ANEXO I

DEMANDA VIGENTE ZONA DE ESTUDIO

Ver archivo demanda_vigente_maipo_sub.xls

ANEXO II

GRAFICO DE NIVELES

ESCENARIO 1

Figura J.2.1.1-5
EVOLUCIÓN DE NIVELES SECTOR LAMPA

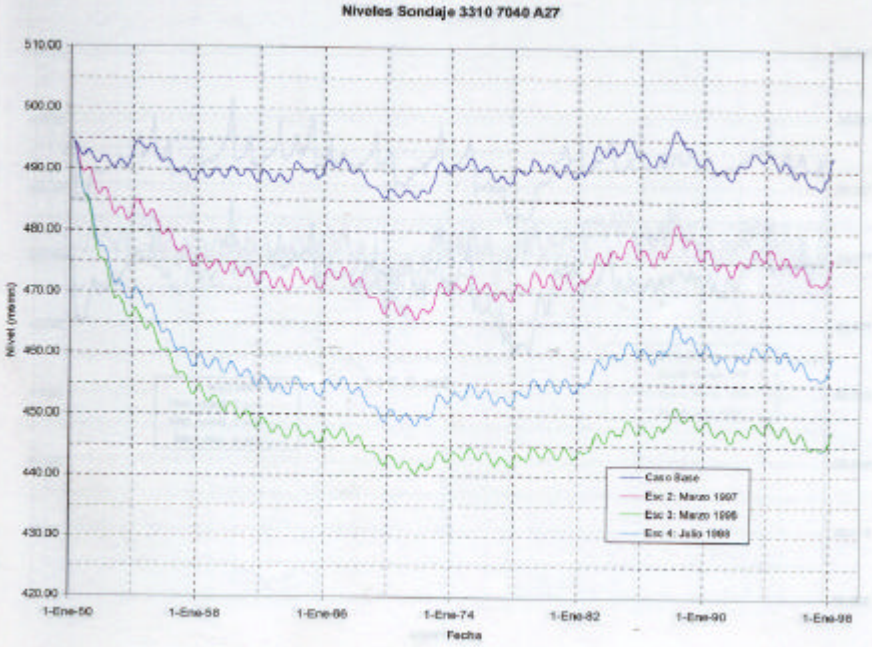


Figura J.2.1.1-2
EVOLUCIÓN DE NIVELES SECTOR COLINA INFERIOR

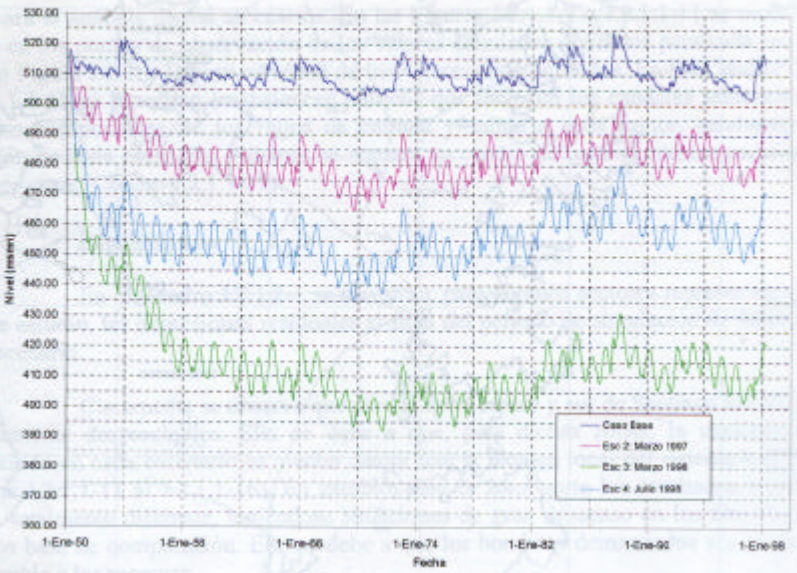
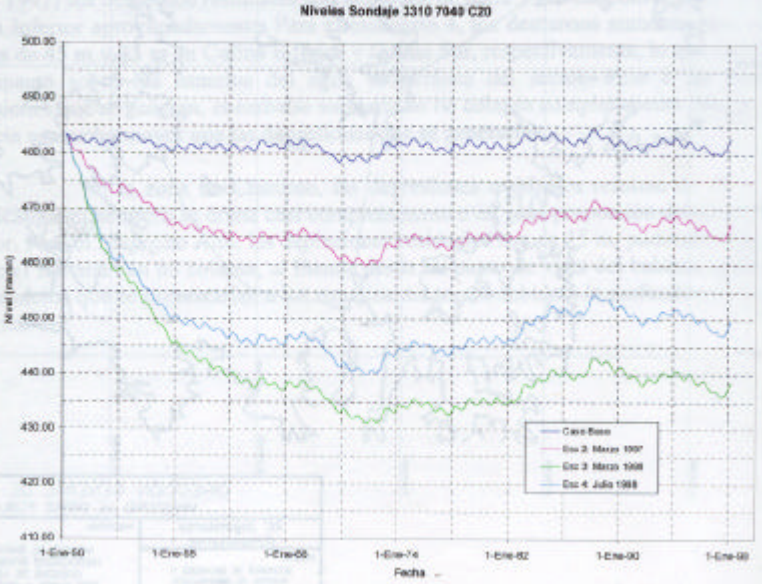


Figura J.2.1.1-3
EVOLUCIÓN DE NIVELES SECTOR COLINA SUR



J.2-

Figura J.2.1.1-4
EVOLUCIÓN DE NIVELES SECTOR CHICUREO

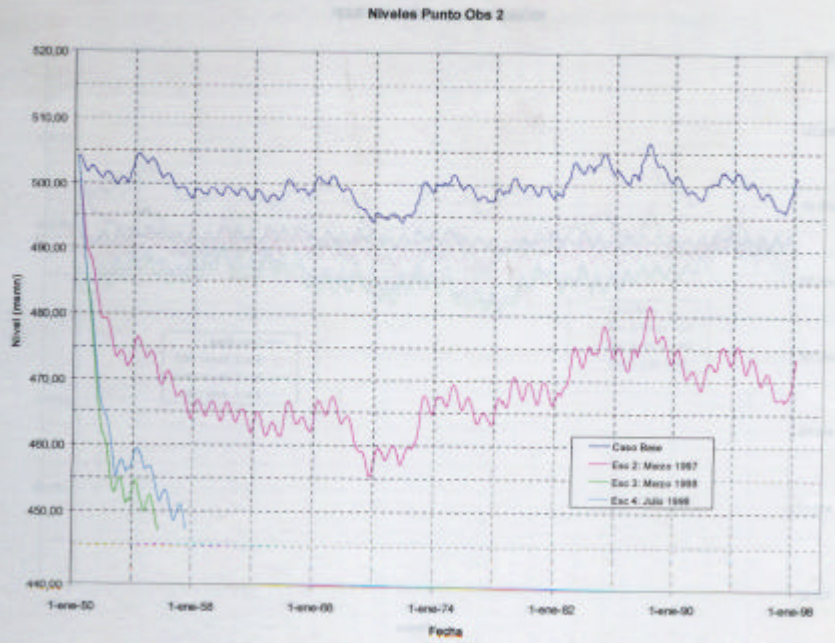


Figura J.2.1.1-7
EVOLUCIÓN DE NIVELES SECTOR MAPOCHO ALTO

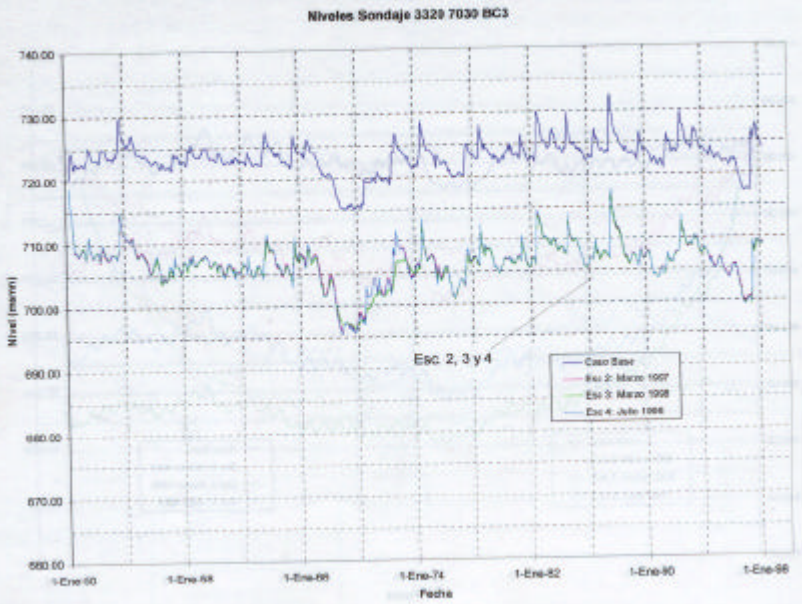
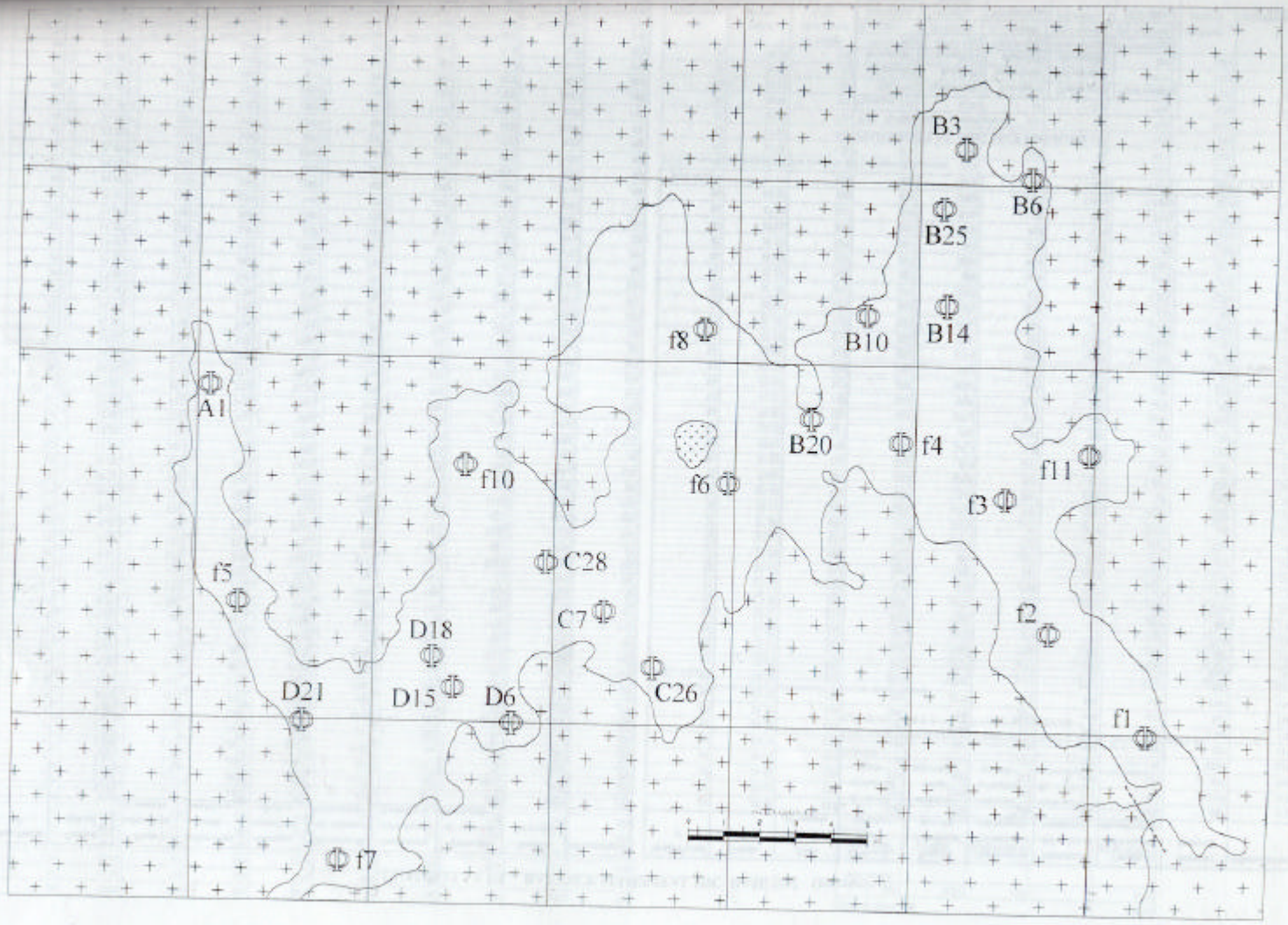
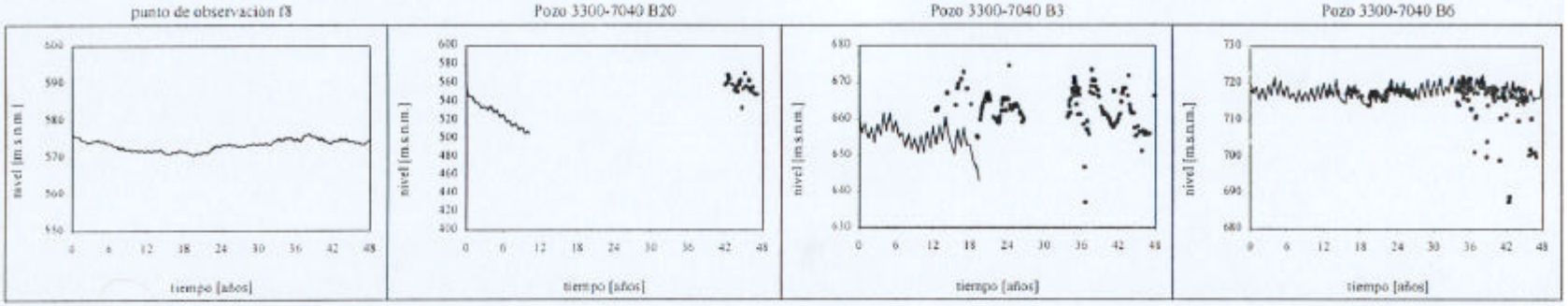


Figura J.2.1.1-6
EVOLUCIÓN DE NIVELES SECTOR SANTIAGO NORTE

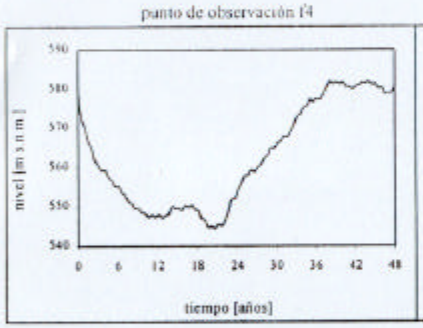

B3
B6
B25
B14
B10
f8
A1
B20
f4
f11
f10
f6
f3
C28
f5
C7
f2
D18
D21
D15
D6
C26
f1
f7

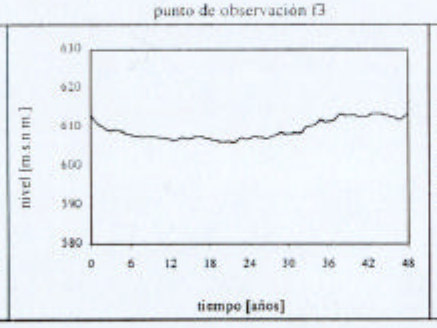

punto de observación f8
nivel [m.s.n.m.]
tiempo [años]

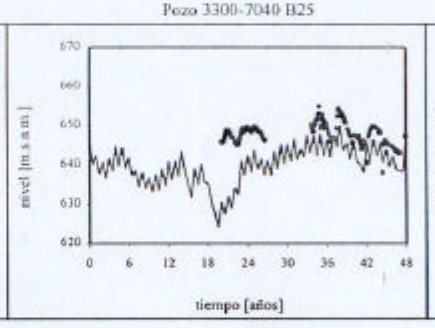
Pozo 3300-7040 B20
nivel [m.s.n.m.]
tiempo [años]

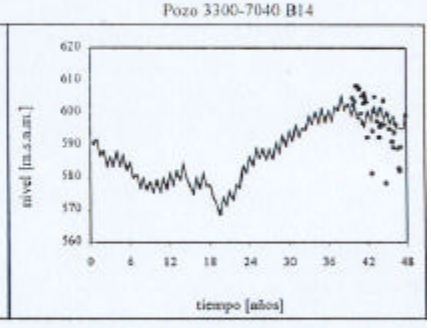
Pozo 3300-7040 B3
nivel [m.s.n.m.]
tiempo [años]

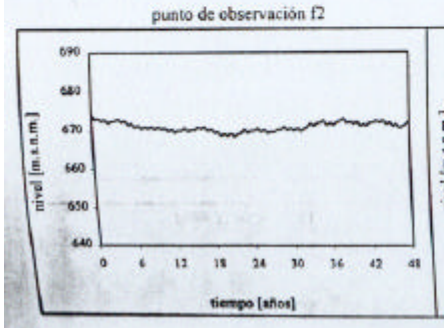
Pozo 3300-7040 B6
nivel [m.s.n.m.]
tiempo [años]

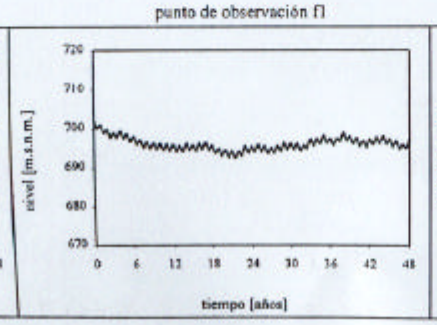

punto de observación f4
nivel [m.s.n.m.]
tiempo [años]

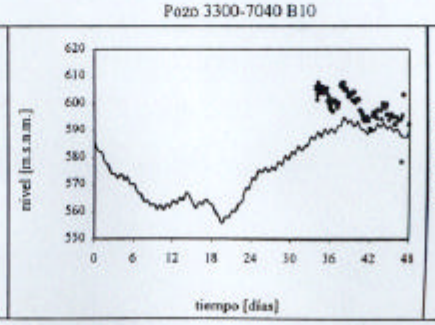

punto de observación f3
nivel [m.s.n.m.]
tiempo [años]

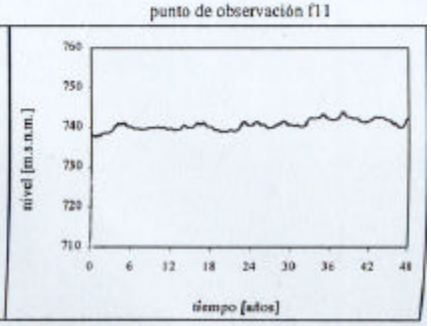

Pozo 3300-7040 B25
nivel [m.s.n.m.]
tiempo [años]

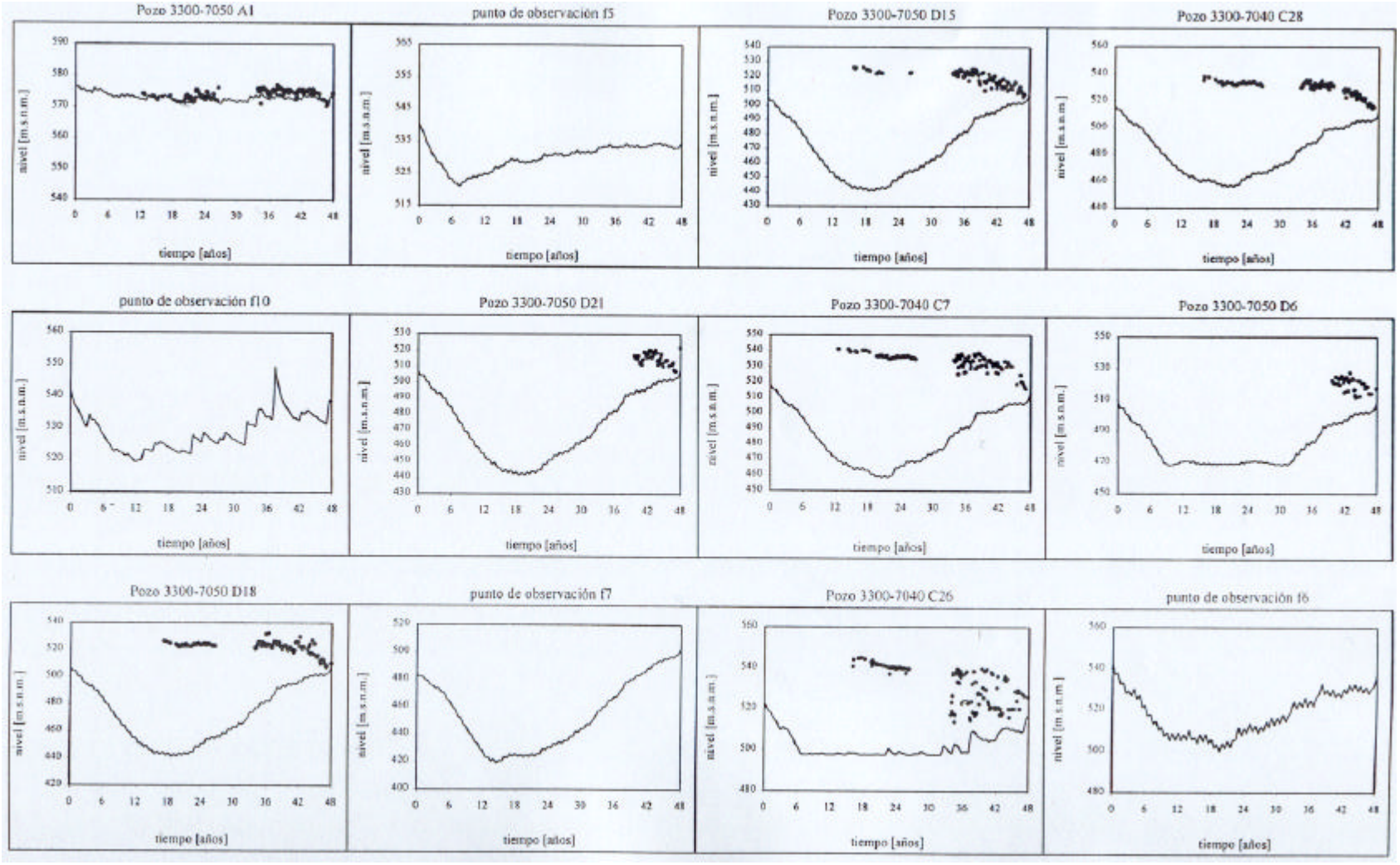

Pozo 3300-7040 B14
nivel [m.s.n.m.]
tiempo [años]


punto de observación f2
nivel [m.s.n.m.]
tiempo [años]


punto de observación f1
nivel [m.s.n.m.]
tiempo [años]

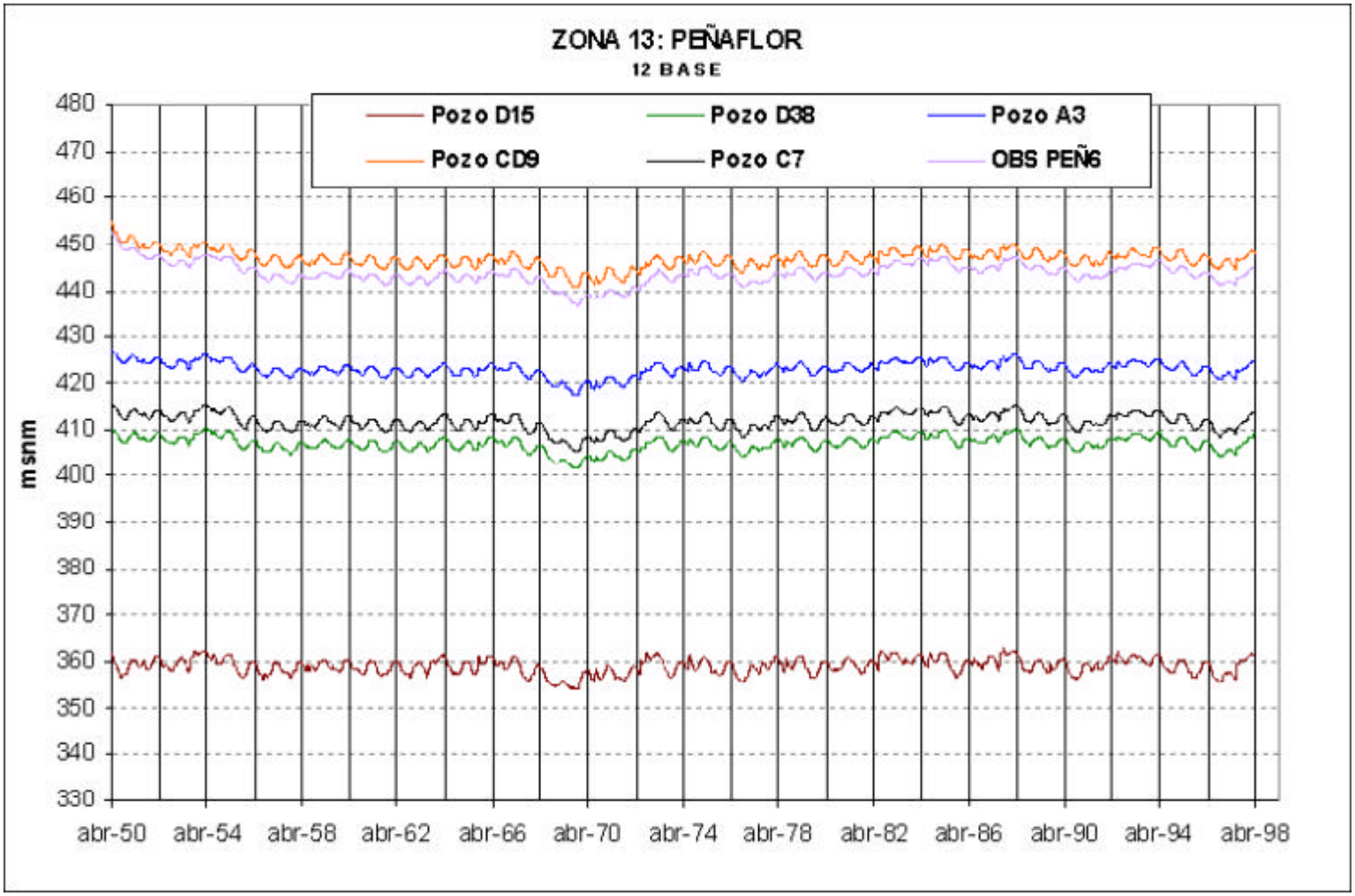

Pozo 3300-7040 B10
nivel [m.s.n.m.]
tiempo [días]

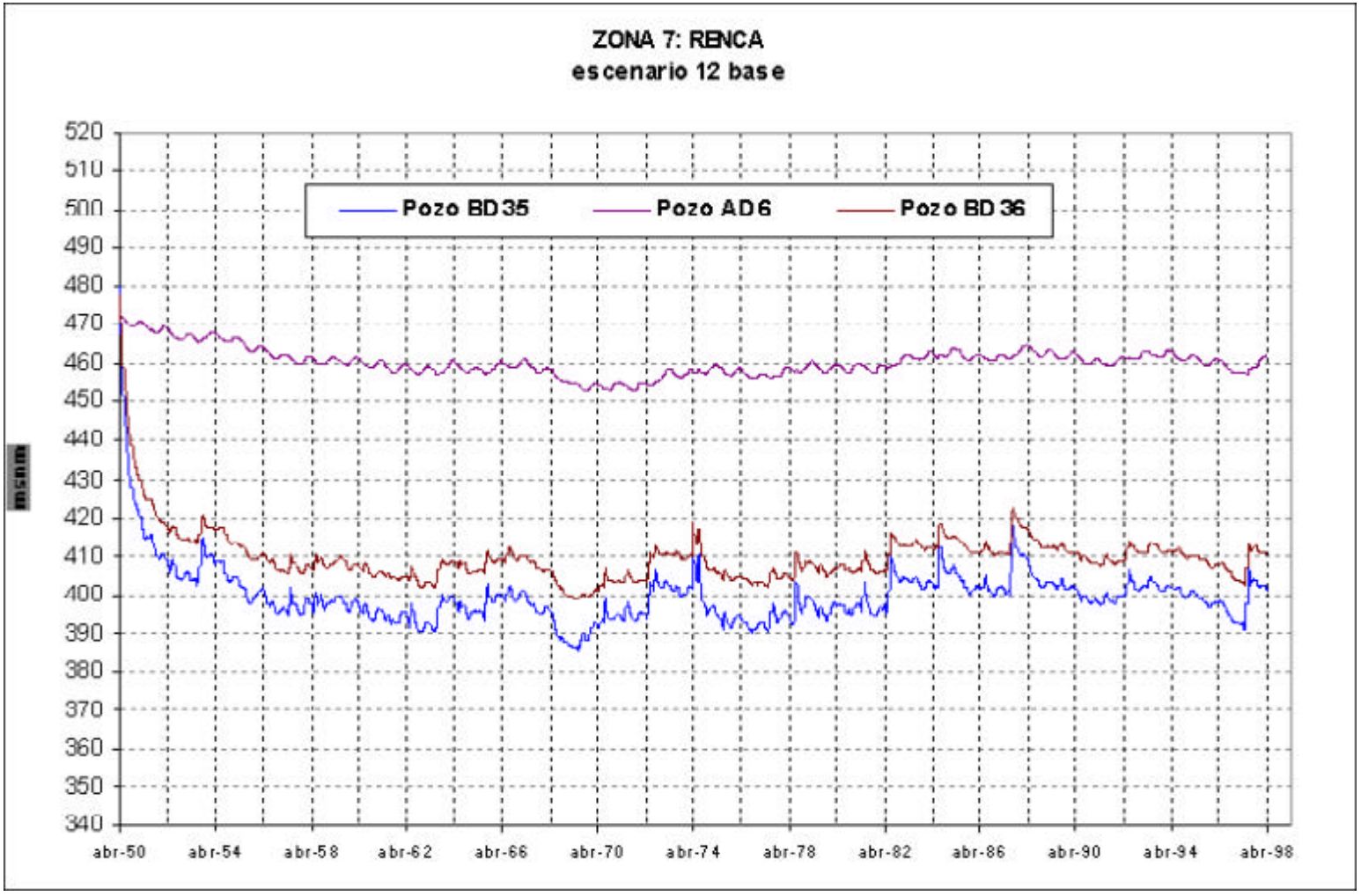

punto de observación f11
nivel [m.s.n.m.]
tiempo [años]



Fuente: Modelo de Simulación Hidrológico Operacional Cuencas de los Ríos Maipo y Mapocho. SIT. Nº62 2000.

ESCENARIO 2


ZONA 13: PEÑAFLOR
12 BASE
Pozo D15
Pozo D38
Pozo A3
Pozo CD9
Pozo C7
OBS PEÑ6
m snm
480
470
460
450
440
430
420
410
400
390
380
370
360
350
340
330
abr-50
abr-54
abr-58
abr-62
abr-66
abr-70
abr-74
abr-78
abr-82
abr-86
abr-90
abr-94
abr-98


ZONA 7: RENCA
escenario 12 base
Pozo BD35
Pozo AD6
Pozo BD36
msnm
520
510
500
490
480
470
460
450
440
430
420
410
400
390
380
370
360
350
340
abr-50
abr-54
abr-58
abr-62
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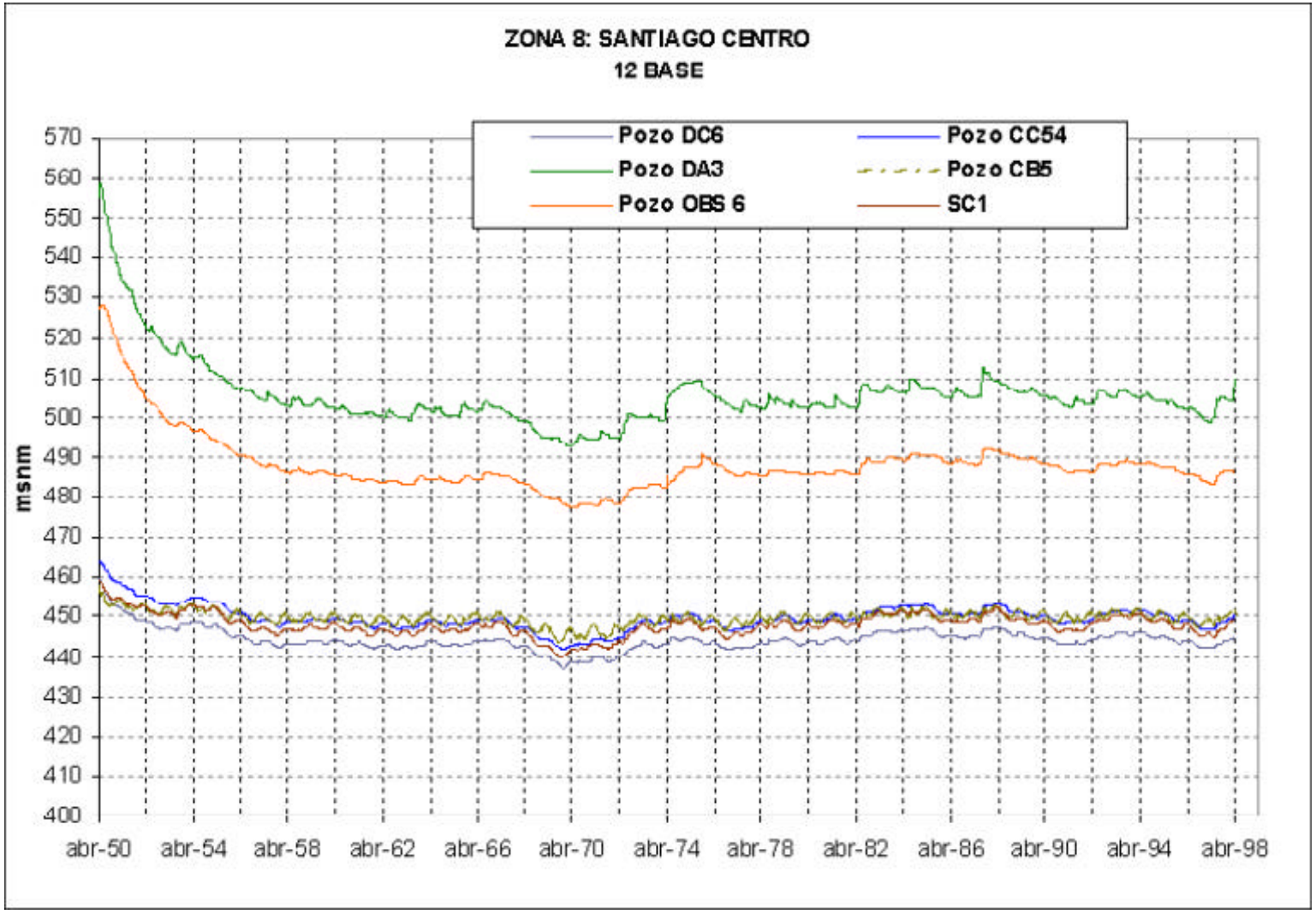
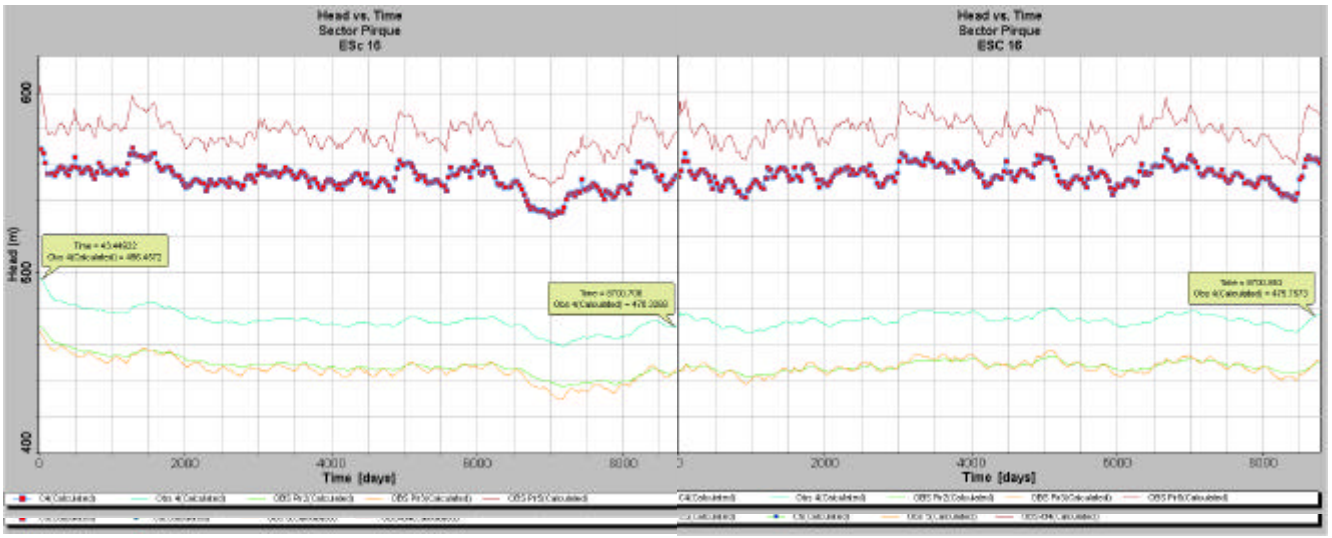
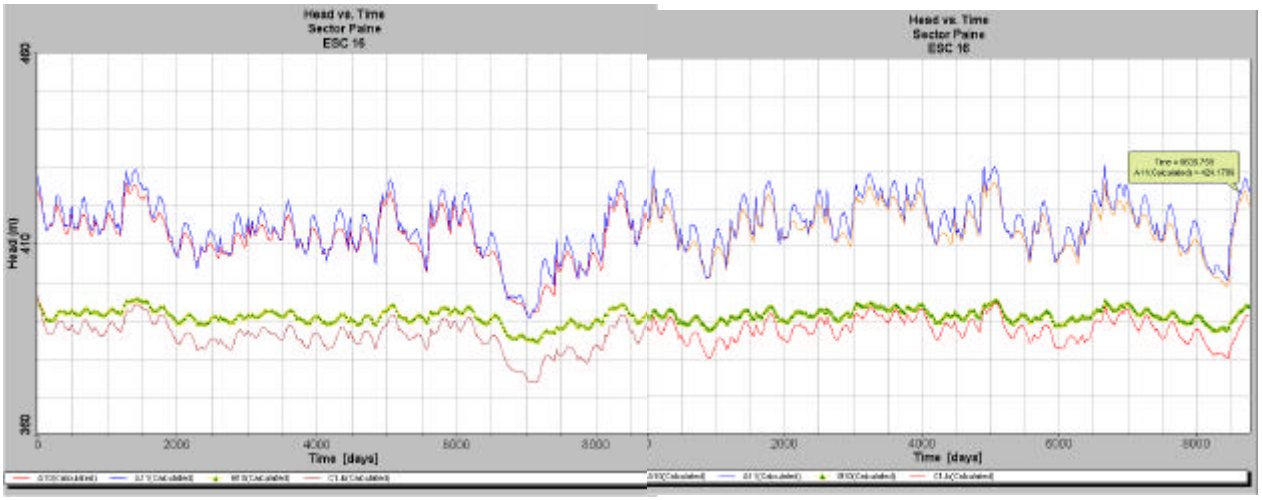
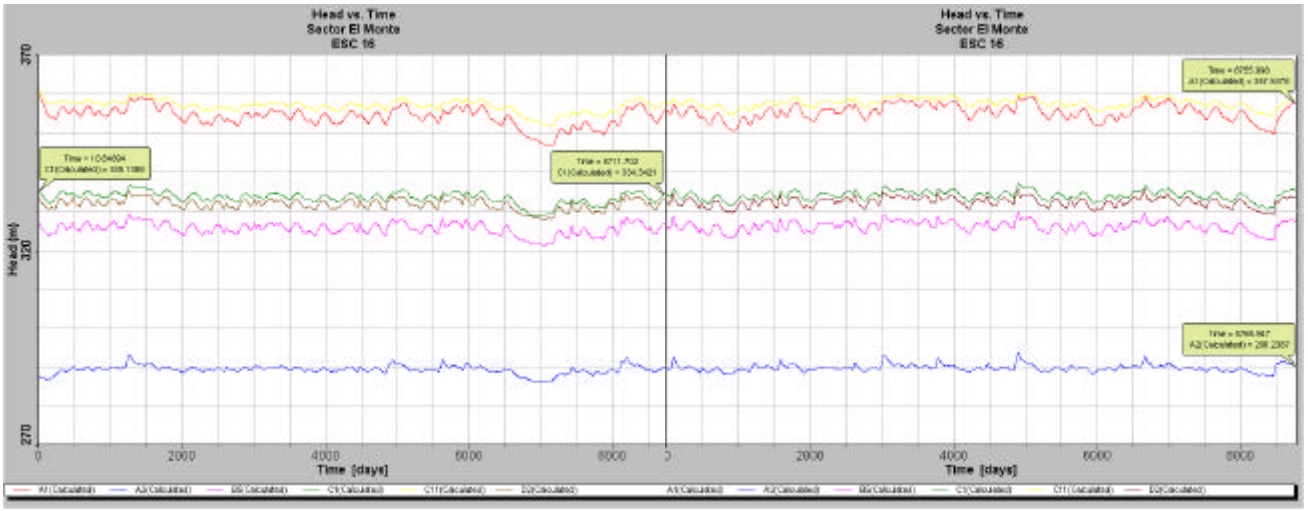
abr-90
abr-94
abr-98


ZONA 8: SANTIAGO CENTRO
12 BASE
Pozo DC6
Pozo CC54
Pozo DA3
Pozo CB5
Pozo OBS 6
SC1
msnm
570
560
550
540
530
520
510
500
490
480
470
460
450
440
430
420
410
400
abr-50
abr-54
abr-58
abr-62
abr-66
abr-70
abr-74
abr-78
abr-82
abr-86
abr-90
abr-94
abr-98

ESCENARIO 3


Head vs. Time
Sector Pirque
ESc 16
Head vs. Time
Sector Pirque
ESC 16
Head (m)
600
500
400
0
2000
4000
6000
8000
Time (days)
Time (days)

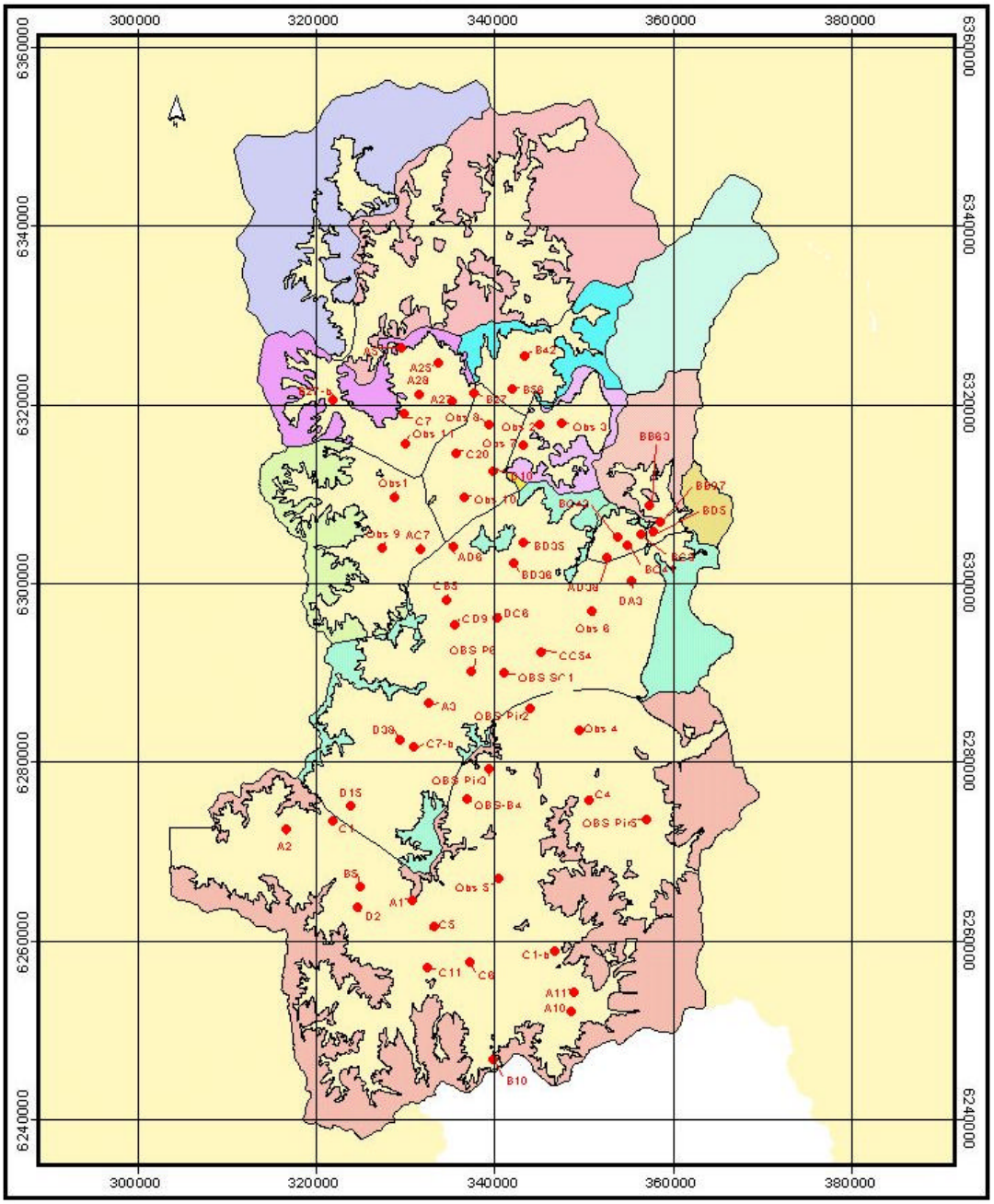




Fuente: Departamento de Estudios y Planificación. DGA 2004.

ANEXO III
POZOS DE OBSERVACIÓN ZONA DE ESTUDIO

MAPA 8
POZOS DE OBSERVACION MODELO MAIPO MAPOCHO



DATUM PROVISORIO SUDAMERICANO 1956
PROYECCION TRANSVERSAL DE MERCATOR UTM
mapa8.apr

6 0 6 12 Kilometers

MINISTERIO DE OBRAS PUBLICAS
DIRECCION GENERAL DE AGUAS
DEPTO DE ADM DE RECURSOS HIDRICOS
VSM

NOMBRE POZO	Coordenada Norte Datum 56	Coordenada Este Datum 56
A1	6264490	330760
A10	6252060	348540
A11	6254096	348896
A2	6272447	316654
A25	6324567	333719
A27	6320246	335319
A28	6321076	331516
A3	6286452	332704
A5	6326177	329587
AC7	6303732	331671
AD38	6302689	352575
AD6	6304035	335399
B10	6246630	339930
B27	6321127	337765
B27-b	6320420	321900
B42	6325307	343314
B5	6266015	325022
B56	6321601	342008
BB63	6308624	357378
BB97	6306816	358622
BC3	6305392	356441
BC41	6304213	354903
BC42	6305040	353817
BD35	6304385	343200
BD36	6302100	342090
BD5	6305609	357750
C1	6273246	321848
C1-b	6258685	346745
C11	6256945	332425
C20	6314477	335704
C4	6275595	350600
C5	6261495	333247
C6	6257573	337178
C7	6318940	329823
C7-b	6281540	331030
CB5	6298075	334575
CC54	6292186	345257
CD9	6295290	335545
D10	6312488	339907
D15	6274959	323979
D2	6263660	324720
D38	6282313	329371
DA3	6300184	355375
DC6	6296064	340259
Obs 10	6309582	336693
Obs 11	6315522	329980
Obs 2	6317701	345101
Obs 3	6317838	347554
Obs 4	6283371	349597
Obs 5	6266887	340470
Obs 6	6296858	350959
Obs 7	6315274	343292
Obs 8	6317624	339332
Obs 9	6303808	327372
OBS P6	6290046	337472
OBS Pir2	6285823	344012
OBS Pir3	6279148	339380
OBS Pir5	6273426	357090
OBS SC1	6289823	341080
OBS-B4	6275742	336928
Obs1	6309528	328754

IV
INTERFERENCIA RIO-ACUIFERO

IV.1
CAUDALES MEDIO MENSUALES

MINISTERIO DE OBRAS PUBLICAS
DIRECCION GENERAL DE AGUAS
CENTRO DE INFORMACION DE RECURSOS HIDRICOS

CAUDALES MEDIOS MENSUALES . PROMEDIO Y DESV. ESTANDAR AÑO 1950 - 1998

Estación : RIO MAPOCHO RINCONADA DE MAIPU
Código BNA: 05737002-5 Latitud S : 33 30 00 UTM Norte : 6291746 mts
Altitud : 420 msnm Longitud W : 70 49 00 UTM Este : 331239 mts
Cuenca : RIO MAIPO SubCuenca : Rio Mapocho Bajo (entre Estero De Las Rosas Área de Drenaje: 4068 km2

AÑO	ENE (m3	I	FEB (m3	I	MAR (m	I	ABR (m3	I	MAY (m	I	JUN (m3	I	JUL (m3	I	AGO (m	I	SEP (m3	I	OCT (m3/	I	NOV (m3	I	DIC (m3	I
1959																			18.09	%	16.4			@
1960	13.03	%	15.11		14.32	%	13.58	%	14.12		19.06		18.73		18.25		10.02			*	25.27	%	15.93	%
1961	8.8		10.49		15.47	%	11.72		13.07		30.75	%	30.53		30.53		39.59		32.69		28.26			@
1962	11.27	%	12.81		14.73		10.27		13.15		32.77		42			*		*		*	26.77	%	19.63	
1963		@	8.62	%	7.78	%		*	10.4			@	33.11		44.07		56.13		41.23		36.79		46.25	
1964	28.35		13.99		12.81		15.77		18.85		27.6		23.5		24.93		12.37		3.88			*		
1965						*	15.27		18.73			@		*		@	27.95		25.84		26.14		23.14	
1966	17.31		15.05		14.28		19.41		19.95		25.67		41.71		27.85		25.06		21.4		22.37		19.35	
1967	14.27		12.86		13.93		12.41		15.97		20.32		22.78		15.12	%	10.88		7.97		7.23		8.87	
1968	6.77	%	6.11		7.75	%	11.75	%	10.36		8.07		5.97	%	4.61		3.45		3.21		3.08		2.21	%
1969	2.87	%	5.26		6.47		4.4		9.85		18.15		18.49	%	22.58		10.03		5.64		9.04		11.73	
1970	10.1		9.61		9.68	%	3.77	%	10.07		21.29		26.97		24.2	%				@	20.74		9.55	
1971	4.12		5.21			@	5.04		10.56		20.49		21.27		22.39		13.27		17.8		16.2		13.85	
1972	10.68		8.22		9.74		7.27		25.64		35.83			*		*	40.62		27.17		32.94		41.7	
1973	28.37		17.3		15.85			@		@	23.3		29.15	%					16.45	%	17.79		15.69	%
1974	16.63			@						*	26.99	%		@	25.15		25.23		23.9			@	20.83	%
1975	18.65		16.67		15.47		19.37		18.06		15.45		26.11	%	23.64		18.63		17.87		18.01		21.71	
1976	18.38		16.75		15.55		9.27		10.35		23.21		18.96		19.02		8.77		16.7		24.4	%	11.17	
1977	12.11	%	11.6	%	9.31	%	7.6		15.87		23.35	%		@	31.89	%	31.31		33.08		37.76		30.19	
1978	17.97		12.84		16.2		20.6		16.12		22.32			@	34.43	%	23.6		27.96		36.86		43.29	
1979	27.04		19.7		20.43		17.04	%	22.43	%	17.64		15.8		27.03		36.72		22.61		21.94		25.87	
1980	19.14		23.67		23.33		33.49		30.16		39.18		48.65		40.68		27.99		37.78		30.97		37.16	
1981	23.45		26.76		28.28		20.79		40.18		41.59		28.53		18.74	%	13.45	%	14.84		16.37	%	16.33	
1982		@	11.56		10.63	%	9.85		23.13	%		*		*		@	29.61		28.41		43.11		58.77	
1983	44.11		29.58		26.63		29.12		32.38		34.39		55.28		38.8		36.58		43.5		40.67		35.68	
1984	26.94		25.49		24.28		19.1		28.68		28.46		114.22	%	44.44		44.07		53.48		45.64		44.06	
1985	32.02		24.32		23.34		30.36		30.09		32.3		30.67		22.7		14.79		19.01		24.65		25.13	
1986	23.78		21.83		21.18		23.34		30.18		78.12		30.97		39.45		30.8		33.77		40.28		44.37	
1987	33.17		28.51		29		26.99		29.74		31.27			@			55	%	58.53		64.86		57.52	
1988	43.93		34.73		34.72		34.65		26.34		25.01		20.02		23.91		15.68		16.85		22.19		22.07	
1989	25.32		28.71		23.27		15.68		18.86		14.41		19.91		35.86		36.74		35.74		38.35		33.14	
1990	27.43		27.45		20.3		16.31		17.43		13.58		23.69		20.85		22.47		16.26		19.02		23.46	
1991	20.9		16.21		14.96		14.18		27.86		39.26		66.63		41.65		49.29		43.31		45.99		44.63	
1992	34.75		30.28		33.48		27.81		30.31		61.91		45.93		43.1		44.62		41.97		41.11		37.14	
1993	32.88		28.81		30.04		36.07		36.06		29.69		34.12		31.07		26.11	%	23.63		30.98		33.81	
1994	31.55		27.77		24.01		18.02		18.71		25.9		36.07		37.05		32.69		26.69		35.5		36.34	
1995	31.43		27.1		22.57		20.58		17.64		26.2		31.56		31.35		30.1		22.36		38.28		36.45	
1996	28.17		17.65		17.9		25.2		17.37		22.03		22.65		21.38		10.56		8.41		8.16		8.45	
1997	12.81		10.24		12.64		10.55		17.62		95.91		46.38		67.71		66.87		58.08		65.63		67.93	
1998	50.78		34.78		35.17		37.92		27.65		28.64		21.82		19		13.2		14.12		14.21		21.1	
Promedio	22.48		18.7473		18.7639		18.1819		20.9173		30.0031		32.8806		29.4979		27.6181		25.952162		28.7884		28.7703	

PROMEDIO ANUAL 25.22

INDICADORES MESES INCOMPLETOS:
* : 1 - 10 Dias con Informacion en el Mes
@ : 11 - 20 Dias con Informacion en el Mes
% : Más de 20 Dias con Informacion en el Mes

Para el cálculo de la Interferencia, no se han considerado los valores que cuentan con menos de 20 días de información.

MINISTERIO DE OBRAS PUBLICAS
DIRECCION GENERAL DE AGUAS
CENTRO DE INFORMACION DE RECURSOS HIDRICOS

PAGINA : 1
FECHA : 06/07/2004

CAUDALES MEDIOS MENSUALES . PROMEDIO Y DESV. ESTANDAR AÑO: 1950 - 1998

Estación : RIO MAIPO EN EL MANZANO
Código BNA: 05710001-K Latitud S : 33 35 00 UTM Norte : 6283106 mts
Altitud : 850 msnm Longitud W : 70 24 00 UTM Este : 370074 mts
Cuenca : RIO MAIPO SubCuenca : Rio Maipo Medio (Despues Colorado antes M Área de Drenaje: 4968 km2

AÑO	ENE (m3	FEB (m3	MAR (m	ABR (m3	MAY (m	JUN (m3	JUL (m3	AGO (m3	SEP (m3	OCT (m3	NOV (m3	DIC (m3	
1950	121.57	92.51	81.03 %	*	45.41 %	40.97 %	37.02	39.19 %	49.41	70.91	99.61 %	173.23	
1951	143.01	94.43	74.76 %	@	47.16	52.09 %	55.1 %	57.55	56.02 %	75.55 %	129.3	157.58	
1952	147.16	101.94	84.41 %	51.73 %	56.11	49.55	50.13 %	45.23	62.44 %	75.37	100.75 %	162.1	
1953	133.77	118.07	73.42 %	@		*	*	82.89 %	109.38	114.17	@	301.13	
1954	259.16	196.11	122.34	*	@	@	@	55.38	56.4 %	66.64	130.52	147.58	
1955	143.22 %	88.54 %	62.94 %	51.09 %	@	*	*	*	*	@	112.04	118.42	
1956	96.57	79.47	@	46.79	42.38	*	32.62 %	@	@	58.54	102.21	100.92 %	
1957	93.79 %	*	@	*	40.27	41.51 %	41.87	@	@	54.3 %	104.1 %	143.39	
1958	137.45 %	@	*	@	40.67	54.1 %	44.73 %	40.01 %	61.5 %	@	@	@	
1959	123.18 %	97.58 %	@	65.64 %	57.09 %	@	59.28 %	60.94 %	68.86	88.5	148.8	216.77	
1960	170.96 %	@	@	58.67 %	@	58.7 %	@	57.18	66.35	92.63	169.33	203.87	
1961	148.32	*	113.2 %	@	52.85	@		*	@	142.55	231.1	304.91 %	
1962	223.77	164.61	120.82 %	@	56.55	57.22	59.69	58.92	59.36	89.07	172.63	187.52 %	
1963	@	@	@	*	47 %	*	49.73 %	@	68.74	90.27	127.3	306.46 %	
1964	356.16	213.5 %	124.92 %	81.2 %	@	51.71	48.47	42.86	49.42	61.18	83.58	88.35	
1965	112.94 %	*		*	45.15 %	45.87	43.45 %	71.4 %	@	114.66	196.43	198.84	
1966	274.52	181.25	115.47	*	*	@	57.25	53.03	71.52	@	*	177.23	
1967	165.39	127.46	*	*		@	34.1 %	*	@	59.91	88.15	123.37	
1968	106.64 %	93.88 %	73.09 %	50.73 %	35.79	24.27	24.59	23.17	27.49	33.82	50.58	43.04	
1969	66.66	62.33	51.41	33.36	31.93	39.56	28.66	33.71	41.1	65.27	102.7	209.32	
1970	136.24	103.16	65.63	44.93	39.49	36.32	40.38	34.1 %	46.65 %	70.33	93.66	107.95	
1971	82.87	76.22	53.37	37.01 %	26.53	24.63	34.43	35.57	47.75	89.93	167.67	157.77	
1972	143.18	102.86	75.97	49.08	80.5	106.18	67.11	90.2	98.56	136.9	196.37	@	
1973	477.5 %	*	226.81	139.98	79.73 %	60.24	@	*	54.6 %	81.12	155.37	175.94	
1974	177 %	125.58 %	85.23	55.54	51.35	59.83 %	52.67 %	50.98	63.27	127.23	187.93	192.68	
1975	224.39	139.54	90.79	65.56	51.86	39.53	47.06	51.78 %	61.94 %	81.4 %	104.58	147.54 %	
1976	129.42 %	96.93	82.14	49.06	36.92	40.97	34.37	32.7	36.2	55.75	112.45	123.77	
1977	107.42	96.38	80.02	50.64	40.16	41.72	70.23	65.46	88.11	143.21	230.6	343.29	
1978	243.61	151.39	101.02	69.01	54.57	48.15	96.76	76.41	75.96	119.9	219.43	398.39 %	
1979	395.55	222.5	124.31	73.72	68.89	56.52	44.85 %	58.79	64.16	83.83	114.67 %	194.45	
1980	278.58	166.9	120.84	123.68	117.2	98.7	96.23	87.03	91.61	117.27	176.73	350.97	
1981	251.12 %	206.61	132.39	76.53	74.22	66.15	55.33	52.42	54.42 %	78.47	132.06	143.17 %	
1982	139.58	111.33	73.88	59.08	49.89	104.06	142.69	99.99	144.13	155.46 %	256.7	539.45	
1983	592.84	455.14	261.1	160.67	99.9	78.89	90.65	87.89	74.18	147.3	247	296.45	
1984	240.45	185.48	107.12	67.74	57.02	44.32	63.42	60.22	71.82	145.58	190.3	313.29	
1985	289.74	180.96 %	146.1	87.39	76.88	65.77	52.02	46.05	59.85	81.28	147.53	173.81	
1986	216.87	183.54	141.23	111.4	97.24	*	88.64 %	66.73	83.67	122.68	159.87	309.52	
1987	351.45	271.56 %	162.52 %	96.33 %	68.95	69.14	127.42 %	130.34	122.36	155.42	*		
1988					*	59.56	48.06	52.75	56.46	91.85	138.91	136.41	
1989	145.07	148.29	98.34	67.83	52.84	40.45	36	68.67	82.35	122.33	224.53	225.32	
1990	170.36	122.58	85.87	62.73	58.8	50.53	49.68	52.29	56.76	78.48		135.37	
1991	129.39	109.75	78.44	63.06	116.59 %	78.96 %	102.66	77.85	101.77	125.36	212.93	216.29	
1992	276.68	206.72	158.42	94.65	80.08	79.97	71.16	68.39	80.65	132	196.2	233.65	
1993	256.97 %	192.48 %	117.13	103.37 %	*	97.74 %	85.12	76.4	78.51	111.02	131.57	198.61	
1994	219.68	142.12 %	96.07 %	69.52	60.74	60.16	76.36	75.81	82.01	98.01	161.3	261.13	
1995	184.16	127.79	97.84	75.61	60.33	61.2	55.4	57.36	77.88	90.54	168.2	198.58	
1996	128.18	111.63	96.84	69.49	49.96	42.75	41.36	38.6	38.16	47.04	51.92	58.74	
1997	81.81	75.88	61.77	43.58	33.86	65.4 %	61.17	80.05	119.24	114.46	208.63	335.45	
1998	413.81	207.29	136.23	102.72	72.36	60.39	50.4	44.75	39.12	61.01	83.73	105.8	
Promedio	202.301	147.129	106.381	72.4756	58.8805	57.7892	59.2633	60.501	69.7707	96.0543	150.454	205.17	PROMEDIO ANUAL 107.18

INDICADORES MESES INCOMPLETOS:
* : 1 - 10 Dias con Informacion en el Mes
@ : 11 - 20 Dias con Informacion en el Mes
% : Más de 20 Dias con Informacion en el Mes

Caso H7C Valle del río Maipo N02

Caudal Medio Mensual Afluente al nodo (m3/s)

Año	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar	PromVer	Prom
1950	56.79	49.14	39.42	43.59	44.46	46.52	64.53	101.28	196.16	134.09	98.93	76.98	111.99	79.32
1951	57.46	47.68	53.15	53.40	55.54	54.84	71.39	126.80	183.56	149.40	94.13	66.45	115.29	84.48
1952	59.95	53.63	51.29	54.30	53.65	59.82	60.28	122.90	197.17	137.86	120.94	77.88	119.50	87.47
1953	40.03	50.93	47.78	47.65	60.73	87.41	89.48	216.04	313.22	300.83	232.68	139.57	215.30	135.53
1954	83.77	76.31	81.65	69.63	73.11	76.83	102.27	180.86	173.76	137.49	105.87	78.16	129.73	103.31
1955	61.39	52.11	39.86	35.14	33.58	37.00	47.46	138.11	133.90	115.20	98.99	61.94	99.27	71.22
1956	59.50	58.66	47.39	51.38	52.28	54.77	65.63	142.00	129.14	106.42	90.85	64.94	99.83	76.91
1957	57.85	52.29	37.64	38.00	38.14	45.22	69.91	144.80	194.32	198.17	123.45	76.57	134.53	89.70
1958	70.33	63.52	61.89	49.26	39.66	63.65	117.34	137.39	173.92	114.82	95.78	71.43	118.45	88.25
1959	59.11	57.93	54.27	57.70	63.22	67.11	78.77	169.54	276.57	181.77	96.55	68.29	145.25	102.57
1960	61.38	56.97	52.33	50.19	44.90	51.89	79.34	155.01	185.65	130.34	89.81	81.15	120.22	86.58
1961	69.02	67.68	73.48	47.65	75.68	56.85	102.60	197.29	341.09	236.46	168.14	108.81	192.40	128.73
1962	79.65	63.20	53.43	48.82	50.76	57.00	79.52	160.67	169.97	123.72	101.33	70.21	117.57	88.19
1963	60.73	51.00	45.71	54.14	49.74	68.20	83.20	122.91	367.37	386.52	206.66	121.28	214.66	134.79
1964	84.40	65.00	71.90	47.65	42.82	57.63	65.88	99.61	106.74	122.27	98.48	75.72	94.78	78.17
1965	70.33	51.07	48.82	45.13	58.39	68.67	105.45	210.52	220.31	311.79	191.77	111.40	191.88	124.47
1966	85.49	56.81	54.42	47.26	43.13	56.18	95.48	143.67	216.45	156.65	137.40	76.81	137.74	97.48
1967	62.68	51.79	41.39	40.66	36.42	34.31	68.34	96.25	147.81	118.95	89.19	60.42	96.83	70.68
1968	57.13	43.00	32.39	36.00	33.27	34.41	29.72	48.59	41.94	56.83	64.29	37.83	46.53	42.95
1969	28.88	31.48	42.89	39.55	33.52	40.64	59.41	114.01	259.87	176.55	124.65	79.65	135.69	85.93
1970	58.18	45.97	37.32	37.62	32.98	42.92	62.67	109.18	135.31	82.74	70.30	46.92	84.52	63.51
1971	41.59	45.17	29.78	38.46	37.60	45.71	89.40	210.00	180.72	114.89	90.55	64.25	124.97	82.34
1972	53.56	76.11	97.55	59.48	75.55	76.79	111.45	177.41	321.53	457.24	254.10	217.65	256.56	164.87
1973	143.00	70.62	68.03	64.79	54.18	61.77	72.43	146.68	186.93	195.56	137.80	95.93	139.22	108.14
1974	73.70	63.72	50.60	58.08	44.37	41.09	110.26	194.84	221.00	242.29	146.42	91.65	167.74	111.50
1975	69.75	47.60	44.16	42.79	42.29	50.64	67.85	108.25	178.72	128.83	107.04	74.16	110.81	80.17
1976	48.13	37.35	40.17	39.11	37.26	46.48	55.15	116.05	151.32	136.34	89.49	67.71	102.68	72.05
1977	63.00	49.06	48.12	67.88	60.73	83.97	134.22	237.38	318.46	240.20	162.52	100.02	198.80	130.46
1978	71.91	58.18	51.84	89.33	67.74	72.06	88.77	185.86	418.83	399.55	204.59	118.99	236.10	152.30
1979	82.22	63.06	48.11	53.90	55.29	50.37	88.31	92.76	194.01	284.82	179.21	141.81	163.49	111.16
1980	122.06	121.28	99.83	90.90	78.34	89.42	101.83	177.87	410.31	300.00	243.59	109.53	223.85	162.08
1981	86.17	76.53	65.17	54.39	54.52	58.73	80.99	148.37	163.33	149.39	110.85	75.76	121.45	93.68
1982	58.09	53.88	72.98	107.07	92.28	131.48	124.89	246.42	555.39	639.95	422.77	243.76	372.20	229.08
1983	131.50	105.58	79.32	76.62	71.55	64.99	111.31	212.94	289.02	233.86	171.26	111.29	188.28	138.27
1984	72.85	58.27	51.52	55.08	54.65	66.52	117.19	177.97	308.61	329.49	222.19	164.28	219.96	139.88
1985	105.01	82.73	69.99	60.76	52.89	50.82	69.20	157.15	191.20	157.53	122.19	82.85	130.02	100.19
1986	76.83	61.67	184.00	71.80	74.80	81.28	114.32	145.30	369.03	330.71	204.24	139.00	217.10	154.41
1987	91.46	73.07	68.84	102.52	92.03	89.02	122.78	279.78	421.52	399.16	276.41	167.08	277.79	181.97
1988	110.66	78.78	62.59	53.88	54.13	56.87	80.99	147.57	143.50	128.89	119.88	73.06	115.65	92.57
1989	56.89	48.18	41.07	38.21	50.96	59.72	90.81	199.51	246.44	144.18	96.39	71.53	141.48	95.32
1990	62.96	50.88	45.13	43.59	42.22	52.82	66.99	122.59	143.03	126.53	98.68	74.29	105.35	77.48
1991	72.67	81.64	75.27	79.31	63.30	89.18	102.24	212.57	232.95	298.37	208.48	147.36	200.33	138.61
1992	90.71	75.49	73.59	67.49	59.64	75.61	124.67	203.79	262.97	258.29	182.90	117.20	191.64	132.70
1993	103.23	79.67	94.34	76.65	79.12	80.44	94.84	191.03	235.79	259.73	139.28	107.24	171.32	128.45
1994	72.05	60.69	56.07	73.42	60.04	69.39	84.70	242.39	281.34	203.20	139.08	95.88	174.43	119.85
1995	77.35	64.55	60.68	53.99	51.57	73.08	90.28	188.24	230.72	138.68	105.92	78.56	138.73	101.14
1996	56.26	44.17	37.30	35.01	35.25	34.83	43.75	93.00	86.96	67.45	68.99	58.77	69.82	55.14
1997	45.48	27.52	74.98	55.30	65.90	99.45	96.55	184.43	334.61	494.14	231.62	127.64	244.83	153.13
Prom	72.15	60.45	59.57	56.34	54.67	62.80	86.14	161.20	234.22	215.38	146.60	97.28	156.80	108.90
DesvEsT	22.83	17.05	24.90	17.29	15.33	19.19	23.44	48.06	100.07	121.97	68.41	41.06	61.33	36.07
Max	143.00	121.28	184.00	107.07	92.28	131.48	134.22	279.78	555.39	639.95	422.77	243.76	372.20	229.08
Min	28.88	27.52	29.78	35.01	32.98	34.31	29.72	48.59	41.94	56.83	64.29	37.83	46.53	42.95

N43 + N22

Caso H7C Valle del río Maipo N43 + N22

Caudal Medio Mensual Afluente al nodo (m3/s)

A¤o	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar	PromVe	Prom
1950	39.22	53.30	38.03	39.59	49.56	49.93	42.77	73.57	140.55	70.79	46.44	33.02	67.86	56.40
1951	31.83	74.75	90.70	138.28	61.76	66.80	43.33	86.52	123.82	82.68	46.75	25.80	68.15	72.75
1952	27.85	83.47	120.39	82.45	62.16	78.30	41.56	82.57	133.86	79.38	63.40	36.46	72.87	74.32
1953	21.03	78.03	62.09	126.43	284.89	250.05	116.15	224.02	290.88	247.31	183.57	89.84	191.96	164.52
1954	87.32	111.16	143.54	128.84	74.81	64.28	70.16	128.92	108.66	73.70	50.16	35.51	77.85	89.75
1955	31.29	52.32	61.41	42.50	33.00	19.62	35.49	93.98	77.16	58.78	44.87	28.42	56.45	48.24
1956	30.19	53.47	36.62	84.28	100.87	41.63	32.66	91.03	70.33	51.57	42.35	23.43	51.89	54.87
1957	25.96	127.02	42.51	63.34	57.33	37.50	35.52	90.01	137.84	123.46	63.05	34.21	80.68	69.81
1958	34.45	104.04	148.61	60.28	111.39	55.83	92.75	97.52	107.30	55.20	43.56	32.26	71.43	78.60
1959	48.62	82.44	106.12	93.61	87.53	62.46	49.97	120.36	214.34	112.95	44.99	25.93	94.76	87.44
1960	27.51	43.25	102.82	85.38	45.68	34.32	47.82	111.62	121.52	69.31	37.87	39.43	71.26	63.88
1961	34.34	52.94	110.39	49.48	117.83	62.25	119.98	153.18	284.04	163.65	105.19	55.61	146.94	109.07
1962	44.89	44.28	155.35	50.73	59.22	36.64	59.34	117.41	105.73	65.46	47.29	29.50	70.79	67.99
1963	28.74	39.37	44.12	168.99	150.82	189.23	120.07	102.63	350.49	332.28	146.83	72.73	187.50	145.53
1964	48.65	43.58	111.17	64.08	75.69	33.66	29.45	46.72	51.60	58.71	43.21	29.57	43.21	53.01
1965	44.89	46.52	43.03	144.96	221.54	82.59	115.14	202.38	178.60	246.30	129.58	58.83	155.14	126.20
1966	70.04	40.37	149.06	140.21	80.34	44.05	70.00	121.95	160.91	86.37	73.35	32.13	90.78	89.06
1967	30.85	37.72	42.22	69.94	34.88	33.50	38.92	44.92	78.43	56.02	38.40	19.66	46.06	43.79
1968	26.72	25.27	22.74	31.23	20.45	18.99	10.55	13.22	12.82	15.25	17.79	11.83	13.57	18.90
1969	12.33	21.59	49.53	41.85	42.43	17.51	20.49	59.58	178.33	99.92	61.96	31.64	75.32	53.10
1970	23.04	63.00	41.62	177.39	36.67	35.88	44.28	58.30	70.75	35.40	25.98	14.04	41.46	52.20
1971	15.77	34.68	96.89	49.72	45.33	25.90	55.53	152.32	110.90	52.50	37.35	22.64	71.88	58.30
1972	21.06	137.04	264.73	133.19	260.36	159.92	140.67	150.17	275.09	417.69	201.52	166.99	225.36	194.04
1973	107.57	61.58	73.32	125.49	38.98	39.38	59.92	96.23	117.09	127.03	72.96	42.55	85.96	80.18
1974	38.85	117.45	286.06	110.03	50.87	41.22	84.79	164.83	156.57	169.47	81.21	39.49	116.06	111.74
1975	41.38	37.55	32.79	118.76	41.90	27.76	29.40	59.68	103.79	62.05	52.72	29.22	56.14	53.08
1976	17.73	26.93	51.20	36.96	38.92	27.86	51.87	72.41	79.57	66.19	35.83	21.81	54.61	43.94
1977	32.83	39.38	130.43	190.84	111.54	91.26	136.99	223.91	260.16	168.18	98.73	46.30	155.71	127.54
1978	35.75	49.96	78.94	323.83	96.91	94.60	79.34	237.86	393.10	342.36	142.84	64.10	209.93	161.63
1979	46.37	47.45	37.65	114.74	61.97	54.09	48.52	58.90	137.12	214.01	126.67	83.20	111.40	85.89
1980	126.93	155.97	146.28	151.63	80.17	129.07	76.74	141.56	355.00	228.69	185.61	58.47	174.34	153.01
1981	46.64	217.09	72.80	73.37	43.79	40.84	45.63	92.95	89.26	76.06	50.41	38.37	65.45	73.93
1982	21.75	115.40	403.52	288.14	214.99	220.89	149.97	255.14	566.09	622.23	381.37	193.13	361.32	286.05
1983	119.08	129.74	155.97	169.74	106.24	90.73	96.59	178.82	230.40	161.50	106.85	56.51	138.44	133.51
1984	38.56	95.08	67.97	312.02	136.52	96.19	136.73	160.40	272.52	264.10	177.60	109.53	186.81	155.60
1985	67.47	92.44	69.36	116.47	40.77	28.41	41.92	96.30	115.40	82.80	58.37	29.48	70.71	69.93
1986	55.70	115.15	315.28	71.09	117.57	63.41	92.89	135.54	322.48	266.83	151.97	95.74	177.58	150.31
1987	61.62	91.33	100.43	583.21	413.99	177.79	221.38	317.46	434.74	375.49	231.28	130.47	285.14	261.60
1988	80.48	66.36	62.48	69.55	92.29	37.53	39.62	106.54	83.45	64.04	59.96	26.74	63.39	65.75
1989	45.11	47.79	43.35	110.69	164.32	70.71	79.06	175.28	188.16	76.90	40.22	29.92	98.26	89.29
1990	29.23	34.21	35.70	79.78	85.54	44.14	37.36	61.47	76.07	56.07	39.10	25.52	49.27	50.35
1991	34.44	115.19	180.27	181.04	75.74	141.48	94.44	185.98	210.16	236.54	153.20	104.55	164.15	142.75
1992	88.49	187.98	271.35	108.94	128.93	90.52	108.65	179.70	202.71	191.74	122.38	62.95	144.69	145.36
1993	164.50	148.17	128.57	126.29	102.30	60.75	65.99	141.96	173.20	188.41	75.37	51.70	116.10	118.93
1994	43.18	76.29	82.03	149.02	66.73	61.33	52.02	191.88	222.10	137.02	74.38	38.59	119.33	99.55
1995	48.13	46.86	85.38	91.02	71.75	65.48	50.87	135.06	156.88	73.76	42.69	29.26	81.42	74.76
1996	51.15	32.51	47.47	40.69	45.48	16.41	13.53	25.73	26.10	15.06	14.78	20.98	19.36	29.16
1997	16.72	99.20	420.60	159.20	227.24	243.52	172.80	187.00	318.58	444.65	181.02	76.26	230.05	212.23
Prom	47.21	77.01	113.81	124.36	99.37	74.09	72.91	127.20	180.72	153.45	90.69	51.13	112.68	101.00
DesvEsT	31.16	44.48	93.35	94.94	77.05	58.74	44.52	63.78	114.30	127.94	69.79	38.09	71.10	57.39
Max	164.50	217.09	420.60	583.21	413.99	250.05	221.38	317.46	566.09	622.23	381.37	193.13	361.32	286.05
Min	12.33	21.59	22.74	31.23	20.45	16.41	10.55	13.22	12.82	15.06	14.78	11.83	13.57	18.90

NO 13 + N 15

Caso H7C Valle del río Maipo N13 + N15

Caudal Medio Mensual Afluente al nodo (m3/s)

A¤o	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar	PromV	Prom
1950	5.29	9.35	7.70	4.52	10.72	9.94	9.19	12.22	12.82	8.94	7.42	5.69	9.38	8.65
1951	4.82	9.49	13.99	19.48	10.69	12.02	8.79	12.04	10.60	9.03	7.94	5.90	9.05	10.40
1952	3.88	10.34	18.02	13.04	8.89	12.78	9.01	11.04	10.80	9.31	7.94	6.01	9.02	10.09
1953	4.09	10.81	10.08	18.74	37.46	29.93	14.25	20.90	18.40	11.64	10.11	8.84	14.02	16.27
1954	8.85	11.73	17.73	15.79	8.16	8.22	8.42	9.21	9.64	8.75	5.96	4.90	7.81	9.78
1955	3.41	5.27	9.49	6.90	5.55	4.46	7.48	10.32	9.87	7.19	5.89	5.27	7.67	6.76
1956	3.38	4.95	2.90	11.69	14.69	6.12	6.40	9.84	8.97	8.06	6.58	5.04	7.48	7.38
1957	2.74	15.13	7.03	10.26	10.12	5.89	6.08	9.31	10.62	8.52	6.07	4.98	7.60	8.06
1958	2.62	9.51	22.56	8.09	16.40	7.54	8.70	10.88	9.27	8.59	7.02	4.79	8.21	9.66
1959	5.83	11.06	14.90	13.68	11.86	9.33	7.94	10.37	11.56	9.53	8.13	5.31	8.81	9.96
1960	3.04	4.19	13.73	12.07	7.42	4.77	7.73	12.62	9.52	6.81	5.71	6.05	8.07	7.80
1961	3.63	4.66	11.17	6.32	14.81	10.07	19.20	10.15	9.54	8.30	8.52	6.32	10.34	9.39
1962	3.76	3.75	17.90	6.51	8.45	3.77	7.84	12.25	10.11	7.92	6.78	4.70	8.27	7.81
1963	3.20	4.19	5.25	22.32	21.36	24.77	19.64	14.21	23.80	11.93	8.64	7.16	14.23	13.87
1964	4.35	3.70	9.02	8.72	10.84	4.13	4.65	6.35	7.30	7.88	5.62	4.33	6.02	6.41
1965	5.39	6.19	6.71	20.02	28.61	11.05	16.66	22.85	14.14	10.39	9.10	8.37	13.59	13.29
1966	6.28	4.08	17.85	19.04	11.88	7.81	9.84	18.29	10.78	8.48	8.28	5.90	10.26	10.71
1967	4.42	3.72	5.58	9.49	5.85	6.78	5.90	7.47	8.02	7.90	7.47	4.53	6.88	6.43
1968	3.47	2.39	2.55	2.63	2.05	2.71	1.58	3.62	3.93	5.54	4.51	3.30	3.75	3.19
1969	2.06	2.73	8.74	6.09	8.87	3.16	3.05	6.86	7.89	7.36	5.12	3.60	5.65	5.46
1970	2.57	5.16	5.23	23.00	5.65	5.72	6.64	8.28	8.69	6.20	5.24	3.28	6.39	7.14
1971	2.21	2.91	13.59	8.59	7.97	5.36	8.72	10.18	8.64	7.57	5.66	3.34	7.35	7.06
1972	2.18	13.36	29.71	18.12	29.53	19.49	20.76	13.58	15.02	17.54	10.57	9.47	14.49	16.61
1973	6.45	6.89	6.30	16.35	4.65	5.74	8.13	10.46	9.55	10.65	7.62	4.31	8.45	8.09
1974	4.40	11.60	35.88	13.79	8.75	8.17	11.95	12.72	10.71	9.01	8.17	4.64	9.53	11.65
1975	4.19	3.63	3.22	14.79	7.64	5.54	6.16	9.19	8.35	8.30	7.25	4.31	7.26	6.88
1976	2.96	3.05	7.94	4.54	6.61	4.69	9.00	10.08	8.22	7.92	6.24	4.45	7.65	6.31
1977	2.93	4.40	15.61	23.84	13.97	13.63	14.47	12.83	11.54	9.47	8.65	6.20	10.53	11.46
1978	4.17	5.33	8.73	38.62	13.53	13.70	11.62	21.83	17.59	11.79	9.06	7.34	13.21	13.61
1979	5.02	5.43	5.46	13.45	8.38	8.07	7.85	9.35	10.74	8.80	8.94	6.91	8.77	8.20
1980	9.47	15.38	14.97	18.15	9.72	14.61	11.05	15.08	15.44	10.29	9.27	7.43	11.43	12.57
1981	4.45	21.78	11.43	10.43	6.69	5.63	5.60	9.41	8.41	8.07	7.85	5.82	7.53	8.80
1982	3.42	13.20	49.52	29.38	26.87	26.44	22.00	28.14	36.24	23.79	12.85	9.99	22.17	23.49
1983	9.49	10.82	16.45	20.64	13.12	12.29	12.58	16.01	13.23	9.71	9.06	6.31	11.15	12.48
1984	4.37	8.43	8.74	38.27	16.58	13.66	17.83	15.52	19.18	11.13	9.90	8.72	13.71	14.36
1985	5.49	6.92	6.48	13.87	5.38	3.97	6.17	9.08	8.40	7.94	7.58	4.40	7.26	7.14
1986	4.23	10.65	33.84	9.44	13.27	7.54	11.00	16.76	15.86	9.02	8.43	8.49	11.59	12.38
1987	4.28	7.01	13.46	62.34	49.12	19.99	25.26	30.38	29.89	18.20	10.96	8.47	20.53	23.28
1988	6.50	6.28	6.42	8.05	12.27	5.00	4.86	8.72	8.42	7.82	7.58	4.37	6.96	7.19
1989	4.45	4.97	5.04	14.32	21.23	11.17	10.41	15.64	10.42	8.28	6.96	4.58	9.38	9.79
1990	3.02	3.24	3.17	7.81	11.43	6.72	5.77	6.68	7.00	6.32	5.46	3.93	5.86	5.88
1991	3.07	8.66	21.40	21.86	10.19	19.16	10.86	16.97	15.74	9.95	8.98	6.56	11.51	12.78
1992	5.84	20.55	32.75	13.80	15.72	11.34	11.81	14.85	10.65	9.11	8.43	5.74	10.10	13.38
1993	12.10	19.66	16.57	17.14	12.05	6.89	8.09	10.41	9.61	8.33	6.97	5.65	8.18	11.12
1994	4.06	6.57	9.98	18.06	9.17	8.77	7.93	10.93	9.43	8.44	7.17	4.69	8.10	8.77
1995	4.20	4.16	8.32	10.99	9.10	8.29	6.03	9.18	8.02	8.18	6.17	4.46	7.01	7.26
1996	4.34	3.25	5.71	5.67	6.48	2.23	2.80	3.70	4.45	5.03	3.89	3.85	3.95	4.28
1997	2.60	10.97	47.13	20.03	28.92	30.15	22.60	21.36	21.70	13.05	9.18	6.64	15.75	19.53
Prom	4.52	7.95	13.87	15.64	13.30	10.19	10.21	12.67	12.06	9.42	7.64	5.74	9.62	10.27
DesvEsT	2.03	4.83	10.84	10.39	9.05	6.87	5.46	5.59	6.02	3.23	1.77	1.70	3.67	4.33
Max	12.10	21.78	49.52	62.34	49.12	30.15	25.26	30.38	36.24	23.79	12.85	9.99	22.17	23.49
Min	2.06	2.39	2.55	2.63	2.05	2.23	1.58	3.62	3.93	5.03	3.89	3.28	3.75	3.19

N43 + N22

Caso H7C Valle del río Maipo N13 + N15

Caudal Medio Mensual Afluente al nodo (m3/s)

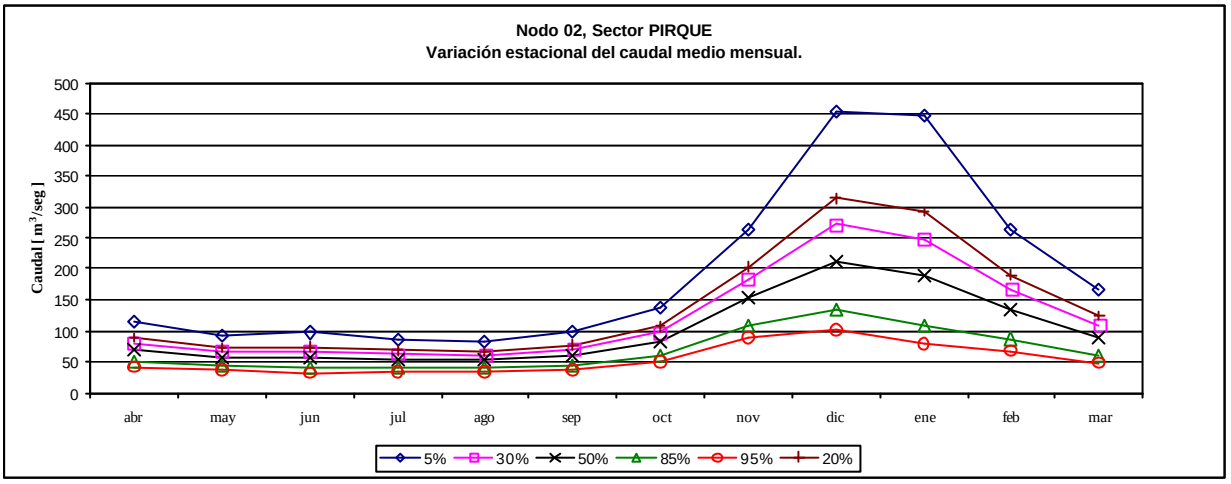
Año	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar	PromVe	Prom
1950	39.22	53.30	38.03	39.59	49.56	49.93	42.77	73.57	140.55	70.79	46.44	33.02	67.86	56.40
1951	31.83	74.75	90.70	138.28	61.76	66.80	43.33	86.52	123.82	82.68	46.75	25.80	68.15	72.75
1952	27.85	83.47	120.39	82.45	62.16	78.30	41.56	82.57	133.86	79.38	63.40	36.46	72.87	74.32
1953	21.03	78.03	62.09	126.43	284.89	250.05	116.15	224.02	290.88	247.31	183.57	89.84	191.96	164.52
1954	87.32	111.16	143.54	128.84	74.81	64.28	70.16	128.92	108.66	73.70	50.16	35.51	77.85	89.75
1955	31.29	52.32	61.41	42.50	33.00	19.62	35.49	93.98	77.16	58.78	44.87	28.42	56.45	48.24
1956	30.19	53.47	36.62	84.28	100.87	41.63	32.66	91.03	70.33	51.57	42.35	23.43	51.89	54.87
1957	25.96	127.02	42.51	63.34	57.33	37.50	35.52	90.01	137.84	123.46	63.05	34.21	80.68	69.81
1958	34.45	104.04	148.61	60.28	111.39	55.83	92.75	97.52	107.30	55.20	43.56	32.26	71.43	78.60
1959	48.62	82.44	106.12	93.61	87.53	62.46	49.97	120.36	214.34	112.95	44.99	25.93	94.76	87.44
1960	27.51	43.25	102.82	85.38	45.68	34.32	47.82	111.62	121.52	69.31	37.87	39.43	71.26	63.88
1961	34.34	52.94	110.39	49.48	117.83	62.25	119.98	153.18	284.04	163.65	105.19	55.61	146.94	109.07
1962	44.89	44.28	155.35	50.73	59.22	36.64	59.34	117.41	105.73	65.46	47.29	29.50	70.79	67.99
1963	28.74	39.37	44.12	168.99	150.82	189.23	120.07	102.63	350.49	332.28	146.83	72.73	187.50	145.53
1964	48.65	43.58	111.17	64.08	75.69	33.66	29.45	46.72	51.60	58.71	43.21	29.57	43.21	53.01
1965	44.89	46.52	43.03	144.96	221.54	82.59	115.14	202.38	178.60	246.30	129.58	58.83	155.14	126.20
1966	70.04	40.37	149.06	140.21	80.34	44.05	70.00	121.95	160.91	86.37	73.35	32.13	90.78	89.06
1967	30.85	37.72	42.22	69.94	34.88	33.50	38.92	44.92	78.43	56.02	38.40	19.66	46.06	43.79
1968	26.72	25.27	22.74	31.23	20.45	18.99	10.55	13.22	12.82	15.25	17.79	11.83	13.57	18.90
1969	12.33	21.59	49.53	41.85	42.43	17.51	20.49	59.58	178.33	99.92	61.96	31.64	75.32	53.10
1970	23.04	63.00	41.62	177.39	36.67	35.88	44.28	58.30	70.75	35.40	25.98	14.04	41.46	52.20
1971	15.77	34.68	96.89	49.72	45.33	25.90	55.53	152.32	110.90	52.50	37.35	22.64	71.88	58.30
1972	21.06	137.04	264.73	133.19	260.36	159.92	140.67	150.17	275.09	417.69	201.52	166.99	225.36	194.04
1973	107.57	61.58	73.32	125.49	38.98	39.38	59.92	96.23	117.09	127.03	72.96	42.55	85.96	80.18
1974	38.85	117.45	286.06	110.03	50.87	41.22	84.79	164.83	156.57	169.47	81.21	39.49	116.06	111.74
1975	41.38	37.55	32.79	118.76	41.90	27.76	29.40	59.68	103.79	62.05	52.72	29.22	56.14	53.08
1976	17.73	26.93	51.20	36.96	38.92	27.86	51.87	72.41	79.57	66.19	35.83	21.81	54.61	43.94
1977	32.83	39.38	130.43	190.84	111.54	91.26	136.99	223.91	260.16	168.18	98.73	46.30	155.71	127.54
1978	35.75	49.96	78.94	323.83	96.91	94.60	79.34	237.86	393.10	342.36	142.84	64.10	209.93	161.63
1979	46.37	47.45	37.65	114.74	61.97	54.09	48.52	58.90	137.12	214.01	126.67	83.20	111.40	85.89
1980	126.93	155.97	146.28	151.63	80.17	129.07	76.74	141.56	355.00	228.69	185.61	58.47	174.34	153.01
1981	46.64	217.09	72.80	73.37	43.79	40.84	45.63	92.95	89.26	76.06	50.41	38.37	65.45	73.93
1982	21.75	115.40	403.52	288.14	214.99	220.89	149.97	255.14	566.09	622.23	381.37	193.13	361.32	286.05
1983	119.08	129.74	155.97	169.74	106.24	90.73	96.59	178.82	230.40	161.50	106.85	56.51	138.44	133.51
1984	38.56	95.08	67.97	312.02	136.52	96.19	136.73	160.40	272.52	264.10	177.60	109.53	186.81	155.60
1985	67.47	92.44	69.36	116.47	40.77	28.41	41.92	96.30	115.40	82.80	58.37	29.48	70.71	69.93
1986	55.70	115.15	315.28	71.09	117.57	63.41	92.89	135.54	322.48	266.83	151.97	95.74	177.58	150.31
1987	61.62	91.33	100.43	583.21	413.99	177.79	221.38	317.46	434.74	375.49	231.28	130.47	285.14	261.60
1988	80.48	66.36	62.48	69.55	92.29	37.53	39.62	106.54	83.45	64.04	59.96	26.74	63.39	65.75
1989	45.11	47.79	43.35	110.69	164.32	70.71	79.06	175.28	188.16	76.90	40.22	29.92	98.26	89.29
1990	29.23	34.21	35.70	79.78	85.54	44.14	37.36	61.47	76.07	56.07	39.10	25.52	49.27	50.35
1991	34.44	115.19	180.27	181.04	75.74	141.48	94.44	185.98	210.16	236.54	153.20	104.55	164.15	142.75
1992	88.49	187.98	271.35	108.94	128.93	90.52	108.65	179.70	202.71	191.74	122.38	62.95	144.69	145.36
1993	164.50	148.17	128.57	126.29	102.30	60.75	65.99	141.96	173.20	188.41	75.37	51.70	116.10	118.93
1994	43.18	76.29	82.03	149.02	66.73	61.33	52.02	191.88	222.10	137.02	74.38	38.59	119.33	99.55
1995	48.13	46.86	85.38	91.02	71.75	65.48	50.87	135.06	156.88	73.76	42.69	29.26	81.42	74.76
1996	51.15	32.51	47.47	40.69	45.48	16.41	13.53	25.73	26.10	15.06	14.78	20.98	19.36	29.16
1997	16.72	99.20	420.60	159.20	227.24	243.52	172.80	187.00	318.58	444.65	181.02	76.26	230.05	212.23
Prom	47.21	77.01	113.81	124.36	99.37	74.09	72.91	127.20	180.72	153.45	90.69	51.13	112.68	101.00
DesvEsT	31.16	44.48	93.35	94.94	77.05	58.74	44.52	63.78	114.30	127.94	69.79	38.09	71.10	57.39
Max	164.50	217.09	420.60	583.21	413.99	250.05	221.38	317.46	566.09	622.23	381.37	193.13	361.32	286.05
Min	12.33	21.59	22.74	31.23	20.45	16.41	10.55	13.22	12.82	15.06	14.78	11.83	13.57	18.90

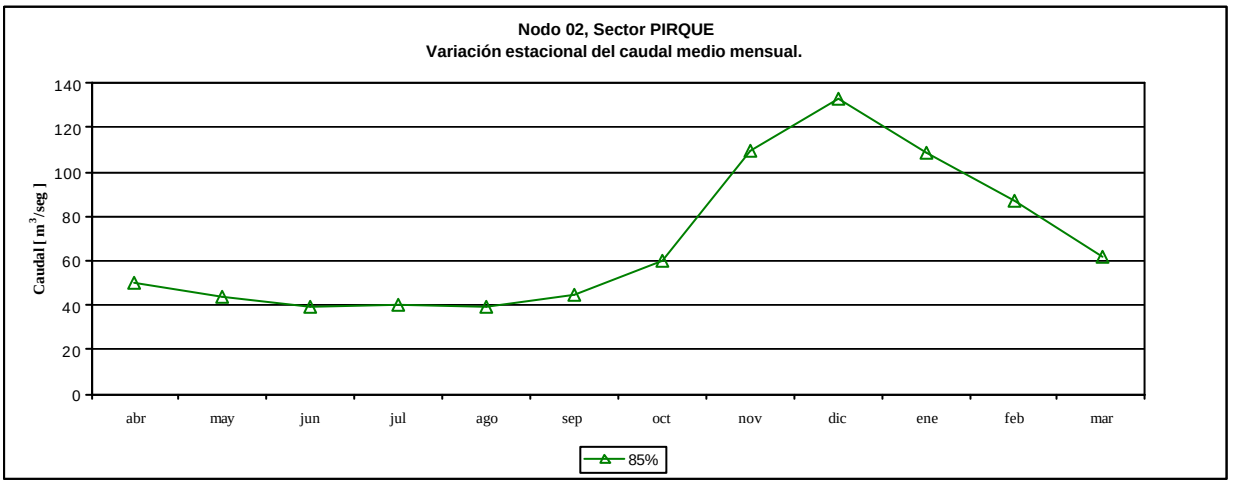
IV.2
VALORES TABULADOS y GRAFICOS
ANALISIS DE FRECUENCIA

Nodo 02, Pirque

Curvas de Variación estacional (m3/seg)

Prob. exc.	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar
5%	113.649	91.281	97.414	86.222	83.154	97.830	135.847	263.767	452.243	446.975	264.593	167.255
10%	101.767	82.668	86.200	77.778	75.167	87.864	121.737	234.056	383.098	368.871	227.730	146.029
20%	89.029	73.320	74.334	68.652	66.515	77.145	106.599	202.523	313.363	292.329	189.898	123.898
30%	80.845	67.243	66.804	62.744	60.901	70.237	96.865	182.455	271.098	247.197	166.581	110.052
40%	74.452	62.450	60.978	58.100	56.481	64.827	89.255	166.892	239.531	214.196	148.941	99.454
50%	68.934	58.280	55.993	54.071	52.641	60.147	82.684	153.548	213.358	187.347	134.145	90.473
60%	63.824	54.389	51.416	50.321	49.061	55.806	76.596	141.270	190.046	163.863	120.820	82.303
70%	58.777	50.513	46.932	46.596	45.500	51.507	70.579	129.220	167.916	141.988	108.025	74.377
80%	53.374	46.326	42.178	42.586	41.660	46.895	64.134	116.416	145.269	120.066	94.761	66.065
85%	50.305	43.928	39.500	40.296	39.464	44.270	60.471	109.190	132.902	**108.317**	**87.436**	**61.428**
90%	46.693	41.087	36.372	37.590	36.865	41.174	56.159	100.732	118.826	95.152	79.019	56.053
95%	41.812	37.211	32.185	33.908	33.324	36.980	50.326	89.385	100.658	78.525	68.010	48.939

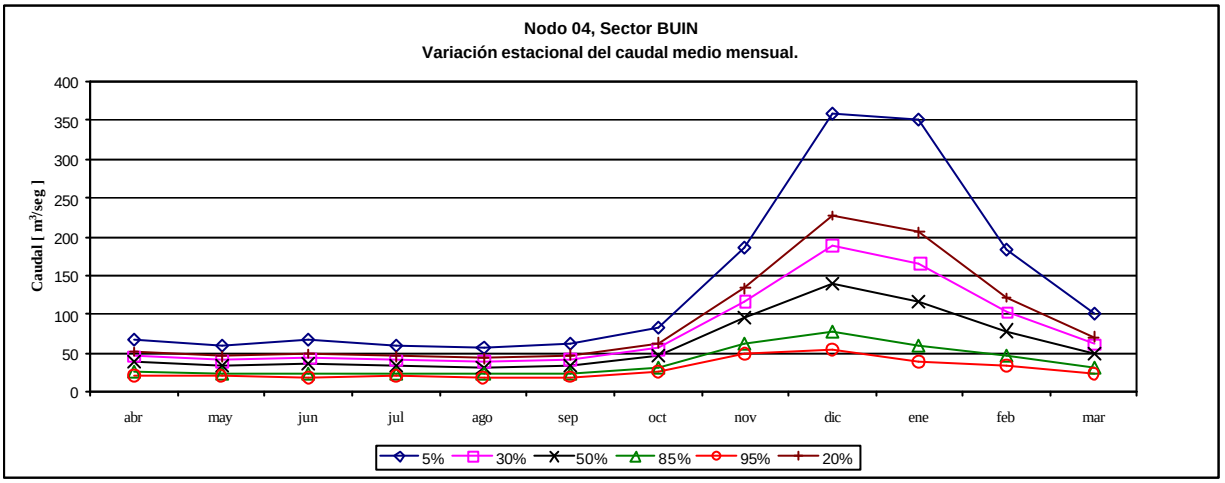


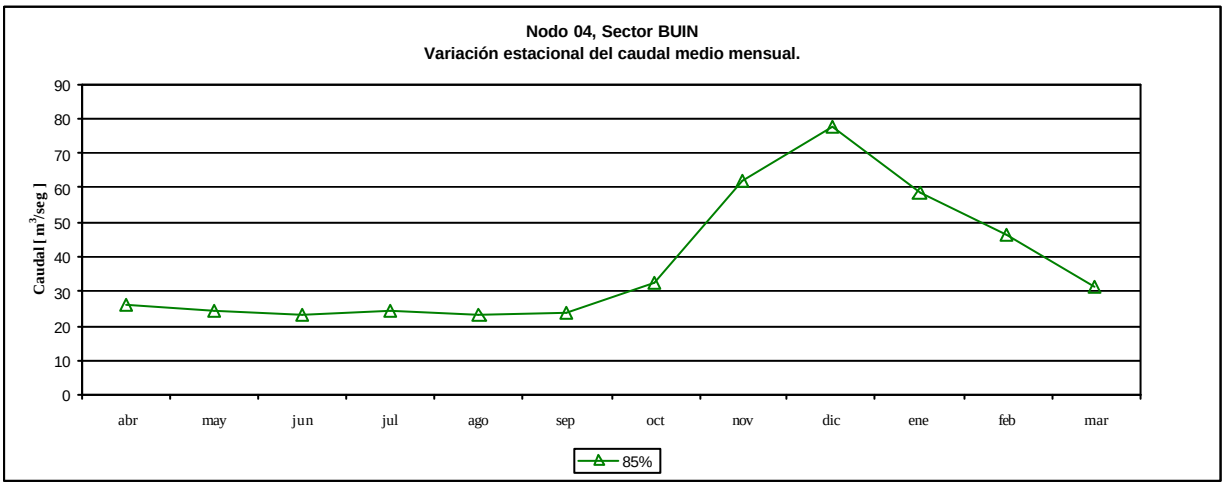


Nodo 04, Buin

Curvas de Variación estacional (m3/seg)

Prob. exc.	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar
5%	68.409	59.160	67.470	59.662	56.271	63.572	83.756	184.940	359.076	351.034	182.535	100.896
10%	60.091	52.402	58.494	52.851	49.851	55.693	73.658	159.482	291.864	275.462	151.674	86.094
20%	51.361	45.244	49.208	45.636	43.051	47.447	63.045	133.299	227.086	205.384	121.203	71.046
30%	45.864	40.697	43.441	41.053	38.730	42.270	56.355	117.130	189.497	166.201	103.105	61.855
40%	41.636	37.175	39.052	37.504	35.384	38.296	51.203	104.877	162.349	138.701	89.799	54.951
50%	38.037	34.160	35.351	34.464	32.518	34.920	46.815	94.586	140.503	117.127	78.919	49.195
60%	34.749	31.389	32.001	31.671	29.884	31.842	42.803	85.305	121.596	98.909	69.357	44.043
70%	31.545	28.673	28.768	28.932	27.302	28.849	38.891	76.382	104.176	82.543	60.406	39.126
80%	28.169	25.792	25.396	26.027	24.562	25.701	34.763	67.117	86.932	66.796	51.386	34.065
85%	26.277	24.168	23.525	24.389	23.017	23.940	32.449	61.993	77.789	**58.653**	**46.528**	**31.287**
90%	24.077	22.268	21.365	22.474	21.211	21.895	29.755	56.098	67.638	49.803	41.063	28.111
95%	21.149	19.725	18.522	19.908	18.791	19.182	26.167	48.376	54.977	39.081	34.120	23.987

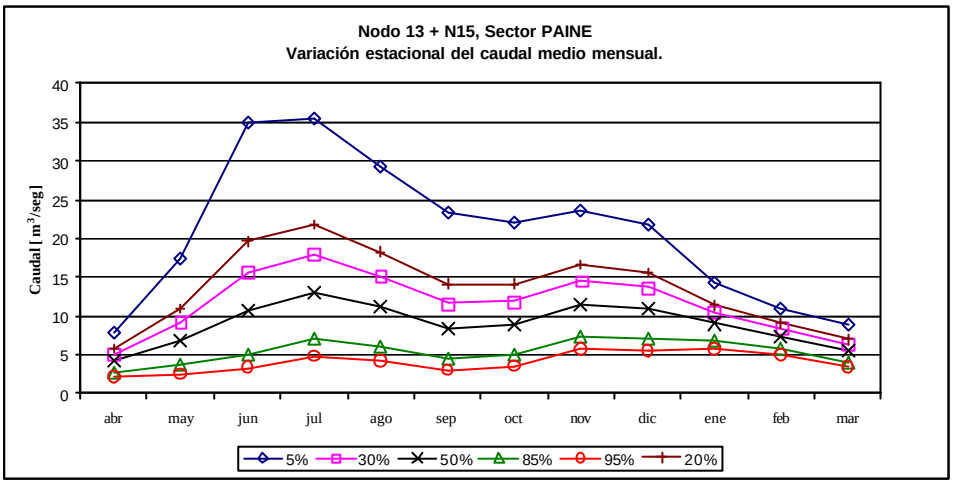


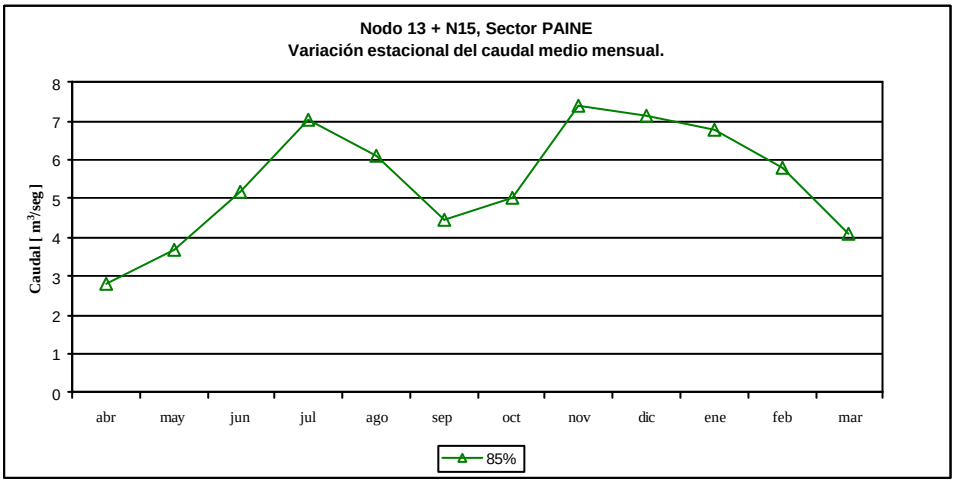


Nodo N13+ N15, Paine

Curvas de Variación estacional (m3/seg)

Prob. exc.	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar
5%	7.906	17.475	34.833	35.389	29.237	23.244	22.025	23.591	21.800	14.221	11.008	8.820
10%	6.866	14.153	26.886	28.418	23.638	18.574	18.027	20.162	18.740	12.863	10.096	7.949
20%	5.788	10.964	19.650	21.789	18.274	14.156	14.144	16.671	15.604	11.390	9.091	7.008
30%	5.117	9.120	15.673	17.991	15.178	11.638	11.874	14.534	13.674	10.434	8.430	6.399
40%	4.606	7.793	12.920	15.275	12.952	9.845	10.225	12.927	12.215	9.681	7.903	5.922
50%	4.175	6.727	10.785	13.108	11.168	8.420	8.892	11.586	10.992	9.026	7.440	5.507
60%	3.783	5.807	9.003	11.249	9.629	7.201	7.733	10.384	9.892	8.416	7.004	5.122
70%	3.406	4.962	7.422	9.550	8.217	6.091	6.659	9.236	8.837	7.808	6.566	4.739
80%	3.011	4.128	5.920	7.886	6.825	5.008	5.591	8.053	7.743	7.153	6.089	4.328
85%	2.792	3.687	5.152	7.011	6.090	4.440	5.021	7.402	7.140	**6.778**	**5.812**	**4.093**
90%	2.538	3.198	4.326	6.046	5.276	3.817	4.386	6.658	6.448	6.334	5.483	3.816
95%	2.204	2.590	3.339	4.855	4.266	3.050	3.590	5.690	5.543	5.729	5.028	3.439

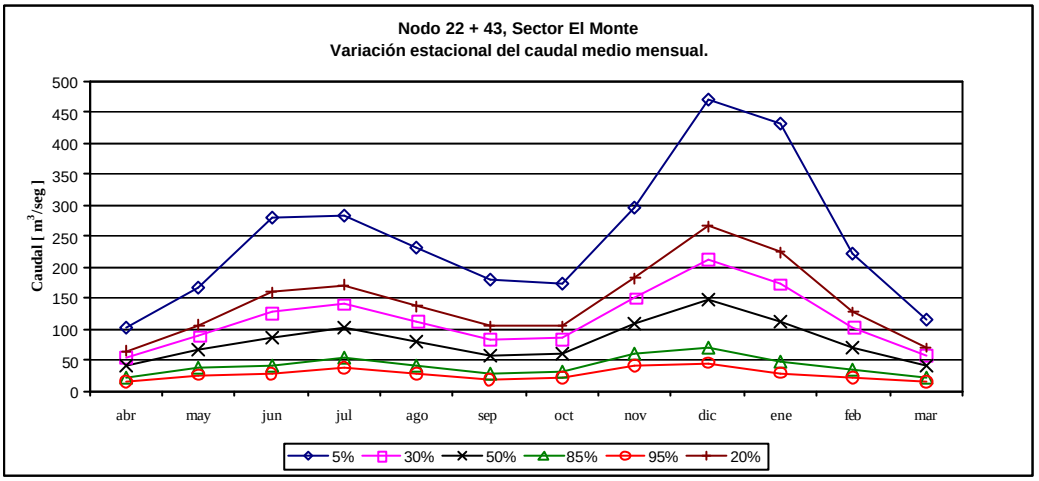


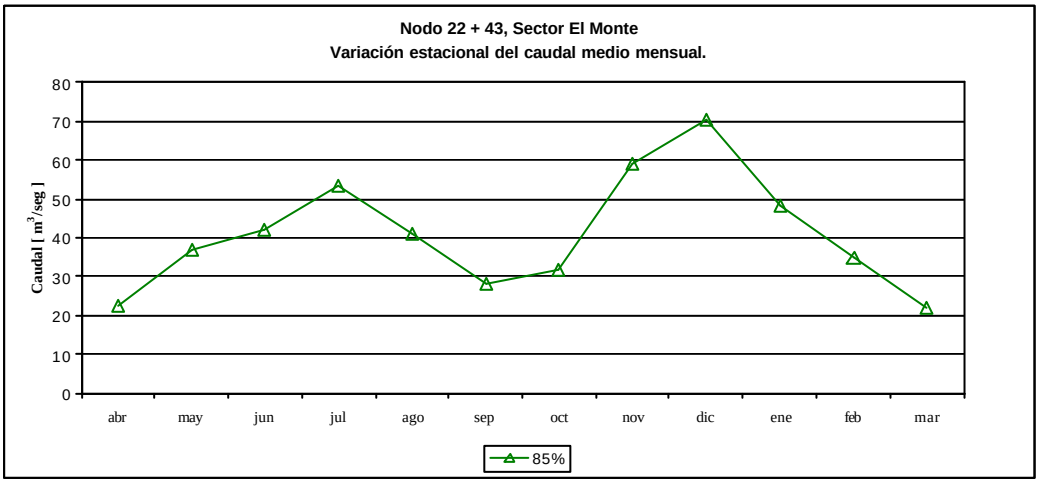


Nodo N22+ N43, El Monte

Curvas de Variación estacional (m3/seg)

Prob. exc.	abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar
5%	100.638	165.866	281.178	282.226	230.019	180.776	172.346	294.718	470.377	431.207	223.012	114.522
10%	82.097	135.346	217.375	225.268	182.040	140.531	136.887	236.979	363.549	320.391	173.350	91.653
20%	64.157	105.804	159.171	171.457	137.133	103.594	103.568	181.987	266.122	223.596	127.775	69.984
30%	53.706	88.591	127.136	140.823	111.797	83.146	84.699	150.437	212.515	172.513	102.546	57.614
40%	46.137	76.120	104.924	119.024	93.892	68.904	71.325	127.851	175.354	138.220	84.975	48.792
50%	40.029	66.057	87.687	101.711	79.759	57.806	60.741	109.816	146.519	112.360	71.285	41.772
60%	34.730	57.323	73.281	86.916	67.754	48.496	51.728	94.326	122.426	91.338	59.801	35.762
70%	29.835	49.254	60.478	73.461	56.903	40.189	43.560	80.164	101.018	73.181	49.554	30.286
80%	24.975	41.241	48.306	60.336	46.390	32.256	35.624	66.266	80.669	56.462	39.770	24.933
85%	22.392	36.980	42.079	53.467	40.921	28.182	31.484	58.954	70.260	**48.148**	**34.745**	**22.126**
90%	19.518	32.239	35.372	45.923	34.946	23.778	26.953	50.889	59.051	39.404	29.314	19.038
95%	15.922	26.307	27.345	36.655	27.657	18.485	21.407	40.919	45.639	29.278	22.786	15.237





IV.3
VALORES DE FLUJO DE RECARGA, AFLORAMIENTO, FLUJO NETO