



RESULTADOS ANALITICOS

SOLICITANTE: Jefe del Área de Calidad de las Aguas.- Sr. Fernández Carrillo

DENOMINACION DE LA MUESTRA:

RÍO ZÚJAR - E. La Serena

FECHA DE TOMA: 01-07-2013

RECEPCION EN LABORATORIO: 02-07-2013

MUESTRA RECIBIDA

ANALISIS: 2 Botella de plástico de 1L. Etiquetada y precintada

CUSTODIA: No

Determinaciones Solicitadas

CARACTERISTICAS	CONCENTRACION	UNIDADES	INCERTIDUMBRE
Color	9,6	mg/L Pt	-----
Oxígeno disuelto	7,9	mg/L O ₂	-----
% Oxígeno	96,2	% SAT	-----
Sólidos en Suspensión	14	mg/L	-----
pH	8,3	pH	-----
Dureza total	70,3	mg/L CO ₃ Ca	-----
Conductividad a 20 °C	209	µS/cm	-----
D.Q.O. 10min (Índice de Permanganato)	7,8	mg/L O ₂	-----
D.B.O. 5d	4,5	mg/L O ₂	-----
Cloruros	17,3	mg/L Cl ⁻	-----
Sulfatos	16,3	mg/L SO ₄ ⁼	-----
Sílice	<0,8560	mg/L SiO ₂	-----
Carbonatos	<0,1	mg/L CO ₃ Ca	-----
Bicarbonatos	66,1	mg/L CO ₃ Ca	-----
Fosfatos	<0,05	mg/L PO ₄ -3	-----
Alcalinidad total	66,1	mg/L CO ₃ Ca	-----
Calcio	15,4700	mg/L Ca	-----
Magnesio	7,6760	mg/L Mg	-----
Sodio	11,6000	mg/L Na	-----
Potasio	3,1300	mg/L K	-----
Amonio total	<0,05	mg/L NH ₄ ⁺	-----
Nitritos	<0,05	mg/L NO ₂ ⁻	-----
Nitratos	1,2	mg/L NO ₃ ⁻	-----
Cianuro Total	<0,010	mg/L CN ⁻	-----
Fenoles	<0,050	mg/L C ₆ H ₅ OH	-----
Fluoruros	0,13	mg/L F ⁻	-----
Arsénico	2,014	µg/L As	-----
Cadmio	<0,100	µg/L Cd	-----
Cobre	<0,1000	mg/L Cu	-----
Hierro	<0,1000	mg/L Fe	-----
Manganeso	<0,1000	mg/L Mn	-----
Mercurio	<0,000050	mg/L Hg	-----
Plomo	<1,000	µg/L Pb	-----
Cinc	<0,1000	mg/L Zn	-----
Cromo	<1,000	µg/L Cr	-----
Selenio	<2,000	µg/L Se	-----
Hidróxidos	<0,1	mg/L CO ₃ Ca	-----
Estaño	<0,1000	mg/L Sn	-----
Aluminio	<0,1000	mg/L Al	-----
Cobalto	<0,0500	mg/L Co	-----



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RÍO ZÚJAR - E. La Serena

FECHA DE TOMA: 01-07-2013

Determinaciones Solicitadas

CARACTERISTICAS	CONCENTRACION	UNIDADES	INCERTIDUMBRE
Estroncio	<0,5000	mg/L Sr	-----
Bario	<0,0500	mg/L Ba	-----
Boro	<0,1000	mg/L B	-----
Fósforo total	<0,1000	mg/L P	-----
Níquel	<0,0500	mg/L Ni	-----

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Código: GN00000307	Nombre del punto: RIO ZUJAR - E. La Serena - Centro de presa	Cauce: RIO ZUJAR
Código de la masa de agua: 20655	Nombre de la masa de agua: EMBALSE DE LA SERENA	
Localidad: Castuera	Provincia: Badajoz	UTM X: 290613 UTM Y: 4309721 Huso: 30

		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE 18-09-2013	OCTUBRE	NOVIEMBRE	DICIEMBRE
% Oxígeno (in situ)	% SAT	---	---	---	---	---	---	---	---	95,6	---	---	---
Cloro residual total (in situ)	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Color aparente (in situ)	-----	---	---	---	---	---	---	---	---	---	---	---	---
Conductividad a 20 °C (in situ)	µS/cm	---	---	---	---	---	---	---	---	211	---	---	---
Nitritos (in situ)	mg/L	---	---	---	---	---	---	---	---	---	---	---	---
Olor (in situ)	-----	---	---	---	---	---	---	---	---	---	---	---	---
Oxígeno disuelto (in situ)	mg/L	---	---	---	---	---	---	---	---	7,6	---	---	---
pH (in situ)	pH	---	---	---	---	---	---	---	---	8,7	---	---	---
Temperatura del agua "in situ" (in situ)	°C	---	---	---	---	---	---	---	---	24,9	---	---	---
Acenafeno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
a-hch	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Alaclor	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Alcalinidad total	mg/L	---	---	---	---	---	---	---	---	67,6	---	---	---
Aldrin	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Aluminio	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
Ametrin	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Amonio total	mg/L	---	---	---	---	---	---	---	---	< 0,05	---	---	---
Antraceno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Arsénico	mg/L	---	---	---	---	---	---	---	---	< 0,025000	---	---	---
Aspecto	-----	---	---	---	---	---	---	---	---	1	---	---	---
Atraton	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
atrazina	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Bario	mg/L	---	---	---	---	---	---	---	---	< 0,0500	---	---	---
Benceno	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
Benzo(a)Antraceno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Benzo(a,h)Antraceno (Dibenzo(a,h)antraceno)	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Benzo(a)Pireno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Benzo(b)Fluoranteno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---

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Código: GN00000307	Nombre del punto: RIO ZUJAR - E. La Serena - Centro de presa	Cauce: RIO ZUJAR
Código de la masa de agua: 20655	Nombre de la masa de agua: EMBALSE DE LA SERENA	
Localidad: Castuera	Provincia: Badajoz	UTM X: 290613 UTM Y: 4309721 Huso: 30

		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE 18-09-2013	OCTUBRE	NOVIEMBRE	DICIEMBRE
Benzo(g,h,i)Perileno	µg/L	---	---	---	---	---	---	---	---	< 0,040	---	---	---
Benzo(k)Fluoranteno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
b-hch	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Bicarbonatos	mg/L	---	---	---	---	---	---	---	---	63,3	---	---	---
Boro	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
Bromodichlorometano	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
Bromof ormo	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
Cadmio	mg/L	---	---	---	---	---	---	---	---	< 0,025000	---	---	---
Calcio	mg/L	---	---	---	---	---	---	---	---	15,4200	---	---	---
Carbonatos	mg/L	---	---	---	---	---	---	---	---	4,3	---	---	---
Cianuro Total	mg/L	---	---	---	---	---	---	---	---	< 0,010	---	---	---
Cinc	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
Clorfeninfos	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Clorobenceno	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
Clorof ormo	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Clorpirinfos	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Cloruros	mg/L	---	---	---	---	---	---	---	---	17,6	---	---	---
Cobalto	mg/L	---	---	---	---	---	---	---	---	< 0,0500	---	---	---
Cobre	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
Color	mg/L	---	---	---	---	---	---	---	---	8,4	---	---	---
Conductividad a 20 °C	µS/cm	---	---	---	---	---	---	---	---	210	---	---	---
Cromo	mg/L	---	---	---	---	---	---	---	---	< 0,025000	---	---	---
Cromo (VI)	mg/L	---	---	---	---	---	---	---	---	< 0,010	---	---	---
Criseno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
D.B.O. 5d	mg/L	---	---	---	---	---	---	---	---	0,5	---	---	---
Desetilatrazina	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Desisopropilatrazina	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
d-hch	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Diazinon	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---

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Código: GN00000307	Nombre del punto: RIO ZUJAR - E. La Serena - Centro de presa	Cauce: RIO ZUJAR
Código de la masa de agua: 20655	Nombre de la masa de agua: EMBALSE DE LA SERENA	
Localidad: Castuera	Provincia: Badajoz	UTM X: 290613 UTM Y: 4309721 Huso: 30

		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE 18-09-2013	OCTUBRE	NOVIEMBRE	DICIEMBRE
Dibromoclorometano	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Diclorometano	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Dieldrín	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Diuron	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
D.Q.O. 10min (Índice de Permanganato)	mg/L	---	---	---	---	---	---	---	---	4,7	---	---	---
Dureza total	mg/L	---	---	---	---	---	---	---	---	69,6	---	---	---
Endosulfán I	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Endosulfán II	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Endosulfán Sulfato	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Endrín	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Endrín Aldehído	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Estaño	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
Estireno	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
Estroncio	mg/L	---	---	---	---	---	---	---	---	< 0,5000	---	---	---
Etilbenceno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Etil-Paratión	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Fenantreno	µg/L	---	---	---	---	---	---	---	---	0,021	---	---	---
Fenoles	mg/L	---	---	---	---	---	---	---	---	< 0,050	---	---	---
Fluoranteno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Fluoreno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Fluoruros	mg/L	---	---	---	---	---	---	---	---	0,15	---	---	---
Fosfatos	mg/L	---	---	---	---	---	---	---	---	< 0,05	---	---	---
Fósforo total	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
Glifosato	µg/L	---	---	---	---	---	---	---	---	< 0,050	---	---	---
Heptacloro	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Heptacloro epóxido	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Hexaclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Hexaclorobutadieno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Hidróxidos	mg/L	---	---	---	---	---	---	---	---	< 0,1	---	---	---

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Código: GN00000307	Nombre del punto: RIO ZUJAR - E. La Serena - Centro de presa	Cauce: RIO ZUJAR
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Localidad: Castuera	Provincia: Badajoz	UTM X: 290613 UTM Y: 4309721 Huso: 30

		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE 18-09-2013	OCTUBRE	NOVIEMBRE	DICIEMBRE
Hierro	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
Imazalil	µg/L	---	---	---	---	---	---	---	---	< 0,050	---	---	---
Indeno(1,2,3-cd)Pireno	µg/L	---	---	---	---	---	---	---	---	< 0,050	---	---	---
Isodrin	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Isoproturon	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Lindano	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Magnesio	mg/L	---	---	---	---	---	---	---	---	7,5480	---	---	---
Malatión	µg/L	---	---	---	---	---	---	---	---	< 0,050	---	---	---
Manganeso	mg/L	---	---	---	---	---	---	---	---	< 0,1000	---	---	---
MCPA	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Mercurio	mg/L	---	---	---	---	---	---	---	---	< 0,000050	---	---	---
Metil Paratión	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Metilclorpirifos	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Metolaclor	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Molinate	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
m,p-xileno	µg/L	---	---	---	---	---	---	---	---	< 2,00	---	---	---
MTBE	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Naftaleno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Níquel	mg/L	---	---	---	---	---	---	---	---	< 0,0500	---	---	---
Nitratos	mg/L	---	---	---	---	---	---	---	---	< 1,0	---	---	---
Oxifluorfen	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Oxígeno disuelto	mg/L	---	---	---	---	---	---	---	---	8,3	---	---	---
o-xileno	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
PCB 101	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
PCB 118	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
PCB 138	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
PCB 153	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
PCB 180	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
PCB 28	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---

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Código: GN00000307	Nombre del punto: RIO ZUJAR - E. La Serena - Centro de presa	Cauce: RIO ZUJAR
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Localidad: Castuera	Provincia: Badajoz	UTM X: 290613 UTM Y: 4309721 Huso: 30

		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE 18-09-2013	OCTUBRE	NOVIEMBRE	DICIEMBRE
PCB 52	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Pentaclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
pH	pH	---	---	---	---	---	---	---	---	8,5	---	---	---
Pireno	µg/L	---	---	---	---	---	---	---	---	< 0,010	---	---	---
Plomo	mg/L	---	---	---	---	---	---	---	---	< 0,025000	---	---	---
Potasio	mg/L	---	---	---	---	---	---	---	---	3,6260	---	---	---
PP-DDD	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
PP-DDE	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
PP-DDT	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Prometon	µg/L	---	---	---	---	---	---	---	---	< 0,050	---	---	---
Prometrin	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Propazina	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Recuento de Coliformes totales	UFC/100	---	---	---	---	---	---	---	---	70	---	---	---
Selenio	mg/L	---	---	---	---	---	---	---	---	< 0,025000	---	---	---
Sílice	mg/L	---	---	---	---	---	---	---	---	< 0,8560	---	---	---
Simazina	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Simetrín	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Sodio	mg/L	---	---	---	---	---	---	---	---	12,7400	---	---	---
Sólidos en Suspensión	mg/L	---	---	---	---	---	---	---	---	< 10	---	---	---
Sulfatos	mg/L	---	---	---	---	---	---	---	---	18,4	---	---	---
Terbutilazina	µg/L	---	---	---	---	---	---	---	---	0,053	---	---	---
Terbutrín	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
Tetracloroetileno (Percloroetileno)	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Tetracloruro de Carbono	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Tolueno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Tricloroetileno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
Trifluralín	µg/L	---	---	---	---	---	---	---	---	< 0,020	---	---	---
1,1,1-tricloroetano	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---

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	Fecha: 30-10-2013	Resultados de análisis por punto de control		Página: 6

Código: GN00000307	Nombre del punto: RIO ZUJAR - E. La Serena - Centro de presa	Cauce: RIO ZUJAR
Código de la masa de agua: 20655	Nombre de la masa de agua: EMBALSE DE LA SERENA	
Localidad: Castuera	Provincia: Badajoz	UTM X: 290613 UTM Y: 4309721 Huso: 30

		ENERO	FEBRERO	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOSTO	SEPTIEMBRE 18-09-2013	OCTUBRE	NOVIEMBRE	DICIEMBRE
1,2-diclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
1,2-Dicloroetano	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
1,2,3-triclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
1,2,4-triclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
1,3-diclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---
1,3,5-triclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 1,00	---	---	---
1,4-diclorobenceno	µg/L	---	---	---	---	---	---	---	---	< 2,50	---	---	---