

Table 7.1.5 Statement of Profits and Loses, Parral plant (Jan. 1, 1989-Jun. 30, 1989)

Unit: peso

Sales	4,651,634,040 (120,932 peso/ton)
Sales costs	4,317,241,187
Sales profit	334,392,853
General administrative expenses	126,779,497
Selling expenses	17,368,638
Operating profit	190,244,718
Non-operating income	10,850,298
Non-operating expenses	-
Ordinary profit	201,095,016

Table 7.1.6 Total Revenues, Parral plant (Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Consignment beneficiation fee	49,415,460	1.06%
Lead concentrate	3,463,028,355	74.45%
zinc concentrate	94,917,507	2.04%
Cyanided deposit	1,044,272,718	22.45%
Total	4,651,634,040	100%

Table 7.1.7 Total Costs of Revenues, Parral plant(Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Sales costs	Treated ore prices		3,329,330,442	(86,555 peso/ton)	1,950 peso discrepancy
	Operating cost	Direct costs	903,856,783	(23,498 peso/ton)	
		Indirect costs	67,850,750		
		Depreciation expense	16,203,212		
		Subtotal	987,910,745	(23,683 peso/ton)	
Total		4,317,241,187			

Treated ore volume: 38,465 t

Table 7.1.8 Detailed Operation Costs, Parral plant (Jan. 1, 1989-Jun. 30, 1989)

	Unit: Peso						Total
	Personnel expenses	Material costs	Others	Cost of electric power	Cost of water		
Ore receiving	19,924,782	21,681,786	123,655,000	-	-		41,606,568
Crushing	28,744,451	11,104,984	31,609	17,811,990	-		57,693,034
Grinding	23,340,055	111,817,197	-	70,473,576	-		205,630,828
Flotation	33,515,709	65,745,414	28,197	48,789,365	-		148,078,685
Cyanidation (Primary agitation and washing)	37,694,123	135,219,404	-	45,175,338	-		218,088,865
Cyanidation (Filtration and settlement)	12,162,681	19,872,499	48,348	13,423,521	-		45,507,057
Drying (Including can packing and shipment)	-	835,935	-	-	-		835,935
Cyanidation (Compr. air)	-	1,047,940	-	8,776,923	-		9,824,863
Sludge	49,556	1,807,156	-	8,518,778	-		10,375,490
Water supply	-	344,507	-	13,681,674	163,200		14,189,381
Stockyard	42,917,162	570,893	184,300	4,904,752	-		48,577,137
Electrical maintenance	7,686,773	307,097	2,694,203	1,471,426	-		12,159,499
Mechanical maintenance	17,974,973	887,350	4,699,523	12,803,982	-		36,365,828
Laboratory	31,318,444	17,892,033	32,000	5,679,186	-		54,921,663
Total	255,328,709	389,134,195	7,718,210	251,510,519	163,200		930,854,833
	(28.25%)	(43.05%)	(0.85%)	(27.83%)	(0.02%)		(1.00%)

Fixed 188,688 Total
Variable 66,641 255,392 thousand pesos

Table 7.1.9 Business Analysis Indexes, Parral plant (Jan. 1, 1989-Jun. 30, 1989)

Ratio of sales profit to sales	$\left(\frac{\text{Sales profit}}{\text{Sales}} \times 100 \right) = \frac{334,392,853 \text{ Peso}}{4,651,634,040 \text{ Peso}}$
	$x 100 = 7.19\%$
Ratio of operating profit to sales	$\left(\frac{\text{Operating profit}}{\text{Sales}} \times 100 \right) = \frac{190,244,718 \text{ Peso}}{4,651,634,040 \text{ Peso}}$
	$x 100 = 4.09\%$
Ratio of ordinary profit to sales	$\left(\frac{\text{Ordinary profit}}{\text{Sales}} \times 100 \right) = \frac{201,095,016 \text{ Peso}}{4,651,634,040 \text{ Peso}}$
	$x 100 = 4.32\%$
Ratio of total expenses to sales	$\left(\frac{\text{Total expenses}}{\text{Sales}} \times 100 \right) = \frac{4,461,389,322 \text{ Peso}}{4,651,634,040 \text{ Peso}}$
	$x 100 = 95.91\%$
Ratio of sales costs to sales	$\left(\frac{\text{Sales costs}}{\text{Sales}} \times 100 \right) = \frac{4,317,241,187 \text{ Peso}}{4,651,634,040 \text{ Peso}} \times 100$
	$= 92.81\%$
Ratio of raw material cost to sales	$\left(\frac{\text{Treated ore prices}}{\text{Sales}} \times 100 \right) = \frac{3,329,330,442 \text{ Peso}}{4,651,634,040 \text{ Peso}}$
	$x 100 = 71.57\%$
Ratio of operating costs to sales	$\left(\frac{\text{Operating costs}}{\text{Sales}} \right) \times 100 = \frac{987,910,745 \text{ Peso}}{4,651,634,040 \text{ Peso}}$
	$x 100 = 21.24\%$
Ratio of general administrative and selling expenses to sales	$\left(\frac{\text{General administrative expenses} + \text{Selling expenses}}{\text{Sales}} \times 100 \right)$
	$= \frac{144,148,135 \text{ Peso}}{4,651,634,040 \text{ Peso}} \times 100 = 3.10\%$
Sales per employee	$\left(\frac{\text{Sales}}{\text{Number of employees}} \right) = \frac{4,651,634,040 \text{ Peso}}{79 \text{ persons}}$
	$= 58,881,444 \text{ Peso}$

Table 7.1.9 Business Analysis Indexes, Parral plant (Jan. 1, 1989-Jun. 30, 1989)

Sales profit per employee	$\left(\frac{\text{Sales profit}}{\text{Number of employees}} \right)$	$= \frac{334,392,853 \text{ Peso}}{79 \text{ persons}}$
	$= 4,232,821 \text{ Peso}$	
Operating profit per employee	$\left(\frac{\text{Operating profit}}{\text{Number of employees}} \right)$	$= \frac{190,244,718 \text{ Peso}}{79 \text{ persons}}$
	$= 2,408,161 \text{ Peso}$	
Ordinary profit per employee	$\left(\frac{\text{Ordinary profit}}{\text{Number of employees}} \right)$	$= \frac{201,059,016 \text{ Peso}}{79 \text{ persons}}$
	$= 2,545,507 \text{ Peso}$	
Total expenses per employee	$\left(\frac{\text{Total expenses}}{\text{Number of employees}} \right)$	$= \frac{4,461,389,322 \text{ Peso}}{79 \text{ persons}}$
	$= 56,473,283 \text{ Peso}$	
Sales costs per employee	$\left(\frac{\text{Sales costs}}{\text{Number of employees}} \right)$	$= \frac{4,317,241,187 \text{ Peso}}{79 \text{ persons}}$
	$= 54,648,623 \text{ Peso}$	
Raw material cost per employee	$\left(\frac{\text{Treated ore prices}}{\text{Number of employees}} \right)$	$= \frac{3,329,330,442 \text{ Peso}}{79 \text{ persons}}$
	$= 42,143,423 \text{ Peso}$	
Operating costs per employee	$\left(\frac{\text{Operating costs}}{\text{Number of employees}} \right)$	$= \frac{987,910,745 \text{ Peso}}{79 \text{ persons}}$
	$= 12,505,199 \text{ Peso}$	
General administrative and selling expenses per employee	$\frac{\text{Selling expenses} + \text{General administrative expenses}}{\text{Number of employees}}$	
	$= \frac{144,148,135}{79 \text{ persons}} = 1,824,660 \text{ Peso}$	
Sales per ton of treated ore	$\left(\frac{\text{Sales}}{\text{Tonnage of treated ore}} \right)$	$= \frac{4,651,634,040 \text{ Peso}}{38,465 \text{ t}}$
	$= 120,932 \text{ Peso/t}$	

Table 7.1.9 Business Analysis Indexes, Parral plant (Jan. 1, 1989-Jun. 30, 1989)

Sales profit per ton of treated ore	$\left(\frac{\text{Sales profit}}{\text{Tonnage of treated ore}} \right) = \frac{334,392,853 \text{ Peso}}{38,465 \text{ t}}$
	= 8,693 Peso/t
Sales costs per ton of treated ore	$\left(\frac{\text{Sales costs}}{\text{Tonnage of treated ore}} \right) = \frac{4,317,241,187}{38,465 \text{ t}}$
	= 112,238 Peso/t
Operating costs per ton of treated ore	$\left(\frac{\text{Operating costs}}{\text{Tonnage of treated ore}} \right) = \frac{987,910,745 \text{ Peso}}{38,645 \text{ t}}$
	= 25,564 Peso/t
Tonnage of treated ore per employee	$\left(\frac{\text{Tonnage of treated ore}}{\text{Number of employees}} \right) = \frac{38,645 \text{ t}}{79 \text{ persons}}$
	= 489 t/person

Table 7.1.10 Fixed and Variable Costs, Parraí paint (Jan. 1, 1989-Jun. 30, 1989)

		Fixed expense	Variable expense	Total
Sales costs	Treated ore prices	-	3,329,330	3,329,330
	Direct costs	188,88	715,167	903,855
	Indirect costs	49,849	18,002	67,851
	Depreciation expense	16,203	-	16,203
	Subtotal	254,740	4,062,499	4,317,239
	General administrative expenses	109,538	17,241	126,779
	Selling expenses	-	17,369	17,369
	Total	364,278	4,097,109	4,461,387

Table 7.1.11 Variable Costs Ratio, Break-Even Point, etc., Parral plant
(Jan. 1, 1989-Jun. 30, 1989)

Rate of variable expense	$\left(\frac{\text{Variable expense}}{\text{Sales}} \times 100 \right) = \frac{4,097,109 \text{ thousand peso}}{4,651,634} "$ $\times 100 = 88.08\%$
Marginal profit	$(\text{Sales} - \text{Variable expense}) =$ $4,651,634 \text{ thousand peso} - 4,097,109 \text{ thousand peso}$ $= 554,525 \text{ thousand peso}$
Marginal profit rate	$\left(\frac{\text{Marginal profit}}{\text{Sales}} \times 100 \right) = \frac{554,525 \text{ thousand peso}}{4,651,634} "$ $\times 100 = 11.92\%$
Break-even rate of sales	$\left(\frac{\text{Fixed expense}}{\text{Marginal profit rate}} \right) = \frac{374,177}{0.1193}$ $= 3,139,069 \text{ thousand peso}$
Break-even rate	$\left(\frac{\text{Break-even rate of sales}}{\text{Actual sales}} \times 100 \right) =$ $\frac{3,139,069 \text{ thousand peso}}{4,651,634} " \times 100 = 67.48\%$
Marginal safety factor	$\left(1 - \frac{\text{Break-even rate of sales}}{\text{Actual sales}} \right) \times 100 =$ $\left(1 - \frac{2,139,069 \text{ thousand peso}}{4,651,634} " \right) \times 100 = 32.52\%$

Table 7.2.1 Statement of Profits and Losses, Guanacevi Plant
(Jan. 1, 1989-Dec. 31, 1989)

Unit: Peso

Sales	1,563,869,172
Sales costs	1,965,116,709
Sales profit and loss	Δ401,247,537
General administrative expenses	201,439,912
Operating profit and loss	Δ602,687,449
Non-operating income	236,665,643
Non-operating expenses	157,035
Ordinary profit and loss	Δ366,178,841

Table 7.2.2 Total Revenues, Guanacevi Plant (Jan. 1, 1988-Dec. 31, 1988)

Unit: Peso

Consignment beneficiation fee	1,558,862,900
Sales of machines and parts	5,006,272
Total	1,563,869,172

Table 7.2.3 Total Costs of Revenues, Guanacevi Plant (Jan. 1, 1988-Dec. 31, 1988)

Unit: Peso

Sales costs	Operating cost	Direct costs	1,363,885,704
		Indirect costs	564,780,273
		Depreciation expense	31,870,722
		Subtotal	1,960,536,699 (17,607 peso/ton)
	Sales costs of machines and parts	4,580,010	
Total		1,965,116,709	

Treated ore volume: 111,347 t

Table 7.2.4 Detailed Operation Costs, Guanacevi Plant (Jan. 1, 1988-Dec. 31, 1988)

Unit: Peso

	Direct cost				Indirect costs				Total	Cost/ton
	Personnel expenses	Material costs	Cost of electric power	Subtotal	Laboratory	Repair shop	Ordinary common expenses	Subtotal		
Stockyard	64,403,972	72,030,038		136,434,010	3,890,686	1,832,646	28,163,484	33,886,816	170,320,826	1,530 peso/t
Crushing	76,287,268	119,120,069	62,870,651	258,277,988	9,726,716	4,581,614	70,408,711	84,717,041	342,995,029	3,080 peso/t
Grinding	99,896,668	257,626,209	153,683,804	511,206,681	25,937,908	12,217,638	187,756,563	225,912,109	737,118,790	6,620 peso/t
Flotation	33,530,710	93,927,290	66,363,468	193,821,468	9,726,716	4,581,614	70,408,711	84,717,041	278,538,509	2,502 peso/t
Filtration	8,687,631	6,370,346	13,971,260	29,029,237	4,539,134	2,138,087	32,857,399	39,534,620	68,563,857	615 peso/t
Sludge dñm	42,701,130	22,328,869	13,971,260	79,001,259	4,539,134	2,138,087	32,857,399	39,534,620	118,535,879	1,065 peso/t
Concentrate loading	36,872,718	108,763,888	10,478,455	156,115,061	6,484,476	3,054,409	46,939,141	56,478,026	212,593,087	1,909 peso/t
Total	362,380,097	680,166,709	312,338,898	1,363,885,704	64,884,770	30,544,095	469,780,273	564,780,273	1,928,665,977 (201,434,912)	17,321 peso/t (19,130 peso/t)

(Treated ore volume: 111,347 t)

(General administrative expenses) Including general administrative expenses

Table 7.2.5 Statement of Profits and Losses, Guanacevi Plant
(Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Sales	1,230,886,787	(26,937 peso/ton)
Sales costs	1,279,841,061	
Sales profit and loss	48,954,274	
General administrative expenses	118,318,920	
Operating profit and loss	167,273,194	
Non-operating income	25,098,853	
Non-operating expenses	32,123,917	
Ordinary profit and loss	174,298,258	

Table 7.2.6 Total Revenues, Guanacevi Plant (Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Consignment beneficiation fee	1,230,709,630
Sales of machines and parts	177,157
Total	1,230,886,787

Table 7.2.7 Total Costs of Revenues, Guanacevi Plant (Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Sales costs	Operating cost	Direct costs	905,466,958	7,000 pesos discrepancy 300 pesos discrepancy
		Indirect costs	354,183,502	
		Depreciation expense	20,029,541	
		Subtotal	1,279,680,009 (28,000 peso/ton)	
	Sales costs of machines and parts	161,052		
	Total		1,279,841,061	

Treated ore volume: 45,689 t

Table 7.2.8 Detailed Operation Costs, Guanacevi Plant (Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

	Direct cost				Indirect costs				Total	Cost/ton
	Personnel expenses	Material costs	Cost of electric power	Subtotal	Laboratory	Repair shop	Ordinary common expenses	Subtotal		
Stockyard	36,401,399	48,935,946	-	85,337,345	2,439,616	1,149,680	17,661,714	17,661,714	106,586,355	2,333 peso/t
Crushing	42,072,032	165,975,028	45,082,830	253,129,890	6,099,040	2,874,199	44,154,286	53,127,525	306,257,415	6,703 peso/t
Grinding	52,133,100	161,036,642	96,318,765	309,488,507	16,264,107	7,664,531	117,744,765	141,673,403	451,161,910	9,875 peso/t
Flotation	18,332,856	64,338,688	41,592,195	124,263,739	6,099,040	2,874,199	44,154,287	53,127,526	177,391,265	3,883 peso/t
Filtration	3,174,603	22,230,027	8,756,250	34,160,880	2,846,218	1,341,293	20,605,332	24,792,843	58,953,723	1,290 peso/t
Sludge dam	20,261,666	17,855,130	8,756,250	46,873,046	2,846,184	1,341,277	20,605,082	24,792,543	71,665,589	1,569 peso/t
Concentrate loading	15,151,474	30,501,887	6,567,190	52,220,551	4,066,027	1,916,133	29,436,192	35,418,352	87,638,903	1,918 peso/t
Total	187,527,130	510,873,348	207,073,480	905,473,958	40,660,232	19,161,312	294,361,658	354,183,202	1,259,657,160 (118,318,920)	27,570 peso/t (30,160 peso/t)

(Treated ore volume: 45,689 t)

(General administrative expenses) (Including general administrative expenses)

Table 7.2.9 Business Analysis Indexes, Guanacevi Plant (Jan. 1, 1989-Jun. 30, 1989)

Ratio of sales profit to sales	$\left(\frac{\text{Sales profit}}{\text{Sales}} \times 100 \right) = \frac{\Delta 48,954,274 \text{ Peso}}{1,230,886,787 \text{ Peso}}$
	$x 100 = \Delta 3.98\%$
Ratio of operating profit to sales	$\left(\frac{\text{Operating profit}}{\text{Sales}} \times 100 \right) = \frac{\Delta 167,273,194 \text{ Peso}}{1,230,886,787 \text{ Peso}}$
	$x 100 = \Delta 13.59\%$
Ratio of ordinary profit to sales	$\left(\frac{\text{Ordinary profit}}{\text{Sales}} \times 100 \right) = \frac{\Delta 174,298,258 \text{ Peso}}{1,230,886,787 \text{ Peso}}$
	$x 100 = \Delta 14.16\%$
Ratio of total expenses to sales	$\left(\frac{\text{Total expenses}}{\text{Sales}} \times 100 \right) = \frac{1,398,159,981 \text{ Peso}}{1,230,886,787 \text{ Peso}}$
	$x 100 = 113.59\%$
Ratio of sales costs to sales	$\left(\frac{\text{Sales costs}}{\text{Sales}} \times 100 \right) = \frac{1,279,680,061 \text{ Peso}}{1,230,886,787 \text{ Peso}} \times 100$
	$= 103.98\%$
Ratio of operating costs to sales	$\left(\frac{\text{Operating costs}}{\text{Sales}} \times 100 \right) = \frac{1,279,680,009 \text{ Peso}}{1,230,886,787 \text{ Peso}}$
	$x 100 = 103.96\%$
Ratio of general administrative and selling expenses to sales	$\left(\frac{\text{General administrative expenses} + \text{Selling expenses}}{\text{Sales}} \times 100 \right)$
	$= \frac{118,318,920 \text{ Peso}}{1,230,886,787 \text{ Peso}} \times 100 = 9.61\%$
Sales per employee	$\left(\frac{\text{Sales}}{\text{Number of employees}} \right) = \frac{1,230,886,787 \text{ Peso}}{96 \text{ persons}}$
	$= 12,821,737 \text{ Peso}$
Sales profit per employee	$\left(\frac{\text{Sales profit}}{\text{Number of employees}} \right) = \frac{\Delta 48,954,274 \text{ Peso}}{96 \text{ persons}}$
	$= \Delta 509,940 \text{ Peso}$

Table 7.2.9 Business Analysis Indexes, Guanacevi Plant (Jan. 1, 1989-Jun. 30, 1989)

Operating profit per employee	$\frac{\text{Operating profit}}{\text{Number of employees}} = \frac{\Delta 167,273,194 \text{ Peso}}{96 \text{ persons}}$
	= Δ1,742,429 Peso
Ordinary profit per employee	$\frac{\text{Ordinary profit}}{\text{Number of employees}} = \frac{\Delta 174,298,258 \text{ Peso}}{96 \text{ persons}}$
	= Δ1,815,607 Peso
Total expenses per employee	$\frac{\text{Total expenses}}{\text{Number of employees}} = \frac{1,398,159,981 \text{ Peso}}{96 \text{ persons}}$
	= 14,564,166 Peso
Sales costs per employee	$\frac{\text{Sales costs}}{\text{Number of employees}} = \frac{1,278,841,061 \text{ Peso}}{96 \text{ persons}}$
	= 13,331,678 Peso
Operating costs per employee	$\frac{\text{Operating costs}}{\text{Number of employees}} = \frac{1,279,680,009 \text{ Peso}}{96 \text{ persons}}$
	= 13,330,000 Peso
General administrative and selling expenses per employee	$\frac{\text{Selling expenses} + \text{General administrative expenses}}{\text{Number of employees}} = \frac{118,318,920}{96 \text{ persons}} = 1,232,489 \text{ Peso}$
Sales per ton of treated ore	$\frac{\text{Sales}}{\text{Tonnage of treated ore}} = \frac{1,230,886,787 \text{ Peso}}{45,689 \text{ t}}$
	= 26,941 Peso/t
Sales profit per ton of treated ore	$\frac{\text{Sales profit}}{\text{Tonnage of treated ore}} = \frac{\Delta 48,954,274 \text{ Peso}}{45,689 \text{ t}}$
	= Δ1,071 Peso/t
Sales costs per ton of treated ore	$\frac{\text{Sales costs}}{\text{Tonnage of treated ore}} = \frac{1,279,841,061}{45,689 \text{ t}}$
	= 28,012 Peso/t

Table 7.2.9 Business Analysis Indexes, Guanacevi Plant (Jan. 1, 1989-Jun. 30, 1989)

Operating costs per
ton of treated ore

$$\left(\frac{\text{Operating costs}}{\text{Tonnage of treated ore}} \right) = \frac{1,279,680,009 \text{ Peso}}{45,689 \text{ t}}$$

= 28,008 Peso/t

Tonnage of treated ore
per employee

$$\left(\frac{\text{Tonnage of treated ore}}{\text{Number of employees}} \right) = \frac{45,689 \text{ t}}{96 \text{ persons}}$$

= 476 t/person

Table 7.2.10 Fixed and Variable Costs, Guanacevi Plant (Jan.1, 1989-Jun.30, 1989)

	Fixed expense	Variable expense	Total
Direct costs	132,057	773,410	905,467
Indirect costs	255,721	98,463	354,184
Depreciation expense	20,030	-	20,030
Subtotal	407,808 31.87%	871,873 68.13%	1,279,681
Sales costs of machines and parts	-	161	161
General administrative expenses	99,828	18,491	118,319
Total	507,636 36.31%	890,525 63.69%	1,398,161

Table 7.2.11 Fixed and Variable Costs, Guanacevi Plant (Jan. 1, 1989-Jun. 30, 1989)

Rate of variable expense	$\left(\frac{\text{Variable expense}}{\text{Sales}} \times 100 \right) = \frac{890,525 \text{ thousand peso}}{1,230,887} "$ $\times 100 = 72.35\%$
Marginal profit	$(\text{Sales} - \text{Variable expense}) =$ $1,230,887 \text{ thousand peso} - 890,525 \text{ thousand peso}$ $= 340,362 \text{ thousand peso}$
Marginal profit rate	$\left(\frac{\text{Marginal profit}}{\text{Sales}} \times 100 \right) = \frac{340,362 \text{ thousand peso}}{1,230,887} "$ $\times 100 = 27.65\%$
Break-even rate of sales	$\left(\frac{\text{Fixed expense}}{\text{Marginal profit rate}} \right) = \frac{507,636}{0.2765}$ $= 1,835,935 \text{ thousand peso}$
Break-even rate	$\left(\frac{\text{Break-even rate of sales}}{\text{Actual sales}} \times 100 \right) =$ $\frac{1,835,935 \text{ thousand peso}}{1,230,887} \times 100 = 149.16\%$
Marginal safety factor	$\left(1 - \frac{\text{Break-even rate of sales}}{\text{Actual sales}} \right) \times 100 =$ $\left(1 - \frac{1,835,935 \text{ thousand peso}}{1,230,887} \right) \times 100 = \Delta 49.16\%$
Break-even rate of consignment beneficiation fee	$\left(\frac{\text{Break-even rate of sales}}{\text{Actual treated ore volume}} \right) =$ $= \frac{1,835,935 \text{ thousand peso}}{45,689 \text{ t}} = 40,183 \text{ peso/t}$
Break-even rate of treated ore volume	$\left(\frac{\text{Break-even rate of sale}}{\text{Actual consignment beneficiation fee}} \right) =$ $= \frac{1,835,935 \text{ thousand peso}}{30 \text{ thousand peso}} = 61,198 \text{ t}$

Table 7.3.1 Statement of Profits and Losses, Barones Plant
(Jan. 1, 1988-Dec. 31, 1988)

Unit: Peso

Sales	3,727,649,237	(29,367 peso/ton)
Sales costs	4,403,641,205	
Sales profit and loss	Δ675,991,968	(Δ5,326 peso/ton)
General administrative expenses	177,591,657	
Selling expenses	306,276,597	
Operating profit and loss	Δ 1,159,860,222	Δ 9,138 peso/ton)
Non-operating income	50,431,710	
Non-operating expenses	-	
Ordinary profit and loss	Δ1,109,428,512	

Table 7.3.2 Total Revenues, Barones Plant (Jan. 1, 1988-Dec. 31, 1988)

Unit: Peso

Consignment beneficiation fee		498,705,356
Con- centrates	Lead concentrate	1,477,156,624
	Zinc concentrate	44,454,432
	Copper concentrate	21,178,514
	Cyanided deposit	1,644,518,311
	Subtotal	3,189,307,881
Sales of machines and parts		39,636,000
Total		3,727,649,237

Table 7.3.3 Total Costs of Revenues, Barones Plant (Jan. 1, 1988-Dec. 31, 1988)

Unit: Peso

Sales Costs	Raw material cost	Purchase cost of machines and parts	29,400,000
		Treated ore prices	2,251,139,421 (17,735 peso/ton)
	Operating costs	Direct costs	1,795,265,146
		Indirect costs	373,081,890
		Depreciation expense	13,383,221
		Subtotal	2,181,730,257
	Returned concentrate cost to be carried forward		58,628,473
	Total		4,403,641,205

Treated ore volume

Flotation (ore purchasing)	38,585 t
Flotation (consignment)	47,131 t
Cyanidation (ore purchasing)	41,216 t
<u>Total</u>	<u>126,932 t</u>

Volume of purchased ore treated: 79,801 t

Table 7.3.4 Detailed Operation Costs, Barones Plant (Jan. 1, 1988-Dec. 31, 1988)

	Unit: Peso				Total
	Personnel expenses	Material costs	Cost of electric power		
Ore receiving	47,832,349	64,930,248	123,655,000		112,762,597
Crushing	49,740,648	59,395,060	40,900,769		150,036,477
Grinding	53,165,556	221,756,195	118,157,775		393,079,526
Flotation	56,739,208	137,903,514	140,880,426		335,523,148
Cyanidation (Primary agitation and washing)	57,706,705	158,528,128	49,989,827		266,224,660
Cyanidation (Filtration and settlement)	47,877,575	84,268,059	31,811,706		163,957,340
Drying (Including can packing and shipment)	8,730,320	1,403,065	4,544,529		14,677,914
Cyanidation (Compr. air)	448,205	601,826	9,089,061		10,139,092
Sludge	5,722,796	8,742,284	4,544,529		19,009,609
Water supply	31,434,674	54,651,336	45,445,299		131,531,309
Stockyard	15,874,861	378,750	1,817,809		18,071,420
Electrical maintenance	11,521,467	1,758,921	1,817,811		15,098,199
Mechanical maintenance	24,988,973	5,674,050	1,817,811		32,380,834
Laboratory	89,838,363	41,116,846	1,817,812		132,773,021
Total	501,521,700	841,108,282	452,635,164		1,795,265,146

Treated ore volume	Flotation (ore purchasing)	38,585 t	
	Flotation (consignment)	47,131 t	
	Total	85,716 t	
Cyanidation (ore purchasing)	41,216 t		
	Total	126,932 t	
	Purchased ore total	79,801 t	
			11,039 peso/ton

Table 7.3.5 Statement of Profits and Losses, Barones Plant
(Jan. 1, 1989-Jun. 30, 1989)

Unit: peso

Sales	1,760,938,273
Sales costs	2,458,719,919
Sales profit and loss	Δ697,781,646
General administrative expenses	106,295,080
Selling expenses	71,029,758
Operating profit and loss	Δ875,106,484
Non-operating income	16,611,285
Non-operating expenses	-
Ordinary profit and loss	Δ858,495,199

Table 7.3.6 Total Revenues, Barones Plant (Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Consignment beneficiation fee		5,879,251,334
Con- centrate	Lead concentrate	253,181,701
	Zinc concentrate	-
	Copper concentrate	-
	Cyanided deposit	1,059,022,600
	Subtotal	1,312,209,301
Sales of machines and parts		
Total		

Table 7.3.7 Total Costs of Revenues, Barones Plant (Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Sales costs	Treated ore prices		1,098,796,545	(44,603 peso/ton) (purchased ore)
	Operating costs	Direct costs	1,118,602,460	
		Indirect costs	228,269,908	
		Depreciation expense	12,263,668	
		Subtotal	1,359,136,036	
	Concentrated cost brought forward from the previous term		787,338	
Total		2,458,719,919		

Table 7.3.8 Detailed Operation Costs, Barones Plant (Jan. 1, 1989-Jun. 30, 1989)

	Unit: Peso				Total
	Personnel expenses	Material costs	Cost of electric power		
Ore receiving	37,958,421	21,355,045	128,332		59,441,798
Crushing	25,172,178	43,206,410	25,098,568		93,477,156
Grinding	33,678,730	130,873,566	72,506,974		237,059,270
Flotation	36,929,423	74,561,226	84,450,622		197,941,271
Cyanidation (Primary agitation and washing)	30,281,381	163,815,135	30,676,027		224,772,543
Cyanidation (Filtration and settlement)	21,898,203	62,301,344	19,521,106		103,720,653
Drying (Including can packing and shipment)	4,681,122	359,262	2,788,730		7,829,114
Cyanidation (Compr. air)	1,094,167	356,696	5,577,459		7,028,322
Sludge	4,392,433	4,573,246	2,788,730		11,754,409
Water supply	15,992,151	13,282,603	27,887,298		57,162,052
Stockyard	9,981,928	-	1,115,491		11,097,419
Electrical maintenance	7,208,174	2,782,327	1,115,491		11,105,992
Mechanical maintenance	12,613,427	5,980,807	1,115,491		19,709,725
Laboratory	56,379,274	19,007,970	1,115,492		76,502,736
Total	208,261,012	542,455,637	277,885,811		1,118,602,460

Treated ore volume Flotation (ore purchasing) 7,753 t
 Flotation (consignment) 29,705 t
 Total 37,457 t
 Purchased ore total 24,635 t
 Total 54,340 t
 Cyanidation (ore purchasing) 16,883 t

Table 7.3.9 Business Analysis Indexes, Barones Plant (Jan. 1, 1989-Jun. 30, 1989)

Ratio of sales profit to sales	$\left(\frac{\text{Sales profit}}{\text{Sales}} \times 100 \right) = \frac{\Delta 697,781,646 \text{ Peso}}{1,760,938,273 \text{ Peso}}$ $\times 100 = \Delta 39.63\%$
Ratio of operating profit to sales	$\left(\frac{\text{Operating profit}}{\text{Sales}} \times 100 \right) = \frac{\Delta 875,106,484 \text{ Peso}}{1,760,938,273 \text{ Peso}}$ $\times 100 = \Delta 49.70\%$
Ratio of ordinary profit to sales	$\left(\frac{\text{Ordinary profit}}{\text{Sales}} \times 100 \right) = \frac{\Delta 858,495,199 \text{ Peso}}{1,760,938,273 \text{ Peso}}$ $\times 100 = \Delta 48.75\%$
Ratio of total expenses to sales	$\left(\frac{\text{Total expenses}}{\text{Sales}} \times 100 \right) = \frac{2,636,044,757 \text{ Peso}}{1,760,938,273 \text{ Peso}}$ $\times 100 = 149.70\%$
Ratio of sales costs to sales	$\left(\frac{\text{Sales costs}}{\text{Sales}} \times 100 \right) = \frac{2,458,719,919 \text{ Peso}}{1,760,938,273 \text{ Peso}} \times 100$ $= 139.63\%$
Ratio of raw material cost to sales	$\left(\frac{\text{Treated ore prices}}{\text{Sales}} \times 100 \right) = \frac{1,099,796,545 \text{ Peso}}{1,760,938,273 \text{ Peso}}$ $\times 100 = 62.23\%$
Ratio of operating costs to sales	$\left(\frac{\text{Operating costs}}{\text{Sales}} \times 100 \right) = \frac{1,359,136,036 \text{ Peso}}{1,760,938,273 \text{ Peso}}$ $\times 100 = 77.18\%$
Ratio of general administrative and selling expenses to sales	$\left(\frac{\text{General administrative expenses} + \text{Selling expenses}}{\text{Sales}} \times 100 \right)$ $= \frac{177,324,838 \text{ Peso}}{1,760,938,273 \text{ Peso}} \times 100 = 10.07\%$
Sales per employee	$\left(\frac{\text{Sales}}{\text{Number of employees}} \right) = \frac{1,760,938,273 \text{ Peso}}{122 \text{ persons}}$ $= 14,433,920 \text{ Peso}$

Table 7.3.9 Business Analysis Indexes, Barones Plant (Jan. 1, 1989-Jun. 30, 1989)

Sales profit per employee	$\left(\frac{\text{Sales profit}}{\text{Number of employees}} \right)$	$= \frac{\Delta 697,781,646 \text{ Peso}}{122 \text{ persons}}$
		$= \Delta 5,719,522 \text{ Peso}$
Operating profit per employee	$\left(\frac{\text{Operating profit}}{\text{Number of employees}} \right)$	$= \frac{\Delta 875,106,484 \text{ Peso}}{122 \text{ persons}}$
		$= \Delta 7,173,004 \text{ Peso}$
Ordinary profit per employee	$\left(\frac{\text{Ordinary profit}}{\text{Number of employees}} \right)$	$= \frac{\Delta 858,495,199 \text{ Peso}}{122 \text{ persons}}$
		$= \Delta 7,036,846 \text{ Peso}$
Total expenses per employee	$\left(\frac{\text{Total expenses}}{\text{Number of employees}} \right)$	$= \frac{2,636,044,757 \text{ Peso}}{122 \text{ persons}}$
		$= 21,606,924 \text{ Peso}$
Sales costs per employee	$\left(\frac{\text{Sales costs}}{\text{Number of employees}} \right)$	$= \frac{2,458,719,919 \text{ Peso}}{122 \text{ persons}}$
		$= 20,153,442 \text{ Peso}$
Raw material cost per employee	$\left(\frac{\text{Treated ore prices}}{\text{Number of employees}} \right)$	$= \frac{1,099,796,545 \text{ Peso}}{122 \text{ persons}}$
		$= 9,014,726 \text{ Peso}$
Operating costs per employee	$\left(\frac{\text{Operating costs}}{\text{Number of employees}} \right)$	$= \frac{2,359,136,036 \text{ Peso}}{122 \text{ persons}}$
		$= 11,140,459 \text{ Peso}$
General administrative and selling expenses per employee	$\frac{\text{Selling expenses} + \text{General administrative expenses}}{\text{Number of employees}}$	
		$= \frac{177,324,838}{122 \text{ persons}} = 1,453,382 \text{ Peso}$
Sales per ton of treated ore	$\left(\frac{\text{Sales}}{\text{Tonnage of treated ore}} \right)$	$= \frac{1,760,938,273 \text{ Peso}}{54,340 \text{ t}}$
		$= 32,406 \text{ Peso}$

Table 7.3.9 Business Analysis Indexes, Barones Plant (Jan. 1, 1989-Jun. 30, 1989)

Sales profit per ton of treated ore	$\left(\frac{\text{Sales profit}}{\text{Tonnage of treated ore}} \right) = \frac{\Delta 697,781,646 \text{ Peso}}{54,340 \text{ t}}$
	= Δ12,841 Peso
Sales costs per ton of treated ore	$\left(\frac{\text{Sales costs}}{\text{Tonnage of treated ore}} \right) = \frac{2,458,719,919}{54,340 \text{ t}}$
	= 45,247 Peso
Operating costs per ton of treated ore	$\left(\frac{\text{Operating costs}}{\text{Tonnage of treated ore}} \right) = \frac{2,458,719,919 \text{ Peso}}{54,340 \text{ t}}$
	= 25,012 Peso
Tonnage of treated ore per employee	$\left(\frac{\text{Tonnage of treated ore}}{\text{Number of employees}} \right) = \frac{54,340 \text{ t}}{122 \text{ persons}}$
	= 445 t

Table 7.3.10 Fixed and Variable Costs, Barones Plant (Jan. 1, 1989-Jun. 30, 1989)

		Fixed expense	Variable expense	Total	
Sales costs	Treated ore prices	-	1,099,584	1,099,584	
		Direct costs	194,317	17.37%	1,118,602
		Indirect costs	166,751	61,519	228,270
		Depreciation expense	12,264	-	12,264
	Subtotal	373,332	15.18%	2,458,720	
	General administrative expenses	91,476	14,819	106,295	
	Selling expenses	-	71,030	73,030	
	Total	464,808	17.63%	2,636,045	

Table 7.3.11 Variable Costs Ratio, Break-Even Point, etc., Barones Plant
(Jan. 1, 1989-Jun. 30, 1989)

Rate of variable expense	$\left(\frac{\text{Variable expense}}{\text{Sales}} \times 100 \right) = \frac{2,171,237 \text{ thousand peso}}{1,760,938}$ $\times 100 = 123.30\%$
Marginal profit	$(\text{Sales} - \text{Variable expense}) =$ $1,760,938 \text{ thousand peso} - 2,171,237 \text{ thousand peso}$ $= \Delta 410,299 \text{ thousand peso}$
Marginal profit rate	$\left(\frac{\text{Marginal profit}}{\text{Sales}} \times 100 \right) = \frac{\Delta 410,299 \text{ thousand peso}}{1,760,938}$ $\times 100 = \Delta 23.30\%$

Table 7.3.12 Suppositional Statement of Profits and Losses, Barones Plant
(Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Sales	2,203,359,301
Sales costs	2,150,782,419
Sales profit and loss	52,576,882
General administrative expenses	106,295,080
Selling expenses	71,029,758
Operating profit and loss	Δ124,747,956
Non-operating income	16,611,285
Non-operating expenses	-
Ordinary profit and loss	Δ108,136,671

Table 7.3.13: Suppositional Total Revenues, Barones Plant.
(Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Consignment beneficiation fee		891,150,000*
Con- centrates	Lead concentrate	253,186,701
	Zinc concentrate	-
	Copper concentrate	-
	Cyanided deposit	1,059,002,600
	Subtotal	1,312,209,301
Sales of machines and parts		-
Total		2,203,359,301

* Consignment treated ore volume 29,705 t x 30 thousand Peso

Table 7.3.14 Suppositional Total Costs of Revenues, Barones Plant
(Jan. 1, 1989-Jun. 30, 1989)

Unit: Peso

Sales costs	Treated ore prices		790,859,045*
	Operating cost	Direct costs	1,118,602,460
		Indirect costs	228,269,908
		Depreciation expense	12,263,668
		Subtotal	1,359,136,036
	Concentrate cost brought forward from the previous term		787,338
Total		2,150,782,419	

* The following has been deducted from actual treated are pries

24,63 tons (the volume of purchased ore treated) x (30,000 pesos - 17,500 pesos)/ton = 307,937,500 pesos

Table 8.1.1 Summary of Modernization Plan for the Existing Equipments

Modernization Work	Amount of Investment (000 Pesos)	Improvement Effect		Depreciation Fund + Interest	Balance Improvement	Investment Efficiency
		000 pesos/month	000 pesos/ton of crude ore			
Partial (6,411 t/month)						
Crushing dust collecting	26,500					
Instrumentation	431,420					
Renewal of facilities	929,355					
Subtotal	1,387,275	35,384	5,519	13,813	21,571	18.7
Modernization of the administration section	106,000	2,289	357	1,060	1,229	13.9
Total	1,493,275	37,673	5,876	14,873	22,800	18.3
			Improvement of the recovery rate 5,153 Cost reduction 723	2,320	3,556	5.5
Guahacavi (7,751 t/month)						
Improvement of the grinding system	300,944	28,366	3,660	3,009	25,357	101.1
Rationalization of the flotation system	11,119	1,087	140	111	976	105.3
Improvement of the reagent system	83,392	9,335	1,204	834	8,501	122.3
Filter press	308,339	6,983	901	3,083	3,900	15.2
Modernization of the administration section	106,000	2,289	295	1,060	1,229	13.9
Total	809,794	48,060	6,200	8,097	39,963	59.2
			Improvement of the recovery rate 3,473 Cost reduction 2,727	1,045	5,156	1.7
Existing Facilities in Barones (9,056 t/month)						
Improvement of the processing system	18,500					
Instrumentation	487,550					
Modernization of the administration section	106,000					
Total	612,050	38,595	4,262	6,120	32,475	63.7
			Improvement of the recovery rate 3,071 Cost reduction 1,191	676	3,586	1.6
Full total (23,218 t/month)	2,915,119 (000/US\$)	124,328	5,355	29,090	95,238	39.2
	1,100)			1,253	4,102	2.6
(Reference)						
Improvement of Barones Plant (3,900 t/month)	16,025,000 (000 US\$)					
	6,047)					

Table 8.1.2 Estimated Metallurgical Results of the Barones New Plant

System and Production	Ore to be processed (t/month)	Grade					Amount of metal					Distribution rate %							
		Au g/t	Ag g/t	Pb %	Cu %	Zn %	Fe %	Au g	Ag kg	Pb t	Cu t	Zn t	Fe t	Au	Ag	Pb	Cu	Zn	Fe
Original ore	3,900.0	0.8	160	0.8	0.4	1.6	3,120	624.0	31.2	15.6	62.4		100	100	100	100	100		
Pb-C	(1.15%) 44.9	14.6	5,143	43.0	5.6	4.2	655	230.9	19.3	2.5	1.9		21	37	62	16	3		
Cu-C	(1.47%) 57.4	6.5	3,153	5.9	19.0	6.4	374	181.0	3.4	10.9	3.7		12	29	11	70	6		
Zn-C	(2.17%) 84.8	1.5	736	1.9	1.4	50.0	125	62.4	1.6	1.2	42.4		4	10	5	8	68		
Tailings	(95.2%) 3,712.9	0.5	40	0.2	0.1	0.4	1,966	249.8	6.9	0.8	14.4		63	24	22	5	23		
													33	76	73	86	68		
Original ore	(3,651.5 t/month)	0.4	126	0.7	0.3	1.2	8,502	2,771	146.8	66.2	261.3		100.0	100.0	100.0	100.0	100.0		
Pb-C	37.6	6.1	2,902	30.2	5.1		1,372	655	68.1	11.6	36.6		16.1	23.6	46.4	17.5			
Cu-C	39.9	1.8	2,284	6.8	18.2	8.4	429	549	16.3	43.4	20.2		5.0	19.7	11.1	65.6			
Zn-C	43.4		530			43.1	346	138	3.7	1.6	112.2		4.1	5.0			42.9		
Tailings	3,539.0						6,354	1,431	58.7	9.6	92.3		74.7	51.6					
													21.1	43.3	57.5	73.1	42.9		
													11.9	32.7	15.5	12.9	25.1		

Table 8.2.1 Cost Estimation for Introduction of Computer

(Unit: US\$) 1USS=145 yen

Item	Cost				Note
	Hardware	Existing Software	Software Preparation	Total of Software Costs	
Overall Conception			7,000	7,000	
Account of Ore Price			2,700	2,700	
Account of Materials Costs	1.4MB F.P. 60 MB H.P. RAM 1MB CPU 32 Bit 15" color Dis. 15" Serial Printer	Software for accounts of multi-purpose tables 700	2,700	2,700	
Materials Receipts and Payments Table			2,700	3,400	
Stock Receipts and Payments Table	x two units	700	-	700	
Wage Accounts	20,000	700	-	700	
Property Tax Ledger		700	-	700	
Account of Depreciation		700	-	700	
		700	-	700	
Statement of Profit and Loss		700	-	700	
Total	20,000 (1)	4,900	15,100	20,000 (2)	40,000 (1) + (2)

Software is prepared by Mexican engineers.

Table 8.4.1 Metallurgical Results of Barones Beneficiation Plant after Improvement

Product	Weight (t/M)	Grade			Content			Distribution		
		Au(g/t)	Ag(g/t)	Pb(%)	Au (g)	Ag (kg)	Pb (t)	Au	Ag	Pb
Bulk Flotation -Cyanidation Feed	3,600.0	0.60	171	—	2,160	615.6	—	100.0	100.0	—
Bulk Conc.	34.1	13.99	9,122	—	477	310.9	—	22.1	50.5	—
Au • Ag Residue	214kg	0.06 %	47.1 %	—	119	101.0	—	5.5	16.4	—
Tailings	3,565.7	0.44	57	—	1,564	203.7	—	72.4	33.1	—
Recovery								(27.6)	(66.9)	
Bulk Flotation Feed	5,456.0	0.38	177	—	2,073	965.7	—	100.0	100.0	—
Bulk Flotation	58.6	6.83	9,122	—	400	535.0	—	19.3	55.4	—
Tailing	5,397.4	0.31	80	—	1,673	430.7	—	80.7	44.6	—
Recovery								(19.3)	(55.4)	
Total Feed	9,056.0	0.47	175	—	4,233	1,581.3	—	100.0	100.0	—
Bulk Conc.	92.7	9.46	9,122	—	877	845.9	—	20.7	53.5	—
Au • Ag Residue	214kg	0.06 %	47.1 %	—	119	101.0	—	2.8	6.4	—
Tailings	8,963.1	0.36	71	—	3,237	634.4	—	76.5	40.1	—
Recovery								(23.5)	(59.9)	

Table 8.4.2 Net Sales of Concentrates After Improvement, Barones Plant

BULK-CONC.	BARONES GRADE	CONTENTS	RECOVERY	REC. METAL	VALUE	R/C	PENALTY	SUB		I. V. A.	US\$ TOTAL
								TOTAL	M.P. TAX		
DMT 92.700	PB	3.523 T	1.5UL&90 %	0.000 T	0	0	0	0	0	0	0
	AU	9.46 G/T	100 %	876.9 G	10,011	701	10,011	701	9,310	9,310	9,310
	AG	9,122.00 G/T	100 %	845.609 KG	145,561	10,189	145,561	10,189	135,372	135,372	135,372
	CU	0.50 %	5 KGL	0.000 T	0	0	0	0	0	0	0
	T/C	77.03 \$/DT			7,141		-7,141		-7,141		-7,141
	INSOLUBLE	30.00 %					348		-348		-348
	S	20.00 %					232		-232		-232
	AS	2.00 %					93		-93		-93
	H2O	%									0
	I. V. A.									22,164	22,164
	TOTAL				155,572	7,141	673	147,758	10,890	136,868	159,032
	AU-AG PRECIPITATION BARONES GRADE	CONTENTS	RECOVERY	REC. METAL	VALUE	R/C	PENALTY	SUB		I. V. A.	US\$ TOTAL
DMT 0.214	PB	0.00 %	1.5UL&90 %	0.000 T	0	0	0	0	0	0	0
	AU	600.00 G/T	100 %	128.4 G	1,466	103	1,466	103	1,363	1,363	1,363
	AG	471,000.00 G/T	100 %	100,794 KG	17,350	1,215	17,350	1,215	16,135	16,135	16,135
	CU	0.00 %		0.000 T	0	0	0	0	0	0	0
	T/C	77.03 \$/DT				16	-16		-16		-16
	INSOLUBLE	0.00 %					0		0		0
	S	0.00 %					0		0		0
	AS	0.00 %					0		0		0
	H2O	%									0
	I. V. A.									2,820	2,820
	TOTAL				18,816	16	0	18,800	1,318	17,482	20,302

Table 8.5.1 Net Sales of Concentrates, Barones New Plant

CU-CONC.			BARONES			PENALTY			SUB TOTAL			US\$	
CU-CONC.	BARONES GRADE	CONTENTS	RECOVERY	REC. METAL	VALUE	R/C	PENALTY	SUB TOTAL	M.P.TAX	SUB TOTAL	I.V.A.	TOTAL	
DWT T	CU 19.00 #	10.906 T	90 #	9.815 T	28,552	1,945	25,607	1,330	25,277	25,277	25,277	25,277	
57.400 AG	6.50 G/T	373.1 G	100 #	373.1 G	4,260		4,260	298	3,962	3,962	3,962	3,962	
	3,153.00 G/T	180.928 KG	100 #	180.982 KG	31,154		31,154	2,181	28,973	28,973	28,973	28,973	
	5.90	3.387 T	45 #	1.515 T	913		47	2	45	45	45	45	
WMT T	T/C 79.83 \$/DT				4,582		-4,582		-4,582	-4,582	-4,582	-4,582	
	INSOLUBLE 3.00 #						17	-17		-17	-17	-17	
H30 #	ZN 6.40 #						0	0		0	0	0	
	AS 1.00 #						29	-29		-29	-29	-29	
	H20 #												
	I.V.A.				64,926	7,440	46	57,440	3,811	53,629	8,616	62,245	
TOTAL													
PB-CONC.			BARONES			PENALTY			SUB TOTAL			US\$	
PB-CONC.	BARONES GRADE	CONTENTS	RECOVERY	REC. METAL	VALUE	R/C	PENALTY	SUB TOTAL	M.P.TAX	SUB TOTAL	I.V.A.	TOTAL	
DWT T	43.00 #	19.307 T	1.50E+90 #	16.770 T	10,631	1,830	8,801	440	8,361	8,361	8,361	8,361	
44.900 AG	14.60 G/T	655.5 G	100 #	655.5 G	7,484		7,484	524	6,960	6,960	6,960	6,960	
	5,143.00 G/T	230.921 KG	100 #	230.921 KG	39,750		39,750	2,783	36,967	36,967	36,967	36,967	
	5.60 #	2.514 T	90 #	2.263 T	6,593		5,066	253	4,813	4,813	4,813	4,813	
WMT T	T/C 77.03 \$/DT				3,459		-3,459		-3,459	-3,459	-3,459	-3,459	
	INSOLUBLE 10.00 #						56	-56		-56	-56	-56	
H20 #	AS 28.00 #						112	-112		-112	-112	-112	
	H20 2.00 #						45	-45		-45	-45	-45	
	I.V.A.				64,448	6,806	213	57,429	4,000	53,429	8,614	62,043	
TOTAL													
ZN-CONC.			BARONES			PENALTY			SUB TOTAL			US\$	
ZN-CONC.	BARONES GRADE	CONTENTS	RECOVERY	REC. METAL	VALUE	R/C	PENALTY	SUB TOTAL	M.P.TAX	SUB TOTAL	I.V.A.	TOTAL	
DWT T	50.00 #	42.400 T	8 UL	35.616 T	58,325		58,325	2,916	55,409	55,409	55,409	55,409	
84.800 T/C	736 G/T	62.4 KG	93.30LES*65#	35.4 KG	6,094		6,094	427	5,667	5,667	5,667	5,667	
	266.96 \$/DT				22,638		-22,638		-22,638	-22,638	-22,638	-22,638	
	6.50 #						0	0		0	0	0	
H20 #													
	I.V.A.				41,781	3,343		41,781	3,343	38,438	6,267	44,705	
TOTAL													

Table 8.6.1 P/L between Modernization Plan and Present at Parral Plant

(Peso/t)	standard case (Ag=569.281 ¢/oz)			10% up case (Ag=630 ¢/oz)			10% down case (Ag=510 ¢/oz)		
	modernization plan	Present	Difference	modernization plan	Present	Difference	modernization plan	Present	Difference
Net Sales	108,220	103,067	5,153	117,598	111,999	5,599	98,841	94,135	4,706
Mining Expenses	37,600	37,600	0	37,600	37,600	0	37,600	37,600	0
Mill Expenses	24,896	25,262	-366	24,896	25,262	-366	24,896	25,262	-366
Depreciation	2,256	421	1,835	2,256	421	1,835	2,256	421	1,835
Sub-Total of (cost of Goods Sold)	64,752	63,283	1,469	64,752	63,283	1,469	64,752	63,283	1,469
Gross Profit on Sales	43,468	39,784	3,684	52,846	48,716	4,130	34,089	30,852	3,237
Selling Expenses	452	452	0	452	452	0	452	452	0
Administrative Expenses	2,939	3,296	-357	2,939	3,296	-357	2,939	3,296	-357
Non-Operating Income	282	282	0	282	282	0	282	282	0
Non-Operating Expenses	485	0	485	485	0	485	485	0	485
Net Income	39,874	36,318	3,556	49,252	45,250	4,002	30,495	27,386	3,109
(\$/year)									
Difference of Production			149,340			162,265			136,385
Difference of Expenses			-20,953			-20,953			-20,953
Difference of Depreciation			53,180			53,180			53,180

Table 8.6.2 Cashflow on Modernization of Existing Facilities at Parral Plant (Case of standard Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL
+) NET REVENUE	149	149	149	149	149	149	149	149	149	149	149	0	0	0	0	0	0	1.490
-) OPERATING COST	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	0	0	0	0	0	0	-210
OPERATING PROFIT	170	170	170	170	170	170	170	170	170	170	170	0	0	0	0	0	0	1.700
-) DEPRECIATION	53	53	53	53	53	53	53	53	53	53	53	0	0	0	0	0	0	1.532
-) INTEREST 5%	28	23	17	11	5	0	0	0	0	0	0	0	0	0	0	0	0	84
PROFIT BEFORE TAX	89	94	100	106	112	117	117	117	117	117	117	0	0	0	0	0	0	1.084
-) INCOME TAX 35%	31	33	35	37	39	41	41	41	41	41	41	0	0	0	0	0	0	380
PROFIT AFTER TAX	58	61	65	69	73	76	76	76	76	76	76	0	0	0	0	0	0	704
-) INITIAL INVESTMENT	563																0	563
-) WORKING CAPITAL																	0	563
+) PRIMARY BANK LOANS		111	114	118	122	98	0	0	0	0	0	0	0	0	0	0	0	563
-) LOAN REPAYMENT		0	0	0	0	28	129	129	129	129	129	0	0	0	0	0	0	673
SURPLUS																		673
DEBT OUTSTANDING		452	338	220	98	0	0	0	0	0	0	0	0	0	0	0	0	0
BEFORE INTEREST	-563	139	137	135	133	131	129	129	129	129	129	0	0	0	0	0	0	757
NET CASH FLOW	-531	124	115	107	99	92	86	81	76	72	68	0	0	0	0	0	0	389
NET PRESENT VALUES	-521	119	109	99	90	83	75	70	65	60	55	0	0	0	0	0	0	303
OF N. C. F. AT	-512	115	103	92	83	74	66	60	55	50	45	0	0	0	0	0	0	230
DISCOUNT RATES:	-503	111	97	86	75	66	58	52	47	42	37	0	0	0	0	0	0	169
	-494	107	92	80	69	60	52	45	40	35	31	0	0	0	0	0	0	116
	-485	103	88	75	63	54	46	39	34	29	25	0	0	0	0	0	0	71
INTERNAL RATE OF RETURN: 19.9 %																		

Table 8.6.3 Cashflow on Modernization of Existing Facilities at Parraal Plant (Case of 10% up Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL		
+ NET REVENUE	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	1,623	
- OPERATING COST	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-210	
OPERATING PROFIT	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	1,832	
- DEPRECIATION	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	532	
- INTEREST 5%	28	22	22	16	10	3	0	0	0	0	0	0	0	0	0	0	0	0	79	
PROFIT BEFORE TAX	102	108	108	114	120	127	130	130	130	130	130	130	130	130	130	130	130	130	1,221	
- INCOME TAX 35%	36	38	38	40	42	44	46	46	46	46	46	46	46	46	46	46	46	46	430	
PROFIT AFTER TAX	66	70	70	74	78	83	84	84	84	84	84	84	84	84	84	84	84	84	791	
- INITIAL INVESTMENT	563																		563	
- WORKING CAPITAL																			0	
+ PRIMARY BANK LOANS	563																		563	
- LOAN REPAYMENT	119	123	123	127	131	62	0	0	0	0	0	0	0	0	0	0	0	0	563	
SURPLUS	0	0	0	0	0	74	137	137	137	137	137	137	137	137	137	137	137	137	760	
DEBT OUTSTANDING	563	444	321	193	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BEFORE INTEREST																				
NET CASH FLOW	-563	147	145	143	141	139	137	137	137	137	137	137	137	137	137	137	137	137	839	
NET PRESENT VALUES	-531	131	122	113	106	98	91	86	81	77	72	68	64	60	56	52	48	44	40	446
OF N. C. P. AT	-521	126	115	105	96	88	80	74	69	64	59	54	49	44	40	36	32	28	24	355
DISCOUNT RATES:	-503	117	103	91	80	71	62	55	49	44	39	34	29	24	20	16	12	8	4	277
	-494	113	98	85	73	63	55	48	42	37	32	27	22	17	13	9	6	3	0	154
	-485	109	93	79	67	57	49	42	36	31	27	22	17	13	9	6	3	0	0	105
INTERNAL RATE OF RETURN:																				21.7 %

Table 8.6.4 Cashflow on Modernization of Existing Facilities at Parra
Plant (Case of 10% down Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+) NET REVENUE	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	1,360
-) OPERATING COST	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-210
-) DEPRECIATION	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	1,570
-) INTEREST 5%	28	23	23	18	12	7	1	0	0	0	0	0	0	0	0	0	0	0	89
PROFIT BEFORE TAX	76	81	81	86	92	97	103	104	104	104	104	104	104	104	104	104	104	104	949
-) INCOME TAX 35%	27	28	28	30	32	34	36	36	36	36	36	36	36	36	36	36	36	36	331
PROFIT AFTER TAX	49	53	53	56	60	63	67	68	68	68	68	68	68	68	68	68	68	68	618
-) INITIAL INVESTMENT	563																		563
-) WORKING CAPITAL	563																		563
+) PRIMARY BANK LOANS		102	106	109	113	116	117	121	121	121	121	121	121	121	121	121	121	121	563
-) LOAN REPAYMENT		0	0	0	0	0	103	121	121	121	121	121	121	121	121	121	121	121	563
SURPLUS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEBT OUTSTANDING		461	355	246	133	17	0	0	0	0	0	0	0	0	0	0	0	0	0
BEFORE INTEREST NET CASH FLOW	-563	130	129	127	125	123	121	121	121	121	121	121	121	121	121	121	121	121	676
NET PRESENT VALUES OF N.C.F. AT DISCOUNT RATES:																			
6%	-531	116	108	101	93	87	80	76	72	68	64	60	56	52	48	44	40	36	333
8%	-521	111	102	93	85	77	71	65	61	56	52	47	42	38	34	30	26	22	253
10%	-512	107	97	87	78	69	62	56	51	47	42	38	34	30	26	22	18	14	185
12%	-503	104	92	81	71	62	55	49	44	39	35	31	27	23	19	15	11	7	177
14%	-494	100	87	75	65	56	48	42	37	33	29	24	20	16	12	8	4	0	178
16%	-485	97	83	70	59	50	43	37	32	27	24	19	14	10	6	2	0	0	36

INTERNAL RATE OF RETURN: 18.0 %

Table 8.6.5 P/L between Modernization Plan and Present at Guanacevi Plant

(Peso/t)	standard case (Ag=569.281 ¢/oz)			10% up case (Ag=630 ¢/oz)			10% down case (Ag=510 ¢/oz)		
	modernization plan	Present	Difference	modernization plan	Present	Difference	modernization plan	Present	Difference
Net Sales	119,263	115,790	3,473	127,775	124,054	3,721	110,750	107,525	3,225
Mining Expenses	45,300	45,300	0	45,300	45,300	0	45,300	45,300	0
Mill Expenses	25,142	27,574	-2,432	25,142	27,574	-2,432	25,142	27,574	-2,432
Depreciation	1,265	438	827	1,265	438	827	1,265	438	827
Sub-Total of (cost of Goods Sold)	71,707	73,312	-1,605	71,707	73,312	-1,605	71,707	7,312	-1,605
Gross Profit on Sales	47,556	42,478	5,078	56,068	50,742	5,326	39,043	34,213	4,830
Selling Expenses	500	500	0	500	500	0	500	500	0
Administrative Expenses	2,295	2,590	-295	2,295	2,590	-295	2,295	2,590	-295
Non-Operating Income	549	549	0	549	549	0	549	549	0
Non-Operating Expenses	921	703	218	921	703	218	921	703	218
Net Income	44,389	39,234	5,155	52,901	47,488	5,403	35,876	30,969	4,907
(\$/year)									
Difference of Production			121,898			130,603			113,194
Difference of Expenses			-95,715			-95,715			-95,715
Difference of Depreciation			29,027			29,027			29,027

Table 8.6.6 Cashflow on Modernization of Existing Facilities at Guanacevi Plant (Case of Standard Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL
+ NET REVENUE	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	1,220
-) OPERATING COST	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-960
OPERATING PROFIT	218	218	218	218	218	218	218	218	218	218	218	218	218	218	218	218	218	2,180
-) DEPRECIATION	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	290
-) INTEREST 5%	15	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
PROFIT BEFORE TAX	174	181	188	188	189	189	189	189	189	189	189	189	189	189	189	189	189	1,896
-) INCOME TAX 35%	61	63	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	652
PROFIT AFTER TAX	113	118	122	122	123	123	123	123	123	123	123	123	123	123	123	123	123	1,244
-) INITIAL INVESTMENT	306																0	306
-) WORKING CAPITAL	306																0	306
+ PRIMARY BANK LOANS		142	147	17	0	0	0	0	0	0	0	0	0	0	0	0	0	306
-) LOAN REPAYMENT		0	0	134	152	152	152	152	152	152	152	152	152	152	152	152	152	1,198
SURPLUS		164	177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,198
DEBT OUTSTANDING																	0	0
BEFORE INTEREST	-306	157	155	152	152	152	152	152	152	152	152	152	152	152	152	152	152	1,222
NET CASH FLOW	-289	140	130	120	114	107	101	95	90	85	80	74	68	62	56	50	44	774
NET PRESENT VALUES	-283	135	123	112	103	96	89	82	76	70	65	59	53	47	41	35	29	688
OF N. C. F. AT	-278	130	116	104	94	86	78	71	64	59	53	47	41	35	29	23	17	577
DISCOUNT RATES:	-273	125	110	97	86	77	69	61	55	49	44	38	32	26	20	14	8	500
	-268	121	105	90	79	69	61	53	47	41	36	30	24	18	12	6	0	433
	-264	117	99	84	72	62	54	46	40	34	30	24	18	12	6	0	0	375
INTERNAL RATE OF RETURN:	49.5 %																	

Table 8.6.7 Cashflow on Modernization of Existing Facilities at Guanacevi Plant (Case of 10% up Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL
+) NET REVENUE		131	131	131	131	131	131	131	131	131	131							1,310
-) OPERATING COST		-96	-96	-96	-96	-96	-96	-96	-96	-96	-96							-960
-) DEPRECIATION		227	227	227	227	227	227	227	227	227	227							2,270
-) INTEREST 5%		29	29	29	29	29	29	29	29	29	29							290
PROFIT BEFORE TAX		15	15	8	0	0	0	0	0	0	0							23
-) INCOME TAX 35%		183	183	190	198	198	198	198	198	198	198							1,957
PROFIT AFTER TAX		64	64	57	69	69	69	69	69	69	69							683
-) INITIAL INVESTMENT	306	119	123	129	129	129	129	129	129	129	129							1,274
-) WORKING CAPITAL																	0	306
+) PRIMARY BANK LOANS	306	148	152	152	158	158	158	158	158	158	158							306
-) LOAN REPAYMENT		0	0	0	152	158	158	158	158	158	158							1,258
SURPLUS		158	158	6	0	0	0	0	0	0	0							0
DEBT OUTSTANDING																		0
BEFORE INTEREST		163	160	160	158	158	158	158	158	158	158							1,281
NET CASH FLOW		-289	145	134	125	118	105	99	94	88	83							815
NET PRESENT VALUES		-283	140	127	116	108	92	85	79	73	68							704
OF N.C.F. AT		-278	135	120	108	98	81	74	67	61	55							610
DISCOUNT RATES:		-273	130	114	100	90	71	64	57	51	45							529
		-268	125	108	94	82	63	55	49	43	37							460
		-264	121	103	87	75	56	48	42	36	31							400
INTERNAL RATE OF RETURN:																		51.5 %

Table 8.6.8 Cashflow on Modernization of Existing Facilities at Guanacevi Plant (Case of 10% down Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL
+) NET REVENUE	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	1.130
-) OPERATING COST	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-96	-860
OPERATING PROFIT	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	2.990
-) DEPRECIATION	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	290
-) INTEREST 5%	15	9	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	26
PROFIT BEFORE TAX	165	171	171	178	180	180	180	180	180	180	180	180	180	180	180	180	180	1.774
-) INCOME TAX 35%	58	60	60	62	63	63	63	63	63	63	63	63	63	63	63	63	63	621
PROFIT AFTER TAX	107	111	111	116	117	117	117	117	117	117	117	117	117	117	117	117	117	1.153
-) INITIAL INVESTMENT	306																0	306
-) WORKING CAPITAL	306																0	306
+) PRIMARY BANK LOANS		136	140	30	0	0	0	0	0	0	0	0	0	0	0	0	0	306
-) LOAN REPAYMENT		0	0	115	146	146	146	146	146	146	146	146	146	146	146	146	146	1.137
SURPLUS	306	170	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEBT OUTSTANDING																		0
BEFORE INTEREST																		
NET CASH FLOW	-306	151	149	147	146	146	146	146	146	146	146	146	146	146	146	146	146	1.163
	-289	134	125	116	109	103	97	92	86	82	77	73	68	63	58	53	47	733
NET PRESENT VALUES	-283	129	118	108	99	92	85	79	73	68	63	58	53	47	42	37	31	631
OF N. C. F. AT	-278	125	112	100	91	82	75	68	62	56	51	46	41	36	31	26	21	544
DISCOUNT RATES:		12%	120	106	93	83	74	66	59	53	47	42	37	32	27	22	17	470
		14%	101	87	76	67	58	51	45	39	33	28	23	18	13	8	3	406
		16%	95	81	70	60	52	45	38	33	29	24	19	14	9	4	0	351
INTERNAL RATE OF RETURN:																		47.5 %

Table 8.6.9 P/L between Modernization Plan and Present at Barones Plant

(Peso/t)	standard case (Ag=569.281 ¢/oz)		10% up case (Ag=630 ¢/oz)		10% dawn case (Ag=510 ¢/oz)		Treatment t/Monin			
	modernization plan	Present	Difference	modernization plan	Present	Difference				
Net Sales	52,170	49,099	3,071	54,696	51,420	3,216	49,704	46,779	2,925	9,056
Mining Expenses	38,100	38,100	0	38,100	38,100	0	38,100	38,100	0	2,650
Mill Expenses	23,861	24,800	-939	23,861	24,800	-939	23,861	224,800	-939	amount of investment
Depreciation	760	226	534	760	226	534	760	226	534	
Sub-Total of (cost of Goods Sold)	62,721	63,126	-405	62,721	63,126	-405	62,721	63,126	-405	
Gross Profit on Sales	-10,551	-14,027	3,476	-8,085	-11,706	3,621	-13,017	-16,347	3,330	
Selling Expenses	1,307	1,307	0	1,307	1,307	0	1,307	1,307	0	
Administrative Expenses	1,704	1,956	-252	1,704	1,956	-252	1,704	1,956	-252	
Non-Operating Income	306	306	0	306	306	0	306	306	0	
Non-Operating Expenses	142	0	142	142	0	142	142	0	142	
Net Income	-13,398	-16,984	3,586	-10,992	-14,663	3,731	-15,864	-19,304	3,440	
(\$/year)										
Difference of Production			125,936			131,883			119,919	
Difference of Expenses			-48,841			-48,841			-48,841	
Difference of Depreciation			21,898			21,898			21,898	

Table 8.6.10 Cashflow on Modernization of Existing Facilities at Barones Plant (Case of standard Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL
+) NET REVENUE	126	126	126	126	126	126	126	126	126	126	126	0	0	0	0	0	0	1.260
-) OPERATING COST	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	0	0	0	0	0	0	-490
OPERATING PROFIT	175	175	175	175	175	175	175	175	175	175	175	0	0	0	0	0	0	1.750
-) DEPRECIATION	22	22	22	22	22	22	22	22	22	22	22	0	0	0	0	0	0	220
-) INTEREST 5%	12	12	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
PROFIT BEFORE TAX	141	147	147	153	153	153	153	153	153	153	153	0	0	0	0	0	0	1.512
-) INCOME TAX 35%	49	51	51	54	54	54	54	54	54	54	54	0	0	0	0	0	0	532
PROFIT AFTER TAX	92	96	96	99	99	99	99	99	99	99	99	0	0	0	0	0	0	980
-) INITIAL INVESTMENT	231																0	231
-) WORKING CAPITAL																	0	231
+) PRIMARY BANK LOANS		114	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	231
-) LOAN REPAYMENT		0	1	121	121	121	121	121	121	121	121	0	0	0	0	0	0	969
SURPLUS		117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEBT OUTSTANDING																		0
BEFORE INTEREST																		0
NET CASH FLOW	-231	126	124	121	121	121	121	121	121	121	121	0	0	0	0	0	0	987
NET PRESENT VALUES	6%	-218	112	104	96	85	80	76	72	68	64	0	0	0	0	0	0	629
OF N. C. F. AT	8%	-214	108	98	89	76	71	65	61	56	52	0	0	0	0	0	0	545
DISCOUNT RATES:	10%	-210	104	93	83	75	68	62	51	47	42	0	0	0	0	0	0	472
	12%	-206	100	88	77	69	61	49	44	39	35	0	0	0	0	0	0	410
	14%	-203	97	84	72	63	55	42	37	33	29	0	0	0	0	0	0	357
	16%	-199	94	79	67	58	43	37	32	27	24	0	0	0	0	0	0	311
INTERNAL RATE OF RETURN:	52.7 %																	

Table 8.6.11 Cashflow on Modernization of Existing Facilities at Barones Plant (Case of 10% up Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL
+)NET REVENUE	231	132	132	132	132	132	132	132	125	125	125	0	0	0	0	0	0	1,320
-)OPERATING COST		-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	0	0	0	0	0	0	-490
OPERATING PROFIT		181	181	181	181	181	181	181	181	181	181	0	0	0	0	0	0	1,810
-)DEPRECIATION		22	22	22	22	22	22	22	22	22	22	0	0	0	0	0	0	220
-)INTEREST .5%		12	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
PROFIT BEFORE TAX		147	153	159	159	159	159	159	159	159	159	0	0	0	0	0	0	1,572
-)INCOME TAX 35%		51	54	56	56	56	56	56	56	56	56	0	0	0	0	0	0	553
PROFIT AFTER TAX		96	99	103	103	103	103	103	103	103	103	0	0	0	0	0	0	1,019
-)INITIAL INVESTMENT	231																0	231
-)WORKING CAPITAL																	0	231
+)PRIMARY BANK LOANS		118	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	231
-)LOAN REPAYMENT		0	8	0	125	125	125	125	125	125	125	0	0	0	0	0	0	1,008
SURPLUS		113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,008
DEBT OUTSTANDING																		0
BEFORE INTEREST		130	127	125	125	125	125	125	125	125	125	0	0	0	0	0	0	1,026
NET CASH FLOW		-218	116	107	99	88	83	78	74	70	66	0	0	0	0	0	0	556
NET PRESENT VALUES	6%	-214	111	101	92	85	79	73	68	63	58	0	0	0	0	0	0	569
OF N.C.F. AT	8%	-210	107	95	85	78	71	64	58	53	48	0	0	0	0	0	0	494
DISCOUNT RATES:	12%	-206	104	90	79	71	63	57	50	45	40	0	0	0	0	0	0	430
	14%	-203	100	86	74	65	57	50	44	38	34	0	0	0	0	0	0	375
	16%	-199	97	81	69	51	44	38	33	28	24	0	0	0	0	0	0	327
INTERNAL RATE OF RETURN:		54.4 %																

Table 8. 6. 12 Cashflow on Modernization of Existing Facilities at Barones Plant (Case of 10% down Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL
+) NET REVENUE		120	120	120	120	120	120	120	120	120	120							1,200
-) OPERATING COST		-49	-49	-49	-49	-49	-49	-49	-49	-49	-49							-490
OPERATING PROFIT		169	169	169	169	169	169	169	169	169	169							1,690
-) DEPRECIATION		22	22	22	22	22	22	22	22	22	22							220
-) INTEREST 5%		12	12	6	0	0	0	0	0	0	0							18
PROFIT BEFORE TAX		135	141	141	147	147	147	147	147	147	147							1,452
-) INCOME TAX 35%		47	49	49	51	51	51	51	51	51	51							504
PROFIT AFTER TAX		88	88	88	96	96	96	96	96	96	96							948
-) INITIAL INVESTMENT	231																0	231
-) WORKING CAPITAL	231																0	231
+) PRIMARY BANK LOANS			110	114	7	0	0	0	0	0	0	0	0	0	0	0	0	937
-) LOAN REPAYMENT			0	0	111	118	118	118	118	118	118	0	0	0	0	0	0	937
SURPLUS	231	121	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEBT OUTSTANDING																		0
BEFORE INTEREST																		0
NET CASH FLOW	-231	122	120	118	118	118	118	118	118	118	118	0	0	0	0	0	0	955
NET PRESENT VALUES		-218	109	101	93	88	83	78	74	70	66	0	0	0	0	0	0	607
OF N. C. F. AT		-214	105	95	87	80	74	69	64	59	55	0	0	0	0	0	0	524
DISCOUNT RATES:		-210	101	90	81	73	67	61	55	50	45	0	0	0	0	0	0	454
6%		-206	97	85	75	67	60	53	48	43	38	0	0	0	0	0	0	394
8%		-203	94	81	70	61	54	47	41	36	32	0	0	0	0	0	0	342
10%		-199	91	77	65	56	48	42	31	27	23	0	0	0	0	0	0	297
12%																		
14%																		
16%																		
INTERNAL RATE OF RETURN:																		51.0 %

Table 8.6.13 Cashflow on Modernized Plant (150 t/day) at Barones
(Case of standard Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+) NET REVENUE	1,746		1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	26,190
-) OPERATING COST	1,019		1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	15,285
OPERATING PROFIT																			
-) DEPRECIATION		151	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	10,905
-) INTEREST 5%			310	293	272	249	225	200	174	146	118	89	60	36	12	0	0	0	5,745
PROFIT BEFORE TAX			-108	-91	-70	-47	-23	2	28	56	84	113	588	582	616	628	628	628	2,976
-) INCOME TAX 35%			0	0	0	0	0	1	10	20	29	40	199	207	216	220	220	220	1,162
PROFIT AFTER TAX			-108	-91	-70	-47	-23	1	18	36	55	73	369	385	400	408	408	408	1,814
-) INITIAL INVESTMENT	3,024	3,024																	6,048
-) WORKING CAPITAL			85																0
+) PRIMARY BANK LOANS	3,024	3,175	332	434	455	478	502	526	543	561	580	598	468	484	238	0	0	0	6,199
-) LOAN REPAYMENT			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SURPLUS	3,024	6,199	5,867	5,433	4,978	4,500	3,998	3,472	2,929	2,368	1,788	1,190	722	238	0	507	592	592	1,360
DEBT OUTSTANDING																			0
BEFORE INTEREST																			
NET CASH FLOW *	-3,024	-3,024	642	727	727	727	727	726	717	707	698	687	529	520	511	507	507	507	3,595
NET PRESENT VALUES OF N.C.F. AT	6%	-2,853	-2,691	539	576	543	483	456	424	395	368	341	248	230	213	200	200	200	204
	8%	-2,800	-2,593	510	534	495	424	392	359	327	299	273	194	177	161	148	148	148	-481
	10%	-2,749	-2,489	482	497	451	373	339	304	273	245	219	153	137	122	110	110	110	-1,016
	12%	-2,700	-2,411	457	462	413	329	293	259	228	201	176	121	106	93	83	83	83	-1,436
	14%	-2,653	-2,327	433	430	378	291	255	220	191	165	143	96	83	72	62	62	62	-1,766
	16%	-2,607	-2,247	411	402	346	257	221	189	160	136	116	77	65	55	47	47	47	-2,026
INTERNAL RATE OF RETURN:																			6.5 %

Table 8.6.14 Cashflow on Modernized Plant (150 t/day) at Barones
(Case of 10% up Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+ NET REVENUE			1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	1,838	17	27,570
-) OPERATING COST			1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	1,019	16	15,285
-) DEPRECIATION		151	819	819	819	819	819	819	819	819	819	819	819	819	819	819	819	17	12,285
-) INTEREST 5%			310	289	262	235	207	178	143	117	85	52	18	0	0	0	0	99	5,745
-) PROFIT BEFORE TAX			-16	5	32	59	87	116	146	177	209	242	270	299	328	357	385	0	2,052
-) INCOME TAX 35%			0	2	11	21	30	41	51	62	73	85	97	109	121	133	145	0	4,639
-) PROFIT AFTER TAX			-16	3	21	38	57	75	95	115	136	157	173	189	207	226	240	0	1,630
-) INITIAL INVESTMENT	3,024	3,024																-85	6,048
-) WORKING CAPITAL			85															0	0
+) PRIMARY BANK LOANS	3,024	3,175	424	528	546	563	582	600	620	640	661	682	703	724	745	766	787	0	6,199
-) LOAN REPAYMENT			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SURPLUS			5,775	5,247	4,701	4,138	3,556	2,956	2,336	1,696	1,035	353	0	0	0	0	0	652	2,555
DEBT OUTSTANDING	3,024	6,199																0	0
BEFORE INTEREST																			
NET CASH FLOW	-3,024	-3,024	734	817	808	798	789	778	768	757	746	734	723	711	699	687	675	652	4,607
NET PRESENT VALUES	6%	-2,853	616	647	604	563	525	488	455	423	393	365	338	311	284	257	230	202	242
OF N.C.F. AT	8%	-2,800	583	601	550	503	460	420	384	351	320	291	263	235	207	179	151	123	176
DISCOUNT RATES:	10%	-2,749	551	558	502	450	405	363	326	292	261	234	206	178	149	120	92	65	-602
	12%	-2,700	522	519	458	404	357	314	277	244	214	188	160	131	104	77	50	22	95
	14%	-2,653	495	484	420	364	315	273	236	204	177	152	124	96	69	42	15	0	-1,073
	16%	-2,607	470	451	385	328	279	237	202	172	146	124	96	69	42	15	0	0	-1,446

INTERNAL RATE OF RETURN: 8.0 %

Table 8.6.15 Cashflow on Modernized Plant (200 t/day) at Barones
(Case of standard Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+ NET REVENUE			2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	2,328	34,920
-) OPERATING COST			1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	19,830
OPERATING PROFIT			1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	15,090
-) DEPRECIATION				577	577	577	577	577	577	577	577	577	577	577	577	577	577	109	6,315
-) INTEREST 5%		166																109	6,315
PROFIT BEFORE TAX			341	315	282	249	214	178	141	103	63	23	0	0	0	0	0	0	2,075
-) INCOME TAX 35%			88	114	147	180	215	251	288	326	366	406	442	478	514	550	587	624	6,866
PROFIT AFTER TAX			31	40	51	63	75	88	101	114	128	142	156	170	184	198	212	226	4,403
-) INITIAL INVESTMENT	3,326	3,326																	6,652
-) WORKING CAPITAL			110																0
+ PRIMARY BANK LOANS																			0
-) LOAN REPAYMENT																			0
SURPLUS																			0
DEBT OUTSTANDING																			0
BEFORE INTEREST																			0
NET CASH FLOW	-3,326	-3,326	865	966	955	943	931	918	905	892	878	864	852	840	828	816	804	792	6,035
NET PRESENT VALUES			6%																1,382
OF N. C. F. AT			8%																461
DISCOUNT RATES:			10%																-263
			12%																-886
			14%																-1,291
			16%																-1,652
INTERNAL RATE OF RETURN:	9.2 %																		

Table 8.6.16 Cashflow on Modernized Plant (200 t/day) at Barones
(Case of 10% down Ag price)

(1000 US DOLLAR)

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+) NET REVENUE			2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	33,135
-) OPERATING COST			1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	19,830
OPERATING PROFIT			887	887	887	887	887	887	887	887	887	887	887	887	887	887	887	887	13,305
-) DEPRECIATION		166	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	6,315
-) INTEREST 5%			341	291	261	231	199	167	133	99	63	26	0	0	0	0	0	0	2,296
PROFIT BEFORE TAX			-31	19	49	79	111	143	177	211	247	282	316	350	384	418	452	486	4,860
-) INCOME TAX 35%			0	7	17	28	39	50	62	74	86	98	110	122	134	146	158	170	1,714
PROFIT AFTER TAX			-31	12	32	51	72	93	115	137	161	186	210	232	256	280	304	326	3,146
-) INITIAL INVESTMENT	3,326	3,326																	6,652
-) WORKING CAPITAL	3,326	3,492	110																0
+) PRIMARY BANK LOANS			436	568	569	609	628	649	670	692	714	738	525	0	0	0	0	0	6,818
-) LOAN REPAYMENT			0	0	0	0	0	0	0	0	0	0	73	615	615	615	615	725	6,818
-) SURPLUS			6,382	5,814	5,225	4,616	3,988	3,339	2,669	1,977	1,263	525	0	0	0	0	0	0	2,643
DEBT OUTSTANDING	3,326	6,818	6,382	5,814	5,225	4,616	3,988	3,339	2,669	1,977	1,263	525	0	0	0	0	0	0	0
BEFORE INTEREST			777	887	880	870	859	848	837	825	813	801	624	615	615	615	615	725	4,939
NET CASH FLOW	-3,326	-3,326	777	887	880	870	859	848	837	825	813	801	624	615	615	615	615	725	4,939
	-3,138	-2,960	652	703	658	613	571	532	495	461	428	398	293	272	257	242	229	269	746
NET PRESENT VALUES	6%																		
	8%																		
OF N. C. F. AT	10%																		
DISCOUNT RATES:	12%																		
	14%																		
	16%																		
INTERNAL RATE OF RETURN:			7.8 %																

Table 8.6.17 Cashflow on Modernized Plant (150 t/day) plus Modernization of Existing Facilities at Barones (Case of standard Ag price)

(1000 US DOLLAR)

BARONES 150T/D MODERNIZED PLANT PLUS MODERNIZATION OF THE EXISTING FACILITIES AG=569.281

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+ NET REVENUE		126	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,872	1,746	1,746	1,746	1,746	1,746	1,746	1,746	27,450
- OPERATING COST		-49	970	970	970	970	970	970	970	970	970	1,019	1,019	1,019	1,019	1,019	1,019	1,019	14,795
- DEPRECIATION		22	547	547	547	547	547	547	547	547	547	727	727	727	727	727	727	727	12,555
- INTEREST 5%		161	321	296	267	237	206	173	140	106	70	34	2	0	0	0	0	0	5,965
PROFIT BEFORE TAX		0	34	59	88	118	149	182	215	249	285	168	626	628	628	628	628	628	4,685
- INCOME TAX 35%		0	12	21	31	41	52	64	75	87	100	59	219	220	220	220	220	220	1,541
PROFIT AFTER TAX		0	22	38	57	77	97	118	140	162	185	109	407	408	408	408	408	408	3,044
- INITIAL INVESTMENT	3,225	3,024																	6,249
- WORKING CAPITAL			85																0
+ PRIMARY BANK LOANS	3,225	3,185																	6,410
- LOAN REPAYMENT			484	585	604	624	644	665	687	709	732	634	42	0	0	0	0	0	0
SURPLUS			0	0	0	0	0	0	0	0	0	0	464	507	507	507	507	507	2,577
DEBT OUTSTANDING	3,225	6,410	5,926	5,341	4,737	4,113	3,459	2,804	2,117	1,408	676	42	0	0	0	0	0	0	0
BEFORE INTEREST	-3,225	-2,849	305	881	871	861	850	838	827	815	802	668	508	507	507	507	507	507	4,765
NET CASH FLOW	-3,042	-2,536	676	698	651	607	565	526	490	455	422	332	238	224	212	200	220	220	937
NET PRESENT VALUES	6%	-2,986	-2,443	639	648	593	496	453	414	378	344	255	187	173	160	148	160	160	170
OF N. C. F. AT	8%	-2,932	-2,355	605	602	541	436	391	351	314	281	213	147	134	121	110	117	117	-437
DISCOUNT RATES:	12%	-2,879	-2,271	573	560	494	384	338	298	262	231	171	116	104	93	83	86	86	-920
	14%	-2,829	-2,192	543	522	452	340	294	254	220	190	139	92	81	71	62	64	64	-1,305
	16%	-2,780	-2,117	516	487	415	301	256	217	185	157	113	74	63	55	47	47	47	-1,613
INTERNAL RATE OF RETURN:																			8.5 %

Table 8.6.18 Cashflow on Modernized Plant (150 t/day) plus Modernization of Existing Facilities at Barones

(Case of 10% up Ag price)

BARONES 150T/D MODERNIZED PLANT PLUS MODERNIZATION OF THE EXISTING FACILITIES AG=630																			
(1000 US DOLLAR)																			
YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+ NET REVENUE		132	1-970	1-970	1-970	1-970	1-970	1-970	1-970	1-970	1-970	1-838	1-838	1-838	1-838	1-838	1-838	1-838	28,890
-) OPERATING COST		-49	970	970	970	970	970	970	970	970	970	1-019	1-019	1-019	1-019	1-019	1-019	1-019	14,795
OPERATING PROFIT		181	1-000	1-000	1-000	1-000	1-000	1-000	1-000	1-000	1-000	819	819	819	819	819	819	819	14,095
-) DEPRECIATION		22	547	547	547	547	547	547	547	547	547	525	525	525	525	525	525	525	5,955
-) INTEREST 5%		151	321	293	261	227	192	156	119	81	42	1	1	1	1	1	1	1	1,854
PROFIT BEFORE TAX		0	132	160	192	226	261	297	334	372	411	293	270	252	232	210	188	170	6,278
-) INCOME TAX 35%			46	56	67	79	91	104	117	130	144	103	94	85	76	67	59	52	2,197
PROFIT AFTER TAX			86	104	125	147	170	193	217	242	267	190	176	167	156	143	129	118	4,081
-) INITIAL INVESTMENT	3,225	3,024																	6,249
-) WORKING CAPITAL	3,225	3,185																	6,410
+) PRIMARY BANK LOANS			548	651	672	694	717	740	764	789	814	21	0	0	0	0	0	0	6,410
-) LOAN REPAYMENT		0	0	0	0	0	0	0	0	0	0	694	567	567	567	567	567	567	3,614
SURPLUS	3,225	6,410	5,862	5,211	4,539	3,845	3,128	2,388	1,624	835	21	0	0	0	0	0	0	0	0
DEBT OUTSTANDING																			0
BEFORE INTEREST																			0
NET CASH FLOW																			0
NET PRESENT VALUES	8%	-3,225	-2,843	869	944	933	909	896	883	870	856	716	567	567	567	567	567	567	5,649
OF N.C.F. AT	8%	-3,042	-2,530	730	748	697	605	562	523	486	451	356	266	251	237	223	212	202	1,452
DISCOUNT RATES:	10%	-2,986	-2,437	690	694	635	580	530	484	442	403	284	208	193	179	166	156	146	608
	12%	-2,932	-2,350	653	645	579	520	466	418	374	330	228	164	149	136	123	113	103	-60
	14%	-2,879	-2,266	619	600	529	467	411	362	318	280	184	130	116	104	92	82	72	-593
	16%	-2,829	-2,188	587	559	485	420	363	314	272	235	149	103	91	79	70	61	52	-1,019
	16%	-2,780	-2,113	557	521	444	378	322	273	232	197	121	82	71	61	53	45	37	-1,361
INTERNAL RATE OF RETURN:																			9.8 %

Table 8.6.19 Cashflow on Modernized Plant (200 t/day) plus Modernization of Existing Facilities at Barones
(Case of standard Ag price)

(1000 US DOLLAR)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
BARONES 200T/D MODERNIZED PLANT PLUS MODERNIZATION OF THE EXISTING FACILITIES AG=559.281																			
YEAR																			
+) NET REVENUE		126	2,454	2,454	2,454	2,454	2,454	2,454	2,454	2,454	2,454	2,328	2,328	2,328	2,328	2,328	2,328	36,180	
-) OPERATING COST		-49	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,322	1,322	1,322	1,322	1,322	1,322	18,340	
-) DEPRECIATION		175	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,006	1,006	1,006	1,006	1,006	1,006	16,840	
-) INTEREST 5%		22	599	599	599	599	599	599	599	599	599	577	577	577	577	577	577	6,535	
-) PROFIT BEFORE TAX		178	321	321	321	321	321	321	321	321	25	0	0	0	0	0	0	1,952	
-) INCOME TAX 35%		0	229	229	229	229	229	229	229	229	89	429	429	429	429	429	429	8,378	
-) PROFIT AFTER TAX		0	80	80	80	80	80	80	80	80	133	150	150	150	150	150	150	2,933	
-) INITIAL INVESTMENT		3,557	3,326	149	170	194	247	274	303	332	362	279	583	583	583	583	583	5,445	
-) WORKING CAPITAL																		6,883	
+) PRIMARY BANK LOANS																		0	
-) LOAN REPAYMENT																		7,061	
SURPLUS																		0	
DEBT OUTSTANDING																		4,897	
BEFORE INTEREST																		0	
NET CASH FLOW																		0	
NET PRESENT VALUES	6%	-3,557	-3,151	891	1,090	1,076	1,048	1,033	1,018	1,002	986	856	856	856	856	856	856	802	7,024
OF N.C.F. AT	8%	-3,356	-2,804	832	863	804	697	648	603	560	519	425	425	425	425	425	425	298	2,030
DISCOUNT RATES:	10%	-3,234	-2,604	745	744	668	538	482	432	385	346	273	273	273	273	273	273	151	1,559
	12%	-3,176	-2,512	705	693	611	474	417	367	323	283	220	220	220	220	220	220	113	1,117
	14%	-3,120	-2,425	669	645	559	419	362	313	270	233	178	178	178	178	178	178	85	86
	16%	-3,066	-2,342	635	602	512	371	315	268	227	193	144	144	144	144	144	144	64	-1,315
INTERNAL RATE OF RETURN:																			10.7 %

Table 8.6.20 Cashflow on Modernized Plant (200 t/day) plus Modernization of Existing Facilities at Barones

(Case of 10% down Ag price)

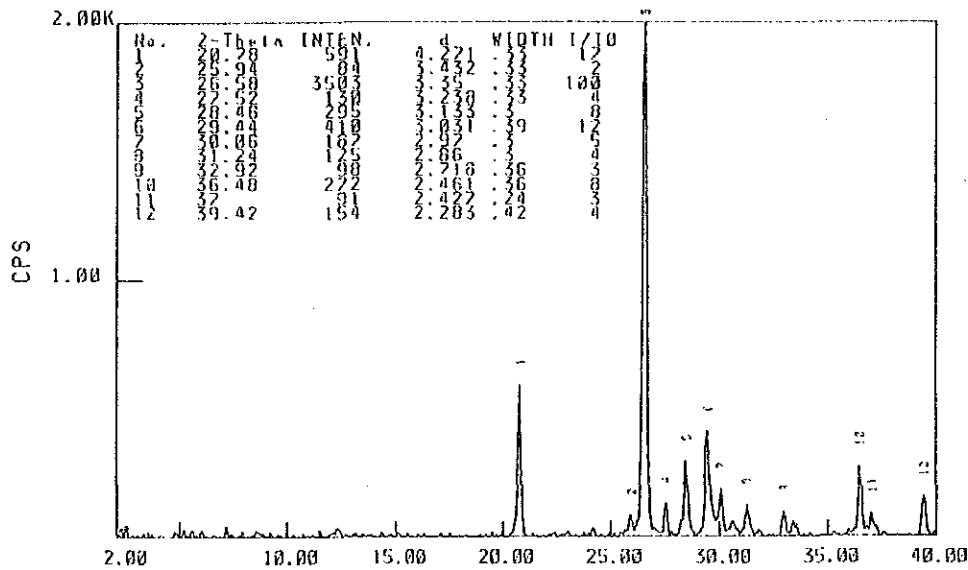
BARONES 200T/D MODERNIZED PLANT PLUS MODERNIZATION OF THE EXISTING FACILITIES AG-510																			
(1000 US DOLLAR)																			
YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	TOTAL	
+) NET REVENUE		120	2,329	2,329	2,329	2,329	2,329	2,329	2,329	2,329	2,329	2,209	2,209	2,209	2,209	2,209	2,209	2,209	34,335
-) OPERATING COST		-49	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,322	1,322	1,322	1,322	1,322	1,322	1,322	19,340
OPERATING PROFIT		169	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	887	887	887	887	887	887	887	14,995
-) DEPRECIATION		22	599	599	599	599	599	599	599	599	599	577	577	577	577	577	577	577	6,535
-) INTEREST 5%		178	353	353	325	291	256	219	181	143	61	18	0	0	0	0	0	0	2,127
PROFIT BEFORE TAX		0	104	132	132	166	201	238	276	314	355	292	278	278	278	278	278	278	6,364
-) INCOME TAX 35%		0	36	46	46	58	70	83	97	110	124	102	102	102	102	102	102	102	2,225
PROFIT AFTER TAX		0	68	86	86	108	155	179	204	231	257	190	190	190	190	190	190	190	4,139
-) INITIAL INVESTMENT	3,557	3,326																	6,863
-) WORKING CAPITAL			110																0
+) PRIMARY BANK LOANS	3,557	3,504	557	685	707	730	754	778	803	830	856	361	0	0	0	0	0	0	7,061
-) LOAN REPAYMENT			0	0	0	0	0	0	0	0	0	406	615	615	615	615	615	615	3,591
SURPLUS	3,557	7,061	6,504	5,819	5,112	4,382	3,628	2,850	2,047	1,217	361	0	0	0	0	0	0	0	0
DEBT OUTSTANDING																			-110
BEFORE INTEREST																			0
NET CASH FLOW	-3,557	-3,157	910	1,010	998	986	973	959	946	932	917	785	615	615	615	615	615	615	5,887
NET PRESENT VALUES OF N. C. F. AT DISCOUNT RATES:																			
6%	-3,356	-2,810	764	800	746	695	647	602	560	520	483	390	288	272	257	242	242	242	1,370
8%	-3,294	-2,707	722	742	679	621	568	518	473	432	393	312	226	209	194	180	180	180	466
10%	-3,234	-2,609	684	690	620	557	499	447	401	359	321	250	178	162	147	134	134	134	-250
12%	-3,176	-2,517	648	642	566	500	440	387	341	300	264	201	141	126	112	100	100	100	-818
14%	-3,120	-2,429	614	598	518	449	389	336	291	251	217	163	112	98	86	76	76	76	-1,272
16%	-3,066	-2,346	583	558	475	405	344	293	249	211	179	132	89	77	66	57	58	58	-1,636
INTERNAL RATE OF RETURN:																			9.2 %

Appendix-A

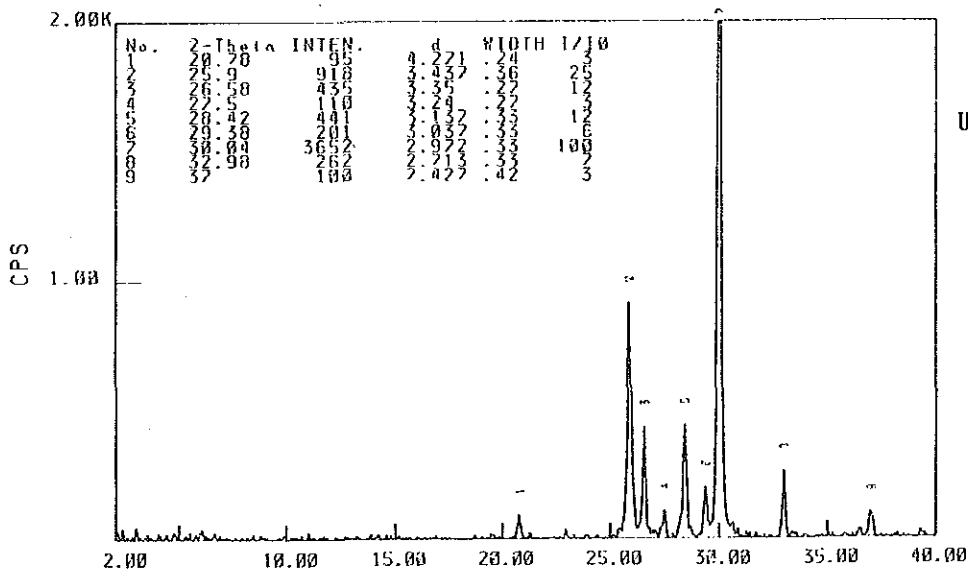
X-ray diffraction patterns

TARGET :Cu
VOL and CUR: 30KV 15mA
SLITS :DS 1 RS .15 SS 1
SCAN SPEED: 10 DEG/MIN.
STEP/SAMPL. : .02 DEG

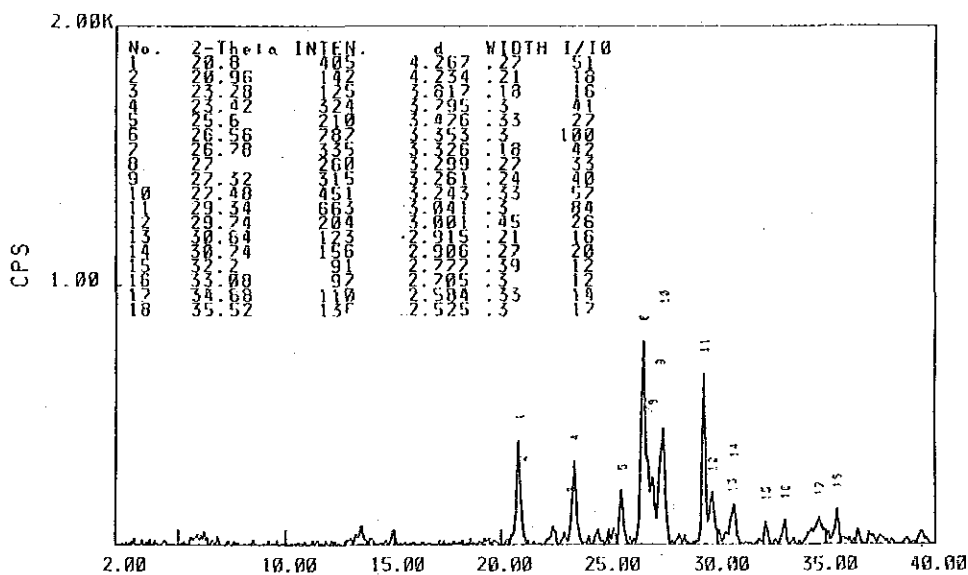
PARRAL



LA FORTUNA

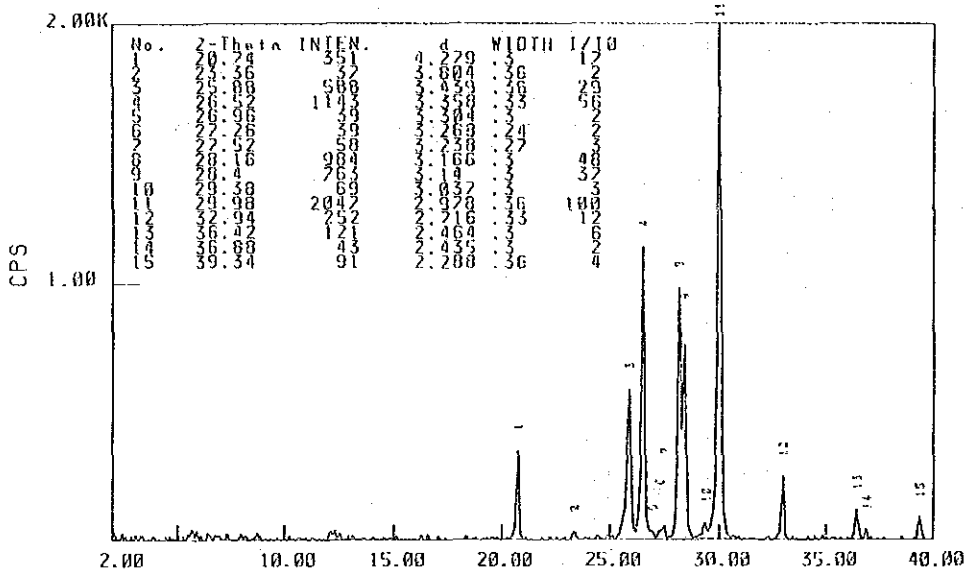


UNIFICACION CORDERO

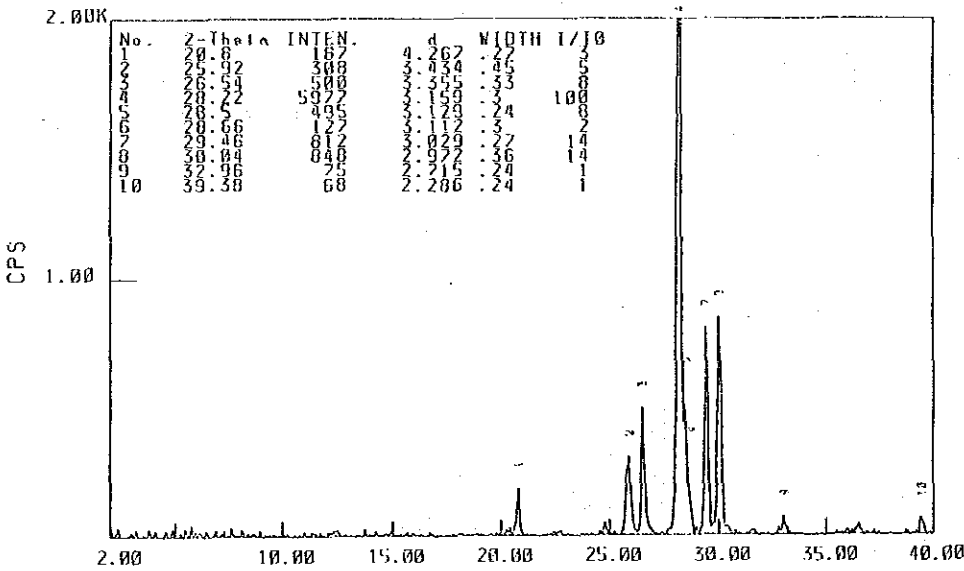


REVANCHA

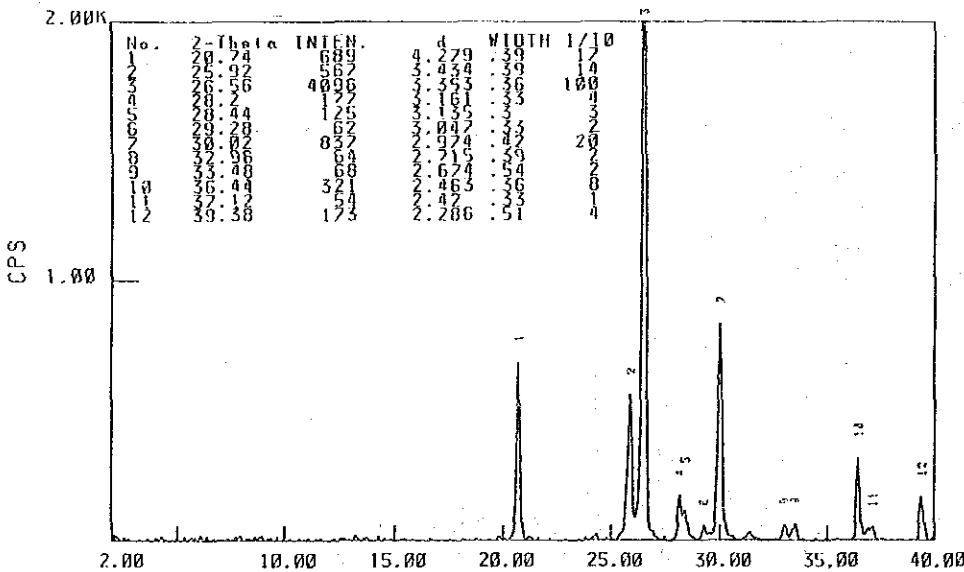
PARRAL



LA ESPERANZA

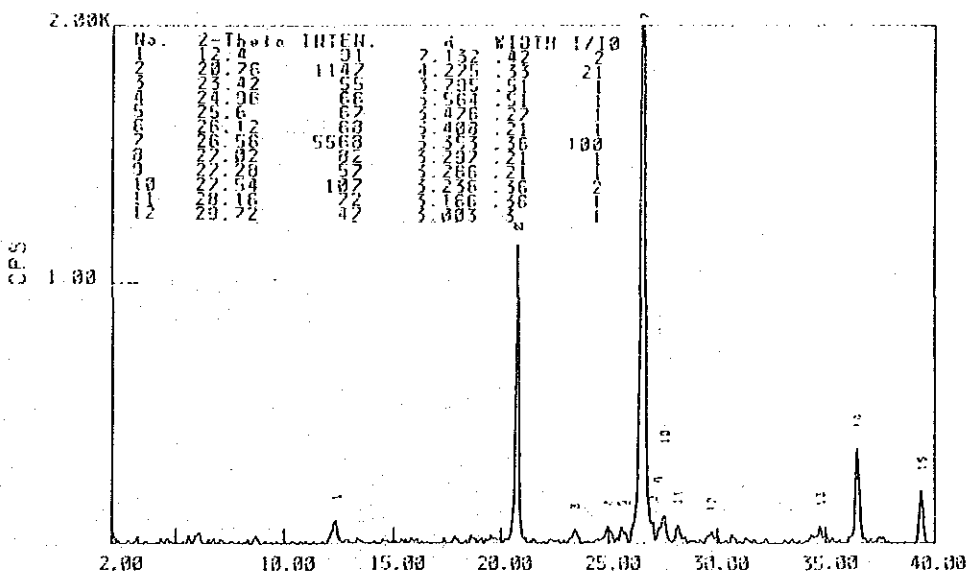
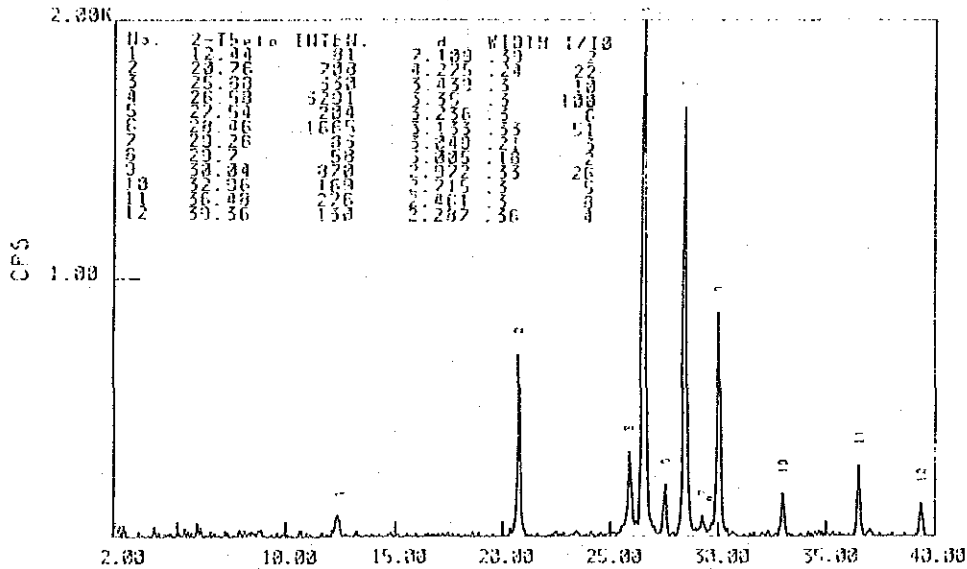
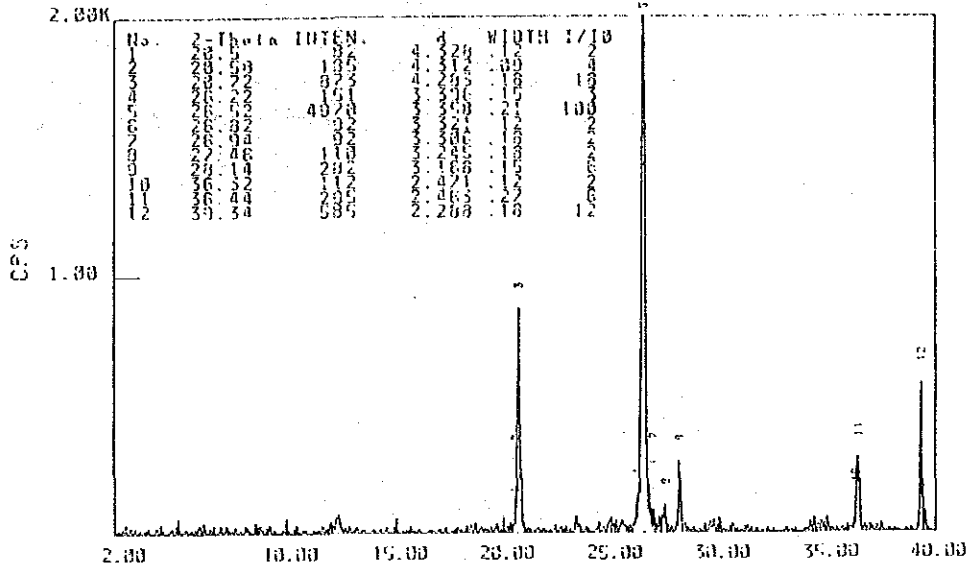


LA PRESA

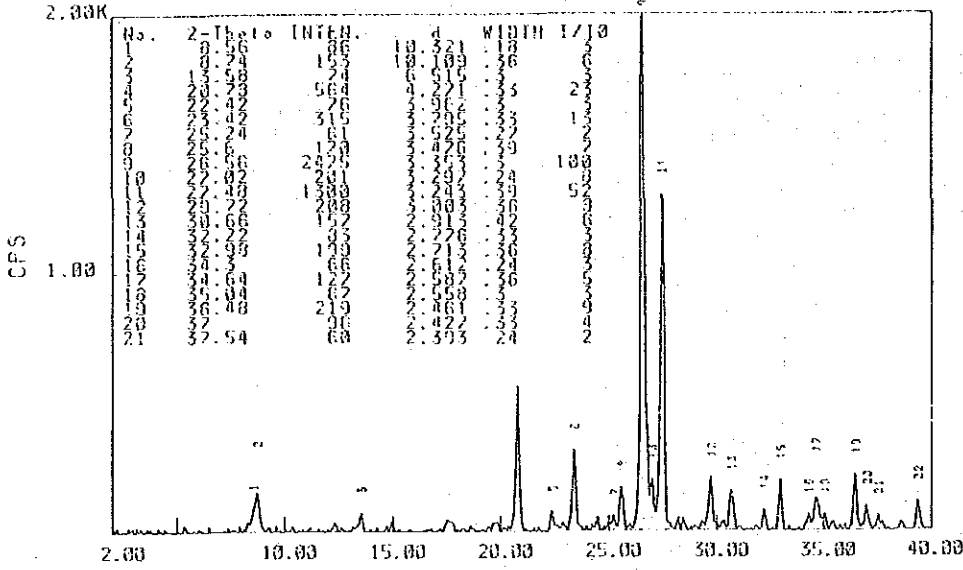


TILITA

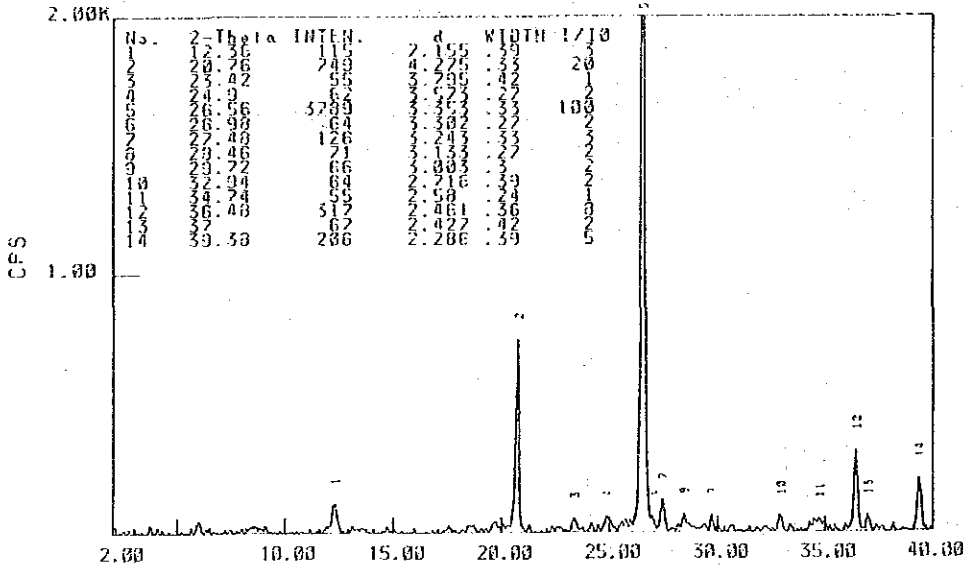
GUANACEVI



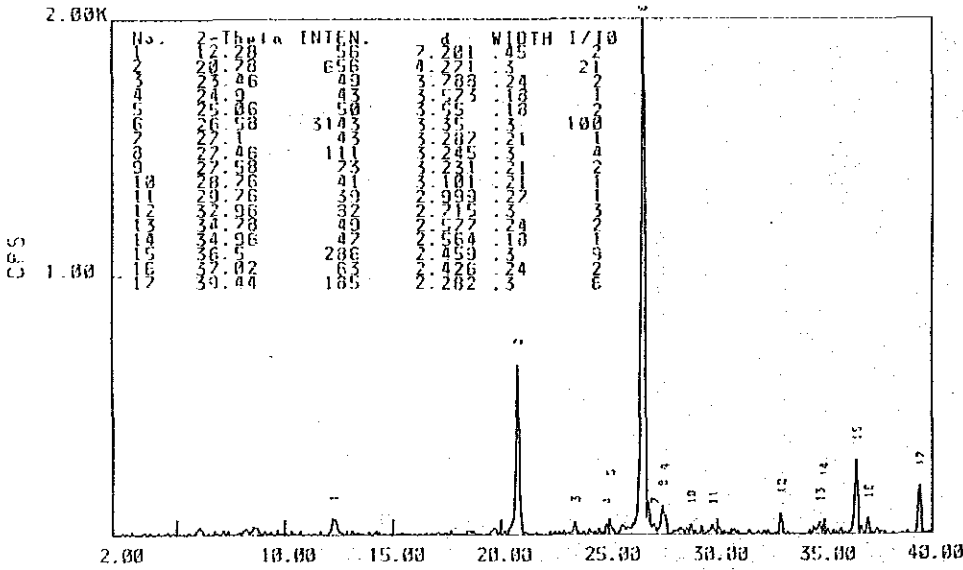
GUANACEVI



AMPLÉ DEL ALTO DEL
NUEVO PORVEIR

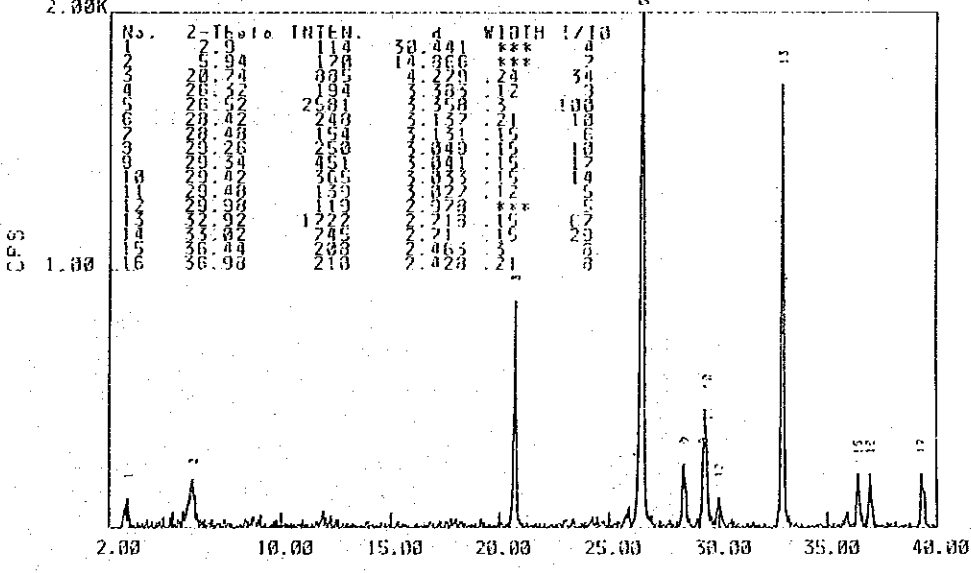
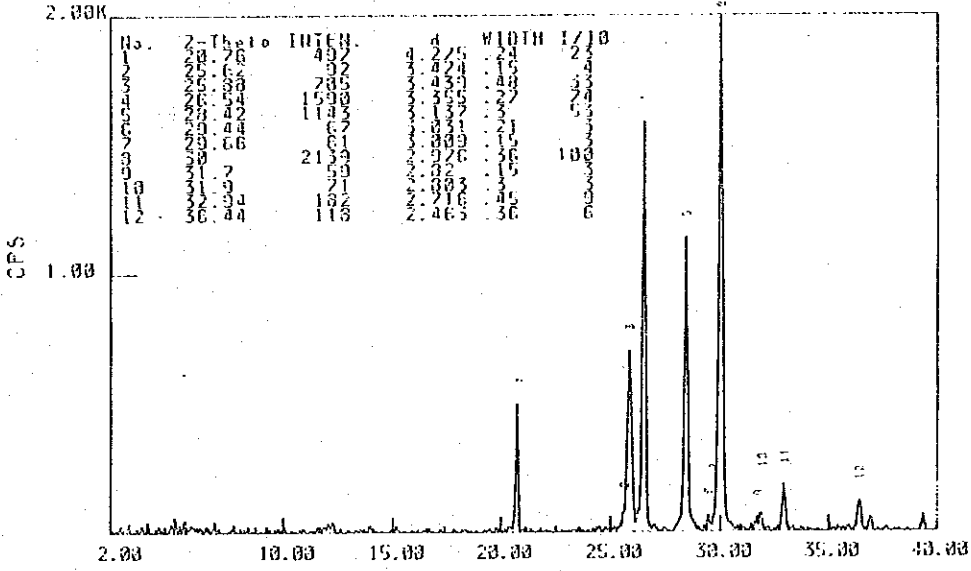
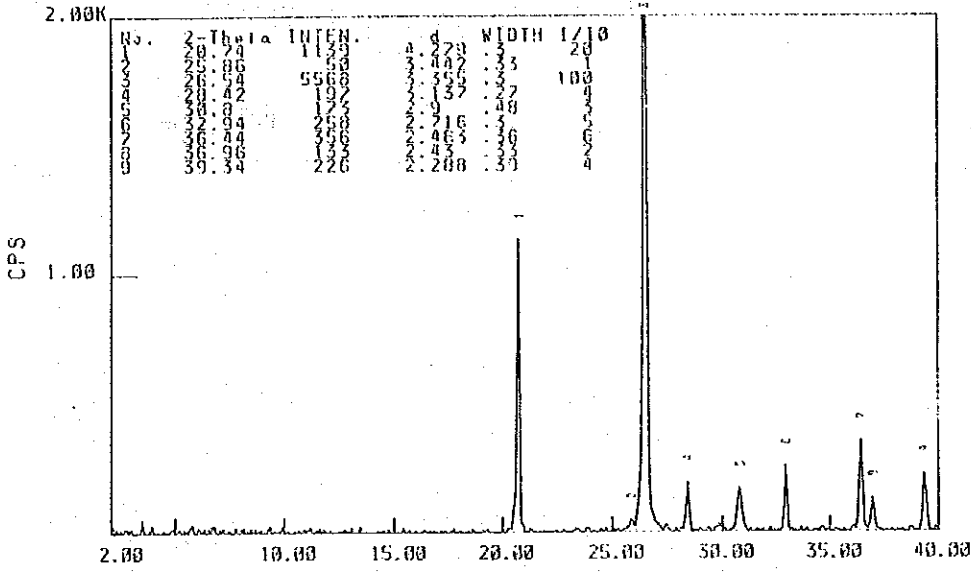


SAN RAFAEL

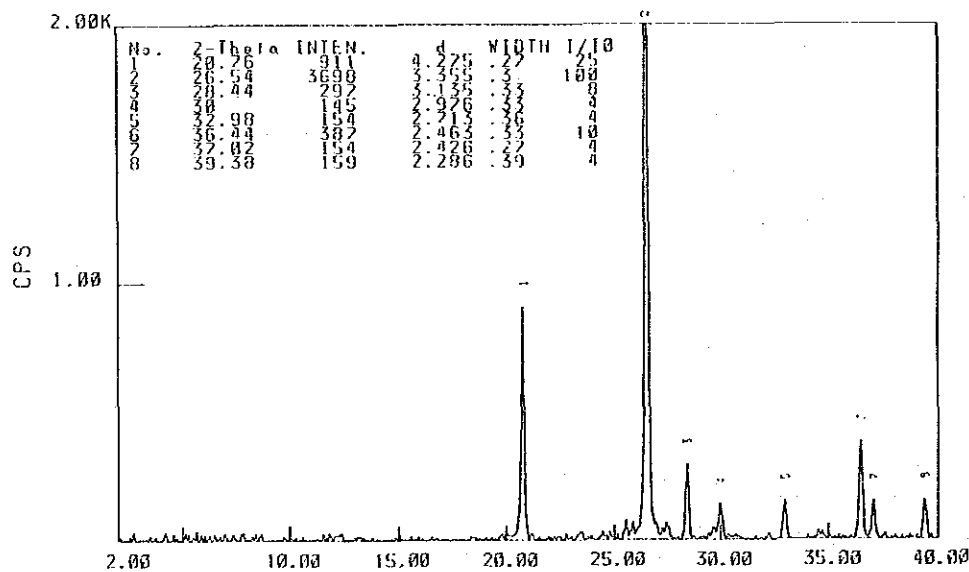
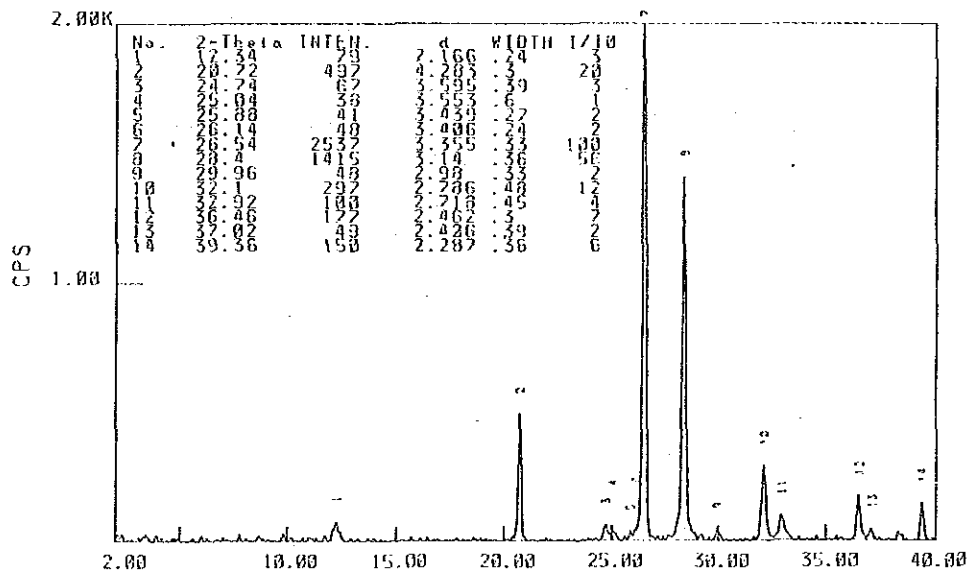
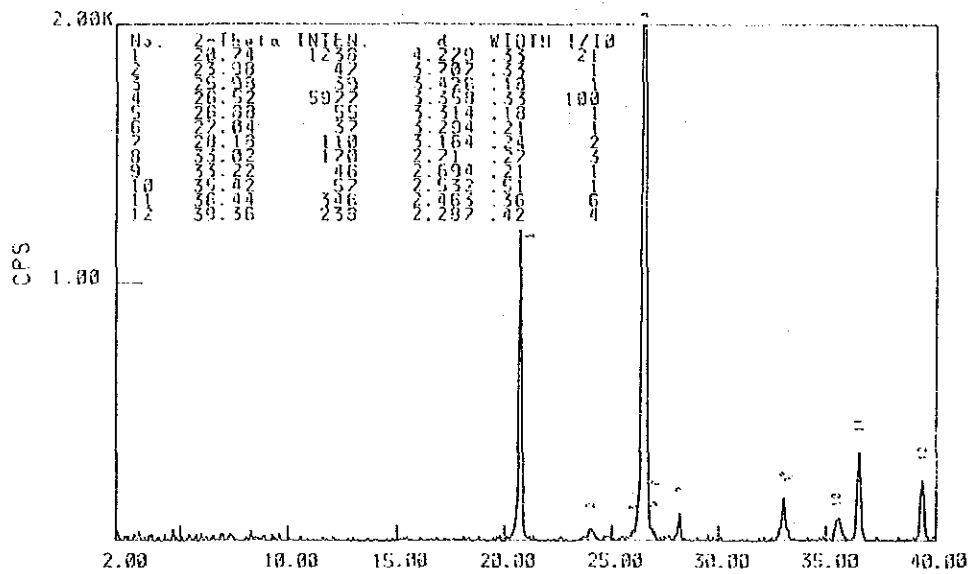


NOCHE BUENA

BARONES



BARONES

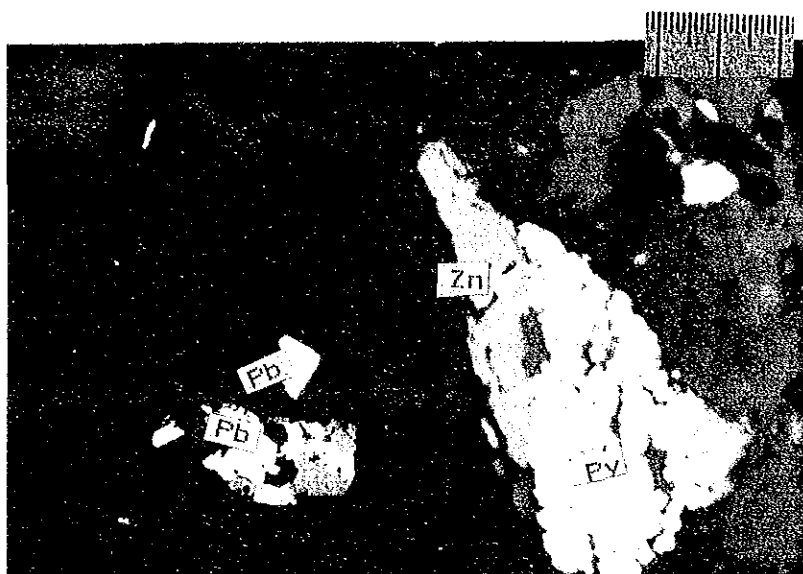


Appendix-B

Microscopic analysis

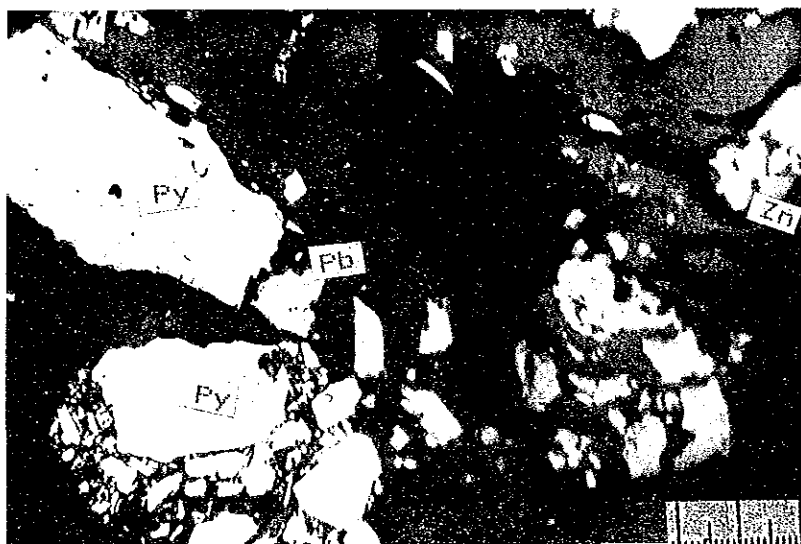
Cp:Chalcopyrite (CuFeS_2)
Te:Tetrahedrite ($(\text{Cu, Ag})_{10}(\text{Fe, Zn})_2(\text{As, Sb})_4\text{S}_{13}$)
Ma:Marcasite (FeS_2)
Pb:Galena (PbS)
Zn:Sphalerite (ZnS)
Py:Pyrite (FeS_2)
G :Gangue

PARRAL



LA FORTUNA

100 μ m
|



UNFICACION
CORDERO

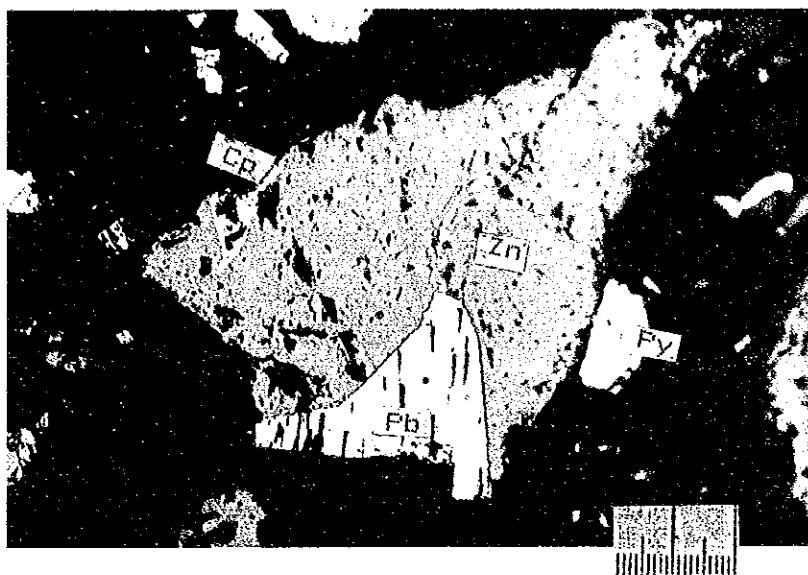
100 μ m
|



REVANCHA

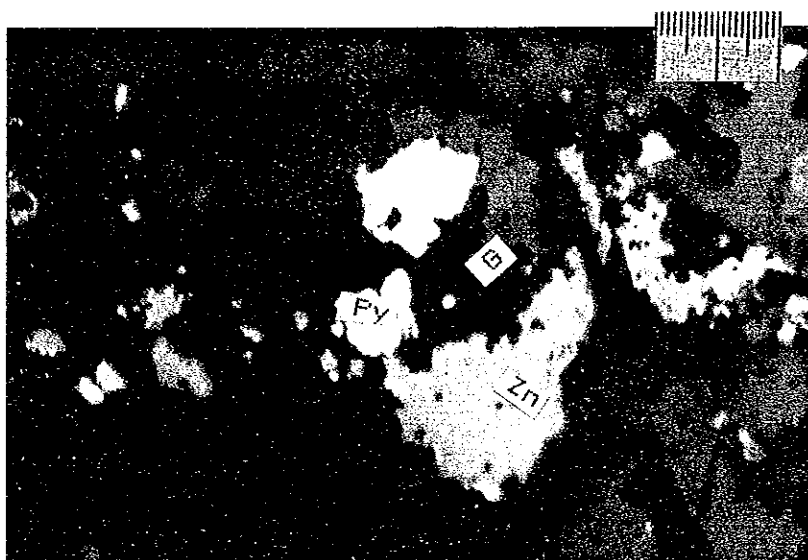
100 μ m
|

PARRAL



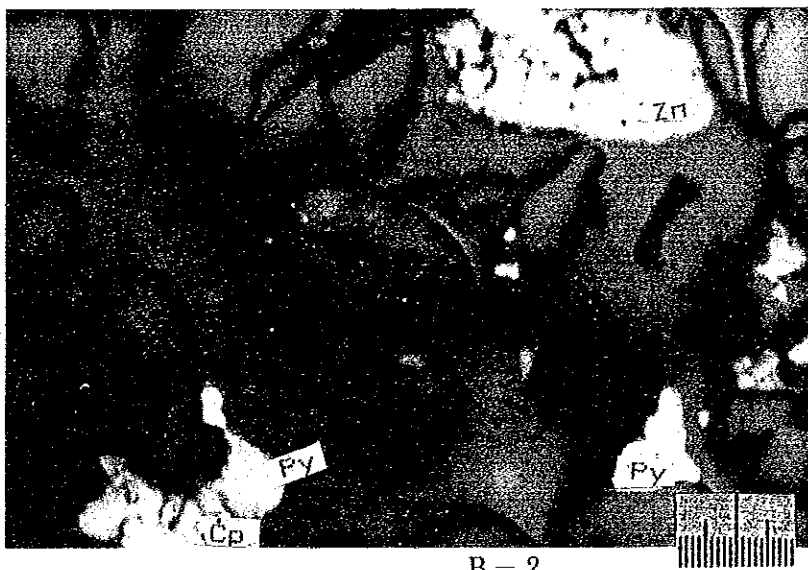
LA ESPERANZA

100 μ m
|—|



LA PRESA

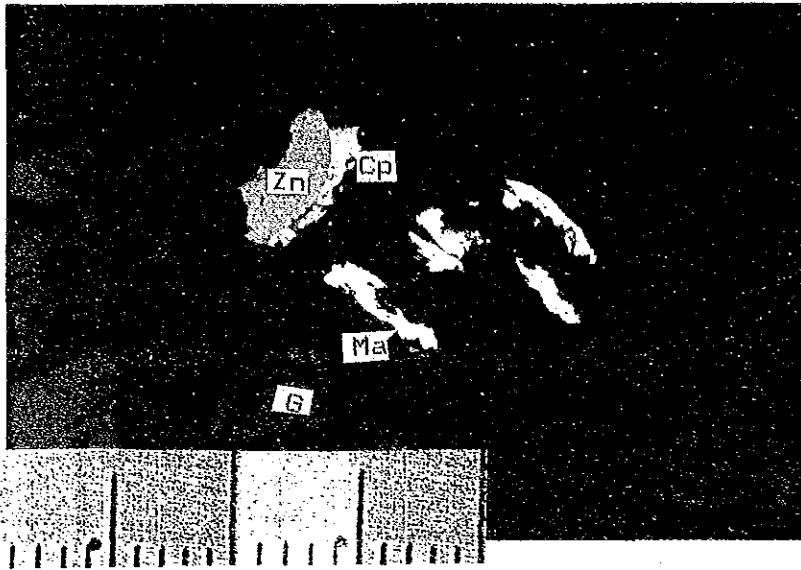
100 μ m
|—|



TILITA

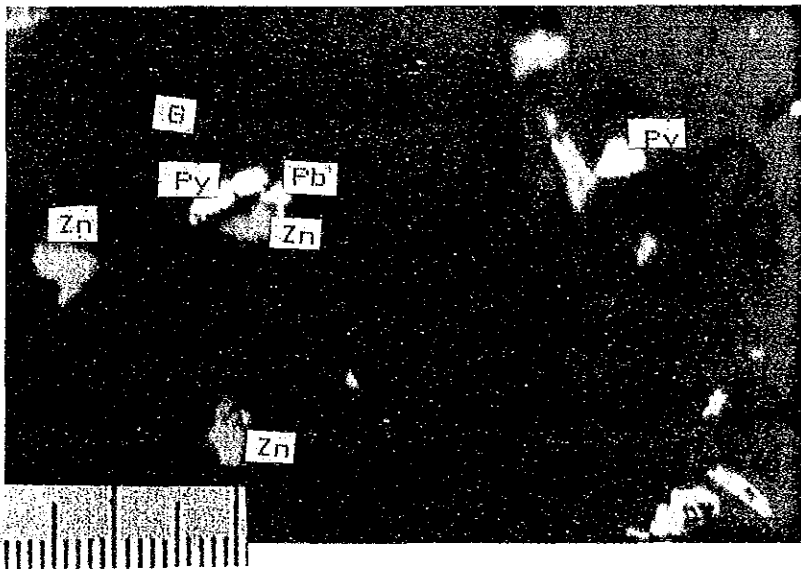
100 μ m
|—|

GUANACEVI



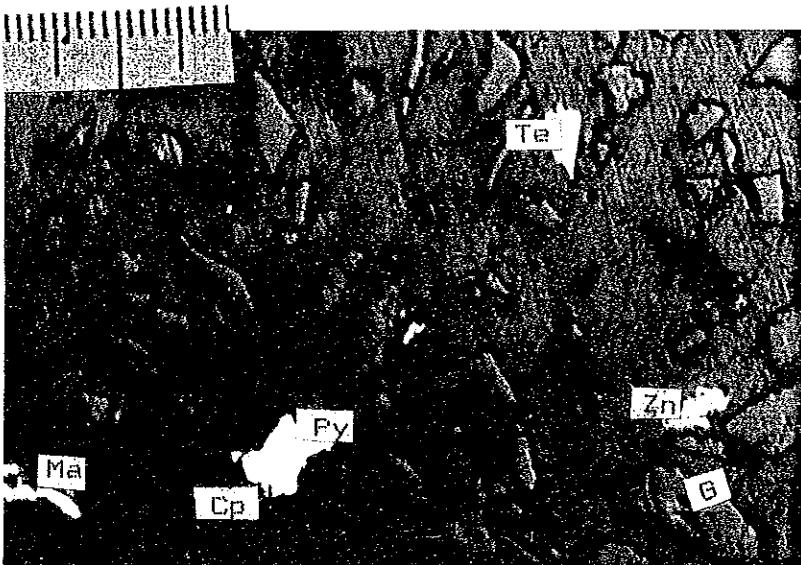
BARRADON

100 μ m



SAN JOSES CHICO

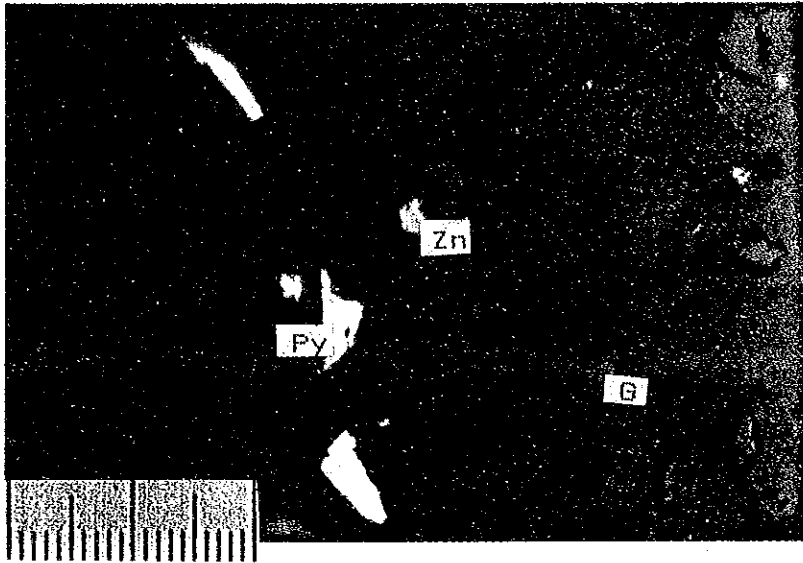
100 μ m



CAPUZAYA

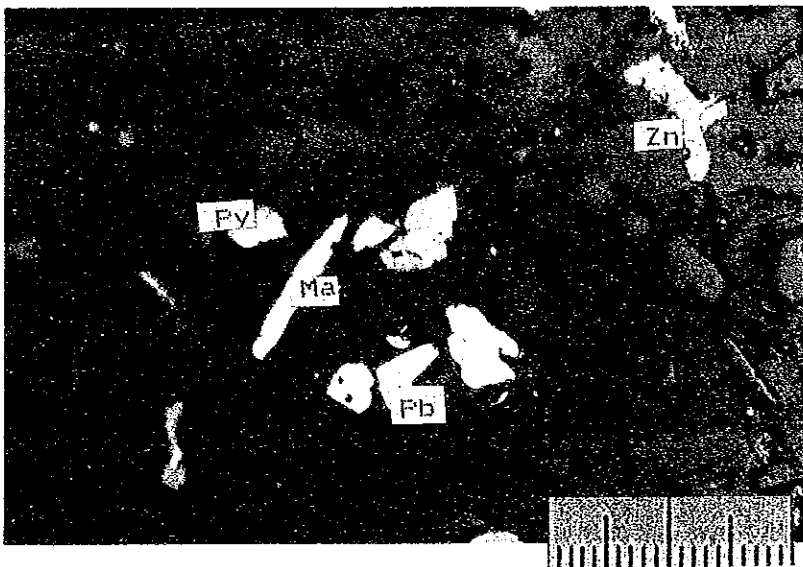
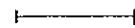
100 μ m

GUANACEVI



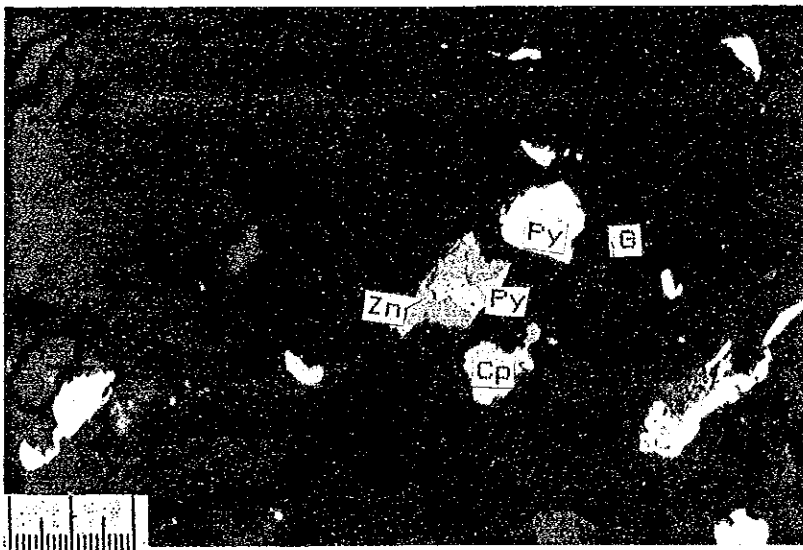
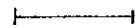
AMPEL DEL ALTO
DEL NUEVO PORVEIR

100 μ m



SAN RAFAEL

100 μ m

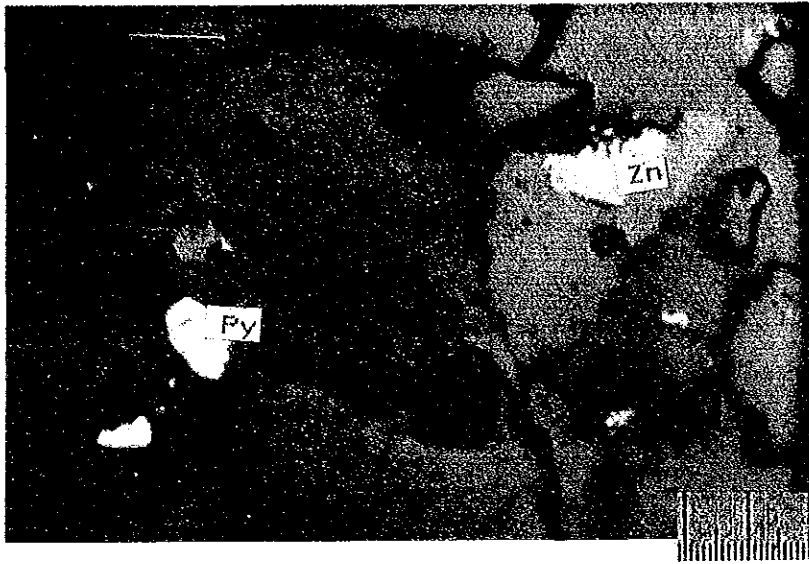


NOCHE BUENA

100 μ m

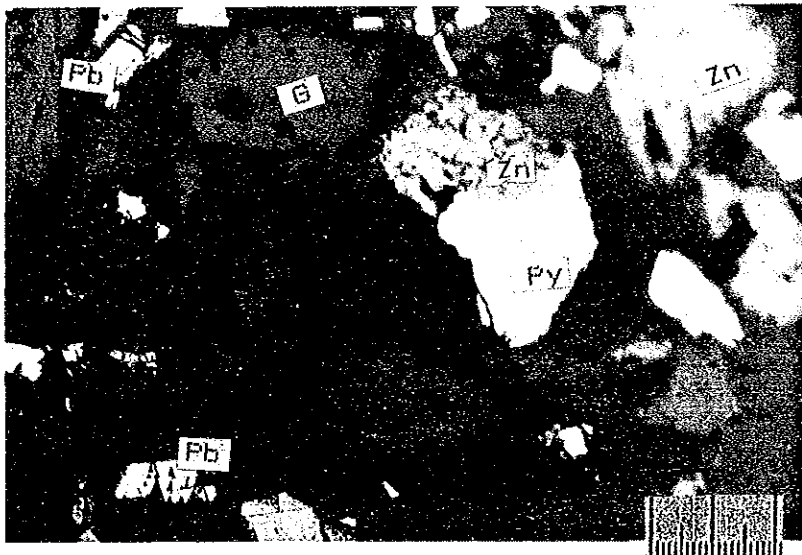


BARONES



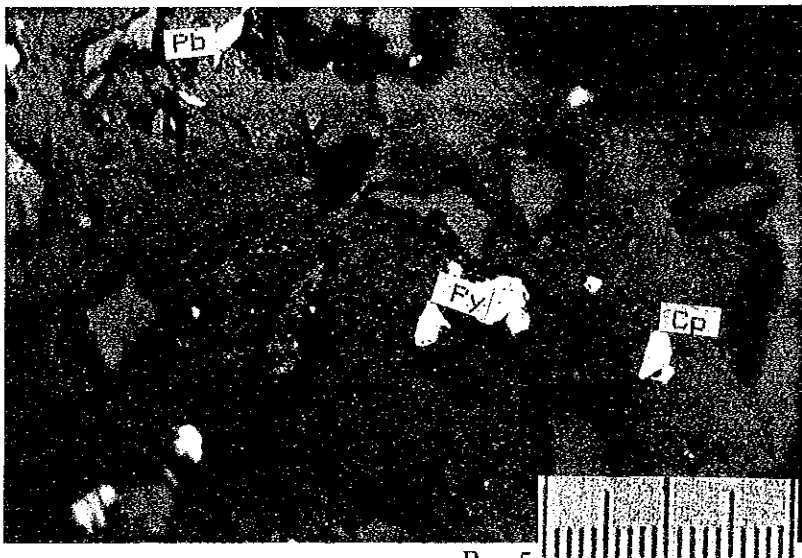
AMPL SAN MIGUEL

100 μ m
|-----|



LAS CUMBRES

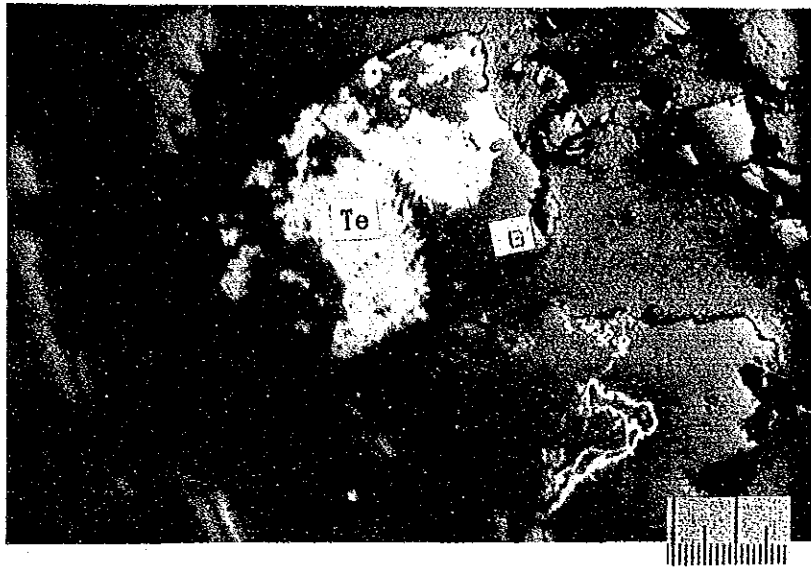
100 μ m
|-----|



CALICANTO

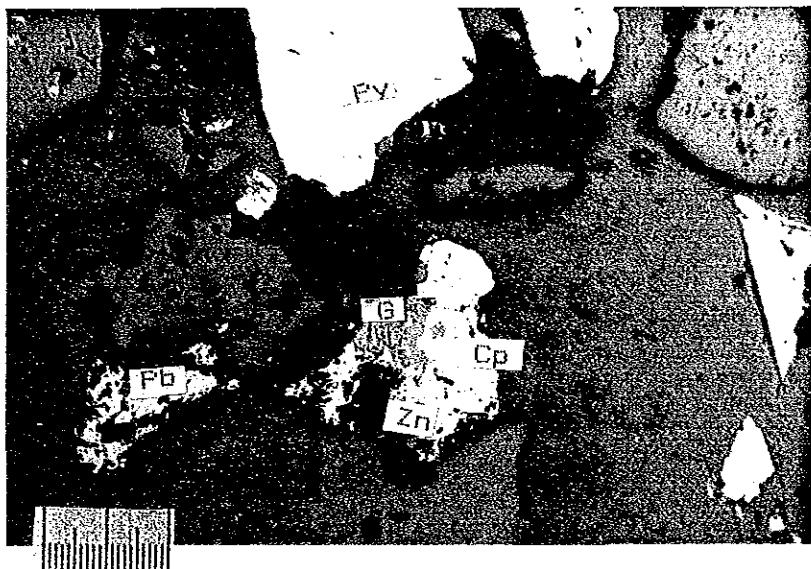
100 μ m
|-----|

BARONES



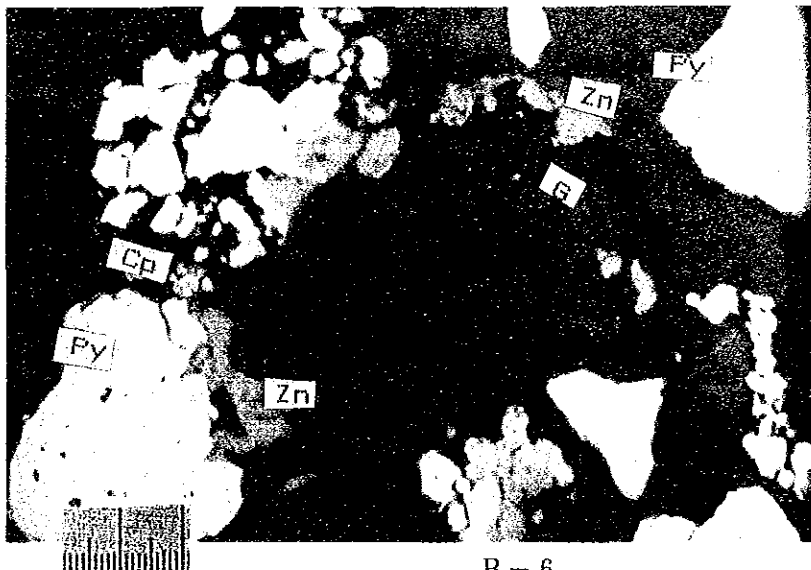
CALIFORNIA

100 μ m
|—|



SAN ROBERTO

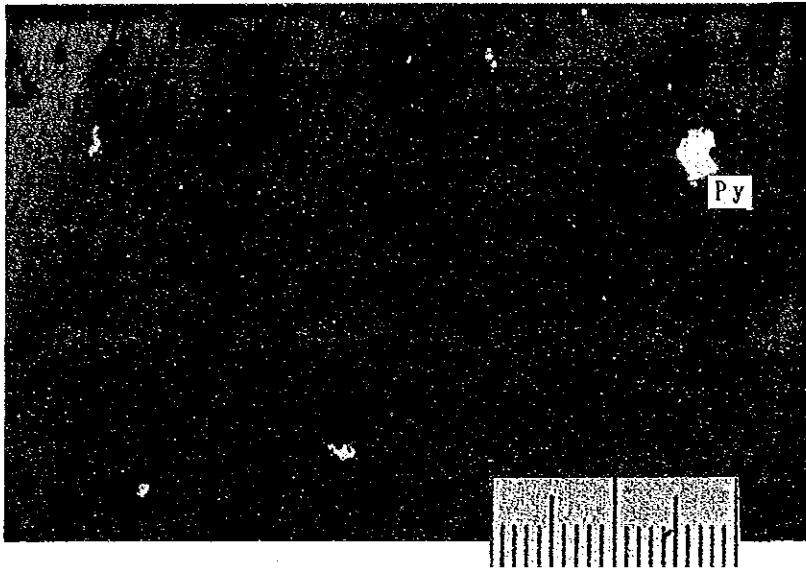
100 μ m
|—|



SAN BERNABE

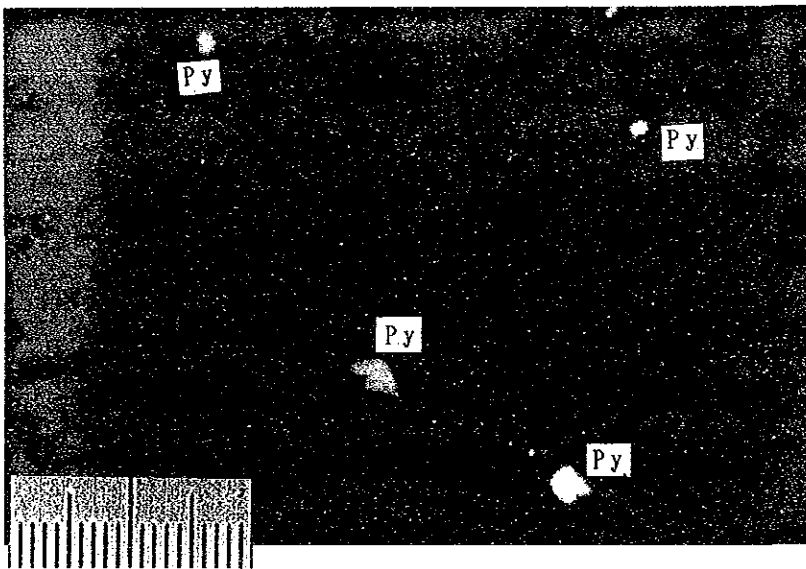
100 μ m
|—|

PARRAL



CASALE
flotation tailing

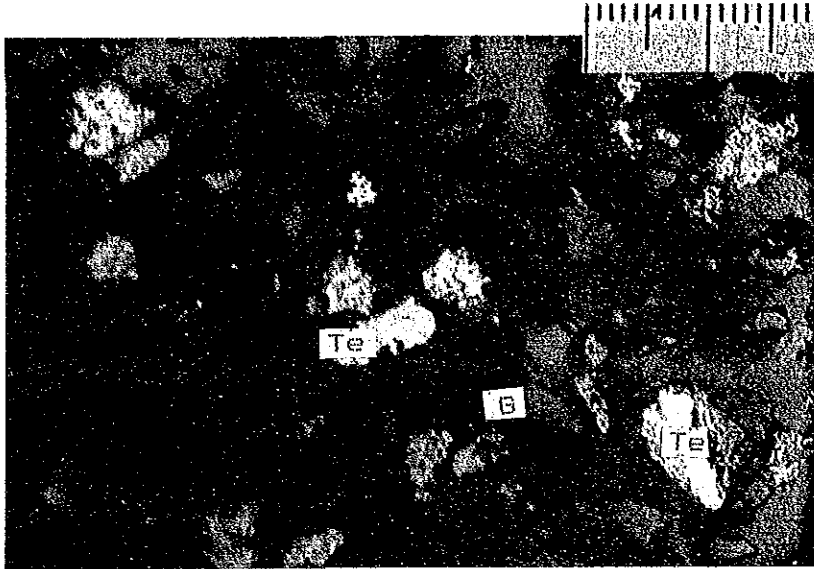
100 μ m
|-----|



CASALE
cyanidation
tailing

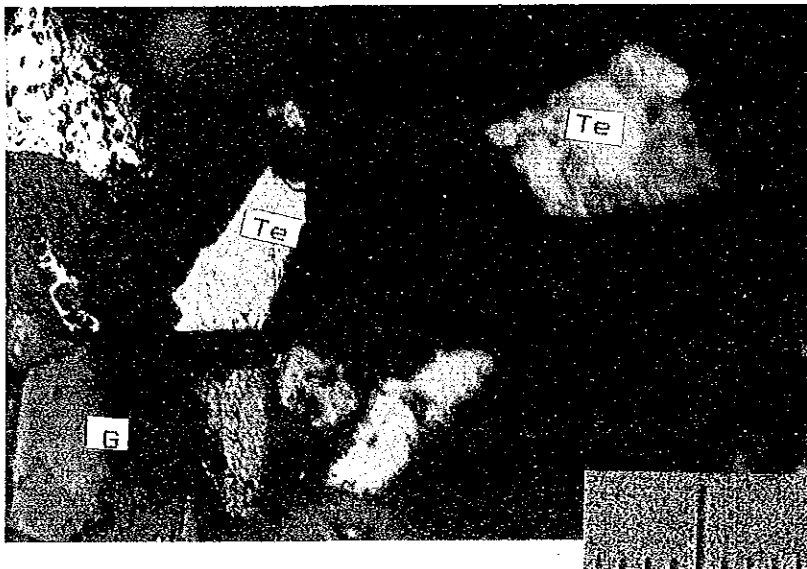
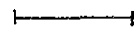
100 μ m
|-----|

GUANACEVI



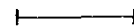
LA PRIETA
bacterial
leaching feed

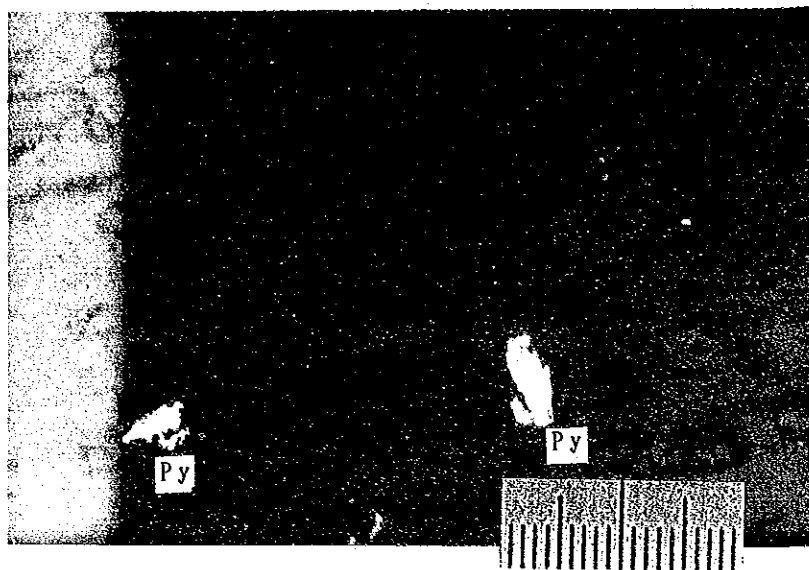
100 μ m



LA PRIETA
bacterial
leaching feed

100 μ m





SANTA MARTA

Zn flotation
tailing

100 μ m
|-----|

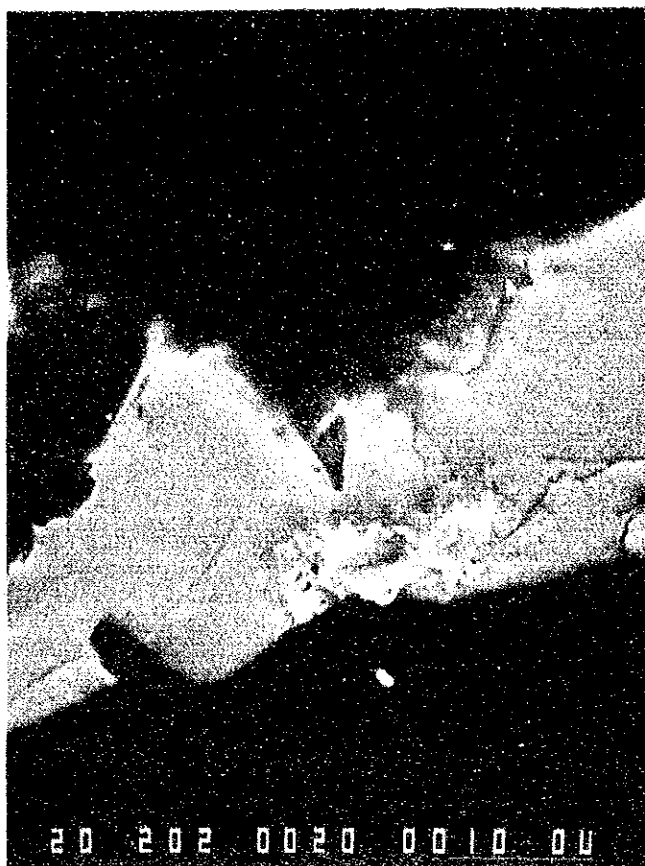
Appendix—C
E P M A

L A F O R T U N A



SE I

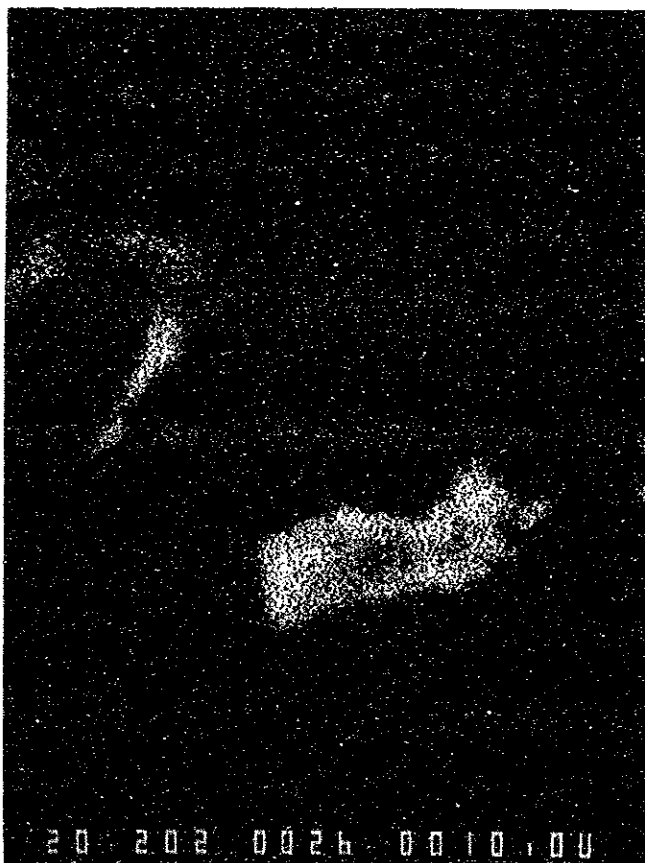
10 μ



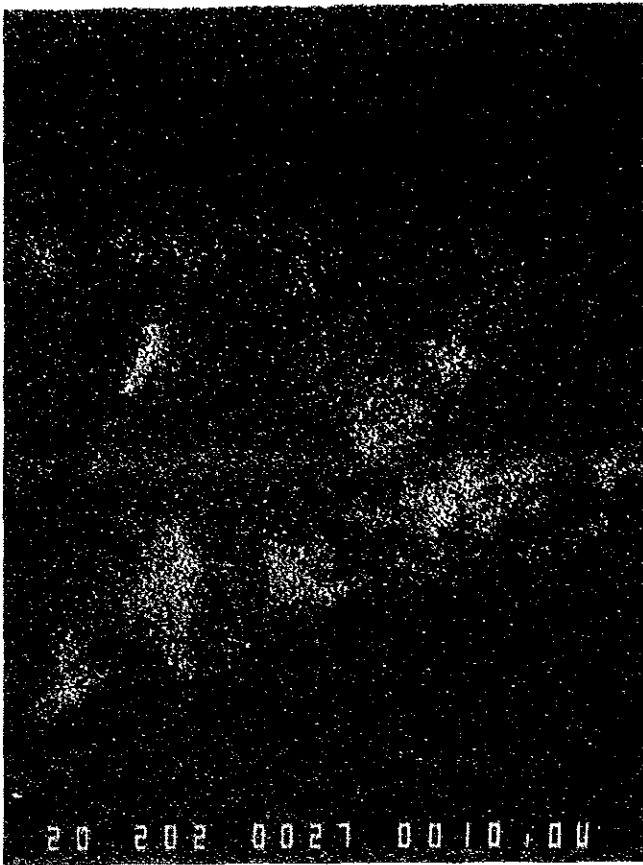
Compo



Ag



Cu



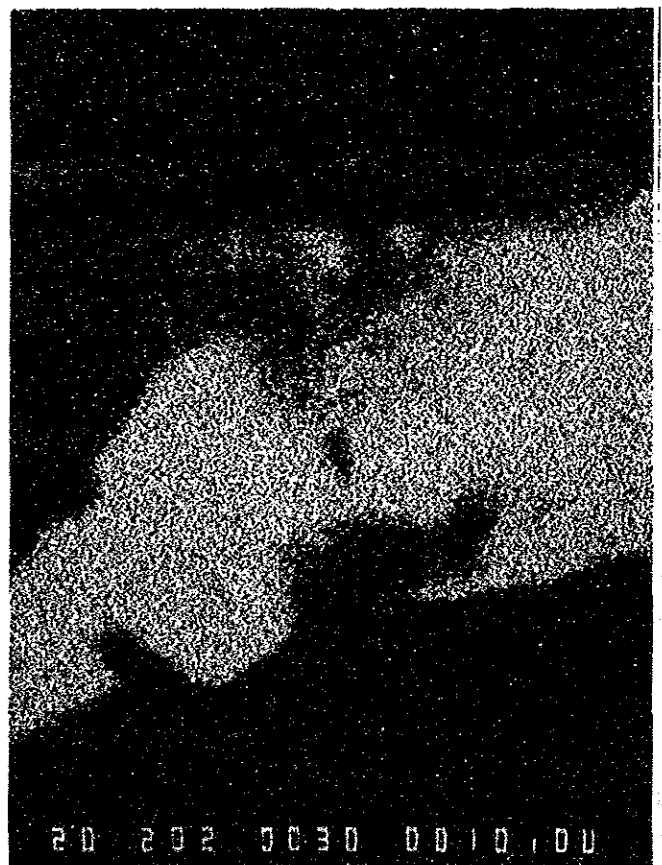
Sb



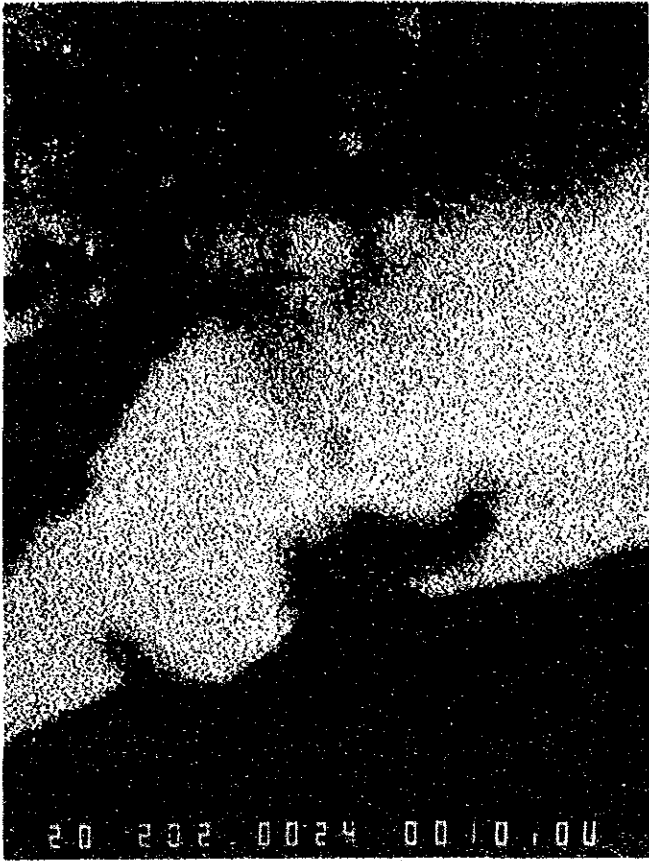
S



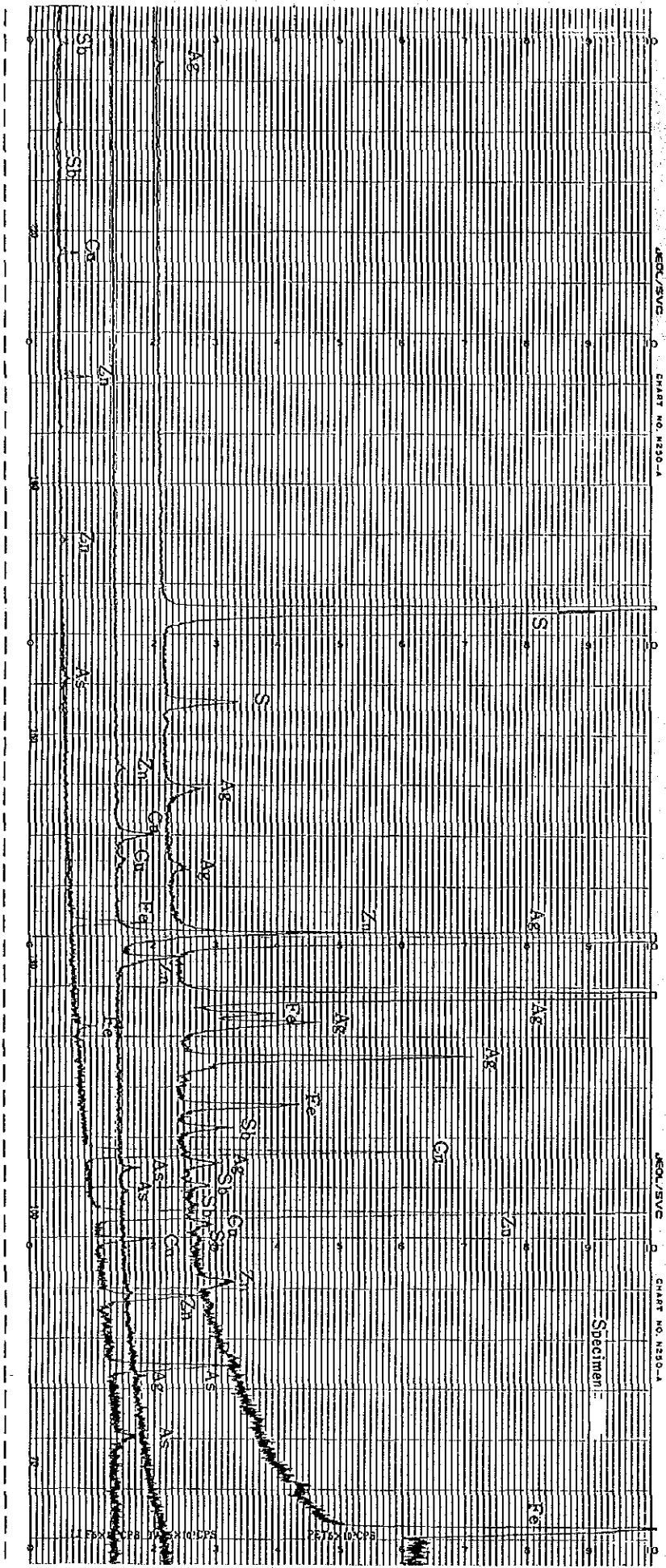
Zn



As



Fe



UNIFICACION CORDERO

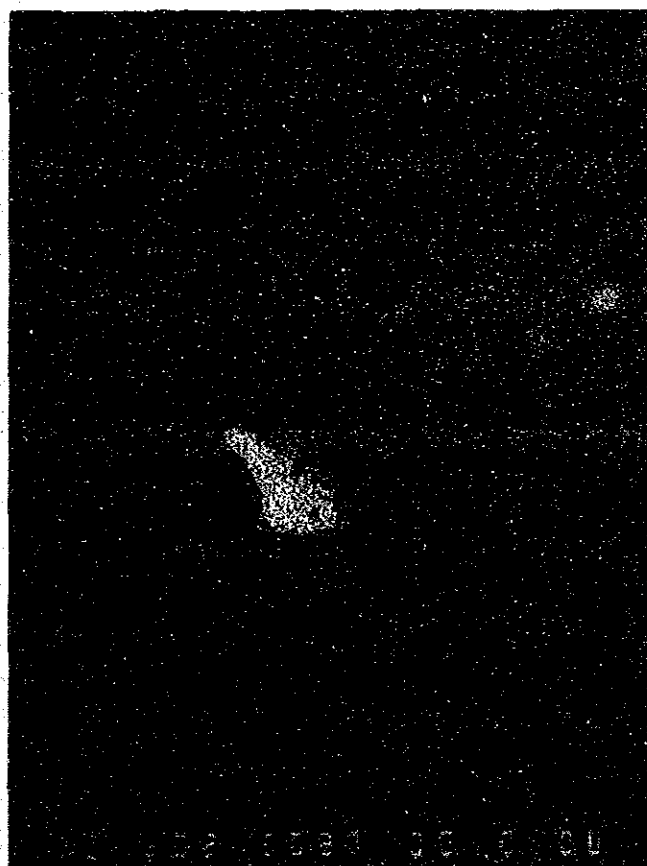


SEI

10 μ



Compo



Ag

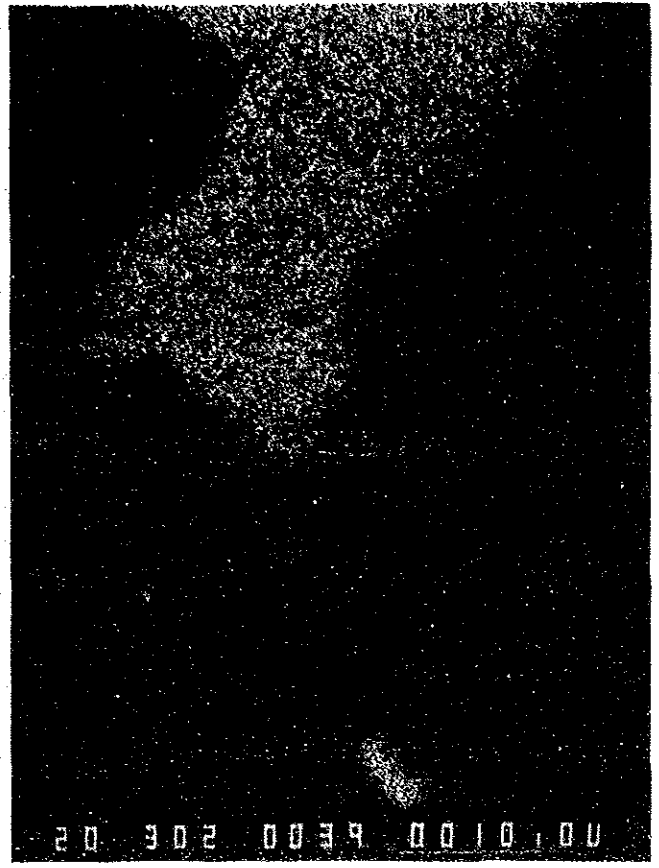
C-5



Te



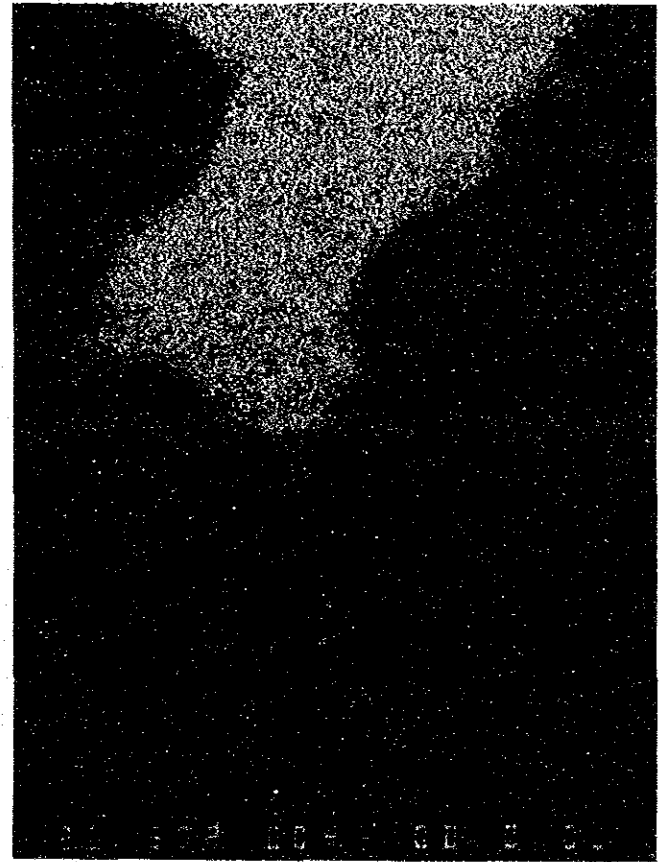
Sb



S



Mn



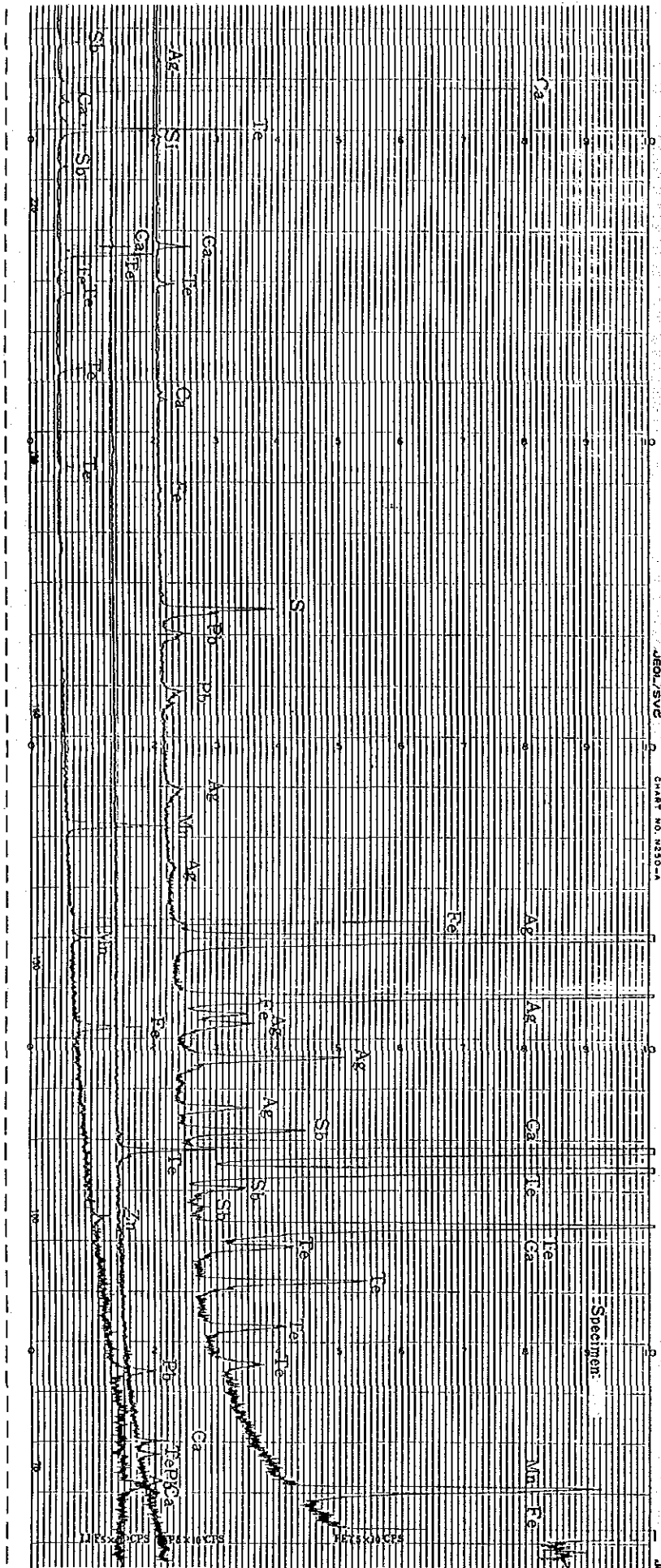
Pb



Ca



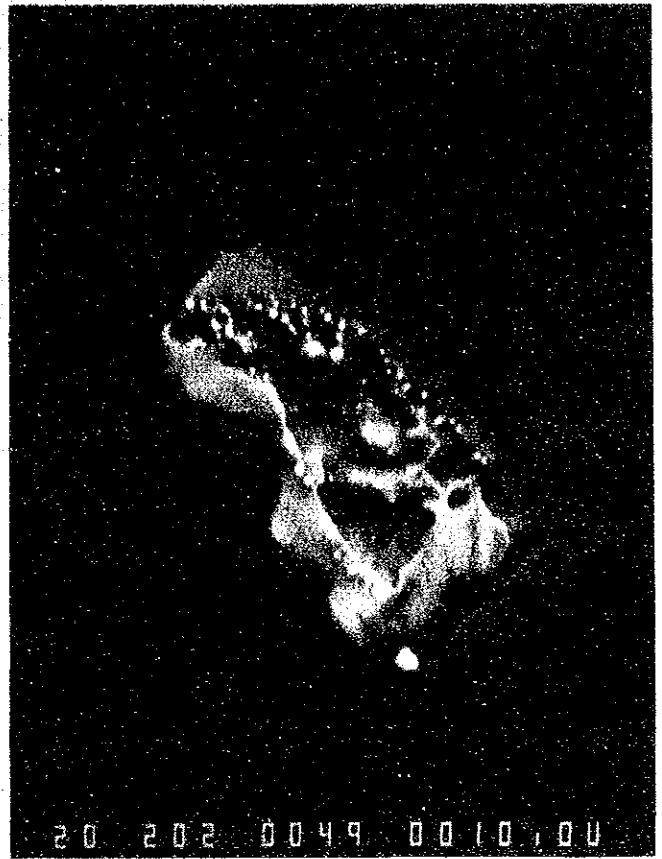
Fe



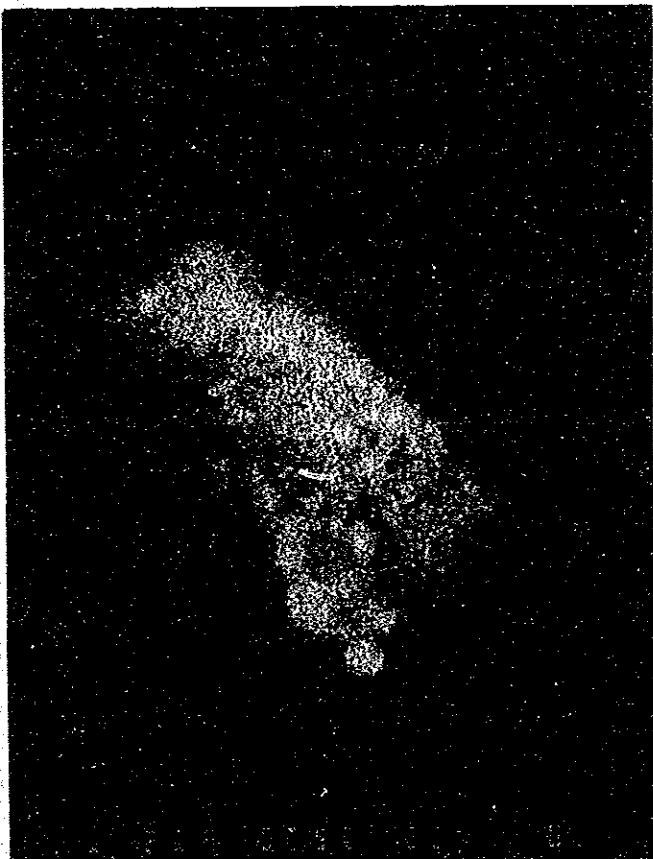


SEI

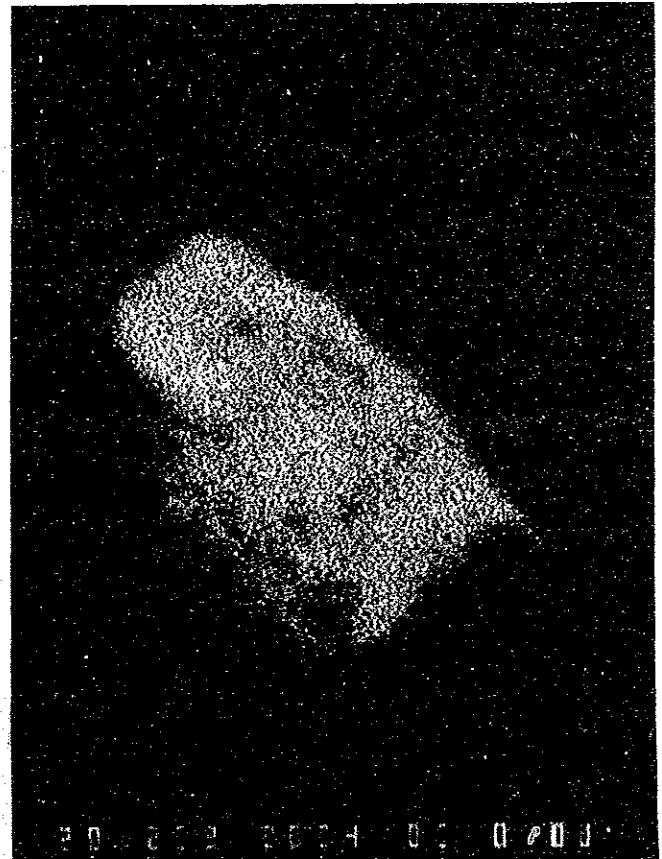
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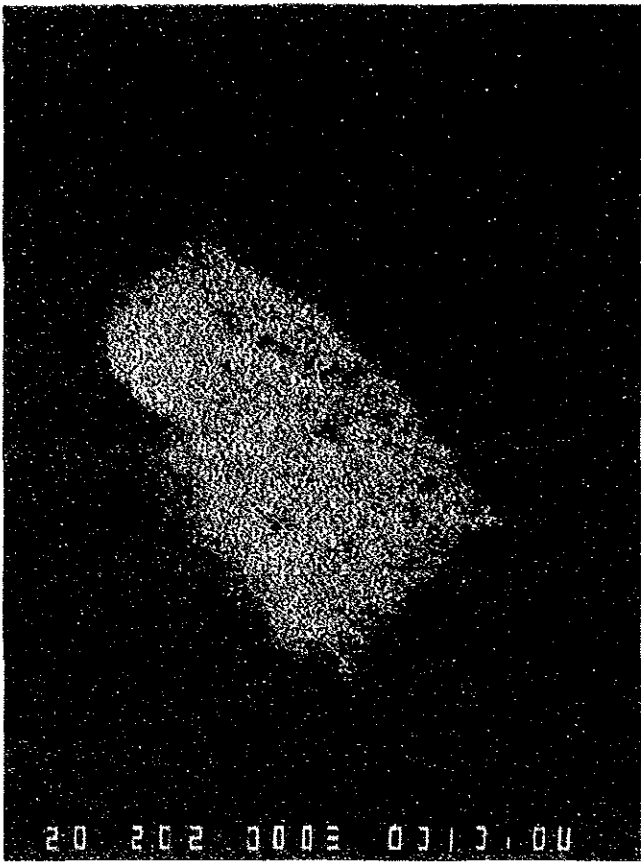
Compo



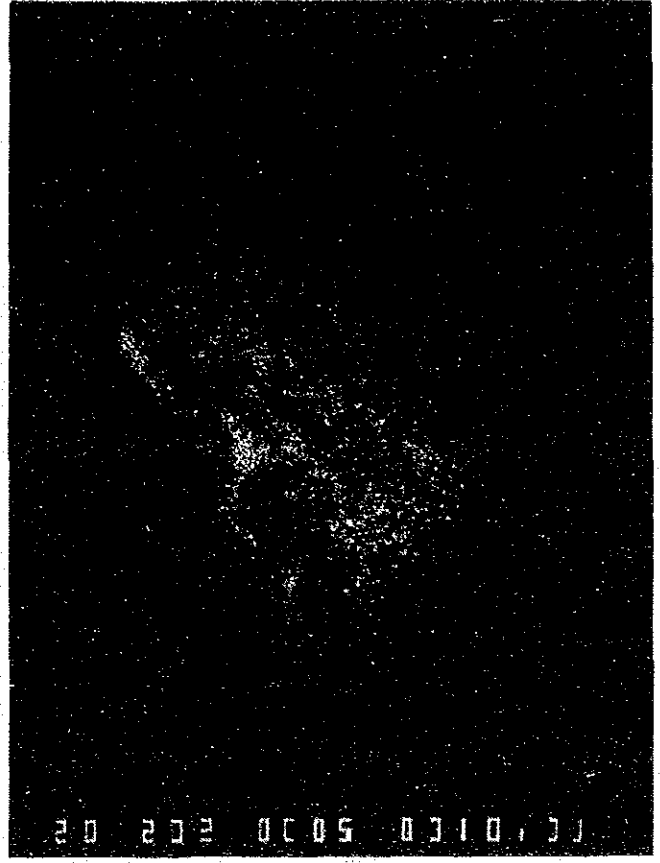
Ag



Sb



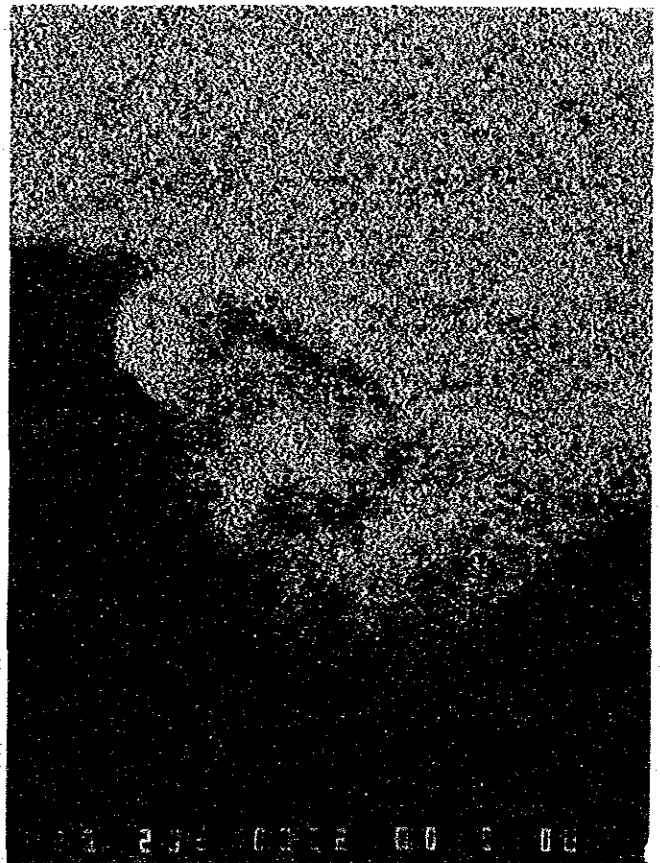
Cu



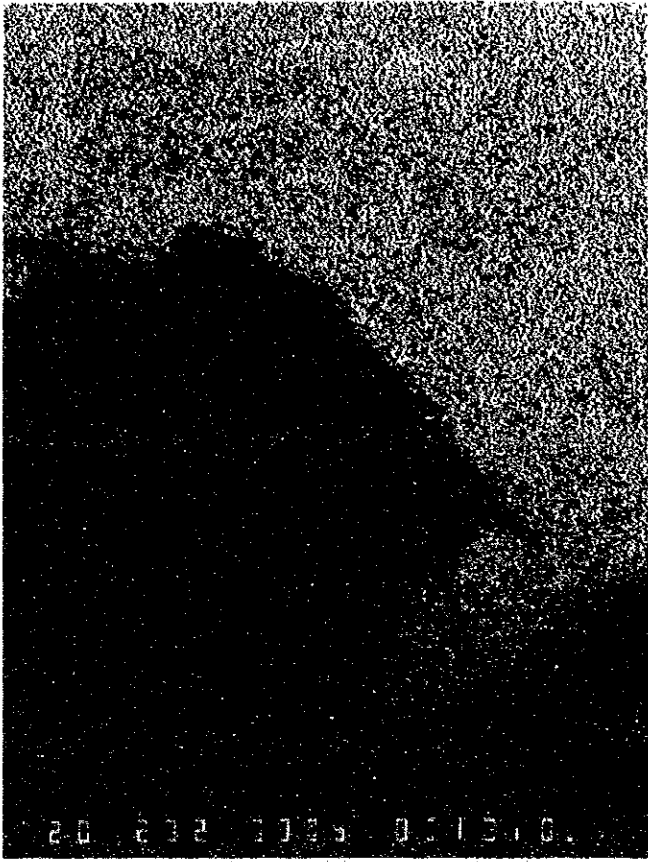
Zn



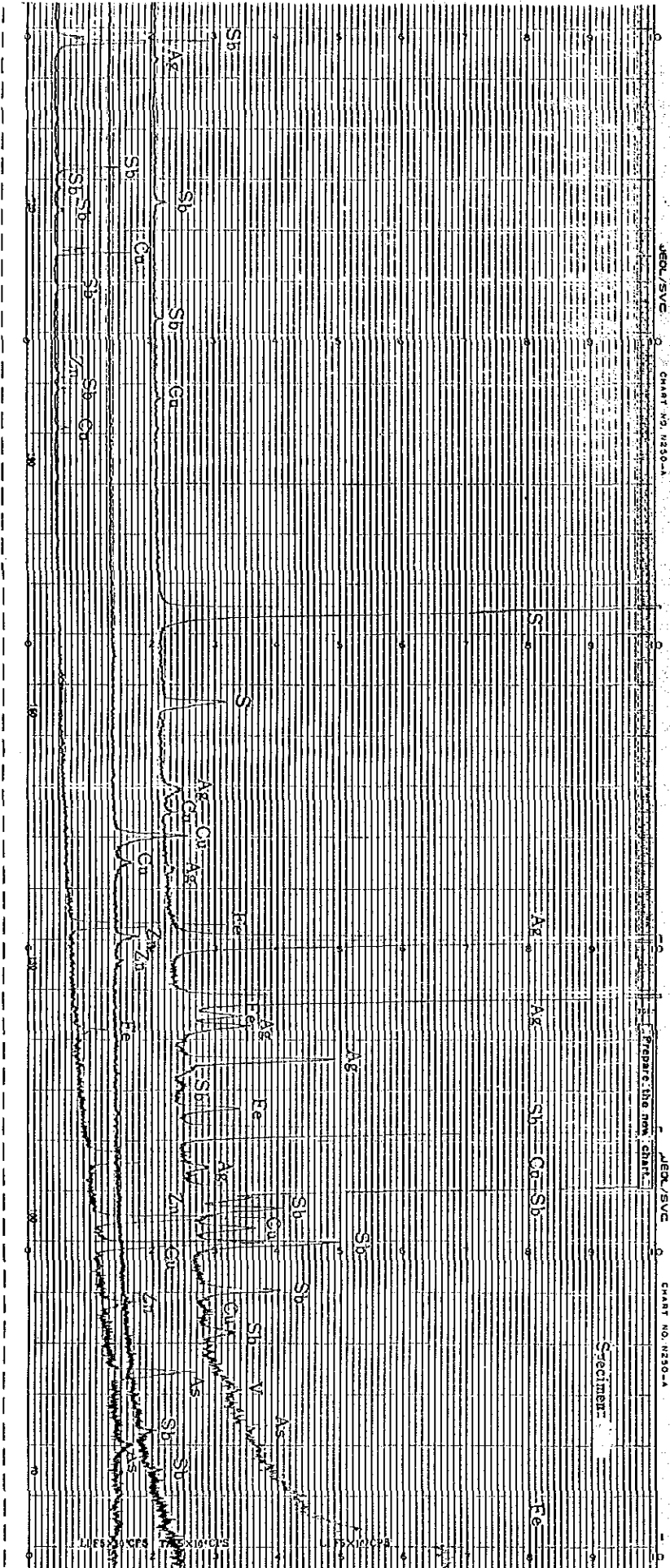
Fe



S



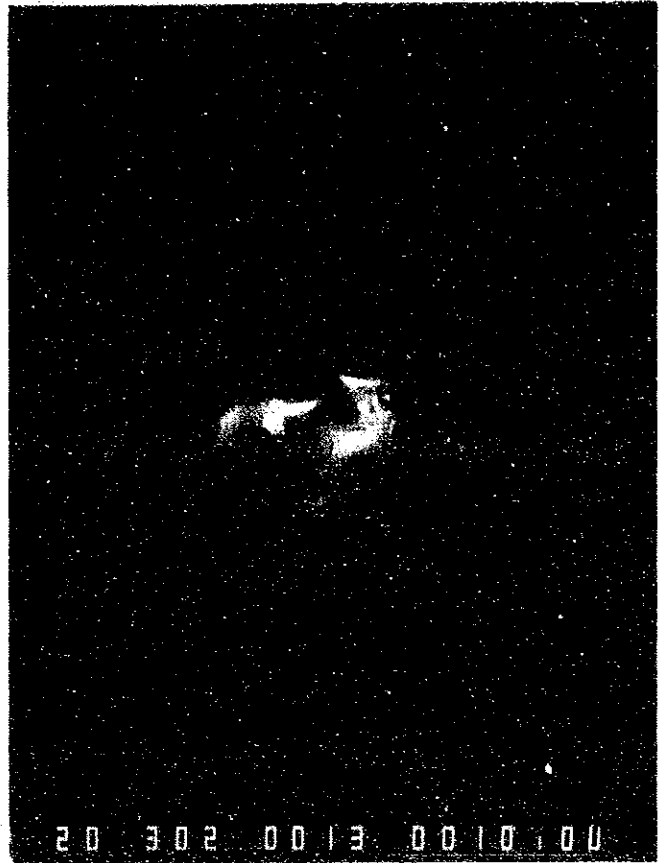
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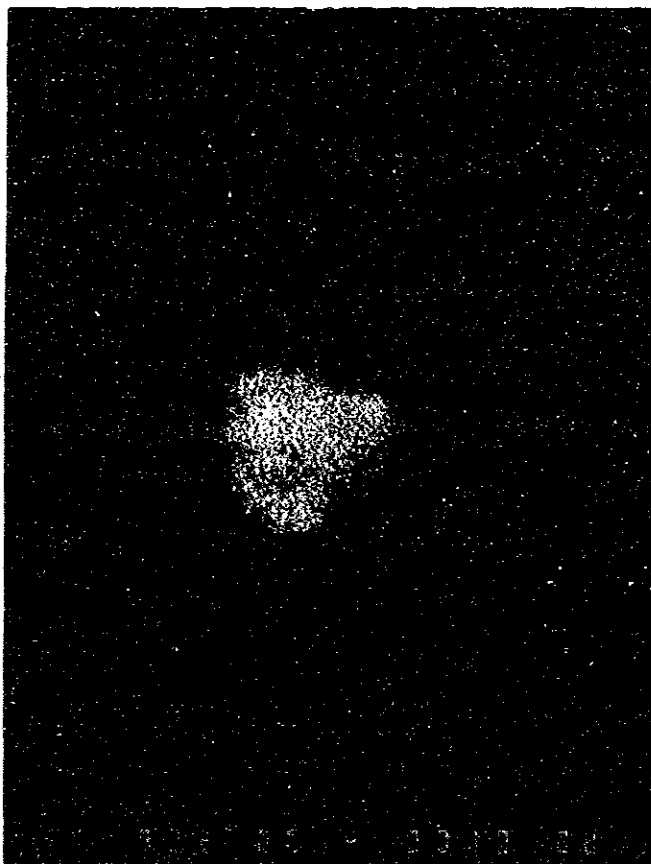


SEI

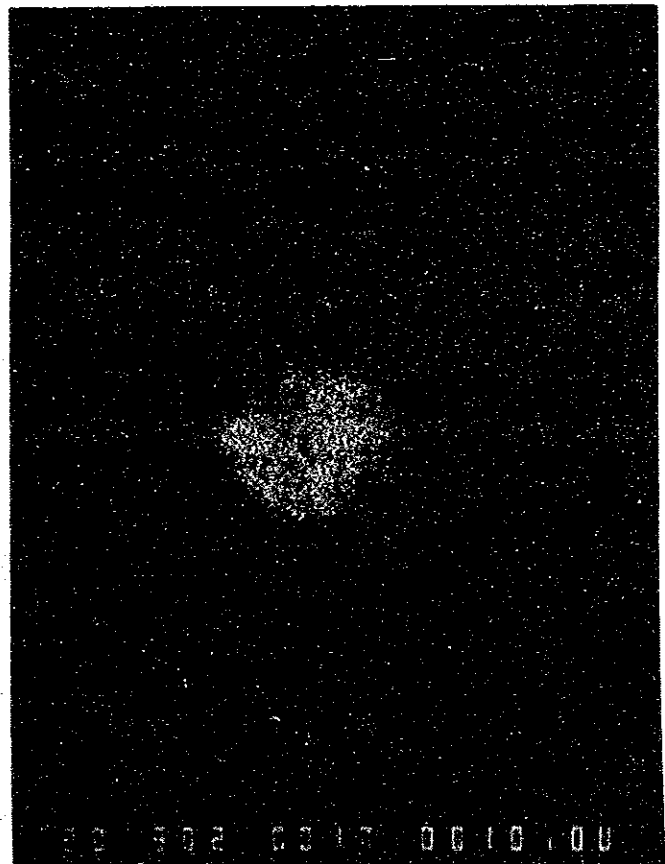
10 μ



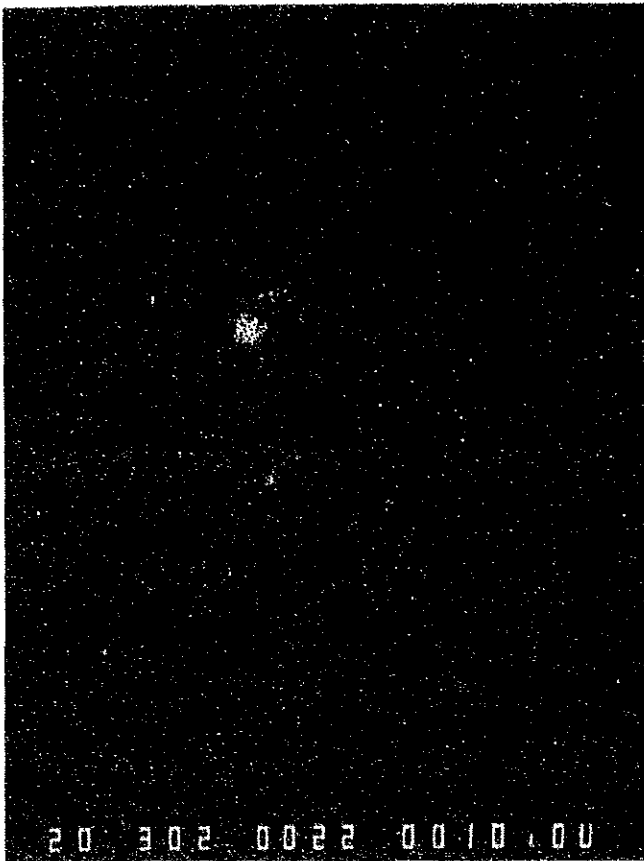
Compo



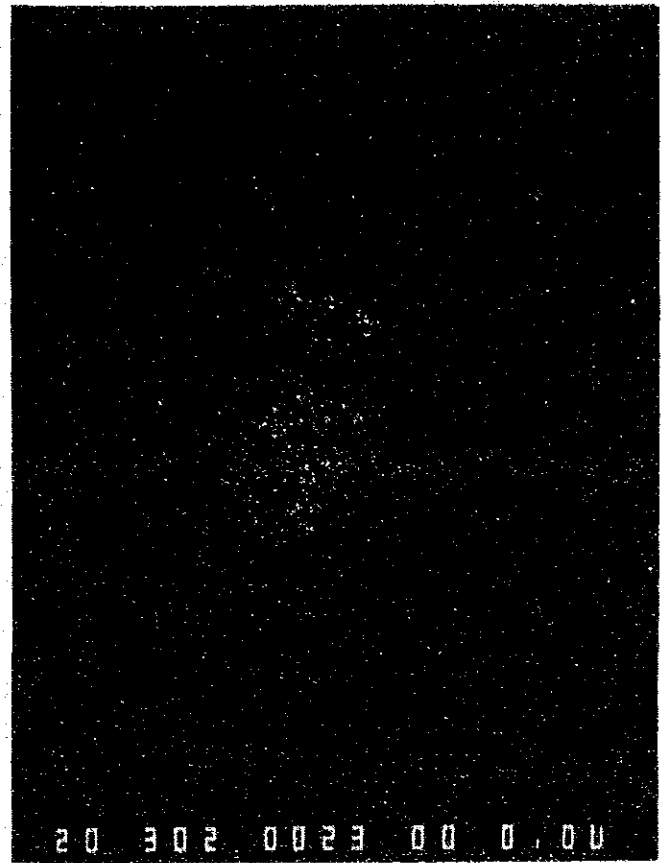
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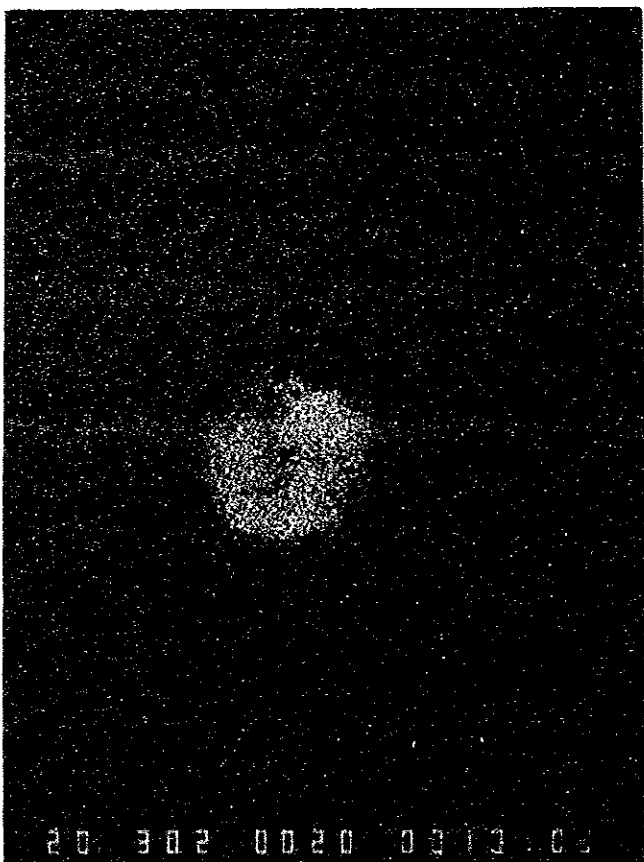
Cu



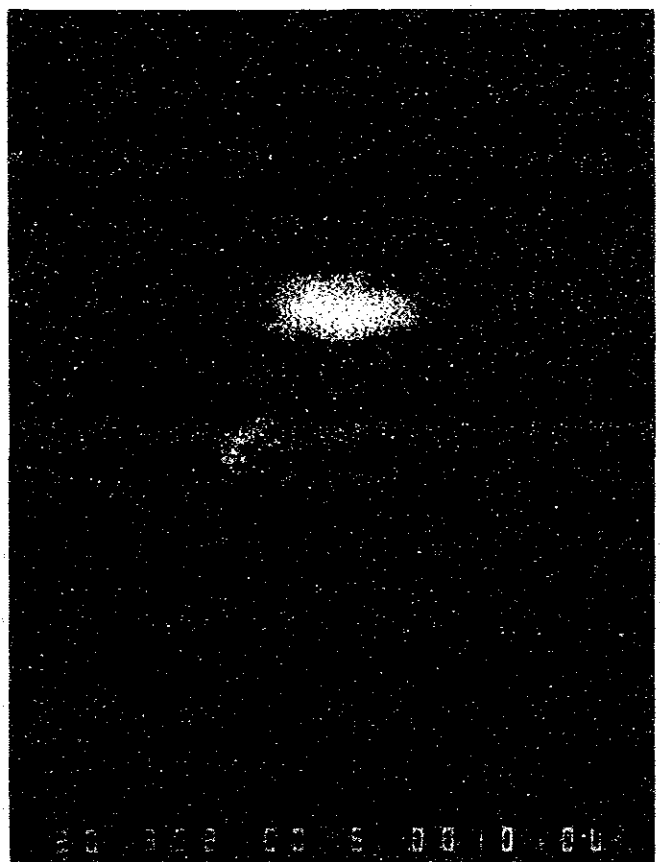
Ca



As



Sb



Fe