

Stream Sediment Surveys for Central America and the Caribbean Basin

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Countries

Costa Rica
Dominican Republic
El Salvador
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Haiti
Honduras
Jamaica
Nicaragua
Panama

Summary

program
location
area (sq km)
number of samples
sample density
elements analyzed
laboratory
pulps saved ?
report/map
raw data

This is an index of stream sediment surveys for Central America and the Caribbean Basin. Original reports, maps, and raw data are available through Recursos del Caribe.

Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
Costa Rica									
UNDP (1975)	Nicoya Pen. Sta. Elena Pen.	4,000	326	0.08	Cu, Ni, Co, Zn, Mn, Fe	DGRM	No	Yes/Yes	No
UNDP (1975)	Talamanca	315	63	0.2	Cu, Pb, Zn, As, Mo	DGRM	No	Yes/Yes	No
UNDP (1975)	Escazu	9	12	1.33	Cu, Zn, Mn	DGRM		Yes/Yes	No
	Guacimal	400	223	0.56	Cu, Pb, Zn, As, Mo				
	Fila de Cal	1,000	69	0.07	Cu, Zn, Ni, Co, Mn				
Paredes (1976)	Abra	170	197	1.16	Co, Ni, Cu Zn, Mn, Fe	Codesa	No	Yes/Yes	Yes
Castillo (1977)	Nicoya Pen.	3,000	soils 114	0.038	Cu, Zn plus 7 majors	MAG	No	Yes/Yes	No
Castillo (1978)	Aguas Zarcas	468	soils 117	0.25	Cu, Zn plus 7 majors	MAG	No	Yes/Yes	No
Alcoa, Cities Service and Mapco (1980)	Talamanca	3500	5000	1.4	Cu, Pb, Zn, Mo		No	Yes/Yes	Yes
	Guanacaste Nicoya Peninsula	600	687	1.1	Cu, Pb, Zn		No	Yes/Yes	Yes
Amos and Rogers (1983)	Beta Vargas	6	17 panned conc. 7 stream sed.	2.83	Au, As, Sb, Se, Te	Codesa BGS	No	Yes/Yes	Yes
Marin (1983)	Liberia	1,800	123	0.07	Cu, Pb, Zn Co, Ni, Mn, Ag /No	Codesa	No	Yes/Yes	Yes
Marin (1985)	Liberia	6,600	221	0.03	Cu, Pb, Zn, Ag, Co, Ni	Codesa	No	Yes/Yes	No

Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
Castro (1985)	Montes de Aguacate	72	211	2.93	Cu, Pb, Zn Au, Ag, Ni, Co, Mn, Fe	Codesa	No	Yes/Yes	Yes
Los Alamos -1987	San Jose quad Golfito quad Quepos quad	11,500 3,000 2,200	738 142 157	0.07	50 elements	Los Alamos ? and Skyline		Yes/Yes	Yes digitized
IAEA Uranium Project (1989)	Gold Belt	6,000	1558	0.26	Au, As, Sb, Se, Te, U	Barringer Codesa	Yes	Yes/No	No

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Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
Dominican Republic									
Mitsubishi Metal Mining Agency (1960's)	Western Cordillera	7,700	6152	0.8	total heavy metals, Cu	Falcondo	∓No	No/Yes	ranges only
Mitsubishi (1960's)	Donaja	170	951	5.6	total heavy	Falcondo	∓No	No/Yes	ranges only
	Rio Blanco	170	1128	6.7	metals, Cu	Falcondo	∓No	No/Yes	ranges only
	Jayaco	196	1954	10		Falcondo	∓No	No/Yes	ranges only
	Neita	145	805	5.5		Falcondo	∓No	No/No	ranges only
	Baguaque	60	916	15.3		Falcondo	∓No	No/No	ranges only
	Palero	36	451	12.5		Falcondo	∓No	No/No	ranges only
	Mata de Jobo	90	567	6.3		Falcondo	∓No	No/No	ranges only
Eberle (1982)	Cordillera Septentrional	4500			Cu, Pb, Zn, N Co, Au, Ag, As	DMGH	No	No/Yes	yes
Eberle and Muff -1982	Cordillera Septentrional Oriente	20	328	16.4	Cu, Pb, Zn, N Co, Ag, Mo, Mn, As	DMGH	No	Yes/Yes	Yes
Hirdes (1982)	Pedro Garcia	50	980	20	Cu, Pb, Zn, N Ag, Mo, Mn, As	DMGH	No	Yes/Yes	Yes
Rosario Dominicana -1984	La Cuaba Reserve	40	529	13.2	Au	DMGH	No	Yes/Yes	Yes
Las Canitas (1984)	Western Cordillera	1953	1968	1	Au, Ag, Cu, Pb, Zn, As	Japan	No	Yes/Yes	Yes
M.I.M. Ltd. Mount Isa Mines (1997)	Cordillera Central	13,160			BLEG Au plus trace elements	American Assay	Yes	MIM	MIM

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Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
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EI Salvador

UNDP (1969) EI Salvador	Northern EI Salvador	10,100	8,800	0.8	Cu, Pb Zn, Mo	Guat/	No	Yes/Yes	No
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Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
Belize									
Duncan Derry 1966-1969	Maya Mountains	4,500	4,093	0.9	cold extractable Cu and Zn	Barringer Toronto	No	Yes/Yes	Yes on maps
Duncan Derry 1971	Stann Creek (Cabbage Haul)	25	180	7.2	Mo	Barringer Toronto	No	No/Yes	Yes on map
Bateson and Hall 1970	Maya Mountains	3,200	812	0.25	Cu, Pb, Zn, Ag, Be, B Sn, Nb, As, Mo	Institute lab London	No	Yes/Yes	Yes tabulated and as Techbase digital files
Anschutz 1978	Maya Mountains	10,000	712	0.39	Au, Ag, Cu, Pb, Zn, Mo, W, Sn, Ba, Be, As, Mn, Sb	Skyline Lab	No	Yes/No	Yes tabulated
Anschutz 1978	Bladen Porphyry	4000	198	0.05	Pb, Ag, Zn, Ba, W, Cu, As, Mn	Skyline Lab	No	Yes/No	No
Anschutz 1979	West Bladen		13		Cu, Pb, Zn, Ag, Mo, Sb, Ba	Skyline Lab:	No	Yes/Yes	Yes
			6,008						

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Guatemala									
United Nations (UNDP) 1968	Eastern Guatemala	5,540	4,983	0.9	Cu, Pb Zn, Mo	Guatemala	No	Yes/Yes	No
	Western Guatemala	6,300	4,280	0.7	Cu, Pb Zn, Mo	Guatemala	No	Yes/Yes	No
Dir. Gen. de Minería y Hidrocarburos (1976, and follow-up)	Sierra de las Minas Guatemala	7,000	1,798	0.3	Cu, Pb Zn, Mo	Guatemala	No	Yes/Yes	No
JICA, 1979 Japan	Cuchumatanes W. Guatemala	2,000	785	0.39	Cu, Pb, Zn	Guatemala	No	Yes/Yes	No
JICA, 1980 Japan	Chiquimula Mataquesquintla Llano del Coyote	2,200	917	0.42	Cu, Pb, Zn, Au, Ag	Guatemala	No	Yes/No	Yes
Canaan-Managua	Canaan	155	213	1.37	Cu, Pb, Zn	Guatemala	No	Yes/Yes	illegible
KOICA - KIGAM (Korea) 1995 Phase I	Motagua Basin	8,000	183	0.023	Au, As, Sb, W, U Na, Fe, Rb, Th, Zr, Hf, Ta Cr, Co, Zn, Sc, La, Ce, Nd, Eu, Tb, Yb, Lu	Korea	No	Yes/Yes	Yes
KOICA - KIGAM Korea (1997) Phase II	Quebradas La Union San Agustín Ac.	330 700 soils 200 40 300 veins		0.023	As, Co, Cr, Sb, Ti, Zn Cu, Mn, Mo, Ni, Pb, plus Au, Ag on veins	Korea	No	Yes/Yes	Yes

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Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
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Haiti

United Nations (1978)	Limonade- Vallieres	1,152							
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Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
Honduras									
Empresa Caribe 1964-1969 (ASARCO)	Northern, Eastern, and SE Honduras	14,075	4533	0.3	Copper plus total soluble heavy metals	Honduras	No	Yes/Yes	Yes
Rosario (AMAX) 1965 - 1968	Eastern Honduras	unknown	unknown		base metals		No	No/No	No
Siscoe Mines 1970-1973	Central Honduras	4215	11,298	2.7	Cu, Pb, Zn Mo, U, Ag	Bondar	No	Yes/Yes	Yes
UNDP -1973	Western Honduras	8,000	4,504	0.6	Cu, Pb Zn, Mo	Guatemala Honduras	No	Yes/Yes	No
Svanholm (1976)	Honduras		none	na	Au	none	No	Yes/Yes	No

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Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
Jamaica									
CIDA Phase I (1986-1987)	Jamaica	11,484			Au plus 27 elements	GSC		yes/yes	yes digital format
CIDA Phase II (1990-1993)	Joppa St Peters Hungry Gully		24		Au and Cu	GSC		Yes/Yes	yes digital format

Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
Nicaragua									
Morrison (1976)	Yalaguina	13	116	9	Cu, Pb, Ag		No	Yes/No	Yes
SAREC (1983)	Santa Emilia	1	19	19	Au, Ag plus trace elements	SAREC	No	Yes/Yes	No
	Santa Pancha	0.6	9	15					
	Mojon	15	31	2					
SGAB – INMINE (1982)	Garcerero	86	143	1.6	Au	SAREC	No	Yes/Yes	No
SGAB – INMINE (1984)	El Garcerero	33			Au and Ag		No	Yes/No	No
	La Ceibita	4	38	9.5	Au and Ag		No	Yes/Yes	Yes
	El Zapote	18	109	6	Au and Ag		No	Yes/Yes	Yes
	Los Jobitos	12			Au and Ag		No	Yes/No	No
SGAB – INMINE (1984)	Nata-Pitahaya Talavera Norte	66	229 19	3.5	Au plus 31 elements	Lulea	No	Yes/Yes	No
SGAB (1987)	Boaco - Rama	6,210	6,111	1	Au, Ag plus 31 elements	Lulea INMINE	No	Yes/yes	No
SGAB - INMINE -1988	Sauce Oeste	24 24 225 rock	0	0	Au, Ag	INMINE	No	yes/yes	yes
INMINE (1988)	La India	55.4	610	11	Au, Ag, Pb Zn, Cu, Mo, Co	INMINE	No	yes/no	no
SGAB - INMINE -1989	San Lorenzo	38	261		Au, Ag	INMINE	No	Yes/Yes	Yes
	La Pelona	30	115						
	Tecolostote	10	77						

Program	Location	Area (sq km)	Number of ss samples	Sample density	Elements Analyzed	Lab	Pulps Saved?	Report /Map	Raw Data
	Juigalpa Oeste	16	125						
	Juigalpa Norte	30	207						
	Santo Thomas	26	173						
	Total	150	958	6.4					
INMINE (1989)	Juigalpa Norte	20	101 rock	5	Au, Ag, Pb, Zn plus major elements	INMINE	No	Yes/Yes	Yes
SGAB - INMINE -1989	Juigalpa Norte El Sauce	7 24	54	7.9	Au, Ag, As, Pb, Sr, Rb, SiO ₂ , Al ₂ O ₃ , K ₂ O	INMINE	No	Yes/Yes	No
INMINE (1991)	Siuna	517	500	1	Au, Ag, As, Pb, Cu, Zr	INMINE	No	Yes/Yes	Yes
Emp. Min. Occidente (1996)	Topacio	200	382	1.9	Au, Ag, Mo, Cu, Pb Zn, Ni, Co, Mn, As, Sb, Ba, W plus others	Acme	No	No/yes	Triton
Triton (1996)	El Limon	1700	158	0.09	Au plus 32 elements	Barringer	No	no/yes	Triton
Triton (2000)	La India South	30	77	2.5	Au	Barringer	No	No/Yes	Triton
Newmont (2001)	La India orientation	50	15	0.3	Au, Ag, As, Hg, Cu, Mo, Pb, Zn	Chemex	No	Yes/Yes	Newmont
Newmont (in progres)	El Limon	1700	500	0.3	Au, Ag	Chemex	No	No/Yes	Newmont

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Panama									
UNDP Phase I (1965-1968)	Azuero Peninsula	17,000	5,750	0.34	Cu, Pb, Zn, Mo, Co, Mn, Ni	DGRM Panama	No	Yes/Yes	Yes
UNDP Phase II (1969-1972)	A: Bocas de Toro B: Maje C: San Blas, Darien D: Pirre Total	1633 1377 1807 2200 15,400		0.41 0.49 0.47 0.46 0.46	Cu, Pb, Zn, Mo some Au, As, Ag, Mn a few Ni, Co	DGRM Panama	No	Yes/Yes	Yes
Oltenia (1970-1972)	Oltenia A Oltenia B Bison 2 & 3 Rio Rey	585 466 252 15	209 275 60 26	0.36 0.59 0.24 0.58	Cu Cu, Zn, Mo Cu, Zn, Mn Cu	DGRM Bondar DGRM DGRM	No No No No	No/Yes Yes/No Yes/Yes Yes/Yes	No Yes Yes No
El Toro	Bocas del Toro	2,000	68	0.034	Cu, Pb, Zn, Mo	Skyline	No	Yes/No	Yes
UNDP Phase III	Sona Peninsula Coiba Island Total	1542 511 2,053			Cu, Pb, Zn, Ag, As, Co, Mo, Ni, Mn	DGRM Panama	No	Yes/Yes	Yes
DGRM (1978-1981)	Southern Belt Northern Belt Colon Eastern Panama Darien Total	1,649 188 80 135 40 2,092	1678 410 671 524 425 3708	1.02 2.18 8.38 3.89 10.63 1.77	Cu, Pb, As in seds Zn, Pb, As in soils Au, Ag in rocks	DGRM Panama	Yes	Yes/Yes	Yes
TexasGulf -1981	Remance compilation	450	450	1	Zn, Cu, Pb, As	DGRM	No	No/Yes	Yes

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Codemin -1980	Cerro Colorado	750	324	0.43	Cu, Pb, Zn, Mo, Au, Ag, As	DGRM Panama	Yes	Yes/Yes	Yes
Codemin -1982	Rio Saqui	25	81	3.2	Cu, Pb, Zn, Mo, As, Mn	DGRM Panama	Yes	Yes/Yes	No
DGRM -1982	Rio Tabasara	526	229	0.44	Au, Ag	DGRM Panama	Yes	Yes/Yes	Yes
IAEA -1984	Veraguas	760	88	0.12	Cu, Pb, Zn, Mo Au, As, Mn, U	DGRM Panama	Yes	Yes/Yes	Yes
Swedish Geological (1988-1990)	West Area Central Area East Area Total	7,550 6,149 1,925 15,624	387 499 102 988	0.05 0.08 0.05 0.06	Cu, Pb, Zn Co, Ni, Cr, Mn, Au, As 9 major oxides	DGRM Panama	Yes	Yes/Yes	digitized

25,191