APPENDIX E

HISTORICAL DATA TABLES

PALAGUA LAKE

PALAGUA LAKE	POINT DESCRIPTION	POINT 1: Exit of the Agualinda Creek into the Palagua Lake							Point 2: Opposite to the exit of Agualinda Creek						
	DATE OF SAMPLING	AUG'-2004	DEC'-2004	APR'-2005	OCT'-2005	OCT'-2006	AUG'-2007	SEP'-2009	AUG'-2004	DEC'-2004	APR'-2005	OCT'-2005	OCT'-2006	AUG'-2007	SEP'-2009
Component	UNITS														
IN SITU DATA															
DISSOLVED OXYGEN	mg O2/L	2.2	0.9	0.3	2.5	1.8	4.5	2.28	3.0	3.0	1.1	6.3	2.5	3.9	3.76
TEMPERATURE	°C	30	29	29	24	32	25	24	31	31	33	24	35	25	23
PH/T(GR C) IN WATER	Uni. pH	6.23/29.5	6.71/28.9	6,53/29,0	6.75/23.7	6.7	6.8/24.5	6.48/23.8	6.12/31.0	6.53/30.7	6,54/32,7	6.63/24.3	6.47	6.4/24.6	6.6/22.9
LABORATORY															
CONDUCTIVITY	micromhos/cm	124.3/24.5	71.5/21.6	108,6/25,5	109.8/22.1	85.6	58.1/23	67.5/31.9	95.7/24.4	55.3/25.7	101,5/25,3	85.9/22.3	82.4	68/22.5	68.6/32.6
TOTAL ALKALINITY	mg CaCO3/L	62.5	38.9	49.1	55.6	44.0	23.6	36.9	45	36.5	40.2	40.0	35.9	30.3	26.8
TOTAL HARDNESS	mg CaCO3/L	NT	NT	NT	43.01	28.1	17.2	23.0	NT	NT	NT	33.02	28.1	22.6	22.4
GREASE & OIL	mg/L	8.5	1.73	<1,4	<1.4	<1.4	<1.4	<1.07	1.8	<1.4	1.8	<1.4	<1.4	<1.4	<1.07
BOD	mg O2/L	5.48	3.28	5.85	6.02	<2.0	3	1.95	4.06	3.33	4.58*	5.64	2.4	4.0	<1.81
TOTALES PHENOLS	mg/L	0.053	0.337	<0,01	<0.01	<0.01	NT	NT	<0.010	<0.010	<0,010	<0.01	<0.01	NT	
CHLORIDES	mg Cl-/L	<0.87	0.271	0.69	0.64	1.02	<0,11		2.41	2.32	4.01	0.51	2.94	<0,11	
NITRATES NO3	mg NO3/L	<0,63	<0,63	<0,63	<0,63	<0,08	0.21		<0,63	<0,63	<0,63	<0,63	<0,08	0.179	
NITRITES (NO2)	mg NO2/L	<0,069	0.028	0.106	<0,069	0.03	<0,013		<0,069	0.03	0.025	<0,069	0.59	<0,013	
VANADIUM by ICP-MS	microg/L	2.85	2.96	4.38	27.39		13.8	2.55	5.156	2.152	<3,70	17.63		7.50	3.197
CADMIUM by ICP-MS	microg/L	<1.0	<1.0	0.11	6.775		0.434	0.044	<1.0	<1.0	0.065	6.14		0.257	0.034
BARIUM by ICP-MS	microg/L	146.0	108.2	141.0	146.5		85.0	70.6	128.0	76.7	109.7	125.7		74.0	59.0
TOTAL PHOSPHURUS	mg/L	NT	NT	NT	8.89			0.32				5.35			0.23
IRON by ICP-MS	microg/L	1140	1220	191	2830	1566	4643	972	1100	851	989	2100	1228	2147	1252
PAH'S	microg/L	NT	0.85	NT	NT	NT	NT	NT	NT	8.72	NT	NT	NT	NT	NT

PALAGUA LAKE	POINT DESCRIPTION	POINT 3:At the shore exit line that unifies Palagua Lake with Enchanted Island							POINT 4: Central Part of the Palagua lake in front of Ecopetrol bridge						
	DATE OF SAMPLING	AUG'-2004	DEC'-2004	APR'-2005	OCT'-2005	OCT'-2006	AUG'-2007	SEP'-2009	AUG'-2004	DEC'-2004	APR'-2005	OCT'-2005	OCT'-2006	AUG'-2007	SEP'-2009
Component	UNITS														
IN SITU DATA															
DISSOLVED OXYGEN	mg O2/L	2.0	2.4	2.8	6.9	3.7	3.4	4.0	3.6	2.3	1.8	5.3	5.2	3.4	5.46
TEMPERATURE	°C	32	31	35	23	34	24	24	34	32	32	23	32	24	23
PH/T(GR C) IN WATER	Uni. pH	6.14/32.1	6.52/31.3	6,63/34,5	6.96/23.1	6.7	6.7/23.6	6.71/23.6	6.20/33.5	6.52/32.4	6,51/31,9	6.91/22.8	6.69	6.6/24.3	6.62/22.5
LABORATORY															
CONDUCTIVITY	micromhos/cm	92.9/24.9	61.4/21.5	96,1/23,1	91.3/22.2	86.2	76.6/19.9	64.4/32.9	100.3/24.7	56.8/21.6	108,5/25,2	92.3/22.2	88.4	74.7/21.3	63.5/34.4
TOTAL ALKALINITY	mg CaCO3/L	40.0	30.4	40.4	40.0	34.8	32.1	32.9	35.0	29.4	39.3	41.6	34.64	33.6	23.0
TOTAL HARDNESS	mg CaCO3/L				36.48	33.2	23.6	18.8				34.56	27	23.2	26.9
GREASE & OIL	mg/L	3	<1.4	3	<1.4	<1.4	<1.4	<1.07	5	<1.4	<1,4	<1.4	<1.4	<1.4	<1.07
BOD	mg O2/L	3.86	2.21	14.77	6.76	2.5	3	2.89	3.64	2.79	10.04	5.71	3.1	3	<1.81
TOTALES PHENOLS	mg/L	<0.010	0.039	<0,01	<0.01	<0.01	NM		0.015	0.46	<0,010	0.04	0.033	NT	NT
CHLORIDES	mg Cl-/L	3.81	1.59	4.96	4.19	2.94	1.65		8.77	1.72	5.61	4.45	3.46	1.21	<0.59
NITRATES NO3	mg NO3/L	<0,63	<0,63	<0,63	<0,63	<0.08	0.442		<0,63	0	1	<0,63	<0.08	0.41	1.88
NITRITES (NO2)	mg NO2/L	<0,069	0.04	0.03	<0,069	0.59	0.153		<0,069	0.04	0.61	<0,069	1.62	<0.013	0.15
VANADIUM by ICP-MS	microg/L	1.97	2.20	<3,7	43.33		4.1	2.676	2.16	2.15	<3,70	9.28	<3.704	6.10	1.91
CADMIUM by ICP-MS	microg/L	<1.0	<1.0	0.052	5.64		0.131	0.036	<1.0	<1.0	0.058	5.64	0.26	0.12	0.05
BARIUM by ICP-MS	microg/L	103.0	83.2	110.7	116.6		0.072	61.98	97.0	80.4	117.6	117.4	84.9	0.078	59.4
TOTAL PHOSPHURUS	mg/L				6.81			0.25				7.05	<1.62		1.74
IRON by ICP-MS	microg/L	900	899	1160	2110	1228	1551	1236	900	917	1610	1820	1623	2220	833
PAH'S	microg/L	NT	1.62	NT	NT				NT	1.37	NT	NT	NT	NT	NT

PALAGUA LAKE	POINT DESCRIPTION	POINT 5: Behind Fantasy Island divergence Palagua Creek					POINT 6: Entrance to the Palagua creek.						
	DATE OF SAMPLING	AUG'-2004	DEC'-2004	APR'-2005	OCT'-2005	OCT'-2006	AUG'-2007	SEP'-2009	APR'-2005	OCT'-2005	OCT'-2006	AUG'-2007	SEP'-2009
Component	UNITS												
IN SITU DATA													
DISSOLVED OXYGEN	mg O2/L	7.6	2.6	0.4	4.3	3.8	5.9	5.02	0.4	5.2	2.8	6.3	2.84
TEMPERATURE	°C	36	34	30	22	32	21	23	31	22	30	24	23
PH/T(GR C) IN WATER	Uni. pH	7.05/36.1	6.59/33.9	6,51/29,8	7.12/22.1	6.73	6.9/21.1	6.98/22.8	6.57/30.5	7.09/22.0	6.72	7.1/24.3	6.63/22.5
LABORATORY													
CONDUCTIVITY	micromhos/cm	100.3/24.7	58.6/21.7	106,7/25,6	104.8/22.0	90.6	89.4/22.3	64.4/35.5	92.1/21.3	101.7/21.9	89.3	82/22.4	66.7
TOTAL ALKALINITY	mg CaCO3/L	59.5	30.4	39.4	49.2	33.39	32.4	25.5	39.1	44.4	35.05	32.6	26.3
TOTAL HARDNESS	mg CaCO3/L				36.1	27.3	25.8	87.7	25.3	34.56	26.8	23.8	88.5
GREASE & OIL	mg/L	45	<1.4	<1,4	<1.4	<1.4	<1.4	<1.07	2.11	<1.4	<1.4	3.1	<1.07
BOD	mg O2/L	3.64	3.14	11.43	5.47	2.3	3	2.77	9.01	7.25	<2.0	3	<1.81
TOTALES PHENOLS	mg/L	<0.010	<0.010	<0,010	0.03	<0.010	NT	NT	<0.01	<0.01	<0.01	NT	NT
CHLORIDES	mg Cl-/L	8.77	1.69	5.49	6.77	3.46	4.35	<0.59	5.04	5.9	4.82	3.32	<0.59
NITRATES NO3	mg NO3/L	<0,63	<0,63	<0,63	<0,63	<0.08	<0.014	1.72	<0,63	<0,63	<0.08	<0.014	1.73
NITRITES (NO2)	mg NO2/L	<0,069	0.03	0.01	<0,069	1.54	<0.013	0.13	0.01	<0,069	0.15	<0.013	0.16
VANADIUM by ICP-MS	microg/L	2.03	2.27	<3,70	9.44	<3.704	4.50	2.96	<3.70	11.63	<3.704	4.10	2.36
CADMIUM by ICP-MS	microg/L	<1.0	<1.0	0.076	4.613	0.063	0.376	0.063	0.053	6.96	0.09	0.329	0.03
BARIUM by ICP-MS	microg/L	97.0	79.0	119.5	121.9	81.7	0.072	68.0	119.1	128.0	80.5	0.072	59.5
TOTAL PHOSPHURUS	mg/L				10.44	<1.62		1.03	544.57	5.48	<1.62		0.73
IRON by ICP-MS	microg/L	1100	1000	1480	2480	1515	1641	1214	1650	1430	1209	1735	1048
PAH'S	microg/L	NT	1.23	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

PALAGUA LAKE	POINT DESCRIPTION	POINT 7:Between Palagua creek and Velasquez port				
	DATE OF SAMPLING	APR'-2005	OCT'-2005	OCT'-2006	AUG'-2007	SEP'-2009
Component	UNITS					
IN SITU DATA						
DISSOLVED OXYGEN	mg O2/L	0.4	5.2	3.5	7.3	4.68
TEMPERATURE	°C	31	22	35	22	23
PH/T(GR C) IN WATER	Uni. pH	6.54/31.1	7.11/22.1	6.79	6.9/21.5	6.67/23.3
LABORATORY						
CONDUCTIVITY	micromhos/cm	91.3/21.5	95.1/22.2	89.1	90.5/23.7	65.4/34.4
TOTAL ALKALINITY	mg CaCO3/L	39.8	44	35.67	36.9	24.7
TOTAL HARDNESS	mg CaCO3/L	25.2	33.79	26.7	25.1	89.1
GREASE & OIL	mg/L	<1.4	<1.4	<1.4	2.3	<1.07
BOD	mg O2/L	14.9	7.05	2.4	2	<1.81
TOTALES PHENOLS	mg/L	<0.01	<0.01	<0.01	NT	NT
CHLORIDES	mg Cl-/L	4.83	4.27	4.88	3.32	<0.59
NITRATES NO3	mg NO3/L	<0,63	<0,63	<0.08	0.408	1.94
NITRITES (NO2)	mg NO2/L	0.017	<0,069	0.41	0.268	0.085
VANADIUM by ICP-MS	microg/L	<3.70	9.62	<3.704	5.10	2.23
CADMIUM by ICP-MS	microg/L	0.065	6.21	0.07	0.153	0.04
BARIUM by ICP-MS	microg/L	110.2	116.9	83.4	0.076	59.6
TOTAL PHOSPHURUS	mg/L	404.06	7.45	<1.62	NT	0.56
IRON by ICP-MS	microg/L	1060	2030	1200	1743	962
PAH'S	microg/L	NT	NT	NT	NT	NT