Ministerio del Ambiente
y de los Recursos
Naturales Renovables

ESTIMACION DE ESCURRIMIENTOS MENSUALES EN LA CUENCA DEL RIO TUY

Caracas, Mayo 1988

(PT) Serie de Informes Tecnicos DGSPOA/IT/278

ELABORADO POR:

PROYECTO DE SANEAMIENTO Y RECUPERACION DEL RIO TUY ADSCRITA A LA DIRECCION DE LOS RECURSOS HIDRAULICOS DEPENDIENTE DE LA DIRECCION GENERAL SECTORIAL DE PLANIFICACION Y ORDENACION DEL AMBIENTE

DIRECCION GENERAL SECTORIAL DE PLANIFICACION Y ORDENACION DEL AMBIENTE
DIRECCION DE PLANIFICACION DE LOS RECURSOS HIDRAULICOS
PROYECTO DE SANEAMIENTO Y RECUPERACION DEL RIO TUY

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Caracas, Mayo 1988

RESUMEN

El Ministerio del Ambiente y de los Recursos Naturales Renovables a través de la Dirección de Planificación de los Recursos Hidráulicos, se encuentra realizando el Programa de Saneamiento y Recuperación de la Cuenca del Río Tuy, con el objeto de disponer de un instrumento idóneo que permita orientar con bases técnicas las decisiones necesarias para enfrentar posibles conflictos relacionados con el aprovechamiento del recursos agua en la mencionada Cuenca.

El Presente informe tiene como objetivo la estimación de escurrimientos mensuales en la Cuenca del Río Tuy con la finalidad de evaluar la calidad de agua que transportan dichos ríos.

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1. INTRODUCCION

La Dirección de Planificación de los Recursos Hidráulicos se ha fijado como uno de sus objetivos el Programa de Saneamiento y Recuperación de la Cuenca del Río Tuy.

A tal fin es necesario conocer el régimen de Escurrimiento del Río Tuy, para estudios posteriores de calidad de agua, ya que ésta es una de las características asociadas al régimen fluvial en un sitio.

En este estudio tiene como objetivo la obtención de los caudales medios mensuales de una serie de años y su variabilidad en los siguientes sitios:

Río Tuy en el sitio denominado El Clavo.
Río Tuy en el sitio denominado El Vigía.

Con este trabajo se obtuvieron los caudades medios mensuales en los sitios antes indicados, utilizando el Modelo de Simulación Hidrológica " SIMHIDME"

2. METODOLOGIA EMPLEADA

Siendo el objetivo principal de este estudio, obtener datos de caudales mensuales en los sitios de interes citados, se optó por implementar un Modelo de Simulación Hidrológica que permita generar información para un período más largo que el existente.

De los modelos seleccionados se seleccionó el "SIMHIDME", el cual se ha adoptado en otros estudios efectuados en el Ministerio, obteniéndose resultados que se adaptan de una forma bastante aceptable a la realidad hidrológica del país.

El modelo basicamente esta catalogado como un Modelo de Simulación Hidrológica conceptual y paramétrico.

La unidad física de aplicación del modelo es la Cuenca Hidrológica la cual viene representada por un modelo matemático constituido por cuatro elementos del almacenamiento nominal: Superficial, Sub-Superficial, Subterráneo y en los canales naturales, que van a estar influenciados por los principales elementos del ciclo hidrológico: Precipitación, Evaporación, Evapotranspiración, Infiltración, Percolación y los gastos base, subterráneo y superficial.

3. ANALISIS DE LA INFORMACION

La información que se requiere para la aplicación del modelo es precipitación, evaporación y escurrimiento.

Esta información se extrajo del Banco de Datos del Departamento de sistemas de la Dirección de Planificación de los Recursos Hidráulicos.

El Período común que se utilizó para este estudio tanto en precipitación como en evaporación fué de 1973 a 1977 para la calibración del Río Tuy en El Clavo y de 1971 a 1977 para la calibración del Río Tuy en El Vigía. En ambos casos el período de simulación fué de 1978 hasta 1985 (8 años). Se debe indicar que algunas estaciones pluviométricas y evaporimétricas tenían períodos de registros menores al período común seleccionado, por lo cual se complementaron sus datos mensuales mediante correlaciones lineales con estaciones cercanas y se recogieron aquellas cuyo coeficiente de correlación tuviese un valor igual o mayor de 0.75.

4. ESTABLECIMIENTO DEL MODELO EN LOS RIOS BAJO ESTUDIO

4.1. Río Tuy en El Clavo

Las estaciones seleccionadas en esta cuenca fueron:

PRECIPITACION

No.	NOMBRE	SERIAL
1	PETARE	555
2	LA MARIPOSA	563

No.	NOMBRE	SERIAL
3	LA VERANIEGA	5037
4	PARACOTOS	560
5	ONZA	588
6	AGUA FRIA	1436
7	INSTITUTO PIGNATELLI	1441
8	LA URBINA QDA. SECA	1455
9	LAS TEJERIAS	1469
10	HDA. LA EMILIA	1488
11	GUARENAS	548
12	SANTA TERESA	578
13	QUIRIPITAL	597
14	FILA DE TURGA	1510
15	EL TIGRE	1546
16	CAUCAGUA	1555
17	AGUAITA - RAMAL ARAG.	1582
18	PANAQUIRE	1586
19	SAN FRANCISCO DE MACAIRA	2507
20	EL GUAPO	1682

AVAPORACION

No.	NOMBRE	SERIAL
1	LA MARIPOSA	563
2	CUA - TOVAR	582
3	EL CAFE	1534
4	GUANAPITO	2415

Los estadísticos obtenidos para esta calibración fueron los siguientes:

	MEDIA (M^3/S)	DESV. TIPICA	COEF. VAR.
SIMULADO	62,60	43,88	0,70
OBSERVADO	62,30	42,30	0,68

COEFICIENTE DE CORRELACION LINEAL: 0,914

Como se puede observar los valores simulado y observado son similares, y el coeficiente de correlación lineal es aceptable, si tomamos en cuenta el período de calibración:

4.2. Río Tuy en El Vigía.

Las estaciones representativas fueron las siguientes:

No.	NOMBRE	SERIAL
1	PETARE	555
2	LA MARIPOSA	563
3	LA VERANIEGA	5037
4	PARACOTOS	560
5	ONZA	588
6	AGUA FRIA	1436
7	INSTITUTO PIGNATELLI	1441
8	LA URBINA - QDA. SECA	1455
9	LAS TEJERIAS	1469
10	HDA. LA EMILIA	1488
11	GUARENAS	548
12	SANTA TERESA	578
13	GUIRIPITAL	597
14	FILA DE TURGUA	1510

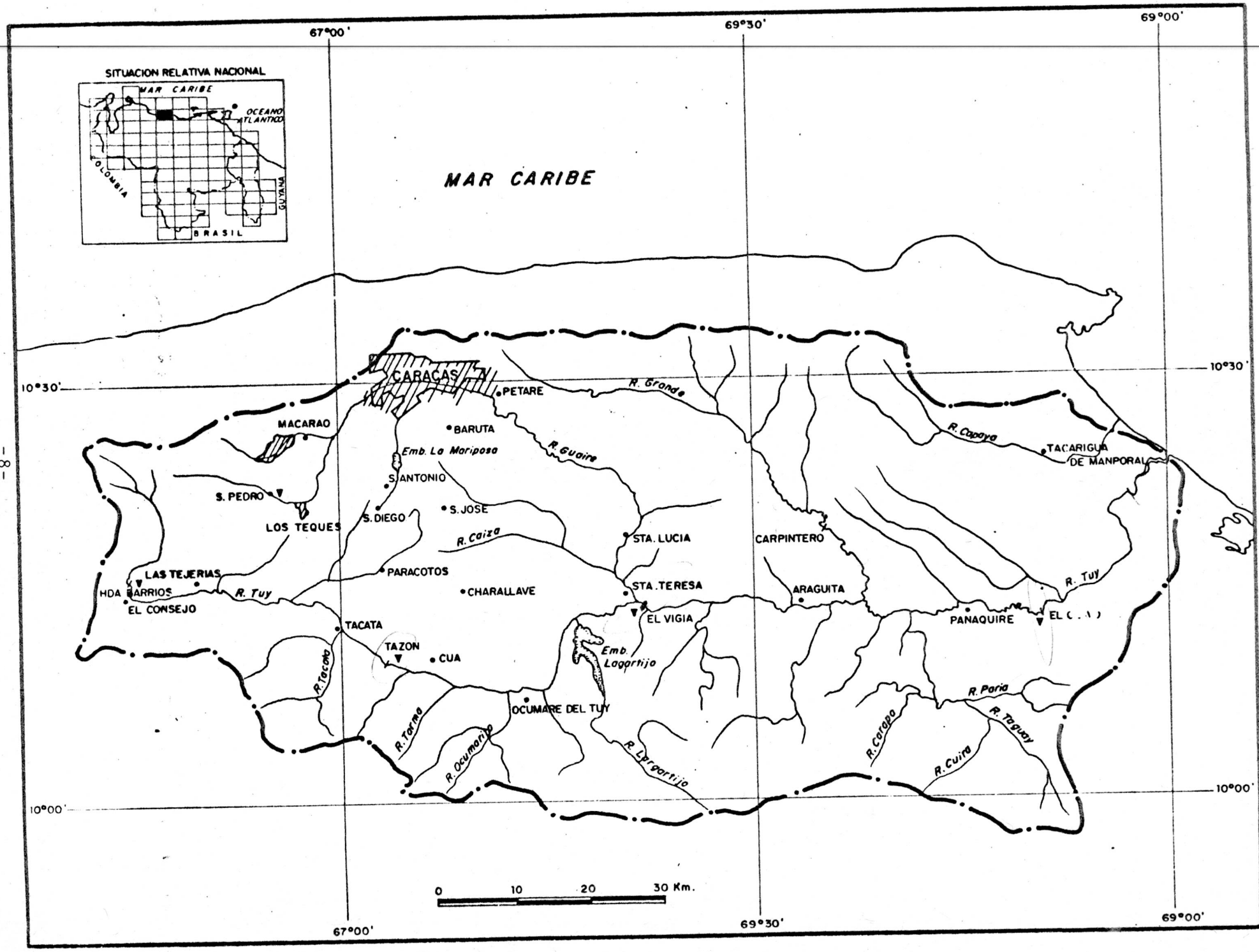
EVAPORACION

No.	NOMBRE	SERIAL
1	LA MARIPOSA	563
2	CUA - TOVAR	582
3	EL CAFE	1534
4	GUANAPITO	2415

Los estadisticos obtenidos para esta calibración fueron los siguientes:

	MEDIA (M^3/S)	DESV. TIPICA	COEF. VAR.
SIMULADO	13,88	9,96	0,72
OBSERVADO	13,87	9,16	0,66

COEFICIENTE DE CORRELACION LINEAL: 0,745


SITUACION RELATIVA NACIONAL
MAR CARIBE
OCEANO ATLANTICO
COLOMBIA
GUYANA
BRASIL
MAR CARIBE
67°00'
69°30'
69°00'
10°30'
10°00'
CARACAS
PETARE
R. Grande
MACARAO
BARUTA
Emb. La Mariposa
R. Guaire
R. Capaya
TACARIGUA DE MANPORAL
S. ANTONIO
S. PEDRO
S. JOSE
S. DIEGO
LOS TEQUES
R. Caiza
STA. LUCIA
CARPINTERO
LAS TEJERIAS
HDA BARRIOS
EL CONSEJO
R. Tuy
PARACOTOS
CHARALLAVE
STA. TERESA
ARAGUITA
R. Tuy
TACATA
EL VIGIA
PANAQUIRE
TAZON
CUA
Emb. Lagartijo
R. Tacata
OCUMARE DEL TUY
R. Paria
R. Tarma
R. Ocumarito
R. Lagartijo
R. Caripe
R. Cuira
R. Taguay
0 10 20 30 Km.

5. REFERENCIAS BIBLIOGRAFICAS

M.A.R.N.R. GONZALEZ, Cilino. Modelo Conceptual de Simulación Hidrológica Mensual " SIMHIDME". Programa y Manual de Uso por Computadora.
Caracas, 1980

ANEXOS

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RIO TUY EN EL CLAVO
  1    1    1    1    0    1    0 1973
 20    4    1    1    5   60    1   12    640.
 5858.
 .04  .05  .05  .09  .04  .07  .01  .04  .01  .01  .01  .00  .13  .07  .06  .06  .09  .07  .06  .05
 24.8   5.7  17.9  85.5  24.1  62.7  38.5 136.2 131.2  83.5 297.6  48.5  555PM73
 20.2   8.2   3.0   2.0  42.2  43.0 158.8 172.6 130.8 132.90 48.80 16.30 555PM74
 16.60 16.20 11.80 14.20 34.80 32.50 35.40123.70129.20 94.30 56.40 54.00 555PM75
 41.40 16.10 22.70 35.50 29.90 97.40130.40 63.40 39.1231.30 75.10 22.20  555PM76
  1.0   0.4   1.1   0.0  51.8 170.4 123.6 223.8 117.2 128.7  94.8   9.2  555PM77
  6.4   0.2   1.9  64.3  16.5  24.1  32.6 157.6  83.6 108.5 129.2  10.0  563PM73
 14.2   2.6  81.2   0.0  82.4  18.2  75.6 111.6  72.7 161.4  57.8   7.6  563PM74
  0.4   1.2   1.0  76.0  16.4  31.8  24.1 235.7 118.5 312.7  65.2  46.5  563PM75
 16.4  19.6  16.2  40.4  43.0 106.0 181.0  72.8  71.6 311.6  34.1  10.0  563PM76
  0.0   0.0   2.4   3.8 124.2 174.0  93.8 178.6  61.2 103.2  30.0   7.4  563PM77
 49.3   9.5  10.4  66.7   7.6 108.1  51.6  61.4  99.1  88.6 277.4  68.7 5037PM73
 96.2  22.1   5.2   1.9  66.3  56.7 137.6 226.2  95.1  92.8  84.2  43.7 5037PM74
 26.9  21.2   3.1   6.9  15.0  98.8  59.2 189.7 163.8 202.4  65.2  55.2 5037PM75
 53.6  39.5  31.6  32.0  74.5 132.3 257.4 140.2 136.3 114.9  92.8  40.2 5037PM76
  6.8   2.5  14.6  10.4 108.2 251.3 222.0 172.4 122.4  77.5 113.1  12.3 5037PM77
 61.1  24.6  14.7  48.8  42.0 126.3  92.8 292.9 332.6 213.8 607.4 202.8 1555PM73
168.3 191.7  95.3  55.2  20.1  23.1 157.5 223.3 127.8 308.6 214.2 243.5 1555PM74
 86.1  85.9  39.9  55.6 105.3  42.3 232.5 554.6 361.7 481.6 268.4 288.8 1555PM75
234.1 117.7 182.1  44.6  86.0 226.1 295.2 171.3 152.3 108.1 139.7 117.3 1555PM76
 49.8  17.7   9.2  45.4 159.9 290.9 302.4 319.3 162.8 191.5 193.7  97.7 1555PM77
  6.8   3.3   2.9  88.1  19.4 123.7  55.7 176.9  83.8 111.8  72.6  29.8  560PM73
 43.2  16.5  29.5   1.9  74.9   9.4 134.8 199.9 225.5 121.7  70.2  27.4  560PM74
 10.7   4.1   0.6   6.8  31.7  90.4  74.6 209.1 200.9 162.0 151.8  33.5  560PM75
 23.4  26.6  35.8  21.9  86.5 154.8 145.5  88.8  97.3 157.4  46.7  44.4  560PM76
  2.2   4.8   4.3   1.6  85.2 206.7 103.9  81.8  71.6 115.1  78.2  11.8  560PM77
 25.2  11.2  18.4 112.6  13.0  69.1  73.6 161.9 120.7 119.7 230.7  67.8  588PM73
124.4  30.0  15.8  17.4  74.4  50.0 154.6 178.8 100.0 132.2  87.2  39.2  588PM74
 8.70  9.10 14.30 20.50 49.50111.60 98.50222.70164.10197.10 65.80 43.10588PM75
 53.10 51.40 66.00 26.40149.10143.90252.20164.80 83.80147.80 69.00 67.80588PM76
 10.6  14.4  29.2  18.6  87.9 386.5 136.1 247.8 151.5 124.3 224.2  13.6  588PM77
 13.8   0.0   1.0 116.6  17.1  69.5  74.0 117.5 116.8 150.2 170.0  28.7 1436PM73
 35.0  13.0   6.0  12.0 109.0  17.2  98.2 274.8 231.8 130.0  63.8  21.0 1436PM74
  8.6  10.0   3.6  44.2  52.6 117.6  51.8 159.6 203.8 197.2  44.0 104.4 1436PM75
 26.70 67.90 33.80 50.30 57.60150.30205.20 90.20109.60237.00 96.00 53.901436PM76
  3.2   3.3 144.4  23.8 129.6 234.9 146.6 169.2  78.6  41.6  77.6   9.4 1436PM77
 21.8   2.6   0.0  95.1  16.4  36.0  37.6  83.2  92.9 103.3 122.1  39.2 1441PM73
 42.9   3.4   5.9   1.4  46.3  15.8 114.2 202.5 119.8 155.4  60.7   8.3 1441PM74
  1.1  14.7   1.5  31.9  27.1  58.8  83.9 189.4 154.1 229.4  38.9  91.8 1441PM75
 27.0  20.4  39.3  20.9  83.5 140.4 139.0  83.6  73.0 230.2  53.1   8.0 1441PM76
  1.9   2.0   1.0   6.1 110.3 171.2D177.9D225.1  76.2 142.4  80.6   2.0 1441PM77
  6.0   0.0   0.0  45.4  14.7  39.0  48.2  97.7 122.1  34.7  68.5  20.1 1455PM73
 11.9   0.0  22.4   0.2  68.6  12.9 115.2 130.5 123.1  79.2  60.8   2.5 1455PM74
  0.0   3.0   0.0  42.7  68.9 121.0  43.3 171.3 218.7 102.6  48.1  37.5 1455PM75
  6.6   8.8   2.7  53.3  43.4 103.0 233.6  76.4  86.3 155.4  16.7  14.2 1455PM76
  0.0   0.5  21.7   2.9  93.2 166.3  80.5 116.3 127.8  74.2  22.0   0.5 1455PM77
  2.5   1.2   0.0  72.2  11.6  82.2  69.4 132.9 184.5  44.9  73.1   5.5 1469PM73
 14.1   0.0   1.8   0.0  81.9  20.8 137.1  87.9 134.0  43.4  49.0  17.0 1469PM74
  7.20  9.40  7.20 39.20 58.90 98.00 39.70135.80171.40 84.20 43.30 35.301469PM75
 12.10 13.80  9.20 47.20 62.8 141.6 208.2  58.7 103.7 217.8  28.2  23.8 1469PM76
  0.0   0.8  39.4   0.0  88.2 173.6 108.3 172.6  84.8  64.0  66.0   7.501469PM77
 16.0   8.9   9.1  87.0  39.6  68.5  79.9 256.8 290.4 191.6 249.6  40.0 1488PM73
 94.0  15.4   3.0   5.2 176.2  33.2 207.8 260.0 251.8 172.4 126.6  39.4 1488PM74
  7.70  6.90  5.40  5.80 22.60178.00 43.10149.80203.10295.80 68.80 25.401488PM75
  6.50 15.10  7.70 11.50 93.60353.2 540.0  97.40139.2 165.4  98.2  92.4 1488PM76
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TABLA Nº 1

ENTRADA DE DATOS PARA CALIBRACION

RIO TUY EN EL CLAVO

```
  3.2  11.4  37.6   8.2 163.8 308.8 185.2 335.2 236.2 121.4 194.4  23.4 1488PM77
 19.3  27.9  10.0  34.2  32.3 104.8  34.0 189.8 329.4 261.6 393.4 169.9 1546PM73
105.3  59.5  89.2  23.4  21.3   8.6 232.1 154.6 136.7 314.7 207.8 123.9 1546PM74
 95.3  60.5  23.9  14.6  49.0  30.8 124.7 214.5 408.2 301.6 279.6 234.4 1546PM75
177.8 117.9  56.0  47.6  16.2  83.3 158.4 166.0  96.1 110.2 240.0  46.4 1546PM76
 48.0  11.0   8.0  17.9  79.7 163.1 270.2 264.2 198.3 132.1 201.1  34.7 1546PM77
200.1  61.7 117.7  74.2  33.5 213.1 233.5 223.6 257.1 305.1 907.3 419.0 1582PM73
528.1 238.5 162.5 107.6  69.0  75.3 166.0 355.9 272.8 198.3 220.6 249.6 1582PM74
166.9 263.4 143.4 219.9 176.2 280.4 308.3 388.5 245.0 371.1 271.5 378.6 1582PM75
469.4 338.2 432.0 101.6 138.4 330.3 305.2 182.7 152.6 139.4 287.3 209.1 1582PM76
 88.9  54.5  90.0  96.7 100.0 774.5 402.9 438.1 267.4 246.2 239.5  79.6 1582PM77
 48.5  40.7  15.7  23.6  79.4 165.2  98.6 343.2 414.2 316.7 629.3 319.8 1586PM73
312.6 137.3 135.1  63.5  38.3  39.3 305.1 332.8 264.5 315.5 179.0 205.1 1586PM74
111.4  96.8  42.8  46.6 383.3 105.7 183.7 400.0 309.9 429.4 281.7 525.6 1586PM75
238.6 233.6 151.2 102.6  88.0 184.8 188.8 211.9 172.7 146.8 243.3 100.1 1586PM76
 41.8  10.6  22.4  29.6 107.0 310.3 300.3 440.1 188.3 265.2 188.0  92.2 1586PM77
 21.6   7.7   1.5  68.8  31.8 169.2  91.3 128.9 237.3 131.1 160.9  29.5 2507PM73
 62.4  58.8  25.5   2.2  60.6  18.1  97.3 103.3 185.0 151.1  51.5  37.6 2507PM74
 18.7  13.8   4.0  25.5  22.2 133.0  67.9 277.5  92.7 150.9  43.1  91.0 2507PM75
 24.2  56.0  43.3  22.9  17.1  73.5 225.9  74.6  69.6 141.7  29.7  23.0 2507PM76
  5.5   2.9   2.9   2.0  69.2 141.1D153.7D227.9 165.0  74.6 135.5  14.0 2507PM77
 67.6  27.2  24.1  24.1  75.7 204.3  36.5 232.7 337.0 265.4 464.7 450.9 1682PM73
133.7 113.5 127.3  18.0  48.2  27.7 229.7 216.5 176.1 236.1 189.9 252.0 1682PM74
108.0 113.0  38.9  58.2  74.6  73.5 166.6 335.2 318.6 407.5 286.1 576.5 1682PM75
196.5 200.8  87.2  46.1  49.1 137.1 214.9 210.9 133.2 101.9 144.1 122.8 1682PM76
 54.2  24.3  26.9  40.3 112.0 248.9D370.9D480.2 146.4 160.9 262.6  47.9 1682PM77
 10.8   1.5   3.2  68.1  22.7  32.5  29.0 115.1 140.9  74.7 176.5  41.6  548PM73
 28.9   4.8   1.9  11.9  38.7  23.0 123.8 141.6  71.1  88.3  89.3  13.3  548PM74
  7.7   6.8   5.4   2.1  12.8  45.0 133.6D103.4D117.5 124.0  49.4 146.1  548PM75
 20.2  16.2   9.4  36.4  21.2 147.0 240.2 102.1  47.6  85.7  13.5  30.6  548PM76
  2.2   4.6   2.3   0.6  69.1 164.1D155.4D144.2  94.9D 77.7D 65.2  19.5  548PM77
 24.8   5.7  17.9  85.5  24.1  62.7  38.5 136.2 131.2  83.5 297.6  48.5  578PM73
121.2  22.6  14.2   2.0  69.6  29.4 116.6 238.8 204.4  86.40 83.6   4.4  578PM74
 21.7  24.70  4.40  6.6  24.8  45.8  90.3 245.4 112.9 131.7  74.50108.50 578PM75
 63.20 45.50 52.10 19.60 48.40115.90192.70 84.70 60.90128.90103.20 57.80578PM76
  6.4   1.3   4.7  12.3  91.6 181.8 278.8 149.7 111.6  47.5  85.4  22.3  578PM77
 19.9   6.0   0.8  87.0  22.0  96.2  59.8 175.1 161.1 134.3 140.1  38.0  597PM73
 71.4   6.2   3.6   2.4  77.6  10.8 165.6 239.8 191.4 107.20 72.7  54.4  597PM74
 33.70 13.30 17.90  7.40 21.40 90.80 40.40215.30196.00218.60 91.80 49.20597PM75
 30.60 26.80 21.40 28.00 60.30126.80179.30118.50 65.20 83.60 38.60 13.20597PM76
  3.6   5.4   4.8   2.0 104.0 251.8 177.5D163.7D142.9  87.8 118.6   5.8  597PM77
 14.4   6.3   8.3  71.4  33.7  37.8  30.6 142.2 149.7 104.8 234.1  72.4 1510PM73
 53.0  16.8   6.6   8.0  17.6  41.6 180.0 120.4 139.2 122.0 185.2  12.2 1510PM74
 37.70 24.40 17.00 68.50127.40226.50219.80157.20129.70111.50104.40 73.401510PM75
 31.90 20.60 14.40 57.90107.80191.50186.00133.00 24.00135.80 70.90 43.501510PM76
  4.4   0.4   1.5   1.0 118.8 259.2 159.0 235.0 126.4  51.0  47.4  20.4 1510PM77
 .35  .28  .19  .18
139.70148.80184.80166.20191.30164.30173.70165.80147.70158.90119.30115.00 563EM73
118.40127.60143.20154.50171.50184.20166.30155.30162.10144.40134.70118.00 563EM74
118.90127.00160.50150.60155.50161.50159.10157.10153.60151.10119.30 99.10 563EM75
 99.40108.10130.70142.70161.70152.30147.00177.20180.00169.80147.30137.30 563EM76
142.5 160.9 165.5 157.8 137.9 107.6 155.0 149.5 148.7 154.4 130.7 134.8  563EM77
212.9 217.3 257.5 254.3 253.8 205.0 230.4 191.8 178.7 202.3 122.5 144.1  582EM73
150.6 178.9 208.1 235.9 215.9 248.9 209.5 177.6 157.7 165.6 160.7 160.9  582EM74
179.9 197.2 265.6 226.3 213.8 215.2 200.9 175.5 172.9 164.0 133.4 127.5  582EM75
131.6 151.2 142.9 232.7 197.2 152.5 130.9 161.3 157.9 161.5 149.3 156.4  582EM76
194.2 213.3 231.8 235.6 192.8 132.3 137.6 161.5 146.0 163.2 142.2 133.3  582EM77
128.4 139.2 181.9 159.8 189.6 157.5 168.7 159.3 137.9 151.2 104.2  99.1 1534EM73
103.1 114.1 132.6 145.9 166.1 181.1 159.9 146.9 155.0 134.0 122.5 102.7 1534EM74
103.7 113.4 153.1 141.3 147.1 154.2 151.4 149.0 144.9 141.9 104.2  80.3 1534EM75
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 80.6  91.0 117.7 131.9 154.5 143.3 137.1 172.8 176.0 164.1 137.4 125.6 1534EM76
134.7 155.6 178.6 181.1 176.4 125.5 161.6 166.4 140.3 142.7 124.1 119.8 1534EM77
214.8 218.7 244.7 229.5 222.1 164.9 175.1 148.2 181.4 173.5 164.2 192.7 2415EM73
215.2 220.5 252.3 241.4 220.8 220.4 184.5 164.8 140.9 148.0 147.5 196.2 2415EM74
223.7 227.5 266.3 249.6 229.0 198.4 192.8 154.9 159.4 158.9 155.6 166.8 2415EM75
212.0 216.9 233.3 224.5 209.3 151.6 144.1 146.1 173.1 162.7 184.1 196.6 2415EM76
226.3 229.6 254.5 254.9 199.9 135.8 175.9 148.9 145.0 147.6 142.9 184.9 2415EM77
    1
103.94 61.43 45.88 38.10 37.84 37.07 46.40 68.95134.01119.75564.28278.64
374.28237.17126.23 95.90 77.24 56.76 68.95158.63156.30195.96166.15194.14
109.90116.64 73.61 61.43 86.31 73.09147.48273.46242.87406.68252.46470.19
297.82234.84248.57141.26100.31125.19286.93203.21160.96153.19123.38132.71
 87.87 67.13 63.24 56.25 59.88204.25220.06349.40229.91189.22210.99124.42
  RIO TUY EN EL CLAVO
  150.00    80.0     60.0     30.0     75.35     9.00
    0.90     0.12     0.07     0.00     0.04     0.90     0.80
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42	350.30	0.00	84.19	268.65	0.00	0.00	0.00	201.35	101.93	76.45	201.35	105.75	35.28	37.19	300.80
43	392.01	0.00	94.32	302.04	0.00	0.00	0.00	217.80	117.08	87.81	217.80	118.48	39.64	32.54	337.26
44	430.78	0.00	100.35	334.26	0.00	0.00	0.00	236.08	126.45	94.98	235.50	126.05	43.46	30.39	372.38
45	398.61	0.00	58.63	335.98	0.00	0.00	0.00	170.54	126.52	94.89	170.54	73.65	39.46	22.34	361.24
46	319.78	0.00	16.06	295.41	0.00	0.00	0.00	108.53	122.63	91.62	108.53	20.17	31.15	16.33	307.16
47	251.68	0.00	3.86	241.18	0.00	0.00	0.00	72.43	123.32	72.30	72.43	4.85	24.50	10.96	248.34
48	211.91	0.00	10.09	198.14	0.00	0.00	0.00	104.52	111.19	80.61	104.52	12.68	20.82	20.46	206.54
49	180.68	0.00	10.23	167.38	0.00	0.00	0.00	98.01	112.29	84.22	98.01	12.85	17.76	19.65	174.62
50	144.59	0.00	3.04	137.87	0.00	0.00	0.00	68.61	113.86	70.17	68.61	3.82	14.09	13.75	142.23
51	113.19	0.00	0.00	110.11	0.00	0.00	0.00	52.05	144.75	62.96	52.05	0.00	11.01	2.84	112.93
52	110.31	0.00	14.65	95.68	0.00	0.00	0.00	122.14	119.28	85.43	122.14	18.41	11.03	18.63	103.21
53	181.31	0.00	66.59	122.61	0.00	0.00	0.00	187.26	100.08	75.06	187.26	83.65	18.92	35.78	146.85
54	367.30	100.50	100.88	185.71	0.00	0.00	0.00	268.59	92.78	80.94	205.95	126.72	38.71	62.22	220.29
55	349.98	0.00	100.88	244.97	0.00	0.00	0.00	209.21	112.40	89.27	189.31	126.72	34.59	38.15	281.07
56	320.54	0.00	54.17	263.55	0.00	0.00	0.00	153.70	123.19	92.39	153.70	68.05	31.77	22.14	284.98
57	286.99	0.00	35.79	247.79	0.00	0.00	0.00	140.16	119.68	89.76	140.16	44.96	28.36	21.45	264.65
58	233.62	0.00	11.99	216.08	0.00	0.00	0.00	101.80	129.08	93.52	101.80	15.06	22.81	12.61	224.76
59	185.73	0.00	3.90	177.12	0.00	0.00	0.00	72.72	115.96	66.84	72.72	4.90	18.10	12.91	182.76
60	157.45	0.00	8.31	146.52	0.00	0.00	0.00	100.19	110.86	81.05	100.19	10.44	15.48	20.19	152.99
61	130.13	0.00	4.96	122.42	0.00	0.00	0.00	80.40	120.72	80.24	80.40	6.23	12.74	13.27	126.94
62	102.33	0.00	0.56	98.98	0.00	0.00	0.00	10.35	140.18	21.90	10.35	0.71	9.95	0.91	101.57
63	80.56	0.00	0.00	78.45	0.00	0.00	0.00	2.14	204.70	3.05	2.14	0.00	7.85	0.00	80.46
64	68.80	0.00	3.40	64.33	0.00	0.00	0.00	76.15	135.85	65.12	76.15	4.26	6.77	6.19	66.98
65	117.24	0.00	44.70	78.04	0.00	0.00	0.00	165.75	101.35	76.02	165.75	56.15	12.27	32.13	95.41
66	223.82	0.00	95.30	139.76	0.00	0.00	0.00	219.03	99.87	74.90	219.03	119.70	23.51	40.23	172.18
67	260.38	0.00	72.32	190.87	0.00	0.00	0.00	181.07	123.75	92.81	181.07	90.85	26.32	25.25	215.90
68	260.15	0.00	52.50	207.32	0.00	0.00	0.00	166.07	126.15	94.61	166.07	65.94	25.98	21.77	227.85
69	233.44	0.00	29.67	200.84	0.00	0.00	0.00	135.44	133.79	100.34	135.44	37.27	23.05	14.52	214.15
70	196.98	0.00	15.49	177.76	0.00	0.00	0.00	116.30	123.10	91.97	116.30	19.46	19.33	16.74	187.02
71	158.98	0.00	5.42	149.75	0.00	0.00	0.00	78.78	136.94	80.66	78.78	6.81	15.52	7.11	155.01
72	135.26	0.00	7.88	125.16	0.00	0.00	0.00	99.73	138.31	87.25	99.73	9.90	13.30	8.34	130.75
73	114.52	0.00	6.47	105.99	0.00	0.00	0.00	89.68	129.87	78.37	89.68	8.13	11.25	10.41	110.58
74	90.00	0.00	0.79	86.72	0.00	0.00	0.00	53.13	146.33	59.88	53.13	0.99	8.75	2.53	89.03
75	70.64	0.00	0.00	68.76	0.00	0.00	0.00	25.90	179.00	28.44	25.90	0.00	6.88	0.00	70.52
76	55.90	0.00	0.00	54.47	0.00	0.00	0.00	57.07	166.27	57.07	57.07	0.00	5.45	0.00	55.86
77	47.46	0.00	2.15	44.53	0.00	0.00	0.00	70.25	167.59	67.17	70.25	2.70	4.67	0.00	46.31
78	61.00	0.00	16.65	45.94	0.00	0.00	0.00	139.59	144.54	106.47	139.59	20.91	6.26	9.35	52.62
79	162.93	0.00	81.27	92.81	0.00	0.00	0.00	229.85	125.47	94.10	229.85	102.08	17.41	29.10	120.86
80	209.59	0.00	67.36	146.18	0.00	0.00	0.00	186.76	128.47	96.35	186.76	84.61	21.35	23.37	169.36
81	166.17	0.00	13.83	147.08	0.00	0.00	0.00	92.80	129.64	85.00	92.80	17.37	16.09	11.43	154.11
82	181.67	0.00	39.44	144.53	0.00	0.00	0.00	161.28	129.98	97.49	161.28	49.55	18.40	18.92	160.51
83	278.56	0.00	98.22	190.85	0.00	0.00	0.00	252.68	108.04	84.25	239.80	123.38	28.91	47.14	225.25
84	303.45	0.00	72.46	232.58	0.00	0.00	0.00	171.04	115.76	86.82	171.04	91.03	30.50	27.92	258.36
85	228.39	0.00	7.94	211.94	0.00	0.00	0.00	44.46	132.37	56.06	44.46	9.97	21.99	5.00	218.86
86	177.49	0.00	2.09	170.69	0.00	0.00	0.00	69.92	127.19	63.46	69.92	2.62	17.28	8.48	175.67
87	139.57	0.00	0.00	135.88	0.00	0.00	0.00	56.13	143.52	61.33	56.13	0.00	13.59	3.28	139.36
88	125.99	0.00	10.63	114.26	0.00	0.00	0.00	117.46	146.87	99.03	117.46	13.35	12.49	6.54	120.49
89	147.54	0.00	35.01	115.04	0.00	0.00	0.00	156.28	120.75	90.57	156.28	43.98	15.01	22.28	129.64
90	154.73	0.00	30.95	124.30	0.00	0.00	0.00	131.49	117.75	88.31	131.49	38.87	15.52	21.28	136.55
91	259.36	0.00	99.06	171.87	0.00	0.00	0.00	250.95	118.75	91.13	242.65	124.44	27.09	39.69	205.88
92	312.80	0.00	89.82	227.63	0.00	0.00	0.00	207.87	117.37	88.03	207.87	112.83	31.75	31.31	259.32
93	287.17	0.00	44.74	239.07	0.00	0.00	0.00	149.40	133.57	100.18	149.40	56.20	28.38	16.67	257.19
94	320.67	0.00	75.43	249.34	0.00	0.00	0.00	208.91	115.26	86.45	208.91	94.75	32.48	31.47	279.25
95	356.26	0.00	82.74	277.01	0.00	0.00	0.00	204.66	115.34	86.50	204.66	103.94	35.98	31.52	308.57
96	390.57	0.00	83.05	299.83	0.00	0.00	0.00	204.60	113.84	85.38	204.60	104.33	38.29	32.19	332.11

PROMEDIOS MENSUALES DE LA SUBCUENCA EN EL PERIODO1978-1985

218.83	14.18	37.92	166.60	0.00	0.00	0.00	135.78	131.42	79.21	130.57	47.63	

CUENCA RIO TUY EN EL CLAVO

PARAMETROS DEL SEGMENTO NUMERO 1 RIO TUY EN EL CLAVO

AREA 5838.00 KM2

CINF	HES	CC	PHSI	PVOII	PSROI
150.00	80.00	60.00	30.00	75.35	9.00

CK3	C4	C5	C6	C7	C8	C9
0.90	0.12	0.07	0.00	0.04	0.90	0.80

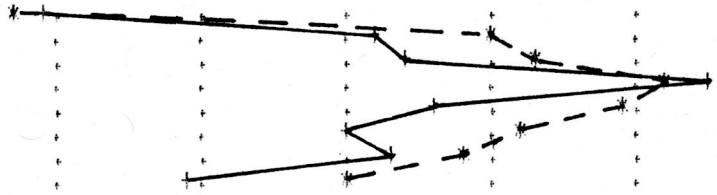
TABLA Nº 3

RESULTADOS DE LA SIMULACION

SUMARIO MENSUAL DEL SEGMENTO ?

MES	FTOTAL MM3	FSUPF MM3	INTERF MM3	FBASE MM3	FSUPAF MM3	FSUBAF MM	FSUBEF MM	PREC MM	ETP MM	ETR MM	INFIL MM	PERC MM	SROI MM	HSI MM	VOII MM
1	104.92	0.00	0.00	58.20	0.00	0.00	0.00	33.11	146.55	61.39	33.11	0.00	5.82	1.72	59.68
2	47.31	0.00	0.00	46.10	0.00	0.00	0.00	10.01	159.46	11.72	10.01	0.00	4.61	0.02	47.28
3	37.47	0.00	0.00	36.51	0.00	0.00	0.00	22.35	197.24	22.37	22.35	0.00	3.65	0.00	37.45
4	54.02	0.00	16.78	39.19	0.00	0.00	0.00	145.67	155.52	116.63	145.67	21.08	5.60	5.10	45.57
5	42.79	0.00	2.39	38.93	0.00	0.00	0.00	57.76	164.17	59.44	57.76	3.01	4.13	0.00	40.38
6	139.28	0.00	74.46	75.70	0.00	0.00	0.00	225.45	115.00	86.25	225.45	93.54	15.02	32.91	102.38
7	243.36	0.00	100.88	152.83	0.00	0.00	0.00	241.65	133.03	101.14	236.18	126.72	25.37	29.42	186.57
8	269.31	0.00	70.84	200.21	0.00	0.00	0.00	192.48	129.71	97.28	192.48	88.98	27.10	23.50	225.78
9	214.80	0.00	16.09	192.47	0.00	0.00	0.00	102.81	139.00	94.45	102.81	20.21	20.86	8.90	201.31
10	180.31	0.00	12.53	164.64	0.00	0.00	0.00	120.38	137.45	100.78	120.38	15.74	17.72	10.61	172.57
11	179.78	0.00	28.22	151.84	0.00	0.00	0.00	142.54	125.81	94.36	142.54	35.45	18.01	18.51	164.73
12	186.05	0.00	34.76	151.95	0.00	0.00	0.00	139.02	109.64	82.23	139.02	43.66	18.67	25.68	166.71
13	145.54	0.00	4.76	136.20	0.00	0.00	0.00	37.24	136.94	52.66	37.24	5.98	14.10	3.46	140.58
14	111.98	0.00	0.00	108.76	0.00	0.00	0.00	20.93	151.93	23.83	20.93	0.00	10.88	0.56	111.54
15	93.78	0.00	3.67	88.44	0.00	0.00	0.00	79.84	167.67	74.45	79.84	4.61	9.21	0.71	91.84
16	77.00	0.00	2.36	72.96	0.00	0.00	0.00	68.84	150.13	64.02	68.84	2.96	7.53	2.17	75.44
17	103.39	0.00	29.54	76.97	0.00	0.00	0.00	164.42	156.67	117.50	164.42	37.11	10.65	6.92	88.07
18	256.57	36.22	100.88	136.15	0.00	0.00	0.00	292.57	104.77	87.17	251.97	126.72	27.32	62.11	169.46
19	504.48	223.58	100.88	205.71	0.00	0.00	0.00	281.31	117.88	103.67	182.00	126.72	53.02	57.46	240.81
20	378.55	0.00	100.88	260.82	0.00	0.00	0.00	227.83	127.18	103.29	196.21	126.72	36.17	37.99	297.32
21	357.59	0.00	70.67	286.47	0.00	0.00	0.00	181.33	125.23	93.92	181.33	88.77	35.71	24.53	313.57
22	284.08	0.00	16.11	259.85	0.00	0.00	0.00	105.35	129.23	93.79	105.35	20.24	27.60	13.09	270.48
23	276.39	0.00	41.23	235.20	0.00	0.00	0.00	156.49	112.73	84.55	156.49	51.79	27.64	26.17	254.49
24	312.90	0.00	70.87	246.08	0.00	0.00	0.00	188.29	106.88	80.16	188.29	89.02	31.69	33.14	273.91
25	250.34	0.00	13.93	229.01	0.00	0.00	0.00	87.23	125.54	87.71	87.23	17.50	24.29	12.78	238.01
26	192.27	0.00	1.06	185.58	0.00	0.00	0.00	26.86	150.22	37.22	26.86	1.33	18.66	0.91	190.45
27	151.05	0.00	0.00	147.10	0.00	0.00	0.00	16.11	183.02	17.02	16.11	0.00	14.71	0.00	150.85
28	119.57	0.00	0.00	116.51	0.00	0.00	0.00	50.14	174.94	50.14	50.14	0.00	11.65	0.00	119.49
29	137.76	0.00	29.72	110.40	0.00	0.00	0.00	164.97	150.48	112.86	164.97	37.34	14.01	9.68	122.81
30	164.40	0.00	42.71	124.39	0.00	0.00	0.00	166.75	124.88	93.66	166.75	53.65	16.71	21.80	141.20
31	254.65	0.00	92.26	172.12	0.00	0.00	0.00	232.50	120.81	90.61	232.50	115.89	26.44	32.01	204.65
32	312.98	0.00	91.55	226.83	0.00	0.00	0.00	221.82	125.48	94.11	221.82	115.00	31.84	29.03	259.46
33	330.64	0.00	74.20	257.81	0.00	0.00	0.00	200.63	136.38	102.28	200.63	93.20	33.20	21.47	285.71
34	262.94	0.00	16.15	239.11	0.00	0.00	0.00	101.50	135.45	89.82	101.50	20.29	25.53	10.09	249.11
35	282.26	0.00	56.98	228.28	0.00	0.00	0.00	186.59	116.49	87.37	186.59	71.58	28.53	27.97	252.44
36	239.40	0.00	19.21	215.09	0.00	0.00	0.00	108.94	129.02	95.76	108.94	24.13	23.43	13.74	225.22
37	183.94	0.00	1.66	176.69	0.00	0.00	0.00	29.62	141.23	38.90	29.62	2.08	17.83	2.10	181.40
38	192.39	0.00	33.91	160.03	0.00	0.00	0.00	161.51	127.11	95.33	161.51	42.60	19.39	19.87	175.62
39	153.64	0.00	5.28	143.88	0.00	0.00	0.00	33.91	168.33	46.24	33.91	6.63	14.92	0.00	148.56
40	1168.18	1000.53	100.88	179.99	0.00	0.00	0.00	460.71	112.18	95.93	242.15	126.72	128.14	49.40	214.42
41	422.80	0.00	91.29	236.11	0.00	0.00	0.00	198.21	113.10	84.82	198.21	114.68	32.74	32.47	267.74

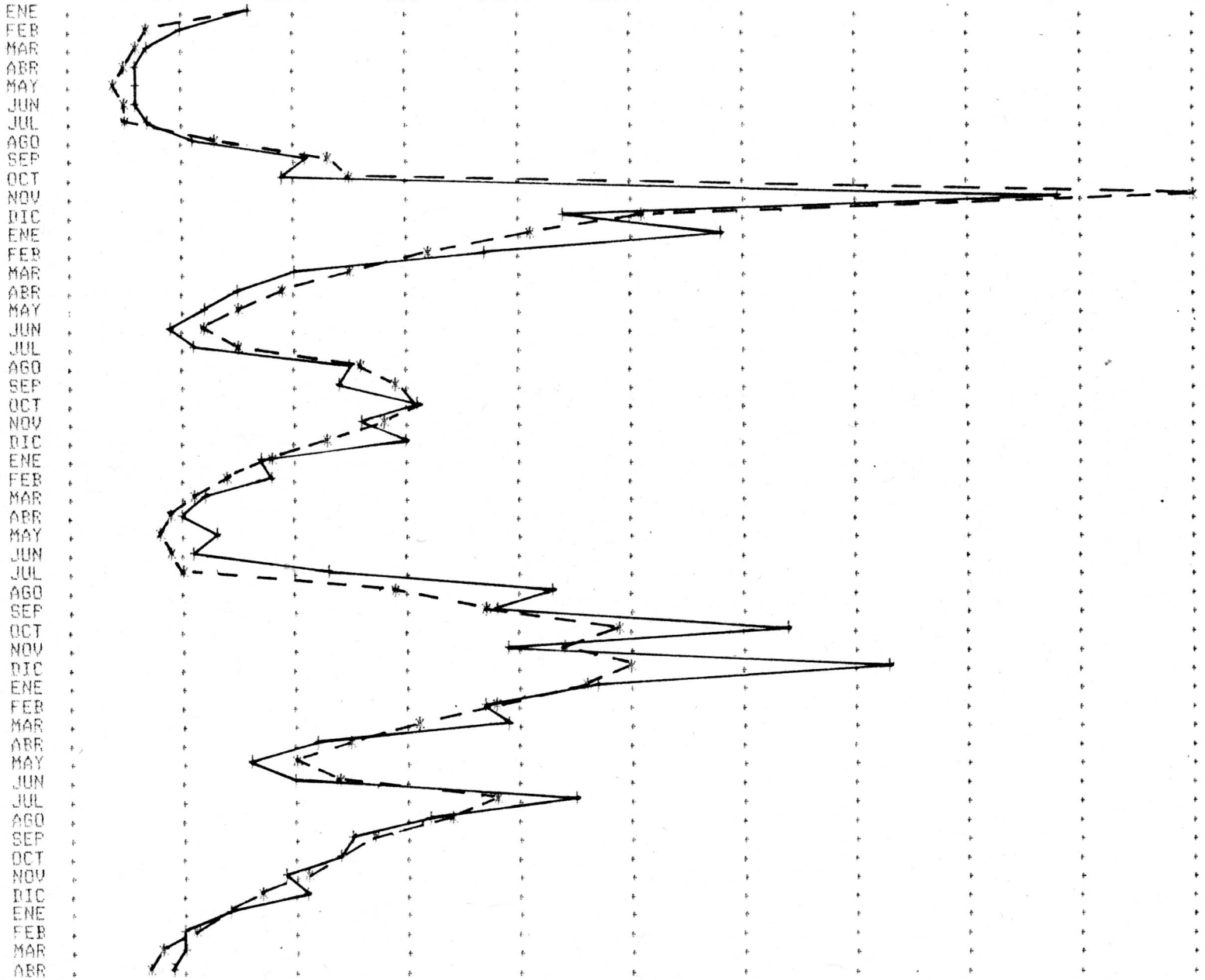
Clavo 83 m³/s
G. max 450 m³/s
G max 1777 m³/s



MAY	59.88	45.49	601.18
JUN	204.25	253.13	1790.15
JUL	220.06	276.27	1348.18
AGO	349.40	331.55	1564.99
SEP	229.91	311.19	865.10
OCT	189.22	266.64	795.53
NOV	210.99	246.38	837.98
DIC	124.42	193.63	217.51
	9829.11	9877.07	

CUENCA RIO TUY EN EL CLAVO PERIODO 1973-1977 CURVA DE CALIBRACION

PLOTEO DE ESCORRENTIA OBSERVADA Y SIMULADA, E IMPRESION DE LA PRECIPITACION DEL SEGMENTO, TODO EN M.M3



	+OBS	*SIM	PREC
ENE	103.94	104.92	303.28
FEB	61.43	47.31	106.37
MAR	45.88	37.47	140.69
ABR	38.10	32.97	411.93
MAY	37.84	25.55	188.09
JUN	37.07	33.90	647.76
JUL	46.40	32.29	473.16
AGO	68.95	83.46	1067.43
SEP	134.01	147.33	1184.31
OCT	119.75	160.52	963.98
NOV	564.28	718.65	2176.48
DIC	278.64	325.95	883.26
ENE	374.28	261.13	907.79
FEB	237.17	204.61	444.72
MAR	126.23	158.34	334.70
ABR	95.90	124.69	163.86
MAY	77.24	98.73	335.19
JUN	56.76	78.20	204.55
JUL	68.95	96.49	924.44
AGO	158.63	168.54	1276.50
SEP	156.30	185.44	981.60
OCT	195.96	198.81	980.85
NOV	166.15	177.45	734.86
DIC	194.14	147.43	581.83
ENE	109.90	114.85	317.06
FEB	116.64	91.29	374.60
MAR	73.61	72.01	189.41
ABR	61.43	57.00	323.48
MAY	86.31	52.27	504.25
JUN	73.09	55.01	647.04
JUL	147.48	64.61	819.00
AGO	273.46	188.38	1613.36
SEP	242.87	236.40	1170.15
OCT	406.68	310.84	1517.86
NOV	252.46	282.33	831.12
DIC	470.19	318.04	1148.44
ENE	297.82	294.45	777.13
FEB	234.84	240.49	605.59
MAR	248.57	200.34	635.85
ABR	141.26	157.26	280.17
MAY	100.31	128.77	449.82
JUN	125.19	154.88	1007.40
JUL	286.93	240.68	1337.56
AGO	203.21	215.91	787.28
SEP	160.96	172.37	586.64
OCT	153.19	155.72	802.54
NOV	123.38	136.49	655.27
DIC	132.71	110.62	439.86
ENE	87.87	86.62	145.83
FEB	67.13	68.21	78.71
MAR	63.24	54.00	130.56
ABR	56.25	42.77	146.07

42	154.88	0.00	37.56	120.52	0.00	0.00	0.00	172.56	135.47	101.60	172.56	47.18	15.81	17.35	136.15
43	240.68	0.00	86.06	163.79	0.00	0.00	0.00	229.11	126.08	94.56	229.11	108.11	24.99	29.05	194.40
44	215.91	0.00	30.86	181.28	0.00	0.00	0.00	134.85	149.68	112.26	134.85	38.77	21.21	7.59	193.26
45	172.37	0.00	9.99	157.96	0.00	0.00	0.00	100.49	154.63	90.67	100.49	12.55	16.79	3.14	164.77
46	155.72	0.00	16.13	138.23	0.00	0.00	0.00	137.47	148.60	110.20	137.47	20.26	15.44	7.39	146.77
47	136.49	0.00	11.75	122.75	0.00	0.00	0.00	112.24	137.34	92.95	112.24	14.77	13.45	9.90	129.27
48	110.62	0.00	4.19	103.78	0.00	0.00	0.00	75.35	135.99	72.35	75.35	5.26	10.80	6.91	107.56
49	86.62	0.00	0.44	83.81	0.00	0.00	0.00	24.98	153.52	30.72	24.98	0.56	8.43	0.54	86.00
50	68.21	0.00	0.00	66.43	0.00	0.00	0.00	13.48	168.24	14.02	13.48	0.00	6.64	0.00	68.12
51	54.00	0.00	0.00	52.62	0.00	0.00	0.00	22.36	182.32	22.36	22.36	0.00	5.26	0.00	53.96
52	42.77	0.00	0.00	41.68	0.00	0.00	0.00	25.02	181.34	25.02	25.02	0.00	4.17	0.00	42.74
53	45.49	0.00	7.95	37.97	0.00	0.00	0.00	102.98	154.57	88.50	102.98	9.98	4.59	3.13	41.42
54	253.13	77.40	100.88	97.87	0.00	0.00	0.00	306.64	110.69	92.48	255.55	126.72	27.62	60.03	130.21
55	276.27	0.00	100.88	175.40	0.00	0.00	0.00	230.93	139.63	113.65	195.21	126.72	27.63	33.31	209.72
56	331.55	0.00	100.88	236.81	0.00	0.00	0.00	268.07	140.37	115.21	228.32	126.72	33.77	42.17	272.69
57	311.19	0.00	51.80	256.44	0.00	0.00	0.00	148.19	131.11	98.34	148.19	65.07	30.82	18.07	276.32
58	266.64	0.00	26.79	235.23	0.00	0.00	0.00	136.27	138.08	103.56	136.27	33.65	26.20	12.54	248.70
59	246.38	0.00	31.06	213.57	0.00	0.00	0.00	143.54	121.38	91.03	143.54	39.02	24.46	20.71	228.89
60	193.63	0.00	4.36	183.60	0.00	0.00	0.00	37.26	126.49	46.39	37.26	5.48	18.80	5.35	189.11

PROMEDIOS MENSUALES DE LA SUBCUENCA EN EL PERIODO1973-1977

164.62	9.74	28.48	125.84	0.00	0.00	0.00	122.07	148.20	80.17	117.32	35.77

VOLUMEN MENSUAL PROMEDIO OBSERVADO = 163.82 MILLONES DE METROS CUBICOS

RESUMEN DE LOS ESTADISTICOS DE LAS SERIES SIMULADA Y OBSERVADA

ESTADISTICOS :	MEDIA(M3/S)	DESVIACION TIPICA	COEF. VARIACION
SIMULADO :	62.60	43.88	0.70
OBSERVADO :	62.30	42.30	0.68

COEFICIENTE DE CORRELACION LINEAL = 0.914

CUENCA RIO TUY EN EL CLAVO

PARAMETROS DEL SEGMENTO NUMERO 1 RIO TUY EN EL CLAVO AREA 5838.00 KM2

CINF	HES	CC	PHSI	PVOII	FSROI
150.00	80.00	60.00	30.00	75.35	9.00

CK3	C4	C5	C6	C7	C8	C9
0.90	0.12	0.07	0.00	0.04	0.90	0.80

TABLA Nº 2

RESULTADOS DE LA CALIBRACION

SUMARIO MENSUAL DEL SEGMENTO ?

MES	FTOTAL MM3	FSUPF MM3	INTERF MM3	FBASE MM3	FSUPAF MM3	FSUBAF MM	FSUBEF MM	PREC MM	ETP MM	ETR MM	INFIL MM	PERC MM	SROI MM	HSI MM	VOII MM
1	104.92	0.00	0.00	58.20	0.00	0.00	0.00	51.95	154.41	80.97	51.95	0.00	5.82	0.98	59.68		
2	47.31	0.00	0.00	46.10	0.00	0.00	0.00	18.22	160.86	19.20	18.22	0.00	4.61	0.00	47.28		
3	37.47	0.00	0.00	36.51	0.00	0.00	0.00	24.10	193.85	24.10	24.10	0.00	3.65	0.00	37.45		
4	32.97	0.00	2.22	30.35	0.00	0.00	0.00	70.56	180.94	67.39	70.56	2.79	3.26	0.00	31.79		
5	25.55	0.00	0.00	24.77	0.00	0.00	0.00	32.22	192.62	32.22	32.22	0.00	2.48	0.00	25.40		
6	33.90	0.00	9.42	25.49	0.00	0.00	0.00	110.96	157.06	94.77	110.96	11.84	3.49	2.73	29.08		
7	32.29	0.00	5.13	26.88	0.00	0.00	0.00	81.05	169.99	75.63	81.05	6.44	3.20	0.83	29.00		
8	83.46	0.00	41.02	48.16	0.00	0.00	0.00	182.84	151.81	113.86	182.84	51.53	8.92	11.26	62.38		
9	147.33	0.00	61.91	91.88	0.00	0.00	0.00	202.86	144.53	108.39	202.86	77.77	15.38	17.36	113.05		
10	160.52	0.00	40.54	120.72	0.00	0.00	0.00	165.12	155.00	116.25	165.12	50.93	16.13	8.36	135.05		
11	718.65	506.82	100.88	172.88	0.00	0.00	0.00	372.81	112.87	98.59	230.24	126.72	78.06	51.77	207.13		
12	325.95	0.00	62.37	213.07	0.00	0.00	0.00	151.29	120.70	90.53	151.29	78.34	27.54	23.51	234.62		
13	261.13	0.00	44.48	215.07	0.00	0.00	0.00	155.50	127.74	95.80	155.50	55.87	25.95	19.72	233.40		
14	204.61	0.00	8.12	190.39	0.00	0.00	0.00	76.18	140.51	78.37	76.18	10.20	19.85	5.94	197.09		
15	158.34	0.00	0.62	153.26	0.00	0.00	0.00	57.33	161.10	62.39	57.33	0.78	15.39	0.00	157.25		
16	124.69	0.00	0.00	121.45	0.00	0.00	0.00	28.07	172.17	28.07	28.07	0.00	12.15	0.00	124.55		
17	98.73	0.00	0.00	96.20	0.00	0.00	0.00	57.42	172.60	57.42	57.42	0.00	9.62	0.00	98.66		
18	78.20	0.00	0.00	76.20	0.00	0.00	0.00	35.04	187.42	35.04	35.04	0.00	7.62	0.00	78.15		
19	96.49	0.00	23.64	75.10	0.00	0.00	0.00	158.35	162.41	120.00	158.35	29.70	9.87	4.60	84.39		
20	168.54	0.00	66.96	109.33	0.00	0.00	0.00	218.65	145.49	109.12	218.65	84.12	17.63	18.55	133.09		
21	185.44	0.00	46.33	140.13	0.00	0.00	0.00	168.14	140.13	105.10	168.14	58.20	18.65	15.46	157.16		
22	198.81	0.00	45.44	154.75	0.00	0.00	0.00	168.01	134.11	100.58	168.01	57.08	20.02	18.03	172.36		
23	177.45	0.00	22.52	152.40	0.00	0.00	0.00	125.87	127.77	95.83	125.87	28.29	17.49	15.93	162.78		
24	147.43	0.00	9.92	134.46	0.00	0.00	0.00	99.66	127.06	88.45	99.66	12.46	14.44	12.99	140.64		
25	114.85	0.00	1.11	110.46	0.00	0.00	0.00	54.31	136.76	60.96	54.31	1.39	11.16	4.76	113.41		
26	91.29	0.00	0.88	88.16	0.00	0.00	0.00	64.17	145.95	64.63	64.17	1.10	8.90	3.04	90.67		
27	72.01	0.00	0.00	70.12	0.00	0.00	0.00	32.44	186.81	35.49	32.44	0.00	7.01	0.00	71.91		
28	57.00	0.00	0.00	55.54	0.00	0.00	0.00	55.41	169.06	55.41	55.41	0.00	5.55	0.00	56.96		
29	52.27	0.00	4.88	47.03	0.00	0.00	0.00	86.37	165.11	78.46	86.37	6.13	5.19	0.95	49.76		
30	55.01	0.00	10.04	45.32	0.00	0.00	0.00	110.83	163.61	95.58	110.83	12.61	5.54	1.87	49.52		
31	64.61	0.00	16.11	49.53	0.00	0.00	0.00	140.29	157.87	115.42	140.29	20.23	6.56	3.75	55.65		
32	188.38	0.00	96.36	105.66	0.00	0.00	0.00	276.35	144.29	110.83	265.90	121.04	20.20	31.74	137.66		
33	236.40	0.00	74.60	165.63	0.00	0.00	0.00	200.44	142.56	106.92	200.44	93.71	24.02	18.77	190.85		
34	310.84	0.00	100.19	218.49	0.00	0.00	0.00	260.00	138.93	105.61	254.34	125.85	31.87	30.14	253.83		
35	282.33	0.00	43.68	234.61	0.00	0.00	0.00	142.36	114.22	85.67	142.36	54.87	27.83	24.49	253.06		
36	318.04	0.00	75.51	246.94	0.00	0.00	0.00	196.72	104.10	78.07	196.72	94.86	32.25	35.34	276.48		
37	294.45	0.00	41.82	249.53	0.00	0.00	0.00	133.12	112.60	84.45	133.12	52.53	29.13	24.32	267.36		
38	240.49	0.00	14.56	220.28	0.00	0.00	0.00	103.73	122.85	91.55	103.73	18.29	23.48	15.71	229.58		
39	200.34	0.00	10.95	185.55	0.00	0.00	0.00	108.92	135.10	98.34	108.92	13.76	19.65	10.66	193.45		
40	157.26	0.00	1.31	151.59	0.00	0.00	0.00	47.99	162.51	56.78	47.99	1.65	15.29	0.00	155.62		
41	128.77	0.00	3.58	122.50	0.00	0.00	0.00	77.05	160.96	71.93	77.05	4.50	12.61	0.00	126.69		

RESUMEN DE LOS ESTADISTICOS DE LAS SERIES SIMULADA Y OBSERVADA

ESTADISTICOS :	MEDIA(M3/S)	DESVIACION TIPICA	COEF. VARIACION
SIMULADO :	83.22	54.10	0.65
OBSERVADO :	0.00	0.00	0.00

TABLA Nº 4

ENTRADA DE DATOS PARA CALIBRACION

RIO TUY EN EL VIGIA

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RIO TUY EN EL VIGIA
    1    1    0    0    0    0    0 1978
   14    4    1    0    8   96    1   12     200.
 3620.
.00 .25 .20 .00 .00 .18 .00 .00 .00 .20 .17 .00 .00 .00
 0.2   0.0   8.4 168.2  55.3 145.0 108.2 171.2  99.0 132.4  57.6  55.6  555PM78
 2.0   3.0  94.6  63.0 103.0 207.8 116.6 107.7 110.8 175.4 108.4 120.0  555PM79
26.0   6.6   0.0  75.8 102.2  84.4 158.0 139.2 217.0  87.8 109.0  16.8  555PM80
 0.6  98.0  35.6 295.3 154.4 160.6  92.4 141.7 143.0 110.2   8.4  26.4  555PM81
40.2  22.7   5.4  60.8 226.4 200.4 116.6 111.2 163.8  80.4  53.6  57.2  555PM82
52.2   6.2   0.4  62.5 130.4 176.6 178.8 131.6  83.0 103.2  17.0   4.0  555PM83
48.6  19.4   1.0  27.8  23.6  33.0 244.4 131.8 165.7 127.8 207.4  93.6  555PM84
11.2  20.0  10.4 149.2  79.6 115.6 125.9 143.0 131.8 223.6 131.2 192.2  555PM85
 0.6   0.0   2.8 115.6  45.6 130.2 132.2  69.2  47.0  80.4  79.6  46.8  563PM78
 4.0   0.2  25.6  34.6  67.4 184.4 119.2 110.4 140.8  78.0 163.2  54.6  563PM79
 4.8   5.4   0.0  39.2  66.8  87.2 183.3 168.4  89.0  63.2  67.8  17.4  563PM80
 4.2 114.6   6.6 198.2 173.6 107.0 101.2 131.8  87.9  63.4   8.5  36.0  563PM81
43.4  19.0   2.6  51.3 181.2 170.1 102.6  37.0  86.2 122.4  61.0  19.6  563PM82
34.4   2.0   1.0  20.0 115.7 140.0  65.8 125.4 106.8  90.4  20.2  21.1  563PM83
11.8  18.8   0.0  46.0  15.6  77.4 145.4 114.8  92.4 171.4 118.6  64.6  563PM84
 4.0  28.4   1.8  87.2  88.2 106.8  98.4  63.6  95.3 136.8 127.6  89.4  563PM85
13.9   2.2   5.4  52.6  45.8 226.4 207.2  92.4  49.4 122.8  72.2 122.4 5037PM78
 9.3   6.6  67.2  24.3 129.3 250.4 139.2 197.6 149.6  35.9  40.6  53.6 5037PM79
21.5   3.0   4.0  51.7 170.9 184.0 195.4 167.3 152.9  66.1 140.6  60.2 5037PM80
 8.7  62.2   9.8 328.7  92.6 153.8 186.6 196.0 128.7  54.6  17.9  96.5 5037PM81
40.7  18.3  20.8  76.2 204.1 302.0 196.6 112.0  78.9  46.2  25.8  39.4 5037PM82
24.6   0.5   0.0  85.3 187.9 149.0 292.1 150.3 149.0  75.9   0.3 128.8 5037PM83
44.9  38.5   0.2  16.2  45.8 165.8 199.2 289.0  58.4 102.8 152.8 138.8 5037PM84
 7.8  41.2  14.6 250.4  89.6 219.8 232.2 173.8  95.0 127.8 132.8 240.6 5037PM85
 6.9   0.1   0.6 112.8  70.8  91.5  69.8  92.4  53.5  48.2  59.1  33.1  560PM78
 8.4   1.5  71.3  25.9 160.5 245.3 221.7 147.2 254.3  42.2  27.3  15.3  560PM79
 9.7   2.4   0.4  21.9 125.0 118.1  90.1  87.2 223.3  73.7  87.0  18.4  560PM80
 9.2  77.4   9.5 109.0 115.1 222.5 169.7 164.2 123.2 137.7   7.4  49.0  560PM81
35.0  17.6   6.3 104.8 146.3 252.6 132.6  74.9  66.7 171.1  72.5  40.7  560PM82
37.7  39.7   0.7  32.4 119.7 147.1  93.5 122.4  97.6  56.6  30.7  73.0  560PM83
17.5  11.8   3.1  23.1  32.9  86.3  65.8 122.0 115.8 104.2  67.3  37.7  560PM84
23.9  14.2  10.0   1.3   2.9   5.6   4.2   4.1   3.9   3.5   2.3   1.3  560PM85
15.2   1.0  17.2 148.9 102.2 228.0 206.2 202.6 109.4  82.8  39.0 120.0  588PM78
15.8   4.0  88.0  40.6  71.4 188.6 162.2 255.0 115.2 118.0  61.0  82.2  588PM79
38.8   8.8  13.4  83.2 209.6 229.2 229.0 204.4 186.0  51.6 153.6  39.6  588PM80
 9.6  93.6   9.2 274.0 213.8 153.8 234.2 154.4 145.8 140.2  77.2  81.6  588PM81
82.9  34.2  45.6  87.8 147.8 221.30257.00 91.40176.60 72.20 37.00 61.80 588PM82
33.2   3.6   2.8  26.0 206.3 215.4 257.0 196.0 116.0  93.8  12.6  82.6  588PM83
81.0  39.4   2.2  64.8  20.8 135.2 159.0 186.6 101.8 123.2 246.8 161.0  588PM84
 9.4  32.0  28.9 205.7 311.3 218.8 169.8 212.7 160.4 130.3 115.2 303.2  588PM85
20.4   0.0   2.8 162.8 115.2 133.8 127.4  82.2  75.8  56.6  38.6  47.0 1436PM78
 8.8   0.2  53.0  37.4 116.8 134.4 133.0 120.0 141.0  43.4  72.6  47.0 1436PM79
13.8   5.0   0.6  31.8  93.9  84.4 158.0 144.8  89.8  88.0  55.0   9.8 1436PM80
 3.4  35.2   8.4 287.0 158.4 135.6 135.8 154.4 118.0  63.6  53.2  28.2 1436PM81
45.4   9.6   4.2 123.6 179.8 115.2  95.4  93.0 175.4  69.0  30.2  35.4 1436PM82
40.8   6.6  10.8  81.2 173.4 136.4  71.6  98.7  33.0 110.4  32.0   9.4 1436PM83
39.0   9.8   0.0  36.7   6.0 113.3 117.4  93.5 174.0 115.6  94.4  41.0 1436PM84
 3.5  21.8   8.5 142.0 108.0 102.5  97.5 131.7 122.5 163.3 117.5  67.6 1436PM85
 1.8   0.0   5.9 110.6  80.1 105.5 118.7 143.1  68.7  53.5  73.0  50.1 1441PM78
 4.4   0.0  30.6  18.4 125.0 228.9 140.9 215.5 138.4  40.7 129.3  47.1 1441PM79
 7.1   7.4   0.0  13.5  65.4  88.7 176.0 169.8 182.3  44.0  59.1  26.1 1441PM80
 8.8 107.6  12.0 161.1 146.2 115.0 163.7 198.0 145.7  74.2  39.1  19.8 1441PM81
21.9  15.7  11.4 164.7 332.7 230.0 124.5  64.7 166.8  65.5  21.0  23.2 1441PM82
36.7   1.4   0.0  46.6 158.0 115.9  69.1 150.4  45.3  59.6  17.0  15.6 1441PM83
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 32.9   9.3   0.0  42.9  12.0  72.4 103.5 125.2 115.3 132.2  75.6  38.1 1441PM84
 22.3  14.1  18.8  69.7  72.0 110.9 131.2 120.3  98.5 229.7 154.9  41.1 1441PM85
  0.0   0.0   0.0  60.7  76.8 129.3  66.8  84.9  88.5  90.8  95.5  17.7 1455PM78
  0.0   0.0  18.1  30.0 172.0 164.4 182.0 167.6 262.2  55.4  55.5  46.2 1455PM79
  8.7   0.8   0.0  96.7 157.1 114.7 128.6 219.9  54.8  67.6  60.3   2.7 1455PM80
  5.8  41.5   6.9 203.3 115.1  92.4 167.5 155.1 157.2 117.0   8.8  21.0 1455PM81
 29.6   1.3  10.2 114.0 226.6 111.5  85.2 124.4 121.2 161.2  43.1   4.3 1455PM82
  1.7   0.0   0.0  53.2  93.4 134.0  52.0 132.9  40.4  66.1  20.0  10.0 1455PM83
 16.7   2.4   7.0  23.7  67.3 125.30244.3  80.4  57.5  46.5  22.8  11.5 1455PM84
  1.6   7.0  13.8  66.2 133.4 125.9 120.6  84.6  81.5 111.6  27.0  30.5 1455PM85
  0.0   0.0   0.0 157.4  89.2  91.7 114.10102.30 67.3 137.9 114.8  24.4 1469PM78
  6.0   0.0  35.8  31.6 153.8 184.8 210.5 159.6 178.2  76.2  67.4  67.6 1469PM79
  8.4   0.0   0.0  41.2 191.4 116.0 190.8 190.8  85.8  95.2  74.0  13.2 1469PM80
  4.2 105.8   0.6 217.2 186.2 102.2 208.4  54.6 394.6 136.4  35.6  26.0 1469PM81
  9.2   2.2   0.4 150.4 221.8 139.4  81.4 134.6 229.0 227.2 116.4  13.0 1469PM82
  4.6   0.0   0.2  76.2 115.2 176.4  76.4 104.2  58.2  31.4  30.8  11.8 1469PM83
 14.8   2.0   3.5  11.6  31.4  64.0 144.4  94.2  93.2 109.5 110.3  10.5 1469PM84
  0.0  18.2   7.0 104.4  82.8  64.5 161.2 132.7 131.4  90.9  57.4   4.3 1469PM85
 12.6   2.8  11.8 193.0 242.8 319.8 222.8 195.8 147.0 136.2 153.2  69.4 1488PM78
  1.4   8.8  56.2  68.4 260.2 318.0 209.6 196.8 189.4 282.6 191.0  12.0 1488PM79
 54.4   1.4   8.8  42.2 268.2 207.0 246.4 225.8 156.8 182.0 115.0  38.8 1488PM80
  5.2  68.6  35.4 379.0 402.8 292.4 450.8 139.8 298.0 129.4  19.8  73.8 1488PM81
 51.0  40.6  18.0  86.8 388.4 391.2 236.6 230.6 139.2 190.4 113.0  67.0 1488PM82
 37.2   1.2   9.8  79.8 294.8 324.0 329.6 244.9 202.4  53.2  23.6  34.2 1488PM83
104.3  45.7   2.4  34.3  28.9 153.3 162.5 147.7 192.3 195.7 136.4  62.1 1488PM84
 46.2  23.4  20.8  75.2 211.9 124.9 141.0 128.2 106.0 121.1  84.4   0.2 1488PM85
  2.2   2.1   2.3  52.0  24.3 118.5  90.1  69.7  33.1  45.6  54.1  78.7  548PM78
  6.3   1.0  84.2  34.2  92.8 178.5 231.4  98.1  67.8  58.8  68.8  94.6  548PM79
 31.5   3.3   0.3  24.5 109.0  96.2 106.6 160.4  64.5  22.9  84.8  68.8  548PM80
  0.0  82.7   4.6 270.4  77.0 131.0  95.0 121.1 118.4  40.9   8.0  17.1  548PM81
  6.8   4.1   2.6  74.0 152.1 111.9 108.0  52.1  96.7  46.2  13.0  29.0  548PM82
 53.2   2.4   1.0  14.7  95.7 184.0 174.3  91.6  48.5  88.7  24.2  21.3  548PM83
 10.5  38.9   0.0  35.0  13.3  44.7 150.3  91.4  50.5  63.6  57.8  44.9  548PM84
  6.5  13.5   5.1 113.3  70.1  57.8  70.6  53.3  62.0 146.0  88.9  79.8  548PM85
 14.6   2.6   1.2 114.3  21.8 226.0 123.6  92.4  61.2  56.8 110.2 159.6  578PM78
  7.0   3.6  25.0  19.6  94.4 272.8 236.8 160.4  94.8  42.4  74.4  99.6  578PM79
 31.6   6.4   5.4  15.0 217.4 150.0 155.8 217.6 142.2  89.8 134.6  56.8  578PM80
 13.4  87.6  26.4 344.6 166.2 204.8 225.0 178.2  97.6 104.6  18.0  47.6  578PM81
26.80 13.8  16.0  63.2 188.8 337.8 238.2 126.0  46.4  52.8  42.6  39.2  578PM82
 41.8   0.2   0.0 102.9 136.4 194.0 187.4 178.4 103.2  80.4  20.4  77.0  578PM83
 42.2  21.4   0.0  17.6  53.0  18.6 272.0 170.8  89.8 113.8 225.0 144.8  578PM84
  6.4  34.4  16.2  92.4 145.0 131.6 222.6 170.7 126.8 163.2  64.8 187.8  578PM85
  1.4   0.2   1.4  43.6  22.6 146.2 148.6 132.2  72.2 134.8  42.8  27.4  597PM78
 11.0   1.0   4.8   0.6 113.0 310.2  96.2 208.6 202.2 173.8  26.2  77.2  597PM79
 24.0   7.6   0.4  50.8  93.8 156.6 155.4  65.0 155.0  61.6 127.2  57.0  597PM80
 16.4  71.0   3.4 278.4 187.0 196.6 238.4 141.2 174.0 153.6  34.6  51.0  597PM81
 53.0  26.8  15.6 112.6 177.8 214.0 155.6 106.0 134.0  70.6  46.2  33.8  597PM82
 11.8   3.2   0.0 130.8 238.7 202.6 153.0 168.2 206.6  82.2   8.8  17.5  597PM83
 56.0   3.2   0.0  39.4   6.4 133.2 139.8 220.6  95.4 129.2 210.4  44.60 597PM84
30.30 14.9  12.5  85.9 204.3  35.4 109.3 210.6 153.3 148.1  71.4   6.9  597PM85
  4.2   1.0   4.2  38.6 175.8 276.6 205.4  83.8  39.2  85.8 100.8 101.4 1510PM78
  6.2   1.8  43.4  44.4 131.4 416.4 181.0 167.4 201.2  93.0 112.3 161.0 1510PM79
 29.0  13.0   5.0  53.0 145.2 231.4 295.6 252.6 161.0  70.8 146.6  29.0 1510PM80
 13.4 104.6  24.8 217.8 161.2 206.6 181.2 103.3 130.2  66.7  27.0  43.0 1510PM81
 43.6  29.6   9.6 124.4 126.4 201.4  98.8 115.6 110.8  52.20 81.5  64.3 1510PM82
 67.1   7.2   0.3  65.3 189.0 240.5 175.4 127.9 170.3 121.4   5.8  35.1 1510PM83
 28.2  40.3   1.7  39.8  44.1  75.7 252.6 140.5 102.5 126.3 147.0 103.1 1510PM84
 11.8  33.6  19.3 129.8 121.5 165.0 149.5  98.7  80.7  13.30 12.10  8.401510PM85
 .40  .11  .05  .44
141.6 165.0 164.5 138.2 141.6 116.3 141.2 137.3 140.5 143.9 117.5  99.9  563EM78
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130.4 151.5 154.3 131.6 142.4 110.8 138.8 136.5 139.2 135.2 118.6 109.4  563EM79
123.8 140.7 168.4 161.4 138.1 117.5 116.0 129.5 150.8 143.0 116.3 129.0  563EM80
136.5 121.3 153.9 103.1 117.1 104.1 118.8 128.7 132.3 126.7 126.1 110.4  563EM81
111.1 103.6 124.6 102.6 104.8  94.0 114.5 135.2 127.5 126.5 109.2  90.3  563EM82
107.0 141.7 185.2 123.7  90.6  94.8 125.7 136.1 139.6 125.4 128.6 124.3  563EM83
123.7 141.3 168.2 166.1 155.9 157.7 126.9 126.5 129.7 131.6  97.2 101.2  563EM84
119.8 119.2 127.9 134.3 117.8 127.4 130.9 127.4 147.3 113.7 109.3 100.2  563EM85
161.5 188.0 284.1 198.6 221.8 139.4 154.3 159.8 173.4 173.4 170.2 130.1  582EM78
176.2 196.1 215.9 186.3 196.5 118.3 130.2 146.7 142.3 152.8 146.8 131.3  582EM79
146.5 192.6 236.7 228.1 189.8 160.1 150.4 146.0 154.2 171.0 137.7 154.2  582EM80
172.9 163.2 208.0 142.8 138.0 124.9 151.2 149.3 153.6 149.4 137.8 129.4  582EM81
133.0 135.9 179.1 151.7 116.2 113.7 134.6 140.4 141.6 174.9 156.9 160.5  582EM82
164.4 191.6 282.7 180.4 138.5 127.8 153.7 150.4 169.8 159.4 196.1 202.1  582EM83
145.6 176.7 221.6 201.50220.2 174.8 166.3 179.1 187.6 166.5 156.10152.40 582EM84
167.2 154.6 185.0 195.5 146.8 140.9 151.6 149.1 161.6 144.8 144.5 140.0  582EM85
150.8 132.0 181.2 146.8 178.9 136.2 145.2 146.3 153.3 145.7 127.6 107.4 1534EM78
112.9 128.4 139.0 142.8 169.5 128.6 141.4 158.8 138.7 146.9 111.5  86.7 1534EM79
112.2 124.5 169.7 162.3 181.9 151.6 150.1 155.7 163.1 143.5 118.1 124.8 1534EM80
131.6 108.0 167.1 118.0 136.4 128.0 153.4 159.1 148.0 140.5 133.4 115.2 1534EM81
 97.7 102.3 128.4 128.2 119.4 112.7 138.6 151.6 147.6 143.1 119.1 105.2 1534EM82
109.8 121.0 196.9 128.80112.20114.30133.2 135.00136.70129.60131.20129.101534EM83
128.80137.60151.10150.00144.90145.80130.40130.20131.80132.70115.50117.501534EM84
126.80126.50130.90134.10125.80130.60132.40130.60140.60123.70121.50117.001534EM85
218.9 231.7 264.5 227.4 204.2 123.1 153.3 130.7 153.3 145.1 148.7 166.8 2415EM78
198.5 202.7 252.4 230.3 205.6 111.5 106.0 123.8 134.6 142.1 119.2 151.3 2415EM79
187.9 222.7 255.0 239.9 173.1 133.3 127.8 131.3 136.6 140.6 154.1 174.0 2415EM80
198.5 180.9 239.9 145.3 111.8  97.4  94.6 130.1 128.6 129.9 160.9 148.8 2415EM81
167.1 182.0 237.1 165.5 107.2  94.1 115.5 119.1 114.8 127.7 133.7 148.0 2415EM82
165.5 164.0 255.9 181.5 115.6 112.7 139.8 137.6 146.0 131.3 151.7 161.4 2415EM83
198.7 208.4 273.7 231.6 235.9 159.8 131.4 131.0 117.1 147.4 113.2 156.7 2415EM84
190.2 179.3 211.3 199.8 155.2 122.1 102.9 107.0 138.3 134.6 146.4 166.6 2415EM85
RIO TUY EN EL VIGIA
230.00  174.00  136.00   35.00   35.00    2.50
  0.90    0.18    0.05    0.03 .  0.00    0.75    1.50
```

CUENCA RIO TUY EN EL VIGIA

PARAMETROS DEL SEGMENTO NUMERO 1 RIO TUY EN EL VIGIA

AREA 3620.00 KM2

CINF	HES	CC	PHSI	PVOII	PSROI
230.00	174.00	136.00	35.00	35.00	2.50

CK3	C4	C5	C6	C7	C8	C9
0.90	0.18	0.05	0.03	0.00	0.75	1.50

TABLA Nº 5

RESULTADOS DE LA CALIBRACION

SUMARIO MENSUAL DEL SEGMENTO ?

MES	FTOTAL MM3	FSUPF MM3	INTERF MM3	FBASE MM3	FSUPAF MM3	FSUBAF MM	FSUBEF MM	PREC MM	ETP MM	ETR MM	INFIL MM	PERC MM	SROI MM	HSI MM	VOII MM
1	18.17	0.00	0.00	12.16	0.00	0.00	2.02	24.20	147.83	36.66	24.20	0.00	3.04	22.54	29.62		
2	10.76	0.00	0.00	10.29	0.00	0.00	1.71	9.73	158.70	21.51	9.73	0.00	2.57	10.76	25.07		
3	9.11	0.00	0.00	8.71	0.00	0.00	1.44	10.83	189.51	15.77	10.83	0.00	2.18	5.82	21.22		
4	7.71	0.00	0.00	7.38	0.00	0.00	1.22	42.88	174.37	31.22	42.88	0.00	1.84	17.49	17.96		
5	6.53	0.00	0.00	6.24	0.00	0.00	1.03	108.30	145.28	69.94	108.30	0.00	1.56	55.85	15.20		
6	5.52	0.00	0.00	5.28	0.00	0.00	0.88	124.10	139.96	100.72	124.10	0.00	1.32	79.23	12.87		
7	37.82	0.00	34.81	13.86	0.00	0.00	2.30	168.37	128.72	100.61	168.37	43.81	12.17	93.57	45.38		
8	58.33	0.00	33.87	27.68	0.00	0.00	4.59	155.85	142.10	111.07	155.85	42.63	15.39	86.36	77.07		
9	59.26	0.00	23.73	34.77	0.00	0.00	5.76	140.94	127.80	99.89	140.94	29.86	14.62	90.99	92.19		
10	44.96	0.00	5.51	34.94	0.00	0.00	5.79	103.93	127.29	99.49	103.93	6.93	10.11	86.98	86.45		
11	33.26	0.00	0.47	30.39	0.00	0.00	5.04	60.34	132.70	83.37	60.34	0.59	7.72	63.23	74.08		
12	27.03	0.00	0.00	25.75	0.00	0.00	4.27	43.22	142.71	64.18	43.22	0.00	6.44	42.27	62.70		
13	22.78	0.00	0.00	21.79	0.00	0.00	3.61	96.78	126.25	71.41	96.78	0.00	5.45	67.64	53.07		
14	19.28	0.00	0.00	18.44	0.00	0.00	3.06	12.72	140.52	50.27	12.72	0.00	4.61	30.10	44.92		
15	16.32	0.00	0.00	15.61	0.00	0.00	2.59	47.89	180.52	53.95	47.89	0.00	3.90	24.04	38.02		
16	13.81	0.00	0.00	13.21	0.00	0.00	2.19	53.46	147.98	45.37	53.46	0.00	3.30	32.14	32.18		
17	28.62	0.00	18.44	15.32	0.00	0.00	2.54	182.34	133.08	96.50	182.34	23.21	8.44	89.68	44.89		
18	29.19	0.00	8.06	19.61	0.00	0.00	3.25	115.05	142.03	111.02	115.05	10.15	6.92	81.34	49.54		
19	79.38	0.00	62.01	34.60	0.00	0.00	5.74	215.38	134.01	104.74	215.38	78.03	24.15	96.81	104.19		
20	68.98	0.00	15.41	44.35	0.00	0.00	7.35	120.25	142.48	111.36	120.25	19.40	14.94	82.05	111.50		
21	50.26	0.00	6.16	40.93	0.00	0.00	6.78	119.86	141.44	110.55	119.86	7.75	11.77	81.89	101.53		
22	39.25	0.00	0.78	35.86	0.00	0.00	5.94	110.60	152.52	117.32	110.60	0.98	9.16	73.98	87.43		
23	31.95	0.00	0.00	30.38	0.00	0.00	5.04	55.67	122.31	68.78	55.67	0.00	7.60	60.87	74.00		
24	26.88	0.00	0.00	25.72	0.00	0.00	4.26	45.80	134.64	61.14	45.80	0.00	6.43	45.53	62.63		
25	22.75	0.00	0.00	21.77	0.00	0.00	3.61	18.98	162.21	43.76	18.98	0.00	5.44	20.75	53.01		
26	19.26	0.00	0.00	18.42	0.00	0.00	3.05	3.99	167.95	17.62	3.99	0.00	4.61	7.12	44.87		
27	16.30	0.00	0.00	15.59	0.00	0.00	2.58	5.10	197.11	9.29	5.10	0.00	3.90	2.92	37.98		
28	13.80	0.00	0.00	13.20	0.00	0.00	2.19	79.38	183.08	53.92	79.38	0.00	3.30	28.38	32.14		
29	11.68	0.00	0.00	11.17	0.00	0.00	1.85	20.50	190.48	36.33	20.50	0.00	2.79	12.56	27.21		
30	9.88	0.00	0.00	9.45	0.00	0.00	1.57	59.38	151.83	41.77	59.38	0.00	2.36	30.16	23.03		
31	8.37	0.00	0.00	8.00	0.00	0.00	1.33	52.70	162.27	52.70	52.70	0.00	2.00	30.16	19.49		
32	8.55	0.00	1.52	7.21	0.00	0.00	1.20	143.76	144.53	95.76	143.76	1.91	2.18	75.83	18.02		
33	20.74	0.00	14.47	10.27	0.00	0.00	1.70	143.78	148.90	116.38	143.78	18.21	6.18	81.02	29.78		
34	19.43	0.00	4.96	12.70	0.00	0.00	2.11	122.90	152.74	119.38	122.90	6.24	4.42	76.92	32.11		
35	61.74	0.00	51.33	25.11	0.00	0.00	4.16	198.31	124.79	97.54	198.31	64.60	19.11	98.91	78.35		
36	49.25	0.00	7.61	32.58	0.00	0.00	5.40	36.48	136.43	73.64	36.48	9.58	10.05	50.07	80.81		
37	31.21	0.00	0.00	28.22	0.00	0.00	4.68	52.80	147.39	62.24	52.80	0.00	7.05	40.63	68.72		
38	24.96	0.00	0.00	23.88	0.00	0.00	3.96	11.31	156.10	34.75	11.31	0.00	5.97	17.19	58.16		
39	21.13	0.00	0.00	20.21	0.00	0.00	3.35	23.34	178.03	27.95	23.34	0.00	5.05	12.59	49.23		
40	17.88	0.00	0.00	17.11	0.00	0.00	2.84	5.60	181.13	13.31	5.60	0.00	4.28	4.88	41.67		
41	15.14	0.00	0.00	14.48	0.00	0.00	2.40	95.30	178.03	64.37	95.30	0.00	3.62	35.81	35.27		

42	12.81	0.00	0.00	12.26	0.00	0.00	2.03	29.54	186.38	47.57	29.54	0.00	3.06	17.77	29.85
43	10.84	0.00	0.00	10.37	0.00	0.00	1.72	126.70	160.87	86.95	126.70	0.00	2.59	57.52	25.27
44	42.15	0.00	35.22	17.52	0.00	0.00	2.90	198.68	145.36	113.62	198.68	44.32	13.18	88.53	55.72
45	52.09	0.00	23.51	28.36	0.00	0.00	4.70	141.37	136.74	106.88	141.37	29.59	12.97	86.94	76.03
46	50.71	0.00	17.79	32.53	0.00	0.00	5.39	131.80	133.02	103.97	131.80	22.39	12.58	87.47	84.64
47	37.52	0.00	2.25	31.00	0.00	0.00	5.14	83.28	128.32	90.94	83.28	2.83	8.31	76.35	75.93
48	28.13	0.00	0.00	26.43	0.00	0.00	4.38	24.56	140.73	62.16	24.56	0.00	6.61	38.76	64.36
49	23.38	0.00	0.00	22.37	0.00	0.00	3.71	9.88	153.87	32.28	9.88	0.00	5.59	16.35	54.48
50	19.79	0.00	0.00	18.93	0.00	0.00	3.14	8.88	160.44	16.80	8.88	0.00	4.73	8.43	46.11
51	16.75	0.00	0.00	16.02	0.00	0.00	2.66	3.52	196.42	9.25	3.52	0.00	4.01	2.70	39.03
52	14.18	0.00	0.00	13.56	0.00	0.00	2.25	29.85	181.82	21.40	29.85	0.00	3.39	11.15	33.03
53	12.00	0.00	0.00	11.48	0.00	0.00	1.90	23.26	174.45	22.94	23.26	0.00	2.87	11.47	27.96
54	10.16	0.00	0.00	9.72	0.00	0.00	1.61	92.13	164.95	63.45	92.13	0.00	2.43	40.15	23.66
55	8.60	0.00	0.00	8.22	0.00	0.00	1.36	58.52	160.33	62.70	58.52	0.00	2.06	35.97	20.03
56	19.99	0.00	13.81	10.10	0.00	0.00	1.67	173.13	141.98	103.20	173.13	17.38	5.98	84.70	30.20
57	44.01	0.00	30.52	20.18	0.00	0.00	3.35	159.66	142.06	111.03	159.66	38.41	12.68	86.49	58.50
58	101.02	0.00	74.92	42.87	0.00	0.00	7.11	234.39	139.94	109.38	234.39	94.28	29.45	96.52	127.80
59	75.06	0.00	9.51	51.30	0.00	0.00	8.50	59.42	122.46	74.84	59.42	11.97	15.20	66.49	126.67
60	48.74	0.00	0.40	44.32	0.00	0.00	7.35	71.37	117.96	69.29	71.37	0.50	11.18	67.97	107.98
61	39.32	0.00	0.00	37.53	0.00	0.00	6.22	24.36	136.39	55.29	24.36	0.00	9.38	37.04	91.40
62	33.20	0.00	0.00	31.76	0.00	0.00	5.26	30.80	143.87	40.76	30.80	0.00	7.94	27.08	77.36
63	28.10	0.00	0.00	26.88	0.00	0.00	4.46	19.59	158.88	30.45	19.59	0.00	6.72	16.21	65.47
64	23.79	0.00	0.00	22.75	0.00	0.00	3.77	34.04	169.25	32.74	34.04	0.00	5.69	17.51	55.42
65	20.13	0.00	0.00	19.26	0.00	0.00	3.19	58.34	167.57	48.18	58.34	0.00	4.81	27.67	46.91
66	29.35	0.00	13.33	19.39	0.00	0.00	3.21	175.64	136.41	96.25	175.64	16.77	8.18	86.62	52.53
67	116.11	0.00	96.89	47.02	0.00	0.00	7.79	282.50	129.11	104.23	267.33	121.93	35.98	116.20	143.92
68	95.75	0.00	18.67	61.02	0.00	0.00	10.11	99.31	145.39	110.65	99.31	23.50	19.92	76.20	152.00
69	60.56	0.00	0.78	53.40	0.00	0.00	8.85	100.82	156.90	110.33	100.82	0.98	13.55	65.50	130.16
70	80.76	0.00	35.19	54.43	0.00	0.00	9.02	191.19	148.93	116.41	191.19	44.29	22.41	86.28	144.82
71	67.21	0.00	5.53	54.21	0.00	0.00	8.99	66.30	146.90	87.89	66.30	6.96	14.93	56.21	133.10
72	49.70	0.00	0.00	46.35	0.00	0.00	7.68	43.92	148.42	61.83	43.92	0.00	11.59	38.31	112.89
73	41.01	0.00	0.00	39.23	0.00	0.00	6.50	2.95	166.20	29.63	2.95	0.00	9.81	11.63	95.55
74	34.71	0.00	0.00	33.21	0.00	0.00	5.50	4.16	176.96	11.45	4.16	0.00	8.30	4.33	80.88
75	29.38	0.00	0.00	28.11	0.00	0.00	4.66	37.42	191.35	28.66	37.42	0.00	7.03	13.09	68.45
76	24.87	0.00	0.00	23.79	0.00	0.00	3.94	9.06	189.22	16.41	9.06	0.00	5.95	5.73	57.94
77	21.05	0.00	0.00	20.13	0.00	0.00	3.34	120.53	155.83	72.86	120.53	0.00	5.03	53.40	49.04
78	69.18	0.00	55.08	30.44	0.00	0.00	5.05	225.70	111.26	86.96	225.70	69.32	21.38	107.60	95.01
79	90.92	0.00	42.85	49.87	0.00	0.00	8.27	157.70	146.35	114.39	157.70	53.92	23.18	85.15	132.62
80	112.43	0.00	55.77	63.22	0.00	0.00	10.48	201.14	136.26	106.50	201.14	70.18	29.75	94.20	171.51
81	90.48	0.00	14.28	66.69	0.00	0.00	11.05	117.30	131.72	102.95	117.30	17.97	20.24	86.63	166.14
82	65.34	0.00	1.37	58.76	0.00	0.00	9.74	86.28	136.61	97.49	86.28	1.73	15.03	73.31	143.28
83	52.38	0.00	0.00	49.79	0.00	0.00	8.25	94.05	123.30	86.83	94.05	0.00	12.45	80.53	121.27
84	44.06	0.00	0.00	42.14	0.00	0.00	6.99	14.00	140.34	59.18	14.00	0.00	10.54	35.35	102.64

PROMEDIOS MENSUALES DE LA SUBCUENCA EN EL PERIODO1971-1977

36.49	0.00	9.96	26.54	0.00	0.00	4.40	84.51	151.18	69.22	84.33	12.54

VOLUMEN MENSUAL PROMEDIO OBSERVADO = 36.46 MILLONES DE METROS CUBICOS

RESUMEN DE LOS ESTADISTICOS DE LAS SERIES SIMULADA Y OBSERVADA

ESTADISTICOS :	MEDIA(M3/S)	DESVIACION TIPICA	COEF. VARIACION
SIMULADO :	13.88	9.96	0.72

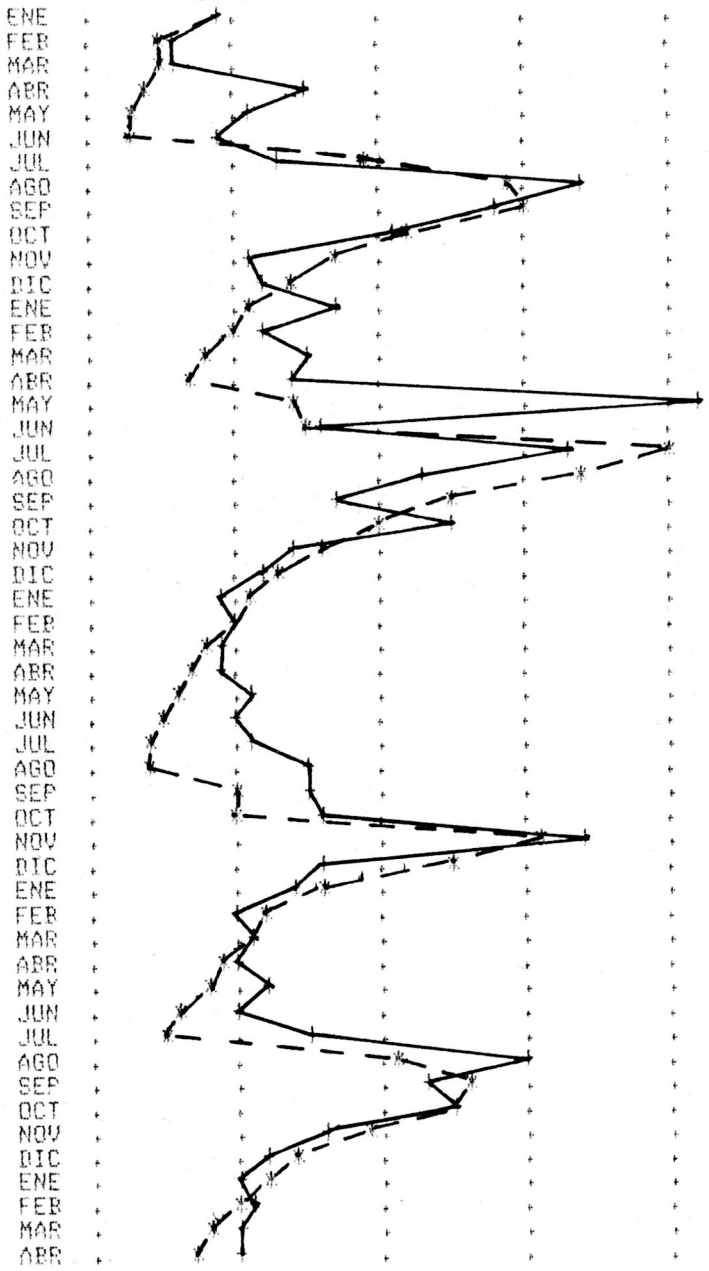
OBSERVADO	1	13.87	9.16	0.66

COEFICIENTE DE CORRELACION LINEAL = 0.745

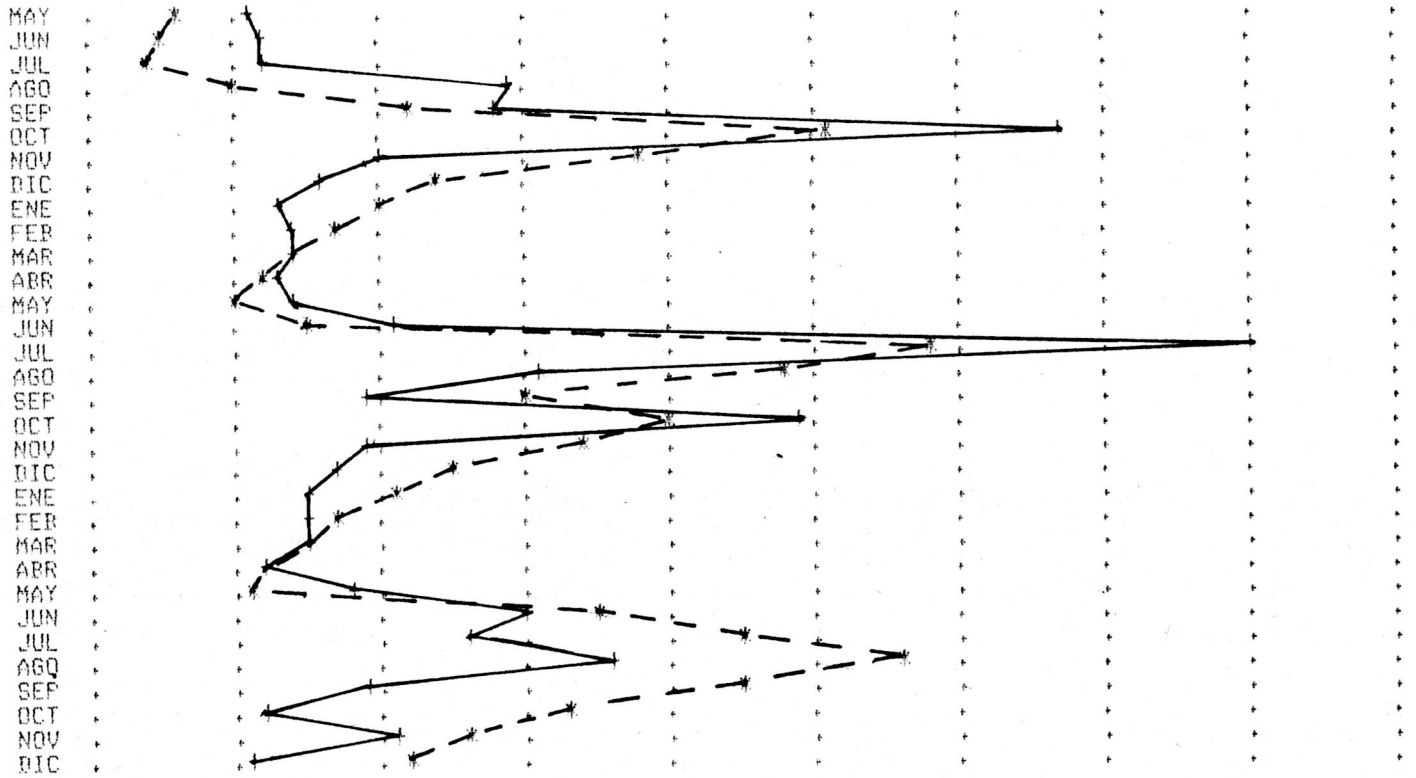
CUENCA RIO TUY EN EL VISIA PERIODO 1971-1977

CURVA DE CALIBRACION

PLOTEO DE ESCORRENTIA OBSERVADA Y SIMULADA, E IMPRESION DE LA PRECIPITACION DEL SEGMENTO, TODO EN M.M3



	$\overline{+OBS}$	$\overline{*SIM}$	PREC
	18.76	18.17	87.60
	11.86	10.76	35.21
	12.06	9.11	39.21
	29.79	7.71	155.24
	21.71	6.53	392.05
	17.09	5.52	449.24
	26.80	37.82	609.49
	67.54	58.33	564.18
	56.98	59.26	510.19
	41.54	44.96	376.22
	22.27	33.26	218.44
	23.05	27.03	156.45
	33.23	22.78	350.34
	23.96	19.28	46.05
	30.02	16.32	173.36
	27.45	13.81	193.53
	83.35	28.62	660.08
	31.60	29.19	416.50
	65.93	79.38	779.66
	46.63	68.98	435.30
	34.19	50.26	433.88
	49.58	39.25	400.38
	28.75	31.95	201.53
	23.32	26.88	165.79
	17.96	22.75	68.71
	20.33	19.26	14.43
	17.42	16.30	18.46
	18.91	13.80	287.36
	21.71	11.68	74.22
	19.43	9.88	214.96
	21.17	8.37	190.77
	29.75	8.55	520.40
	29.53	20.74	520.47
	31.09	19.43	444.90
	67.60	61.74	717.86
	32.43	49.25	132.05
	27.07	31.21	191.15
	19.60	24.96	40.93
	21.17	21.13	84.50
	19.68	17.88	20.28
	23.32	15.14	344.98
	20.46	12.81	106.92
	30.55	10.84	458.66
	59.23	42.15	719.21
	46.36	52.09	511.74
	49.85	50.71	477.12
	31.60	37.52	301.46
	24.39	28.13	88.91
	20.74	23.38	35.75
	21.25	19.79	32.13
	20.22	16.75	12.73
	19.96	14.18	108.07



21.25	12.00	84.22
23.85	10.16	333.50
24.36	8.60	211.85
57.80	19.99	626.73
56.76	44.01	577.98
134.01	101.02	848.50
40.69	75.06	215.09
31.10	48.74	258.37
26.44	39.32	88.18
27.48	33.20	111.48
28.51	28.10	70.92
25.40	23.79	123.23
27.99	20.13	211.20
42.25	29.35	635.83
159.41	116.11	1022.65
62.99	95.75	359.51
37.58	60.56	364.97
98.24	80.76	692.10
37.58	67.21	240.01
33.18	49.70	159.00
30.33	41.01	10.68
29.29	34.71	15.04
29.03	29.38	135.47
24.88	24.87	32.78
35.25	21.05	436.30
59.10	69.18	817.03
51.58	90.92	570.86
71.02	112.43	728.13
38.36	90.48	424.63
23.59	65.34	312.32
41.73	52.38	340.47
21.77	44.06	50.67
3063.04	3064.93	

CUENCA RIO TUY EN EL VIGIA

PARAMETROS DEL SEGMENTO NUMERO 1 RIO TUY EN EL VIGIA

AREA 3620.00 KM2

CINF	HES	CC	PHSI	PVOII	PSROI
230.00	174.00	136.00	35.00	35.00	2.50

CK3	C4	C5	C6	C7	C8	C9
0.90	0.18	0.05	0.03	0.00	0.75	1.50

TABLA Nº 6

RESULTADOS DE LA SIMULACION

SUMARIO MENSUAL DEL SEGMENTO ?

MES	FTOTAL MM3	FSUPF MM3	INTERF MM3	FBASE MM3	FSUPAF MM3	FSUBAF MM	FSUBEF MM	PREC MM	ETP MM	ETR MM	INFIL MM	PERC MM	SROI MM	HSI MM	VOII MM
1	18.17	0.00	0.00	12.16	0.00	0.00	2.02	9.50	160.43	30.39	9.50	0.00	3.04	14.11	29.62
2	10.76	0.00	0.00	10.29	0.00	0.00	1.71	1.36	175.71	11.50	1.36	0.00	2.57	3.96	25.07
3	9.11	0.00	0.00	8.71	0.00	0.00	1.44	5.04	200.24	6.76	5.04	0.00	2.18	2.24	21.22
4	7.71	0.00	0.00	7.38	0.00	0.00	1.22	116.16	166.07	71.55	116.16	0.00	1.84	46.85	17.96
5	6.53	0.00	0.00	6.24	0.00	0.00	1.03	93.99	161.85	88.85	93.99	0.00	1.56	51.99	15.20
6	34.29	0.00	31.59	12.04	0.00	0.00	2.00	186.02	110.55	86.40	186.02	39.76	10.91	103.12	42.87
7	65.31	0.00	42.46	30.08	0.00	0.00	4.98	157.30	133.35	104.23	157.30	53.44	18.13	91.02	85.10
8	46.85	0.00	5.32	32.96	0.00	0.00	5.46	101.59	123.59	96.13	101.59	6.70	9.57	88.31	81.51
9	31.34	0.00	0.40	28.62	0.00	0.00	4.74	70.30	135.35	90.65	70.30	0.50	7.26	67.35	69.76
10	25.44	0.00	0.00	24.24	0.00	0.00	4.02	89.84	132.99	86.58	89.84	0.00	6.06	70.61	59.05
11	21.45	0.00	0.00	20.52	0.00	0.00	3.40	81.12	123.78	79.45	81.12	0.00	5.13	72.29	49.98
12	18.16	0.00	0.00	17.37	0.00	0.00	2.88	71.90	119.73	74.04	71.90	0.00	4.34	70.15	42.30
13	15.37	0.00	0.00	14.70	0.00	0.00	2.44	5.80	148.07	50.17	5.80	0.00	3.68	25.77	35.80
14	13.01	0.00	0.00	12.44	0.00	0.00	2.06	3.34	160.00	20.20	3.34	0.00	3.11	8.91	30.30
15	11.01	0.00	0.00	10.53	0.00	0.00	1.75	54.93	183.13	42.67	54.93	0.00	2.63	21.18	25.65
16	9.32	0.00	0.00	8.91	0.00	0.00	1.48	39.74	163.44	38.83	39.74	0.00	2.23	22.08	21.71
17	7.89	0.00	0.00	7.54	0.00	0.00	1.25	131.55	159.76	92.35	131.55	0.00	1.89	61.28	18.38
18	58.56	0.00	55.47	20.10	0.00	0.00	3.33	214.32	101.54	79.37	214.32	69.80	18.89	111.11	69.59
19	93.17	0.00	55.15	43.89	0.00	0.00	7.27	162.84	111.20	86.91	162.84	69.40	24.76	102.40	122.84
20	95.01	0.00	37.57	56.09	0.00	0.00	9.30	144.76	119.83	93.66	144.76	47.28	23.42	95.83	147.42
21	91.96	0.00	29.89	61.51	0.00	0.00	10.19	139.91	123.74	96.72	139.91	37.61	22.85	93.15	158.60
22	70.76	0.00	5.64	58.25	0.00	0.00	9.65	101.01	126.68	99.02	101.01	7.09	15.97	86.49	143.15
23	63.58	0.00	10.89	52.59	0.00	0.00	8.72	111.88	109.45	85.55	111.88	13.70	15.87	96.12	132.13
24	52.71	0.00	1.88	47.24	0.00	0.00	7.83	51.31	116.20	74.70	51.31	2.37	12.28	69.84	115.42
25	42.39	0.00	0.00	40.14	0.00	0.00	6.65	24.22	138.53	57.08	24.22	0.00	10.04	36.98	97.77
26	35.52	0.00	0.00	33.98	0.00	0.00	5.63	3.69	163.51	28.78	3.69	0.00	8.49	11.89	82.75
27	30.06	0.00	0.00	28.76	0.00	0.00	4.77	2.72	192.67	11.36	2.72	0.00	7.19	3.25	70.04
28	25.45	0.00	0.00	24.34	0.00	0.00	4.03	38.47	182.99	27.54	38.47	0.00	6.09	14.17	59.28
29	22.28	0.00	0.77	20.83	0.00	0.00	3.45	139.95	145.24	84.15	139.95	0.97	5.40	68.79	50.95
30	27.40	0.00	9.80	19.53	0.00	0.00	3.24	131.55	117.76	91.56	131.55	12.33	7.33	93.74	52.29
31	73.48	0.00	53.98	34.21	0.00	0.00	5.67	180.75	114.01	89.11	180.75	67.93	22.05	102.53	100.29
32	102.79	0.00	54.41	53.25	0.00	0.00	8.83	174.05	120.08	93.95	174.05	68.47	26.91	99.24	145.83
33	80.78	0.00	14.15	57.67	0.00	0.00	9.56	111.32	130.99	102.38	111.32	17.81	17.96	86.46	143.73
34	56.82	0.00	1.07	50.75	0.00	0.00	8.41	85.15	130.54	93.62	85.15	1.35	12.96	76.34	123.73
35	45.21	0.00	0.00	43.00	0.00	0.00	7.13	92.39	121.84	86.96	92.39	0.00	10.75	81.78	104.73
36	38.05	0.00	0.00	36.39	0.00	0.00	6.03	37.61	136.23	70.69	37.61	0.00	9.10	48.69	88.64
37	32.20	0.00	0.00	30.80	0.00	0.00	5.11	4.44	150.79	35.52	4.44	0.00	7.70	17.61	75.03
38	27.26	0.00	0.00	26.07	0.00	0.00	4.32	75.21	136.32	49.51	75.21	0.00	6.52	43.30	63.50
39	23.07	0.00	0.00	22.07	0.00	0.00	3.66	12.98	178.52	41.31	12.98	0.00	5.52	14.97	53.75
40	75.70	0.00	61.16	32.42	0.00	0.00	5.37	288.72	114.10	91.46	278.28	76.97	23.39	118.36	104.06
41	124.55	0.00	72.88	62.00	0.00	0.00	10.28	184.08	106.23	83.03	184.08	91.72	33.72	107.57	172.12

42	135.15	0.00	56.30	78.94	0.00	0.00	13.08	162.67	94.17	73.61	162.67	70.86	33.81	110.22	209.44
43	161.77	0.00	73.96	96.65	0.00	0.00	16.02	193.37	102.10	79.80	193.37	93.07	42.65	110.29	257.71
44	155.89	0.00	44.66	106.33	0.00	0.00	17.62	148.49	119.79	93.63	148.49	56.20	37.75	96.61	271.35
45	144.65	0.00	36.09	106.45	0.00	0.00	17.64	148.68	120.42	94.12	148.68	45.41	35.63	95.79	270.09
46	111.73	0.00	4.47	97.00	0.00	0.00	16.08	71.05	118.17	82.24	71.05	5.62	25.37	77.75	237.11
47	87.23	0.00	0.00	82.48	0.00	0.00	13.67	20.60	128.76	56.92	20.60	0.00	20.62	41.44	200.88
48	72.98	0.00	0.00	69.81	0.00	0.00	11.57	51.04	116.66	45.93	51.04	0.00	17.45	46.56	170.02
49	61.77	0.00	0.00	59.09	0.00	0.00	9.79	38.52	123.73	45.33	38.52	0.00	14.77	39.75	143.91
50	52.28	0.00	0.00	50.01	0.00	0.00	8.29	18.96	127.43	32.92	18.96	0.00	12.50	25.78	121.80
51	44.25	0.00	0.00	42.33	0.00	0.00	7.02	9.61	162.26	24.11	9.61	0.00	10.58	11.28	103.09
52	37.45	0.00	0.00	35.83	0.00	0.00	5.94	80.25	123.26	44.18	80.25	0.00	8.96	47.35	87.26
53	79.75	0.00	52.08	42.30	0.00	0.00	7.01	222.02	97.06	75.86	222.02	65.54	23.60	113.58	123.93
54	149.98	0.00	94.84	73.67	0.00	0.00	12.21	220.92	87.43	68.34	220.92	119.36	42.13	120.61	208.58
55	151.96	0.00	53.44	93.01	0.00	0.00	15.42	147.82	106.52	83.26	147.82	67.25	36.61	103.17	241.27
56	115.86	0.00	14.99	90.68	0.00	0.00	15.03	103.37	116.56	91.10	103.37	18.86	26.42	92.43	224.52
57	99.50	0.00	14.82	82.63	0.00	0.00	13.69	113.18	112.02	87.56	113.18	18.65	24.36	95.30	205.94
58	84.97	0.00	6.43	74.37	0.00	0.00	12.33	98.19	119.86	93.69	98.19	8.09	20.20	89.94	182.66
59	68.48	0.00	0.51	63.86	0.00	0.00	10.58	50.66	113.15	70.58	50.66	0.65	16.09	69.23	155.60
60	56.65	0.00	0.00	54.07	0.00	0.00	8.96	37.48	111.74	53.44	37.48	0.00	13.52	53.27	131.70
61	47.84	0.00	0.00	45.77	0.00	0.00	7.59	37.35	125.27	49.20	37.35	0.00	11.44	41.42	111.47
62	40.49	0.00	0.00	38.74	0.00	0.00	6.42	2.44	140.37	27.95	2.44	0.00	9.68	15.91	94.35
63	34.27	0.00	0.00	32.79	0.00	0.00	5.43	4.32	204.86	16.28	4.32	0.00	8.20	3.95	79.86
64	29.01	0.00	0.00	27.75	0.00	0.00	4.60	55.14	140.06	31.36	55.14	0.00	6.94	27.72	67.59
65	41.40	0.00	18.48	27.47	0.00	0.00	4.55	172.95	97.15	68.30	172.95	23.25	11.49	104.01	74.78
66	96.16	0.00	66.65	46.24	0.00	0.00	7.66	185.43	96.55	75.47	185.43	83.87	28.22	111.69	133.33
67	128.59	0.00	65.09	68.74	0.00	0.00	11.39	183.31	121.82	95.22	183.31	81.91	33.46	99.89	186.11
68	117.48	0.00	34.48	77.56	0.00	0.00	12.95	143.73	124.45	97.27	143.73	43.39	28.01	93.44	198.78
69	91.19	0.00	10.43	73.81	0.00	0.00	12.23	111.17	131.03	102.42	111.17	13.12	21.06	86.19	182.35
70	69.78	0.00	0.91	64.05	0.00	0.00	10.62	83.37	118.75	85.82	83.37	1.14	16.24	82.35	156.10
71	56.93	0.00	0.00	54.25	0.00	0.00	8.99	19.70	131.69	60.30	19.70	0.00	13.56	41.75	132.12
72	48.00	0.00	0.00	45.92	0.00	0.00	7.61	43.19	134.48	47.84	43.19	0.00	11.48	37.09	111.83
73	40.63	0.00	0.00	38.86	0.00	0.00	6.44	41.60	143.43	46.46	41.60	0.00	9.72	32.23	94.65
74	34.39	0.00	0.00	32.89	0.00	0.00	5.45	29.92	157.08	39.74	29.92	0.00	8.22	22.41	80.11
75	29.10	0.00	0.00	27.84	0.00	0.00	4.61	0.52	197.68	18.59	0.52	0.00	6.96	4.34	67.81
76	24.63	0.00	0.00	23.56	0.00	0.00	3.91	34.16	178.21	25.07	34.16	0.00	5.89	13.43	57.39
77	20.85	0.00	0.00	19.95	0.00	0.00	3.31	22.18	177.86	24.33	22.18	0.00	4.99	11.28	48.58
78	17.65	0.00	0.00	16.88	0.00	0.00	2.80	111.16	143.92	66.86	111.16	0.00	4.22	55.59	41.12
79	29.31	0.00	15.94	17.52	0.00	0.00	2.90	155.37	120.05	91.89	155.37	20.05	8.36	94.62	49.80
80	55.67	0.00	34.56	28.51	0.00	0.00	4.73	148.41	121.01	94.58	148.41	43.49	15.77	95.41	79.93
81	52.85	0.00	15.53	33.91	0.00	0.00	5.62	113.15	117.57	91.89	113.15	19.55	12.36	92.82	87.07
82	58.63	0.00	23.81	37.88	0.00	0.00	6.28	134.17	128.20	100.20	134.17	29.96	15.42	90.25	99.24
83	57.58	0.00	16.46	39.75	0.00	0.00	6.59	114.31	100.47	78.53	114.31	20.71	14.05	100.77	102.59
84	44.15	0.00	2.63	37.50	0.00	0.00	6.22	71.34	118.86	87.19	71.34	3.31	10.03	80.89	91.84
85	34.00	0.00	0.00	31.96	0.00	0.00	5.30	13.54	140.71	59.29	13.54	0.00	7.99	35.14	77.85
86	28.28	0.00	0.00	27.05	0.00	0.00	4.48	26.24	134.91	35.25	26.24	0.00	6.76	26.13	65.89
87	23.94	0.00	0.00	22.90	0.00	0.00	3.80	9.93	153.92	23.62	9.93	0.00	5.72	12.44	55.77
88	20.26	0.00	0.00	19.38	0.00	0.00	3.21	131.74	152.86	82.62	131.74	0.00	4.85	61.56	47.20
89	17.15	0.00	0.00	16.40	0.00	0.00	2.72	106.91	124.06	86.44	106.91	0.00	4.10	82.02	39.95
90	27.64	0.00	14.06	17.33	0.00	0.00	2.87	123.92	114.04	89.14	123.92	17.69	7.85	95.23	47.49
91	46.05	0.00	26.17	24.77	0.00	0.00	4.10	128.79	108.84	85.07	128.79	32.94	12.73	98.78	68.49
92	48.08	0.00	17.08	30.05	0.00	0.00	4.98	109.07	108.87	85.10	109.07	21.49	11.78	96.54	78.16
93	38.53	0.00	5.77	29.90	0.00	0.00	4.96	96.62	130.12	100.75	96.62	7.26	8.92	83.56	73.94
94	50.21	0.00	23.18	31.87	0.00	0.00	5.28	138.19	114.14	89.21	138.19	29.18	13.76	96.96	85.67
95	52.38	0.00	15.72	35.77	0.00	0.00	5.93	111.60	117.10	91.52	111.60	19.78	12.87	92.92	91.53
96	40.96	0.00	3.78	33.67	0.00	0.00	5.58	96.24	121.17	94.71	96.24	4.76	9.36	88.65	82.88

PROMEDIOS MENSUALES DE LA SUBCUENCA EN EL PERIODO1978-1985

55.28	0.00	14.66	40.62	0.00	0.00	6.73	91.47	132.70	68.40	91.36	18.45

RESUMEN DE LOS ESTADISTICOS DE LAS SERIES SIMULADA Y OBSERVADA

ESTADISTICOS :	MEDIA(M3/S)	DESVIACION TIPICA	COEF. VARIACION
SIMULADO :	21.02	14.44	0.69
OBSERVADO :	0.00	0.00	0.00

IMPRESO EN EL DEPARTAMENTO
DE
REPRODUCCION GRAFICA
DE LA
DIRECCION GENERAL SECTORIAL
DE
PLANIFICACION Y ORDENACION

MINISTERIO DEL AMBIENTE
Y LOS
RECURSOS NATURALES RENOVABLES

CARACAS -VENEZUELA