

Boletín N° : 330  
Mes : Octubre  
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](http://www.dga.cl)) se publica: .

- los informes de este boletín
- Caudales medios diarios de los principales ríos actualizados semanalmente
- Caudales en tiempo real

**NOTA:** Datos provisorios sujetos a modificaciones posteriores

## INFORME PLUVIOMETRICO NACIONAL N°10

ESTACIONES	OCTUBRE	TOTALES AL 31 DE OCTUBRE			EXCESO O DÉFICIT (%)
		2005 (mm)	2004 (mm)	PROMEDIO (mm)	
CENTRAL CHAPIQUIÑA	0.0	104.0	137.5	139.6	- 25
EMBALSE CONCHI	0.0	28.5	15.0	18.2*	57
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	30.6	3
VALLENAR	0.0	28.6	46.5	34.2	- 16
RIVADAVIA	0.0	84.5	79.0	94.2	- 10
VICUÑA	0.0	65.6	109.3	94.1	- 30
LA SERENA	0.4	63.8	117.0	81.3	- 22
OVALLE	0.5	51.8	130.2	102.6	- 50
EMBALSE PALOMA	1.4	80.4	155.8	133.7	- 40
COGOTÍ 18	4.5	113.5	212.0	184.1	- 38
HUINTIL	4.5	160.4	201.7	220.9	- 27
COIRÓN	30.4	289.7	156.7	326.0	- 11
VILCUYA	33.0	603.5	323.0	322.9	87
SAN FELIPE	4.2	242.9	216.7	201.0	21
LAGO PEÑUELAS	22.5	686.6	661.8	602.6	14
EMBALSE EL YESO	20.0	1321.1	334.9	512.1	158
CERRO CALAN	51.8	640.5	348.0	389.4	64
SANTIAGO (MOP)	19.8	498.3	314.9	300.1	66
RANCAGUA	27.0	547.3	444.2	396.1	38
SAN FERNANDO	23.3	1011.8	604.4	670.3	51
CONVENTO VIEJO	11.5	1037.7	513.1	660.7	57
CURICO	5.5	918.5	520.5	675.0	36
TALCA	13.5	803.5	527.4	619.1	30
COLORADO	43.0	1729.7	1338.4	1337.1	29
LINARES	17.7	1037.0	823.7	869.4	19
PARRAL	18.5	1002.0	811.8	919.5	9
EMBALSE DIGUA	34.2	1675.2	1288.1	1410.0	19
CHILLÁN	17.1	1190.3	925.6	940.8	27
CONCEPCIÓN	36.4	1333.5	1136.7	1103.3	21
LOS ÁNGELES	25.7	1149.2	860.0	1021.4	13
CAÑETE	29.7	1389.2	1143.3	1156.1	20
ANGOL	22.3	1362.4	1141.5	1005.1	36
TEMUCO	39.9	1359.9	1183.2	1073.6	27
VALDIVIA	67.6	2132.0	1719.6	1986.4	7
OSORNO	30.3	1259.2	1159.5	1399.1	- 10
PUERTO MONTT	79.0	1958.5	2009.1	1692.1	16
COYHAIQUE	83.4	962.2	935.9	1067.3*	- 10
PUNTA ARENAS	66.7	469.5	475.6	372.8	26

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

\* : Promedios calculados para períodos inferiores a 30 años

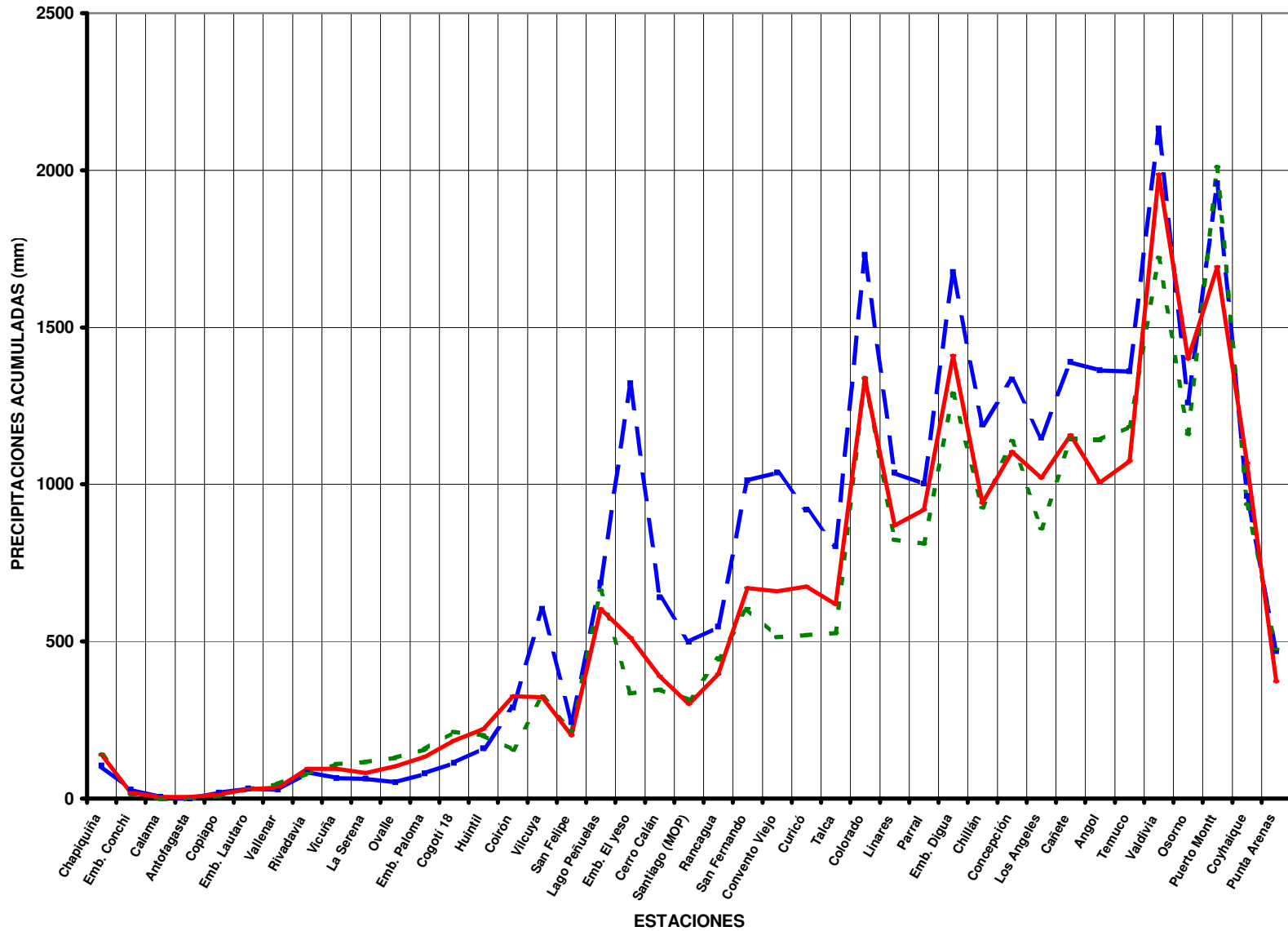
Valores expresados en milímetros (1 mm = 1 lt x m2)

TOTALES DE LLUVIA HASTA EL  
31 de Octubre del 2005

Normal

Año 2005

Año 2004



**ESTADO DE EMBALSES**

Ultimo día del mes  
(Volúmenes en mill-m<sup>3</sup>)

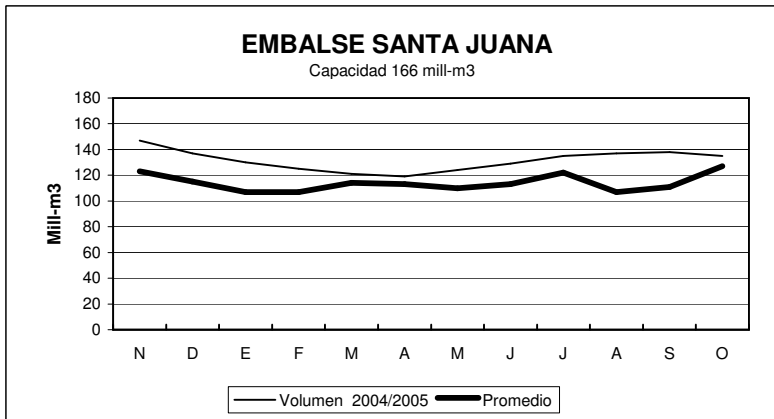
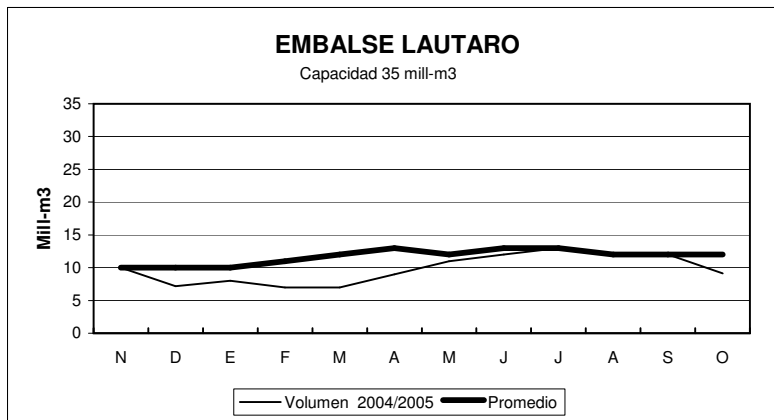
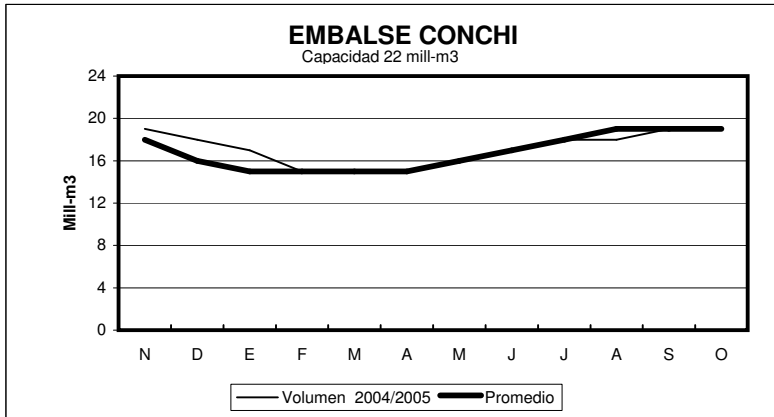
EMBALSE	REGION	CUENCA	CAPACIDAD	PROMEDIO	Octubre	
				HISTORICO MENSUAL	2005	2004
Conchi	II	Loa	22	19	19	19
Lautaro	III	Copiapó	35	12	9	14
Santa Juana	III	Huasco	166	127	135	153
La Laguna	IV	Elqui	40	23	36	38
Puclaro	IV	Elqui	200	119	142	190
Recoleta	IV	Limarí	100	67	81	93
La Paloma	IV	Limarí	748	438	506	571
Cogotí	IV	Limarí	150	87	80	85
Culimo	IV	Quilimarí	10	5.0	3.7	5.4
Corrales	IV	Illapel	50	41	43	50
Peñuelas	V	Peñuelas	95	31	34	42
El Yeso	RM	Maipo	256	153	179	156
Rungue	RM	Maipo	2.2	2.0	2.0	1.9
Rapel	VI	Rapel	695	490	615	466
Colbún	VII	Maule	1544	1278	1425	1237
Lag. Maule	VII	Maule	1420	983	863	948
Bullileo	VII	Maule	60	57	60	60
Digua	VII	Maule	220	215	220	220
Tutuvén	VII	Maule	15	12	12	14
Coihueco	VIII	Itata	29	29	29	29
Lago Laja (&)	VIII	Bio-Bio	5582	3465	2690	2365

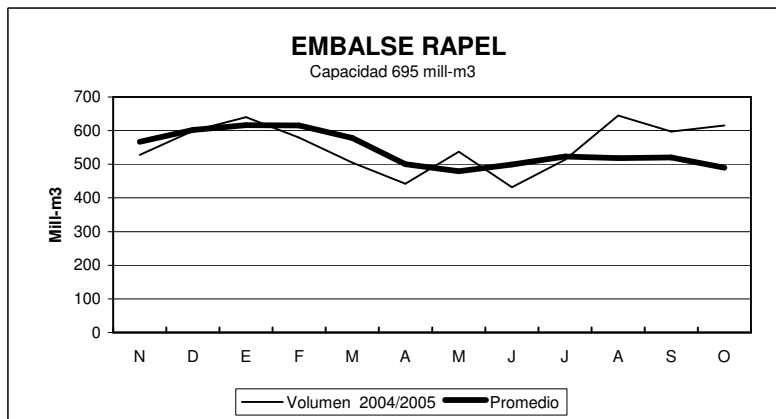
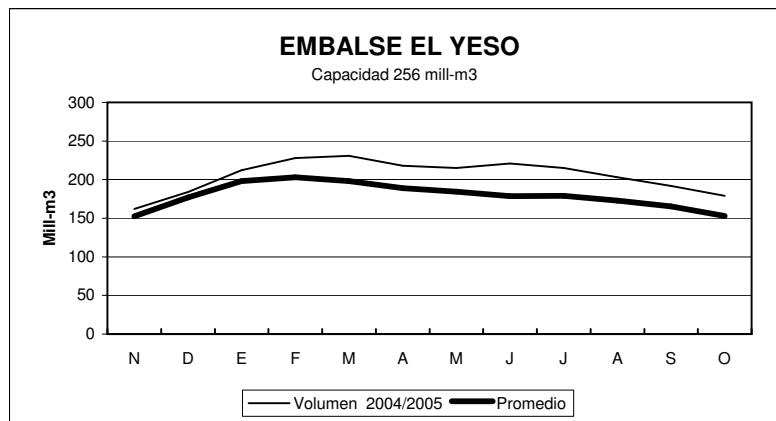
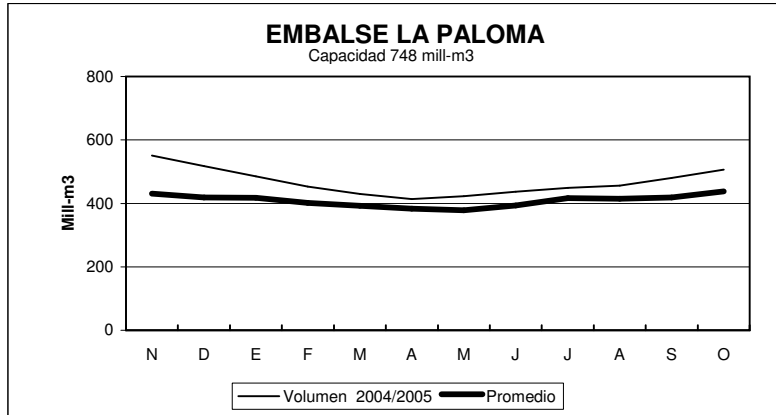
**RESUMEN ANUAL**

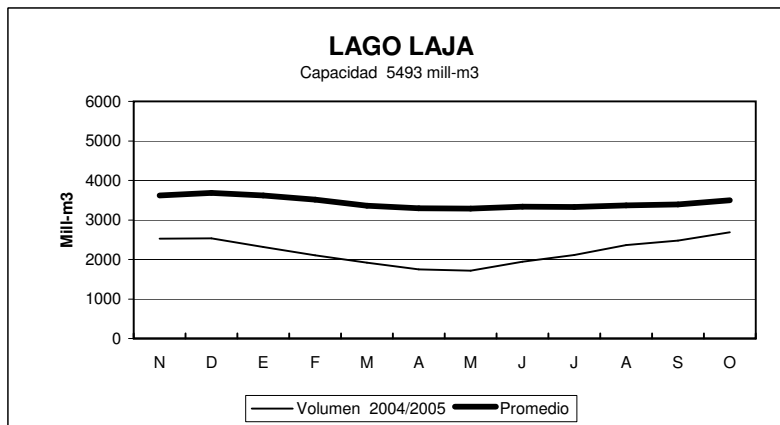
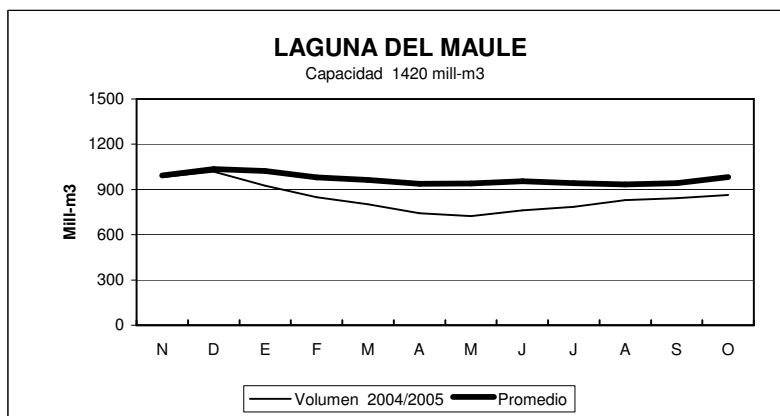
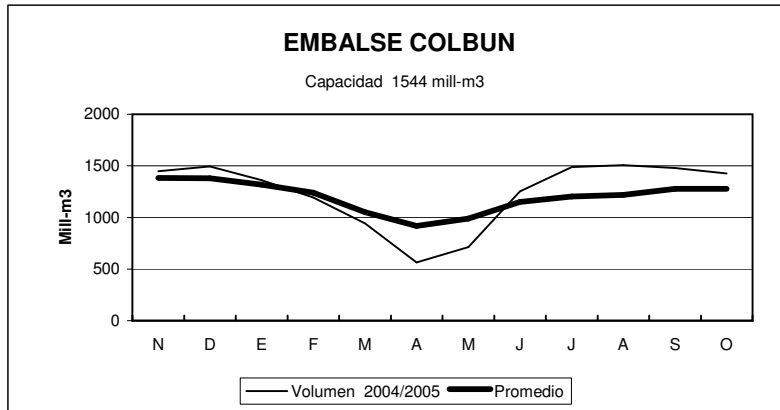
EMBALSE	2004 2005											
	N	D	E	F	M	A	M	J	J	A	S	O
Conchi	19	18	17	15	15	15	16	17	18	18	19	19
Lautaro	10	7	8	7	7	9	11	12	13	12	12	9
Santa Juana	147	137	130	125	121	119	124	129	135	137	138	135
La Laguna	36	33	31	30	25	26	25	27	29	31	32	36
Puclaro	179	162	153	142	134	128	133	137	140	140	141	142
Recoleta	89	83	77	72	68	65	69	73	75	77	80	81
La Paloma	551	518	485	453	430	414	423	437	449	456	480	506
Cogotí	81	75	66	60	56	53	54	58	61	63	73	80
Culimo	5.0	4.4	3.3	1.96	0.6	0.0	0.0	0.0	0.0	1.3	3.1	3.7
Corrales	50	49	47	40	33	31	31	32	32	37	42	43
Peñuelas	40	36	33	31	29	27	28	29	30	35	35	34
El Yeso	162	184	212	228	231	218	215	221	215	203	192	179
Rungue	1.8	1.3	0.8	0.4	0.2	0.1	0.1	0.6	1.2	2.0	2.1	2.0
Rapel	528	599	640	579	505	442	537	432	514	645	597	615
Colbún	1447	1496	1361	1195	942	565	714	1253	1488	1506	1480	1425
Lag. Maule	983	1018	924	849	802	743	723	761	786	829	843	863
Bullileo	60	38	40	16	1.3	0	19	44	60	60	60	60
Digua	220	170	91	28	6.5	4.0	28	105	160	219	220	220
Tutuvén	13	10.1	8.1	4	2.1	0	3	15	13	15	13	12
Coihueco	29	27	20	13	6	1.4	1.6	13.4	24	28.3	29	29
Lago Laja (&)	2525	2532	2314	2108	1923	1748	1716	1943	2110	2365	2480	2690

(&) : Volumen sobre cota 1300 msnm

**ESTADO DE EMBALSES**



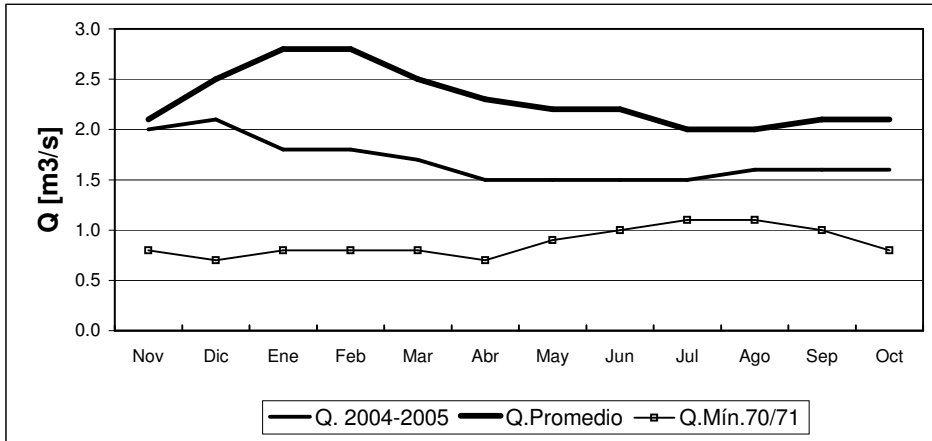




**INFORME FLUVIOMETRICO**  
Caudales medios mensuales en m3/seg

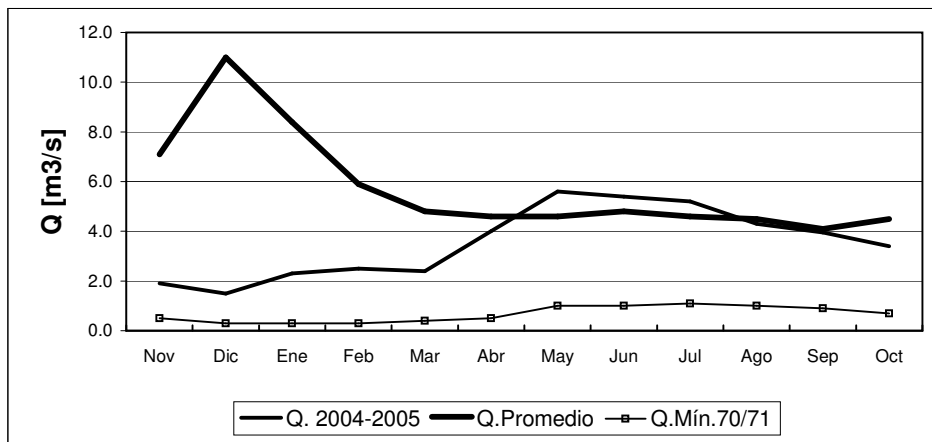
Oct-05

**RIO COPIAPO EN LA PUERTA**



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	2.0	2.1	1.8	1.8	1.7	1.5	1.5	1.5	1.5	1.6	1.6	1.6
<b>Q. Promedio</b>	2.1	2.5	2.8	2.8	2.5	2.3	2.2	2.2	2.0	2.0	2.1	2.1
<b>Q. Mín.70/71</b>	0.8	0.7	0.8	0.8	0.8	0.7	0.9	1.0	1.1	1.1	1.0	0.8

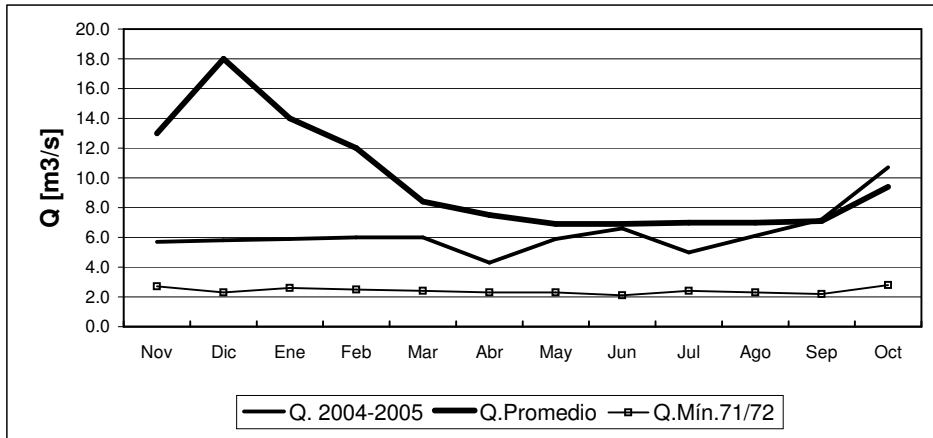
**RIO HUASCO EN ALGODONES**



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	1.9	1.5	2.3	2.5	2.4	4.0	5.6	5.4	5.2	4.3	4.0	3.4
<b>Q. Promedio</b>	7.1	11.0	8.4	5.9	4.8	4.6	4.6	4.8	4.6	4.5	4.1	4.5
<b>Q. Mín.70/71</b>	0.5	0.3	0.3	0.3	0.4	0.5	1.0	1.0	1.1	1.0	0.9	0.7

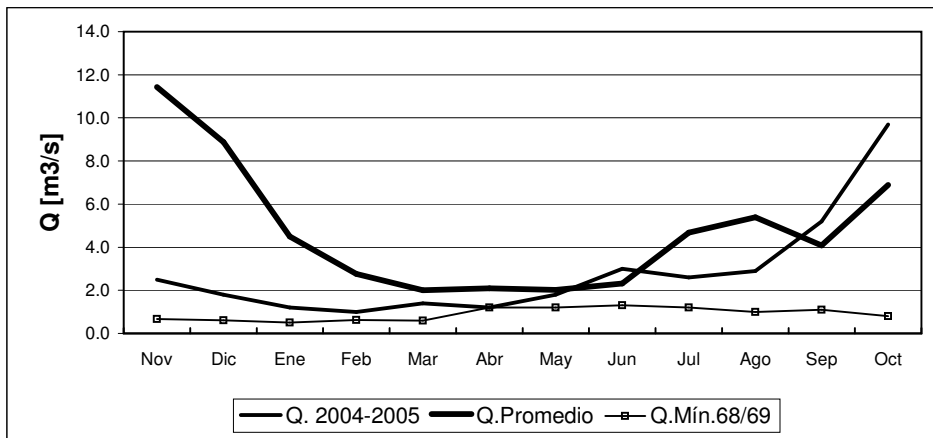


RIO ELQUI EN ALGARROBAL



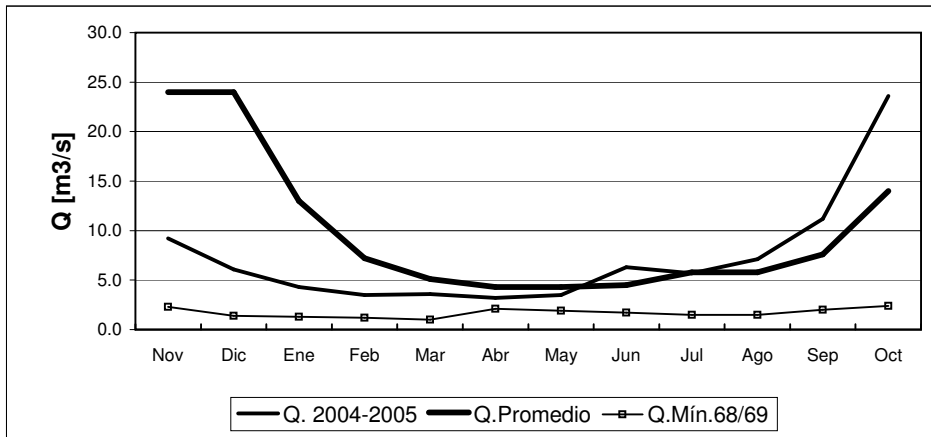
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	5.7	5.8	5.9	6.0	6.0	4.3	5.9	6.6	5.0	6.1	7.2	10.7
<b>Q. Promedio</b>	13.0	18.0	14.0	12.0	8.4	7.5	6.9	6.9	7.0	7.0	7.1	9.4
<b>Q. Mín. 71/72</b>	2.7	2.3	2.6	2.5	2.4	2.3	2.3	2.1	2.4	2.3	2.2	2.8

RIO GRANDE EN LAS RAMADAS



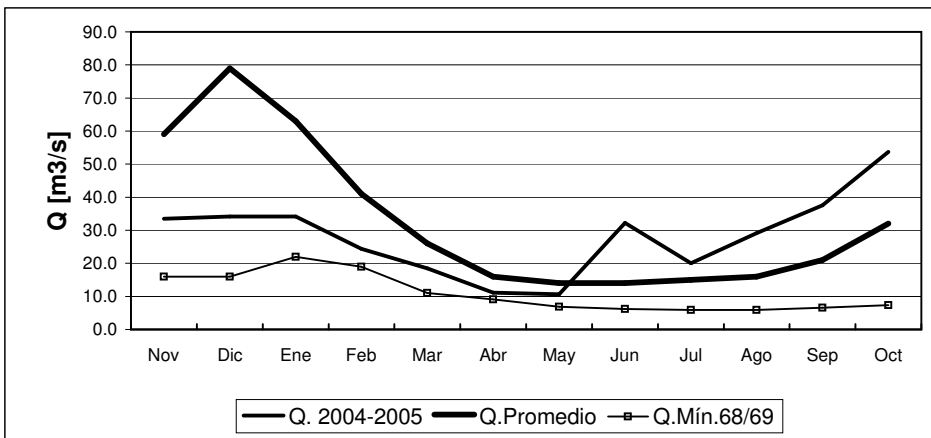
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	2.5	1.8	1.2	1.0	1.4	1.2	1.8	3.0	2.6	2.9	5.2	9.7
<b>Q. Promedio</b>	11.4	8.9	4.5	2.8	2.0	2.1	2.0	2.3	4.7	5.4	4.1	6.9
<b>Q. Mín. 68/69</b>	0.7	0.6	0.5	0.6	0.6	1.2	1.2	1.3	1.2	1.0	1.1	0.8

RIO CHOAPA EN CUNCUMEN



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	9.2	6.1	4.3	3.5	3.6	3.2	3.5	6.3	5.7	7.1	11.2	23.6
<b>Q.Promedio</b>	24.0	24.0	13.0	7.2	5.1	4.3	4.3	4.5	5.8	5.8	7.6	14.0
<b>Q.Mín.68/69</b>	2.3	1.4	1.3	1.2	1.0	2.1	1.9	1.7	1.5	1.5	2.0	2.4

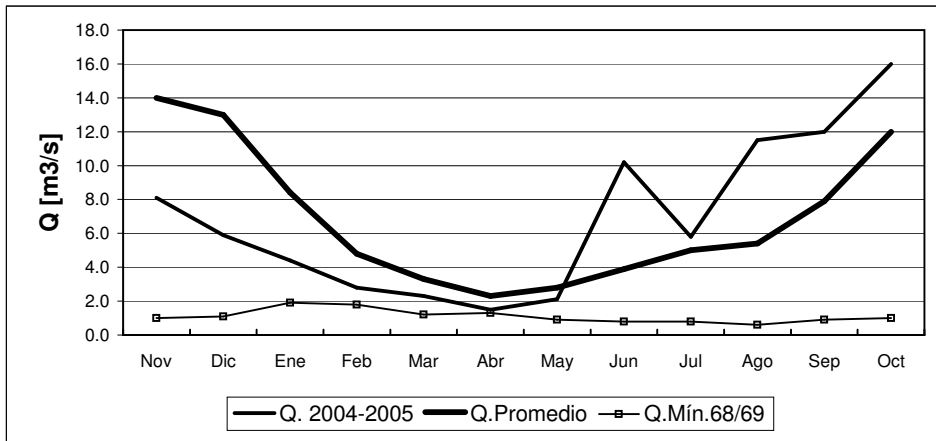
RIO ACONCAGUA EN CHACABUQUITO



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	33.5	34.2	34.2	24.4	18.5	11.1	10.6	32.2	20.0	29.1	37.5	53.7
<b>Q.Promedio</b>	59.0	79.0	63.0	41.0	26.0	16.0	14.0	14.0	15.0	16.0	21.0	32.0
<b>Q.Mín.68/69</b>	16.0	16.0	22.0	19.0	11.0	9.1	6.9	6.2	5.9	5.9	6.6	7.4

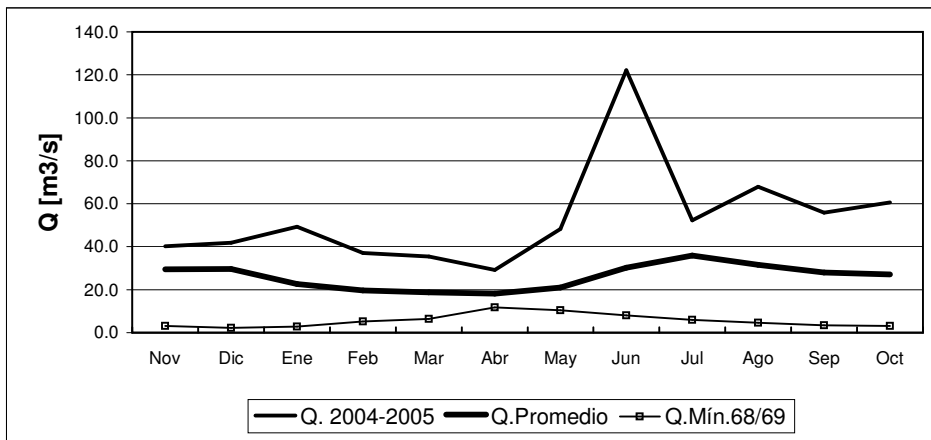


RIO MAPOCHO EN LOS ALMENDROS



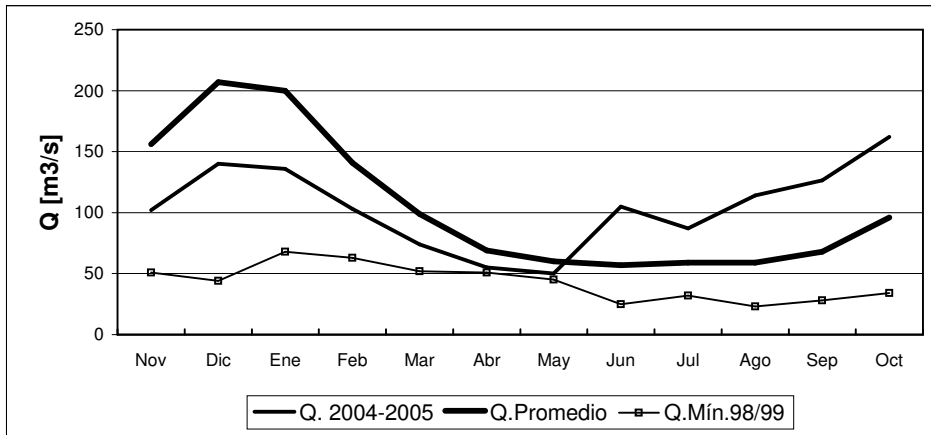
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<b>Q. 2004-2005</b>	8.1	5.9	4.4	2.8	2.3	1.5	2.1	10.2	5.8	11.5	12.0	16.0
<b>Q.Promedio</b>	14.0	13.0	8.4	4.8	3.3	2.3	2.8	3.9	5.0	5.4	7.9	12.0
<b>Q.Mín.68/69</b>	1.0	1.1	1.9	1.8	1.2	1.3	0.9	0.8	0.8	0.6	0.9	1.0

RIO MAPOCHO EN RINCONADA DE MAIPU



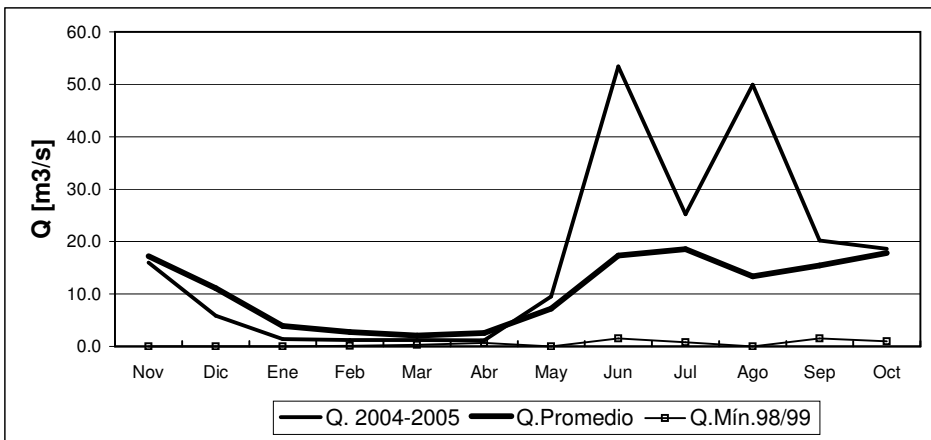
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<b>Q. 2004-2005</b>	40.2	41.8	49.3	37.1	35.5	29.2	48.2	122.1	52.3	67.9	55.9	60.6
<b>Q.Promedio</b>	29.5	29.7	22.6	19.6	18.7	18.1	21.0	30.3	35.9	31.6	28.0	27.1
<b>Q.Mín.68/69</b>	3.1	2.2	2.9	5.3	6.5	11.8	10.4	8.1	6.0	4.6	3.4	3.2

RIO MAIPO EN EL MANZANO



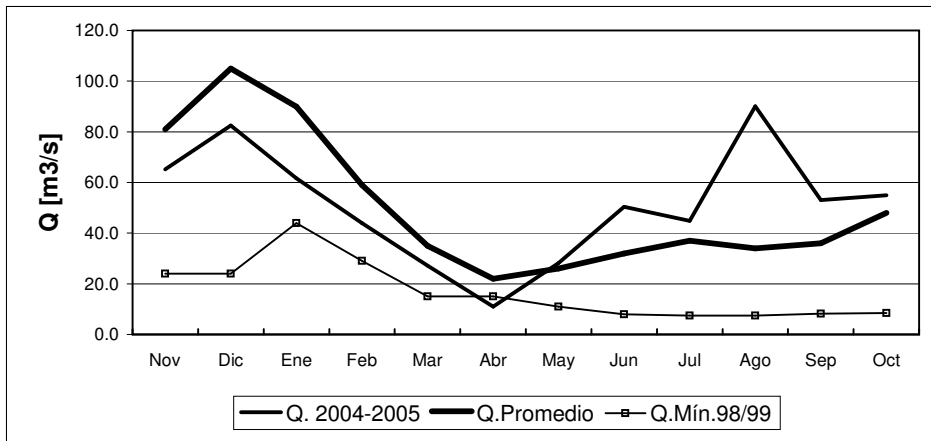
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	102	140	136	103	74	55	50	105	87	114	126	162
<b>Q. Promedio</b>	156	207	200	141	99	69	60	57	59	59	68	96
<b>Q. Mín.98/99</b>	51	44	68	63	52	51	45	25	32	23	28	34

RIO CLARO EN EL VALLE 2



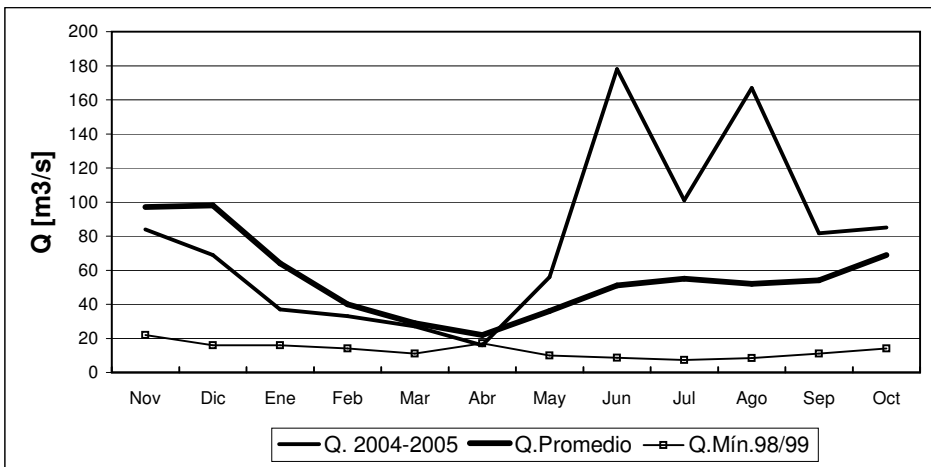
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	16.0	5.8	1.4	1.2	1.2	1.1	9.5	53.4	25.2	49.9	20.2	18.6
<b>Q. Promedio</b>	17.2	11.1	3.9	2.7	2.1	2.6	7.2	17.3	18.6	13.4	15.5	17.9
<b>Q. Mín.98/99</b>	0.0	0.0	0.0	0.1	0.3	0.7	0.0	1.5	0.8	0.0	1.5	1.0

RIO TINGUIRIRICA BAJO BRIONES



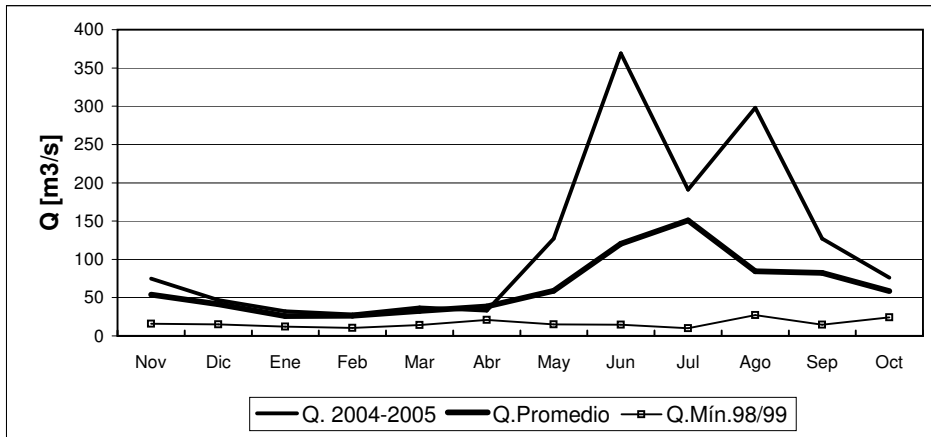
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	65.2	82.5	61.7	44.0	27.1	11.0	28.2	50.5	44.9	90.1	53.1	54.9
<b>Q.Promedio</b>	81.0	105.0	90.0	59.0	35.0	22.0	26.0	32.0	37.0	34.0	36.0	48.0
<b>Q.Mín.98/99</b>	24.0	24.0	44.0	29.0	15.0	15.0	11.0	8.0	7.4	7.4	8.2	8.5

RIO TENO DESPUES DE JUNTA



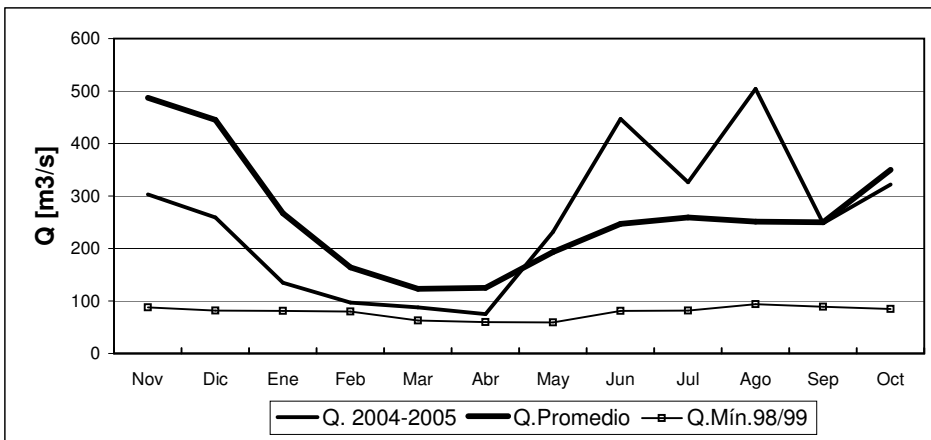
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<b>Q. 2004-2005</b>	84	69	37	33	27	16	56	178	101	167	82	85
<b>Q.Promedio</b>	97	98	64	40	29	22	36	51	55	52	54	69
<b>Q.Mín.98/99</b>	22	16	16	14	11	17	10	8.6	7.4	8.4	11	14

RIO CLARO EN RAUQUEN



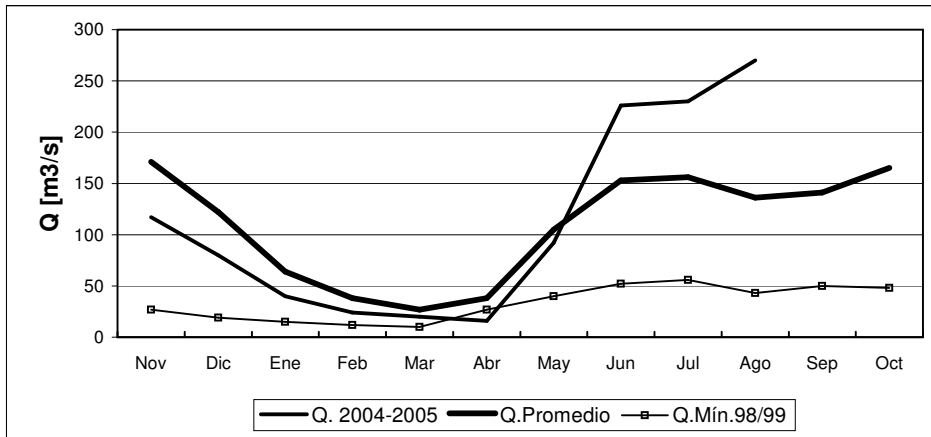
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	75	47	32	28	37	33	127	369	191	298	127	76
<b>Q. Promedio</b>	54	41	26	26	33	39	59	121	151	84	82	58
<b>Q. Mín.98/99</b>	16	15	12	10	14	21	15	15	10	27	15	24

RIO MAULE EN ARMERILLO



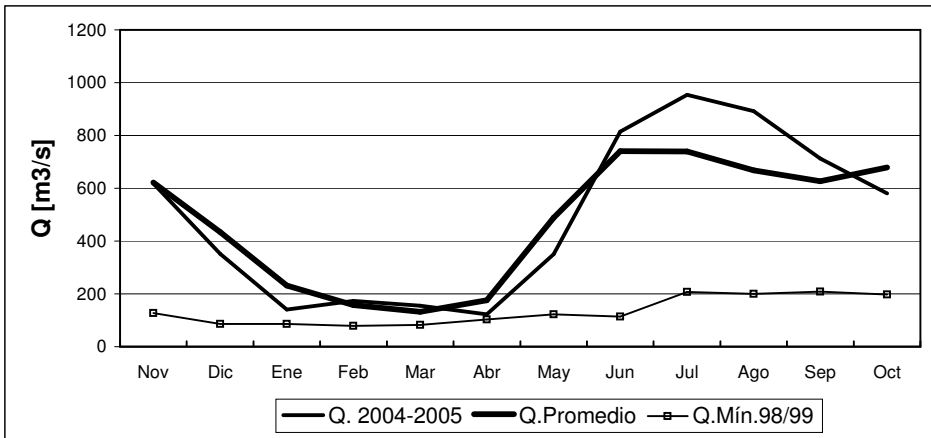
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	303	259	135	97	88	75	232	447	326	504	248	322
<b>Q. Promedio</b>	487	445	267	164	123	125	193	247	259	251	250	350
<b>Q. Mín.98/99</b>	88	82	81	80	63	60	59	81	82	94	89	85

RIO ÑUBLE EN SAN FABIAN



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	117	80	40	24	20	16	92	226	230	270		131
<b>Q. Promedio</b>	171	122	64	38	27	38	105	153	156	136	141	165
<b>Q. Mín.98/99</b>	27	19	15	12	10	27	40	52	56	43	50	48

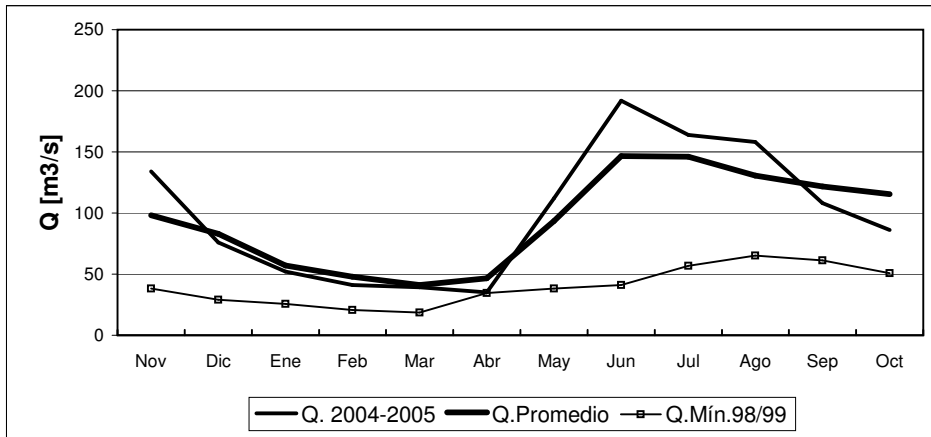
RIO BIO-BIO EN RUCALHUE



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	618	352	141	173	155	123	350	815	954	892	713	581
<b>Q. Promedio</b>	622	434	231	158	132	176	489	741	740	668	627	679
<b>Q. Mín.98/99</b>	127	86	86	79	82	103	122	114	207	200	208	197

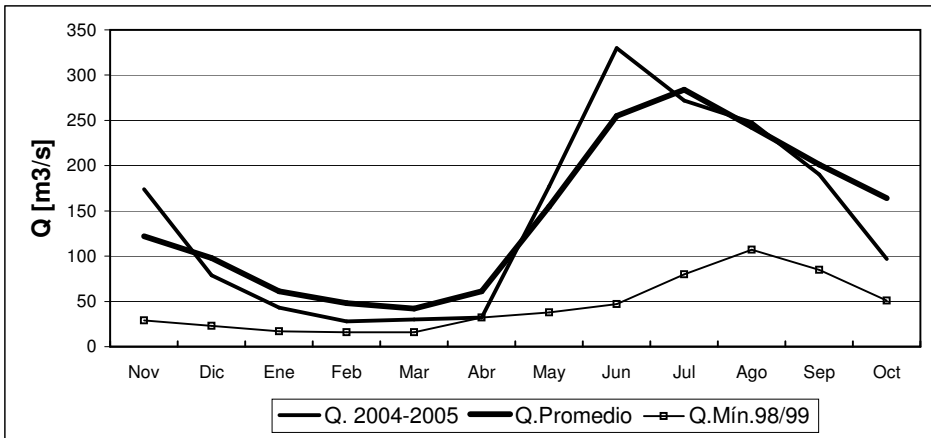


RIO CAUTIN EN RARI-RUCA



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	134	76	52	41	39	35	112	192	164	158	108	86
<b>Q. Promedio</b>	98	83	57	48	41	47	93	147	146	131	122	116
<b>Q. Mín.98/99</b>	38	29	26	21	19	35	38	41	57	65	61	51

RIO CAUTIN EN CAJON

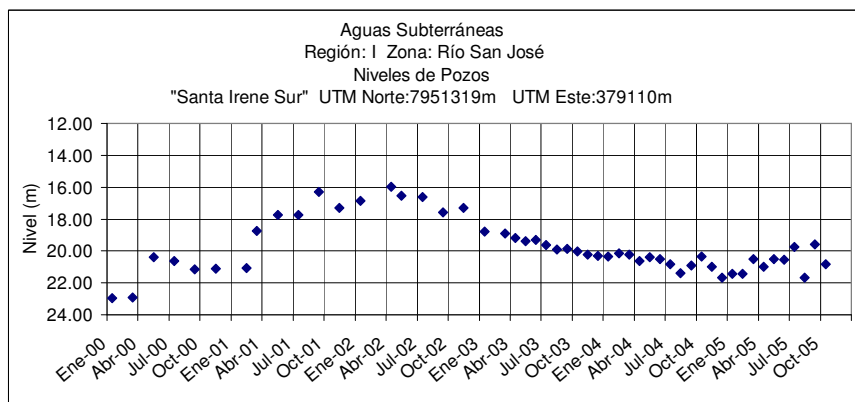


	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<b>Q. 2004-2005</b>	174	79	43	28	30	32	177	330	272	248	190	97
<b>Q. Promedio</b>	122	98	61	48	42	61	155	255	284	243	201	164
<b>Q. Mín.98/99</b>	29	23	17	16	16	32	38	47	80	107	85	51

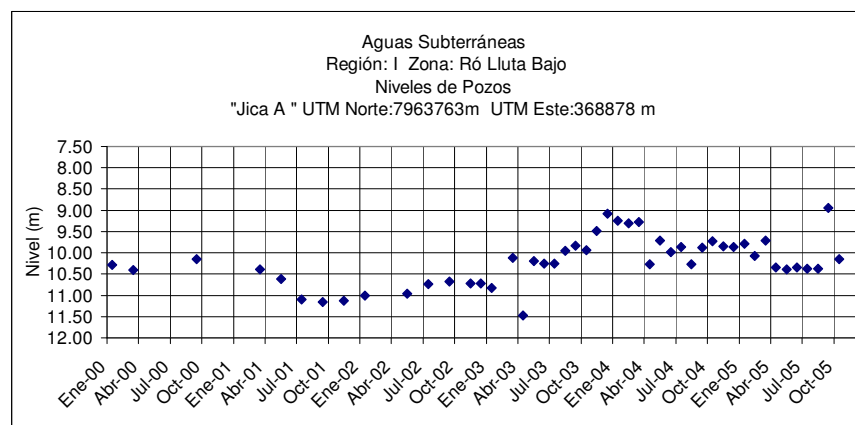
## Informe de Aguas Subterráneas

Niveles de Pozos en metros

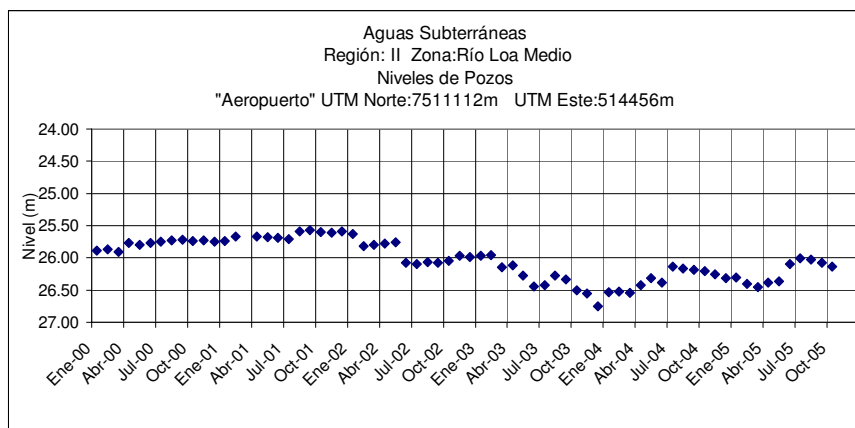
\*Gráficos de últimos cinco años.



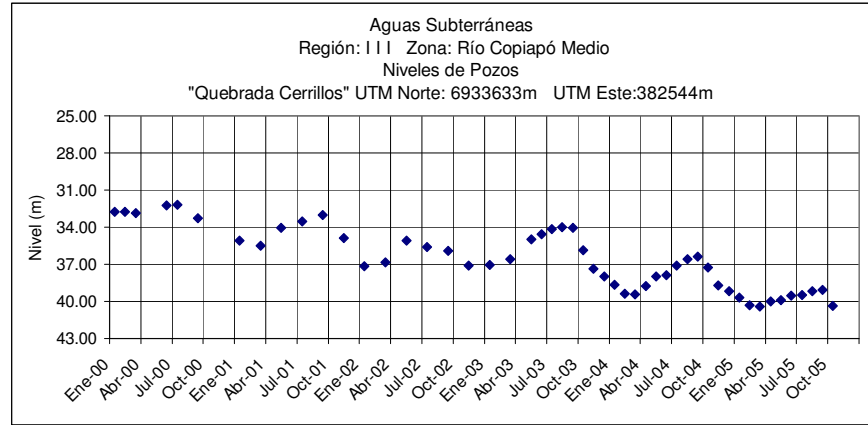
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	20.98	21.66	21.43	21.43	20.50	21.00	20.52	20.54	19.75	21.67	19.60	20.82



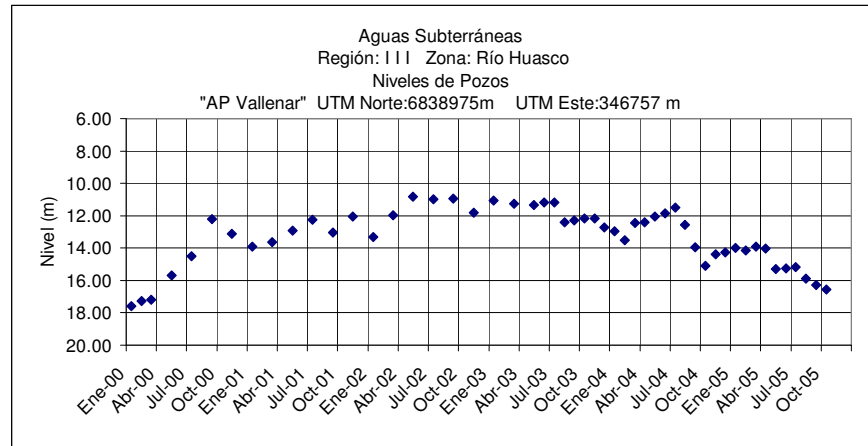
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	9.85	9.86	9.79	10.08	9.71	10.34	10.39	10.35	10.37	10.37	8.95	10.15



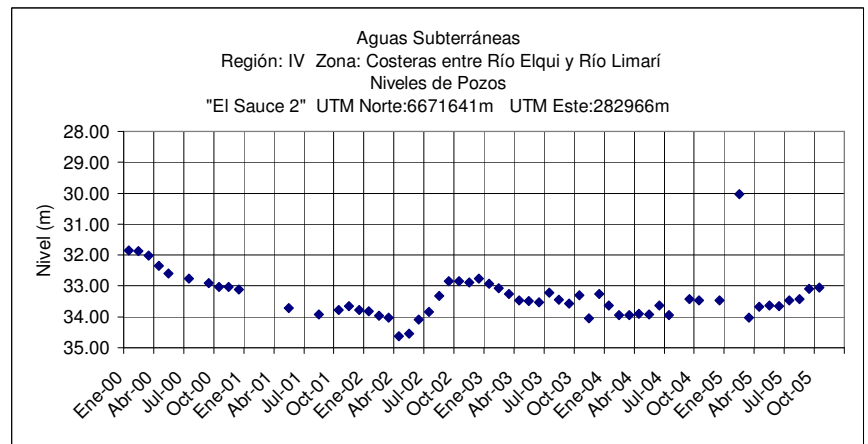
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	26.25	26.31	26.30	26.40	26.45	26.38	26.36	26.10	26.01	26.03	26.08	26.14



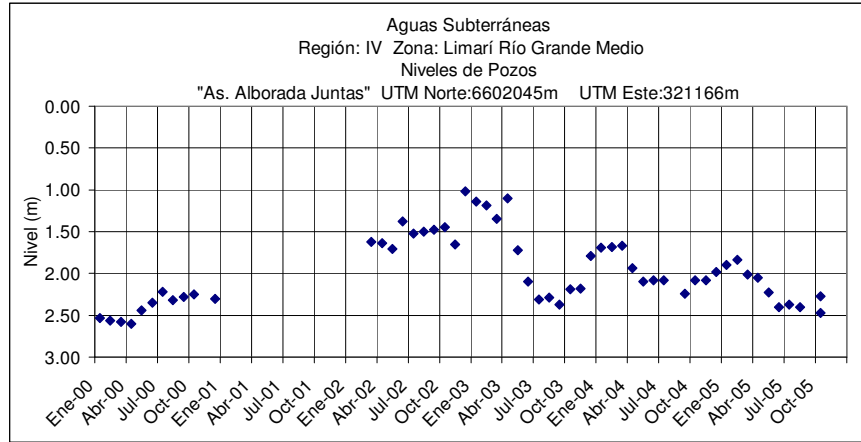
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	38.71	39.18	39.68	40.31	40.42	39.98	39.92	39.51	39.46	39.19	39.06	40.36



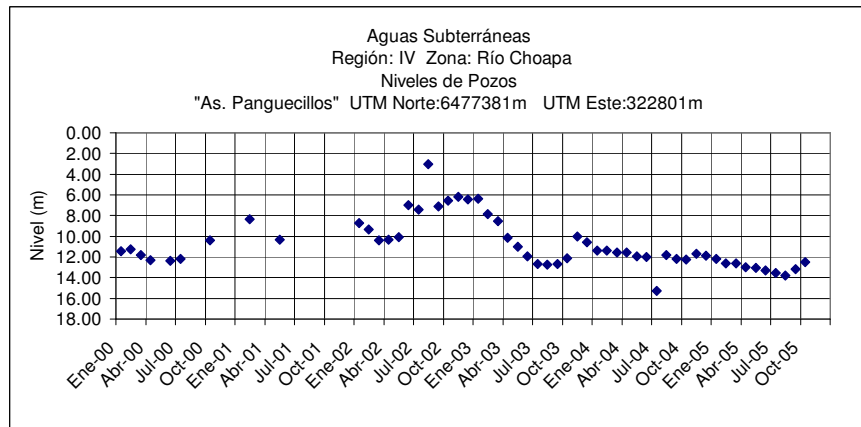
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	14.38	14.27	13.99	14.16	13.90	14.02	15.28	15.26	15.17	15.87	16.29	16.56



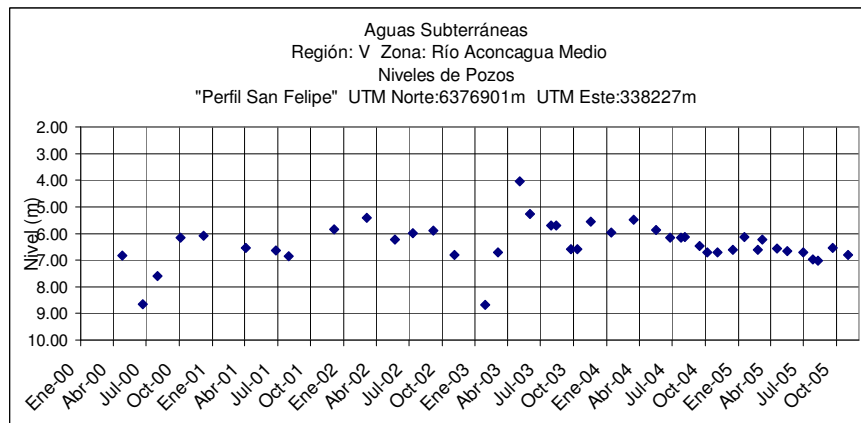
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	.	33.25	32.56	30.03	32.56	33.68	33.64	33.66	33.46	33.43	33.10	33.06



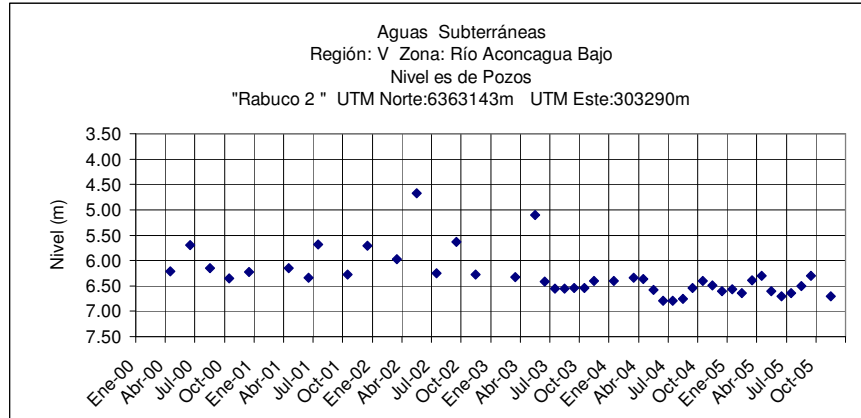
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	2.08	1.98	1.90	1.84	2.01	2.05	2.23	2.40	2.37	2.40	2.47	2.27



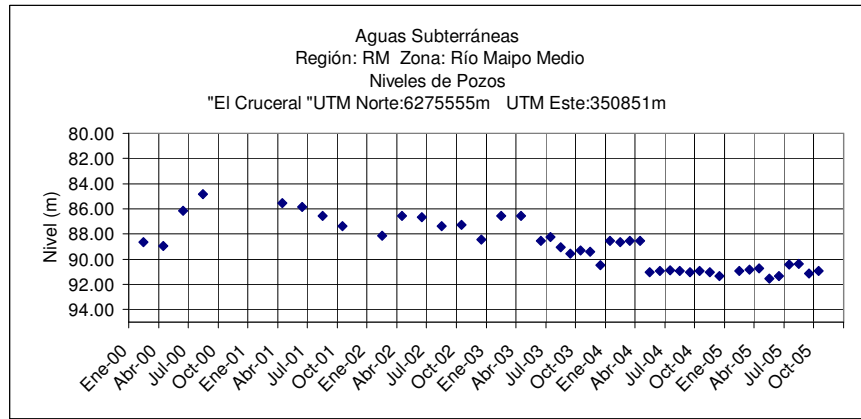
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	11.70	11.88	12.17	12.62	12.60	12.96	13.08	13.27	13.55	13.78	13.16	12.49



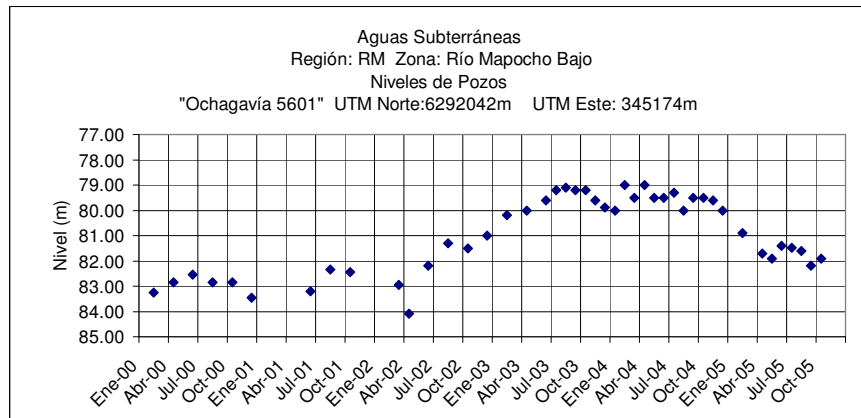
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	6.71	6.62	6.13	6.62	6.24	6.57	6.65	6.72	6.97	7.02	6.55	6.80



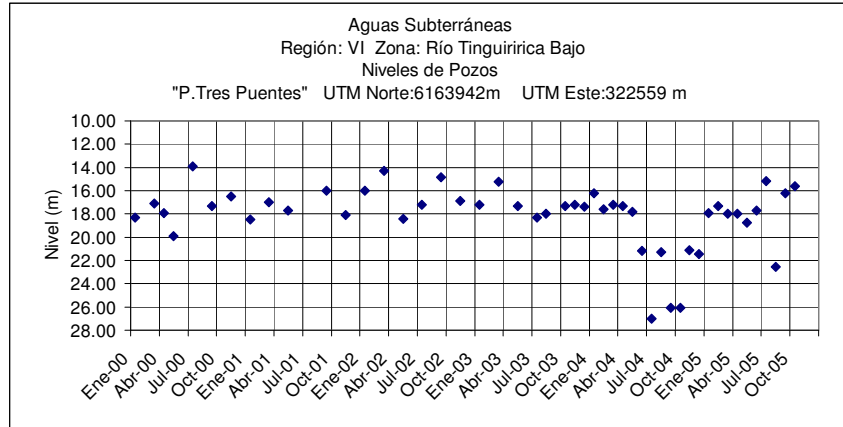
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	6.49	6.60	6.57	6.64	6.39	6.30	6.61	6.70	6.64	6.50	6.30	6.70



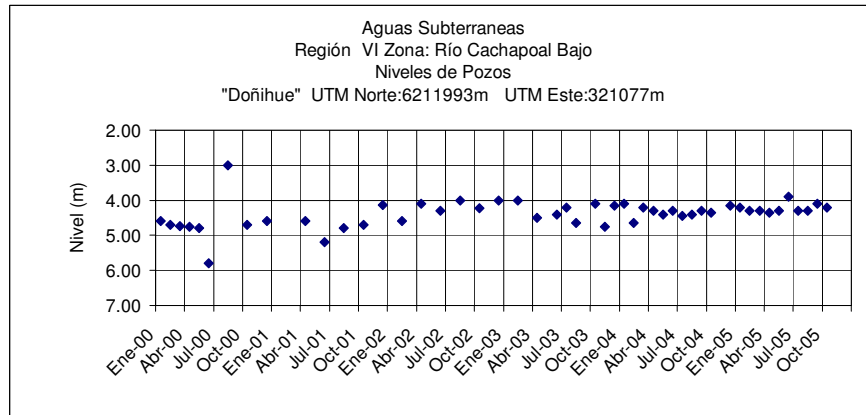
	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	91.05	91.35	.	90.95	90.85	90.75	91.55	91.35	90.40	90.35	91.15	90.95



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	79.60	80.00	.	80.90	,	81.70	81.90	81.40	81.47	81.60	82.20	81.90



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	21.10	21.45	17.95	17.30	18.00	18.00	18.75	17.70	15.20	22.55	16.20	15.60



	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
2004-2005	.	4.15	4.20	4.30	4.30	4.35	4.30	3.90	4.30	4.30	4.10	4.20