 HOURS


**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING JULIAN DATE........     0   STARTING TIME... 0.00 SECONDS
 ENDING JULIAN DATE..........     0   ENDING TIME..... 0.00 SECONDS

===> A ZERO STARTING DATE INDICATES THAT THE ANALYSIS
     COMMENCES AT THE BEGINNING OF THE RECORD.  A ZERO
     ENDING DATE INDICATES THAT THE ANALYSIS CONTINUES TO
     THE END OF THE RECORD.

THE MINIMUM INTEREVENT TIME HAS BEEN DEFINED AS      6.00 HOURS.

*******************************************************
* THE FLOW LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:     296                                *
*******************************************************

*******************************************************
* THE RAIN LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:       0                                *
```

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****

U.S. CUSTOMARY UNITS ARE USED IN INPUT/OUTPUT

THE NUMBER OF POLLUTANTS REQUESTED FOR STATISTICAL ANALYSIS IS 0

THE BASE FLOW TO SEPARATE EVENTS IS 0.0010 CFS.

THE STATISTICAL OPTIONS REQUESTED FOR FLOW RATE ARE INDICATED BY A '1'

	TOTAL FLOW	AVERAGE FLOW	PEAK FLOW	EVENT DURATION	INTEREVENT DURATION
TABLE OF RETURN PERIOD AND FREQUENCY	1	0	0	0	0
GRAPH OF RETURN PERIOD	0	0	0	0	0
GRAPH OF FREQUENCY	0	0	0	0	0
MOMENTS	0	0	0	0	0

===> PROGRAM EXECUTION CONTINUING. DATA WILL BE
READ FROM THE INTERFACE FILE AND SEPARATED INTO EVENTS.

===> THE FIRST DATE AND TIME ON THE INTERFACE FILE ARE 76001 0.00 SECONDS

===> END OF INTERFACE FILE REACHED.

===> LAST JULIAN DATE AND TIME READ ARE 77001 0.22 SECONDS

===> PROGRAM CONTINUING WITH ANALYSIS OF EVENTS

===> THE NUMBER OF MONTHS WITHIN THE PERIOD OF
ANALYSIS ROUNDED TO THE NEAREST MONTH, IS 12.

===> THE NUMBER OF EVENTS WITHIN THE PERIOD OF
ANALYSIS IS 23.

1

SEQUENTIAL SERIES OF EVENTS

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)	DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760204	5.00	0.004	49.29	821.00	760209	3.00	0.113	39.29	72.05
760303	13.25	0.145	33.00	526.22	760414	7.75	0.095	36.39	972.75
760416	2.25	0.066	36.53	9.42	760503	21.50	0.370	50.05	393.98
760507	23.50	0.000	20.28	51.32	760518	21.25	0.001	24.53	244.72

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760629	20.25	0.005	26.00	985.73	760712	1.25	0.004	25.62	270.25
760724	3.25	0.451	48.10	267.64	760728	23.25	0.123	29.00	71.23
760808	22.75	0.000	20.06	237.75	760828	20.25	0.005	26.68	460.70
760905	20.25	0.106	30.00	168.59	760910	16.25	0.001	24.08	89.32
760923	19.25	0.514	62.55	294.19	761021	8.50	0.000	22.95	601.96
761022	20.25	0.211	45.47	16.25	761027	16.25	0.002	26.58	73.85
761112	17.25	0.166	38.54	361.68	761219	6.50	0.003	28.28	841.97
761231	2.75	0.340	21.50	259.22					

```
************************************************************
* TOTAL FLOW AT LOCATION       296 IS      2.73 (INCHES)  *
************************************************************
```

1

```
        ====================================================
        TABLE OF MAGNITUDE, RETURN PERIOD AND FREQUENCY
        ====================================================

    CONSTITUENT ANALYZED    :                        FLOW (INCHES)
    EVENT PARAMETER ANALYZED:                   TOTAL FLOW
```

DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =
760923	19.25	0.514	13.000	100.00	##	760724	3.25	0.451	6.500	95.65	##	760503	21.50	0.370	4.333	91.30
761231	2.75	0.340	3.250	86.96	##	761022	20.25	0.211	2.600	82.61	##	761112	17.25	0.166	2.167	78.26
760303	13.25	0.145	1.300	73.91	##	760728	23.25	0.123	1.182	69.57	##	760209	3.00	0.113	1.083	65.22
760905	20.25	0.106	0.684	60.87	##	760414	7.75	9.543E-02	0.650	56.52	##	760416	2.25	6.626E-02	0.619	52.17
760828	20.25	5.354E-03	0.419	47.83	##	760629	20.25	5.296E-03	0.406	43.48	##	760712	1.25	4.435E-03	0.394	39.13
760204	5.00	4.081E-03	0.283	34.78	##	761219	6.50	3.237E-03	0.277	30.43	##	761027	16.25	2.444E-03	0.271	26.09
760910	16.25	1.342E-03	0.203	21.74	##	760518	21.25	9.859E-04	0.200	17.39	##	760507	23.50	3.911E-04	0.197	13.04
761021	8.50	3.240E-04	0.153	8.70	##	760808	22.75	1.761E-04	0.151	4.35	##					

```
===>  STATS BLOCK TERMINATED NORMALLY.

===> SWMM 4.04 SIMULATION ENDED NORMALLY.

===> YOUR INPUT FILE WAS NAMED : SR21.76
===> YOUR OUTPUT FILE WAS NAMED: SR21.OUT

*********************************************************
*        SWMM 4.04 SIMULATION DATE AND TIME SUMMARY    *
*********************************************************
```

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```
* STARTING DATE... October    14, 1992              *
*          TIME...         18:25:35:16              *
*   ENDING DATE... October    14, 1992              *
*          TIME...         18:30: 3:36              *
*  ELAPSED TIME...               4.467 MINUTES      *
*********************************************************
```

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1

```
**************************************************
*          ENVIRONMENTAL PROTECTION AGENCY       *
*           STORM WATER MANAGEMENT MODEL         *
*                  VERSION 4.04                  *
**************************************************

              .   DEVELOPED BY

**************************************************
*             METCALF & EDDY, INC.               *
*            UNIVERSITY OF FLORIDA               *
*       WATER RESOURCES ENGINEERS, INC.          *
*              SEPTEMBER 1970                    *
**************************************************

                  UPDATED BY

**************************************************
*            UNIVERSITY OF FLORIDA               *
*          CAMP DRESSER & MCKEE, INC.            *
*                                                *
*   MARCH     1975           NOVEMBER  1977      *
*   NOVEMBER  1981           SEPTEMBER 1989      *
**************************************************

**************************************************
*    THIS IS A NEW RELEASE OF SWMM.  IF ANY      *
*     PROBLEMS OCCUR IN RUNNING THIS MODEL       *
*            CONTACT WAYNE HUBER                 *
*           UNIVERSITY OF FLORIDA                *
*            PHONE 1-904-392-0846                *
**************************************************

**************************************************
*  THIS IS AN IMPLEMENTATION OF EPA SWMM 4.04    *
*  "NATURE IS FULL OF INFINITE CAUSES WHICH      *
*   HAVE NEVER OCCURED IN EXPERIENCE" da Vinci   *
**************************************************

**************************************************
*       DISK OR TAPE ASSIGNMENTS BY BLOCK        *
*         JIN  -> INPUT TO A BLOCK               *
*        JOUT  -> OUTPUT FROM A BLOCK            *
**************************************************

 BLOCK( 1)      JIN( 1)  8      JOUT( 1)  9
 BLOCK( 2)      JIN( 2)  9      JOUT( 2) 10
 BLOCK( 3)      JIN( 3) 10      JOUT( 3) 11
 BLOCK( 4)      JIN( 4) 11      JOUT( 4) 12

**************************************************
```

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```
*              SCRATCH DISKS OR TAPES              *
*         THESE CAN BE USED BY ANY BLOCK           *
*****************************************************

NSCRAT(1) NCSRAT(2) NSCRAT(3) NSCRAT(4) NSCRAT(5) NSCRAT(6) NSCRAT(7)
     9        20        30        31        32        33        34

*****************************************************
*    PARAMETER VALUES ON THE TAPES COMMON BLOCK     *
*****************************************************

 NUMBER OF SUBCATCHMENTS IN THE RUNOFF BLOCK (NW)....  150
 NUMBER OF CHANNEL/PIPES IN THE RUNOFF BLOCK (NG)....  150
 RUNOFF WATER QUALITY CONSTITUENTS (NRQ)............    10
 NUMBER OF ELEMENTS IN THE TRANSPORT BLOCK (NET).....  200
 NUMBER OF STORAGE JUNCTIONS IN TRANSPORT (NTSE).....   30
 NUMBER OF INPUT HYDROGRAPHS IN TRANSPORT (NTH)......   80
 NUMBER OF ELEMENTS IN THE EXTRAN BLOCK (NEE)........  175
 NUMBER OF GROUNDWATER SUBCATCHMENTS IN RUNOFF (NGW).  100
 NUMBER OF INTERFACE LOCATIONS FOR ALL BLOCKS (NIE)..  200
 NUMBER OF PUMPS IN EXTRAN (NEP).....................   20
 NUMBER OF ORIFICES IN EXTRAN (NEO)..................   60
 NUMBER OF TIDE GATES/FREE OUTFALLS IN EXTRAN (NTG)..   25
 NUMBER OF EXTRAN WEIRS (NEW)........................   60
 NUMBER OF EXTRAN PRINTOUT LOCATIONS (NPO)...........   30
 NUMBER OF TIDE ELEMENTS IN EXTRAN (NTE).............   20
 NUMBER OF NATURAL CHANNELS (NNC)....................   50
 NUMBER OF STORAGE JUNCTIONS IN EXTRAN (NVSE)........   10
 NUMBER OF DATA POINTS FOR VARIABLE STORAGE ELEMENTS
 IN THE EXTRAN BLOCK (NVST)..........................   10
 NUMBER OF INPUT HYDROGRAPHS IN EXTRAN (NEH).........  100


*************************************************
* ENTRY MADE TO THE RAINFALL BLOCK              *
* CREATED BY THE UNIVERSITY OF FLORIDA - 1988   *
*************************************************


        BASIN SR-03
        RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR


     ****************************************
     *  PRECIPITATION BLOCK INPUT COMMANDS  *
     ****************************************

    STATION, ISTA........................     46481

    BEGINNING DATE, IYBEG (YR/MO/DY)......    76/ 1/ 1
```

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```
ENDING DATE, IYEND (YR/MO/DY).........    76/12/31

MINIMUM INTEREVENT TIME, MIT..........     6

NUMBER OF RANKED STORMS, NPTS.........    10

NWS FORMAT, IFORM (SEE TEXT)..........     3

PRINT STORM SUMMARY, ISUM (0-NO 1-YES)     1

PRINT ALL RAINFALL, IYEAR (0-NO 1-YES)     0

SAVE STORM EVENT DATA, IFILE..........     0
(0-DO NOT SAVE 1- SAVE DATA)..........

IDECID 0 - CREATE INTERFACE FILE
       1 - CREATE FILE AND ANALYZE
       2 - SYNOPTIC ANALYSIS..........     1

PLOTTING POSITION PARAMETER, A........  0.00

STORM EVENT STATISTICS, NOSTAT........     0


*********************************************************
*  PRECIPITATION OUTPUT CREATED USING THE RAIN BLOCK    *
*  NUMBER OF PRECIPITATION STATIONS...        1         *
*********************************************************

LOCATION STATION NUMBER
-------- --------------
       1.        46481


     ****************************
     * USER DEFINED INPUT FORMAT *
     ****************************

    USER FORMAT (FIRMAT)...................(I6,4I10,I3,F7.0)

    INPUT/OUTPUT UNITS 0 = U.S. CUSTOMARY..
                       1 = METRIC UNITS....     0

    UNITS OF RAINFALL (KUNIT)..............     0
     0 -> INTENSITY; 1 --> VOLUME..........

     CONVERSION FACTOR (CONV)..............  0.01

     RAINFALL INTERVAL IN MINUTES(THISTO).. 60.00
```

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FIELD POSITION FOR STATION NUMBER, F1. 1

FIELD POSITION FOR YEAR, F2..... 2

FIELD POSITION FOR MONTH, F3..... 3

FIELD POSITION FOR DAY, F4..... 4

FIELD POSITION FOR HOUR, F5..... 5

FIELD POSITION FOR MINUTE, F6..... 6

FIELD POSITION FOR RAINFALL,F7..... 7

1

```
************************************************************
* S T O R M   E V E N T   S U M M A R Y *
************************************************************
```

BASIN SR-03
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

STORM NO	DATE	START HOUR	DUR-ATION HOURS	VOLUME INCHES	AVE INTEN IN/HR	MAX INTEN IN/HR	TIME >0 IN HOURS	HOURS MISSING DATA	HOURS METER STUCK
1	2/ 4/76	3	10.	0.09	0.01	0.03	UNDEF	0	0
2	2/ 5/76	7	1.	0.02	0.02	0.02	18.	0	0
3	2/ 9/76	1	11.	0.36	0.03	0.11	89.	0	0
4	3/ 3/76	12	9.	0.40	0.04	0.23	552.	0	0
5	4/14/76	6	9.	0.38	0.04	0.16	993.	0	0
6	4/16/76	1	2.	0.25	0.13	0.19	34.	0	0
7	4/16/76	13	1.	0.04	0.04	0.04	10.	0	0
8	5/ 3/76	20	2.	0.05	0.03	0.04	414.	0	0
9	5/ 4/76	6	2.	0.40	0.20	0.31	8.	0	0
10	5/ 4/76	16	4.	0.51	0.13	0.38	8.	0	0
11	5/ 7/76	21	2.	0.04	0.02	0.03	73.	0	0
12	5/18/76	19	4.	0.06	0.02	0.04	260.	0	0
13	6/29/76	19	1.	0.09	0.09	0.09	1004.	0	0
14	7/12/76	0	1.	0.08	0.08	0.08	292.	0	0
15	7/22/76	21	1.	0.01	0.01	0.01	260.	0	0
16	7/24/76	2	4.	0.96	0.24	0.65	28.	0	0
17	7/25/76	0	1.	0.07	0.07	0.07	18.	0	0
18	7/28/76	22	2.	0.36	0.18	0.31	93.	0	0
19	8/ 8/76	21	2.	0.03	0.02	0.02	261.	0	0
20	8/28/76	19	2.	0.09	0.05	0.08	476.	0	0
21	9/ 5/76	14	7.	0.34	0.05	0.29	185.	0	0
22	9/10/76	15	1.	0.04	0.04	0.04	114.	0	0
23	9/11/76	2	1.	0.01	0.01	0.01	10.	0	0
24	9/23/76	17	13.	1.00	0.08	0.26	302.	0	0
25	9/24/76	19	1.	0.02	0.02	0.02	13.	0	0

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```
  26  9/25/76    2     4.   0.28   0.07   0.24     6.      0      0
  27 10/21/76    4     6.   0.04   0.01   0.02   622.      0      0
  28 10/22/76   19     1.   0.09   0.09   0.09    33.      0      0
  29 10/23/76    2    10.   0.52   0.05   0.11     6.      0      0
  30 10/27/76   15     1.   0.05   0.05   0.05    99.      0      0
  31 11/12/76   16    10.   0.43   0.04   0.13   384.      0      0
  32 12/19/76    5     3.   0.05   0.02   0.03   867.      0      0
TOTAL                      7.16                                 0      0
ESTIMATED MISSING RAINFALL                                    0.00   0.00
1

     ****************************************
     *         PRECIPITATION SUMMARY        *
     ****************************************

     RAINFALL SUMMARY FOR STATION       46481
     TOTAL MISSING HOURS                    0  HOURS
     TOTAL HOURS OF METER MALFUNCTION       0  HOURS
     TOTAL RAINFALL                      7.16  INCHES
     TOTAL NUMBER OF YEARS                  1  YEARS

===> RAINFALL BLOCK ENDED NORMALLY.

1
****************************************************
* ENTRY MADE TO THE RUNOFF BLOCK, LAST UPDATED BY *
* THE UNIVERSITY OF FLORIDA DURING MAY 1989.      *
****************************************************
* "And wherever water goes, amoebae go along for  *
*  the ride"                    Tom Robbins       *
****************************************************


                    BASIN SR-03

                    RUNOFF BLOCK


SNOWMELT PARAMETER - ISNOW.......................        0

NUMBER OF RAIN GAGES - NRGAG.....................        1

GREEN-AMPT INFILTRATION EQUATION USED - INFILM...        1

QUALITY IS NOT SIMULATED - KWALTY................        0

READ MONTHLY EVAPORATION DATA ON CARD F1.........        1

HOUR OF DAY AT START OF STORM - NHR..............        0
```

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MINUTE OF HOUR AT START OF STORM - NMN..... 0

TIME TZERO AT START OF STORM (HOURS)..... 0.000

USE U.S. CUSTOMARY UNITS FOR MOST I/O - METRIC... 0

RUNOFF INPUT PRINT CONTROL... 24

RUNOFF GRAPH PLOT CONTROL.... 1

RUNOFF OUTPUT PRINT CONTROL.. 2

MONTH, DAY, YEAR OF START OF STORM IS: 1/ 1/76

WET TIME STEP LENGTH (SECONDS)..... 900.

DRY TIME STEP LENGTH (SECONDS)..... 10800.

WET/DRY TIME STEP LENGTH (SECONDS)... 1800.

SIMULATION LENGTH IS..... 761231.0 YR/MO/DY

PERCENT OF IMPERVIOUS AREA WITH ZERO DETENTION DEPTH 25.0

```
*********************************************************
*   PROCESSED PRECIPITATION WILL BE READ ON NSCRAT(1)  *
*********************************************************
```

```
*****************************
*        DATA GROUP F1      *
* EVAPORATION RATE (IN/DAY) *
*****************************
```

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.
0.09	0.13	0.17	0.26	0.32	0.33	0.32	0.28	0.25	0.18	0.12	0.08

1

```
*********************************************************
*        C H A N N E L  A N D  P I P E  D A T A         *
*********************************************************
```

INPUT SEQUEN NUMBER	NAMEG: CHANNEL ID #	DRAINS TO NGTO:	CHANNEL TYPE	WIDTH (FT)	LENGTH (FT)	INVERT SLOPE (FT/FT)	L SIDE SLOPE (FT/FT)	R SIDE SLOPE (FT/FT)	INTIAL DEPTH (FT)	MAX DEPTH (FT)	MANN-INGS "N"	FULL FLOW (CFS)
1	662	664	CIRCULAR	3.0	1240.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	2.74E+01
2	664	670	CIRCULAR	5.0	2350.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	1.07E+02
3	668	670	CIRCULAR	5.0	2630.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	1.07E+02
4	670	674	CIRCULAR	5.0	1550.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	1.07E+02
5	674	678	CIRCULAR	5.0	1150.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	1.07E+02

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6	678	688	CIRCULAR	5.2	2550.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	1.22E+02
7	684	688	CIRCULAR	3.5	2700.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	4.13E+01
8	684	688	CIRCULAR	3.5	2700.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	4.13E+01
9	688	696	CIRCULAR	6.0	2710.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	1.74E+02
10	694	696	CIRCULAR	3.5	2670.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	4.13E+01
11	696	698	CIRCULAR	6.2	700.0	0.0019	0.0000	0.0000	0.0	0.0	0.0150	1.94E+02

1

```
*****************************************************
*          S U B C A T C H M E N T   D A T A        *
*****************************************************
```

SUBCATCH-MENT NO.		GUTTER OR INLET	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE IMPERV.	FACTOR PERV.	DEPRES. STORAGE(IN) IMPERV.	PERV.	GREEN-AMPT INFIL PARAMS SUCTION (IN)	HYD.CON (IN/HR)	IMD	GAGE NO.
1	6002	662	1250.00	14.10	75.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
2	6003	662	1200.00	13.80	60.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
3	6051	664	1050.00	33.90	40.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
4	6052	664	4000.00	49.30	19.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
5	6053	664	400.00	10.90	0.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
6	6054	664	1200.00	18.30	75.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
7	6055	664	300.00	11.50	65.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
8	6101	668	2000.00	40.40	60.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
9	6102	668	1800.00	47.10	19.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
10	6103	668	1600.00	22.40	75.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
11	6151	670	200.00	9.70	60.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
12	6152	670	2000.00	85.90	60.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
13	6153	670	600.00	10.20	40.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
14	6155	670	2200.00	21.50	0.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
15	6156	670	1500.00	43.70	19.00	0.0100	0.050	0.100	0.250	0.500	8.20	0.12	0.150	1
16	6251	678	3100.00	46.00	19.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
17	6252	678	600.00	15.60	60.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
18	6253	678	1050.00	32.20	40.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
19	6201	674	1000.00	13.80	65.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
20	6202	674	6000.00	80.50	60.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
21	6221	674	3800.00	23.00	19.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
22	6222	674	1000.00	28.40	65.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
23	6301	678	3200.00	56.50	60.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
24	6302	678	1500.00	43.20	65.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
25	6351	684	4500.00	23.00	75.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
26	6352	684	3500.00	23.00	60.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
27	6354	684	1250.00	51.40	65.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
28	6381	688	3600.00	103.40	65.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
29	6382	688	3200.00	54.40	19.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
30	6383	688	1000.00	14.80	75.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
31	6401	694	2000.00	47.10	0.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
32	6402	694	2000.00	81.60	0.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
33	6451	696	2600.00	77.20	40.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
34	6452	696	2600.00	94.10	19.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1
35	6453	696	2800.00	21.10	60.00	0.0100	0.050	0.100	0.250	0.500	5.71	0.38	0.151	1

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```
TOTAL NUMBER OF SUBCATCHMENTS..              35
TOTAL TRIBUTARY AREA (ACRES)....          1363.00
IMPERVIOUS AREA (ACRES).........           570.30
PERVIOUS AREA (ACRES)...........           792.70
TOTAL WIDTH (FEET)..............         71600.00
PERCENT IMPERVIOUSNESS..........            41.84

1
*************************************************************
*     ARRANGEMENT OF SUBCATCHMENTS AND CHANNEL/PIPES        *
*************************************************************


   CHANNEL
   OR PIPE
       662     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  6002  6003
       664     TRIBUTARY CHANNEL/PIPES...   662
               TRIBUTARY SUBAREAS........  6051  6052  6053  6054  6055
       668     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  6101  6102  6103
       670     TRIBUTARY CHANNEL/PIPES...   664   668
               TRIBUTARY SUBAREAS........  6151  6152  6153  6155  6156
       674     TRIBUTARY CHANNEL/PIPES...   670
               TRIBUTARY SUBAREAS........  6201  6202  6221  6222
       678     TRIBUTARY CHANNEL/PIPES...   674
               TRIBUTARY SUBAREAS........  6251  6252  6253  6301  6302
       684     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  6351  6352  6354
       684     NO TRIBUTARY CHANNEL/PIPES
               NO TRIBUTARY SUBAREAS.....
       688     TRIBUTARY CHANNEL/PIPES...   678   684   684
               TRIBUTARY SUBAREAS........  6381  6382  6383
       694     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  6401  6402
       696     TRIBUTARY CHANNEL/PIPES...   688   694
               TRIBUTARY SUBAREAS........  6451  6452  6453


    INLET
       698     TRIBUTARY CHANNEL/PIPES...   696
               NO TRIBUTARY SUBAREAS.....


*************************************************************
* HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING   1 INLETS *
*************************************************************
          698


*************************************************
*  QUALITY SIMULATION NOT INCLUDED IN THIS RUN *
```

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```
**************************************************


    ************************
    *    DATA GROUP M1     *
    ************************


TOTAL NUMBER OF PRINTED GUTTERS/INLETS...NPRNT..        1
NUMBER OF TIME STEPS BETWEEN PRINTINGS..INTERV..        0
STARTING AND STOPPING PRINTOUT DATES............        0        0


    ************************
    *    DATA GROUP M3     *
    ************************

CHANNEL/INLET PRINT DATA GROUPS......    698


*****************************************************
*  PRECIPITATION INTERFACE FILE SUMMARY             *
*  NUMBER OF PRECIPITATION STATIONS...        1     *
*****************************************************

LOCATION STATION NUMBER
-------- --------------
       1.         46481


1
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*           JANUARY    1976                    *
**************************************************

DAY  INLET RAIN     FLOW
           INCH     INCH
 ---- ---  ----   --------
TOTAL  698  0.00000   0.000

1
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*           FEBRUARY   1976                    *
**************************************************

DAY  INLET RAIN     FLOW
           INCH     INCH
 ---- ---  ----   --------
```

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4	698	0.09000	0.003
5	698	0.02000	0.001
6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.36000	0.043
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.00000	0.000
TOTAL	698	0.47000	0.046

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MARCH       1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.40000	0.066
4	698	0.00000	0.000
5	698	0.00000	0.000
6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000

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16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.00000	0.000
30	698	0.00000	0.000
31	698	0.00000	0.000
TOTAL	698	0.40000	0.066

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            APRIL      1976                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.00000	0.000
6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.38000	0.032
15	698	0.00000	0.000
16	698	0.29000	0.023
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000

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26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.00000	0.000
30	698	0.00000	0.000
TOTAL	698	0.67000	0.055

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MAY        1976                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.05000	0.001
4	698	0.91000	0.234
5	698	0.00000	0.001
6	698	0.00000	0.000
7	698	0.04000	0.000
8	698	0.00000	0.001
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.06000	0.000
19	698	0.00000	0.001
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.00000	0.000
30	698	0.00000	0.000
31	698	0.00000	0.000
TOTAL	698	1.06000	0.238

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
```

Woodward-Clyde
Consultants

```
*            JUNE        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.00000	0.000
6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.09000	0.004
30	698	0.00000	0.001
TOTAL	698	0.09000	0.005

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JULY        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.00000	0.000

Woodward-Clyde
Consultants

6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.08000	0.004
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.01000	0.000
23	698	0.00000	0.000
24	698	0.96000	0.294
25	698	0.07000	0.003
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.32250	0.009
29	698	0.03750	0.043
30	698	0.00000	0.000
31	698	0.00000	0.000
TOTAL	698	1.48000	0.354

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            AUGUST      1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.00000	0.000
6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.03000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000

Woodward-Clyde
Consultants

16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.09000	0.004
29	698	0.00000	0.001
30	698	0.00000	0.000
31	698	0.00000	0.000
TOTAL	698	0.12000	0.005

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            SEPTEMBER  1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.34000	0.035
6	698	0.00000	0.004
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.04000	0.001
11	698	0.01000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.72000	0.136
24	698	0.30000	0.154
25	698	0.28000	0.040

Woodward-Clyde
Consultants

26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.00000	0.000
30	698	0.00000	0.000
TOTAL	698	1.69000	0.370

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            OCTOBER    1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.00000	0.000
6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.04000	0.000
22	698	0.09000	0.005
23	698	0.52000	0.112
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.05000	0.002
28	698	0.00000	0.000
29	698	0.00000	0.000
30	698	0.00000	0.000
31	698	0.00000	0.000
TOTAL	698	0.70000	0.120

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
```

Woodward-Clyde
Consultants

```
*            NOVEMBER   1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.00000	0.000
6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.39000	0.040
13	698	0.04000	0.036
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.00000	0.000
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.00000	0.000
30	698	0.00000	0.000
TOTAL	698	0.43000	0.076

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            DECEMBER   1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	698	0.00000	0.000
2	698	0.00000	0.000
3	698	0.00000	0.000
4	698	0.00000	0.000
5	698	0.00000	0.000

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6	698	0.00000	0.000
7	698	0.00000	0.000
8	698	0.00000	0.000
9	698	0.00000	0.000
10	698	0.00000	0.000
11	698	0.00000	0.000
12	698	0.00000	0.000
13	698	0.00000	0.000
14	698	0.00000	0.000
15	698	0.00000	0.000
16	698	0.00000	0.000
17	698	0.00000	0.000
18	698	0.00000	0.000
19	698	0.05000	0.003
20	698	0.00000	0.000
21	698	0.00000	0.000
22	698	0.00000	0.000
23	698	0.00000	0.000
24	698	0.00000	0.000
25	698	0.00000	0.000
26	698	0.00000	0.000
27	698	0.00000	0.000
28	698	0.00000	0.000
29	698	0.00000	0.000
30	698	0.00000	0.000
31	698	0.80000	0.214
TOTAL	698	0.85000	0.217
YEAR	698	7.96000	1.552

```
*************************************************
*      END OF TIME STEP DO-LOOP IN RUNOFF       *
*************************************************

FINAL DATE (MO/DAY/YEAR)   =                12/31/76
TOTAL NUMBER OF TIME STEPS =                    3600
FINAL JULIAN DATE  =                           76366
FINAL TIME OF DAY  =                          86400. SECONDS.
FINAL RUNNING TIME =                        8784.0000   HOURS.
FINAL RUNNING TIME =                         366.0000    DAYS.

*****************************************************
*     EXTRAPOLATION SUMMARY FOR WATERSHEDS          *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF OVERLND CALLS      *
*****************************************************
```

SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS
6002	5372	812	6003	5312	796	6051	5500	868
6052	4854	694	6053	0	0	6054	5491	849
6055	5293	967	6101	5501	859	6102	5199	765
6103	5439	837	6151	5212	996	6152	5309	975

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6153	5314	794	6155	0	0	6156	5225	771
6251	4899	705	6252	5560	896	6253	5507	861
6201	5414	822	6202	5349	807	6221	4884	648
6222	5569	923	6301	5439	837	6302	5578	926
6351	5069	735	6352	5067	737	6354	5277	983
6381	5582	926	6382	4962	714	6383	5463	845
6401	0	0	6402	0	0	6451	5518	858
6452	5320	796	6453	5154	754			

```
***************************************************
*     EXTRAPOLATION SUMMARY FOR CHANNEL/PIPES     *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF GUTNR CALLS         *
***************************************************
```

CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS
662	9520	948	664	8447	1021	668	7950	946
670	25764	2680	674	13767	2693	678	13807	2709
684	7841	911	684	0	0	688	13471	2577
694	0	0	696	23941	3327			

1

```
***********************************************
*       CONTINUITY CHECK FOR SURFACE WATER    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
TOTAL PRECIPITATION (RAIN PLUS SNOW)	3.938361E+07	7.960
TOTAL INFILTRATION	2.015536E+07	4.074
TOTAL EVAPORATION	1.145018E+07	2.314
SURFACE RUNOFF FROM WATERSHEDS	7.250389E+06	1.465
TOTAL WATER REMAINING IN SURFACE STORAGE	4.497362E+05	0.091
INFILTRATION OVER THE PERVIOUS AREA...	2.015536E+07	7.004

INFILTRATION + EVAPORATION + SURFACE RUNOFF + SNOW REMOVAL + WATER REMAINING IN SURFACE STORAGE + WATER REMAINING IN SNOW COVER.....	3.930567E+07	7.944
TOTAL PRECIPITATION + INTIAL STORAGE..	3.938361E+07	7.960

```
THE ERROR IN CONTINUITY IS CALCULATED AS
****************************************
* PRECIPITATION + INITIAL SNOW COVER  *
*      - INFILTRATION -               *
*EVAPORATION - SNOW REMOVAL -         *
*SURFACE RUNOFF FROM WATERSHEDS -     *
*WATER IN SURFACE STORAGE -           *
*WATER REMAINING IN SNOW COVER        *
*-------------------------------------*
* PRECIPITATION + INITIAL SNOW COVER  *
****************************************
```

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ERROR..... 0.198 PERCENT

```
*************************************************
*       CONTINUITY CHECK FOR CHANNEL/PIPES      *
*************************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
INITIAL CHANNEL/PIPE STORAGE.....	0.000000E-01	0.000
FINAL CHANNEL/PIPE STORAGE.....	1.820241E+04	0.004
SURFACE RUNOFF FROM WATERSHEDS.....	7.250389E+06	1.465
GROUNDWATER SUBSURFACE INFLOW.....	0.000000E-01	0.000
EVAPORATION LOSS FROM CHANNELS.....	0.000000E-01	0.000
CHANNEL/PIPE/INLET OUTFLOW.....	7.676489E+06	1.552
INITIAL STORAGE + INFLOW.....	7.250388E+06	1.465
FINAL STORAGE + OUTFLOW.....	7.694691E+06	1.555

```
*********************************************
* FINAL STORAGE + OUTFLOW  + EVAPORATION - *
* WATERSHED RUNOFF - GROUNDWATER INFLOW  - *
*     INITIAL CHANNEL/PIPE STORAGE         *
*     ---------------------------------    *
*  FINAL STORAGE + OUTFLOW  + EVAPORATION  *
*********************************************
```

ERROR..... 5.774 PERCENT

1

```
*************************************************
*  SUMMARY OF QUANTITY RESULTS (FLOW IN CFS) *
*************************************************
```

BASIN SR-03
RUNOFF BLOCK

DATE MO/DA/YR	TIME HR:MIN	CHAN/INLT 698 FLOW CFS
FLOW WT'D MEANS		0.2428
FLOW WT'D STD-DEVS		3.4654
MAXIMUM VALUE		178.7104
MINIMUM VALUE		0.0000
TOTAL LOADS		7.68E+06 CUBIC-FT

===> RUNOFF SIMULATION ENDED NORMALLY.

```
*************************************
*      STATS BLOCK INPUT COMMANDS   *
*************************************
```

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```
MINIMUM INTEREVENT TIME (HOURS).......      8.50
NPOINT (NUMBER OF PRINTED EVENTS).....         0
METRIC (0-U.S. STANDARD, 1-METRIC)....         0
LRET (RETURN PERIOD UNITS)............         1
A (PLOTTING POSITION PARAMETER).......     0.000


PRINT SEQUENTIAL SERIES (KSEQ)........         1
TERMINATE PROGRAM PARAMETER (KTERM)...         0
KTSEQS................................         1


*********************************************
* HEADER INFORMATION FROM INTERFACE FILE: *
*********************************************

TITLE FROM FIRST COMPUTATIONAL BLOCK:
BASIN SR-03
RUNOFF BLOCK

TITLE FROM IMMEDIATELY PRECEDING COMPUTATIONAL BLOCK
BASIN SR-03
RUNOFF BLOCK

NAME OF PRECEDING BLOCK:................RUNOFF BLOCK
INITIAL JULIAN DATE (IDATEZ)......................   76001
INITIAL TIME OF DAY IN SECONDS (TZERO)............     0.0
NO. TRANSFERED INPUT LOCATIONS....................       1
NO. TRANSFERED POLLUTANTS.........................       0
SIZE OF TOTAL CATCHMENT AREA (ACRES)............... 1363.00

**************************************************
* ELEMENT NUMBERS OF INTERFACE INLET LOCATIONS: *
**************************************************
    698

CONVERSION FACTOR TO CFS FOR FLOW UNITS
ON INTERFACE FILE.  MULTIPLY BY:     1.00000


*********************************************************
* STATISTICAL ANALYSIS BLOCK WRITTEN BY THE UNIVERSITY *
* OF FLORIDA.  LAST UPDATED MAY, 1989.                 *
*********************************************************


1
**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************
```

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```
STARTING DATE...............     0   STARTING TIME... 0.00 HOURS
ENDING DATE.................     0   ENDING TIME..... 0.00 HOURS


****************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
****************************************************

STARTING JULIAN DATE........     0   STARTING TIME... 0.00 SECONDS
ENDING JULIAN DATE..........     0   ENDING TIME..... 0.00 SECONDS

===> A ZERO STARTING DATE INDICATES THAT THE ANALYSIS
     COMMENCES AT THE BEGINNING OF THE RECORD.  A ZERO
     ENDING DATE INDICATES THAT THE ANALYSIS CONTINUES TO
     THE END OF THE RECORD.

THE MINIMUM INTEREVENT TIME HAS BEEN DEFINED AS      8.50 HOURS.

*******************************************************
* THE FLOW LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:     698                                *
*******************************************************

*******************************************************
* THE RAIN LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:       0                                *
*******************************************************

U.S. CUSTOMARY UNITS ARE USED IN INPUT/OUTPUT


THE NUMBER OF POLLUTANTS REQUESTED FOR STATISTICAL ANALYSIS IS  0

THE BASE FLOW TO SEPARATE EVENTS IS     0.0010 CFS.


THE STATISTICAL OPTIONS REQUESTED FOR FLOW RATE ARE INDICATED BY A '1'

                                    TOTAL FLOW  AVERAGE FLOW  PEAK FLOW  EVENT DURATION  INTEREVENT DURATION
                                    ----------  ------------  ---------  --------------  --------------------
TABLE OF RETURN PERIOD AND FREQUENCY      1           0          0           0                 0
GRAPH OF RETURN PERIOD                    0           0          0           0                 0
GRAPH OF FREQUENCY                        0           0          0           0                 0
MOMENTS                                   0           0          0           0                 0


===> PROGRAM EXECUTION CONTINUING.  DATA WILL BE
     READ FROM THE INTERFACE FILE AND SEPARATED INTO EVENTS.

===> THE FIRST DATE AND TIME ON THE INTERFACE FILE ARE      76001        0.00 SECONDS
```

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```
===> END OF INTERFACE FILE REACHED.

===> LAST JULIAN DATE AND TIME READ ARE      76366     86399.95 SECONDS

===> PROGRAM CONTINUING WITH ANALYSIS OF EVENTS

===> THE NUMBER OF MONTHS WITHIN THE PERIOD OF
     ANALYSIS ROUNDED TO THE NEAREST MONTH, IS     12.

===> THE NUMBER OF EVENTS WITHIN THE PERIOD OF
     ANALYSIS IS     23.
1
```

SEQUENTIAL SERIES OF EVENTS

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760204	4.75	0.004	55.71	820.75
760303	13.25	0.066	33.00	526.22
760416	2.25	0.023	39.53	9.42
760507	23.25	0.001	26.55	47.95
760629	20.25	0.005	29.00	982.72
760724	3.25	0.298	51.19	264.63
760808	22.50	0.000	26.33	234.96
760905	20.25	0.039	30.00	165.57
760923	19.25	0.330	65.56	291.17
761022	20.25	0.117	45.47	9.85
761112	17.25	0.076	38.05	359.14
761231	2.50	0.215	21.75	256.43

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760209	2.75	0.043	39.54	65.62
760414	7.50	0.032	36.64	972.50
760503	21.25	0.236	53.41	390.72
760518	21.25	0.001	27.54	238.71
760712	1.25	0.004	28.64	267.25
760728	23.25	0.052	31.55	68.15
760828	20.25	0.005	29.70	454.68
760910	16.25	0.002	27.10	89.32
761021	6.00	0.000	31.85	596.45
761027	16.25	0.002	29.13	73.85
761219	6.25	0.003	31.08	842.21

```
************************************************************
* TOTAL FLOW AT LOCATION       698 IS      1.55 (INCHES)  *
************************************************************
```

1

TABLE OF MAGNITUDE, RETURN PERIOD AND FREQUENCY

CONSTITUENT ANALYZED : FLOW (INCHES)
EVENT PARAMETER ANALYZED: TOTAL FLOW

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```
                                                  ##                                                  ##
 DATE    TIME   MAGNITUDE   RETURN   PERCENT ##  DATE    TIME   MAGNITUDE   RETURN   PERCENT ##  DATE    TIME   MAGNITUDE   RETURN   PERCENT
                            PERIOD   < OR =  ##                             PERIOD   < OR =  ##                             PERIOD   < OR =
        (HOUR)  (INCHES)  (MONTHS)          ##         (HOUR)  (INCHES)  (MONTHS)          ##         (HOUR)  (INCHES)  (MONTHS)
------ ------  --------  --------  -------  ## ------ ------  --------  --------  -------  ## ------ ------  --------  --------  --------
760923  19.25 0.330       13.000   100.00  ## 760724   3.25 0.298       6.500    95.65  ## 760503  21.25 0.236       4.333    91.30
761231   2.50 0.215        3.250    86.96  ## 761022  20.25 0.117       2.600    82.61  ## 761112  17.25 7.588E-02  2.167    78.26
760303  13.25 6.602E-02    1.300    73.91  ## 760728  23.25 5.152E-02   1.182    69.57  ## 760209   2.75 4.258E-02  1.083    65.22
760905  20.25 3.884E-02    0.684    60.87  ## 760414   7.50 3.200E-02   0.650    56.52  ## 760416   2.25 2.300E-02  0.619    52.17
760629  20.25 4.929E-03    0.419    47.83  ## 760828  20.25 4.878E-03   0.406    43.48  ## 760712   1.25 4.262E-03  0.394    39.13
760204   4.75 3.839E-03    0.283    34.78  ## 761219   6.25 2.744E-03   0.277    30.43  ## 761027  16.25 2.357E-03  0.271    26.09
760910  16.25 1.545E-03    0.203    21.74  ## 760518  21.25 1.121E-03   0.200    17.39  ## 760507  23.25 5.400E-04  0.197    13.04
761021   6.00 4.037E-04    0.153     8.70  ## 760808  22.50 2.491E-04   0.151     4.35
                                           ##                                                  ##

===>  STATS BLOCK TERMINATED NORMALLY.

===> SWMM 4.04 SIMULATION ENDED NORMALLY.

===> YOUR INPUT FILE WAS NAMED : SR03.76
===> YOUR OUTPUT FILE WAS NAMED: SR03.OUT

*******************************************************
*        SWMM 4.04 SIMULATION DATE AND TIME SUMMARY   *
*******************************************************
* STARTING DATE... October    15, 1992                *
*          TIME...         11:19:31:79                *
*   ENDING DATE... October    15, 1992                *
*          TIME...         11:27:12:29                *
*  ELAPSED TIME...               7.683 MINUTES        *
*******************************************************
```

1

```
**************************************************
*          ENVIRONMENTAL PROTECTION AGENCY       *
*           STORM WATER MANAGEMENT MODEL         *
*                  VERSION 4.04                  *
**************************************************

                 DEVELOPED BY

**************************************************
*             METCALF & EDDY, INC.               *
*            UNIVERSITY OF FLORIDA               *
*       WATER RESOURCES ENGINEERS, INC.          *
*              SEPTEMBER 1970                    *
**************************************************

                 UPDATED BY

**************************************************
*            UNIVERSITY OF FLORIDA               *
*          CAMP DRESSER & MCKEE, INC.            *
*                                                *
*   MARCH      1975          NOVEMBER  1977      *
*   NOVEMBER   1981          SEPTEMBER 1989      *
**************************************************

**************************************************
*    THIS IS A NEW RELEASE OF SWMM.  IF ANY      *
*     PROBLEMS OCCUR IN RUNNING THIS MODEL       *
*            CONTACT WAYNE HUBER                 *
*           UNIVERSITY OF FLORIDA                *
*            PHONE 1-904-392-0846                *
**************************************************

**************************************************
*  THIS IS AN IMPLEMENTATION OF EPA SWMM 4.04    *
*  "NATURE IS FULL OF INFINITE CAUSES WHICH      *
*   HAVE NEVER OCCURED IN EXPERIENCE" da Vinci   *
**************************************************

**************************************************
*       DISK OR TAPE ASSIGNMENTS BY BLOCK        *
*         JIN  -> INPUT TO A BLOCK               *
*        JOUT  -> OUTPUT FROM A BLOCK            *
**************************************************

 BLOCK( 1)      JIN( 1)  8      JOUT( 1)  9
 BLOCK( 2)      JIN( 2)  9      JOUT( 2) 10
 BLOCK( 3)      JIN( 3) 10      JOUT( 3) 11
 BLOCK( 4)      JIN( 4) 11      JOUT( 4) 12

**************************************************
*             SCRATCH DISKS OR TAPES             *
```

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```
*        THESE CAN BE USED BY ANY BLOCK        *
**************************************************

NSCRAT(1) NCSRAT(2) NSCRAT(3) NSCRAT(4) NSCRAT(5) NSCRAT(6) NSCRAT(7)
    9        20        30        31        32        33        34

**************************************************
*    PARAMETER VALUES ON THE TAPES COMMON BLOCK   *
**************************************************

 NUMBER OF SUBCATCHMENTS IN THE RUNOFF BLOCK (NW)....  150
 NUMBER OF CHANNEL/PIPES IN THE RUNOFF BLOCK (NG)....  150
 RUNOFF WATER QUALITY CONSTITUENTS (NRQ).............   10
 NUMBER OF ELEMENTS IN THE TRANSPORT BLOCK (NET).....  200
 NUMBER OF STORAGE JUNCTIONS IN TRANSPORT (NTSE).....   30
 NUMBER OF INPUT HYDROGRAPHS IN TRANSPORT (NTH)......   80
 NUMBER OF ELEMENTS IN THE EXTRAN BLOCK (NEE)........  175
 NUMBER OF GROUNDWATER SUBCATCHMENTS IN RUNOFF (NGW).  100
 NUMBER OF INTERFACE LOCATIONS FOR ALL BLOCKS (NIE)..  200
 NUMBER OF PUMPS IN EXTRAN (NEP).....................   20
 NUMBER OF ORIFICES IN EXTRAN (NEO)..................   60
 NUMBER OF TIDE GATES/FREE OUTFALLS IN EXTRAN (NTG)..   25
 NUMBER OF EXTRAN WEIRS (NEW)........................   60
 NUMBER OF EXTRAN PRINTOUT LOCATIONS (NPO)...........   30
 NUMBER OF TIDE ELEMENTS IN EXTRAN (NTE).............   20
 NUMBER OF NATURAL CHANNELS (NNC)....................   50
 NUMBER OF STORAGE JUNCTIONS IN EXTRAN (NVSE)........   10
 NUMBER OF DATA POINTS FOR VARIABLE STORAGE ELEMENTS
 IN THE EXTRAN BLOCK (NVST)..........................   10
 NUMBER OF INPUT HYDROGRAPHS IN EXTRAN (NEH).........  100


**************************************************
* ENTRY MADE TO THE RAINFALL BLOCK               *
* CREATED BY THE UNIVERSITY OF FLORIDA - 1988    *
**************************************************


        BASIN IB-11
        RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

     ****************************************
     *  PRECIPITATION BLOCK INPUT COMMANDS  *
     ****************************************

    STATION, ISTA........................     46481

    BEGINNING DATE, IYBEG (YR/MO/DY)......    76/ 1/ 1
```

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```
ENDING DATE, IYEND (YR/MO/DY).........    76/12/31

MINIMUM INTEREVENT TIME, MIT..........     6

NUMBER OF RANKED STORMS, NPTS.........    10

NWS FORMAT, IFORM (SEE TEXT)..........     3

PRINT STORM SUMMARY, ISUM (O-NO 1-YES)     1

PRINT ALL RAINFALL, IYEAR (O-NO 1-YES)     0

SAVE STORM EVENT DATA, IFILE..........     0
(O-DO NOT SAVE 1- SAVE DATA)..........

IDECID 0 - CREATE INTERFACE FILE
       1 - CREATE FILE AND ANALYZE
       2 - SYNOPTIC ANALYSIS..........     1

PLOTTING POSITION PARAMETER, A........  0.00

STORM EVENT STATISTICS, NOSTAT........     0


*********************************************************
*  PRECIPITATION OUTPUT CREATED USING THE RAIN BLOCK    *
*  NUMBER OF PRECIPITATION STATIONS...        1         *
*********************************************************

LOCATION STATION NUMBER
-------- --------------
       1.        46481


     ******************************
     * USER DEFINED INPUT FORMAT *
     ******************************

    USER FORMAT (FIRMAT)...................(I6,4I10,I3,F7.0)

    INPUT/OUTPUT UNITS 0 = U.S. CUSTOMARY..
                       1 = METRIC UNITS....     0

    UNITS OF RAINFALL (KUNIT)..............     0
     0 -> INTENSITY; 1 --> VOLUME..........

     CONVERSION FACTOR (CONV)..............  0.01

     RAINFALL INTERVAL IN MINUTES(THISTO).. 60.00
```

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FIELD POSITION FOR STATION NUMBER, F1. 1

FIELD POSITION FOR YEAR, F2..... 2

FIELD POSITION FOR MONTH, F3..... 3

FIELD POSITION FOR DAY, F4..... 4

FIELD POSITION FOR HOUR, F5..... 5

FIELD POSITION FOR MINUTE, F6..... 6

FIELD POSITION FOR RAINFALL,F7..... 7

1

```
*************************************************************
* S T O R M   E V E N T   S U M M A R Y *
*************************************************************
```

BASIN IB-11
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

STORM NO	DATE	START HOUR	DURATION HOURS	VOLUME INCHES	AVE INTEN IN/HR	MAX INTEN IN/HR	TIME >0 IN HOURS	HOURS MISSING DATA	HOURS METER STUCK
1	2/ 4/76	3	10.	0.09	0.01	0.03	UNDEF	0	0
2	2/ 5/76	7	1.	0.02	0.02	0.02	18.	0	0
3	2/ 9/76	1	11.	0.36	0.03	0.11	89.	0	0
4	3/ 3/76	12	9.	0.40	0.04	0.23	552.	0	0
5	4/14/76	6	9.	0.38	0.04	0.16	993.	0	0
6	4/16/76	1	2.	0.25	0.13	0.19	34.	0	0
7	4/16/76	13	1.	0.04	0.04	0.04	10.	0	0
8	5/ 3/76	20	2.	0.05	0.03	0.04	414.	0	0
9	5/ 4/76	6	2.	0.40	0.20	0.31	8.	0	0
10	5/ 4/76	16	4.	0.51	0.13	0.38	8.	0	0
11	5/ 7/76	21	2.	0.04	0.02	0.03	73.	0	0
12	5/18/76	19	4.	0.06	0.02	0.04	260.	0	0
13	6/29/76	19	1.	0.09	0.09	0.09	1004.	0	0
14	7/12/76	0	1.	0.08	0.08	0.08	292.	0	0
15	7/22/76	21	1.	0.01	0.01	0.01	260.	0	0
16	7/24/76	2	4.	0.96	0.24	0.65	28.	0	0
17	7/25/76	0	1.	0.07	0.07	0.07	18.	0	0
18	7/28/76	22	2.	0.36	0.18	0.31	93.	0	0
19	8/ 8/76	21	2.	0.03	0.02	0.02	261.	0	0
20	8/28/76	19	2.	0.09	0.05	0.08	476.	0	0
21	9/ 5/76	14	7.	0.34	0.05	0.29	185.	0	0
22	9/10/76	15	1.	0.04	0.04	0.04	114.	0	0
23	9/11/76	2	1.	0.01	0.01	0.01	10.	0	0
24	9/23/76	17	13.	1.00	0.08	0.26	302.	0	0
25	9/24/76	19	1.	0.02	0.02	0.02	13.	0	0

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26	9/25/76	2	4.	0.28	0.07	0.24	6.	0	0
27	10/21/76	4	6.	0.04	0.01	0.02	622.	0	0
28	10/22/76	19	1.	0.09	0.09	0.09	33.	0	0
29	10/23/76	2	10.	0.52	0.05	0.11	6.	0	0
30	10/27/76	15	1.	0.05	0.05	0.05	99.	0	0
31	11/12/76	16	10.	0.43	0.04	0.13	384.	0	0
32	12/19/76	5	3.	0.05	0.02	0.03	867.	0	0
TOTAL				7.16				0	0
ESTIMATED MISSING RAINFALL								0.00	0.00

1

```
*****************************************
*         PRECIPITATION SUMMARY         *
*****************************************

RAINFALL SUMMARY FOR STATION        46481
TOTAL MISSING HOURS                     0  HOURS
TOTAL HOURS OF METER MALFUNCTION        0  HOURS
TOTAL RAINFALL                       7.16  INCHES
TOTAL NUMBER OF YEARS                   1  YEARS
```

===> RAINFALL BLOCK ENDED NORMALLY.

1

```
*****************************************************
* ENTRY MADE TO THE RUNOFF BLOCK, LAST UPDATED BY *
* THE UNIVERSITY OF FLORIDA DURING MAY 1989.      *
*****************************************************
* "And wherever water goes, amoebae go along for  *
*  the ride"                        Tom Robbins    *
*****************************************************
```

BASIN IB-11

RUNOFF BLOCK

SNOWMELT PARAMETER - ISNOW..... 0

NUMBER OF RAIN GAGES - NRGAG..... 1

GREEN-AMPT INFILTRATION EQUATION USED - INFILM... 1

QUALITY IS NOT SIMULATED - KWALTY..... 0

READ MONTHLY EVAPORATION DATA ON CARD F1..... 1

HOUR OF DAY AT START OF STORM - NHR..... 0

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MINUTE OF HOUR AT START OF STORM - NMN..... 0

TIME TZERO AT START OF STORM (HOURS)..... 0.000

USE U.S. CUSTOMARY UNITS FOR MOST I/O - METRIC... 0

RUNOFF INPUT PRINT CONTROL... 24

RUNOFF GRAPH PLOT CONTROL.... 1

RUNOFF OUTPUT PRINT CONTROL.. 2

MONTH, DAY, YEAR OF START OF STORM IS: 1/ 1/76

WET TIME STEP LENGTH (SECONDS)..... 900.

DRY TIME STEP LENGTH (SECONDS)..... 10800.

WET/DRY TIME STEP LENGTH (SECONDS)... 1800.

SIMULATION LENGTH IS..... 761231.0 YR/MO/DY

PERCENT OF IMPERVIOUS AREA WITH ZERO DETENTION DEPTH 25.0

```
*************************************************************
*   PROCESSED PRECIPITATION WILL BE READ ON NSCRAT(1)  *
*************************************************************
```

```
*****************************
*        DATA GROUP F1      *
* EVAPORATION RATE (IN/DAY) *
*****************************
```

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.
0.09	0.13	0.17	0.26	0.32	0.33	0.32	0.28	0.25	0.18	0.12	0.08

1

```
*************************************************************
*        C H A N N E L  A N D  P I P E  D A T A             *
*************************************************************
```

INPUT SEQUEN NUMBER	NAMEG: CHANNEL ID #	DRAINS TO NGTO:	CHANNEL TYPE	WIDTH (FT)	LENGTH (FT)	INVERT SLOPE (FT/FT)	L SIDE SLOPE (FT/FT)	R SIDE SLOPE (FT/FT)	INTIAL DEPTH (FT)	MAX DEPTH (FT)	MANN-INGS "N"	FULL FLOW (CFS)
1	580	586	CIRCULAR	4.5	3870.0	0.0068	0.0000	0.0000	0.0	0.0	0.0150	1.51E+02
2	584	586	CIRCULAR	3.5	2600.0	0.0068	0.0000	0.0000	0.0	0.0	0.0150	7.73E+01
3	586	588	CIRCULAR	4.0	2830.0	0.0068	0.0000	0.0000	0.0	0.0	0.0150	1.10E+02
4	588	594	CIRCULAR	4.0	2500.0	0.0068	0.0000	0.0000	0.0	0.0	0.0150	1.10E+02
5	590	592	CIRCULAR	4.5	1010.0	0.0068	0.0000	0.0000	0.0	0.0	0.0150	1.51E+02

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6	592	594	CIRCULAR	5.5	2575.0	0.0068	0.0000	0.0000	0.0	0.0	0.0150	2.58E+02
7	594	598	CIRCULAR	5.5	2470.0	0.0068	0.0000	0.0000	0.0	0.0	0.0150	2.58E+02

1

```
*****************************************************
*          S U B C A T C H M E N T   D A T A        *
*****************************************************
```

SUBCATCH-MENT NO.	GUTTER OR INLET	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	DEPRES. STORAGE(IN) IMPERV.	DEPRES. STORAGE(IN) PERV.	GREEN-AMPT INFIL PARAMS SUCTION (IN)	GREEN-AMPT INFIL PARAMS HYD.CON (IN/HR)	GREEN-AMPT INFIL PARAMS IMD	GAGE NO.
1 500	580	1220.00	28.70	67.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
2 5101	586	5200.00	212.40	30.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
3 5102	586	1150.00	15.20	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
4 505	584	12500.00	243.70	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
5 5151	590	10000.00	162.30	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
6 5152	590	600.00	19.40	5.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
7 5201	592	6000.00	123.90	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
8 5202	592	1500.00	44.90	5.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
9 5251	588	6400.00	127.80	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
10 5252	588	4000.00	60.30	5.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
11 5301	594	7600.00	95.20	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
12 5302	594	3000.00	67.00	5.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
13 535	598	5000.00	140.70	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
14 540	598	3800.00	115.30	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
15 5451	598	3200.00	86.50	25.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1
16 5452	598	900.00	38.50	5.00	0.0100	0.050	0.100	0.000	0.200	4.30	0.35	0.250	1

```
TOTAL NUMBER OF SUBCATCHMENTS..              16
TOTAL TRIBUTARY AREA (ACRES)....          1581.80
IMPERVIOUS AREA (ACRES).........           372.10
PERVIOUS AREA (ACRES)...........          1209.70
TOTAL WIDTH (FEET)..............         72070.00
PERCENT IMPERVIOUSNESS..........            23.52
```

1

```
*********************************************************
*     ARRANGEMENT OF SUBCATCHMENTS AND CHANNEL/PIPES    *
*********************************************************


   CHANNEL
   OR PIPE
       580      NO TRIBUTARY CHANNEL/PIPES
                TRIBUTARY SUBAREAS........   500
       584      NO TRIBUTARY CHANNEL/PIPES
                TRIBUTARY SUBAREAS........   505
       586      TRIBUTARY CHANNEL/PIPES...   580   584
                TRIBUTARY SUBAREAS........  5101  5102
       588      TRIBUTARY CHANNEL/PIPES...   586
                TRIBUTARY SUBAREAS........  5251  5252
```

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```
      590     NO TRIBUTARY CHANNEL/PIPES
              TRIBUTARY SUBAREAS........  5151  5152
      592     TRIBUTARY CHANNEL/PIPES...   590
              TRIBUTARY SUBAREAS........  5201  5202
      594     TRIBUTARY CHANNEL/PIPES...   588   592
              TRIBUTARY SUBAREAS........  5301  5302


   INLET
      598     TRIBUTARY CHANNEL/PIPES...   594
              TRIBUTARY SUBAREAS........   535   540  5451  5452

*************************************************************
* HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING   1 INLETS *
*************************************************************
          598


**************************************************
*  QUALITY SIMULATION NOT INCLUDED IN THIS RUN *
**************************************************



    ************************
    *    DATA GROUP M1     *
    ************************


TOTAL NUMBER OF PRINTED GUTTERS/INLETS...NPRNT..        1
NUMBER OF TIME STEPS BETWEEN PRINTINGS..INTERV..        0
STARTING AND STOPPING PRINTOUT DATES............        0        0


    ************************
    *    DATA GROUP M3     *
    ************************

CHANNEL/INLET PRINT DATA GROUPS......    598


*****************************************************
*  PRECIPITATION INTERFACE FILE SUMMARY            *
*  NUMBER OF PRECIPITATION STATIONS...        1    *
*****************************************************

LOCATION STATION NUMBER
-------- --------------
      1.        46481
```

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1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JANUARY     1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
TOTAL	598	0.00000	0.000

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            FEBRUARY    1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
4	598	0.09000	0.009
5	598	0.02000	0.001
6	598	0.00000	0.000
7	598	0.00000	0.000
9	598	0.36000	0.069
10	598	0.00000	0.000
TOTAL	598	0.47000	0.080

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MARCH       1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
3	598	0.40000	0.082
4	598	0.00000	0.000
5	598	0.00000	0.000
6	598	0.00000	0.000
7	598	0.00000	0.000
8	598	0.00000	0.000
9	598	0.00000	0.000
10	598	0.00000	0.000
TOTAL	598	0.40000	0.082

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            APRIL       1976                 *
*************************************************
```

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DAY	INLET	RAIN INCH	FLOW INCH
14	598	0.38000	0.067
15	598	0.00000	0.000
16	598	0.29000	0.054
17	598	0.00000	0.000
18	598	0.00000	0.000
19	598	0.00000	0.000
20	598	0.00000	0.000
21	598	0.00000	0.000
22	598	0.00000	0.000
23	598	0.00000	0.000
24	598	0.00000	0.000
TOTAL	598	0.67000	0.121

1

```
************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MAY        1976                  *
************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
3	598	0.05000	0.003
4	598	0.91000	0.199
5	598	0.00000	0.000
6	598	0.00000	0.000
7	598	0.04000	0.001
8	598	0.00000	0.001
9	598	0.00000	0.000
10	598	0.00000	0.000
11	598	0.00000	0.000
12	598	0.00000	0.000
13	598	0.00000	0.000
14	598	0.00000	0.000
15	598	0.00000	0.000
18	598	0.06000	0.002
19	598	0.00000	0.000
20	598	0.00000	0.000
TOTAL	598	1.06000	0.206

1

```
************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JUNE       1976                  *
************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH

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29	598	0.09000	0.013
30	598	0.00000	0.000
TOTAL	598	0.09000	0.013

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JULY        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	598	0.00000	0.000
2	598	0.00000	0.000
3	598	0.00000	0.000
4	598	0.00000	0.000
12	598	0.08000	0.011
13	598	0.00000	0.000
14	598	0.00000	0.000
15	598	0.00000	0.000
16	598	0.00000	0.000
17	598	0.00000	0.000
18	598	0.00000	0.000
19	598	0.00000	0.000
20	598	0.00000	0.000
21	598	0.00000	0.000
22	598	0.01000	0.000
23	598	0.00000	0.000
24	598	0.96000	0.213
25	598	0.07000	0.009
26	598	0.00000	0.000
27	598	0.00000	0.000
28	598	0.32250	0.039
29	598	0.03750	0.036
30	598	0.00000	0.000
31	598	0.00000	0.000
TOTAL	598	1.48000	0.308

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            AUGUST      1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	598	0.00000	0.000
2	598	0.00000	0.000
3	598	0.00000	0.000
4	598	0.00000	0.000

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5	598	0.00000	0.000
6	598	0.00000	0.000
7	598	0.00000	0.000
8	598	0.03000	0.000
9	598	0.00000	0.000
10	598	0.00000	0.000
11	598	0.00000	0.000
12	598	0.00000	0.000
28	598	0.09000	0.012
29	598	0.00000	0.000
30	598	0.00000	0.000
31	598	0.00000	0.000
TOTAL	598	0.12000	0.013

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            SEPTEMBER  1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	598	0.00000	0.000
2	598	0.00000	0.000
3	598	0.00000	0.000
4	598	0.00000	0.000
5	598	0.34000	0.067
6	598	0.00000	0.001
7	598	0.00000	0.000
8	598	0.00000	0.000
9	598	0.00000	0.000
10	598	0.04000	0.004
11	598	0.01000	0.000
12	598	0.00000	0.000
23	598	0.72000	0.135
24	598	0.30000	0.073
25	598	0.28000	0.054
26	598	0.00000	0.000
27	598	0.00000	0.000
28	598	0.00000	0.000
29	598	0.00000	0.000
30	598	0.00000	0.000
TOTAL	598	1.69000	0.334

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            OCTOBER    1976                  *
*************************************************
```

DAY INLET RAIN FLOW

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		INCH	INCH
1	598	0.00000	0.000
2	598	0.00000	0.000
3	598	0.00000	0.000
4	598	0.00000	0.000
5	598	0.00000	0.000
6	598	0.00000	0.000
21	598	0.04000	0.001
22	598	0.09000	0.015
23	598	0.52000	0.102
24	598	0.00000	0.000
27	598	0.05000	0.006
28	598	0.00000	0.000
TOTAL	598	0.70000	0.125

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            NOVEMBER   1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
12	598	0.39000	0.074
13	598	0.04000	0.018
14	598	0.00000	0.000
TOTAL	598	0.43000	0.092

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            DECEMBER   1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
19	598	0.05000	0.007
20	598	0.00000	0.000
31	598	0.80000	0.168
TOTAL	598	0.85000	0.175
YEAR	598	7.96000	1.551

```
**************************************************
*      END OF TIME STEP DO-LOOP IN RUNOFF      *
**************************************************
```

FINAL DATE (MO/DAY/YEAR) = 12/31/76
TOTAL NUMBER OF TIME STEPS = 3543
FINAL JULIAN DATE = 76366

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```
FINAL TIME OF DAY  =                          86400. SECONDS.
FINAL RUNNING TIME =                        8784.0000   HOURS.
FINAL RUNNING TIME =                         366.0000    DAYS.

**************************************************
*     EXTRAPOLATION SUMMARY FOR WATERSHEDS       *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF OVERLND CALLS      *
**************************************************
```

SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS
500	7818	1286	5101	7800	1240	5102	7196	1036
505	7460	1100	5151	7372	1076	5152	6906	974
5201	7470	1106	5202	6904	968	5251	7464	1104
5252	7486	930	5301	7176	1032	5302	7178	950
535	7660	1156	540	7678	1162	5451	7644	1148
5452	7014	1002						

```
**************************************************
*     EXTRAPOLATION SUMMARY FOR CHANNEL/PIPES    *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF GUTNR CALLS        *
**************************************************
```

CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS
580	7091	829	584	7916	784	586	8733	859
588	8599	889	590	14704	1356	592	10721	1411
594	10958	1486						

1

```
***********************************************
*       CONTINUITY CHECK FOR SURFACE WATER    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
TOTAL PRECIPITATION (RAIN PLUS SNOW)	4.570579E+07	7.960
TOTAL INFILTRATION	3.075795E+07	5.357
TOTAL EVAPORATION	6.368940E+06	1.109
SURFACE RUNOFF FROM WATERSHEDS	8.465860E+06	1.474
TOTAL WATER REMAINING IN SURFACE STORAGE	2.157486E+04	0.004
INFILTRATION OVER THE PERVIOUS AREA...	3.075795E+07	7.004

INFILTRATION + EVAPORATION + SURFACE RUNOFF + SNOW REMOVAL + WATER REMAINING IN SURFACE STORAGE + WATER REMAINING IN SNOW COVER.....	4.561433E+07	7.944
TOTAL PRECIPITATION + INTIAL STORAGE..	4.570579E+07	7.960

THE ERROR IN CONTINUITY IS CALCULATED AS
****

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```
* PRECIPITATION + INITIAL SNOW COVER  *
*      - INFILTRATION -               *
*EVAPORATION - SNOW REMOVAL -         *
*SURFACE RUNOFF FROM WATERSHEDS -     *
*WATER IN SURFACE STORAGE -           *
*WATER REMAINING IN SNOW COVER        *
*-------------------------------------*
* PRECIPITATION + INITIAL SNOW COVER  *
***************************************
ERROR.................................                    0.200 PERCENT


***********************************************
*       CONTINUITY CHECK FOR CHANNEL/PIPES    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
INITIAL CHANNEL/PIPE STORAGE.....	0.000000E-01	0.000
FINAL CHANNEL/PIPE STORAGE.....	5.891330E+03	0.001
SURFACE RUNOFF FROM WATERSHEDS.....	8.465860E+06	1.474
GROUNDWATER SUBSURFACE INFLOW.....	0.000000E-01	0.000
EVAPORATION LOSS FROM CHANNELS.....	0.000000E-01	0.000
CHANNEL/PIPE/INLET OUTFLOW.....	8.904901E+06	1.551
INITIAL STORAGE + INFLOW.....	8.465860E+06	1.474
FINAL STORAGE + OUTFLOW.....	8.910793E+06	1.552

```
*********************************************
* FINAL STORAGE + OUTFLOW  + EVAPORATION - *
* WATERSHED RUNOFF - GROUNDWATER INFLOW  - *
*     INITIAL CHANNEL/PIPE STORAGE         *
*     ---------------------------------    *
*  FINAL STORAGE + OUTFLOW  + EVAPORATION  *
*********************************************
ERROR.....................................                    4.993 PERCENT
1
***********************************************
*  SUMMARY OF QUANTITY RESULTS (FLOW IN CFS) *
***********************************************

   BASIN IB-11
   RUNOFF BLOCK
```

DATE MO/DA/YR	TIME HR:MIN	CHAN/INLT 598 FLOW CFS
FLOW WT'D MEANS		0.2816
FLOW WT'D STD-DEVS		3.5956
MAXIMUM VALUE		194.5857
MINIMUM VALUE		0.0000

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```
TOTAL LOADS            8.90E+06
                       CUBIC-FT

===> RUNOFF SIMULATION ENDED NORMALLY.


     ************************************
     *      STATS BLOCK INPUT COMMANDS  *
     ************************************

    MINIMUM INTEREVENT TIME (HOURS).......      6.00
    NPOINT (NUMBER OF PRINTED EVENTS).....         0
    METRIC (0-U.S. STANDARD, 1-METRIC)....         0
    LRET (RETURN PERIOD UNITS)............         1
    A (PLOTTING POSITION PARAMETER).......     0.000


    PRINT SEQUENTIAL SERIES (KSEQ)........         1
    TERMINATE PROGRAM PARAMETER (KTERM)...         0
    KTSEQS................................         1


*******************************************
* HEADER INFORMATION FROM INTERFACE FILE: *
*******************************************

TITLE FROM FIRST COMPUTATIONAL BLOCK:
BASIN IB-11
RUNOFF BLOCK

TITLE FROM IMMEDIATELY PRECEDING COMPUTATIONAL BLOCK
BASIN IB-11
RUNOFF BLOCK

NAME OF PRECEDING BLOCK:................RUNOFF BLOCK
INITIAL JULIAN DATE (IDATEZ)......................   76001
INITIAL TIME OF DAY IN SECONDS (TZERO)............     0.0
NO. TRANSFERED INPUT LOCATIONS....................       1
NO. TRANSFERED POLLUTANTS.........................       0
SIZE OF TOTAL CATCHMENT AREA (ACRES)............... 1581.80

**************************************************
* ELEMENT NUMBERS OF INTERFACE INLET LOCATIONS: *
**************************************************
    598

CONVERSION FACTOR TO CFS FOR FLOW UNITS
ON INTERFACE FILE.  MULTIPLY BY:     1.00000


*********************************************************
```

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```
* STATISTICAL ANALYSIS BLOCK WRITTEN BY THE UNIVERSITY *
* OF FLORIDA.  LAST UPDATED MAY, 1989.                  *
*******************************************************


1
****************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
****************************************************

 STARTING DATE...............     0   STARTING TIME... 0.00 HOURS
 ENDING DATE.................     0   ENDING TIME..... 0.00 HOURS


****************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
****************************************************

 STARTING JULIAN DATE........     0   STARTING TIME... 0.00 SECONDS
 ENDING JULIAN DATE..........     0   ENDING TIME..... 0.00 SECONDS

===> A ZERO STARTING DATE INDICATES THAT THE ANALYSIS
     COMMENCES AT THE BEGINNING OF THE RECORD.  A ZERO
     ENDING DATE INDICATES THAT THE ANALYSIS CONTINUES TO
     THE END OF THE RECORD.

THE MINIMUM INTEREVENT TIME HAS BEEN DEFINED AS      6.00 HOURS.

*******************************************************
* THE FLOW LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:     598                                *
*******************************************************

*******************************************************
* THE RAIN LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:       0                                *
*******************************************************

U.S. CUSTOMARY UNITS ARE USED IN INPUT/OUTPUT


THE NUMBER OF POLLUTANTS REQUESTED FOR STATISTICAL ANALYSIS IS  0

THE BASE FLOW TO SEPARATE EVENTS IS     0.0010 CFS.


THE STATISTICAL OPTIONS REQUESTED FOR FLOW RATE ARE INDICATED BY A '1'

                                    TOTAL FLOW  AVERAGE FLOW  PEAK FLOW  EVENT DURATION  INTEREVENT DURATION
                                    ----------  ------------  ---------  --------------  -------------------
```

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TABLE OF RETURN PERIOD AND FREQUENCY	1	0	0	0	0
GRAPH OF RETURN PERIOD	0	0	0	0	0
GRAPH OF FREQUENCY	0	0	0	0	0
MOMENTS	0	0	0	0	0

===> PROGRAM EXECUTION CONTINUING. DATA WILL BE
READ FROM THE INTERFACE FILE AND SEPARATED INTO EVENTS.

===> THE FIRST DATE AND TIME ON THE INTERFACE FILE ARE 76001 0.00 SECONDS

===> END OF INTERFACE FILE REACHED.

===> LAST JULIAN DATE AND TIME READ ARE 76366 86399.67 SECONDS

===> PROGRAM CONTINUING WITH ANALYSIS OF EVENTS

===> THE NUMBER OF MONTHS WITHIN THE PERIOD OF
ANALYSIS ROUNDED TO THE NEAREST MONTH, IS 12.

===> THE NUMBER OF EVENTS WITHIN THE PERIOD OF
ANALYSIS IS 23.

1

SEQUENTIAL SERIES OF EVENTS

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760204	4.25	0.011	50.04	820.25
760303	13.25	0.082	28.04	534.74
760416	2.25	0.054	33.52	16.64
760507	23.25	0.001	20.53	56.42
760629	20.25	0.013	22.06	991.73
760724	3.25	0.222	44.00	271.13
760808	22.25	0.001	20.56	242.13
760905	20.25	0.068	24.75	172.54
760923	19.25	0.263	57.51	297.21
761022	20.25	0.118	37.16	19.45
761112	17.25	0.092	30.02	365.65
761231	2.25	0.169	22.00	263.64

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760209	2.25	0.069	31.51	71.30
760414	7.25	0.067	29.89	977.22
760503	21.25	0.202	44.89	396.73
760518	21.25	0.003	18.52	244.72
760712	1.25	0.011	22.14	274.20
760728	23.25	0.076	24.14	75.25
760828	20.25	0.012	22.76	460.70
760910	16.25	0.004	21.06	94.54
761021	5.25	0.001	23.00	603.74
761027	16.25	0.006	22.62	82.12
761219	6.25	0.007	23.64	850.23

```
************************************************************
* TOTAL FLOW AT LOCATION      598 IS      1.55 (INCHES)  *
************************************************************
```

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```
=====================================================
TABLE OF MAGNITUDE, RETURN PERIOD AND FREQUENCY
=====================================================
```

CONSTITUENT ANALYZED : FLOW (INCHES)
EVENT PARAMETER ANALYZED: TOTAL FLOW

DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =
760923	19.25	0.263	13.000	100.00	760724	3.25	0.222	6.500	95.65	760503	21.25	0.202	4.333	91.30
761231	2.25	0.169	3.250	86.96	761022	20.25	0.118	2.600	82.61	761112	17.25	9.212E-02	2.167	78.26
760303	13.25	8.206E-02	1.300	73.91	760728	23.25	7.558E-02	1.182	69.57	760209	2.25	6.926E-02	1.083	65.22
760905	20.25	6.791E-02	0.684	60.87	760414	7.25	6.738E-02	0.650	56.52	760416	2.25	5.383E-02	0.619	52.17
760629	20.25	1.310E-02	0.419	47.83	760828	20.25	1.244E-02	0.406	43.48	760712	1.25	1.098E-02	0.394	39.13
760204	4.25	1.051E-02	0.283	34.78	761219	6.25	7.181E-03	0.277	30.43	761027	16.25	6.331E-03	0.271	26.09
760910	16.25	3.620E-03	0.203	21.74	760518	21.25	2.773E-03	0.200	17.39	760507	23.25	1.467E-03	0.197	13.04
761021	5.25	1.066E-03	0.153	8.70	760808	22.25	7.911E-04	0.151	4.35					

```
===>  STATS BLOCK TERMINATED NORMALLY.

===> SWMM 4.04 SIMULATION ENDED NORMALLY.

===> YOUR INPUT FILE WAS NAMED : IB11.76
===> YOUR OUTPUT FILE WAS NAMED: IB11.OUT

*******************************************************
*        SWMM 4.04 SIMULATION DATE AND TIME SUMMARY   *
*******************************************************
* STARTING DATE... October    14, 1992                *
*          TIME...         18: 8:16:68                *
*   ENDING DATE... October    14, 1992                *
*          TIME...         18:13: 7:95                *
*  ELAPSED TIME...               4.850 MINUTES        *
*******************************************************
```

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1

```
**************************************************
*          ENVIRONMENTAL PROTECTION AGENCY       *
*           STORM WATER MANAGEMENT MODEL         *
*                  VERSION 4.04                  *
**************************************************

                 DEVELOPED BY

**************************************************
*             METCALF & EDDY, INC.               *
*            UNIVERSITY OF FLORIDA               *
*       WATER RESOURCES ENGINEERS, INC.          *
*              SEPTEMBER 1970                    *
**************************************************

                 UPDATED BY

**************************************************
*            UNIVERSITY OF FLORIDA               *
*          CAMP DRESSER & MCKEE, INC.            *
*                                                *
*   MARCH     1975           NOVEMBER  1977      *
*   NOVEMBER  1981           SEPTEMBER 1989      *
**************************************************

**************************************************
*    THIS IS A NEW RELEASE OF SWMM.  IF ANY      *
*     PROBLEMS OCCUR IN RUNNING THIS MODEL       *
*            CONTACT WAYNE HUBER                 *
*           UNIVERSITY OF FLORIDA                *
*            PHONE 1-904-392-0846                *
**************************************************

**************************************************
*  THIS IS AN IMPLEMENTATION OF EPA SWMM 4.04    *
*  "NATURE IS FULL OF INFINITE CAUSES WHICH      *
*   HAVE NEVER OCCURED IN EXPERIENCE" da Vinci   *
**************************************************

**************************************************
*       DISK OR TAPE ASSIGNMENTS BY BLOCK        *
*         JIN  -> INPUT TO A BLOCK               *
*        JOUT  -> OUTPUT FROM A BLOCK            *
**************************************************

 BLOCK( 1)      JIN( 1)  8      JOUT( 1)  9
 BLOCK( 2)      JIN( 2)  9      JOUT( 2) 10
 BLOCK( 3)      JIN( 3) 10      JOUT( 3) 11

**************************************************
*             SCRATCH DISKS OR TAPES             *
*        THESE CAN BE USED BY ANY BLOCK          *
```

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```
*************************************************

NSCRAT(1) NCSRAT(2) NSCRAT(3) NSCRAT(4) NSCRAT(5) NSCRAT(6) NSCRAT(7)
    9        20        30        31        32        33        34

****************************************************
*    PARAMETER VALUES ON THE TAPES COMMON BLOCK    *
****************************************************

 NUMBER OF SUBCATCHMENTS IN THE RUNOFF BLOCK (NW)....  150
 NUMBER OF CHANNEL/PIPES IN THE RUNOFF BLOCK (NG)....  150
 RUNOFF WATER QUALITY CONSTITUENTS (NRQ)............    10
 NUMBER OF ELEMENTS IN THE TRANSPORT BLOCK (NET).....  200
 NUMBER OF STORAGE JUNCTIONS IN TRANSPORT (NTSE).....   30
 NUMBER OF INPUT HYDROGRAPHS IN TRANSPORT (NTH)......   80
 NUMBER OF ELEMENTS IN THE EXTRAN BLOCK (NEE)........  175
 NUMBER OF GROUNDWATER SUBCATCHMENTS IN RUNOFF (NGW).  100
 NUMBER OF INTERFACE LOCATIONS FOR ALL BLOCKS (NIE)..  200
 NUMBER OF PUMPS IN EXTRAN (NEP)....................   20
 NUMBER OF ORIFICES IN EXTRAN (NEO).................   60
 NUMBER OF TIDE GATES/FREE OUTFALLS IN EXTRAN (NTG)..   25
 NUMBER OF EXTRAN WEIRS (NEW).......................   60
 NUMBER OF EXTRAN PRINTOUT LOCATIONS (NPO)..........   30
 NUMBER OF TIDE ELEMENTS IN EXTRAN (NTE)............   20
 NUMBER OF NATURAL CHANNELS (NNC)...................   50
 NUMBER OF STORAGE JUNCTIONS IN EXTRAN (NVSE)........   10
 NUMBER OF DATA POINTS FOR VARIABLE STORAGE ELEMENTS
 IN THE EXTRAN BLOCK (NVST)..........................   10
 NUMBER OF INPUT HYDROGRAPHS IN EXTRAN (NEH)........  100


************************************************
* ENTRY MADE TO THE RAINFALL BLOCK             *
* CREATED BY THE UNIVERSITY OF FLORIDA - 1988  *
************************************************


        BASIN IB-08
        RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

     ****************************************
     *  PRECIPITATION BLOCK INPUT COMMANDS  *
     ****************************************

    STATION, ISTA.........................     46481

    BEGINNING DATE, IYBEG (YR/MO/DY)......    76/ 1/ 1

    ENDING DATE, IYEND (YR/MO/DY).........    76/12/31
```

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```
MINIMUM INTEREVENT TIME, MIT..........     6

NUMBER OF RANKED STORMS, NPTS.........    10

NWS FORMAT, IFORM (SEE TEXT)..........     3

PRINT STORM SUMMARY, ISUM (0-NO 1-YES)     1

PRINT ALL RAINFALL, IYEAR (0-NO 1-YES)     0

SAVE STORM EVENT DATA, IFILE..........     0
(0-DO NOT SAVE 1- SAVE DATA)..........

IDECID 0 - CREATE INTERFACE FILE
       1 - CREATE FILE AND ANALYZE
       2 - SYNOPTIC ANALYSIS..........     1

PLOTTING POSITION PARAMETER, A........  0.00

STORM EVENT STATISTICS, NOSTAT........     0


*********************************************************
*  PRECIPITATION OUTPUT CREATED USING THE RAIN BLOCK    *
*  NUMBER OF PRECIPITATION STATIONS...        1         *
*********************************************************

LOCATION STATION NUMBER
-------- --------------
       1.        46481


     ******************************
     * USER DEFINED INPUT FORMAT *
     ******************************

    USER FORMAT (FIRMAT)...................(I6,4I10,I3,F7.0)

    INPUT/OUTPUT UNITS 0 = U.S. CUSTOMARY..
                       1 = METRIC UNITS....     0

    UNITS OF RAINFALL (KUNIT)..............     0
     0 -> INTENSITY; 1 --> VOLUME..........

     CONVERSION FACTOR (CONV)..............  0.01

     RAINFALL INTERVAL IN MINUTES(THISTO).. 60.00

     FIELD POSITION FOR STATION NUMBER, F1.     1
```

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FIELD POSITION FOR YEAR, F2..... 2

FIELD POSITION FOR MONTH, F3..... 3

FIELD POSITION FOR DAY, F4..... 4

FIELD POSITION FOR HOUR, F5..... 5

FIELD POSITION FOR MINUTE, F6..... 6

FIELD POSITION FOR RAINFALL,F7..... 7

1

```
************************************************************
* S T O R M   E V E N T   S U M M A R Y *
************************************************************
```

BASIN IB-08
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

STORM NO	DATE	START HOUR	DUR-ATION HOURS	VOLUME INCHES	AVE INTEN IN/HR	MAX INTEN IN/HR	TIME >0 IN HOURS	HOURS MISSING DATA	HOURS METER STUCK
1	2/ 4/76	3	10.	0.09	0.01	0.03	UNDEF	0	0
2	2/ 5/76	7	1.	0.02	0.02	0.02	18.	0	0
3	2/ 9/76	1	11.	0.36	0.03	0.11	89.	0	0
4	3/ 3/76	12	9.	0.40	0.04	0.23	552.	0	0
5	4/14/76	6	9.	0.38	0.04	0.16	993.	0	0
6	4/16/76	1	2.	0.25	0.13	0.19	34.	0	0
7	4/16/76	13	1.	0.04	0.04	0.04	10.	0	0
8	5/ 3/76	20	2.	0.05	0.03	0.04	414.	0	0
9	5/ 4/76	6	2.	0.40	0.20	0.31	8.	0	0
10	5/ 4/76	16	4.	0.51	0.13	0.38	8.	0	0
11	5/ 7/76	21	2.	0.04	0.02	0.03	73.	0	0
12	5/18/76	19	4.	0.06	0.02	0.04	260.	0	0
13	6/29/76	19	1.	0.09	0.09	0.09	1004.	0	0
14	7/12/76	0	1.	0.08	0.08	0.08	292.	0	0
15	7/22/76	21	1.	0.01	0.01	0.01	260.	0	0
16	7/24/76	2	4.	0.96	0.24	0.65	28.	0	0
17	7/25/76	0	1.	0.07	0.07	0.07	18.	0	0
18	7/28/76	22	2.	0.36	0.18	0.31	93.	0	0
19	8/ 8/76	21	2.	0.03	0.02	0.02	261.	0	0
20	8/28/76	19	2.	0.09	0.05	0.08	476.	0	0
21	9/ 5/76	14	7.	0.34	0.05	0.29	185.	0	0
22	9/10/76	15	1.	0.04	0.04	0.04	114.	0	0
23	9/11/76	2	1.	0.01	0.01	0.01	10.	0	0
24	9/23/76	17	13.	1.00	0.08	0.26	302.	0	0
25	9/24/76	19	1.	0.02	0.02	0.02	13.	0	0
26	9/25/76	2	4.	0.28	0.07	0.24	6.	0	0
27	10/21/76	4	6.	0.04	0.01	0.02	622.	0	0

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28	10/22/76	19	1.	0.09	0.09	0.09	33.	0	0
29	10/23/76	2	10.	0.52	0.05	0.11	6.	0	0
30	10/27/76	15	1.	0.05	0.05	0.05	99.	0	0
31	11/12/76	16	10.	0.43	0.04	0.13	384.	0	0
32	12/19/76	5	3.	0.05	0.02	0.03	867.	0	0
TOTAL				7.16				0	0
ESTIMATED MISSING RAINFALL								0.00	0.00

1

```
*****************************************
*         PRECIPITATION SUMMARY         *
*****************************************

RAINFALL SUMMARY FOR STATION        46481
TOTAL MISSING HOURS                     0  HOURS
TOTAL HOURS OF METER MALFUNCTION        0  HOURS
TOTAL RAINFALL                       7.16  INCHES
TOTAL NUMBER OF YEARS                   1  YEARS
```

===> RAINFALL BLOCK ENDED NORMALLY.

1

```
*****************************************************
* ENTRY MADE TO THE RUNOFF BLOCK, LAST UPDATED BY *
* THE UNIVERSITY OF FLORIDA DURING MAY 1989.      *
*****************************************************
* "And wherever water goes, amoebae go along for  *
*  the ride"                      Tom Robbins     *
*****************************************************
```

BASIN IB-08

RUNOFF BLOCK

SNOWMELT PARAMETER - ISNOW..... 0

NUMBER OF RAIN GAGES - NRGAG..... 1

GREEN-AMPT INFILTRATION EQUATION USED - INFILM... 1

QUALITY IS NOT SIMULATED - KWALTY..... 0

READ MONTHLY EVAPORATION DATA ON CARD F1..... 1

HOUR OF DAY AT START OF STORM - NHR..... 0

MINUTE OF HOUR AT START OF STORM - NMN..... 0

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TIME TZERO AT START OF STORM (HOURS)..... 0.000

USE U.S. CUSTOMARY UNITS FOR MOST I/O - METRIC... 0

RUNOFF INPUT PRINT CONTROL... 24

RUNOFF GRAPH PLOT CONTROL.... 1

RUNOFF OUTPUT PRINT CONTROL.. 2

MONTH, DAY, YEAR OF START OF STORM IS: 1/ 1/76

WET TIME STEP LENGTH (SECONDS)..... 900.

DRY TIME STEP LENGTH (SECONDS)..... 10800.

WET/DRY TIME STEP LENGTH (SECONDS)... 1800.

SIMULATION LENGTH IS..... 761231.0 YR/MO/DY

PERCENT OF IMPERVIOUS AREA WITH ZERO DETENTION DEPTH 25.0

```
*********************************************************
*   PROCESSED PRECIPITATION WILL BE READ ON NSCRAT(1)  *
*********************************************************
```

```
*****************************
*        DATA GROUP F1      *
* EVAPORATION RATE (IN/DAY) *
*****************************
```

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.
0.09	0.13	0.17	0.26	0.32	0.33	0.32	0.28	0.25	0.18	0.12	0.08

1

```
*********************************************************
*        C H A N N E L  A N D  P I P E  D A T A         *
*********************************************************
```

INPUT SEQUEN NUMBER	NAMEG: CHANNEL ID #	DRAINS TO NGTO:	CHANNEL TYPE	WIDTH (FT)	LENGTH (FT)	INVERT SLOPE (FT/FT)	L SIDE SLOPE (FT/FT)	R SIDE SLOPE (FT/FT)	INTIAL DEPTH (FT)	MAX DEPTH (FT)	MANN-INGS "N"	FULL FLOW (CFS)
1	486	488	CIRCULAR	4.5	2520.0	0.0054	0.0000	0.0000	0.0	0.0	0.0150	1.35E+02
2	488	492	CIRCULAR	5.0	2785.0	0.0054	0.0000	0.0000	0.0	0.0	0.0150	1.78E+02
3	492	494	CIRCULAR	5.0	2515.0	0.0054	0.0000	0.0000	0.0	0.0	0.0150	1.78E+02
4	494	496	CIRCULAR	5.5	2720.0	0.0054	0.0000	0.0000	0.0	0.0	0.0150	2.30E+02
5	496	498	CIRCULAR	5.0	1810.0	0.0054	0.0000	0.0000	0.0	0.0	0.0150	1.78E+02

1

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*****************************************************
*          S U B C A T C H M E N T   D A T A        *
*****************************************************
```

SUBCATCH-MENT NO.	GUTTER OR INLET	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	DEPRES. STORAGE(IN) IMPERV.	DEPRES. STORAGE(IN) PERV.	GREEN-AMPT INFIL PARAMS SUCTION (IN)	GREEN-AMPT INFIL PARAMS HYD.CON (IN/HR)	GREEN-AMPT INFIL PARAMS IMD	GAGE NO.
1 4051	486	1500.00	48.80	5.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
2 4052	486	4400.00	67.00	18.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
3 4053	486	1200.00	7.50	50.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
4 4054	486	1200.00	27.30	100.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
5 4151	488	800.00	20.20	5.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
6 4152	488	1100.00	7.40	23.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
7 4153	488	3600.00	70.00	18.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
8 4154	488	600.00	14.20	5.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
9 4251	492	1400.00	46.70	18.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
10 4252	492	1400.00	29.30	23.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
11 4351	494	6000.00	83.10	23.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
12 4451	496	8000.00	89.00	23.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
13 4452	496	700.00	11.20	100.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
14 4502	498	10000.00	82.70	23.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1
15 4504	498	500.00	4.50	100.00	0.0100	0.050	0.100	0.060	0.100	3.06	0.06	0.250	1

```
TOTAL NUMBER OF SUBCATCHMENTS..              15
TOTAL TRIBUTARY AREA (ACRES)....          608.90
IMPERVIOUS AREA (ACRES).........          151.02
PERVIOUS AREA (ACRES)...........          457.88
TOTAL WIDTH (FEET)..............        42400.00
PERCENT IMPERVIOUSNESS..........           24.80
```

1

```
*************************************************************
*     ARRANGEMENT OF SUBCATCHMENTS AND CHANNEL/PIPES        *
*************************************************************


   CHANNEL
   OR PIPE
       486     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  4051  4052  4053  4054
       488     TRIBUTARY CHANNEL/PIPES...   486
               TRIBUTARY SUBAREAS........  4151  4152  4153  4154
       492     TRIBUTARY CHANNEL/PIPES...   488
               TRIBUTARY SUBAREAS........  4251  4252
       494     TRIBUTARY CHANNEL/PIPES...   492
               TRIBUTARY SUBAREAS........  4351
       496     TRIBUTARY CHANNEL/PIPES...   494
               TRIBUTARY SUBAREAS........  4451  4452


    INLET
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```
      498     TRIBUTARY CHANNEL/PIPES...   496
              TRIBUTARY SUBAREAS........  4502  4504

************************************************************
* HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING   1 INLETS *
************************************************************
          498

************************************************
*  QUALITY SIMULATION NOT INCLUDED IN THIS RUN *
************************************************


    ************************
    *    DATA GROUP M1     *
    ************************


TOTAL NUMBER OF PRINTED GUTTERS/INLETS...NPRNT..        1
NUMBER OF TIME STEPS BETWEEN PRINTINGS..INTERV..        0
STARTING AND STOPPING PRINTOUT DATES............        0        0

    ************************
    *    DATA GROUP M3     *
    ************************

CHANNEL/INLET PRINT DATA GROUPS......    498


*****************************************************
*  PRECIPITATION INTERFACE FILE SUMMARY             *
*  NUMBER OF PRECIPITATION STATIONS...        1     *
*****************************************************

LOCATION STATION NUMBER
-------- --------------
       1.        46481


1
************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*           JANUARY    1976                    *
************************************************

DAY  INLET RAIN     FLOW
           INCH     INCH
```

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TOTAL	498	0.00000	0.000

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            FEBRUARY   1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
4	498	0.09000	0.002
5	498	0.02000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000
9	498	0.36000	0.062
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
TOTAL	498	0.47000	0.065

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*             MARCH      1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
3	498	0.40000	0.076
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000
9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000

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18	498	0.00000	0.000
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.00000	0.000
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.00000	0.000
29	498	0.00000	0.000
30	498	0.00000	0.000
31	498	0.00000	0.000
TOTAL	498	0.40000	0.077

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            APRIL       1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000
9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.38000	0.059
15	498	0.00000	0.000
16	498	0.29000	0.043
17	498	0.00000	0.000
18	498	0.00000	0.000
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.00000	0.000
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.00000	0.000

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28	498	0.00000	0.000
29	498	0.00000	0.000
30	498	0.00000	0.000
TOTAL	498	0.67000	0.103

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MAY        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.05000	0.001
4	498	0.91000	0.219
5	498	0.00000	0.001
6	498	0.00000	0.000
7	498	0.04000	0.000
8	498	0.00000	0.000
9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.06000	0.001
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.00000	0.000
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.00000	0.000
29	498	0.00000	0.000
30	498	0.00000	0.000
31	498	0.00000	0.000
TOTAL	498	1.06000	0.222

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JUNE       1976                    *
**************************************************
```

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DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000
9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.00000	0.000
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.00000	0.000
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.00000	0.000
29	498	0.09000	0.004
30	498	0.00000	0.000
TOTAL	498	0.09000	0.005

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JULY        1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000

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9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.08000	0.003
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.00000	0.000
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.01000	0.000
23	498	0.00000	0.000
24	498	0.96000	0.330
25	498	0.07000	0.002
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.32250	0.030
29	498	0.03750	0.039
30	498	0.00000	0.000
31	498	0.00000	0.000
TOTAL	498	1.48000	0.406

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            AUGUST      1976                 *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.03000	0.000
9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.00000	0.000

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19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.00000	0.000
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.09000	0.003
29	498	0.00000	0.001
30	498	0.00000	0.000
31	498	0.00000	0.000
TOTAL	498	0.12000	0.004

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            SEPTEMBER  1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.34000	0.058
6	498	0.00000	0.003
7	498	0.00000	0.000
8	498	0.00000	0.000
9	498	0.00000	0.000
10	498	0.04000	0.001
11	498	0.01000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.00000	0.000
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.72000	0.128
24	498	0.30000	0.081
25	498	0.28000	0.048
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.00000	0.000

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29	498	0.00000	0.000
30	498	0.00000	0.000
TOTAL	498	1.69000	0.320

1

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************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            OCTOBER    1976                  *
************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000
9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.00000	0.000
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.04000	0.000
22	498	0.09000	0.005
23	498	0.52000	0.102
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.05000	0.002
28	498	0.00000	0.000
29	498	0.00000	0.000
30	498	0.00000	0.000
31	498	0.00000	0.000
TOTAL	498	0.70000	0.110

1

```
************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            NOVEMBER   1976                   *
************************************************
```

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DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000
9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.39000	0.064
13	498	0.04000	0.020
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.00000	0.000
19	498	0.00000	0.000
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.00000	0.000
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.00000	0.000
29	498	0.00000	0.000
30	498	0.00000	0.000
TOTAL	498	0.43000	0.084

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            DECEMBER   1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	498	0.00000	0.000
2	498	0.00000	0.000
3	498	0.00000	0.000
4	498	0.00000	0.000
5	498	0.00000	0.000
6	498	0.00000	0.000
7	498	0.00000	0.000
8	498	0.00000	0.000

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9	498	0.00000	0.000
10	498	0.00000	0.000
11	498	0.00000	0.000
12	498	0.00000	0.000
13	498	0.00000	0.000
14	498	0.00000	0.000
15	498	0.00000	0.000
16	498	0.00000	0.000
17	498	0.00000	0.000
18	498	0.00000	0.000
19	498	0.05000	0.002
20	498	0.00000	0.000
21	498	0.00000	0.000
22	498	0.00000	0.000
23	498	0.00000	0.000
24	498	0.00000	0.000
25	498	0.00000	0.000
26	498	0.00000	0.000
27	498	0.00000	0.000
28	498	0.00000	0.000
29	498	0.00000	0.000
30	498	0.00000	0.000
31	498	0.80000	0.165
TOTAL	498	0.85000	0.167
YEAR	498	7.96000	1.562

```
*************************************************
*      END OF TIME STEP DO-LOOP IN RUNOFF       *
*************************************************

FINAL DATE (MO/DAY/YEAR)   =                12/31/76
TOTAL NUMBER OF TIME STEPS =                    3580
FINAL JULIAN DATE  =                           76366
FINAL TIME OF DAY  =                          86400. SECONDS.
FINAL RUNNING TIME =                        8784.0000   HOURS.
FINAL RUNNING TIME =                         366.0000    DAYS.

*****************************************************
*     EXTRAPOLATION SUMMARY FOR WATERSHEDS          *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF OVERLND CALLS        *
*****************************************************
```

SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS	SUBCATCH	# STEPS	# CALLS
4051	5801	831	4052	5952	864	4053	6049	871
4054	6534	1122	4151	5984	820	4152	5854	826
4153	6078	890	4154	6087	813	4251	6282	946
4252	6265	927	4351	6049	875	4451	5948	860
4452	6609	1059	4502	5850	838	4504	6422	970

```
*****************************************************
```

Woodward-Clyde
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```
*     EXTRAPOLATION SUMMARY FOR CHANNEL/PIPES    *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF GUTNR CALLS        *
**************************************************
```

CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS	CHAN/PIPE	# STEPS	# CALLS
486	7969	843	488	29592	2972	492	15551	3117
494	14399	3125	496	14600	3188			

1

```
***********************************************
*       CONTINUITY CHECK FOR SURFACE WATER    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
TOTAL PRECIPITATION (RAIN PLUS SNOW)	1.759404E+07	7.960
TOTAL INFILTRATION	1.125789E+07	5.093
TOTAL EVAPORATION	2.991913E+06	1.354
SURFACE RUNOFF FROM WATERSHEDS	3.302217E+06	1.494
TOTAL WATER REMAINING IN SURFACE STORAGE	3.446229E+04	0.016
INFILTRATION OVER THE PERVIOUS AREA...	1.125789E+07	6.773

INFILTRATION + EVAPORATION + SURFACE RUNOFF + SNOW REMOVAL + WATER REMAINING IN SURFACE STORAGE + WATER REMAINING IN SNOW COVER.....	1.758648E+07	7.957
TOTAL PRECIPITATION + INTIAL STORAGE..	1.759404E+07	7.960

```
THE ERROR IN CONTINUITY IS CALCULATED AS
****************************************
* PRECIPITATION + INITIAL SNOW COVER   *
*       - INFILTRATION -               *
*EVAPORATION - SNOW REMOVAL -          *
*SURFACE RUNOFF FROM WATERSHEDS -      *
*WATER IN SURFACE STORAGE -            *
*WATER REMAINING IN SNOW COVER         *
*--------------------------------------*
* PRECIPITATION + INITIAL SNOW COVER   *
****************************************
ERROR.................................                    0.043 PERCENT
```

```
***********************************************
*       CONTINUITY CHECK FOR CHANNEL/PIPES    *
***********************************************
```

	CUBIC FEET	INCHES OVER TOTAL BASIN
INITIAL CHANNEL/PIPE STORAGE.....	0.000000E-01	0.000
FINAL CHANNEL/PIPE STORAGE.....	4.273310E+03	0.002
SURFACE RUNOFF FROM WATERSHEDS.....	3.302217E+06	1.494
GROUNDWATER SUBSURFACE INFLOW.....	0.000000E-01	0.000

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```
EVAPORATION LOSS FROM CHANNELS..............        0.000000E-01      0.000
CHANNEL/PIPE/INLET OUTFLOW..................        3.453218E+06      1.562
INITIAL STORAGE + INFLOW....................        3.302216E+06      1.494
FINAL STORAGE + OUTFLOW.....................        3.457492E+06      1.564
*********************************************
* FINAL STORAGE + OUTFLOW  + EVAPORATION - *
* WATERSHED RUNOFF - GROUNDWATER INFLOW  - *
*     INITIAL CHANNEL/PIPE STORAGE         *
*     ---------------------------------    *
*  FINAL STORAGE + OUTFLOW  + EVAPORATION  *
*********************************************
ERROR.......................................                          4.491 PERCENT
1
**********************************************
*  SUMMARY OF QUANTITY RESULTS (FLOW IN CFS) *
**********************************************

   BASIN IB-08
   RUNOFF BLOCK


                      CHAN/INLT
                           498
   DATE     TIME          FLOW
 MO/DA/YR  HR:MIN         CFS
 --------  ------        ----

FLOW WT'D MEANS          0.1092
FLOW WT'D STD-DEVS       1.6561
MAXIMUM VALUE           99.7695
MINIMUM VALUE            0.0000
TOTAL LOADS            3.45E+06
                       CUBIC-FT

 ===> RUNOFF SIMULATION ENDED NORMALLY.


      ************************************
      *      STATS BLOCK INPUT COMMANDS  *
      ************************************

     MINIMUM INTEREVENT TIME (HOURS).......      8.00
     NPOINT (NUMBER OF PRINTED EVENTS).....         0
     METRIC (0-U.S. STANDARD, 1-METRIC)....         0
     LRET (RETURN PERIOD UNITS)............         1
     A (PLOTTING POSITION PARAMETER).......     0.000


     PRINT SEQUENTIAL SERIES (KSEQ)........         1
     TERMINATE PROGRAM PARAMETER (KTERM)...         0
     KTSEQS................................         1
```

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```
*******************************************
* HEADER INFORMATION FROM INTERFACE FILE: *
*******************************************

TITLE FROM FIRST COMPUTATIONAL BLOCK:
BASIN IB-08
RUNOFF BLOCK

TITLE FROM IMMEDIATELY PRECEDING COMPUTATIONAL BLOCK
BASIN IB-08
RUNOFF BLOCK

NAME OF PRECEDING BLOCK:................RUNOFF BLOCK
INITIAL JULIAN DATE (IDATEZ)......................   76001
INITIAL TIME OF DAY IN SECONDS (TZERO)............     0.0
NO. TRANSFERED INPUT LOCATIONS....................       1
NO. TRANSFERED POLLUTANTS.........................       0
SIZE OF TOTAL CATCHMENT AREA (ACRES)..............  608.90

**************************************************
* ELEMENT NUMBERS OF INTERFACE INLET LOCATIONS: *
**************************************************
    498

CONVERSION FACTOR TO CFS FOR FLOW UNITS
ON INTERFACE FILE.  MULTIPLY BY:     1.00000


*********************************************************
* STATISTICAL ANALYSIS BLOCK WRITTEN BY THE UNIVERSITY *
* OF FLORIDA.  LAST UPDATED MAY, 1989.                 *
*********************************************************


1
**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING DATE...............     0   STARTING TIME... 0.00 HOURS
 ENDING DATE.................     0   ENDING TIME..... 0.00 HOURS


**************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
**************************************************

 STARTING JULIAN DATE........     0   STARTING TIME... 0.00 SECONDS
 ENDING JULIAN DATE..........     0   ENDING TIME..... 0.00 SECONDS
```

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```
===> A ZERO STARTING DATE INDICATES THAT THE ANALYSIS
     COMMENCES AT THE BEGINNING OF THE RECORD.  A ZERO
     ENDING DATE INDICATES THAT THE ANALYSIS CONTINUES TO
     THE END OF THE RECORD.

THE MINIMUM INTEREVENT TIME HAS BEEN DEFINED AS      8.00 HOURS.

*****************************************************
* THE FLOW LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:     498                               *
*****************************************************

*****************************************************
* THE RAIN LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:       0                               *
*****************************************************

U.S. CUSTOMARY UNITS ARE USED IN INPUT/OUTPUT


THE NUMBER OF POLLUTANTS REQUESTED FOR STATISTICAL ANALYSIS IS  0

THE BASE FLOW TO SEPARATE EVENTS IS     0.0010 CFS.


THE STATISTICAL OPTIONS REQUESTED FOR FLOW RATE ARE INDICATED BY A '1'

                                      TOTAL FLOW  AVERAGE FLOW  PEAK FLOW  EVENT DURATION  INTEREVENT DURATION
                                      ----------  ------------  ---------  --------------  -------------------
TABLE OF RETURN PERIOD AND FREQUENCY       1           0           0           0            0
GRAPH OF RETURN PERIOD                     0           0           0           0            0
GRAPH OF FREQUENCY                         0           0           0           0            0
MOMENTS                                    0           0           0           0            0


===> PROGRAM EXECUTION CONTINUING.  DATA WILL BE
     READ FROM THE INTERFACE FILE AND SEPARATED INTO EVENTS.

===> THE FIRST DATE AND TIME ON THE INTERFACE FILE ARE      76001         0.00 SECONDS

===> END OF INTERFACE FILE REACHED.

===> LAST JULIAN DATE AND TIME READ ARE      76366     86399.91 SECONDS

===> PROGRAM CONTINUING WITH ANALYSIS OF EVENTS

===> THE NUMBER OF MONTHS WITHIN THE PERIOD OF
     ANALYSIS ROUNDED TO THE NEAREST MONTH, IS     12.

===> THE NUMBER OF EVENTS WITHIN THE PERIOD OF
     ANALYSIS IS     23.
```


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SEQUENTIAL SERIES OF EVENTS

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760204	4.25	0.003	46.95	820.25
760303	13.25	0.077	29.51	533.20
760416	2.25	0.043	33.52	12.92
760507	23.25	0.000	20.53	55.64
760629	20.25	0.004	22.53	988.73
760724	3.25	0.333	44.00	270.66
760808	22.25	0.000	20.56	241.19
760905	20.25	0.061	25.58	172.08
760923	19.25	0.258	58.57	297.21
761022	20.25	0.108	41.00	19.45
761112	17.25	0.084	34.00	368.19
761231	2.25	0.166	22.00	262.68

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760209	2.25	0.062	33.06	74.39
760414	7.25	0.059	33.50	975.75
760503	21.25	0.221	45.63	396.73
760518	21.25	0.001	21.53	244.72
760712	1.25	0.003	22.61	273.72
760728	23.25	0.069	25.07	75.25
760828	20.25	0.004	23.21	460.70
760910	16.25	0.001	21.06	93.68
761021	5.50	0.000	22.75	602.94
761027	16.25	0.002	20.08	78.25
761219	6.25	0.002	24.58	846.25

```
************************************************************
* TOTAL FLOW AT LOCATION       498 IS      1.56 (INCHES)  *
************************************************************
```

1

TABLE OF MAGNITUDE, RETURN PERIOD AND FREQUENCY

CONSTITUENT ANALYZED : FLOW (INCHES)
EVENT PARAMETER ANALYZED: TOTAL FLOW

DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =
760724	3.25	0.333	13.000	100.00	##	760923	19.25	0.258	6.500	95.65	##	760503	21.25	0.221	4.333	91.30
761231	2.25	0.166	3.250	86.96	##	761022	20.25	0.108	2.600	82.61	##	761112	17.25	8.357E-02	2.167	78.26
760303	13.25	7.656E-02	1.300	73.91	##	760728	23.25	6.940E-02	1.182	69.57	##	760209	2.25	6.205E-02	1.083	65.22
760905	20.25	6.116E-02	0.684	60.87	##	760414	7.25	5.917E-02	0.650	56.52	##	760416	2.25	4.327E-02	0.619	52.17
760629	20.25	4.492E-03	0.419	47.83	##	760828	20.25	3.934E-03	0.406	43.48	##	760712	1.25	3.195E-03	0.394	39.13
760204	4.25	2.901E-03	0.283	34.78	##	761219	6.25	1.877E-03	0.277	30.43	##	761027	16.25	1.720E-03	0.271	26.09

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```
760910  16.25 1.153E-03   0.203    21.74 ## 760518  21.25 8.838E-04   0.200    17.39 ## 760507  23.25 4.679E-04   0.197    13.04
761021   5.50 3.427E-04   0.153     8.70 ## 760808  22.25 2.229E-04   0.151     4.35
                                         ##                                          ##

===>  STATS BLOCK TERMINATED NORMALLY.

===> SWMM 4.04 SIMULATION ENDED NORMALLY.

===> YOUR INPUT FILE WAS NAMED : IB08.76
===> YOUR OUTPUT FILE WAS NAMED: IB08.OUT

*********************************************************
*        SWMM 4.04 SIMULATION DATE AND TIME SUMMARY     *
*********************************************************
* STARTING DATE... October    15, 1992                  *
*          TIME...         10:29:11:60                  *
*   ENDING DATE... October    15, 1992                  *
*          TIME...         10:35:15:98                  *
*  ELAPSED TIME...               6.067 MINUTES          *
*********************************************************
```

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1

```
**************************************************
*          ENVIRONMENTAL PROTECTION AGENCY       *
*           STORM WATER MANAGEMENT MODEL         *
*                  VERSION 4.04                  *
**************************************************

                 DEVELOPED BY

**************************************************
*             METCALF & EDDY, INC.               *
*            UNIVERSITY OF FLORIDA               *
*       WATER RESOURCES ENGINEERS, INC.          *
*              SEPTEMBER 1970                    *
**************************************************

                 UPDATED BY

**************************************************
*            UNIVERSITY OF FLORIDA               *
*           CAMP DRESSER & MCKEE, INC.           *
*                                                *
*   MARCH      1975          NOVEMBER  1977      *
*   NOVEMBER   1981          SEPTEMBER 1989      *
**************************************************

**************************************************
*    THIS IS A NEW RELEASE OF SWMM.  IF ANY      *
*     PROBLEMS OCCUR IN RUNNING THIS MODEL       *
*            CONTACT WAYNE HUBER                 *
*           UNIVERSITY OF FLORIDA                *
*            PHONE 1-904-392-0846                *
**************************************************

**************************************************
*  THIS IS AN IMPLEMENTATION OF EPA SWMM 4.04    *
*  "NATURE IS FULL OF INFINITE CAUSES WHICH      *
*   HAVE NEVER OCCURED IN EXPERIENCE" da Vinci   *
**************************************************

**************************************************
*       DISK OR TAPE ASSIGNMENTS BY BLOCK        *
*         JIN  -> INPUT TO A BLOCK               *
*        JOUT  -> OUTPUT FROM A BLOCK            *
**************************************************

 BLOCK( 1)      JIN( 1)  8      JOUT( 1)  9
 BLOCK( 2)      JIN( 2)  9      JOUT( 2) 10
 BLOCK( 3)      JIN( 3) 10      JOUT( 3) 11

**************************************************
*             SCRATCH DISKS OR TAPES             *
*        THESE CAN BE USED BY ANY BLOCK          *
```

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

NSCRAT(1) NCSRAT(2) NSCRAT(3) NSCRAT(4) NSCRAT(5) NSCRAT(6) NSCRAT(7)
    9        20        30        31        32        33        34

*****************************************************
*    PARAMETER VALUES ON THE TAPES COMMON BLOCK    *
*****************************************************

 NUMBER OF SUBCATCHMENTS IN THE RUNOFF BLOCK (NW)....  150
 NUMBER OF CHANNEL/PIPES IN THE RUNOFF BLOCK (NG)....  150
 RUNOFF WATER QUALITY CONSTITUENTS (NRQ).............   10
 NUMBER OF ELEMENTS IN THE TRANSPORT BLOCK (NET).....  200
 NUMBER OF STORAGE JUNCTIONS IN TRANSPORT (NTSE).....   30
 NUMBER OF INPUT HYDROGRAPHS IN TRANSPORT (NTH)......   80
 NUMBER OF ELEMENTS IN THE EXTRAN BLOCK (NEE)........  175
 NUMBER OF GROUNDWATER SUBCATCHMENTS IN RUNOFF (NGW).  100
 NUMBER OF INTERFACE LOCATIONS FOR ALL BLOCKS (NIE)..  200
 NUMBER OF PUMPS IN EXTRAN (NEP).....................   20
 NUMBER OF ORIFICES IN EXTRAN (NEO)..................   60
 NUMBER OF TIDE GATES/FREE OUTFALLS IN EXTRAN (NTG)..   25
 NUMBER OF EXTRAN WEIRS (NEW)........................   60
 NUMBER OF EXTRAN PRINTOUT LOCATIONS (NPO)...........   30
 NUMBER OF TIDE ELEMENTS IN EXTRAN (NTE).............   20
 NUMBER OF NATURAL CHANNELS (NNC)....................   50
 NUMBER OF STORAGE JUNCTIONS IN EXTRAN (NVSE)........   10
 NUMBER OF DATA POINTS FOR VARIABLE STORAGE ELEMENTS
 IN THE EXTRAN BLOCK (NVST)..........................   10
 NUMBER OF INPUT HYDROGRAPHS IN EXTRAN (NEH).........  100


*************************************************
* ENTRY MADE TO THE RAINFALL BLOCK              *
* CREATED BY THE UNIVERSITY OF FLORIDA - 1988   *
*************************************************


        BASIN AC-05
        RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

     ****************************************
     *  PRECIPITATION BLOCK INPUT COMMANDS  *
     ****************************************

    STATION, ISTA.........................     46481

    BEGINNING DATE, IYBEG (YR/MO/DY)......    76/ 1/ 1

    ENDING DATE, IYEND (YR/MO/DY).........    77/ 1/ 1
```

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```
MINIMUM INTEREVENT TIME, MIT..........      6

NUMBER OF RANKED STORMS, NPTS.........     10

NWS FORMAT, IFORM (SEE TEXT)..........      3

PRINT STORM SUMMARY, ISUM (O-NO 1-YES)      1

PRINT ALL RAINFALL, IYEAR (O-NO 1-YES)      1

SAVE STORM EVENT DATA, IFILE..........      0
(O-DO NOT SAVE 1- SAVE DATA)..........

IDECID 0 - CREATE INTERFACE FILE
       1 - CREATE FILE AND ANALYZE
       2 - SYNOPTIC ANALYSIS..........      1

PLOTTING POSITION PARAMETER, A........   0.00

STORM EVENT STATISTICS, NOSTAT........   1000


*********************************************************
*  PRECIPITATION OUTPUT CREATED USING THE RAIN BLOCK    *
*  NUMBER OF PRECIPITATION STATIONS...        1         *
*********************************************************

LOCATION STATION NUMBER
-------- --------------
       1.         46481


     ******************************
     * USER DEFINED INPUT FORMAT *
     ******************************

    USER FORMAT (FIRMAT)...................(I6,4I10,I3,F7.0)

    INPUT/OUTPUT UNITS 0 = U.S. CUSTOMARY..
                       1 = METRIC UNITS....      0

    UNITS OF RAINFALL (KUNIT)..............      0
     0 -> INTENSITY; 1 --> VOLUME..........

     CONVERSION FACTOR (CONV)..............   0.01

     RAINFALL INTERVAL IN MINUTES(THISTO).. 60.00

     FIELD POSITION FOR STATION NUMBER, F1.      1
```

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FIELD POSITION FOR YEAR, F2..... 2

FIELD POSITION FOR MONTH, F3..... 3

FIELD POSITION FOR DAY, F4..... 4

FIELD POSITION FOR HOUR, F5..... 5

FIELD POSITION FOR MINUTE, F6..... 6

FIELD POSITION FOR RAINFALL,F7..... 7

1

```
**************************************************
* RAINFALL FROM USER TIME SERIES IN UNITS OF     *
* THOUSANDS OF AN INCH OR TENTHS OF MILLIMETERS *
*          (AS DEFINED BY THE USER)              *
**************************************************
```

BASIN AC-05
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

MO/DY/YR	HR/	RAIN	MO/DY/YR	HR/	RAIN	MO/DY/YR	HR/	RAIN	MO/DY/YR	HR/	RAIN
2/ 4/76	3/	10	2/ 4/76	4/	10	2/ 4/76	5/	20	2/ 4/76	11/	30
2/ 4/76	12/	20	2/ 5/76	7/	20	2/ 9/76	1/	10	2/ 9/76	4/	20
2/ 9/76	5/	40	2/ 9/76	6/	90	2/ 9/76	7/	40	2/ 9/76	8/	20
2/ 9/76	9/	20	2/ 9/76	10/	110	2/ 9/76	11/	10	3/ 3/76	12/	60
3/ 3/76	13/	230	3/ 3/76	14/	90	3/ 3/76	15/	10	3/ 3/76	20/	10
4/14/76	6/	20	4/14/76	7/	20	4/14/76	8/	10	4/14/76	10/	40
4/14/76	11/	130	4/14/76	14/	160	4/16/76	1/	190	4/16/76	2/	60
4/16/76	13/	40	5/ 3/76	20/	40	5/ 3/76	21/	10	5/ 4/76	6/	90
5/ 4/76	7/	310	5/ 4/76	16/	380	5/ 4/76	17/	110	5/ 4/76	18/	10
5/ 4/76	19/	10	5/ 7/76	21/	10	5/ 7/76	22/	30	5/18/76	19/	10
5/18/76	20/	40	5/18/76	22/	10	6/29/76	19/	90	7/12/76	0/	80
7/22/76	21/	10	7/24/76	2/	650	7/24/76	3/	240	7/24/76	4/	50
7/24/76	5/	20	7/25/76	0/	70	7/28/76	22/	310	7/28/76	23/	50
8/ 8/76	21/	20	8/ 8/76	22/	10	8/28/76	19/	80	8/28/76	20/	10
9/ 5/76	14/	10	9/ 5/76	18/	10	9/ 5/76	19/	290	9/ 5/76	20/	30
9/10/76	15/	40	9/11/76	2/	10	9/23/76	17/	10	9/23/76	18/	260
9/23/76	19/	10	9/23/76	20/	260	9/23/76	21/	90	9/23/76	22/	90
9/24/76	1/	200	9/24/76	2/	60	9/24/76	3/	10	9/24/76	5/	10
9/24/76	19/	20	9/25/76	2/	10	9/25/76	3/	240	9/25/76	4/	20
9/25/76	5/	10	10/21/76	4/	10	10/21/76	7/	20	10/21/76	9/	10
10/22/76	19/	90	10/23/76	2/	110	10/23/76	3/	80	10/23/76	4/	10
10/23/76	7/	70	10/23/76	8/	50	10/23/76	9/	80	10/23/76	10/	100
10/23/76	11/	20	10/27/76	15/	50	11/12/76	16/	40	11/12/76	17/	50
11/12/76	18/	130	11/12/76	19/	100	11/12/76	22/	70	11/12/76	23/	10
11/13/76	0/	20	11/13/76	1/	10	12/19/76	5/	30	12/19/76	7/	20
12/31/76	1/	10	12/31/76	2/	50	12/31/76	3/	20	12/31/76	5/	30

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12/31/76	6/	10	12/31/76	7/	20	12/31/76	8/	40	12/31/76	10/	20
12/31/76	11/	30	12/31/76	12/	40	12/31/76	13/	50	12/31/76	14/	90
12/31/76	15/	110	12/31/76	16/	60	12/31/76	17/	60	12/31/76	18/	80
12/31/76	19/	60	12/31/76	20/	10	12/31/76	22/	10			

1

```
*************************************************************
* S T O R M   E V E N T   S U M M A R Y *
*************************************************************
```

BASIN AC-05
RAIN BLOCK: NWS GAGE 6481 AT SKYHARBOR

STORM NO	DATE	START HOUR	DUR-ATION HOURS	VOLUME INCHES	AVE INTEN IN/HR	MAX INTEN IN/HR	TIME >0 IN HOURS	HOURS MISSING DATA	HOURS METER STUCK
1	2/ 4/76	3	10.	0.09	0.01	0.03	UNDEF	0	0
2	2/ 5/76	7	1.	0.02	0.02	0.02	18.	0	0
3	2/ 9/76	1	11.	0.36	0.03	0.11	89.	0	0
4	3/ 3/76	12	9.	0.40	0.04	0.23	552.	0	0
5	4/14/76	6	9.	0.38	0.04	0.16	993.	0	0
6	4/16/76	1	2.	0.25	0.13	0.19	34.	0	0
7	4/16/76	13	1.	0.04	0.04	0.04	10.	0	0
8	5/ 3/76	20	2.	0.05	0.03	0.04	414.	0	0
9	5/ 4/76	6	2.	0.40	0.20	0.31	8.	0	0
10	5/ 4/76	16	4.	0.51	0.13	0.38	8.	0	0
11	5/ 7/76	21	2.	0.04	0.02	0.03	73.	0	0
12	5/18/76	19	4.	0.06	0.02	0.04	260.	0	0
13	6/29/76	19	1.	0.09	0.09	0.09	1004.	0	0
14	7/12/76	0	1.	0.08	0.08	0.08	292.	0	0
15	7/22/76	21	1.	0.01	0.01	0.01	260.	0	0
16	7/24/76	2	4.	0.96	0.24	0.65	28.	0	0
17	7/25/76	0	1.	0.07	0.07	0.07	18.	0	0
18	7/28/76	22	2.	0.36	0.18	0.31	93.	0	0
19	8/ 8/76	21	2.	0.03	0.02	0.02	261.	0	0
20	8/28/76	19	2.	0.09	0.05	0.08	476.	0	0
21	9/ 5/76	14	7.	0.34	0.05	0.29	185.	0	0
22	9/10/76	15	1.	0.04	0.04	0.04	114.	0	0
23	9/11/76	2	1.	0.01	0.01	0.01	10.	0	0
24	9/23/76	17	13.	1.00	0.08	0.26	302.	0	0
25	9/24/76	19	1.	0.02	0.02	0.02	13.	0	0
26	9/25/76	2	4.	0.28	0.07	0.24	6.	0	0
27	10/21/76	4	6.	0.04	0.01	0.02	622.	0	0
28	10/22/76	19	1.	0.09	0.09	0.09	33.	0	0
29	10/23/76	2	10.	0.52	0.05	0.11	6.	0	0
30	10/27/76	15	1.	0.05	0.05	0.05	99.	0	0
31	11/12/76	16	10.	0.43	0.04	0.13	384.	0	0
32	12/19/76	5	3.	0.05	0.02	0.03	867.	0	0
TOTAL				7.16				0	0
ESTIMATED MISSING RAINFALL								0.00	0.00

1

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```
****************************************
*         PRECIPITATION SUMMARY        *
****************************************
```

RAINFALL SUMMARY FOR STATION	46481	
TOTAL MISSING HOURS	0	HOURS
TOTAL HOURS OF METER MALFUNCTION	0	HOURS
TOTAL RAINFALL	7.16	INCHES
TOTAL NUMBER OF YEARS	1	YEARS

RAINFALL STATISTICS BY AVG YR(FOR PERIOD OF RECORD)

	NUMBER	TOTAL	MINIMUM	MAXIMUM	AVERAGE	COEF-VAR
DURATION	1.	126.00	1.000	13.000	126.000	UNDEFINED
INTENSITY	1.	1.94	0.007	0.240	1.938	UNDEFINED
VOLUME	1.	7.11	0.010	1.000	7.110	UNDEFINED
DELTA	1.	6781.00	8.500	1006.500	6781.000	UNDEFINED
YEARS	1.	7.11	0.010	1.000	7.110	UNDEFINED

RAINFALL STATISTICS BY STORM (FOR PERIOD OF RECORD)

	NUMBER	TOTAL	MINIMUM	MAXIMUM	AVERAGE	COEF-VAR
DURATION	31.	126.00	1.000	13.000	4.065	0.929
INTENSITY	31.	1.94	0.007	0.240	0.063	0.929
VOLUME	31.	7.11	0.010	1.000	0.229	1.139
DELTA	30.	6781.00	8.500	1006.500	226.033	1.225

1

RAINFALL STATISTICS BY YEAR (FOR PERIOD OF RECORD)

	NUMBER	TOTAL	MINIMUM	MAXIMUM	AVERAGE	COEF-VAR
76						
DURATION	31.	126.00	1.000	13.000	4.065	0.929
INTENSITY	31.	1.94	0.007	0.240	0.063	0.929
VOLUME	31.	7.11	0.010	1.000	0.229	1.139
DELTA	30.	6781.00	8.500	1006.500	226.033	1.225
MONTHS	9.	7.11	0.080	1.430	0.790	1.063

1

RAINFALL STATISTICS BY MONTH (FOR PERIOD OF RECORD)

	NUMBER	TOTAL	MINIMUM	MAXIMUM	AVERAGE	COEF-VAR
2						
DURATION	3.	22.00	1.000	11.000	7.333	0.751
INTENSITY	3.	0.06	0.009	0.033	0.021	0.577
VOLUME	3.	0.47	0.020	0.360	0.157	1.146
DELTA	2.	118.50	23.500	95.000	59.250	0.853

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3							
	DURATION	1.	9.00	9.000	9.000	9.000	UNDEFINED
	INTENSITY	1.	0.04	0.044	0.044	0.044	UNDEFINED
	VOLUME	1.	0.40	0.400	0.400	0.400	UNDEFINED
	DELTA	1.	562.00	562.000	562.000	562.000	UNDEFINED
4							
	DURATION	3.	12.00	1.000	9.000	4.000	1.090
	INTENSITY	3.	0.21	0.040	0.125	0.069	0.701
	VOLUME	3.	0.67	0.040	0.380	0.223	0.768
	DELTA	3.	1053.00	11.500	1002.000	351.000	1.607
5							
	DURATION	5.	14.00	2.000	4.000	2.800	0.391
	INTENSITY	5.	0.39	0.015	0.200	0.078	1.069
	VOLUME	5.	1.06	0.040	0.510	0.212	1.063
	DELTA	5.	775.50	10.000	415.500	155.100	1.151
6							
	DURATION	1.	1.00	1.000	1.000	1.000	UNDEFINED
	INTENSITY	1.	0.09	0.090	0.090	0.090	UNDEFINED
	VOLUME	1.	0.09	0.090	0.090	0.090	UNDEFINED
	DELTA	1.	1006.50	1006.500	1006.500	1006.500	UNDEFINED
7							
	DURATION	5.	9.00	1.000	4.000	1.800	0.724
	INTENSITY	5.	0.58	0.010	0.240	0.116	0.796
	VOLUME	5.	1.48	0.010	0.960	0.296	1.335
	DELTA	5.	699.50	20.500	293.000	139.900	0.921
8							
	DURATION	2.	4.00	2.000	2.000	2.000	0.000
	INTENSITY	2.	0.06	0.015	0.045	0.030	0.707
	VOLUME	2.	0.12	0.030	0.090	0.060	0.707
	DELTA	2.	741.00	263.000	478.000	370.500	0.410
9							
	DURATION	6.	27.00	1.000	13.000	4.500	1.068
	INTENSITY	6.	0.27	0.010	0.077	0.044	0.600
	VOLUME	6.	1.69	0.010	1.000	0.282	1.347
	DELTA	6.	656.00	8.500	309.000	109.333	1.114
10							
	DURATION	4.	18.00	1.000	10.000	4.500	0.969
	INTENSITY	4.	0.20	0.007	0.090	0.050	0.686
	VOLUME	4.	0.70	0.040	0.520	0.175	1.320
	DELTA	4.	779.50	11.500	627.000	194.875	1.492
11							
	DURATION	1.	10.00	10.000	10.000	10.000	UNDEFINED
	INTENSITY	1.	0.04	0.043	0.043	0.043	UNDEFINED
	VOLUME	1.	0.43	0.430	0.430	0.430	UNDEFINED
	DELTA	1.	389.50	389.500	389.500	389.500	UNDEFINED

1 RETURN PERIOD(YEARS) FOR DURATION

RANK	HOURS	RETURN PERIOD	MO/DY/YR	RANK	HOURS	RETURN PERIOD	MO/DY/YR

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1	13.000	2.000	9/23/76	6	9.000	0.333	4/14/76
2	11.000	1.000	2/ 9/76	7	9.000	0.286	3/ 3/76
3	10.000	0.667	2/ 4/76	8	7.000	0.250	9/ 5/76
4	10.000	0.500	10/23/76	9	6.000	0.222	10/21/76
5	10.000	0.400	11/12/76	10	4.000	0.200	9/25/76

===> RAINFALL BLOCK ENDED NORMALLY.

1

```
****************************************************
* ENTRY MADE TO THE RUNOFF BLOCK, LAST UPDATED BY *
* THE UNIVERSITY OF FLORIDA DURING MAY 1989.      *
****************************************************
* "And wherever water goes, amoebae go along for  *
*  the ride"                      Tom Robbins     *
****************************************************
```

BASIN AC-05

RUNOFF BLOCK

SNOWMELT PARAMETER - ISNOW.....	0
NUMBER OF RAIN GAGES - NRGAG.....	1
GREEN-AMPT INFILTRATION EQUATION USED - INFILM...	1
QUALITY IS NOT SIMULATED - KWALTY.....	0
READ MONTHLY EVAPORATION DATA ON CARD F1.....	1
HOUR OF DAY AT START OF STORM - NHR.....	0
MINUTE OF HOUR AT START OF STORM - NMN.....	0
TIME TZERO AT START OF STORM (HOURS).....	0.000
USE U.S. CUSTOMARY UNITS FOR MOST I/O - METRIC...	0
RUNOFF INPUT PRINT CONTROL...	24
RUNOFF GRAPH PLOT CONTROL....	1
RUNOFF OUTPUT PRINT CONTROL..	2
MONTH, DAY, YEAR OF START OF STORM IS:	1/ 1/76

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WET TIME STEP LENGTH (SECONDS)..... 900.

DRY TIME STEP LENGTH (SECONDS)..... 10800.

WET/DRY TIME STEP LENGTH (SECONDS)... 1800.

SIMULATION LENGTH IS..... 770101.0 YR/MO/DY

PERCENT OF IMPERVIOUS AREA WITH ZERO DETENTION DEPTH 25.0

```
*********************************************************
*   PROCESSED PRECIPITATION WILL BE READ ON NSCRAT(1)  *
*********************************************************
```

```
*****************************
*        DATA GROUP F1      *
* EVAPORATION RATE (IN/DAY) *
*****************************
```

JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV	DEC.
0.09	0.13	0.17	0.26	0.32	0.33	0.32	0.28	0.25	0.18	0.12	0.08

1

```
*********************************************************
*        C H A N N E L  A N D  P I P E  D A T A         *
*********************************************************
```

INPUT SEQUEN NUMBER	NAMEG: CHANNEL ID #	DRAINS TO NGTO:	CHANNEL TYPE	WIDTH (FT)	LENGTH (FT)	INVERT SLOPE (FT/FT)	L SIDE SLOPE (FT/FT)	R SIDE SLOPE (FT/FT)	INTIAL DEPTH (FT)	MAX DEPTH (FT)	MANN-INGS "N"	FULL FLOW (CFS)
1	190	195	CIRCULAR	4.0	560.0	0.0052	0.0000	0.0000	0.0	0.0	0.0150	9.68E+01

1

```
****************************************************
*         S U B C A T C H M E N T   D A T A         *
****************************************************
```

SUBCATCH-MENT NO.		GUTTER OR INLET	WIDTH (FT)	AREA (AC)	PERCENT IMPERV.	SLOPE (FT/FT)	RESISTANCE FACTOR IMPERV.	RESISTANCE FACTOR PERV.	DEPRES. STORAGE(IN) IMPERV.	DEPRES. STORAGE(IN) PERV.	GREEN-AMPT INFIL PARAMS SUCTION (IN)	GREEN-AMPT INFIL PARAMS HYD.CON (IN/HR)	GREEN-AMPT INFIL PARAMS IMD	GAGE NO.
1	1001	190	5000.00	23.90	15.00	0.0100	0.050	0.100	0.060	0.200	3.50	0.40	0.250	1
2	1002	190	200.00	5.00	25.00	0.0100	0.050	0.100	0.060	0.200	3.50	0.40	0.250	1
3	1003	190	6586.00	47.90	100.00	0.0100	0.050	0.100	0.060	0.200	3.50	0.40	0.250	1

TOTAL NUMBER OF SUBCATCHMENTS.. 3
TOTAL TRIBUTARY AREA (ACRES).... 76.80
IMPERVIOUS AREA (ACRES)..... 52.74
PERVIOUS AREA (ACRES)..... 24.07

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```
TOTAL WIDTH (FEET)..............        11786.00
PERCENT IMPERVIOUSNESS..........           68.67

1
*************************************************************
*     ARRANGEMENT OF SUBCATCHMENTS AND CHANNEL/PIPES     *
*************************************************************


   CHANNEL
   OR PIPE
       190     NO TRIBUTARY CHANNEL/PIPES
               TRIBUTARY SUBAREAS........  1001  1002  1003


    INLET
       195     TRIBUTARY CHANNEL/PIPES...   190
               NO TRIBUTARY SUBAREAS.....


*************************************************************
* HYDROGRAPHS WILL BE STORED FOR THE FOLLOWING   1 INLETS *
*************************************************************
           195


*************************************************
*  QUALITY SIMULATION NOT INCLUDED IN THIS RUN *
*************************************************


    ************************
    *    DATA GROUP M1     *
    ************************


TOTAL NUMBER OF PRINTED GUTTERS/INLETS...NPRNT..        1
NUMBER OF TIME STEPS BETWEEN PRINTINGS..INTERV..        0
STARTING AND STOPPING PRINTOUT DATES............

    ************************
    *    DATA GROUP M3     *
    ************************

CHANNEL/INLET PRINT DATA GROUPS......    195


*****************************************************
*  PRECIPITATION INTERFACE FILE SUMMARY            *
*  NUMBER OF PRECIPITATION STATIONS...        1    *
```

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****

LOCATION	STATION NUMBER
1.	46481

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JANUARY    1976                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
TOTAL	195	0.00000	0.000

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            FEBRUARY   1976                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
4	195	0.09000	0.006
5	195	0.02000	0.001
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.36000	0.169
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.00000	0.000
13	195	0.00000	0.000
14	195	0.00000	0.000
15	195	0.00000	0.000
16	195	0.00000	0.000
17	195	0.00000	0.000
18	195	0.00000	0.000
19	195	0.00000	0.000
20	195	0.00000	0.000
21	195	0.00000	0.000
22	195	0.00000	0.000
23	195	0.00000	0.000
24	195	0.00000	0.000
25	195	0.00000	0.000
26	195	0.00000	0.000
27	195	0.00000	0.000
28	195	0.00000	0.000

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29	195	0.00000	0.000
TOTAL	195	0.47000	0.179

1

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*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MARCH      1976                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.40000	0.206
4	195	0.00000	0.000
5	195	0.00000	0.000
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.00000	0.000
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.00000	0.000
13	195	0.00000	0.000
14	195	0.00000	0.000
15	195	0.00000	0.000
16	195	0.00000	0.000
17	195	0.00000	0.000
18	195	0.00000	0.000
19	195	0.00000	0.000
20	195	0.00000	0.000
21	195	0.00000	0.000
22	195	0.00000	0.000
23	195	0.00000	0.000
24	195	0.00000	0.000
25	195	0.00000	0.000
26	195	0.00000	0.000
27	195	0.00000	0.000
28	195	0.00000	0.000
29	195	0.00000	0.000
30	195	0.00000	0.000
31	195	0.00000	0.000
TOTAL	195	0.40000	0.208

1

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*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            APRIL      1976                   *
*************************************************
```

DAY	INLET	RAIN	FLOW

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		INCH	INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.00000	0.000
4	195	0.00000	0.000
5	195	0.00000	0.000
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.00000	0.000
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.00000	0.000
13	195	0.00000	0.000
14	195	0.38000	0.152
15	195	0.00000	0.000
16	195	0.29000	0.113
17	195	0.00000	0.000
18	195	0.00000	0.000
19	195	0.00000	0.000
20	195	0.00000	0.000
21	195	0.00000	0.000
22	195	0.00000	0.000
23	195	0.00000	0.000
24	195	0.00000	0.000
25	195	0.00000	0.000
26	195	0.00000	0.000
27	195	0.00000	0.000
28	195	0.00000	0.000
29	195	0.00000	0.000
30	195	0.00000	0.000
TOTAL	195	0.67000	0.268

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            MAY        1976                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.05000	0.002
4	195	0.91000	0.492
5	195	0.00000	0.000
6	195	0.00000	0.000
7	195	0.04000	0.000
8	195	0.00000	0.000
18	195	0.06000	0.002

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19	195	0.00000	0.000
TOTAL	195	1.06000	0.498

1

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**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JUNE        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
29	195	0.09000	0.011
30	195	0.00000	0.000
TOTAL	195	0.09000	0.011

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JULY        1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.00000	0.000
4	195	0.00000	0.000
5	195	0.00000	0.000
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.00000	0.000
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.08000	0.008
22	195	0.01000	0.000
24	195	0.96000	0.584
25	195	0.07000	0.006
26	195	0.00000	0.000
28	195	0.31000	0.081
29	195	0.05000	0.102
30	195	0.00000	0.000
31	195	0.00000	0.000
TOTAL	195	1.48000	0.781

1

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**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            AUGUST      1976                    *
**************************************************
```

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DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.00000	0.000
4	195	0.00000	0.000
5	195	0.00000	0.000
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.03000	0.000
9	195	0.00000	0.000
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.00000	0.000
13	195	0.00000	0.000
14	195	0.00000	0.000
15	195	0.00000	0.000
16	195	0.00000	0.000
17	195	0.00000	0.000
18	195	0.00000	0.000
19	195	0.00000	0.000
20	195	0.00000	0.000
21	195	0.00000	0.000
22	195	0.00000	0.000
23	195	0.00000	0.000
24	195	0.00000	0.000
25	195	0.00000	0.000
26	195	0.00000	0.000
27	195	0.00000	0.000
28	195	0.09000	0.010
TOTAL	195	0.12000	0.012

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            SEPTEMBER  1976                  *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
5	195	0.34000	0.161
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.00000	0.000
10	195	0.04000	0.002
11	195	0.01000	0.000
23	195	0.72000	0.377
24	195	0.30000	0.191
25	195	0.28000	0.124

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26	195	0.00000	0.000
27	195	0.00000	0.000
28	195	0.00000	0.000
29	195	0.00000	0.000
30	195	0.00000	0.000
TOTAL	195	1.69000	0.856

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            OCTOBER    1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.00000	0.000
4	195	0.00000	0.000
5	195	0.00000	0.000
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.00000	0.000
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.00000	0.000
13	195	0.00000	0.000
14	195	0.00000	0.000
15	195	0.00000	0.000
16	195	0.00000	0.000
17	195	0.00000	0.000
18	195	0.00000	0.000
19	195	0.00000	0.000
20	195	0.00000	0.000
21	195	0.04000	0.001
22	195	0.09000	0.015
23	195	0.52000	0.277
24	195	0.00000	0.000
25	195	0.00000	0.000
26	195	0.00000	0.000
27	195	0.05000	0.004
28	195	0.00000	0.000
29	195	0.00000	0.000
30	195	0.00000	0.000
31	195	0.00000	0.000
TOTAL	195	0.70000	0.300

1

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**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
```

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```
*            NOVEMBER   1976                    *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.00000	0.000
4	195	0.00000	0.000
5	195	0.00000	0.000
6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.00000	0.000
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.39000	0.183
13	195	0.04000	0.043
14	195	0.00000	0.000
15	195	0.00000	0.000
16	195	0.00000	0.000
17	195	0.00000	0.000
18	195	0.00000	0.000
19	195	0.00000	0.000
20	195	0.00000	0.000
21	195	0.00000	0.000
22	195	0.00000	0.000
23	195	0.00000	0.000
24	195	0.00000	0.000
25	195	0.00000	0.000
26	195	0.00000	0.000
27	195	0.00000	0.000
28	195	0.00000	0.000
29	195	0.00000	0.000
30	195	0.00000	0.000
TOTAL	195	0.43000	0.229

1

```
**************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            DECEMBER   1976                     *
**************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.000
2	195	0.00000	0.000
3	195	0.00000	0.000
4	195	0.00000	0.000
5	195	0.00000	0.000

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6	195	0.00000	0.000
7	195	0.00000	0.000
8	195	0.00000	0.000
9	195	0.00000	0.000
10	195	0.00000	0.000
11	195	0.00000	0.000
12	195	0.00000	0.000
13	195	0.00000	0.000
14	195	0.00000	0.000
15	195	0.00000	0.000
16	195	0.00000	0.000
17	195	0.00000	0.000
18	195	0.00000	0.000
19	195	0.05000	0.005
20	195	0.00000	0.000
21	195	0.00000	0.000
22	195	0.00000	0.000
23	195	0.00000	0.000
24	195	0.00000	0.000
25	195	0.00000	0.000
26	195	0.00000	0.000
27	195	0.00000	0.000
28	195	0.00000	0.000
29	195	0.00000	0.000
30	195	0.00000	0.000
31	195	0.80000	0.461
TOTAL	195	0.85000	0.469

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JANUARY    1977                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
YEAR	195	7.96000	3.810

1

```
*************************************************
* SUMMARY OF QUANTITY AND QUALITY RESULTS FOR *
*            JANUARY    1977                   *
*************************************************
```

DAY	INLET	RAIN INCH	FLOW INCH
1	195	0.00000	0.004
TOTAL	195	0.00000	0.004
YEAR	195	0.00000	0.004
TOTAL	195	0.00000	0.000

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```
YEAR  195  0.00000   0.004

**************************************************
*      END OF TIME STEP DO-LOOP IN RUNOFF        *
**************************************************

FINAL DATE (MO/DAY/YEAR)   =                    1/ 2/77
TOTAL NUMBER OF TIME STEPS =                       3524
FINAL JULIAN DATE  =                              77002
FINAL TIME OF DAY  =                                 0. SECONDS.
FINAL RUNNING TIME =                           8808.0000   HOURS.
FINAL RUNNING TIME =                            367.0000    DAYS.

**************************************************
*     EXTRAPOLATION SUMMARY FOR WATERSHEDS       *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF OVERLND CALLS     *
**************************************************

 SUBCATCH   # STEPS   # CALLS  SUBCATCH   # STEPS   # CALLS  SUBCATCH   # STEPS   # CALLS
 --------   -------   -------  --------   -------   -------  --------   -------   -------
     1001      6420       764      1002      6227       929      1003      6408       956

**************************************************
*     EXTRAPOLATION SUMMARY FOR CHANNEL/PIPES    *
* # STEPS ==> TOTAL NUMBER OF EXTRAPOLATED STEPS *
* # CALLS ==> TOTAL NUMBER OF GUTNR CALLS       *
**************************************************

CHAN/PIPE   # STEPS   # CALLS CHAN/PIPE   # STEPS   # CALLS CHAN/PIPE   # STEPS   # CALLS
 --------   -------   -------  --------   -------   -------  --------   -------   -------
      190     29520      2500
1
**************************************************
*       CONTINUITY CHECK FOR SURFACE WATER       *
**************************************************
                                                                  INCHES OVER
                                                   CUBIC FEET    TOTAL BASIN
TOTAL PRECIPITATION (RAIN PLUS SNOW)              2.219121E+06      7.960
TOTAL INFILTRATION                                6.118711E+05      2.195
TOTAL EVAPORATION                                 5.660370E+05      2.030
SURFACE RUNOFF FROM WATERSHEDS                    1.031575E+06      3.700
TOTAL WATER REMAINING IN SURFACE STORAGE          0.000000E-01      0.000
INFILTRATION OVER THE PERVIOUS AREA...            6.118711E+05      7.004
                        --------
INFILTRATION + EVAPORATION +
SURFACE RUNOFF + SNOW REMOVAL +
WATER REMAINING IN SURFACE STORAGE +
WATER REMAINING IN SNOW COVER.........            2.209484E+06      7.925
TOTAL PRECIPITATION + INTIAL STORAGE..            2.219121E+06      7.960
```

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```
THE ERROR IN CONTINUITY IS CALCULATED AS
****************************************
* PRECIPITATION + INITIAL SNOW COVER  *
*      - INFILTRATION -               *
*EVAPORATION - SNOW REMOVAL -         *
*SURFACE RUNOFF FROM WATERSHEDS -     *
*WATER IN SURFACE STORAGE -           *
*WATER REMAINING IN SNOW COVER        *
*-------------------------------------*
* PRECIPITATION + INITIAL SNOW COVER  *
****************************************
ERROR.................................                    0.434 PERCENT


***********************************************
*       CONTINUITY CHECK FOR CHANNEL/PIPES    *
***********************************************
                                                  INCHES OVER
                                       CUBIC FEET  TOTAL BASIN
INITIAL CHANNEL/PIPE STORAGE.............      0.000000E-01    0.000
FINAL CHANNEL/PIPE STORAGE...............      0.000000E-01    0.000
SURFACE RUNOFF FROM WATERSHEDS...........      1.031575E+06    3.700
GROUNDWATER SUBSURFACE INFLOW............      0.000000E-01    0.000
EVAPORATION LOSS FROM CHANNELS...........      0.000000E-01    0.000
CHANNEL/PIPE/INLET OUTFLOW...............      1.063275E+06    3.814
INITIAL STORAGE + INFLOW.................      1.031575E+06    3.700
FINAL STORAGE + OUTFLOW..................      1.063275E+06    3.814
***********************************************
* FINAL STORAGE + OUTFLOW  + EVAPORATION - *
* WATERSHED RUNOFF - GROUNDWATER INFLOW  - *
*     INITIAL CHANNEL/PIPE STORAGE         *
*     -------------------------------      *
*  FINAL STORAGE + OUTFLOW  + EVAPORATION  *
***********************************************
ERROR.....................................                    2.981 PERCENT
1
***********************************************
*  SUMMARY OF QUANTITY RESULTS (FLOW IN CFS) *
***********************************************

   BASIN AC-05
   RUNOFF BLOCK


                      CHAN/INLT
                           195
   DATE     TIME          FLOW
 MO/DA/YR  HR:MIN         CFS
 --------  ------        ----

FLOW WT'D MEANS          0.0335
FLOW WT'D STD-DEVS       0.4937
```

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```
MAXIMUM VALUE          30.7909
MINIMUM VALUE           0.0000
TOTAL LOADS           1.06E+06
                      CUBIC-FT

 ===> RUNOFF SIMULATION ENDED NORMALLY.


      ************************************
      *      STATS BLOCK INPUT COMMANDS  *
      ************************************

     MINIMUM INTEREVENT TIME (HOURS).......     10.00
     NPOINT (NUMBER OF PRINTED EVENTS).....         0
     METRIC (0-U.S. STANDARD, 1-METRIC)....         0
     LRET (RETURN PERIOD UNITS)............         1
     A (PLOTTING POSITION PARAMETER).......     0.000


     PRINT SEQUENTIAL SERIES (KSEQ)........         1
     TERMINATE PROGRAM PARAMETER (KTERM)...         0
     KTSEQS................................         1


 *********************************************
 * HEADER INFORMATION FROM INTERFACE FILE: *
 *********************************************

 TITLE FROM FIRST COMPUTATIONAL BLOCK:
 BASIN AC-05
 RUNOFF BLOCK

 TITLE FROM IMMEDIATELY PRECEDING COMPUTATIONAL BLOCK
 BASIN AC-05
 RUNOFF BLOCK

 NAME OF PRECEDING BLOCK:................RUNOFF BLOCK
 INITIAL JULIAN DATE (IDATEZ)......................   76001
 INITIAL TIME OF DAY IN SECONDS (TZERO)............     0.0
 NO. TRANSFERED INPUT LOCATIONS....................       1
 NO. TRANSFERED POLLUTANTS.........................       0
 SIZE OF TOTAL CATCHMENT AREA (ACRES)..............   76.80

 ****************************************************
 * ELEMENT NUMBERS OF INTERFACE INLET LOCATIONS: *
 ****************************************************
     195

 CONVERSION FACTOR TO CFS FOR FLOW UNITS
 ON INTERFACE FILE.  MULTIPLY BY:     1.00000
```

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```
*********************************************************
* STATISTICAL ANALYSIS BLOCK WRITTEN BY THE UNIVERSITY *
* OF FLORIDA.  LAST UPDATED MAY, 1989.                 *
*********************************************************


1
****************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
****************************************************

 STARTING DATE................     0   STARTING TIME... 0.00 HOURS
 ENDING DATE..................     0   ENDING TIME..... 0.00 HOURS


****************************************************
*  THE PERIOD OF TIME FOR WHICH THE STATISTICAL  *
*              ANALYSIS IS BEING PERFORMED IS:   *
****************************************************

 STARTING JULIAN DATE........     0   STARTING TIME... 0.00 SECONDS
 ENDING JULIAN DATE..........     0   ENDING TIME..... 0.00 SECONDS

===> A ZERO STARTING DATE INDICATES THAT THE ANALYSIS
     COMMENCES AT THE BEGINNING OF THE RECORD.  A ZERO
     ENDING DATE INDICATES THAT THE ANALYSIS CONTINUES TO
     THE END OF THE RECORD.

THE MINIMUM INTEREVENT TIME HAS BEEN DEFINED AS     10.00 HOURS.

*******************************************************
* THE FLOW LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:     195                                *
*******************************************************

*******************************************************
* THE RAIN LOCATION NUMBER REQUESTED FOR STATISTICAL *
* ANALYSIS IS:       0                                *
*******************************************************

U.S. CUSTOMARY UNITS ARE USED IN INPUT/OUTPUT


THE NUMBER OF POLLUTANTS REQUESTED FOR STATISTICAL ANALYSIS IS  0

THE BASE FLOW TO SEPARATE EVENTS IS     0.0010 CFS.


THE STATISTICAL OPTIONS REQUESTED FOR FLOW RATE ARE INDICATED BY A '1'

                                    TOTAL FLOW  AVERAGE FLOW  PEAK FLOW  EVENT DURATION  INTEREVENT DURATION
```

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TABLE OF RETURN PERIOD AND FREQUENCY	1	0	0	0	0
GRAPH OF RETURN PERIOD	0	0	0	0	0
GRAPH OF FREQUENCY	0	0	0	0	0
MOMENTS	0	0	0	0	0

===> PROGRAM EXECUTION CONTINUING. DATA WILL BE
READ FROM THE INTERFACE FILE AND SEPARATED INTO EVENTS.

===> THE FIRST DATE AND TIME ON THE INTERFACE FILE ARE 76001 0.00 SECONDS

===> END OF INTERFACE FILE REACHED.

===> LAST JULIAN DATE AND TIME READ ARE 77002 0.31 SECONDS

===> PROGRAM CONTINUING WITH ANALYSIS OF EVENTS

===> THE NUMBER OF MONTHS WITHIN THE PERIOD OF
ANALYSIS ROUNDED TO THE NEAREST MONTH, IS 12.

===> THE NUMBER OF EVENTS WITHIN THE PERIOD OF
ANALYSIS IS 26.

1

SEQUENTIAL SERIES OF EVENTS

DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)	DATE	TIME (HOUR)	FLOW VOLUME (INCHES)	DURATION (HOURS)	INTEREVENT DURATION (HOURS)
760204	4.50	0.006	15.75	820.50	760205	8.25	0.001	6.00	15.25
760209	2.50	0.169	17.26	87.50	760303	13.25	0.206	12.51	548.75
760414	7.25	0.152	15.10	992.75	760416	2.25	0.113	18.01	31.25
760503	21.25	0.495	28.61	412.25	760507	23.25	0.001	5.01	72.75
760518	21.25	0.002	3.50	260.25	760629	20.25	0.011	6.52	1004.25
760712	1.25	0.008	6.53	289.75	760724	3.25	0.584	9.25	286.75
760725	1.25	0.006	6.03	16.19	760728	23.25	0.183	7.51	91.25
760808	22.25	0.000	5.51	258.75	760828	20.25	0.010	7.06	475.75
760905	20.25	0.161	8.00	188.24	760910	16.25	0.002	7.00	111.25
760923	19.25	0.568	16.00	312.25	760924	20.25	0.125	16.01	12.25
761021	5.75	0.001	6.50	620.75	761022	20.25	0.292	23.00	32.75
761027	16.25	0.004	4.00	96.25	761112	17.25	0.226	16.00	381.75
761219	6.25	0.005	7.00	864.25	761231	2.50	0.465	25.75	278.00

****
* TOTAL FLOW AT LOCATION 195 IS 3.80 (INCHES) *

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****

1

==========
TABLE OF MAGNITUDE, RETURN PERIOD AND FREQUENCY
==========

CONSTITUENT ANALYZED : FLOW (INCHES)
EVENT PARAMETER ANALYZED: TOTAL FLOW

DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =	##	DATE	TIME (HOUR)	MAGNITUDE (INCHES)	RETURN PERIOD (MONTHS)	PERCENT < OR =
760724	3.25	0.584	13.000	100.00	##	760923	19.25	0.568	6.500	96.15	##	760503	21.25	0.495	4.333	92.31
761231	2.50	0.465	3.250	88.46	##	761022	20.25	0.292	2.600	84.62	##	761112	17.25	0.226	2.167	80.77
760303	13.25	0.206	1.300	76.92	##	760728	23.25	0.183	1.182	73.08	##	760209	2.50	0.169	1.083	69.23
760905	20.25	0.161	0.684	65.38	##	760414	7.25	0.152	0.650	61.54	##	760924	20.25	0.125	0.619	57.69
760416	2.25	0.113	0.419	53.85	##	760629	20.25	1.087E-02	0.406	50.00	##	760828	20.25	9.783E-03	0.394	46.15
760712	1.25	7.825E-03	0.283	42.31	##	760204	4.50	6.422E-03	0.277	38.46	##	760725	1.25	5.863E-03	0.271	34.62
761219	6.25	5.110E-03	0.203	30.77	##	761027	16.25	4.325E-03	0.200	26.92	##	760910	16.25	2.331E-03	0.197	23.08
760518	21.25	1.854E-03	0.153	19.23	##	760205	8.25	8.554E-04	0.151	15.38	##	760507	23.25	8.205E-04	0.149	11.54
761021	5.75	7.075E-04	0.119	7.69	##	760808	22.25	4.033E-04	0.118	3.85	##					

===> STATS BLOCK TERMINATED NORMALLY.

===> SWMM 4.04 SIMULATION ENDED NORMALLY.

===> YOUR INPUT FILE WAS NAMED : AC05.76
===> YOUR OUTPUT FILE WAS NAMED: AC05.OUT

```
*********************************************************
*        SWMM 4.04 SIMULATION DATE AND TIME SUMMARY     *
*********************************************************
* STARTING DATE... October    14, 1992                  *
*          TIME...          16:39:56:32                 *
*   ENDING DATE... October    14, 1992                  *
*          TIME...          16:43:40:36                 *
*  ELAPSED TIME...               3.733 MINUTES          *
*********************************************************
```

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APPENDIX 10
GLOSSARY OF TERMS

Aquifer: The underground layer of rock or soil in which groundwater resides. Aquifers are replenished or recharged by surface water percolating through soil. Wells are drilled into aquifers to extract water for human use.

Beneficial Uses: As referred to in the State Water Quality Standards, activities such as swimming or fishing, that utilize water as their primary medium.

Best Management Practices (BMP): A method, activity, maintenance procedure, or other management practice for reducing the amount of pollution entering a water body. The term originated from the rules and regulations developed pursuant to Section 208 of the Federal Clean Water Act (40 CFR 130).

Biochemical Oxygen Demand (BOD): The quantity of oxygen-demanding materials present in a sample as measured by a specific test. A major objective of wastewater treatment is to reduce biochemical oxygen demand so that the oxygen content of the water body will not be significantly reduced. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Catch Basin: Traps installed in the street between storm drain inlets and the drain pipes to catch litter and pollutants that either sink to the bottom of the catch basin or float to the top. These captured materials are then removed periodically through City street maintenance activities. Catch basins serve to help keep storm drains clear and flowing properly, and help remove sediments and pollutants that would otherwise end up downstream.

Chronic Toxicity: Any toxic effect on an organism that results after exposure of long duration (often 1/10th of the life span or more). The end result of a chronic effect can be death although the usual effects are sublethal (e.g., inhibited reproduction or growth). These sublethal effects may be reflected by changes in the productivity and population structure of the community.

These sublethal effects may be reflected by changes in the productivity and population structure of the community.

Coliform Bacteria: A type of bacteria which includes many species. Fecal coliform bacteria are those coliform bacteria which are found in the intestinal tracts of warm-blooded animals. The presence of high numbers of fecal coliform bacteria in a water body can indicate the release of untreated wastewater, and/or the presence of animals, and may indicate the presence of pathogens.

Culvert: A drain, usually a concrete or metal pipe, crossing under a road or an embankment.

Detention: The process of collecting and holding back storm water for later release to receiving waters.

Dissolved Oxygen: Oxygen that is present (dissolved) in water and therefore available for fish and other aquatic animals to use. If the amount of dissolved oxygen in the water is too low, then aquatic animals may die. Wastewater and naturally occurring organic matter contain oxygen-demanding substances that consume dissolved oxygen.

Erosion: Wearing away of rock or soil by the gradual detachment of soil or rock fragments by water, wind, ice, and other mechanical and chemical forces.

Fauna: A collective term for the animal life in an ecosystem.

Fecal Coliform: (see Coliform Bacteria).

Flora: A collective term for the plant life in an ecosystem.

Groundwater: Underground water supplies, also called aquifers. Aquifers are created by rain which soaks into the ground and flows down until it is collected at a point where the ground is not permeable. Groundwater then usually flows laterally toward a river or lake or the ocean. Wells tap the groundwater for human use.

Habitat: The specific area or environment in which a particular type of plant or animal lives. An organism's habitat must provide all of the basic requirements for life and should be free of harmful contaminants.

Herbicide: A substance used to destroy or inhibit growth of vegetation.

Impervious: A surface that cannot be easily penetrated, for instance, rain does not readily penetrate asphalt or concrete surfaces.

Land Use: The way land is developed and used in terms of the types of activities allowed (agriculture, residences, industries, etc.) and the size of buildings and structures permitted. Certain types of pollution problems are often associated with particular land use practices, such as sedimentation from construction activities.

Loading: The total amount of material entering a system from all sources.

Metals: Metals are elements found in rocks and minerals that are naturally released to the environment by erosion, as well as generated by human activities. Certain metals, such as mercury, lead, nickel, zinc, and cadmium, are of environmental concern because they are released to the environment in excessive amounts by human activity. They are generally toxic to life at certain concentrations. Since metals are elements, they do not break down in the environment over time and can be incorporated into plant and animal tissue.

Monitor: To systematically and repeatedly measure conditions in order to track changes. For example, dissolved oxygen in a bay might be monitored over a period of several years in order to identify any trends in its concentration.

National Pollutant Discharge Elimination System (NPDES): NPDES is a part of the Federal Clean Water Act, which requires point source dischargers to obtain permits. These permits are referred to as NPDES permits, and are administered by the Arizona Department of Environmental Quality.

seem insignificant, the cumulative effects of non-point source pollution can be significant.

Non-point Sources (NPS): Diffuse sources from which contaminants originate to accumulate in surface or ground water. Generally, individual sites are insignificant, but can add to a cumulative problem with serious health or environmental consequences.

Nutrients: Essential chemicals needed by plants or animals for growth. If other physical and chemical conditions are optimal, excessive amounts of nutrients can lead to degradation of water quality by promoting excessive growth, accumulation, and subsequent decay of plants, especially algae. Some nutrients can be toxic to animals at high concentrations.

Organics: A broad term that includes numerous compounds which are derived (naturally or by man-made processes) from animal or vegetation sources or from petroleum. Typical organic matter may include fallen leaves, grasses, pollen, animal wastes, paper, other litter, oil and grease, gasoline, pesticide, and various synthetic products.

Parameter: A quantifiable or measurable characteristic. For example, height, weight, sex, and hair color are all parameters that can be determined for humans. Water quality parameters include temperature, pH, salinity, dissolved oxygen concentration, and many others.

Pathogen: An agent such as a virus, bacterium, or fungus that can cause diseases in humans. Pathogens can be present in municipal, industrial, and non-point source discharges.

Permeable Surfaces: Surfaces, such as dirt, that allow some percolation or infiltration of water into the ground and ultimately the groundwater system. This is in contrast to impermeable surfaces, such as concrete, that allows water to run off without any infiltration.

Pesticide: A general term to describe chemical substances used to destroy or control organisms. Pesticides include herbicides, insecticides, algicides, fungicides, and others. Many of these substances are manufactured and are not naturally found in the

Pesticide: A general term to describe chemical substances used to destroy or control organisms. Pesticides include herbicides, insecticides, algicides, fungicides, and others. Many of these substances are manufactured and are not naturally found in the environment. Others, such as pyrethrum, are natural toxins which are extracted from plants and animals.

pH: The degree of alkalinity or acidity of a solution. A pH of 7.0 indicates neutral water while a pH of 5.5 is acid. A reading of 8.5 is alkaline or basic. The pH of water influences many of the types of chemical reactions that will occur in it. For instance, a slight decrease in pH may greatly increase the toxicity of substances such as cyanides, sulfides, and most metals. A slight increase may greatly increase the toxicity of pollutants such as ammonia.

Point Sources: A source of pollutants from a single point of conveyance such as a pipe. For example, the discharge pipe from a sewage treatment plant or a factory is a point source.

Pollutant: A contaminant that adversely alters the physical, chemical, or biological properties of the environment. The term includes pathogens, toxic metals, carcinogens, oxygen-demanding materials, and all other harmful substances. With reference to non-point sources, the term is sometimes used to apply to contaminants released in low concentrations from many activities which collectively degrade water quality. As defined in the Federal Clean Water Act, pollutant means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

Priority Pollutants: Substances listed by EPA under the Clean Water Act as toxic and having priority for regulatory controls. The list currently includes metals (13), inorganic compounds (cyanide and arsenic), and a broad range of both natural and artificial organic compounds (111).

Regulatory Framework: A particular set of laws, rules, procedures, and agencies designed to govern a particular type of activity or solve a particular problem.

Riparian: Pertaining to the banks of streams, lakes, or tidewater.

Sediment: Material suspended in or settling to the bottom of a liquid, such as the sand and mud that make up much of the shorelines and bottom of the ocean. Sediment input to the Salt and Gila River and their tributary streams comes from natural sources, such as erosion of soils and weathering of rock; or anthropogenic sources, such as forest or agricultural practices, or construction activities. Certain contaminants tend to collect on and adhere to sediment particles.

Storm Drain: A system of gutters, pipes, or ditches used to carry storm-water from surrounding lands to streams, lakes, or rivers, and in practice, carrying a variety of substances such as oil and antifreeze which enter the system through runoff, deliberate dumping, or spills. This term also refers to the end of the pipe where the storm water is discharged.

Storm Water: Water that is generated by rainfall and is often routed into drain systems in order to prevent flooding.

Suspended Solids: Organic or inorganic particles that are suspended in and carried by the water. The term includes sand, mud, and clay particles as well as solids in wastewater.

Swale: A broad, shallow, vegetated channel. A swale is essentially a vegetated drainage ditch that has been engineered to collect and transport storm water in a way that allows the vegetation to filter sediments and pollutants.

Total Suspended Solids (TSS): The weight of particles that are suspended in water. Suspended solids in water reduce light penetration in the water column, can clog the gills of fish and invertebrates, and are often associated with toxic contaminants because organics and metals tend to bind to particles.

Toxic: Poisonous, carcinogenic, or otherwise directly harmful to life.

Tributary Streams: A stream that flows into another.

Turbidity: A measure of the amount of material suspended in the water. Increasing the turbidity of the water decreases the amount of light that penetrates the water column. High levels of turbidity are harmful to aquatic life.

Urban Runoff: A substance, such as rain, that runs off of surfaces in a watershed in excess of the amount absorbed by the surfaces (usually the ground). Urban runoff can contain sediments and contaminants (non-point source pollution) that can add to water quality degradation in the watershed. Increases in impervious surface usually result in increased urban runoff.

Volatile: Can be readily vaporized at a relatively low temperature.

Watershed: The geographic region from which water drains into a particular river or body of water. A watershed includes hills, lowlands, and the body of water into which the land drains. Watershed boundaries are defined by the ridges of separating watersheds.

Wetlands: Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing seasons each year.

APPENDIX 11
NINETEEN STEP PROCESS USED TO DEVELOP THE STORM WATER MANAGEMENT PROGRAM

Step 1 - Engage The Right People

This step consists of identifying key individuals within the City of Phoenix as well as Woodward-Clyde, who have or will contribute to the City's Storm Water Management Program. Woodward-Clyde has identified several of their senior storm water practice professionals, as well as certain individuals who played an important role in the development of the Part 1 NPDES storm water permit application and therefore, are familiar with the terms and conditions of the project.

Mr. Blane Work (City of Phoenix Project Manager for the Part 1/Part 2 NPDES storm water permit application) of the City's Engineering and Architectural Services Department identified key personnel from several departments within the City to attend a workshop and contribute to the development of the City's storm water management program. Although, the Engineering and Architectural Services, Street Transportation and Development Services departments will have the most significant part in the development and implementation of the proposed storm water management program, the other departments will provide valuable input to the program.

Step 2 - Educate/Inform The Decision Makers

This step involves keeping certain decision and policy making City personnel educated and informed with respect to the City's Storm Water Management Program as well as routinely updating the appropriate regulators (i.e., USEPA/Region 9, USEPA/Headquarters) with regard to the program status.

Step 3 - Define The Water Quality Problems

This step will consists of defining Phoenix's water quality problems in practical (human/societal) terms, quantitatively and/or qualitatively. This involves reviewing available information concerning Phoenix's surface water quality. Section 4 of the City of Phoenix Part 1 NPDES Permit Application contained a discharge characterization and receiving water assessment. This consisted of information provided in ADEQ's Section 305(b) water quality assessment reports, and their non-point source assessment report as required by Section 319 of the Federal Clean Water Act.

Step 4 - Establish Priorities

This step involves prioritizing the water quality problems/pollutants defined in Step 3 relative to a plan of pollutant reduction or action. The following questions were answered: What problems/pollutants do we address now?, What level of achievement or clean up are we looking for?

Step 5 - Establish Objectives that Reflect the Priorities

This step consists of working with various personnel throughout the City of Phoenix who contribute to the storm water management program development, representatives from the key regulatory agencies (i.e., USEPA/Region 9, USEPA/Headquarters) and several senior consultants within Woodward-Clyde who have long-term experience in developing and evaluating storm water controls. This step also involves viewing federal and state water quality laws which pertain to the control of storm water pollution problems and their control.

Below are some possible objectives to be discussed during the process of program development:

- The program should reduce both the total loads of pollutants of concern discharged and the concentrations of pollutants in certain areas.
- The program should focus on controlling those pollutants which have been judged to pose the greatest potential threat to designated beneficial uses in the Salt and Gila Rivers and their tributary streams.
- The program should be focused on those pollutants for which a reasonable degree of load reduction will yield significant improvements.
- The program should attempt to achieve water quality benefits in as many receiving waters as possible (i.e., the Salt and Gila Rivers and their tributary streams)
- The program should employ control measures which have been shown to be cost-effective, reliable, and sustainable.
- The program should employ control measures that have been shown to have minimal attendant environmental side effects, are generally acceptable to the public, and will not introduce significant risks to public health or safety.

- The program should include elements that satisfy (or are consistent with) the requirements and objectives of existing and foreseeable federal and state water quality control programs.

- The program should be designed to be implemented in a series of well-defined phases (according to an implementation schedule which can be incorporated into the forthcoming NPDES storm water permit).

Step 6 - Translate The Objectives Into Factors/Actions/Constraints To Be Considered

After the broad-scale objectives are established, then the more specific factors of concern need to be defined. These factors include constraints and actions which need to be taken as part of the storm water management program in order to address the local social, political, economic, and environmental issues and concerns. The issues and concerns identified during this step will be used in Step 7 to define BMP screening criteria and their relative importance.

Step 7 - Translate Into Criteria

This step consists of developing the criteria the project team used to screen through various candidate BMPs and to select those which appear to be the most practical ones to be included in the City of Phoenix storm water management program.

These criteria are employed during two different steps. Screening criteria were used in to sort through a broad spectrum of BMPs which have been considered at other locations and those which are clearly not applicable in Phoenix were eliminated from further consideration. Selection criteria are used in Step 10 to designate a practical set of BMPs which are implemented together in the form of the recommended City of Phoenix storm water management program. The selection criteria and any weighing of the impact of those criteria have an important bearing on the control program's feasibility and effectiveness. Below are possible selection criteria to be considered in this step of program development:

- Environmental Implications
- Effectiveness Regarding Pollutant of Concern
- Equitability
- Implementation Costs
- Implementing Agency/Department Acceptance
- Operational Costs
- Public Acceptance
- Regulatory Requirements

- Reliability
- Risk/Liability
- Sustainability
- Universality

Each of these criteria are defined in the attached "Selection Criteria" definitions.

Step 8 - Define Practicable

This step involves defining what BMPs the City is capable of putting into practice both practically and financially. This "redefinition" of practicable is necessary due to the regulatory requirement that the BMPs be implemented to the maximum extent practicable (MEP). These BMPs that are practicable should include those which best satisfy the criteria established in Step 7.

Step 9 - Nominate Candidate Best Management Practices (BMPs)

This step consisted of reviewing technical literature and storm water control programs developed for other areas to develop a large inventory of candidates from which to select. Woodward-Clyde also drew on the experience of its own personnel and interviewed technical and managerial personnel from several other state agencies, county agencies, and city public works and planning agencies to draw on experience derived from other storm water pollution studies and water quality planning programs. This effort yielded a comprehensive list of more than 120 separate control measures. Some of these candidates had originally focused on site specific local conditions and would have little or no application in the Phoenix area. Also, some of these candidates involved practices and/or facilities which are now regarded as ineffective (or at least not sufficiently cost-effective). However, many of the candidates were well worth considering for use in the study area.

Step 10 - Sequentially Screen Candidates

This task consists of a two-step process of screening the comprehensive list of BMPs, compiled in Step 9, to yield a smaller, more manageable list which will help focus attention on the more promising candidates.

The first step consisted of eliminating those candidates that were judged to be clearly "not applicable". Most of these were BMPs that had originally been directed toward some very localized physical or institutional situations. These situations may have been relevant to the communities where the BMPs were originally proposed, but they do not have the known counterparts in the Phoenix study area.

The second step will consist of evaluating and assigning scoring symbols to each of the remaining candidates. For convenience, the scoring symbols will be a positive, negative, neutral system (i.e., +, -,~). The project team will review all of the candidates and score them relative to the selection criteria developed in Step 7.

Step 11 - Evaluate (Score) By Filling In Matrix

As previously mentioned in Step 10, the screened candidate BMPs will be assigned a positive, negative, neutral scoring symbol relative to the screening criteria developed in Step 7. The matrix presented in Table 2 is an example evaluation of BMPs complted by Woodward-Clyde. The matrix presented in Table 3 will be completed by the program development team consisting of key City of Phoenix and Woodward-Clyde personnel using the +, -, ≈ scoring system. This scoring process will indicate which of the candidate BMPs are most successful in meeting the adopted selection criteria and which are least successful. The resulting scores and the professional judgment of the program development team will provide the basis for selection of a practical set of controls.

Step 12 - Document The Process And Results

Woodward-Clyde documented the process of the BMPs evaluation and selection as it is required by the federal regulations. The results of the selection process will also be clearly documented, as well as any assumptions used in the process of scoring the candidate BMPs.

Step 13 - Group The Selected BMPs Into Collections That Will Facilitate Explanation/Implementation

This step involved grouping the selected BMPs in terms of how they should be implemented. Some controls will be implemented primarily through various forms of "education" (i.e., programs which use various forms of education, public information, and/or technology transfer to explain the principals and correct practices of storm water management to the general public or to specially targeted audiences are considered to here to be educational control measures). Some controls will be implemented through new or amended "regulatory" or public policy directives (and associated inspection, detection, and enforcement activities). Some controls will be implemented through efforts by "public agencies" (i.e., the efforts of planning departments, public works departments, and/or other public agencies that would conduct inspections, provide maintenance and/or repair services, build new facilities, and perform other public agency functions).

Step 14 - Establish Timing For The Various Implementation Phases for Each BMP Element And/Or Each Group Of BMPs

This step describes the timing for implementation of the various phases of the City of Phoenix storm water management program over the five year compliance period. It will be necessary to plan each phase completely. The planning will be followed by preparation for either pilot - or full-scale BMP implementation. Implementation of the BMP may then be followed by monitoring. Steps, 14, 15 and 16 are interdependent and present the "when", "who" and "how", respectively, for the implementation of the program.

Step 15 - Establish Roles and Responsibilities (Decide Who Will Do Each Activity)

This step consists of beginning the process of determining appropriate roles and responsibilities for the City of Phoenix storm water management program. The specific roles and responsibilities for each agency/department will have to be worked out over time. Part of this process will take place over the next several months, as the City of Phoenix develops the scope and conditions of the NPDES permit they will apply for. Part will take place over the next few years, as the City conducts the local planning efforts and BMPs evaluations that will be stipulated in the NPDES permit. Step 15 will consist of making a first pass through the subject to indicate the program development team's views of the participants' roles and responsibilities.

Step 16 - Describe How The Above Will Be Implemented

This step consists of defining mileposts within the recommended Phoenix storm water management program and developing a schedule to guide its implementation. Step 16 involves describing the sequence and timing of the various planning efforts which the City will take as they develop their NPDES permit application and their respective departmental control programs. Most of the individual BMPs which will comprise the recommended Phoenix storm water management program will be implemented in a step-wise fashion. In Step 16, Woodward-Clyde will define the appropriate steps, assign corresponding preliminary target dates, and plot these on a schedule diagram. During the development of the NPDES storm water permit application, representatives from various departments within the City will review and refine the preliminary schedule.

Step 17 - Estimate Costs Per Year. Allocate Budget Amounts To The Selected BMPs

This task will consider the cost and the effectiveness of the recommended City of Phoenix storm water management program. The various water quality regulatory agencies (i.e., USEPA/Region 9, USEPA/Headquarters, ADEQ) have not finalized

numerical regulations, standards, objectives, stipulations, or performance specifications which could be used as target levels to guide the process of developing and assessing the effectiveness of the City's storm water management program. This situation presents difficulties, in that the project team will be compelled to propose a solution to a problem that has not been fully described, to evaluate that solution in terms of how well it would solve the problem, and then to estimate what the solution would cost. The project team's efforts will be further challenged by the fact that the costs and effectiveness of most available storm water BMPs are not well documented, and the specific locations of application cannot be fully defined at this early stage of planning.

The approach which will be used in Step 17 is as follows:

- Define the specific BMPs which the team has judged to be most applicable to the City of Phoenix storm water management program.
- Develop first-order estimates of the costs associated with implementing this program at reasonable levels of intensity.
- Perform a realistic budget allocation which will assign appropriate levels of funding to support the BMP's which comprise the program.
- Make first-order estimates of the programs probable effectiveness in controlling the most important types of pollutants (i.e., heavy metals, pesticides and herbicides, oil and grease, and bacteria)
- Assess the implications of adopting alternative programs in lieu of the recommended program, expressed in terms of different costs and different levels of effectiveness.

Step 18 - Review Existing Programs And Adjust The Assigned Dollars To Reflect The Difference Between "New" Budget Increments And "Old" Budget Items

This step includes a review of both the costs established in Step 17 for the "new" storm water management program and the costs of existing programs which have been incorporated into the "new" program. Step 18 will allow for estimation of additional funding requirements in excess of that required for existing programs, and it will insure the City of Phoenix will receive adequate credit for its existing programs.

Step 19 - Decide Who Pays From What Funding Sources

Finally, it will be necessary to determine how each component of the storm water management program will be funded. This may be determined in part by the establishment of roles and responsibilities in Step 15, **i.e.**, the agency/department responsible for funding. In some cases, it may be necessary to develop separate program funding mechanisms, specifically for the storm water management program.

Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA M. MURRAY
COMPANY: Woodward-Clyde Consultants
ADDRESS: 4726 N. 44th St., Suite 300
Phoenix, AZ. 85008
BILL TO: Same as above
COMPANY:
ADDRESS:

Patricia M. Murray — SAMPLERS: (Signature)
602 225 0150 — PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	Diesel/Gasoline (MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols		SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
03	1/4/92	04:15	water	1		/										/			/	/										/	/	8
trip blank	1/4/92			2																												1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO: 9155038H-0013		TOTAL NO. OF CONTAINERS	9
PROJECT NAME: CDP NPDES		CHAIN OF CUSTODY SEALS	NA
P.O. NO.		INTACT?	Y
SHIPPED VIA: WCC-delivery		RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	201523
☐ ATI	☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia Murray Time: 17:40	Signature: Time:	Signature: Time:
Printed Name: PATRICIA M. MURRAY Date 1/4/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:24
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. AJT

Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA MURRAY

COMPANY: WOODWARD-CLYDE CONSULTANTS
ADDRESS: 426 N. 44th St., Suite 300
Phoenix, AZ 85008

BILL TO: same as above
COMPANY:
ADDRESS:

Patricia Murray — SAMPLERS: (Signature)
(602) 225 0150 — PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	TP, TKN, NO2, NH3, COD	Dissolved Phosphorus	NO3	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	13 Priority Pollutants (Dissolved Metals)	The 13 Priority Pollutant Metals Totals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	BOD	NUMBER OF CONTAINERS
03 (TOTALS)	1/3/92	10:30	Water	3										■		■	■	■					■				■	■	
03 (DISSOLVED)	1/3/92	10:30	"	4																		■							
Composite Sampler used																													2
Work Order																													

PROJECT INFORMATION	
PROJECT NO: 91550384-0013	
PROJECT NAME: COP, NPDES	
P.O. NO.	
SHIPPED VIA: WCC-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	2
CHAIN OF CUSTODY SEALS	Y
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201523

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: -Filter and preserve Dissolved Phosphorus bottle.
-Filter and preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [illegible] Time: 21:15	Signature: Time:	Signature: Time:
Printed Name: [illegible] Date: 1-4-91	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: [illegible] Time: 21:28
Printed Name: Date:	Printed Name: Date:	Printed Name: E. Prodatt Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. EP

Analytical Technologies, Inc.
Phoenix, Arizona

Container # 1717

Chain of Custody

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA M. MURRAY

COMPANY: Woodward-Clyde Consu
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, AZ. 85008

BILL TO: same as above
COMPANY:
ADDRESS:

Patricia M. Murray — SAMPLERS: (Signature)
(602) 225-0150 — PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil & Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
AC-05	1/4/92	00:10	water	1		1										1			1	1											1	1	8
trip blank	1/4/92	00:10	water	2																													1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO:	9155038H-0013	TOTAL NO. OF CONTAINERS	9
PROJECT NAME:	COP NPDES	CHAIN OF CUSTODY SEALS	NA
P.O. NO.		INTACT?	Y
SHIPPED VIA:	WCC-delivery	RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	201524
☐ ATI ☐ RETURN			

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia Murray Time: 20:00	Signature: Time:	Signature: Time:
Printed Name: PATRICIA MURRAY Date 1/4/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:17
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 1/4/92 PAGE 1 OF ___

PROJECT MANAGER: PATRICIA M. MURRAY
COMPANY: Woodward-Clyde Consultants
ADDRESS: 4216 N. 44th St., Suite 300
Phoenix, AZ 85-03
BILL TO: Same as above
COMPANY:
ADDRESS:

Patricia
SAMPLERS: (Signature)

(602) 225 0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	TP, TKN, NO2, NH3, COD	Dissolved Phosphorus	NO3	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	13 Priority Pollutants Metals (Dissolved)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	BOD	NUMBER OF CONTAINERS
05 (TOTALS)	1/3/92	22:50	Water	3										■		■	■	■					■				■	■	1
05 (DISSOLVED)	1/3/92	22:50	Water	4																		■							

Composite Sample per work order

cancel cancel 1/5/92

PROJECT INFORMATION	
PROJECT NO: 9155038H-003	
PROJECT NAME: COP, NPDES	
P.O. NO.	
SHIPPED VIA: WCC-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	1
CHAIN OF CUSTODY SEALS	Y
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201524

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: - Filter & preserve Dissolved Phosphorus bottle.
- Filter & preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: RB Johnson Time: 21:15	Signature: Time:	Signature: Time:
Printed Name: R B Johnson Date: 1-4-91	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:31
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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AnalyticalTechnologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA MURRAY

COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St., Suite 300
Phoenix, AZ 85008

BILL TO: same as above
COMPANY:
ADDRESS:

Patricia Murray (602) 225-0150
SAMPLERS: (Signature) PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	TP, TKN, NO3, AND DISSOLVED PHOSPHORUS	NO3	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	13 PP Metals (DISSOLVED) TOTALS	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	BOD	NUMBER OF CONTAINERS
1C 08 (TOTALS)	1/3/92	22:50	Water	3					Composites																			1
08 (DISSOLVED)	1/3/92	22:50	Water	4																								

cancel
cancel 1/5/92
cancel
cancel

PROJECT INFORMATION	
PROJECT NO: 915503-H-0013	
PROJECT NAME: CIP NPDES	
P.O. NO.	
SHIPPED VIA: UPS-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	1
CHAIN OF CUSTODY SEALS	Y
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201525

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: - Filter : preserve Dissolved Phosphorus
- Filter : preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: RH Johnson Time: 21:12	Signature: Time:	Signature: Time:
Printed Name: RH Johnson Date: 1-4-9	Printed Name: Date	Printed Name: Date
Company: Wcc	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:31
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

Container # 1719

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St. Suite 300
Phoenix AZ 85008

BILL TO: Same as above
COMPANY:
ADDRESS:

Patricia Murray
SAMPLERS: (Signature)

(602) 275 0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
TB-08	1/4/92	2:35pm	Water	1		1										1			1	1											1	1	8
Trip blank				2																													1

PROJECT INFORMATION	
PROJECT NO: 91550384-0013	
PROJECT NAME: COP NPDES	
P.O. NO.	
SHIPPED VIA: WCC-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201525

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia Murray Time: 20:00	Signature: Time:	Signature: Time:
Printed Name: Patricia Murray Date: 1/4/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:27
Printed Name: Date:	Printed Name: Date:	Printed Name: E. Proffitt Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

Container II 1718

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA MURRAY

COMPANY: Woodward-Clyde Consultants
ADDRESS: 4726 N. 44th St. Suite 300
Phoenix AZ. 85008

BILL TO: Same as above
COMPANY:
ADDRESS:

Patricia M. Murray (602) 225-0150
SAMPLERS: (Signature) PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide (MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococcus	NUMBER OF CONTAINERS
IB-11	1/4/92	~~13:50~~	water	1		/									/			/	/											/	/	8
		~~12:12~~																														
		10:53 am																														
trip blank	1/4/92			2																												1

PROJECT INFORMATION	
PROJECT NO: 9155038.H-0013	
PROJECT NAME: CDP, NPDES	
P.O. NO.	
SHIPPED VIA: WCC-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201526

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia M Murray Time: 20:00	Signature: Time:	Signature: Time:
Printed Name: PATRICIA M Murray Date 1/4/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:25
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA MURRAY

COMPANY: Woodward-Clyde Consultants
ADDRESS: 4626 N. 44th St. / Suite 300
Phoenix, AZ / 85008

BILL TO: same as above
COMPANY:
ADDRESS:

Patricia M. Murray (602) 225-0150
SAMPLERS: (Signature) PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	TP, TKN, NO2, NH3, COD	DISSOLVED PHOSPHORUS	NO3	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	13 PP Metals DISSOLVED	The 13 Priority Pollutant Metals TOTALS	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	BOD	NUMBER OF CONTAINERS
2B 11 (TOTALS)	1/3/92	22:50	Water	3										■		■	■	■					■				■		1
11 (DISSOLVED	1/3/92	22:50	Water	4																		■							

Composite Samples Per Work Order

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT NO: 91550384-0013	TOTAL NO. OF CONTAINERS	1
PROJECT NAME: CO, NPDES	CHAIN OF CUSTODY SEALS	Y
P.O. NO.	INTACT?	Y
SHIPPED VIA: WCC-delivery	RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS	LAB NUMBER	201526
☐ ATI ☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: - Filter: preserve Dissolved Phosphorus bottle
- Filter: preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 21:15	Signature: Time:	Signature: Time:
Printed Name: Date 1-4-92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Pfoffitt Time: 21:30
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PFOFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 1/4/92 PAGE 1 OF ___

PROJECT MANAGER: PATRICIA M. MURRAY

COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St., Suite 300
Phoenix, AZ. 85008

BILL TO: same as above
COMPANY:
ADDRESS:

Patricia M. Murray — SAMPLERS: (Signature)
(602) 225-0150 — PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	TP, TKN, NO2, NH3, COD	Dissolved Phosphorus	NO3	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	13 PP Metals (Dissolved)	The 13 Priority Pollutant Metals TOTALS	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	BOD	NUMBER OF CONTAINERS
21	1/3/92	10:30	Water	3												■		■	■	■					■				■	■	1
21	1/3/92	10:30	Water	4																				■							

Composite Sample
per work order

cancel
cancel
TKN, NO2
1/15/92

PROJECT INFORMATION	
PROJECT NO: 9155038H-0013	
PROJECT NAME: CO, NPDES	
P.O. NO.	
SHIPPED VIA: WCC-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	1
CHAIN OF CUSTODY SEALS	Y
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201527

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: - Filter & preserve Dissolved Phosphorus bottle
- Filter & preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: R A Johnson — Time: 2:15	Signature: — Time:	Signature: — Time:
Printed Name: R A Johnson — Date: 1-4-91	Printed Name: — Date	Printed Name: — Date
Company: WCC	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature: — Time:	Signature: — Time:	Signature: E. Proffitt — Time: 21:31
Printed Name: — Date:	Printed Name: — Date:	Printed Name: E. PROFFITT — Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

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Container # 1723

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: Patricia M. Murray
COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, AZ. 85008
BILL TO: same as above
COMPANY:
ADDRESS:

Patricia M. Murray — SAMPLERS: (Signature)
(602) 225 0150 — PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
21	1/4/92	01:45	Water	1		1									1		1	1								1	1	8
trip blank	1/4/92			2																								1

PROJECT INFORMATION	
PROJECT NO: 91550384-003	
PROJECT NAME: COP NPDES	
P.O. NO.	
SHIPPED VIA: WCC-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201527

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia Murray Time: 20:00	Signature: Time:	Signature: Time:
Printed Name: Patricia Murray Date 1/4/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Elizabeth Proffitt Time: 21:20
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

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Container 1734

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: Patricia M. Murray
COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, AZ. 85008
BILL TO: same as above
COMPANY:
ADDRESS:

Patricia M Murray
SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide (MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
33	1/3/92	23:30	water	1		1									1			1	1											1	1	8
trip blank	1/3/92			2																												1

PROJECT INFORMATION	
PROJECT NO: 91550384-0013	
PROJECT NAME: CDP NPDES	
P.O. NO.	
SHIPPED VIA: WCC delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201528

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia Murray Time: 20:00	Signature: Time:	Signature: Time:
Printed Name: Patricia Murray Date: 1/4/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:21
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

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DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA M. MURRAY

COMPANY: Woodward-Clyde Consultants
ADDRESS: 4216 N. 44th St., Suite 300
Phoenix, AZ. 85008

BILL TO: same as above
COMPANY:
ADDRESS:

Patricia M. Murray
SAMPLERS: (Signature)

(602) 225 0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	TP, TKN, NO2, NH3, COD	Dissolved Phosphorus	NO3	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	13 PP Metals (Dissolved)	The 13 Priority Pollutant Metals (Totals)	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	BOD	NUMBER OF CONTAINERS
33 (Totals)	1/3/92	22:50	Water	3										■		■		■					■				■	■	1
33 (Dissolved)	1/3/92	22:50	Water	4													↓					■							

Composite Samples
per work order

PROJECT INFORMATION	
PROJECT NO: 9155038/H-0013	
PROJECT NAME: COP NPDES	
P.O. NO.	
SHIPPED VIA: WCC- delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	1
CHAIN OF CUSTODY SEALS	Y
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201528

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: - Filter & preserve Dissolved Phosphorus bottle
- Filter & preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 21:15	Signature: Time:	Signature: Time:
Printed Name: Date 1-4-92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 21:30
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

AnalyticalTechnologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: PATRICIA MURRAY
COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, AZ 85008
BILL TO: same as above
COMPANY:
ADDRESS:

Patricia Murray — SAMPLERS: (Signature)
602 225-0150 — PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	TP, TKN, NO2, NH3, COD	Dissolved Phosphorus	NO3	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	PP Metals (13) (Dissolved)	The 13 Priority Pollutant Metals (Totals)	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	BOD	NUMBER OF CONTAINERS
45 (Totals)	1/3/92	10:30	Water	3										■		■	■						■					■	
45 (Dissolved)	1/3/92	10:30	Water	4																									
																													2

Composite Samples were Dried

PROJECT INFORMATION	
PROJECT NO: 91550381-003	
PROJECT NAME: COP, NPDES	
P.O. NO.	
SHIPPED VIA: WCC-delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	2
CHAIN OF CUSTODY SEALS	Y
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	201529

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: - Filter & preserve for Dissolved Phosphorus
- Filter & preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: RH Johnson Time: 21:15	Signature: Time:	Signature: Time:
Printed Name: RH Johnson Date 1-4-91	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Peoffitt Time: 21:28
Printed Name: Date:	Printed Name: Date:	Printed Name: E. Peoffitt Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

Container # 1736

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DATE 1/4/92 PAGE ___ OF ___

PROJECT MANAGER: Patricia M. Murray
COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St., Suite 300
Phoenix, AZ. 85008
BILL TO: same as above
COMPANY:
ADDRESS:

Patricia M. Murray — SAMPLERS: (Signature)
602 225-0150 — PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide (MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Strepto cocci	NUMBER OF CONTAINERS
45	1/4/92	00:45	water	1		1									1			1	1											1	1	8
trip blank	1/4/92			2																												1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO:	91550381H-0013	TOTAL NO. OF CONTAINERS	9
PROJECT NAME:	COPN2DES	CHAIN OF CUSTODY SEALS	NA
P.O. NO.		INTACT?	Y
SHIPPED VIA:	WCC-delivered	RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	201529
☐ ATI ☐ RETURN			

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia Murray Time: 20:00	Signature: Time:	Signature: Time:
Printed Name: Patricia Murray Date: 1/4/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 21:22
Printed Name: Date:	Printed Name: Date:	Printed Name: E. Proffitt Date: 1/4/92
Company:	Company:	Analytical Technologies, Inc. ATI

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

Container # 17

AnalyticalTechnologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 2-7-92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M Murray

COMPANY: Woodward Clyde Cons
ADDRESS: 426 N. 44th St
Phoenix Az 85008

BILL TO:
COMPANY:
ADDRESS:

SAMPLERS: (Signature) RH Johnson

PHONE NUMBER (602) 225-0150

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide (MOD. 9015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols		SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
21	2-7-92	06:55	Water	1		✓									✓			✓	✓												6
Trip Blank 1/20/92	~~2-7-92~~	06:55	Water	2																											1
21	2-7-92	06:55	Water	1																									✓	✓	2

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT NO: 9155038H 0013	TOTAL NO. OF CONTAINERS	9
PROJECT NAME: COP NPDES	CHAIN OF CUSTODY SEALS	N
P.O. NO.	INTACT?	Y
SHIPPED VIA: WCC Delivery	RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS	LAB NUMBER	202600
☐ ATI ☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: RH Johnson Time: 10:07	Signature: Time:	Signature: Time:
Printed Name: RH Johnson Date: 2/7/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1007
Printed Name: Date:	Printed Name: Date:	Printed Name: Marguerite O'Driscoll Date:
Company:	Company:	Analytical Technologies, Inc. 2/7/92

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

Container # 1733

DATE 2/7/92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M Murray

COMPANY: Woodward Clyde Cons
ADDRESS: 426 N. 44 St #300
Phoenix Az

BILL TO:
COMPANY:
ADDRESS:

SAMPLERS: (Signature)

PHONE NUMBER: (602) 225 0150

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Gas		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols		SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Strepto Cocci	NUMBER OF CONTAINERS
05	2/7/92	05:30	Water	1		/										/			/	/												6
Trip Blank 1/20/92	2/7/92	05:30	Water	2																												1
05	2/7/92	05:30	Water	1																										/	/	2

PROJECT INFORMATION	
PROJECT NO: 9155038H 0013	
PROJECT NAME: COP UPDES	
P.O. NO.	
SHIPPED VIA: WCC Delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	N
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	202601

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: E Skulstad Time: 05:30	Signature: R H Johnson Time: 10:09	Signature: Time:
Printed Name: ERIK SKULSTAD Date 2/7/92	Printed Name: R H Johnson Date 2-7-92	Printed Name: Date
Company: WCC	Company: WCC	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: R H Johnson Time: 05:30	Signature: Time:	Signature: Time: 1009
Printed Name: R. H Johnson Date: 2/7/92	Printed Name: Date:	Printed Name: MARGUERITE CHURCH Date:
Company: WCC	Company:	Analytical Technologies, Inc. 2/7/92

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

Container # 1082

DATE 2/7/92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M Murray

COMPANY: Woodward Clyde Cons

ADDRESS: 426 N 44 St #300
Phoenix AZ 85008

BILL TO:

COMPANY:

ADDRESS:

SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil & Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Strepto Cocci	NUMBER OF CONTAINERS
03	0418	2/7/92	Water	1		✓										✓			✓	✓													6
Trip Blank	0418	1/20/92 2/7/92	Water	2																													1
03	0418	2/7/92	Water	1																											✓	✓	2

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO: 915038H-0013		TOTAL NO. OF CONTAINERS	9
PROJECT NAME: Cop NPDES		CHAIN OF CUSTODY SEALS	N
P.O. NO.		INTACT?	Y
SHIPPED VIA: WCC delivery		RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	202602
☐ ATI	☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [illegible] Time: 0530	Signature: RH Johnson Time: 10:10	Signature: Time:
Printed Name: E Skunstad Date 2/7/92	Printed Name: RH Johnson Date 2/7/92	Printed Name: Date
Company: WCC	Company: WCC	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: RH Johnson Time: 0530	Signature: Time:	Signature: [illegible] Time: 1010
Printed Name: RH Johnson Date: 2/7/92	Printed Name: Date:	Printed Name: MARGUERITE Date: [illegible]
Company: WCC	Company:	Analytical Technologies, Inc. 2/7/92

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Phoenix, Arizona

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Container # 1

DATE 2/7/92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M Murray
COMPANY: Woodward-Clyde Consu
ADDRESS: 426 N. 44 St # 300
Phoenix Az 85008

BILL TO: Same as above
COMPANY:
ADDRESS:

SAMPLERS: (Signature)
PHONE NUMBER: (602) 225-0150

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil & Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols	total Strep		SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	total Acidity	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)			NUMBER OF CONTAINERS
1 IB-8	2/7/92	7:45	Water	~~1~~		/										/			/	/													6
Trip Blank 1/20/92	~~2/7/92~~		Water	2																													1
3 HB-8	2/7/92	7:45	water	~~3~~																	/				/								2

PROJECT INFORMATION	
PROJECT NO: 915503840013	
PROJECT NAME: COP NPDES	
P.O. NO.	
SHIPPED VIA: WCC delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	7
CHAIN OF CUSTODY SEALS	
INTACT?	✓
RECEIVED GOOD COND./COLD	✓
LAB NUMBER	202603

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time:	Signature: RH Johnson Time: 10:10	Signature: Time:
Printed Name: Date	Printed Name: RH Johnson Date 2/7/92	Printed Name: Date
Company:	Company: WCC	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: RH Johnson Time: 08:50	Signature: Time:	Signature: Time: 1010
Printed Name: RH Johnson Date: 2/7/92	Printed Name: Date:	Printed Name: MARGUERITE ODRIXOLL Date:
Company: WCC	Company:	Analytical Technologies, Inc. 2/7/92

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Container # 7

AnalyticalTechnologies, Inc.
Phoenix, Arizona

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DATE 2-7-92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M. Murray

COMPANY: Woodward-Clyde Consu

ADDRESS: 426 N 44 St. #300
Phoenix Az 85008

BILL TO:

COMPANY:

ADDRESS:

SAMPLER: (Signature) R.H. Johnson

PHONE NUMBER (602) 225-0150

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
145	2-7-92	05:15	Water	1		✓										✓			✓	✓													6
Trip Blank 1/24/92	~~2-7-92~~	05:15	Water	2																													1
145	2-7-92	05:15	Water	1																											✓	✓	2

PROJECT INFORMATION	
PROJECT NO: 915528H 0013	
PROJECT NAME: Cop MPDES	
P.O. NO.	
SHIPPED VIA: WCC delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	N
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	202606

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: R.H. Johnson Time: 10:10	Signature: Time:	Signature: Time:
Printed Name: R.H. Johnson Date 2/7/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1010
Printed Name: Date:	Printed Name: Date:	Printed Name: MARGUERITE O'Driscoll Date:
Company:	Company:	Analytical Technologies, Inc. 2/7/92

Container# 1035

AnalyticalTechnologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 2/5/92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M. Murray

COMPANY: Woodward Clyde Consultants
ADDRESS: 426 N. 44 St #300
Phoenix Az

BILL TO:
COMPANY:
ADDRESS:

SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Gas		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols		SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Strep to Cocci	NUMBER OF CONTAINERS
45	2-7-92	04:50	Water	1		✓										✓			✓	✓												5
Trip Blank 1/20/92	~~2-7-92~~	04:50	Water	2																												1
45	2-7-92	04:50	Water	1																										✓	✓	2

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO: 9155038H 0013		TOTAL NO. OF CONTAINERS	4
PROJECT NAME: Col NPDES		CHAIN OF CUSTODY SEALS	N
P.O. NO.		INTACT?	Y
SHIPPED VIA: WCC delivery		RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	202605
☐ ATI	☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: RH Johnson Time: 10:10	Signature: Time:	Signature: Time:
Printed Name: RH Johnson Date: 2/7/92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1010
Printed Name: Date:	Printed Name: Date:	Printed Name: MARCHERITE O'Driscoll Date: 2/7/92
Company:	Company:	Analytical Technologies, Inc.

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Container # 1732

AnalyticalTechnologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 2/7/92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M Murray
COMPANY: Woodward Clyde Cons
ADDRESS: 426 N. 44 St #300
Phoenix AZ

BILL TO: Same as above
COMPANY:
ADDRESS:

SAMPLERS: (Signature) [signature]
PHONE NUMBER: (602) 225 0150

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Gas		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols	Recap. Strip		SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	Fecal coliform	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)			NUMBER OF CONTAINERS
IB-11	2/7/92	7:00	Water	1		✓										✓			✓	✓													6
Trip Blank 1/20/92 ~~2/7/92~~			Water	2																													1
FB-11.	2/7/92	7:00	water	1																	✓					✓							2

PROJECT INFORMATION	
PROJECT NO: 9155038H 0013	
PROJECT NAME: COP NPDES	
P.O. NO.	
SHIPPED VIA: WCC delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	N/A
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	202604

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 8:45	Signature: [signature] Time: 10:10	Signature: Time:
Printed Name: Laurie LaPat Date 2/7/92	Printed Name: RH Johnson Date 2/7/92	Printed Name: Date
Company: Woodward-Clyde	Company: WCC	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: [signature] Time: 08:45	Signature: Time:	Signature: [signature] Time: 1010
Printed Name: RH Johnson Date: 2/7/92	Printed Name: Date:	Printed Name: MARGARETTE O'DRISCOLL Date: 2/7/92
Company: WCC	Company:	Analytical Technologies, Inc.

Composite Samples on Work order

Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 2-8-92 PAGE 1 OF 1

PROJECT MANAGER: Patricia M. Murray

COMPANY: Woodward Clyde Consultants
ADDRESS: 426 N. 44 St. Suite 300
Phoenix Az 85008

BILL TO: Same as above
COMPANY:
ADDRESS:

R H Johnson
SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Tl, Tkn, Nor, NH3, COD	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	13 Priority Pollutants Metals (dissolved)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	TSS, TDS, PH	Bod	NUMBER OF CONTAINERS
#11 Bottle 4 26 Totals	2-8-92	14:30	H_2O	3										✓		✓				✓	✓				✓	✓	1
#11 2/8/92 Dissolved	2-8-92		H_2O	4																✓	✓						
#8 Bottle 2A Totals	2-8-92	14:50	H_2O	7										✓		✓					✓				✓	✓	1
#8 Dissolved	2-8-92		H_2O	8																✓							
#05 Bottle 3B Totals	2-8-92	15:30	H_2O	1										✓		✓					✓				✓	✓	2
#05 Dissolved	2-8-92		H_2O	2																✓							
#33 Bottle 2B Totals	2-8-92	11:30	H_2O	5										✓		✓					✓				✓	✓	1
#33 Dissolved	2-8-92		H_2O	6																✓							

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO: 91550TEH 0013		TOTAL NO. OF CONTAINERS	5
PROJECT NAME: Cop DPDES		CHAIN OF CUSTODY SEALS	Y
P.O. NO.		INTACT?	Y
SHIPPED VIA: WCC delivery		RECEIVED GOOD COND / COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	202633
☐ ATI	☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: Fifth bottle: Preserve Dissolved Phosphorus
Fifth bottle: Preserve Dissolved Metals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: R H Johnson Time: 17:55	Signature: Time:	Signature: Time:
Printed Name: R H Johnson Date 2-8-92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: E. Proffitt Time: 17:55
Printed Name: Date:	Printed Name: Date:	Printed Name: E. PROFFITT Date: 2/8/92
Company:	Company:	Analytical Technologies, Inc. ATI

Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 2/8/92 PAGE ___ OF ___

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward Clyde Consultants
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, AZ 85008

BILL TO:
COMPANY:
ADDRESS:

SAMPLERS: (Signature)
( ) -
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Priority Pollutant Metals Totals	Priority Pollutant Metals Dissolved	TSS/TDS/PH/HARD	BOD	COD	625	615	614	608	TP, TKN, NO2, NH3, NO3	DISSOLVED PHOSPHORUS				NUMBER OF CONTAINERS	
05 (TOTALS)	2/7/92		H_2O	1	X		X	X	X	X	X	X	X	X	X				13	one
05 (DISSOLVED)				2		X													1	MS
11 (TOTALS)				3	X		X	X	X	X	X	X	X	X	X				10	one
11 (DISSOLVED)				4		X														
33 (TOTALS)				5	X		X	X	X	X	X	X	X						8	one
33 (DISSOLVED)				6		X														
08 (TOTALS)				7	X		X	X	X	X									5	one
08 (DISSOLVED				8		X														

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT NO:	TOTAL NO. OF CONTAINERS	
PROJECT NAME:	CHAIN OF CUSTODY SEALS	
P.O. NO.	INTACT?	
SHIPPED VIA:	RECEIVED GOOD COND./COLD	
SAMPLE DISPOSAL INSTRUCTIONS	LAB NUMBER	202633
☐ ATI ☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: FILTER: PRESERVE DISS. PHOSPHORUS
METALS - SPLIT 1 Liter for both TOTALS and DISSOLVED. PRESERVE AS NECESSARY. LIMIT TO 500 mls for Organic Extractions

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date	Printed Name: Date	Printed Name: Date
Company:	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Analytical Technologies, Inc.

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

AnalyticalTechnologies,Inc.
Phoenix, Arizona 411 FEC 2

Chain of Custody

DATE 3/27 PAGE 1 OF 1

NETWORK PROJECT MANAGER: Rebecca Tubeszewska

COMPANY: Analytical Technologies, Inc.
ADDRESS: 9830 S. 51st Street, Suite B-113
Phoenix, Arizona 85044

CLIENT PROJECT MANAGER: MB

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	Fecal Streptococci	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
203937-1	3/27	7:35	AQ																	X	X					2
203938-1	3/27	6:02	AQ																	X	X					2
203939-1	3/27	6:02	AQ																	X	X					2
203936-1	3/27	6:30	AQ																	X	X					2
-3	3/27	5:45	AQ																	X	X					2

PROJECT INFORMATION	
PROJECT NUMBER: 203937-939	
PROJECT NAME:	
QC LEVEL: STD. IV	
QC REQUIRED: MS MSD BLANK	
TAT: STANDARD RUSHI	

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
COSTA MESA	
AQUATIC	X
BARRINGER	
FIBERQUANT	

DUE DATE: _____
RUSH SURCHARGE: _____
PRICE: _____
CLIENT DISCOUNT: _____ %

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: R. Tubeszewski Time: 1150	Signature: Time:
Printed Name: R. Tubeszewski Date 3/27	Printed Name: Date
Company: ATI-Phoenix	Company:
RECEIVED BY: (LAB) 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Ruth Atkinson 1220 Time:
Printed Name: Date:	Printed Name: Atkinson 3/27/92 Date:
Analytical Technologies, Inc.	Analytical Technologies, Inc. ACT

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Container # 655

AnalyticalTechnologies, Inc.
Phoenix, Arizona

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DATE 3-27-92 PAGE ___ OF ___

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, AZ. 85008

BILL TO: Same as above
COMPANY:
ADDRESS:

Steve Kaminski
SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide (MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil & Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
11	3-27-92	6:30	Water	1		/									/			/	/											/	/	8
Trip Blank 11			H_2O	2																												1
08	3-27-92	5:45	WATER	3		/									/			/	/											/	/	8
Trip blank 08			H_2O	4																												1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO: 91550381-0013		TOTAL NO. OF CONTAINERS	18
PROJECT NAME: COP NPDES Pt. 2		CHAIN OF CUSTODY SEALS	N
P.O. NO.		INTACT?	Y
SHIPPED VIA: WCC Delivery		RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	203936
☐ ATI	☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Steve Kaminski Time: 7:35	Signature: Bryan Hall Time: 10:55	Signature: Time:
Printed Name: STEVE KAMINSKI Date: 3-27-92	Printed Name: BRYAN HALL Date: 3-27-92	Printed Name: Date
Company: Woodward Clyde	Company: WOODWARD CLYDE	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Bryan Hall Time: 7:35	Signature: Time:	Signature: Time: 10:55
Printed Name: BRYAN HALL Date: 3-27-92	Printed Name: Date:	Printed Name: MARGUERITE Date:
Company: WOODWARD CLYDE	Company:	Analytical Technologies, Inc. 3/27/92

AnalyticalTechnologies,Inc.
Phoenix, Arizona 411 FEC 2

Chain of Custody

DATE 3/27 PAGE 1 OF 1

NETWORK PROJECT MANAGER: Rebecca Tubeszewski

COMPANY: Analytical Technologies, Inc.
ADDRESS: 9830 S. 51st Street, Suite B-113
Phoenix, Arizona 85044

CLIENT PROJECT MANAGER: MB

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	Fecal Streptococci	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
203937-1	3/27	7:35	AQ																	X	X					2
203938-1	3/27	6:02	AQ																	X	X					2
203939-1	3/27	6:02	AQ																	X	X					2
203936-1	3/27	6:30	AQ																	X	X					2
-3	3/27	5:45	AQ																	X	X					2

PROJECT INFORMATION	
PROJECT NUMBER: 203937-939	
PROJECT NAME:	
QC LEVEL: STD. IV	
QC REQUIRED: MS MSD BLANK	
TAT: STANDARD RUSHI	

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
COSTA MESA	
AQUATIC	X
BARRINGER	
FIBERQUANT	

DUE DATE: _____
RUSH SURCHARGE: _____
PRICE: _____
CLIENT DISCOUNT: _____%

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: R. Tubeszewski Time: 1150	Signature: Time:
Printed Name: R. Tubeszewski Date 3/27	Printed Name: Date
Company: ATI-Phoenix	Company:
RECEIVED BY: (LAB) 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Ruth Atkinson 1220 Time:
Printed Name: Date:	Printed Name: Atkinson 3/27/97 Date:
Analytical Technologies, Inc.	Analytical Technologies, Inc. ACT

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona

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Container # 1600

DATE 3-27-92 PAGE ___ OF ___

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St, Suite 300
Phoenix, AZ. 85008

BILL TO: same as above
COMPANY:
ADDRESS:

SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil & Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
05	3-27-92	7:35	water	1		✓										✓			✓	✓											✓	✓	8
Trip Blank	3-3-92		H_2O	2																													1

PROJECT INFORMATION	
PROJECT NO: 91550-3H-0013	
PROJECT NAME: COP NPDES A.2	
P.O. NO.	
SHIPPED VIA: WCC Delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	N
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	203937

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Bryan Hall Time: 10:55	Signature: Time:	Signature: Time:
Printed Name: BRYAN HALL Date 3-27-92	Printed Name: Date	Printed Name: Date
Company: WOODWARD-CLYDE	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1055
Printed Name: Date:	Printed Name: Date:	Printed Name: MARGUERITE MCSOLL Date: 3/27/92
Company:	Company:	Analytical Technologies, Inc.

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical Technologies, Inc.
Phoenix, Arizona 411 FEC 2

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DATE 3/27 PAGE 1 OF 1

NETWORK PROJECT MANAGER: Rebecca Tubeszewski

COMPANY: Analytical Technologies, Inc.
ADDRESS: 9830 S. 51st Street, Suite B-113
Phoenix, Arizona 85044

CLIENT PROJECT MANAGER: MB

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	Fecal Streptococci	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
203937-1	3/27	7:35	AQ																	X	X					2
203938-1	3/27	6:02	AQ																	X	X					2
203939-1	3/27	6:02	AQ																	X	X					2
203936-1	3/27	6:30	AQ																	X	X					2
-3	3/27	5:45	AQ																	X	X					2

PROJECT INFORMATION	
PROJECT NUMBER: 203937-939	
PROJECT NAME:	
QC LEVEL: STD. IV	
QC REQUIRED: MS MSD BLANK	
TAT: (STANDARD) RUSH!	

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
COSTA MESA	
AQUATIC	X
BARRINGER	
FIBERQUANT	

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: R. Tubeszewski Time: 1150	Signature: Time:
Printed Name: R. Tubeszewski Date 3/27	Printed Name: Date
Company: ATI-Phoenix	Company:
RECEIVED BY: (LAB) 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Ruth Atkinson Time: 1220
Printed Name: Date:	Printed Name: Atkinson Date: 3-27-99
Analytical Technologies, Inc.	Analytical Technologies, Inc. ATI

DUE DATE: _____
RUSH SURCHARGE: _____
PRICE: _____
CLIENT DISCOUNT: _____ %

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Analytical**Technologies**, Inc.
Phoenix, Arizona

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Container # 1667

DATE 3-27-92 PAGE ___ OF ___

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward-Clyde Consultants
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, Az. 85008

BILL TO: same as above
COMPANY:
ADDRESS:

SAMPLERS: (Signature)

(602) 225 0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide (MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
~~2~~ 07	3-27-92	6:02	Water	1		/									/			/	/											/	/	8
Trip Blank	3-3-92		H_2O	2																												1

PROJECT INFORMATION	
PROJECT NO: 9155038H-0013	
PROJECT NAME: COP NPDES PH. 2	
P.O. NO.	
SHIPPED VIA: WCC Delivery	
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	N
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	203938

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Bryan Hall Time: 10:55 AM	Signature: Time:	Signature: Time:
Printed Name: BRYAN HALL Date: 3-27-92	Printed Name: Date	Printed Name: Date
Company: WOODWARD-CLYDE	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1035
Printed Name: Date:	Printed Name: Date:	Printed Name: MARGUERITE MASCOLL Date:
Company:	Company:	Analytical Technologies, Inc. 3/27/92

AnalyticalTechnologies,Inc.
Phoenix, Arizona 411 FEC 2

Chain of Custody

DATE 3/27 PAGE 1 OF 1

NETWORK PROJECT MANAGER: Rebecca Tubeszewski

COMPANY: Analytical Technologies, Inc.
ADDRESS: 9830 S. 51st Street, Suite B-113
Phoenix, Arizona 85044

CLIENT PROJECT MANAGER: MB

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	Fecal Streptococci	GROSS ALPHA/BETA	RADIUM 226/228	AIR - 02, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
203937-1	3/27	7:35	AQ																	X	X					2
203938-1	3/27	6:02	AQ																	X	X					2
203939-1	3/27	6:02	AQ																	X	X					2
203936-1	3/27	6:30	AQ																	X	X					2
-3	3/27	5:45	AQ																	X	X					2

PROJECT INFORMATION	
PROJECT NUMBER: 203937-939	
PROJECT NAME:	
QC LEVEL: STD. IV	
QC REQUIRED: MS MSD BLANK	
TAT: (STANDARD) RUSHI	

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
COSTA MESA	
AQUATIC	X
BARRINGER	
FIBERQUANT	

DUE DATE: _____
RUSH SURCHARGE: _____
PRICE: _____
CLIENT DISCOUNT: _____%

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: R. Tubeszewski Time: 1150	Signature: Time:
Printed Name: R. Tubeszewski Date 3/27	Printed Name: Date
Company: ATI-Phoenix	Company:
RECEIVED BY: (LAB) 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Ruth Atkinson Time: 1220
Printed Name: Date:	Printed Name: Atkinson Date: 3/27/92
Analytical Technologies, Inc.	Analytical Technologies, Inc. ACT

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

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Contained 1560

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Phoenix, Arizona

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DATE 3-27-92 PAGE ___ OF ___

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward-Clyde Consultants
ADDRESS: 4726 N. 44th St, Suite 300
Phoenix, AZ. 85018

BILL TO: same as above
COMPANY:
ADDRESS:

SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	Cyanide	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Oil + Grease		Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Total Phenols			SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)		The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	Fecal Coliform	Fecal Streptococci	NUMBER OF CONTAINERS
03	3-27-92	6:02	Water	1		✓										✓			✓	✓											✓	✓	8
Trip Blank	3-3-92		H2O	2																													1

PROJECT INFORMATION	
PROJECT NO:	9155038 A-003
PROJECT NAME:	CDP NPDES Pt. 2
P.O. NO.	
SHIPPED VIA:	WCC Delivery
SAMPLE DISPOSAL INSTRUCTIONS	
☐ ATI ☐ RETURN	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	9
CHAIN OF CUSTODY SEALS	N
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	203939

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Bryan Hall Time: 10:55AM	Signature: Time:	Signature: Time:
Printed Name: BRYAN HALL Date 3-27-92	Printed Name: Date	Printed Name: Date
Company: WOODWARD-CLYDE	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1055
Printed Name: Date:	Printed Name: Date:	Printed Name: MARGUERITE O'MISCOLL Date: 3/27/92
Company:	Company:	Analytical Technologies, Inc.

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AnalyticalTechnologies, Inc.
Phoenix, Arizona BOD 56

Chain of Custody

DATE 3/28/92 PAGE 1 OF 1

NETWORK PROJECT MANAGER: REBECCA TURESZEWSKI

COMPANY: Analytical Technologies, Inc.
ADDRESS: 9830 S. 51st Street, Suite B-113
Phoenix, Arizona 85044

CLIENT PROJECT MANAGER: MB

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)		632/632 MOD	619/619 MOD	610/8310			8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)		NACE	ASBESTOS		BOD	TOTAL COLIFORM	FECAL COLIFORM		GROSS ALPHA/BETA	RADIUM 226/228		AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
203966-1	3/27	2am	H_2O																				X										1
203966-3	↓	↓	↓																				X										1
203966-5																							X										1
203966-7																							X										1
203966-9																							X										1

L02-0509-513

PROJECT INFORMATION	
PROJECT NUMBER: 203966	
PROJECT NAME:	
QC LEVEL: STD. IV	
QC REQUIRED: MS MSD BLANK	
TAT: STANDARD RUSH!	

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

DUE DATE: 4/13/92
RUSH SURCHARGE:
PRICE:
CLIENT DISCOUNT: %

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
COSTA MESA	
AQUATIC	X
BARRINGER	
FIBERQUANT	

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: Marcia Smith Time: 4:10pm	Signature: Time:
Printed Name: MARCIA SMITH Date 3/28/92	Printed Name: Date
Company: ATI	Company:
RECEIVED BY: (LAB) 1.	**RECEIVED BY: (LAB) 2.**
Signature: J. Swanson Time: 4:10	Signature: Time: 1620
Printed Name: V. Swanson Date: 3/28/92	Printed Name: Atkinson Date: 3/28/92
Analytical Technologies, Inc. Top Speed	Analytical Technologies, Inc. ACT

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001

DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC. • Pink - ORIGINATOR

Analytical Technologies, Inc., Phoenix, Arizona
San Diego ▪ Phoenix ▪ Seattle ▪ Pensacola ▪ Ft. Collins ▪ Portland

CHAIN OF CUSTODY

DATE:_____ PAGE_____ OF_____

ATI LAB I.D. 203966

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER:

COMPANY: Woodward-Clyde
ADDRESS:
PHONE:
FAX:

BILL TO:
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PRIORITY POLLUTANT METALS, TOTALS	PRIORITY POLLUTANT METALS, DISSOLVED	TSS/TDS/PH/HARD	BOD	COD	625	TP, TKN, NO23, NH3	DISSOLVED PHOSPHORUS							NUMBER OF CONTAINERS
05 (3E) TOTALS	3/27	2am	H_2O	1	X		X	X	X	X	X	X							5
05 (3E) DISSOLVED	↓	↓	↓	2		X													~~[illegible]~~
45 (3D, 1B, 1E) TOTALS				3	X		X	X	X	X	X	X							9
45 (3D, 1B, 1E) DISSOLVED				4		X													
08 (1A, 2C) TOTALS				5	X		X	X	X	X	X	X							8
08 (1A, 2C) DISSOLVED				6		X													
21 (2F) TOTALS				7	X		X	X	X	X	X	X							10
21 (2F) DISSOLVED				8		X													
11 (3G) TOTALS	↓	↓	↓	9	X		X	X	X	X	X	X							8

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJ. NO.:	NO. CONTAINERS	
PROJ. NAME:	CUSTODY SEALS	Y / N / NA
P.O. NO.:	RECEIVED INTACT	
SHIPPED VIA:	RECEIVED COLD	

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐24hr ☐48hr ☐72hr ☐1 WEEK (NORMAL) ☐2 WEEK

Comments:
FILTER & PRESERVE DISS. PHOSPHORUS
METALS - SPLIT 1 Liter for both
TOTALS and Dissolved. Preserve as
Necessary.

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company: Phone:	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Analytical Technologies, Inc.

Analytical Technologies, Inc., Phoenix, Arizona
San Diego ▪ Phoenix ▪ Seattle ▪ Pensacola ▪ Ft. Collins ▪ Portland

CHAIN OF CUSTODY

DATE:_____ PAGE_____ OF_____

ATI LAB I.D. 203966

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PROJECT MANAGER:

COMPANY: WOODWARD-CLYDE
ADDRESS:
PHONE:
FAX:

BILL TO:
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PRIORITY POLLUTANT METALS, DISSOLVED	NUMBER OF CONTAINERS
11 (3G) DISSOLVED	3/27	2am	H_2O	1D	X	

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJ. NO.:	NO. CONTAINERS	
PROJ. NAME:	CUSTODY SEALS	Y / N / NA
P.O. NO.:	RECEIVED INTACT	
SHIPPED VIA:	RECEIVED COLD	

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company: Phone:	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Analytical Technologies, Inc.

AnalyticalTechnologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 3/28/92 PAGE 1 OF 1

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward-Clyde
ADDRESS: 426 N. 44th St., Suite 300

BILL TO: same as above
COMPANY:
ADDRESS:

Patricia Murray
SAMPLERS: (Signature)

(602) 275-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP (1311)	NUMBER OF CONTAINERS
05 (3E)	3/27	2am	Water	~~3E~~ 1																			1
45 (3D) ~~7am~~ 2	3/27	2am	Water																				1
45 (1B) 9am 7	3/27	2am	Water	2																			1
45 (1E) 9am	3/27	2am	Water																				1
08 (1A)	3/27	2am	Water	3																			1
08 (2C) 7am	3/27	2am	Water																				1
21 (2F)	3/27	2am	Water	4																			1
11 (3G)	3/27	2am	Water	5																			1

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT NO: 9155038H-0013	TOTAL NO. OF CONTAINERS	8
PROJECT NAME: COP NPDES Pt. 2	CHAIN OF CUSTODY SEALS	NA
P.O. NO.	INTACT?	Y
SHIPPED VIA:	RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS	LAB NUMBER 203966	
☐ ATI ☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: Cu 3ug/L MDC

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Patricia Murray Time: 2:20	Signature: Time:	Signature: Time:
Printed Name: Patricia Murray Date 3/28	Printed Name: Date	Printed Name: Date
Company: Woodward-Clyde	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Marcia Smith Time: 2:20 pm
Printed Name: Date:	Printed Name: Date:	Printed Name: MARCIA SMITH Date: 3/28/92
Company:	Company:	Analytical Technologies, Inc. ATI

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Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 8/5 PAGE 1 OF 1

NETWORK PROJECT MANAGER: REBECCA TUBESZEWSKI

COMPANY: **Analytical Technologies, Inc.**
ADDRESS: 9830 S. 51st Street, Suite B-113
Phoenix, Arizona 85044

CLIENT PROJECT MANAGER: mB

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)		632/632 MOD	619/619 MOD	610/8310			8240 (TCLP 1311) ZHE		Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)		NACE	ASBESTOS		BOD	TOTAL COLIFORM	FECAL COLIFORM	Fecal Strep	GROSS ALPHA/BETA	RADIUM 226/228		AIR - O2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
208562-1	8/5	9:00	AQ																							X	X							2
-3	8/5	9:45	AQ																							X	X							2
-5	8/5	10:25	AQ																							X	X							2
-7	8/5	10:50	AQ																							X	X							2

PROJECT INFORMATION	
PROJECT NUMBER: 208562	
PROJECT NAME:	
QC LEVEL: STD. IV	
QC REQUIRED: MS MSD BLANK	
TAT: STANDARD RUSH!	

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	8
CHAIN OF CUSTODY SEALS	N
INTACT?	—
RECEIVED GOOD COND./COLD	Y
LAB NUMBER 9202521 → 2524	

DUE DATE: 8/19
RUSH SURCHARGE:
CLIENT DISCOUNT: %

Please Analyze ASAP!!

SAMPLES SENT TO:	
SAN DIEGO	
FT. COLLINS	
RENTON	
PENSACOLA	
COSTA MESA	
AQUATIC	X
BARRINGER	
FIBERQUANT	

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
Signature: R. Tubeszewski Time:	Signature: Time:
Printed Name: R. Tubeszewski Date 8/5	Printed Name: Date
Analytical Technologies, Inc. Phoenix	Company:
RECEIVED BY: (LAB) 1.	**RECEIVED BY: (LAB) 2.**
Signature: Time:	Signature: Time: 15:00
Printed Name: Date:	Printed Name: Chr shan Date: 8/5/92
Company:	Company: ACT

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CHAIN OF CUSTODY

DATE: 8/5/92 PAGE 1 OF 1

ATI LAB I.D. 208562

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PROJECT MANAGER: PATRICIA MURRAY

COMPANY: WOODWARD-CLYDE CONSULTANTS
ADDRESS: 4216 N. 44th St. Suite 300
Phoenix, AZ 85008
PHONE: 225-0150
FAX: 225-0024

BILL TO: " "
COMPANY: " "
ADDRESS: " "

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)	Cyanide	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.	Oil + Grease	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	Total Phenols	SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal	Fecal Coliform	Fecal Strep	The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)	NUMBER OF CONTAINERS
21	8/5/92	7:00	water	1					/				/				/		/					/	/				8
21 Trip Blank	6/3/92		Water	2													/												1
45	8/5/92	9:45	water	3					/				/				/		/					/	/				8
45 Trip Blank	6/3/92			4													/												1
68	8/5/92	10:25	Water	5					/				/				/		/					/	/				8
08 Trip Blank	6/3/92			6													/												1
11	8/5/92	10:50	water	7					/				/				/		/					/	/				8
11 Trip Blank	6/3/92			8													/												1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	9155038H-0013	NO. CONTAINERS	36
PROJ. NAME:	City of Phoenix NPDES	CUSTODY SEALS	Y / N (NA)
P.O. NO.:		RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1425	Signature: Time:	Signature: Time:
Printed Name: RULON JOHNSON Date: 8/5/92	Printed Name: Date:	Printed Name: Date:
Company: WCC Phone: 225-0150	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature: Time:	Signature: Time:	Signature: Time: 1425
Printed Name: Date:	Printed Name: Date:	Printed Name: MARCIA SMITH Date: 8/5/92
Company:	Company:	Analytical Technologies, Inc.

Analytical Technologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE 8/5/92 PAGE 1 OF 1

PROJECT MANAGER: PATRICIA MURRY

COMPANY: Woodward Clyde Cons.
ADDRESS: 426 N. 44th ST Suite 300
Phoenix, AZ 85008

BILL TO: SAME AS ABOVE
COMPANY:
ADDRESS:

SAMPLERS: (Signature) ( ) - PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	BOD	625 + ~~Aerobicity~~ Acceptability	Nitrate / NITRITE	Dissolved Phosphorus	Total Phosphorus, TKN	~~NO3~~, NH3, COD	Priority Pollutant Metals (T)	Priority Pollutant Metals (D)	TSS, TDS, PH						NUMBER OF CONTAINERS
21 (1-A) TOTALS	8/5/92	12:30	WATER	1	X	X	X	X	X	X	X		X						7
21 (1-A) DISSOLVED	8/5/92	12:30	WATER	2								X							1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NO: 9155038H-0013		TOTAL NO. OF CONTAINERS	8
PROJECT NAME: COP- NPDES		CHAIN OF CUSTODY SEALS	N/A
P.O. NO.		INTACT?	Y
SHIPPED VIA:		RECEIVED GOOD COND./COLD	Y
SAMPLE DISPOSAL INSTRUCTIONS		LAB NUMBER	208563
☐ ATI	☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: metals bottle for total / Dissolved
Filter 500mL & Preserve for Dissolved
Preserve remaing 500 for totals

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date	Printed Name: Date	Printed Name: Date
Company:	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Marcia Smith Time: 1425
Printed Name: Date:	Printed Name: Date:	Printed Name: MARCIA SMITH Date: 8/5/92
Company:	Company:	Analytical Technologies, Inc. ATI

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CHAIN OF CUSTODY

DATE: 8/5/92 PAGE ____ OF ____

ATI LAB I.D. 208563

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PROJECT MANAGER: PATRICIA MURRAY

COMPANY: WOODWARD-CLYDE CONSULTANTS
ADDRESS: 426 N. 44th St. Suite 300
Phoenix, AZ 85008
PHONE: 225-0150
FAX: 225-0024

BILL TO: " "
COMPANY: " "
ADDRESS: " "

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal	The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)	NUMBER OF CONTAINERS
21 (1-A')	8/5/92	12:30	Water	1																				1

Composites per Work Order

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	9153038H-0013	NO. CONTAINERS	1
PROJ. NAME:	City of Phoenix NBDES	CUSTODY SEALS	Y / N / (NA)
P.O. NO.:		RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1425	Signature: Time:	Signature: Time:
Printed Name: RULON JOHNSON Date: 8/5/92	Printed Name: Date:	Printed Name: Date:
Company: WCC Phone: 225-0150	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature: Time:	Signature: Time:	Signature: [signature] Time: 1425
Printed Name: Date:	Printed Name: Date:	Printed Name: MARCIA SMITH Date: 8/5/92
Company:	Company:	Analytical Technologies, Inc.

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Phoenix, Arizona

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DATE 8-12-92 PAGE 1 OF 1

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward Clyde Consultants
ADDRESS: 426 N. 44 St #300
Phoenix Az 85008

BILL TO:
COMPANY: Same
ADDRESS:

SAMPLERS: (Signature) Ralph Johnson
PHONE NUMBER: (602) 225 0150

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP	NUMBER OF CONTAINERS
1B 11	8-11-92	23:00	H_2O	1			Composite						Samples per				Work Order						1
1B 11	8-12-92	0:30	H_2O																				1

PROJECT INFORMATION	
PROJECT NO.: 9455038H-0013	
PROJECT NAME: COP NPDES	
P.O. NO.:	
VIA:	
TAT: ☐ 24HR ☐ 48 HRS ☐ 1 WK ☐ 2 WKS	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	2
CHAIN OF CUSTODY SEALS	NA
INTACT?	Y
RECEIVED GOOD COND./COLD	Y
LAB NUMBER	208680

SAMPLE DISPOSAL INSTRUCTIONS
☐ ATI Disposal @ $5.00 each ☐ Return ☐ Pickup (will call)

Comments:
2c bottle
3d bottle

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Ralph Johnson Time: 11:17	Signature: Time:	Signature: Time:
Printed Name: Ralph Johnson Date 8-12-92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Marcia Smith Time: 1117
Printed Name: Date:	Printed Name: Date:	Printed Name: MARCIA SMITH Date: 8/12/92
Company:	Company:	Analytical Technologies, Inc. ATI

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CHAIN OF CUSTODY

DATE: 8/12/92 PAGE 1 OF 1

ATI LAB I.D. 208680

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PROJECT MANAGER: Patricia Murray

COMPANY: Woodward Clyde
ADDRESS: 426 N. 44th St. Ste 300
Phoenix, Az 85008
PHONE:
FAX:

BILL TO: SAME AS ABOVE
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	BOD	625	Nitrate / Nitrite	Dissolved Phosphorus	Total Phosphorus, TKN	NH_3, COD	(Total) Priority Pollutant Metals	(Dissolved) Priority Pollutant Metals	TSS, TDS, PH	608	615				NUMBER OF CONTAINERS
1B-11 Totals	8/12/92	0:30	Water	1	X	X	X	X	X	X	X		X	X	X				11
1B-11 Dissolved	8/12/92	0:30	Water	2								X							1

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:		NO. CONTAINERS	12
PROJ. NAME:		CUSTODY SEALS	Y / N / NA
P.O. NO.:		RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company: Phone:	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: Time:	Signature: Time:	Signature: Time: 1117
Printed Name: Date:	Printed Name: Date:	Printed Name: Date: MARCIA SMITH 8/12/92
Company:	Company:	Analytical Technologies, Inc.

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Analytical Technologies, Inc.
Phoenix, Arizona

Delivered To Aquatic Labs.

Chain of Custody

DATE _____ PAGE ___ OF ___

PROJECT MANAGER:

COMPANY: wood ward Clyde
ADDRESS: 426 N. 44th St #300

BILL TO: According to City of Phx.
COMPANY: Project Charges
ADDRESS: According to ATI instructions

Sb Kam
SAMPLERS: (Signature)

(602) 225-0150
PHONE NUMBER

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE (MOD 8015/8020)	BTXE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	MTBE	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Fecal Coliform	Fecal Streptococci	SDWA Primary Standards	SDWA Secondary Standards	SDWA Volatiles (502.1/503.1)	The 13 Priority Pollutant Metals	The 8 EP Tox Metals by EP Tox Prep. (1310)	The 8 EP Tox Metals by Total Digestion	The 8 EP Tox Metals by TCLP	NUMBER OF CONTAINERS
SR-03	8-23-92	12:30														X	X								2
AC05	8-23-92	1:30														X	X								2

PROJECT INFORMATION	
PROJECT NO.: 91550381-003	
PROJECT NAME: City of Phoenix	
P.O. NO.: 91550381-001	
VIA:	
TAT: ☐ 24HR ☐ 48 HRS ☐ 1 WK ☐ 2 WKS	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
INTACT?	
RECEIVED GOOD COND./COLD	
LAB NUMBER	

SAMPLE DISPOSAL INSTRUCTIONS
☐ ATI Disposal ☐ Return ☐ Pickup (will call)

Comments:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Sb Kaminski Time: 15:25	Signature: Time:	Signature: Time:
Printed Name: Sb Kaminski Date 8-23-92	Printed Name: Date	Printed Name: Date
Company: WCC	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time: 1525
Printed Name: Date:	Printed Name: Date:	Printed Name: AMA Date: 8-23-92
Company:	Company:	Analytical Technologies, Inc.

ATI Labs: San Diego (619)458-9141 • Phoenix (602)438-1530 • Seattle (206)228-8335 • Pensacola (904)474-1001

DISTRIBUTION: White, Canary - ANALYTICAL TECHNOLOGIES, INC.• Pink - ORIGINATOR

Analytical Technologies, Inc., Phoenix, Arizona
San Diego ▪ Phoenix ▪ Seattle ▪ Pensacola ▪ Ft. Collins ▪ Portland

CHAIN OF CUSTODY

DATE: 8-23-92 PAGE 1 OF 1

ATI LAB I.D. 208898

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER:

COMPANY: Wood ward Clyde
ADDRESS: 426 N 44th St. #300
Phoenix Az, 85008
PHONE: 225-0150
FAX: 225-0024

BILL TO: WCC
COMPANY:
ADDRESS: Same as above

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)			Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.			Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)			SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal			The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)		NUMBER OF CONTAINERS
SR-03	8-23-92	12:30	Water	1																													6
AC-05	8-23-92	1:30	↓	2							According to Carole Sears Plan																						6
BR-33	8-22-92	9:00	↓	3																													6
Trip Blank (SR-03, AC-05)	8-6-92		Water	4																													4
Trip Blank (SR-33)	8-6-92		↓	5																													2

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	91550384	NO. CONTAINERS	24
PROJ. NAME:	City of PHX	CUSTODY SEALS	Y / N (NA)
P.O. NO.:	915503-H-0013	RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Steve Kaminski Time: ~~7:30~~ 15:45	Signature: Time:	Signature: Time:
Printed Name: STEVE KAMINSKI Date: 8-23-92	Printed Name: Date:	Printed Name: Date:
Company: WCC Phone: 225-0150	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature: Time:	Signature: Time:	Signature: M. Barry Time: 15:45
Printed Name: Date:	Printed Name: Date:	Printed Name: M. BARRY Date: 8/23/92
Company: Woodward Clyde	Company:	Analytical Technologies, Inc.

AnalyticalTechnologies, Inc.
Phoenix, Arizona

Chain of Custody

DATE _____ PAGE ___ OF ___

PROJECT MANAGER: Patricia Murray

COMPANY: Woodward Clyde
ADDRESS: 426 N. 44th St. #300
Phoenix AZ 85008

BILL TO: Same
COMPANY:
ADDRESS:

SAMPLERS: (Signature) _____ PHONE NUMBER ( ) -

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Priority Pollutant Metals, Totals	Priority Pollutant Metals, Dissolved	TSS/TDS/pH/HARD	BOD	COD	625	615	608	TP, TKN, NO23, NH3	DISSOLVED PHOSPHORUS					NUMBER OF CONTAINERS
SR-03 (TOTALS)	8/23-8/24		H_2O	1	X		X	X	X	X	X	X	X	X					
SR-03 (DISSOLVED)	↓		↓	2		X													
SR-33 (TOTALS)	↓		↓	3	X		X	X											
SR-33 (DISSOLVED)	↓		↓	4		X													
AC-05 (TOTALS)	↓		↓	5	X		X	X	X	X									
AC-05 (DISSOLVED)	↓		↓	6		X													
STORMWATER																			

no backup - limit to 500 ml for Org Extraction

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJECT NO:	TOTAL NO. OF CONTAINERS	
PROJECT NAME:	CHAIN OF CUSTODY SEALS	
P.O. NO.	INTACT?	
SHIPPED VIA:	RECEIVED GOOD COND./COLD	
SAMPLE DISPOSAL INSTRUCTIONS	LAB NUMBER	208903
☐ ATI ☐ RETURN		

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

TAT: (NORMAL) _ (RUSH) ☐ 24 ☐ 48 ☐ 72 ☐ 1 WEEK

Comments: Filter! preserve for Dissolved Phosphorus. Metals - Split 2 Liter Bottle for both Totals and Dissolved. Filter! preserve for dissolved

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date	Printed Name: Date	Printed Name: Date
Company:	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: (LAB) 3.**
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date:	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Analytical Technologies, Inc.

Analytical**Technologies,**Inc., Phoenix, Arizona
San Diego ▪ Phoenix ▪ Seattle ▪ Pensacola ▪ Ft. Collins ▪ Portland

CHAIN OF CUSTODY

DATE: 8/23/92 PAGE 1 OF 1

ATI LAB I.D. 208903

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.

PROJECT MANAGER:

COMPANY: WOODWARD-CLYDE
ADDRESS: 426 N. 44th ST #300
Phx Az 85008
PHONE: 602-225-0150
FAX: 602-225-0024

BILL TO:
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)		Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.		Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)		SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal		The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)		NUMBER OF CONTAINERS
SR03 1-0 2-B	8/23/24 92	18:30 - 00:45	WATER	1/2						Composites for work order.																			2
SR-33 1B	8/23/24 92	11:00 -	WATER	3/4						"				"			"			"									1
AC05 2G	8/23/24 92	11:00 -	WATER	5/6						"				"			"			"									1
										Plus Herbicides + Pesticides for SR03																			

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	9155038H-0013	NO. CONTAINERS	4
PROJ. NAME:	C.O.P.	CUSTODY SEALS	Y / N / (NA)
P.O. NO.:	9155038H-0013	RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Steve Kaminski Time: 00:24	Signature: RH Johnson Time: 12:16	Signature: Time:
Printed Name: Steve Kaminski Date: 8-24-92	Printed Name: RH Johnson Date: 8-24-92	Printed Name: Date:
Company: WCC Phone: 225-0150	Company: WCC	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: RH Johnson Time: 0024	Signature: Time:	Signature: Tom Sacho Time: 12:16
Printed Name: RH Johnson Date: 8-24-92	Printed Name: Date:	Printed Name: Tom Sacho Date: 8/24/92
Company: WCC	Company:	Analytical Technologies, Inc.