

Boletín N° : 332
Mes : Diciembre
Año : 2005

DE : JAVIER NARBONA NARANJO
ING. JEFE DEPARTAMENTO DE HIDROLOGIA

*INFORMACION PLUVIOMETRICA, FLUVIOMETRICA,
ESTADO DE EMBALSES Y AGUAS SUBTERRANEAS*

Contenido :

- 1.- Informe pluviométrico
- 2.- Volúmenes de embalses
- 3.- Informe fluviométrico
- 4.- Informe aguas subterráneas

En Internet (www.dga.cl) se publica: .

- Los informes de este boletín
- Caudales en tiempo real

NOTA: Datos provisorios sujetos a modificaciones posteriores

INFORME PLUVIOMETRICO NACIONAL N°12

ESTACIONES	DICIEMBRE	TOTALES AL 31 DE DICIEMBRE			EXCESO O DÉFICIT (%)
		2005 (mm)	2004 (mm)	PROMEDIO (mm)	
CENTRAL CHAPIQUIÑA	22.3	126.3	137.5	163.0	- 23
EMBALSE CONCHI	0.0	28.5	15.0	19.1*	49
CALAMA	0.0	4.5	0.5	4.2	6
ANTOFAGASTA	0.0	0.5	0.1	4.2	- 88
COPIAPÓ	0.0	18.7	8.9	13.2	42
EMBALSE LAUTARO	0.0	31.5	30.5	30.7	2
VALLENAR	0.0	28.6	46.5	34.3	- 17
RIVADAVIA	0.0	84.5	80.5	94.8	- 11
VICUÑA	0.0	65.6	109.3	95.2	- 31
LA SERENA	0.0	63.8	117.4	81.8	- 22
OVALLE	0.0	51.8	131.2	103.3	- 50
EMBALSE PALOMA	0.0	80.4	159.1	135.4	- 41
COGOTÍ 18	0.0	120.0	214.0	186.3	- 36
HUINTIL	0.0	162.2	205.7	223.3	- 27
COIRÓN	0.0	329.7	166.7	333.7	- 1
VILCUYA	0.0	614.0	385.0	337.8	82
SAN FELIPE	0.0	247.2	254.9	207.1	19
LAGO PEÑUELAS	0.0	718.6	696.4	616.7	17
EMBALSE EL YESO	0.0	1325.6	473.4	540.4	145
CERRO CALAN	0.0	651.8	425.3	404.3	61
SANTIAGO (MOP)	0.1	508.4	388.2	311.2	63
RANCAGUA	0.0	579.3	490.7	414.8	40
SAN FERNANDO	2.0	1036.8	638.4	699.4	48
CONVENTO VIEJO	4.0	1079.7	540.8	694.0	56
CURICO	3.5	958.0	543.2	705.3	36
TALCA	13.8	855.5	582.7	646.0	32
COLORADO	67.0	1882.7	1416.9	1405.5	34
LINARES	22.7	1097.0	882.7	911.6	20
PARRAL	23.9	1060.9	872.2	965.8	10
EMBALSE DIGUA	37.8	1793.7	1416.5	1494.4	20
CHILLÁN	36.5	1242.6	1001.1	1003.0	24
CONCEPCIÓN	68.5	1450.0	1205.7	1176.1	23
LOS ÁNGELES	50.4	1239.1	906.5	1106.6	12
CAÑETE	48.7	1547.1	1218.9	1250.9	24
ANGOL	30.6	1449.1	1207.7	1071.0	35
TEMUCO	49.4	1580.6	1325.7	1187.1	33
VALDIVIA	37.3	2402.6	1911.0	2174.9	10
OSORNO	31.0	1394.7	1333.1	1533.7	- 9
PUERTO MONTT	61.2	2227.9	2303.9	1908.5	17
COYHAIQUE	10.1	1070.6	1074.4	1199.1*	- 11
PUNTA ARENAS	31.5	557.7	554.6	434.4	28

Promedios acumulados para el período 1961-1990 (D.G.A)

* : Promedios calculados para períodos inferiores a 30 años

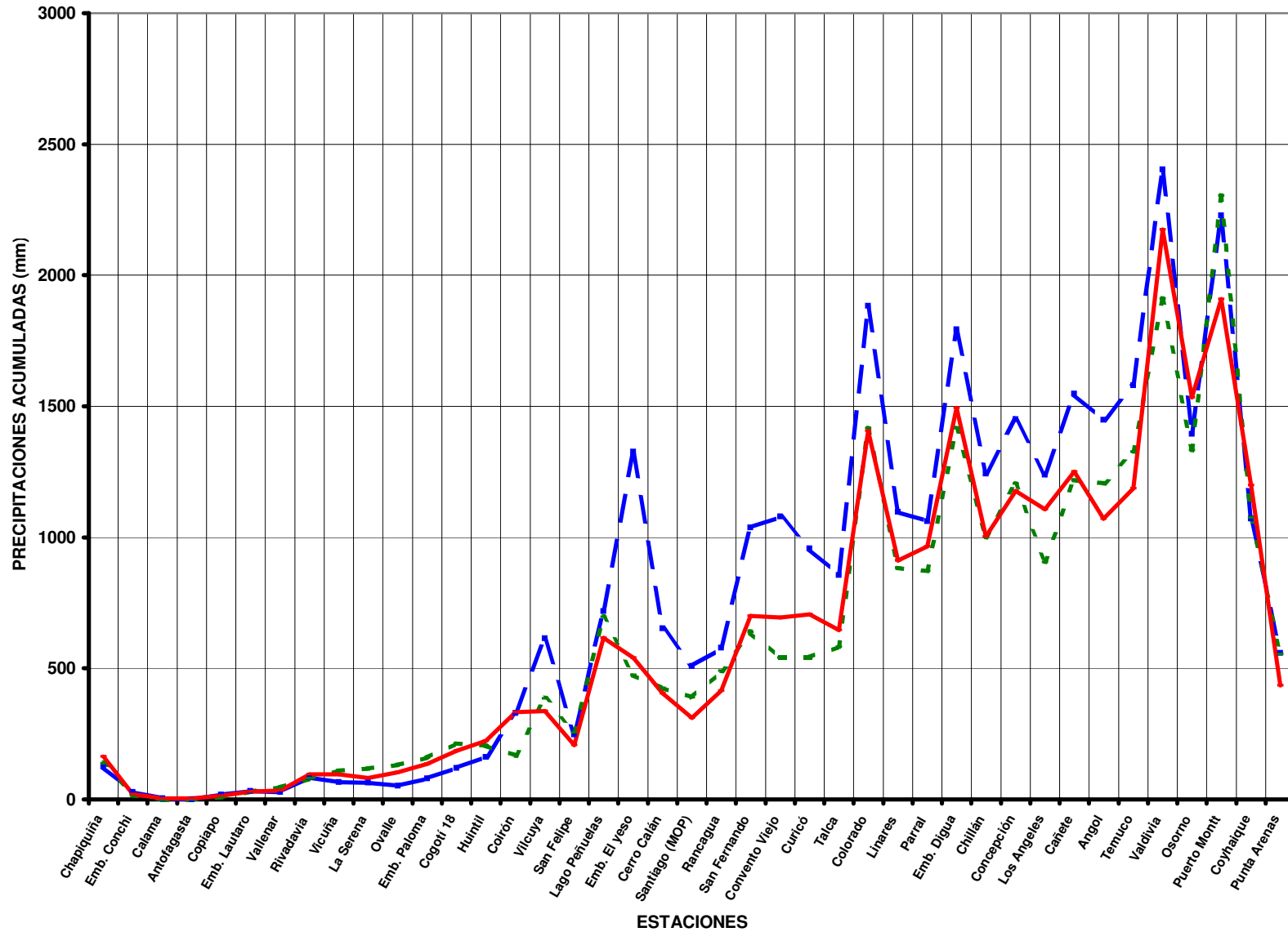
Valores expresados en milímetros (1 mm = 1 lt x m2)

TOTALES DE LLUVIA HASTA EL
31 de Diciembre del 2005

Normal

Año 2005

Año 2004



ESTADO DE EMBALSES

Ultimo día del mes
(Volúmenes en mill-m³)

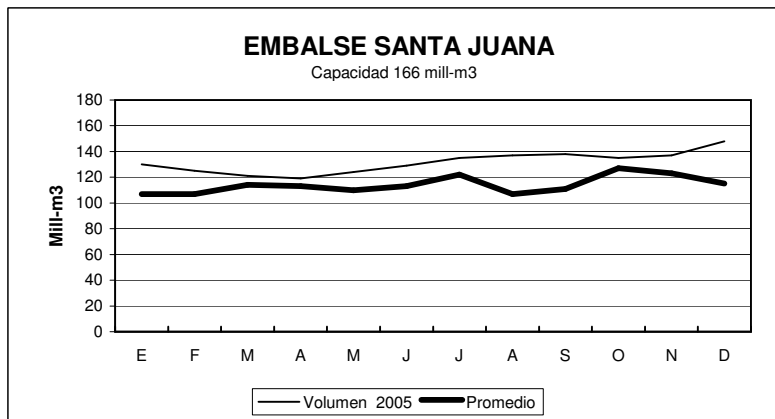
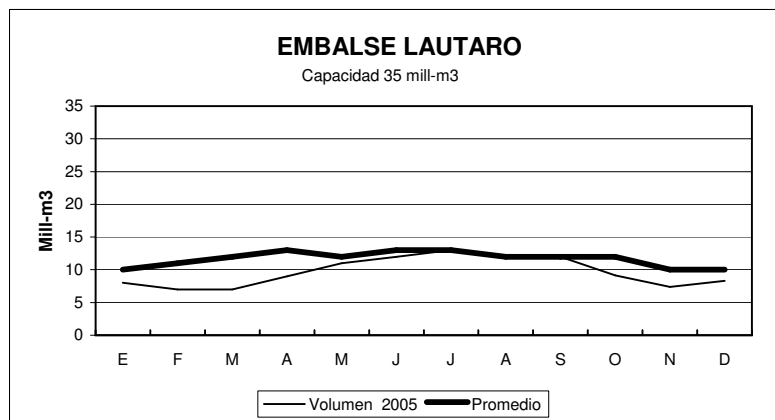
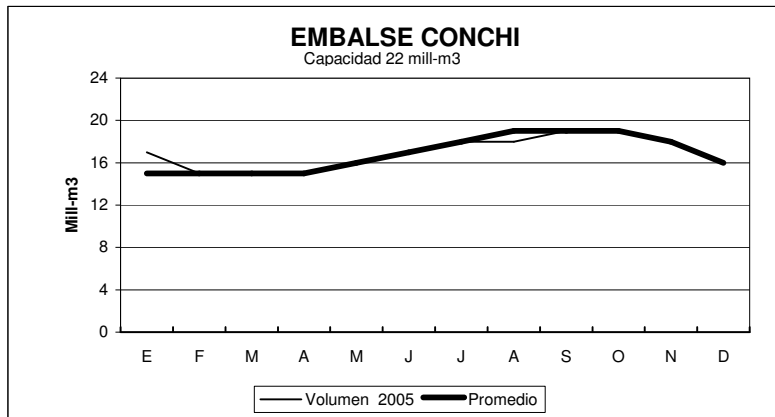
EMBALSE	REGION	CUENCA	CAPACIDAD	PROMEDIO	Diciembre	
				HISTORICO MENSUAL	2005	2004
Conchi	II	Loa	22	16	16	18
Lautaro	III	Copiapó	35	10	8	7
Santa Juana	III	Huasco	166	115	148	137
La Laguna	IV	Elqui	40	23	38	33
Puclaro	IV	Elqui	200	73	189	162
Recoleta	IV	Limarí	100	65	91	83
La Paloma	IV	Limarí	748	419	583	518
Cogotí	IV	Limarí	150	89	104	75
Culimo	IV	Quilimarí	10	4.6	2.4	4.4
Corrales	IV	Illapel	50	35	46	49
Peñuelas	V	Peñuelas	95	27	29	36
El Yeso	RM	Maipo	256	177	206	184
Rungue	RM	Maipo	2.2	1.2	2.2	1.3
Rapel	VI	Rapel	695	598	629	599
Colbún	VII	Maule	1544	1328	1544	1496
Lag. Maule	VII	Maule	1420	1043	1001	1018
Bullileo	VII	Maule	60	56	60	38
Digua	VII	Maule	220	166	220	170
Tutuvén	VII	Maule	15	9.2	15	10.1
Coihueco	VIII	Itata	29	26	28	27
Lago Laja (&)	VIII	Bio-Bio	5582	3683	3119	2532

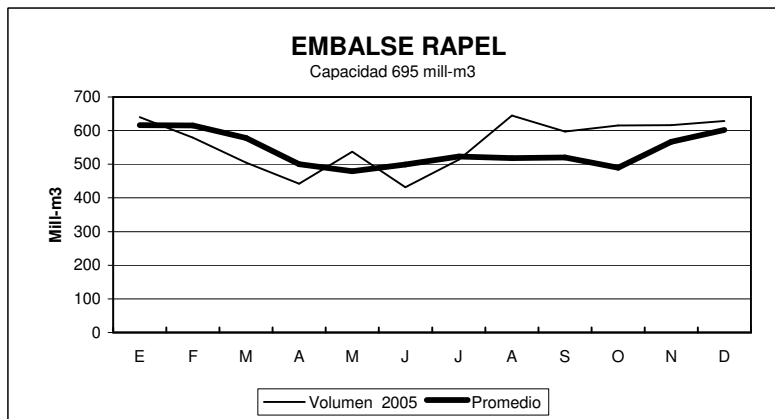
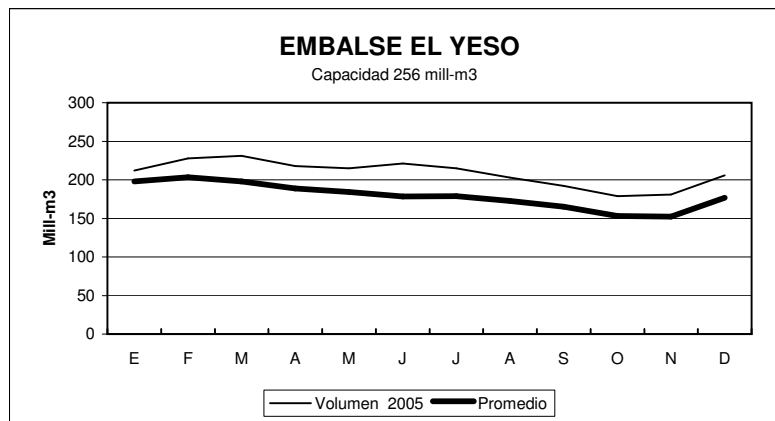
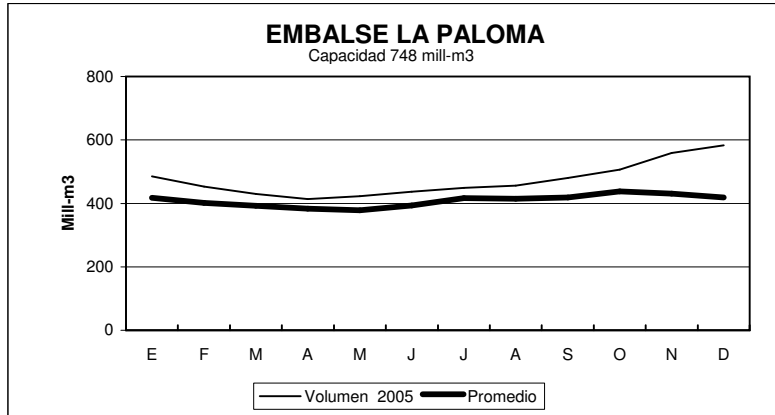
RESUMEN ANUAL

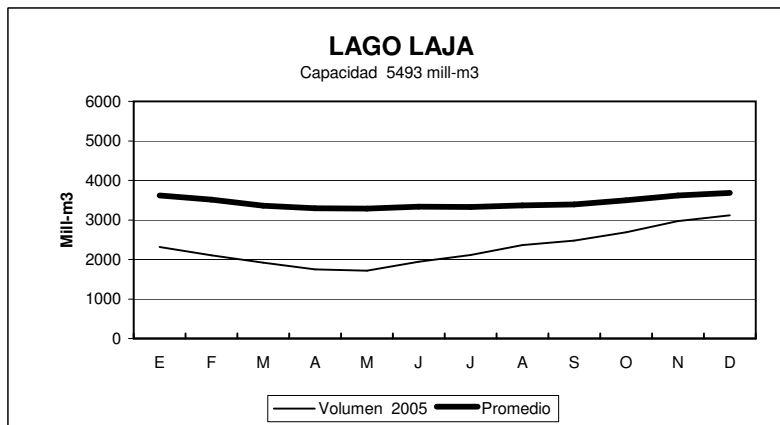
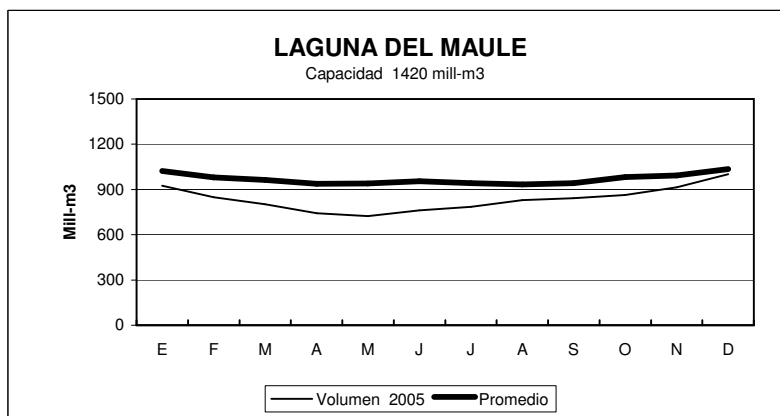
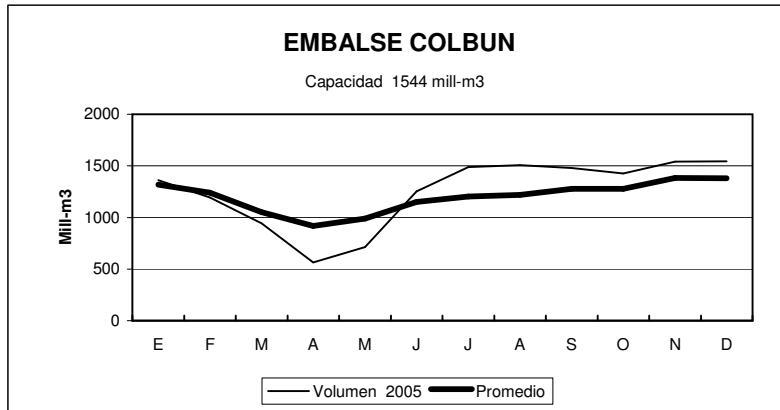
EMBALSE	2005											
	E	F	M	A	M	J	J	A	S	O	N	D
Conchi	17	15	15	15	16	17	18	18	19	19	18	16
Lautaro	8	7	7	9	11	12	13	12	12	9	7	8
Santa Juana	130	125	121	119	124	129	135	137	138	135	137	148
La Laguna	31	30	25	26	25	27	29	31	32	36	37	38
Puclaro	153	142	134	128	133	137	140	140	141	142	155	189
Recoleta	77	72	68	65	69	73	75	77	80	81	86	91
La Paloma	485	453	430	414	423	437	449	456	480	506	559	583
Cogotí	66	60	56	53	54	58	61	63	73	80	100	104
Culimo	3.3	1.96	0.6	0.0	0.0	0.0	0.0	1.3	3.1	3.7	2.9	2.4
Corrales	47	40	33	31	31	32	32	37	42	43	44	46
Peñuelas	33	31	29	27	28	29	30	35	35	34	32	29
El Yeso	212	228	231	218	215	221	215	203	192	179	181	206
Rungue	0.8	0.4	0.2	0.1	0.1	0.6	1.2	2.0	2.1	2.0	1.9	2.2
Rapel	640	579	505	442	537	432	514	645	597	615	616	629
Colbún	1361	1195	942	565	714	1253	1488	1506	1480	1425	1542	1544
Lag. Maule	924	849	802	743	723	761	786	829	843	863	914	1001
Bullileo	40	16	1.3	0	19	44	60	60	60	60	60	60
Digua	91	28	6.5	4.0	28	105	160	219	220	220	199	220
Tutuvén	8.1	4	2.1	0	3	15	13	15	13	12	12	15
Coihueco	20	13	6	1.4	1.6	13.4	24	28.3	29	29	29	28
Lago Laja (&)	2314	2108	1923	1748	1716	1943	2110	2365	2480	2690	2970	3119

(&) : Volumen sobre cota 1300 msnm

ESTADO DE EMBALSES



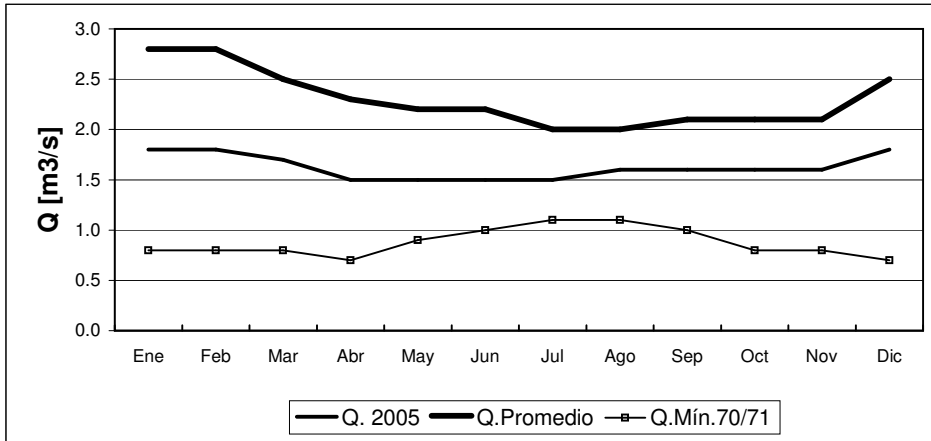




INFORME FLUVIOMETRICO
Caudales medios mensuales en m3/seg

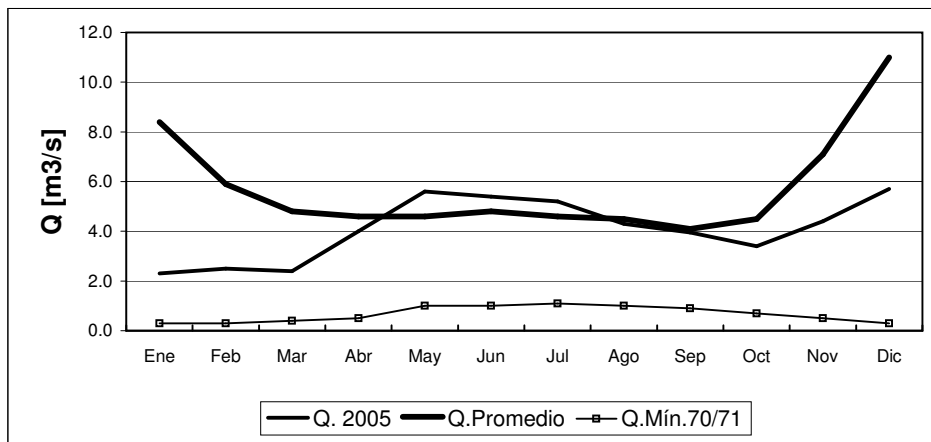
Dic-05

RIO COPIAPO EN LA PUERTA



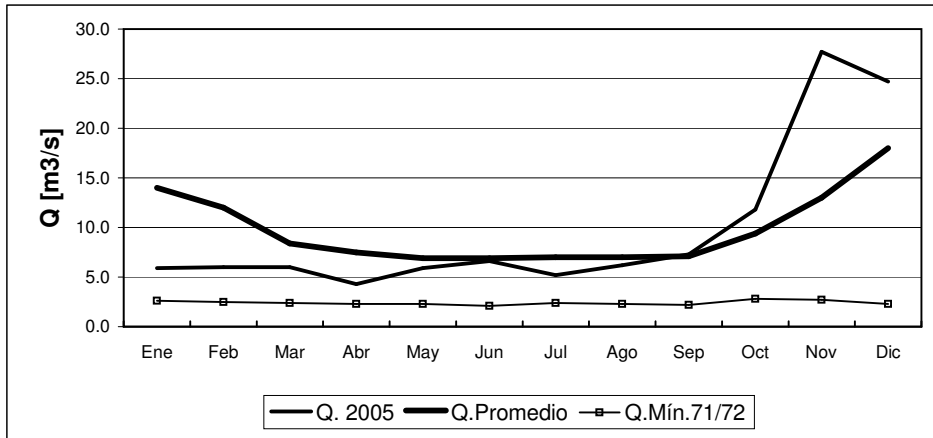
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005	1.8	1.8	1.7	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.8
Q.Promedio	2.8	2.8	2.5	2.3	2.2	2.2	2.0	2.0	2.1	2.1	2.1	2.5
Q.Mín.70/71	0.8	0.8	0.8	0.7	0.9	1.0	1.1	1.1	1.0	0.8	0.8	0.7

RIO HUASCO EN ALGODONES



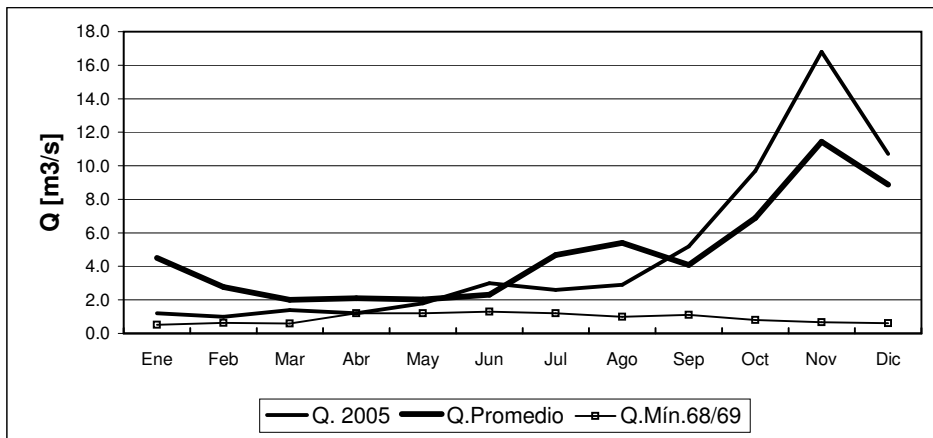
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Q. 2005	2.3	2.5	2.4	4.0	5.6	5.4	5.2	4.3	4.0	3.4	4.4	5.7
Q.Promedio	8.4	5.9	4.8	4.6	4.6	4.8	4.6	4.5	4.1	4.5	7.1	11.0
Q.Mín.70/71	0.3	0.3	0.4	0.5	1.0	1.0	1.1	1.0	0.9	0.7	0.5	0.3

RIO ELQUI EN ALGARROBAL



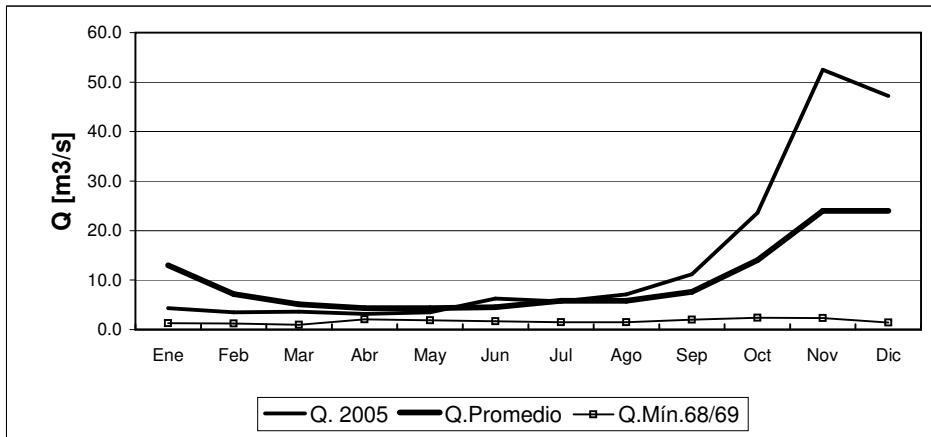
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Q. 2005	5.9	6.0	6.0	4.3	5.9	6.6	5.2	6.2	7.3	11.8	27.7	24.7
Q. Promedio	14.0	12.0	8.4	7.5	6.9	6.9	7.0	7.0	7.1	9.4	13.0	18.0
Q. Mín. 71/72	2.6	2.5	2.4	2.3	2.3	2.1	2.4	2.3	2.2	2.8	2.7	2.3

RIO GRANDE EN LAS RAMADAS



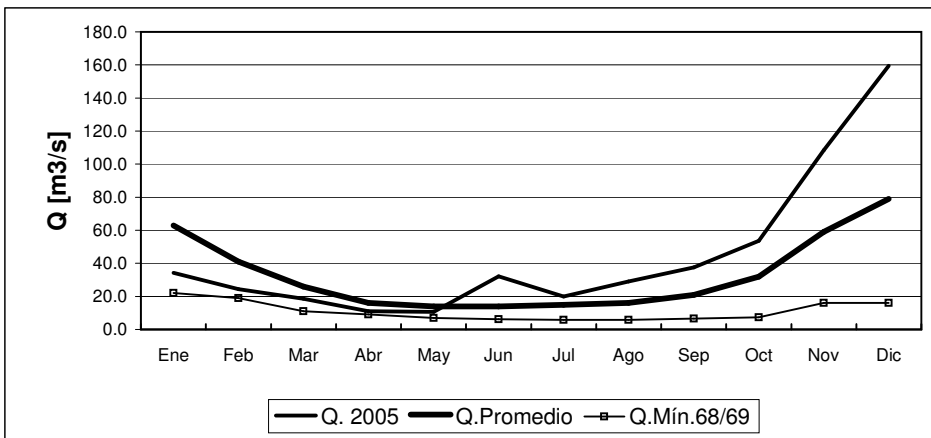
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Q. 2005	1.2	1.0	1.4	1.2	1.8	3.0	2.6	2.9	5.2	9.7	16.8	10.7
Q. Promedio	4.5	2.8	2.0	2.1	2.0	2.3	4.7	5.4	4.1	6.9	11.4	8.9
Q. Mín. 68/69	0.5	0.6	0.6	1.2	1.2	1.3	1.2	1.0	1.1	0.8	0.7	0.6

RIO CHOAPA EN CUNCUMEN



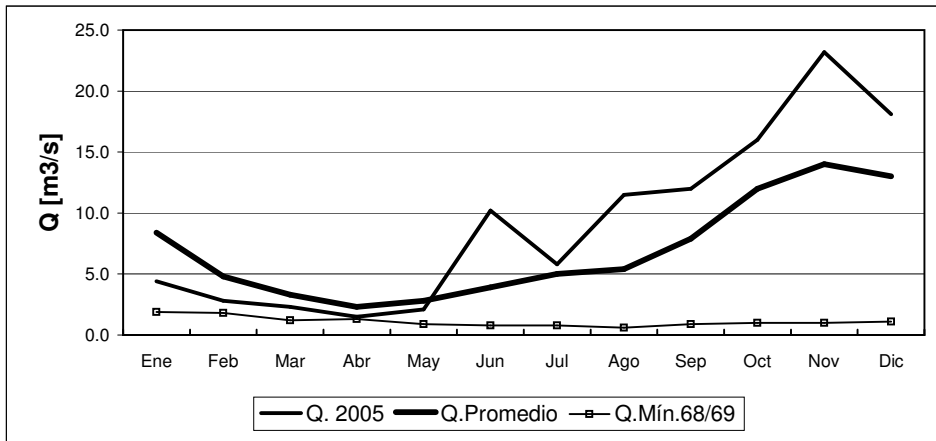
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Q. 2005	4.3	3.5	3.6	3.2	3.5	6.3	5.7	7.1	11.2	23.6	52.5	47.2
Q.Promedio	13.0	7.2	5.1	4.3	4.3	4.5	5.8	5.8	7.6	14.0	24.0	24.0
Q.Mín.68/69	1.3	1.2	1.0	2.1	1.9	1.7	1.5	1.5	2.0	2.4	2.3	1.4

RIO ACONCAGUA EN CHACABUQUITO



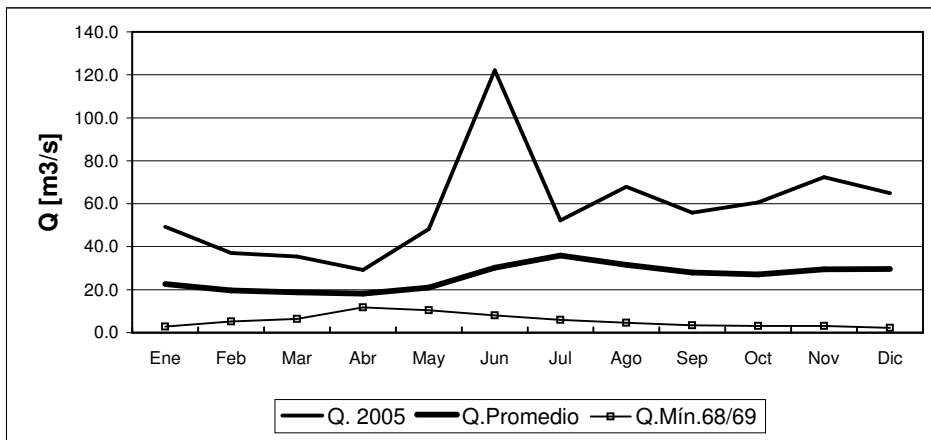
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Q. 2005	34.2	24.4	18.5	11.1	10.6	32.2	20.0	29.1	37.5	53.7	108.4	159.5
Q.Promedio	63.0	41.0	26.0	16.0	14.0	14.0	15.0	16.0	21.0	32.0	59.0	79.0
Q.Mín.68/69	22.0	19.0	11.0	9.1	6.9	6.2	5.9	5.9	6.6	7.4	16.0	16.0

RIO MAPOCHO EN LOS ALMENDROS



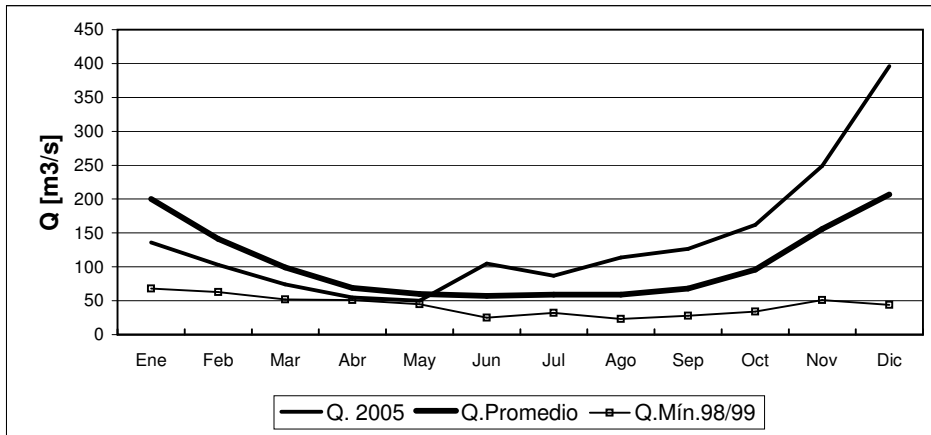
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005	4.4	2.8	2.3	1.5	2.1	10.2	5.8	11.5	12.0	16.0	23.2	18.1
Q. Promedio	8.4	4.8	3.3	2.3	2.8	3.9	5.0	5.4	7.9	12.0	14.0	13.0
Q. Mín.68/69	1.9	1.8	1.2	1.3	0.9	0.8	0.8	0.6	0.9	1.0	1.0	1.1

RIO MAPOCHO EN RINCONADA DE MAIPU



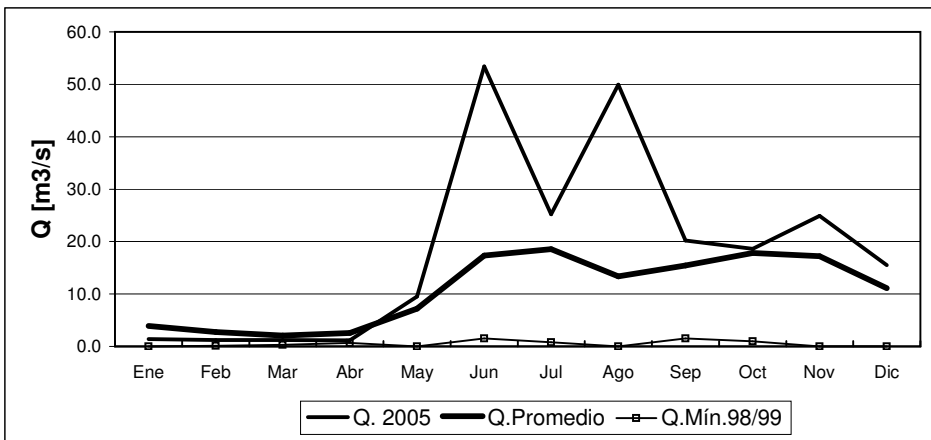
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Q. 2005	49.3	37.1	35.5	29.2	48.2	122.1	52.3	67.9	55.9	60.6	72.4	64.9
Q. Promedio	22.6	19.6	18.7	18.1	21.0	30.3	35.9	31.6	28.0	27.1	29.5	29.7
Q. Mín.68/69	2.9	5.3	6.5	11.8	10.4	8.1	6.0	4.6	3.4	3.2	3.1	2.2

RIO MAIPO EN EL MANZANO



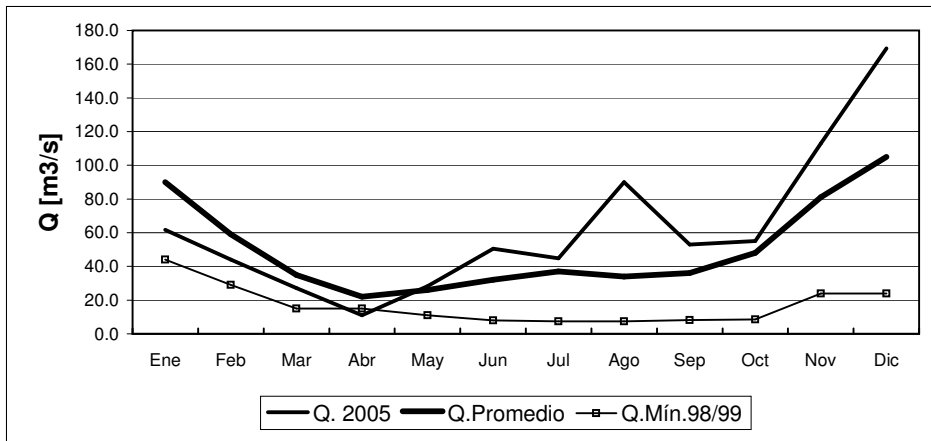
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Q. 2005	136	103	74	55	50	105	87	114	126	162	249	396
Q. Promedio	200	141	99	69	60	57	59	59	68	96	156	207
Q. Mín.98/99	68	63	52	51	45	25	32	23	28	34	51	44

RIO CLARO EN EL VALLE 2



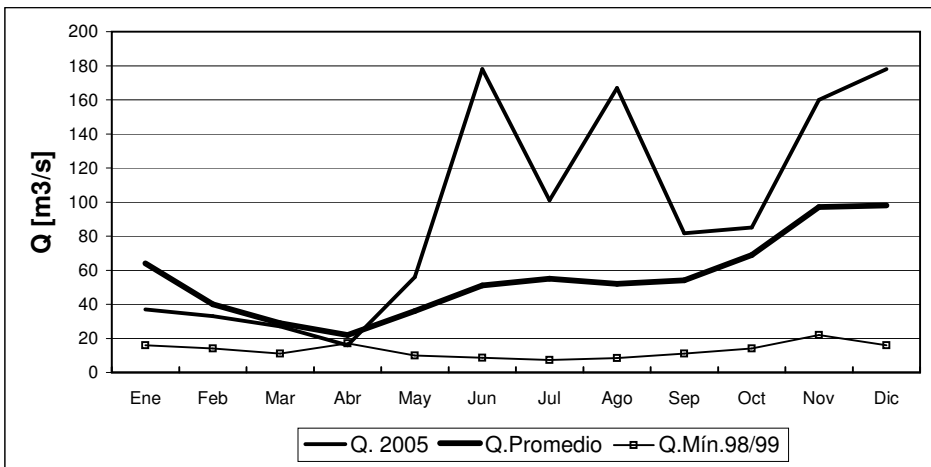
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Q. 2005	1.4	1.2	1.2	1.1	9.5	53.4	25.2	49.9	20.2	18.6	24.9	15.5
Q. Promedio	3.9	2.7	2.1	2.6	7.2	17.3	18.6	13.4	15.5	17.9	17.2	11.1
Q. Mín.98/99	0.0	0.1	0.3	0.7	0.0	1.5	0.8	0.0	1.5	1.0	0.0	0.0

RIO TINGUIRIRICA BAJO BRIONES



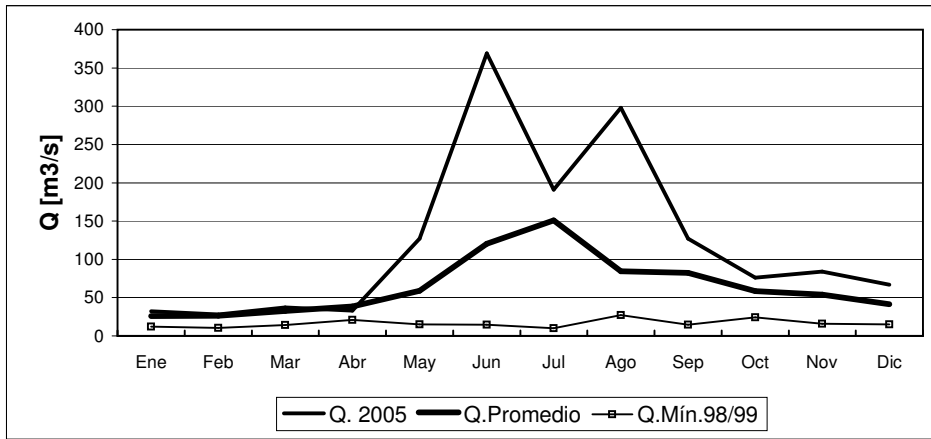
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Q. 2005	61.7	44.0	27.1	11.0	28.2	50.5	44.9	90.0	53.0	55.0	113.0	169.4
Q. Promedio	90.0	59.0	35.0	22.0	26.0	32.0	37.0	34.0	36.0	48.0	81.0	105.0
Q. Mín.98/99	44.0	29.0	15.0	15.0	11.0	8.0	7.4	7.4	8.2	8.5	24.0	24.0

RIO TENO DESPUES DE JUNTA



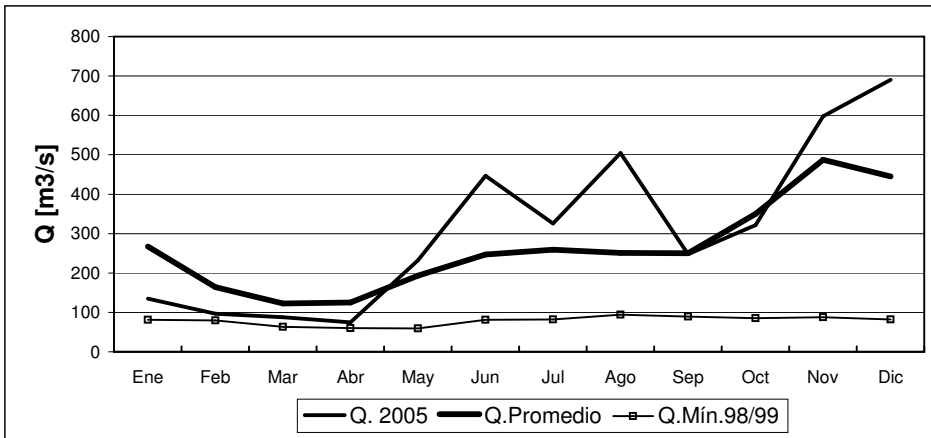
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Q. 2005	37	33	27	16	56	178	101	167	82	85	160	178
Q. Promedio	64	40	29	22	36	51	55	52	54	69	97	98
Q. Mín.98/99	16	14	11	17	10	8.6	7.4	8.4	11	14	22	16

RIO CLARO EN RAUQUEN



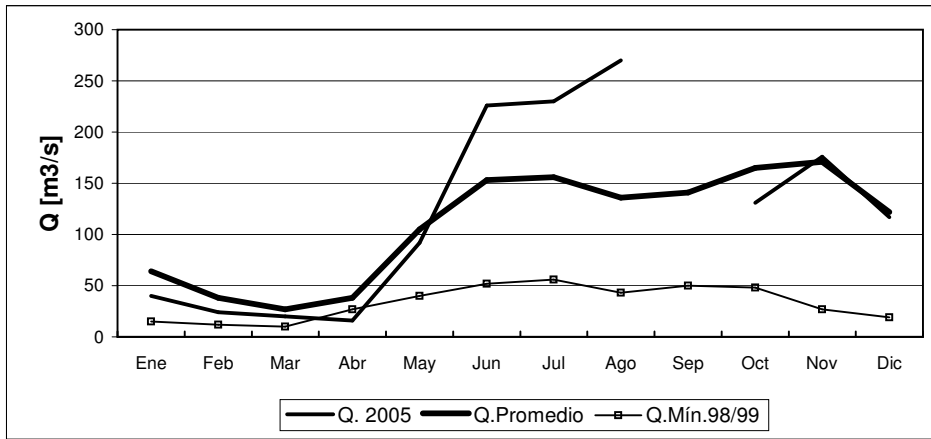
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005	32	28	37	33	127	369	191	298	127	76	84	67
Q. Promedio	26	26	33	39	59	121	151	84	82	58	54	41
Q. Mín.98/99	12	10	14	21	15	15	10	27	15	24	16	15

RIO MAULE EN ARMERILLO



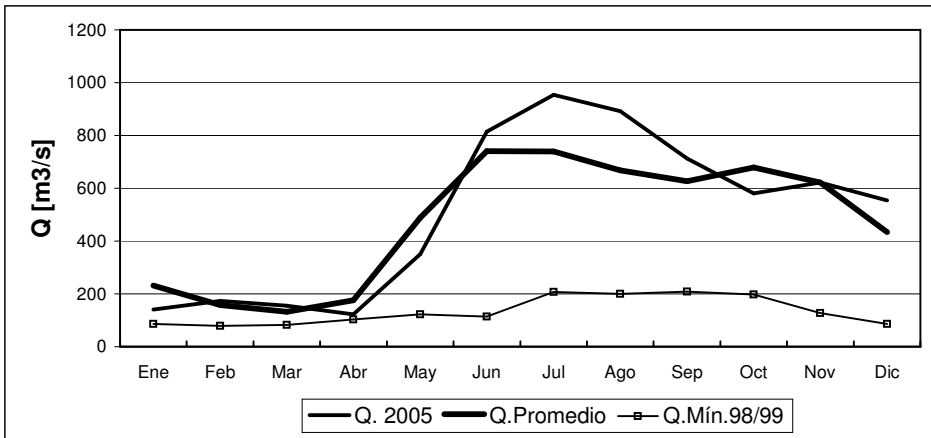
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Q. 2005	135	97	88	75	232	447	326	504	248	322	598	690
Q. Promedio	267	164	123	125	193	247	259	251	250	350	487	445
Q. Mín.98/99	81	80	63	60	59	81	82	94	89	85	88	82

RIO ÑUBLE EN SAN FABIAN



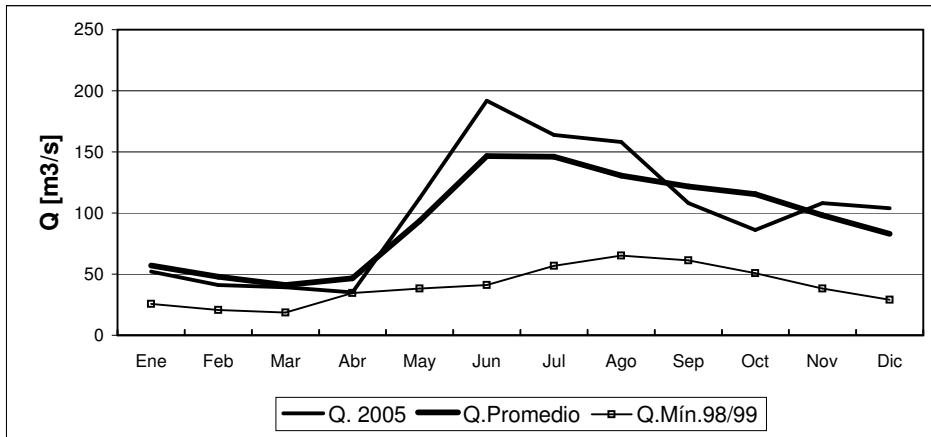
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005	40	24	20	16	92	226	230	270		131	176	117
Q. Promedio	64	38	27	38	105	153	156	136	141	165	171	122
Q. Mín.98/99	15	12	10	27	40	52	56	43	50	48	27	19

RIO BIO-BIO EN RUCALHUE



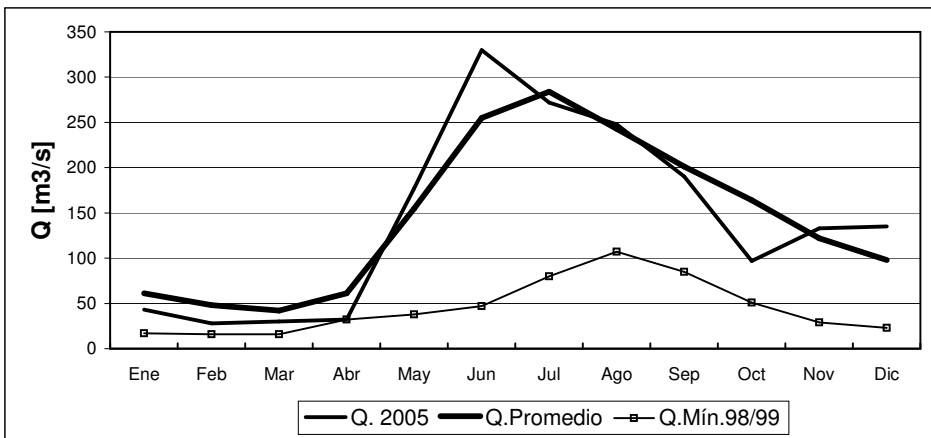
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005	141	173	155	123	350	815	954	892	713	581	622	554
Q. Promedio	231	158	132	176	489	741	740	668	627	679	622	434
Q. Mín.98/99	86	79	82	103	122	114	207	200	208	197	127	86

RIO CAUTIN EN RARI-RUCA



	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005	52	41	39	35	112	192	164	158	108	86	108	104
Q. Promedio	57	48	41	47	93	147	146	131	122	116	98	83
Q. Mín.98/99	26	21	19	35	38	41	57	65	61	51	38	29

RIO CAUTIN EN CAJON

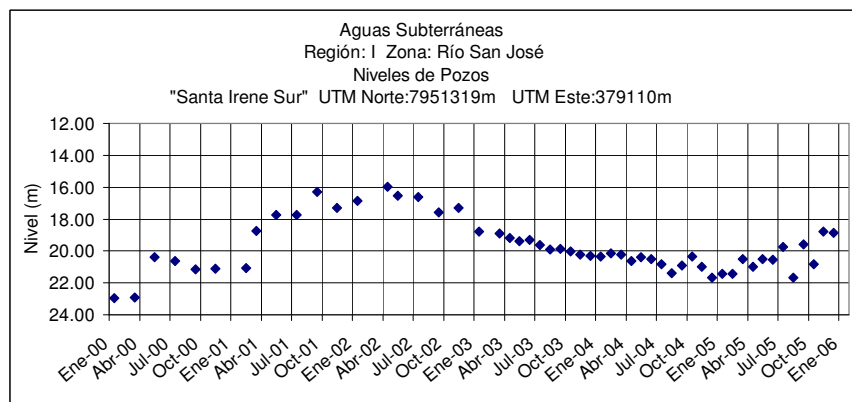


	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
Q. 2005	43	28	30	32	177	330	272	248	190	97	133	135
Q. Promedio	61	48	42	61	155	255	284	243	201	164	122	98
Q. Mín.98/99	17	16	16	32	38	47	80	107	85	51	29	23

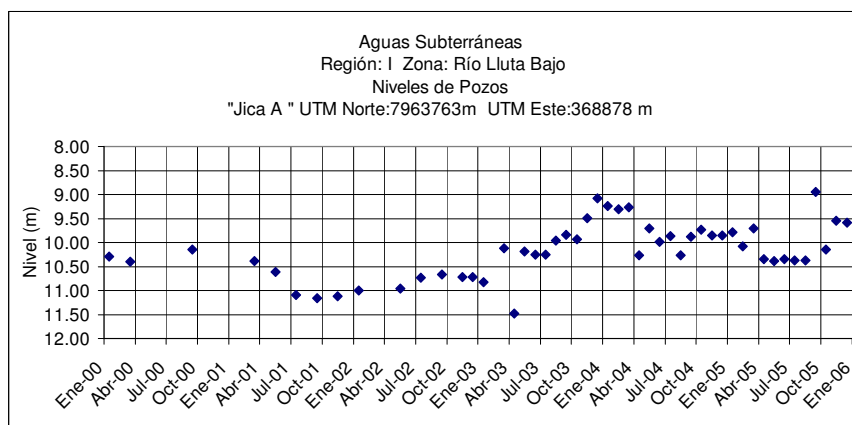
Informe de Aguas Subterráneas

Niveles de Pozos en metros

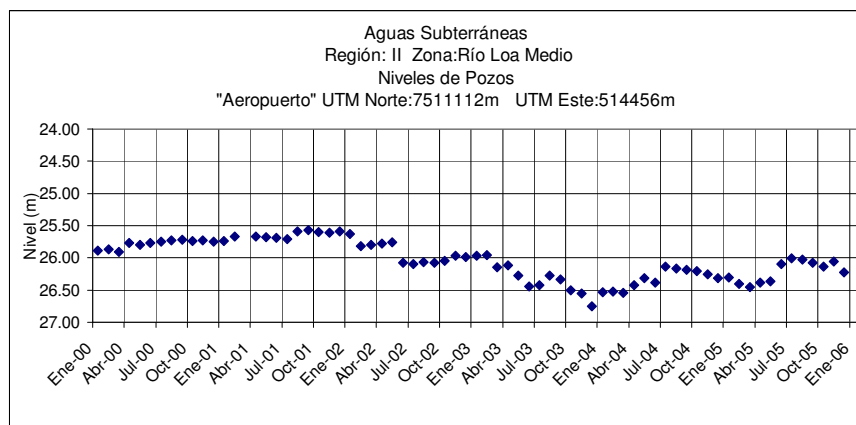
*Gráficos de últimos cinco años.



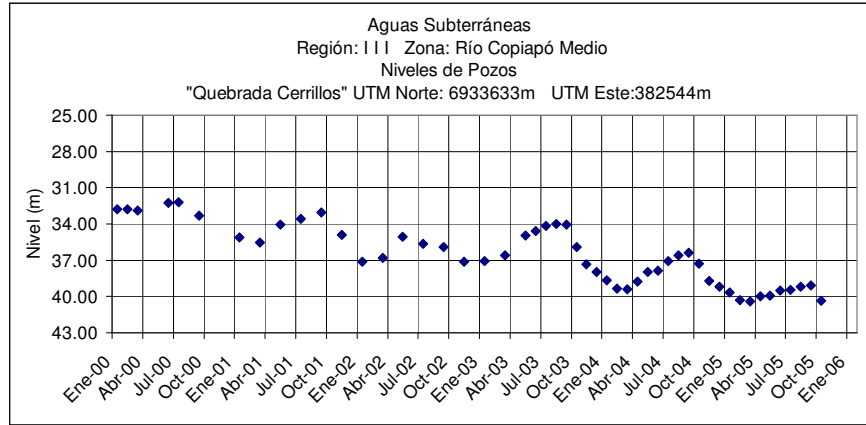
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	21.43	21.43	20.50	21.00	20.52	20.54	19.75	21.67	19.60	20.82	18.78	18.86



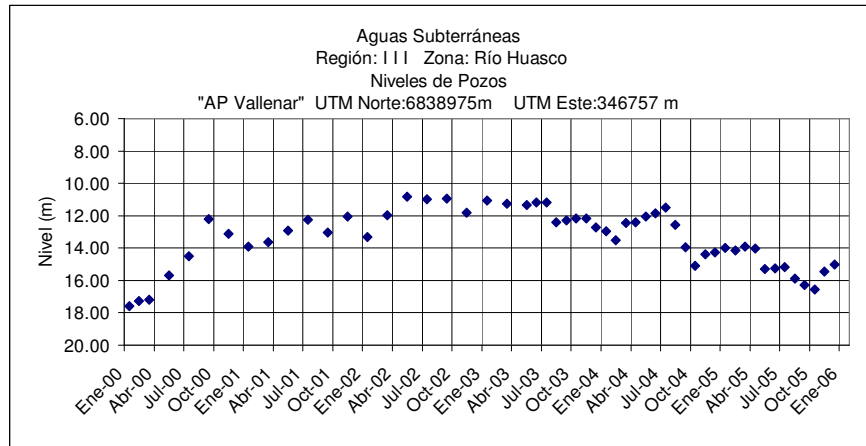
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	9.79	10.08	9.71	10.34	10.39	10.35	10.37	10.37	8.95	10.15	9.55	9.58



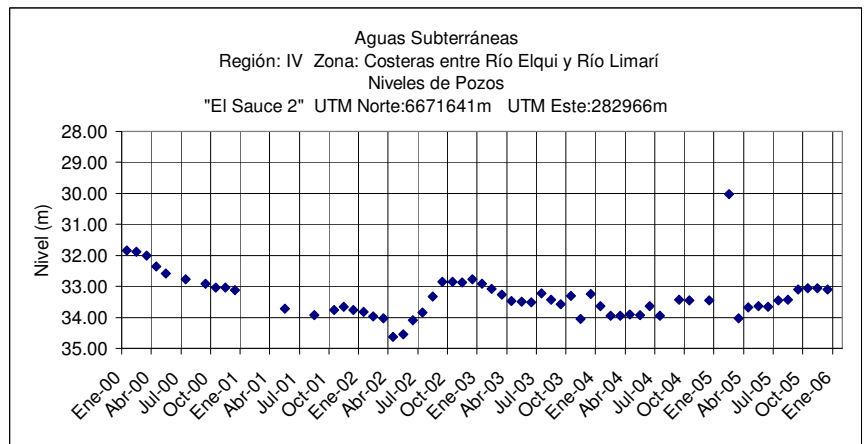
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	26.30	26.40	26.45	26.38	26.36	26.10	26.01	26.03	26.08	26.14	26.06	26.23



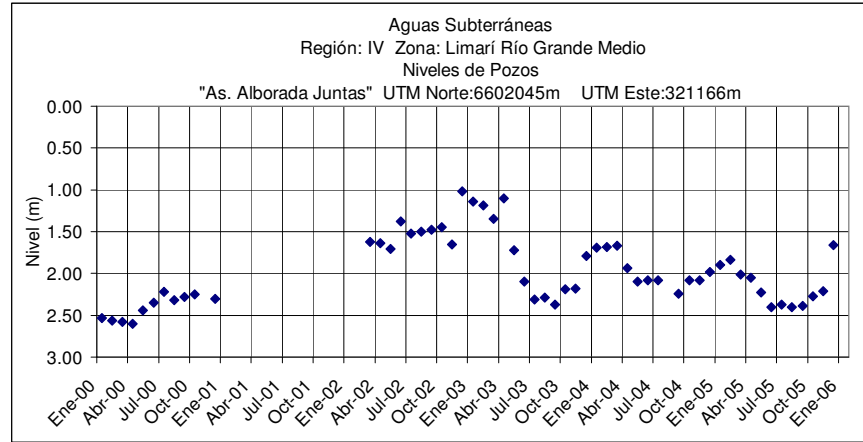
Year	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	39.68	40.31	40.42	39.98	39.92	39.51	39.46	39.19	39.06	40.36	Seco	Seco



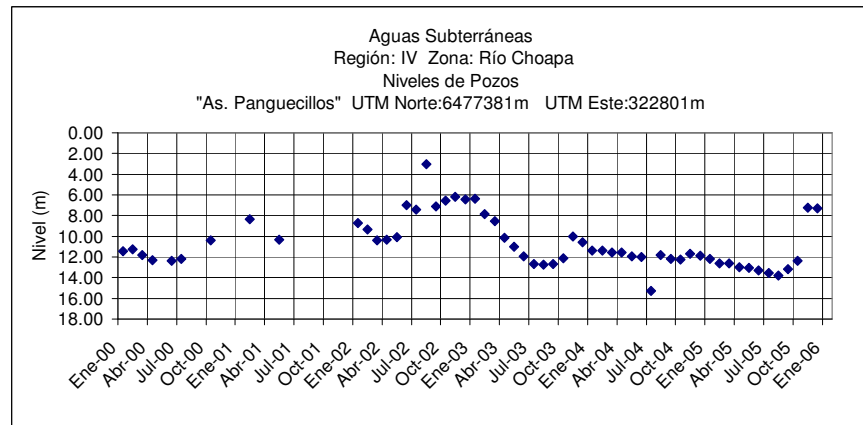
Year	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	13.99	14.16	13.90	14.02	15.28	15.26	15.17	15.87	16.29	16.56	15.45	15.03



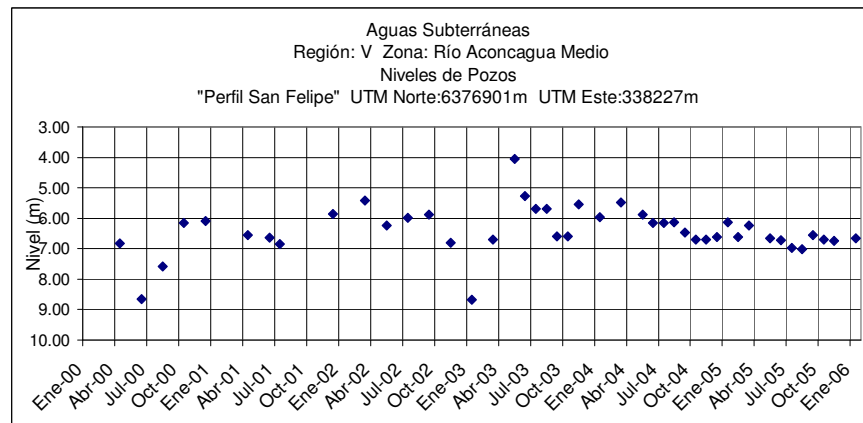
Year	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	32.56	30.03	34.03	32.56	33.64	33.66	33.46	33.43	33.10	33.06	33.05	33.10



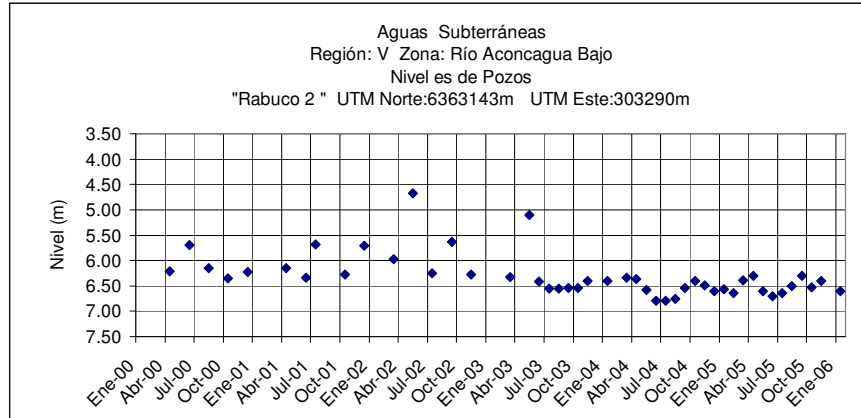
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	1.90	1.84	2.01	2.05	2.23	2.40	2.37	2.40	2.39	2.27	2.21	1.66



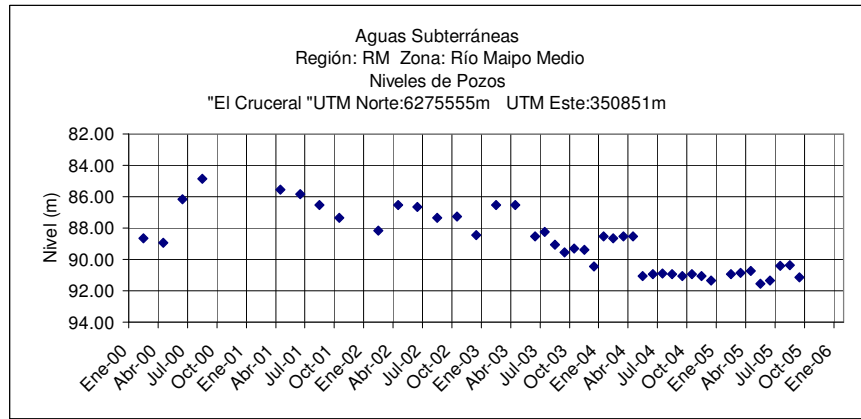
	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	12.17	12.62	12.60	12.96	13.08	13.27	13.55	13.78	13.16	12.49	7.24	7.31



	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	6.13	6.62	6.24	.	6.65	6.72	6.97	7.02	6.55	6.70	6.75	.

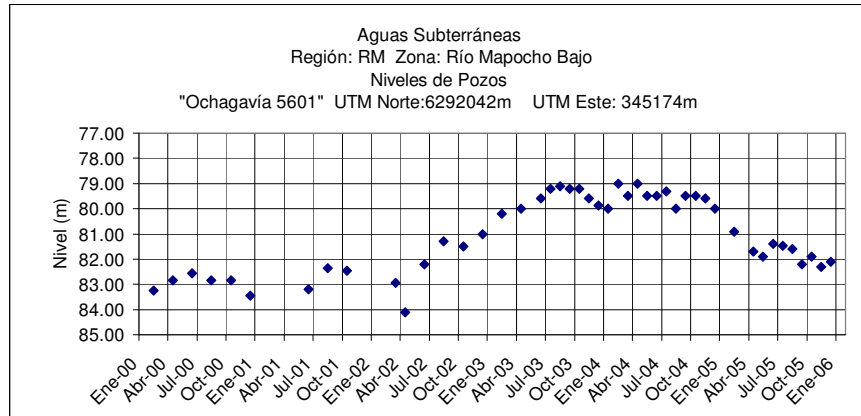


	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	6.57	6.64	6.39	6.30	6.61	6.70	6.64	6.50	6.30	6.53	6.40	.

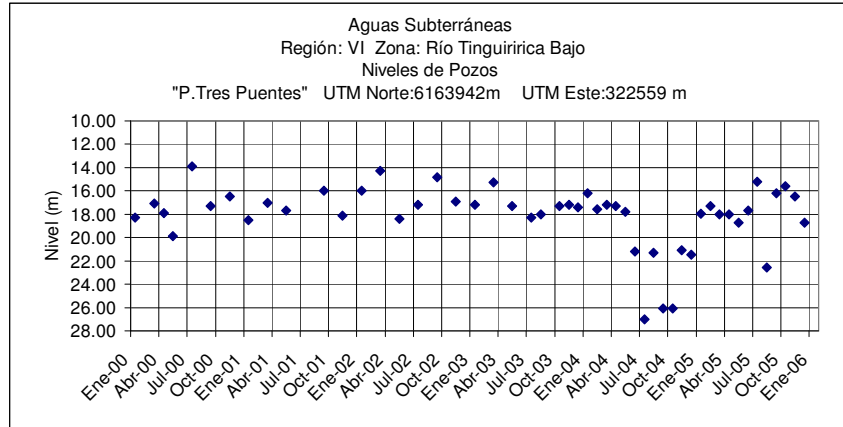


	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	.	90.95	90.85	90.75	91.55	91.35	90.40	90.35	91.15	Emb	Emb	Emb

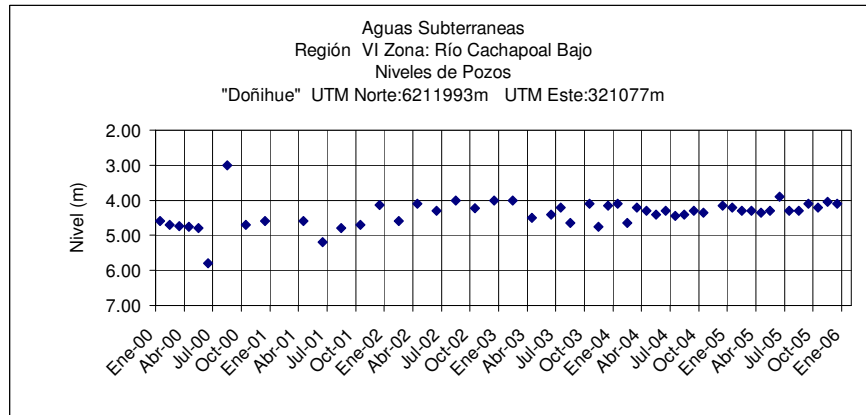
(Emb= Embarcadero)



	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	.	80.90	.	81.70	81.90	81.40	81.47	81.60	82.20	81.90	82.30	82.10



	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	17.95	17.30	18.00	18.00	18.75	17.70	15.20	22.55	16.20	15.60	16.50	18.75



	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic
2005	4.20	4.30	4.30	4.35	4.30	3.90	4.30	4.30	4.10	4.20	4.05	4.10