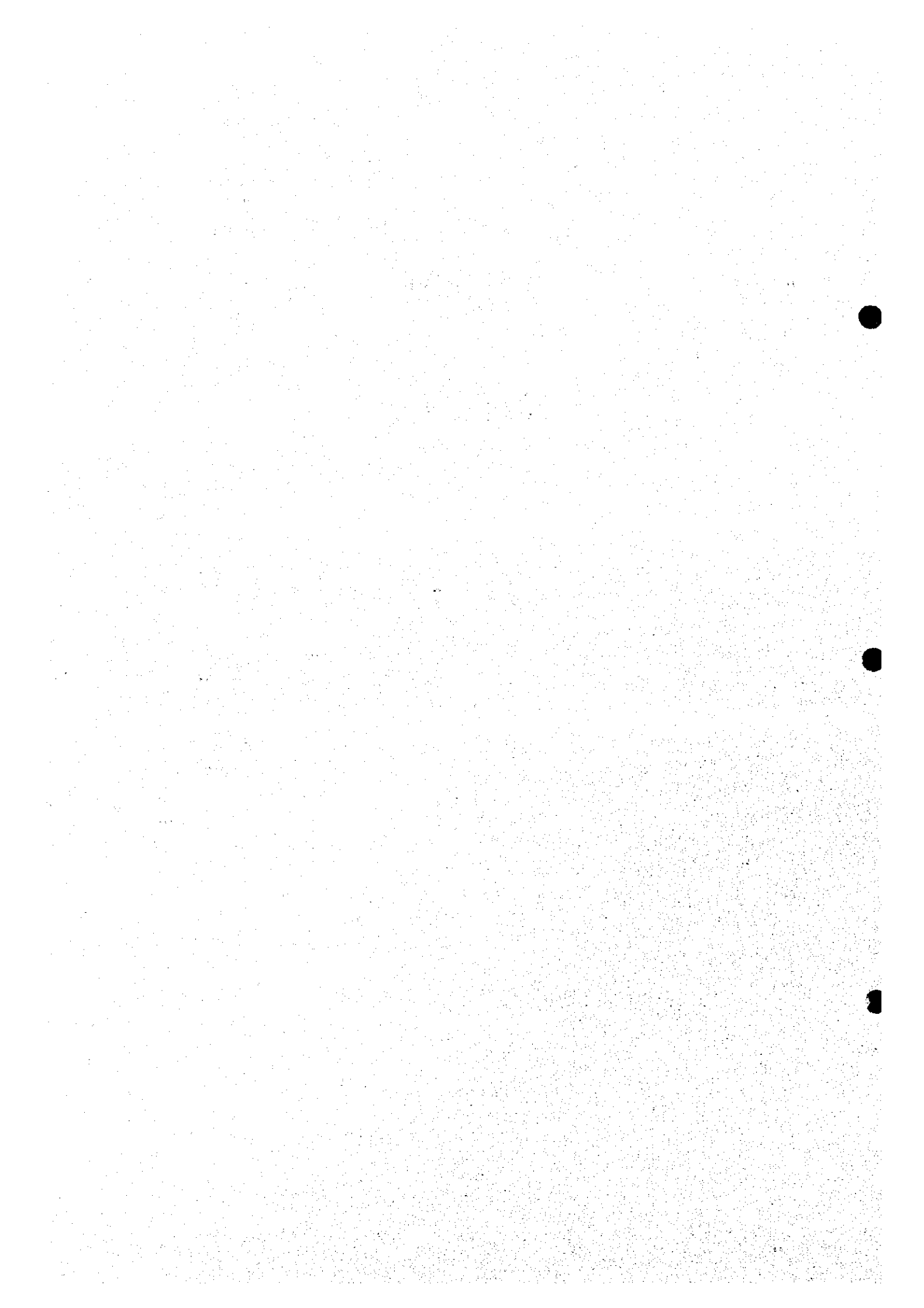


## 第Ⅲ部

### 結論及び提言



## 第III部 結論及び提言

### 第1章 結論

No. 1、2、10脈に対してボーリング8孔(掘進長904m)及び各種室内試験を実施した結果から、本鉱床に関して次のように結論づけられる。

#### 1) 鉱化作用の特性

- ① 自然金は脈中央部または端部に濃集し、黄銅鉱、方鉛鉱、テルル鉱物等と共存する。
- ② 変質作用は、脈を中心に少なくとも 1)セリサイト帯、2)セリサイト-スメクタイト帯のゾーニングが認められる。
- ③ 流体包有物の均質化温度、塩濃度は脈の1断面内でも大きく変動する。金の沈殿に適した条件は、それぞれ 125~130℃、0.1~1.0 wt% NaClであったと推定される。
- ④ 鉱況の変動が大きく、1孔だけの着脈品位がその脈全体の金含有量を大きく左右することがある。(例: No.1脈は高品位脈捕捉により、第1年次比金量 2,300kgの増加)

#### 2) 鉱化作用の下限の問題

No.1脈の中央部地区及びNo.10脈の南部地区に限定すれば、それぞれ傾斜延長に120m程度、50~80m程度で鉱況は劣化する傾向にある。

#### 3) 鉱量計算

第1年次と同一脈を対象とし、1年次より各脈の鉱画を小さくした鉱量計算結果は、鉱量 284千t 金含有量 6,800kgとなり、金量は1年次比 260kgの増となった。しかし、これらは「予想鉱量」以下の信頼度である。

#### 4) 経済性評価

##### a) その1

金含有量 3,500kgのNo.1脈のみを対象とし、年間4,000tを珪酸鉱として日本に輸送する場合の概略的収支計算では約18万\$/年の損失となる。生産性の向上は期待できず、また、t当りの価値の低い珪酸鉱を日本に輸送する限り、市況が好転しても収支の大きな改善は望めないであろう。

##### b) その2

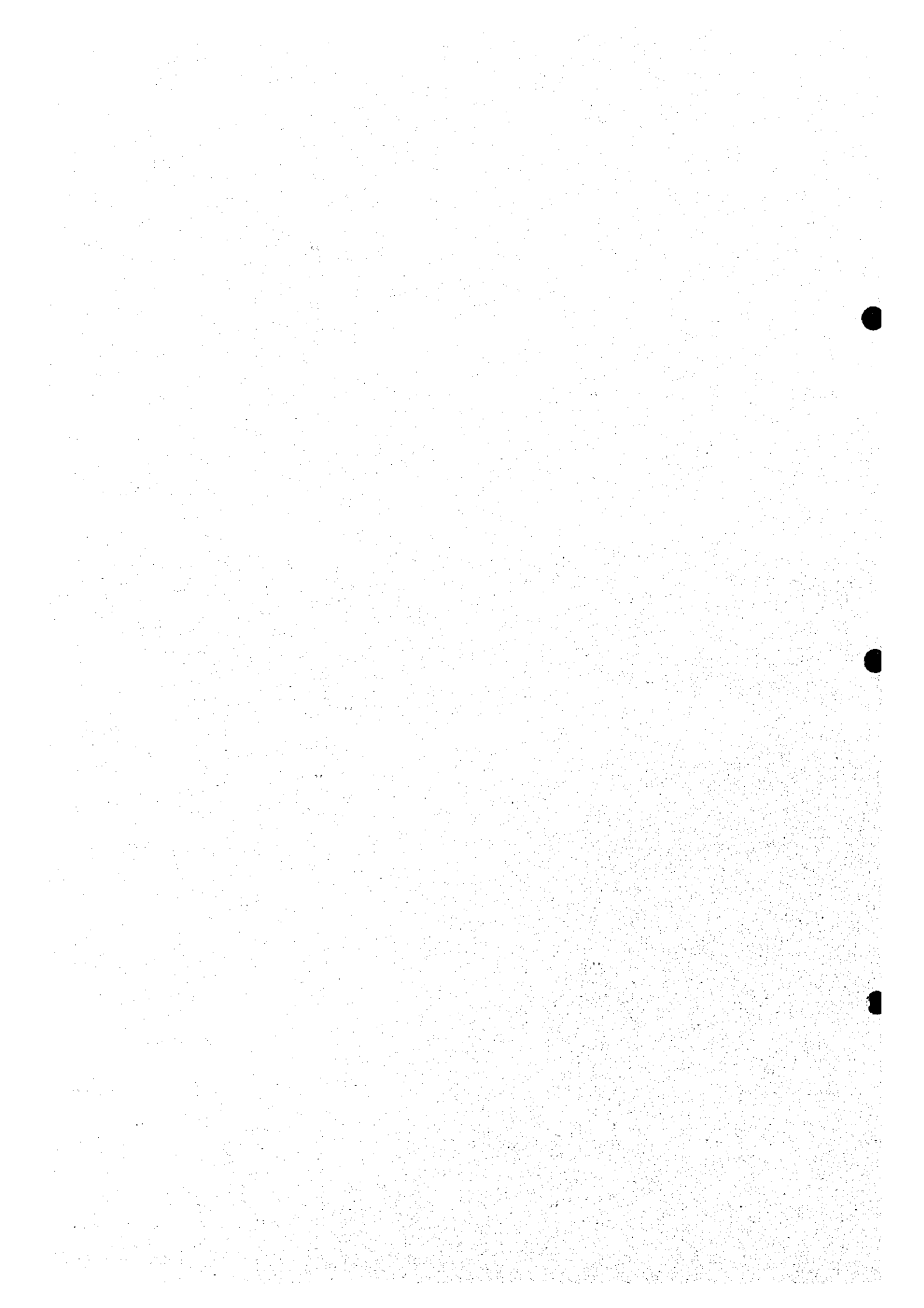
その1と同じ生産規模で、鉱石を山元でリーチングし、精製を外部の製錬所に委託する方式では、約36万\$/年の利益となり、採算性の生ずる可能性を示していると考えられる。

### 第2章 将来への提言

- ① 各脈とも鉱況の変化が大きいため、開発を前提とした場合、鉱量を「予想鉱量」ないし「推定鉱量」まで格上げするために、各主要脈全体についてのボーリングの実施を提案したい。
- ② さらに将来は、上記評価その2の考え方を基本とした本鉱床の開発手法の検討がなされることを期待する。それには、昨年開発に着手したBumbat金山の各種技術が参考になるであろう。



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## Appendices

- A-1 Time table of drillings
- A-2 Results of drillings
- A-3 Geological column of drilling holes
- A-4 Microphotographs of rock thin section
- A-5 Microphotographs of ore polished section
- A-6 Image map of EPMA

A-1 Time table of drillings

Table I-1-4 Time table of drillings (1)

Drilling No.	Works	August, 1997		September, 1997		Remark			
		10	20	10	20	Dir.	Inc.	Depth	Recovery
MJMT-3	Set up Drilling Withdraw Safe keeping	2—9 10—14 15—				N82° E	-35°	100.5m	96.92%
MJMT-4	Set up Drilling Withdraw Safe keeping		16— 16—28 29—30			N82° E	-75°	141.7m	96.40%
MJMT-5	Set up Drilling Withdraw Safe keeping			31—1 1—8 8—	18—20	N77° E	-35°	100.7m	99.30%
MJMT-6	Set up Drilling Withdraw Safe keeping	2—7 8—14 15—				N72° E	-40°	100.7m	94.84%
MJMT-7	Set up Drilling Withdraw Safe keeping		15— 16—	3— 4—		N72° E	-55°	160.7m	96.89%
MJMT-8	Set up Drilling Withdraw Safe keeping	2—5 6—7	20—	2— 2—4		N70° E	-40°	118.8m	99.58%

A-1

Table II-1-4 Time table of drillings (2)

Drilling No.	Works	August, 1997		September, 1997		Remark			
		10	20	10	20	Dir.	Inc.	Depth	Recovery
MJMT- 9	Set up Drilling Withdraw Safe keeping			5-6 7-11 12- 16-17		N80° E	-65°	80.6m	98.14%
MJMT-10	Set up Drilling Withdraw Safe keeping			5-6 6-13 14- 14-15		N80° E	-45°	100.6m	100.00%

A-2 Result of drillings



Table II-15 Result of drilling (1)

(MJMT-3)

Class	Working Period	Specifications of Working Days									
		Total Working Days		Day Off		True Working Days					
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark	
Preparation	97/08/02~08/09	8	8	0	0	8	8	24	80	8h/shift	
Drilling	97/08/10~08/14	5	15	0	2	5	13	18	65	"	
Withdraw	97/08/15	1	1	0	0	1	1	3	10	"	
Safekeeping											
<b>Total</b>		<b>14</b>	<b>24</b>	<b>0</b>	<b>2</b>	<b>14</b>	<b>22</b>	<b>45</b>	<b>155</b>		
Drilling Depth		Core Recovery per each 100m									
Planned Depth	100.0m	Depth(m)		Core Length and Core Recovery		Accumulative Total					
Additional Depth	0.5m	0.0m~7.5m		4.7m		62.7%		62.7%			
Total Depth	100.5m	7.5m~100.5m		92.7m		99.7%		96.9%			
Working Time		Drilling Efficiency									
Drilling	77.0h	75.9%	47.2%	Drilling Depth(m)/Total Working Days				7.18m/day			
Without Drilling	18.5h	18.2%	11.3%	Drilling Depth(m)/Total Shift				4.19m/shift			
Accident Recovery	0.0h	0.0%	0.0%	Drilling Depth(m)/True Working Days				7.18m/day			
Water Transportation	6.0h	5.9	3.7%	Drilling Depth(m)/Drilling Shift				7.73m/shift			
Others	0.0h	0.0%	0.0%	Drilling Depth(m)/Total Workers				0.65m/worker			
Sub-Total	101.5h	100.0%		Drilling Depth(m)/Actual Working Workers				1.55m/worker			
Moved Out and In		Total Workers/Total Depth(m)								1.54worker/m	
Rig Up	56.0h		34.4%	Actual Working Workers/Total Depth(m)				0.65worker/m			
Tear Down	5.5h		3.4%								
Safekeeping											
<b>Total</b>	<b>163.0h</b>		<b>100.0%</b>								
Casing											
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery									
114.3mm											
88.9mm	2.8%	100%									

(MJMT-4)

Class	Working Period	Specifications of Working Days													
		Total Working Days		Day Off		True Working Days									
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark					
Preparation	97/08/16	(1)	(1)	0	0	(1)	(1)	(3)	(5)	not calc.					
Drilling	97/08/16~08/28	13	26	0	2	13	24	37	120	8h/shift					
Withdraw	97/08/29~08/30	2	2	0	0	2	2	6	20	"					
Safekeeping															
<b>Total</b>		<b>15</b>	<b>28</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>26</b>	<b>43</b>	<b>140</b>						
Drilling Depth		Core Recovery per each 100m													
Planned Depth	140.0m	Depth(m)		Core Length and Core Recovery		Accumulative Total									
Additional Depth	1.7m	0.0m~3.0m		1.0m		33.3%		33.3%							
Total Depth	141.7m	3.0m~99.0m		94.1m		98.0%		96.1%							
Working Time		99.0m~141.7m								41.5m		97.2%		96.4%	
Drilling	122.5h	69.0%	62.5%	Drilling Depth(m)/Total Working Days				9.45m/day							
Without Drilling	45.5h	25.6%	23.2%	Drilling Depth(m)/Total Shift				5.06m/shift							
Accident Recovery	0.0h	0.0%	0.0%	Drilling Depth(m)/True Working Days				9.45m/day							
Water Transportation	9.5h	5.4	4.8%	Drilling Depth(m)/Drilling Shift				5.90m/shift							
Others	0.0h	0.0%	0.0%	Drilling Depth(m)/Total Workers				1.01m/worker							
Sub-Total	177.5h	100.0%		Drilling Depth(m)/Actual Working Workers				1.18m/worker							
Moved Out and In		Total Workers/Total Depth(m)								0.99worker/m					
Rig Up	4.5h		2.3%	Actual Working Workers/Total Depth(m)				0.85worker/m							
Tear Down	14.0h		7.1%												
Safekeeping															
<b>Total</b>	<b>196.0h</b>		<b>100.0%</b>												
Casing															
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery													
114.3mm															
88.9mm	3.0%	100%													

Table II-15 Result of drilling (2)

(MJMT-5)

Class	Working Period	Specifications of Working Days								
		Total Working Days		Day Off		True Working Days				
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark
Preparation	97/08/31~09/01	1.5	2	0	0	1.5	2	4	15	8h/shift
Drilling	97/09/01~09/08	7	14	0	0	7	14	22	70	"
Withdraw	97/09/08	0.5	1	0	0	0.5	1	1	5	"
Safekeeping	97/09/18~09/20	3	3	0	0	3	3	9	30	"
Total		12	20	0	0	12	20	36	120	
Drilling Depth		Core Recovery per each 100m								
Planned Depth	100.0m	Depth(m)		Core Length and Core Recovery				Accumulative Total		
Additional Depth	0.7m	Core Length	100.0m	0.0m~5.3m		5.0m		94.3%		62.7%
Total Depth	100.7m	Recovery	99.30%	5.3m~100.7m		95.0m		99.6%		96.9%
Working time		Drilling Efficiency								
Drilling	75.5h	67.4%	49.7%	Drilling Depth(m)/Total Working Days				8.39m/day		
Without Drilling	24.5h	21.9%	16.1%	Drilling Depth(m)/Total Shift				5.04m/shift		
Accident Recovery	0.0h	0.0%	0.0%	Drilling Depth(m)/True Working Days				8.39m/day		
Water Transportation	12.0h	10.7%	7.9%	Drilling Depth(m)/Drilling Shift				7.19m/shift		
Others	0.0h	0.0%	0.0%	Drilling Depth(m)/Total Workers				0.84m/worker		
Sub-Total	112.0h	100.0%		Drilling Depth(m)/Actual Working Workers				1.44m/worker		
Moved Out and In		Total Workers/Total Depth(m)				1.19worker/m				
Rig Up	14.0h		9.2%	Actual Working Workers/Total Depth(m)				0.70worker/m		
Tear Down	5.0h		3.3%							
Safekeeping	21.0h		13.8%							
Total	152.0h		100.0%							
Casing										
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery								
114.3mm	--									
88.9mm	2.7m	2.7%	100%							

(MJMT-6)

Class	Working Period	Specifications of Working Days								
		Total Working Days		Day Off		True Working Days				
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark
Preparation	97/08/02~08/07	6	6	0	0	6	6	12	60	8h/shift
Drilling	97/08/08~08/14	7	21	0	4	7	17	19	95	"
Withdraw	97/08/15	1	1	0	0	1	1	2	10	"
Safekeeping	--	--	--	--	--	--	--	--	--	
Total		14	28	0	4	14	24	33	165	
Drilling Depth		Core Recovery per each 100m								
Planned Depth	100.0m	Depth(m)		Core Length and Core Recovery				Accumulative Total		
Additional Depth	0.7m	Core Length	95.5m	0.0m~10.0m		4.8m		48.0%		48.0%
Total Depth	100.7m	Recovery	94.84%	10.0m~100.7m		90.7m		100.0%		94.8%
Working time		Drilling Efficiency								
Drilling	98.0h	72.9%	53.8%	Drilling Depth(m)/Total Working Days				7.19m/day		
Without Drilling	22.5h	16.7%	12.4%	Drilling Depth(m)/Total Shift				3.60m/shift		
Accident Recovery	0.0h	0.0%	0.0%	Drilling Depth(m)/True Working Days				7.19m/day		
Water Transportation	14.0h	10.4	7.7%	Drilling Depth(m)/Drilling Shift				5.92m/shift		
Others	0.0h	0.0%	0.0%	Drilling Depth(m)/Total Workers				0.61m/worker		
Sub-Total	134.5h	100.0%		Drilling Depth(m)/Actual Working Workers				1.06m/worker		
Moved Out and In		Total Workers/Total Depth(m)				1.64worker/m				
Rig Up	42.0h		23.1%	Actual Working Workers/Total Depth(m)				0.94worker/m		
Tear Down	5.5h		3.0%							
Safekeeping	--		--							
Total	182.0h		100.0%							
Casing										
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery								
114.3mm	3.0m	3.0%	100%							
88.9mm	6.0m	6.0%	100%							



Table II-5 Result of drilling (3)

(MJMT-7)

Class	Working Period	Specifications of Working Days								
		Total Working Days		Day Off		True Working Days				
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark
Preparation	(included in withdraw of MJMT-6)	-	-	-	-	-	-	-	-	-
Drilling	97/08/16~09/03	19	38	0	2	19	36	35	180	8h/shift
Withdraw	97/09/03~09/04	1.5	2	0	0	1.5	2	3	15	"
Safekeeping	-	-	-	-	-	-	-	-	-	-
Total	-	20.5	40	0	2	20.5	38	39	195	-
Drilling Depth		Core Recovery per each 100m								
Planned Depth	160.0m	Depth(m)		Core Length and Core Recovery		Accumulative Total				
Additional Depth	0.7m	Core Length	155.7m	0.0m~6.8m	1.8m	26.5%	26.5%			
Total Depth	160.7m	Recovery	96.89%	6.8m~102.5m	95.7m	100.0%	95.1%			
Working Time		102.5m~160.7m		58.2m		100.0%			96.9%	
Drilling	192.5h	71.2%	65.8%							
Without Drilling	48.5h	17.9%	16.6%							
Accident Recovery	0.0h	0.0%	0.0%							
Water Transportation		29.5h	10.9	10.1%	Drilling Depth(m)/Total Working Days		7.84m/day			
Others		0.0h	0.0%	0.0%	Drilling Depth(m)/Total Shift		4.02m/shift			
Sub-Total		270.5h	100.0%		Drilling Depth(m)/True Working Days		7.84m/day			
Moved Out and In				Drilling Depth(m)/Drilling Shift		4.46m/shift				
Rig Up	-			Drilling Depth(m)/Total Workers		0.82m/worker				
Tear Down	22.0h	7.5%		Drilling Depth(m)/Actual Working Workers		0.89m/worker				
Safekeeping	-			Total Workers/Total Depth(m)		1.21worker/m				
Total	292.5h	100.0%		Actual Working Workers/Total Depth(m)		1.12worker/m				
Casing										
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery								
114.3mm 3.0m	1.9%	100%								
88.9mm 6.0m	3.7%	100%								

(MJMT-8)

Class	Working Period	Specifications of Working Days								
		Total Working Days		Day Off		True Working Days				
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark
Preparation	97/08/02~08/05, 8/19	5	5	0	0	5	5	10	50	not calc.
Drilling	97/08/06~07, 08/20~09/02	16	32	0	3	16	29	37	155	8h/shift
Withdraw	97/09/02~09/04	2.5	3	0	0	2.5	3	5	25	"
Safekeeping	-	-	-	-	-	-	-	-	-	-
Total	-	23.5	40	0	3	23.5	37	52	230	-
Drilling Depth		Core Recovery per each 100m								
Planned Depth	100.0m	Depth(m)		Core Length and Core Recovery		Accumulative Total				
Additional Depth	18.8m	Core Length	118.3m	0.0m~3.0m	2.5m	83.3%	83.3%			
Total Depth	118.8m	Recovery	99.58%	3.00~101.5m	98.5m	100.0%	99.5%			
Working Time		101.5m~118.8m		17.3m		100.0%			99.6%	
Drilling	132.5h	72.0%	55.6%							
Without Drilling	29.0h	15.8%	12.2%							
Accident Recovery	0.0h	0.0%	0.0%							
Water Transportation		22.5h	12.2	9.4%	Drilling Depth(m)/Total Working Days		5.06m/day			
Others		0.0h	0.0%	0.0%	Drilling Depth(m)/Total Shift		2.97m/shift			
Sub-Total		184.0h	100.0%		Drilling Depth(m)/True Working Days		5.06m/day			
Moved Out and In				Drilling Depth(m)/Drilling Shift		4.10m/shift				
Rig Up	28.0h	11.7%		Drilling Depth(m)/Total Workers		0.52m/worker				
Tear Down	26.5h	11.1%		Drilling Depth(m)/Actual Working Workers		0.77m/worker				
Safekeeping	0.0h	0.0%		Total Workers/Total Depth(m)		1.94worker/m				
Total	238.5h	100.0%		Actual Working Workers/Total Depth(m)		1.30worker/m				
Casing										
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery								
114.3mm 3.0m	2.5%	100%								
88.9mm 6.0m	5.1%	100%								

Table II-15 Result of drilling (4)

(MJMT-9)

Class	Working Period	Specifications of Working Days									
		Total Working Days		Day Off		True Working Days					
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark	
Preparation	97/09/05~09/06	2	2	0	0	2	2	4	16	8h/shift	
Drilling	97/09/07~09/11	5	12	0	1	5	11	14	54	"	
Withdraw	97/09/12	1	1	0	0	1	1	3	8	"	
Safekeeping	97/09/14~09/15	2	2	0	0	2	2	6	20	"	
<b>Total</b>		<b>10</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>17</b>	<b>27</b>	<b>98</b>		
<b>Drilling Depth</b>		<b>Core Recovery per each 100m</b>									
Planned Depth	80.0m	Depth(m)		Core Length and Core Recovery				Accumulative Total			
Additional Depth	0.6m	Core Length	79.1m	0.0m~4.7m		4.3m		91.5%		91.5%	
Total Depth	80.6m	Recovery	98.14%	4.7m~80.6m		74.8m		98.6%		98.1%	
<b>Working Time</b>											
Drilling	61.3h	65.4%	46.2%								
Without Drilling	18.5h	19.7%	13.9%								
Accident Recovery	0.0h	0.0%	0.0%								
Water Transportation	14.0h	14.9%	10.5%								
Others	0.0h	0.0%	0.0%								
Sub-Total	93.8h	100.0%									
<b>Moved Out and In</b>											
Rig Up	21.0h		15.8%								
Tear Down	4.0h		3.0%								
Safekeeping	14.0h		10.5%								
Total	132.8h		100.0%								
<b>Casing</b>											
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery									
114.3mm   3.0m	3.7%	100%									
88.9mm   3.3m	4.1%	100%									

(MJMT-10)

Class	Working Period	Specifications of Working Days									
		Total Working Days		Day Off		True Working Days					
		Day	Shift	Day	Shift	Day	Shift	Drilling Engineer	Worker	Remark	
Preparation	97/09/05~09/06	1.5	1.5	0	0	1.5	1.5	2.5	12	8h/shift	
Drilling	97/09/06~09/13	7.5	14.5	0	0	7.5	14.5	19.5	73	"	
Withdraw	97/09/14	0.5	0.5	0	0	0.5	0.5	1	5	"	
Safekeeping	97/09/14~09/15	1.5	1.5	0	0	1.5	1.5	3	15	"	
<b>Total</b>		<b>11.0</b>	<b>18.0</b>	<b>0</b>	<b>0</b>	<b>11.0</b>	<b>18.0</b>	<b>26</b>	<b>105</b>		
<b>Drilling Depth</b>		<b>Core Recovery per each 100m</b>									
Planned Depth	100.0m	Depth(m)		Core Length and Core Recovery				Accumulative Total			
Additional Depth	0.6m	Core Length	100.6m	0.0m~100.6m		100.6m		100.0%		100.0%	
Total Depth	100.6m	Recovery	100.0%								
<b>Working Time</b>											
Drilling	76.0h	65.2%	54.1%								
Without Drilling	26.0h	23.3%	18.5%								
Accident Recovery	0.0h	0.0%	0.0%								
Water Transportation	14.5h	12.4%	10.3%								
Others	0.0h	0.0%	0.0%								
Sub-Total	116.5h	100.0%									
<b>Moved Out and In</b>											
Rig Up	10.0h		7.1%								
Tear Down	14.0h		10.0%								
Safekeeping	0.0h		0.0%								
Total	140.5h		100.0%								
<b>Casing</b>											
Casing Size and Depth	Casing Ratio	Casing Pipe Recovery									
114.3mm   3.1m	3.1%	100%									
88.9mm   4.6m	4.6%	100%									

A-3 Geological column of drilling holes



MJMT-3

Qm ~ 100.5m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis				Avg (g/t)	
						No.	From (m)	To (m)	Length (m)	As (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)		
2.60	X	Soil	Contains a little Granodiorite gravel.												
10.00	X X X X X X X X	Granodiorite	Muscovite, biotite Granodiorite pale grey, medium grain cracks with iron oxide abundant core crushed												
12.50	X X X		ditto, oxidized cracks rare												
20.00	X X X X X X X X														
30.00	X X X X X X X X														
35.90	X X X X	Quartz vein	36.9~3.5cm, grey, <5'	36.9~3.5cm QV											
40.00	X X X X X X X X														
50.00	X X X X X X X X	Granodiorite	Muscovite, biotite bearing pale grey, medium~coarse grain, massive homogeneous, very fresh												
60.00	X X X X X X X X														
70.00	X X X X X X X X					1 A	85.60	85.70	0.10	1.3	0.7	526	7		
						2 A	85.70	85.80	0.10	1.0	0.7	790	12		
						3 A	85.80	86.00	0.20	0.1	0.7	20	6		8.1
						4 A	86.00	86.12	0.12	0.5	0.8	13	10		1.2
						5 A	86.12	86.22	0.10	11.2	2.8	30	25		14.2
						6 A	86.22	86.35	0.13	158	30.0	17	51		290
						7 A	86.35	86.40	0.05	1910	16.9	191	473		1373
						8 A	86.40	86.48	0.08	1.6	1.0	4	24		119
						9 A	86.48	86.55	0.07	123	12.5	19	14		103
						10 A	86.55	86.65	0.10	8.2	2.7	26	7		8.2
						11 A	86.65	86.70	0.05	8.2	1.1	361	22		
						12 A	86.70	86.90	0.20	5.6	1.1	458	5		
						13 A	89.04	89.10	0.06	2.1	0.6	51	2		
80.00	X X X X X X X X					1 X	85.60	85.70	0.10						
						2 X	85.70	85.80	0.10						
						3 X	86.65	86.66	0.01						
						4 X	86.66	86.70	0.04						
						5 X	86.70	86.90	0.20						
						6 X	88.98	88.99	0.01						
85.60	X	Argillig. Rock	Pale brown~white~grey, silty, argillized, fine												
85.80	X	Quartz vein	Dark grey, central part (85.80-86.00) banded structure	85.8~85cm QV	Argillization	1 P	85.85	85.87	0.02						
86.65	X	Argillig. Rock	Light grey, rich bearing, silty, silty, argillized			2 P	86.30	86.33	0.03						
87.10	X	Argillig. Rock	ditto with 85.8~85.8			3 P	86.35	86.40	0.05						
89.04	X	Quartz vein	89.04~8cm	89.04~8cm QV		1 I	85.85	85.87	0.02						
90.00	X X X X X X X X	Granodiorite	81.1~89.8 grey~brown, biotite, oxidized cracks with argillized matrix			2 I	86.33	86.35	0.02						
			89.04~89.10 (89.04) quartz vein, pale grey~white			3 I	86.60	86.62	0.02						
99.70	X X X X X X X X	Granodiorite	Crucky, Argillized weak~medium		Argillization	1 E	85.80	85.82	0.02						
						2 E	86.22	86.25	0.03						
						3 E	86.35	86.40	0.05						
100.50	X X X X X X X X	Granodiorite				9 E	86.35	86.40	0.05						

Sample (A - Chemical Analysis, P - Polish Section, I - This Section, X - X-ray, J - Inclusion, E - EPMA, \* - Assayed in central laboratory, Ujarbeter)

Fig. II-1-2 Geological column of MJMT-3

MJMT-4 (1)

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis				
						No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Aux (g/t)
2.00	X	Soil												
10.00	X	Granodiorite	Muscovite, biotite bearing Granodiorite oxidized cracks abundant, weathered core broken.											
13.40	X	Granodiorite	Pale grey-brown too mica Granodiorite weathered weak.											
23.10 24.50	X	crack with clay	23.1~24.5 width 0.5~1cm $\angle 85^{\circ} \sim 90^{\circ}$	23.1~0.5~1cm clay vein	Argillization									
32.85	X	Quartz vein	32.85~32.95 whitish, width 0.5~2cm, $\angle 60^{\circ} \pm$	32.85~0.5~2cm Q										
38.30	X													
49.90	X	Granodiorite	38.3~62.8 grey, too mica Granodiorite gneissose? structure, banded weak $\angle 0^{\circ} \sim 10^{\circ}$											
59.80	X					11	57.65	57.70	0.05					
62.20 62.50	X	Altered zone	62.2~62.5 altered-aphytic texture 3 chlorite veins, interval of 5cm width 0.5~1cm $\angle 80^{\circ}$	62.2~0.8~1cm chlorite vein	Argillization									
65.50	X	Chlorite vein	width 1cm, $\angle 30^{\circ}$	65.05~1cm chlorite vein	Argillization									
70.80	X													
70.80 71.40 71.55	X	Altered zone Quartz Vein	pale brown, glassy 70.8~71.55 many altered (argillized) bands, parallel width $\pm 1$ cm $\angle \pm 20^{\circ}$ band part, porphyritic $\rightarrow$ aphyric	71.4~21cm QV	Argillization									
80.00	X													
90.80 91.30	X	Altered zone	pale grey, argillized, aphyric, hard		Argillization									
95.50	X	clay vein	95.5~96.4 grey clay vein, width max 2cm $\angle 60^{\circ}$	95.5~max 2cm clay vein	Argillization	2 X	95.50	95.52	0.02					
97.50	X	clay vein	97.5~97.9 grey clay vein, width max 2cm, $\angle 60^{\circ}$	95.5~max 2cm clay vein		8 X	96.30	96.40	0.10					
98.50	X	Quartz vein	98.5~1.5cm, $\angle 20^{\circ}$	98.5~1.5cm, QV		14 A	98.50	98.515	0.015	0.5	3.0	21	2	

Sample (A - Chemical Analysis, P - Polish Section, T - Thin Section, X - X-ray, I - Inclusion, E - EPMA, \* - Assayed in central laboratory, Utanbeter)

Fig. II-1-3 Geological column of MJMT-4 (1)

MJMT-4 (2)

100m ~ 200m

Depth (m)	Ecologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis					
						No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Ave (g/t)	
100.20	X	Quartz vein	100.2~0.8cm, grey, glassy, $\angle 15^\circ$	100.2~0.8cm QV											
101.15	X	Quartz vein	101.15~0.8cm, grey, glassy, $\angle 15^\circ$	101.15~0.8cm QV											
103.80	X	Granodiorite			Argillization	9 X	103.00	104.00	1.00						
105.90	X	QV	105.9~1.2cm, $\angle 25^\circ$	105.9~1.2cm QV	Argillization	15 A	105.90	105.912	0.012	5.9	7.6	74	3		
105.80	X	QV-Fault	106.8~25cm, Not QV Fault clay+QV fragments	106.8~25cm Not QV		10 X	106.40	106.41	0.01						
107.00	X	QV Breccia	106.8~108.8 milled crack very rich, coarse crushed			16 A	106.20	106.83	0.63	3.9	0.8	188	3		
107.60	X		107.6~max 3cm, upper, down sides each 2-5cm width argillized.	107.6~max 3cm QV		17 A	106.80	106.88	0.08	0.8	0.7	273	5		
110.00	X					18 A	106.88	106.98	0.10	0.4	0.5	74	3		
111.30	X					19 A	106.98	107.01	0.03	41.5	5.6	108	2		
114.00	X	Fault breccia	107.05~111.3 altered-aphytic (argillized) brittle			20 A	107.01	107.06	0.04	0.9	0.7	271	2		
114.10	X	QV	115.4~0.6~1cm $\angle 25^\circ$	115.4~1cm QV		11 X	106.89	106.83	0.06						
115.40	X					12 X	106.80	106.98	0.18						
116.90	X					13 X	107.01	107.05	0.04						
120.00	X	Granodiorite	111.3~116.9 altered weak			21 A	107.60	107.63	0.03	0.7	0.6	60	2		
125.50	X	Fault breccia	116.9~135.8 altered, aphyric, hard			14 X	107.60	107.63	0.03						
127.40	X					15 X	114.00	114.10	0.10						
130.00	X					4 X	107.60	107.63	0.03						
135.80	X	Granodiorite	135.8~141.7 pale grey-green, fine-medium grained gneissic structure, partly argillized vein, width 0.1~0.5cm		partly argillization										
140.00	X														
141.70	X														
150.00															
160.00															
170.00															
180.00															
190.00															
200.00															

Sample (A - Chemical Analysis, P - Polish Section, T - Thin Section, X - X-ray, I - Inclusion, E - EPMA, + - Assayed in central laboratory, Ulanbator)

Fig. II-1-3 Geological column of MJMT-4 (2)

MJMT-5

0m ~ 100.5m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis						
						No.	From (m)	To (m)	length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Au* (g/t)		
10.00	X X X X X X X X	Granodiorite	grey, medium grain, biotite & muscovite bearing homogeneous, oxidized crack very poor, rather fresh													
20.00	X X X X X X X															
22.90	X	Quartz Vein	22.9~0.8m, $\angle 70^\circ$	22.9~0.8cm QV												
23.35	X	Quartz Vein	23.35~0.5~1cm, $\angle 45^\circ$ mine alteration	23.35~1cm QV												
23.40	X X	Quartz Vein	23.4~1.0~1.8m, $\angle 45^\circ$	23.4~1.5cm QV												
30.00	X X X															
33.00	X X															
36.00	X X X	Granodiorite	rather fresh													
40.00	X															
43.00	X X X		40.5~43.0 oxidized crack abundant crushed core													
44.90	X X	Quartz Vein	44.9~0.5~2.8cm $\angle 45^\circ$	44.9~2.8cm QV		22 A	44.90	44.925	0.025	0.1	0.5	7	1			
45.20	X	Quartz Vein	45.2~1cm $\angle 55^\circ$	45.2~1cm QV												
50.00	X X X X X	Granodiorite	rather fresh													
59.00	X X															
60.00	X X X		59.0~73.3 oxidized crack common													
65.80	X X	Quartz Vein	65.8~2cm	65.8~2cm QV		23 A	65.80	65.82	0.02	0.3	0.7	10	1			
65.90	X X	Quartz Vein	65.9~3cm $\angle 0^\circ \sim 5^\circ$	65.9~3cm QV		5 I	65.80	65.82	0.02							
66.00	X X X	Quartz Vein	66.0~1cm	66.0~1cm QV												
70.00	X X		73.3~78.24 rather altered, argillized													
73.30	X X X		73.3~79.8 oxidized crack abundant, crushed core													
75.30	X X X		78.24~78.52 (No. 23cm) argillized granodiorite, loose		Argillization	17 X	75.10	76.15	0.05							
76.10	X X X		78.24~78.52 (No. 23cm) argillized granodiorite, loose			18 X	78.24	78.32	0.08							
78.32	X X X	Quartz Vein	78.32~23cm (No. 101 QV) dark grey, 4 gold grains recognized	78.32~23cm QV		24 A	78.32	78.40	0.08	2.8	1.8	10	1		9.8	
78.55	X X X					25 A	78.40	78.55	0.15	11.3	5.2	37	1		17.4	
79.60	X X X	Quartz Vein				10 X	78.43	78.46	0.03							
80.00	X X					6 X	78.44	78.46	0.02							
85.25	X X	Quartz vein		85.25~1cm QV												
85.40	X	Quartz vein	secondary Quartz cut (fault)	85.4~3cm QV		26 A	85.40	85.43	0.03	10.1	7.3	13	1			
89.80	X X															
90.00	X X															
100.70	X X		88.8~97.0 altered Granodiorite hard rock forming crystals -- obscure -- aphyric texture													

Sample (A) - Chemical Analysis, P - Polish Section, T - Thin Section, X - X-ray, I - Inclusion, E - EPMA, \* - Assayed in central laboratory, Ulanbator

Fig. II-1-4 Geological column of MJMT-5



MJMT-6

0m ~ 100.7m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis				As (g/t)		
						No.	From (m)	To (m)	Length (m)	As (g/t)	Ag (g/t)	Au (ppm)	Sb (ppm)			
5.20		Gravel														
6.80		Adamellite	pale grey, medium grain, biotite bearing													
7.20																
8.40		Basic gneiss	Amphibolite, homogeneous, banded $\pm 45^\circ$													
10.50																
12.30		Basic gneiss	banded $40^\circ$ , partly contains pegmatite dyke													
15.20																
17.70		Pegmatite														
20.00																
20.55																
22.80																
24.10																
25.90																
30.00		Adamellite	biotite bearing													
31.80																
33.80		Basic gneiss	banded $15^\circ \sim 20^\circ$													
36.00		Basic gneiss	banded $35^\circ$			2	1	36.70	38.75	0.05						
37.90																
39.10		Quartz vein	39.1~1cm $10^\circ$	39.1~1cm QV												
40.80		Adamellite														
44.20		Quartz vein	No. 10 W vein width 33cm, pale grey~whitish sulphide none, boundary sharp no bearing clay zone.	No. 10H 44.2~33cm QV		19	X	44.19	44.20	0.01						
44.53		Quartz vein				27	A	44.20	44.36	0.16						
						28	A	44.36	44.53	0.17	0.2	0.6	18	C	1	0.1
						7	I	44.35	44.37	0.02	0.1	0.8	15	C	1	0.2
49.65		Quartz vein	49.65~2.5cm $30^\circ$	49.65~2.5cm QV		29	A	49.65	49.66	0.02	18.5	2.7	22		1	
50.00		Quartz vein	50.05~1cm $45^\circ$	50.05~1cm QV												
50.05																
60.00		Adamellite	pale grey~whitish, fine~coarse grain, heterogeneous biotite bearing													
70.00																
75.95		Quartz vein	No. 10 vein, width 60cm, pale grey contains small chalc. pyrite, galena (78.20~78.24) bearing each 2cm clay upper, lower side	No. 10 75.95~60cm QV	Argillization	20	X	75.93	75.98	0.02						
76.55			76.55~79.6 pale grey fine leucocratic rock silicified zone of adamellite.			30	A	75.95	76.10	0.15	0.8	1.3	14	2		0.8
						31	A	76.10	76.20	0.10	1.2	1.2	5	3		4.8
						32	A	76.20	76.28	0.08	29.1	5.4	14	33		395.0
						33	A	76.28	76.43	0.15	0.3	1.1	7	1		1.4
						34	A	76.43	76.55	0.12	1.4	1.2	11	1		1.5
						8	I	75.95	75.97	0.02						
						9	I	76.25	76.28	0.03						
						10	I	76.53	76.65	0.02						
						11	P	76.20	76.23	0.03						
						21	X	76.55	76.57	0.02						
						35	A	84.70	84.715	0.015	< 0.1	0.4	52	5		
84.45		Psammitic gneiss xenolith														
84.70		Quartz vein	84.45~1cm $25^\circ$	84.5~1cm QV												
		Quartz vein	84.7~max 1.5cm $10^\circ$ , bearing each 5cm clay upper, lower side xenolith: irregular size and shape grey, medium~coarse grain	84.7~1.5cm QV	Argillization											
90.00		Adamellite				10	E	76.20	76.23	0.03						
91.70		Psammitic gneiss	pale grey, banded $20^\circ \sim 25^\circ$													
95.00			pale grey, banded $20^\circ \sim 25^\circ$													
96.40			96.4~96.62 Argillized strong			22	X	96.40	96.52	0.12						
97.50						23	X	96.52	96.62	0.10						
99.90			grey~dark brown, banded $45^\circ$													
100.70			biotite													

Sample (A - Chemical Analysis, P - Polish Section, T - Thin Section, X - X-ray, I - Inclusion, E - EPMA, + - Assayed in central laboratory, Blanketer)

Fig. II-1-5 Geological column of MJMT-6

MJMT-7 (1)

0m ~ 100m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis								
						No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Ac* (g/t)				
5.00		Gravel																
5.00		Basic gneiss	dark blue~brownish blue Amphibolite, banded $\angle 10^{\circ} \sim 20^{\circ}$ (5.5~8.3, 6.8~7.3 adonellite)															
10.00		Adonellite	grey, medium grain, biotite bearing	8.9~1cm clay V		24 X	9.90	9.91	0.01									
10.60		Basic gneiss	ditto with 5.0~ (11.55~11.7 Adonellite) (11.7~12.0 Pegmatite)															
16.00		Pegmatite	grey, medium~coarse grain, banded															
16.00		gneiss	$\angle 25^{\circ} \sim 30^{\circ}$															
20.00																		
20.00		Adonellite	grey, medium grain, heterogeneous (biotite rich and poor part)															
27.85		Quartz Vein	26.3~26.4 Quartz vein, xenolith like	27.9~2cm QV														
27.99			27.9~1~2cm none mineralization															
28.60																		
30.60																		
38.70		Adonellite	grey, coarse grain, biotite rich															
39.40		Quartz Vein	39.7~0.8cm $\angle 35^{\circ}$	39.7~0.8cm QV														
40.00																		
43.75			43.0~43.75 oxidized crack abundant, crushed core															
45.10			grey~pale brown, recrystalline, relic band $\angle 40^{\circ}$															
45.80		Quartz Vein	45.4~1.5cm~2cm $\angle 10^{\circ}$ none mineralization (44.5~3.5cm sedimentary quartz $\angle 45^{\circ}$ )	45.8~2cm QV		36 A	45.80	45.82	0.02	0.1	2.2	2	<	1				
47.20		Basic gneiss	grey~pale, fine~stippled, chilled margin like d-blu~bluish, amphibolitic, partly banded $\angle 40^{\circ}$															
50.00																		
50.20			grey, fine, massive, partly laminated $\angle 20^{\circ} \sim 45^{\circ}$															
51.90			grey, fine~medium grain, massive~laminated $\angle 20^{\circ}$															
52.60																		
58.25		Quartz Vein	58.25~5cm none mineralization No. 10V Vein	58.25~5cm QV		37 A	58.25	58.30	0.05	9.5	5.7	136	21					
58.99		Quartz Vein	58.9~5cm none mineralization	58.9~5cm QV		38 A	58.90	58.95	0.05	1.1	0.6	448	3					
60.00																		
70.00		Pegmatitic gneiss	(62.1~67.6 Pegmatite dyke) (64.5~65.0 Adonellite) (66.9~67.6 Pegmatite dyke) Turbidite, laminated, grading (69.6~69.0 Pegmatite)															
70.30		Quartz Vein	70.3~70.35(5cm) $\angle 15^{\circ}$ , segregation Q. V.	70.3~5cm QV		39 A	70.30	70.35	0.05	0.2	0.4	6	1					
70.60		Quartz Vein	70.6~70.72(8~12cm) boundary irregular segre. Q. V. none mineralization	70.6~12cm QV		11 I 40 A	70.32 70.60	70.35 70.72	0.05 0.12	< 0.1	0.4	6	1					
78.15		Quartz Vein	Turbidite, laminated~grading 1~3cm interval 78.15~78.35(20cm) segregation Q. V. none mineralization	78.15~20cm QV		41 A 42 A 3 T	78.15 78.27 78.40	78.27 78.35 78.45	0.12 0.08 0.05	< 0.1 < 0.1	0.3 0.3	2 5	< <	1 1				
81.30		Adonellite	grey, medium grain, homogeneous															
84.60																		
85.40																		
90.00		Pegmatitic gneiss	grey, fine~stippled, laminated $\angle 10^{\circ}$															
90.00		Quartz Vein	90.0~4cm	90.0~4cm QV		46 A 47 A 48 A 49 A	99.49 99.84 99.79 99.91	99.64 99.79 99.91 100.00	0.15 0.15 0.12 0.09	< 0.1 < 0.1 < 0.1 < 0.1	1.7 0.7 0.6 0.7	8 2 2 11	2 1 1 2	< < < <	0.1 0.1 0.1 0.1			
96.10		Adonellite	pale pinkish, medium grain, pink feldspar rich															
96.10		Pegmatitic gneiss	pale grey~green, fine grain, laminae $\angle 6 \sim 10^{\circ}$ No. 10 V															
99.27		Quartz Vein	99.27~100.0(73cm) contains a little of galena (6cm), chalcocite (6cm) boundary sharp	No. 10 99.27~73cm QV		25 X 12 P 14 I	99.25 99.30 99.64	99.27 99.33 99.66	0.01 0.03 0.02									

Sample (A - Chemical Analysis, P - Polish Section, V - Thin Section, X - X-ray, I - Inclusion, E - EPMA, \* - Assayed in central laboratory, Ulanbator)

Fig. II-1-6 Geological column of MJMT-7 (1)

MJMT-7 (2)

100m ~ 200m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis					
						No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Au* (g/t)	
105.50	+	Adonellite	grey, rather altered? hard, compact		Silicification	26 A	100.00	100.03	0.03						
110.00	+	Psammite gneiss	pale grey, fine, laminated $\angle 5^\circ \sim 10^\circ$ (102.8-105 pegmatite? quartz, feldspar not large)												
116.20	+	Adonellite	pale~dark grey, medium, gneissose structure $\angle 30^\circ \sim 50^\circ$												
120.00	+	Basic gneiss	dark blue~blackish, medium, mainly massive, Amphibolitic, partly banded $\angle 10^\circ$												
120.30	+	Adonellite	grey, coarse, homogeneous, massive												
130.00	+	Psammite gneiss	dark blue to grey, medium, laminated $\angle 15^\circ \sim 20^\circ$ d-blue part: Amphibolite many pegmatite dikes (5~20cm) intercalated												
134.90	+	Adonellite	dark grey, fine, quartz poor, biotite common Porphyrite like	135.07~3cm clay V	Argillization										
137.40	+	Psammite gneiss	dark grey, fine~med, lamina $\angle 5^\circ \sim 10^\circ$	Argillite 138.70~20cm	Argillization										
140.00	+	Adonellite	(138.0~138.2 Pegmatite)												
142.40	+		dark grey, fine												
143.90	+	Psammite gneiss	grey, fine, lamina clear $\angle 5^\circ \sim 20^\circ$ partly garnet? crystal ( $\phi \approx 3mm$ ) partly segregation quartz vein												
151.35	+														
157.40	+	Psammite gneiss	grey~dark grey, fine, laminated well $\angle 0^\circ \sim 20^\circ$	157.7~8cm QV		50 A	157.70	157.78	0.08	< 0.1	0.4	< 1	< 1		
157.70	+	Quartz Vein	157.7~8cm segregation quartz vein			13 I	157.73	157.75	0.02						
159.00	+	Quartz Vein	159.0~15cm segregation quartz vein	159.0~15cm QV		51 A	159.00	159.13	0.13	< 0.1	0.5	< 1	< 1		
160.70			Irregular boundary rather parallel to lamina												
170.00															
180.00															
190.00															
200.00															

Sample (A - Chemical Analysis, P - Polish Section, T - Thin Section, I - In-ore, I - Inclusion, E - EPMA, \* - Assayed in central laboratory, Ulanbator)

Fig. II-1-6 Geological column of MJMT-7 (2)

MJMT-8 (1)

0m ~ 100m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis					
						No.	From (m)	To (m)	Length (m)	As (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Au (g/t)	
0.50	+	Aseerillite	grey, medium-coarse grain, biotite bearing homogeneous (3.05-3.25, 3.32-3.60 pegmatite dikes)												
8.60	+														
10.00	+														
12.40	+														
16.00	+	Adalt.	gry. med. homog.												
20.00	+	Pegmatite gneiss	ditto with 8.6~ (21.9~22.3, 22.65~22.85 pegmatite, blackish feldspar & max len conta)												
22.90	+	Adalt.	pale gry. med. homog.												
28.00	+														
30.05	+	Pegmatite Psnat. gnis.	gry. med. banded $\angle 60^{\circ} \sim 70^{\circ}$ 28.0~34.1 blackish biotite banded 38.8~32.5 pegmatite, large quartz, feldspar & max len			5 T	32.60	32.65	0.05						
34.10	+														
40.60	+														
41.50	+	Adalt.	gry. med. homog. (44.65~44.9, 45.5~45.8psnat. xenolith)												
43.00	+														
50.00	+	Pegmatite gnis.	gry. partly pale greenish, fin-med. banded $\angle 60^{\circ} \sim 70^{\circ}$ 53.1~53.9, 54.8~55.8 pegmatite contains white & black feldspar, each size max $\phi$ 1.5cm, 2.5cm 53.9~54.8 contains garnet $\phi$ 2mm rich			6 T	54.00	54.05	0.05						
	+	Pegmatite				7 T	55.10	55.15	0.05						
60.00	+														
61.50	+	Quartz Vein	61.5~1.5cm segregation QV	61.5~1.5cm QV											
62.20	+	Adalt.	gry. crs. 66.8~biotite poor												
68.50	+														
70.00	+	Pelite gneiss	dark gry~bluish, segregation quartz banded $\angle 60^{\circ}$												
72.40	+	Fault Clay	71.4~71.6(20cm) Fault with dark grey clay												
74.10	+														
75.70	+	Amphibolite	blk. mass. amphibole >> biotite												
77.40	+														
78.70	+														
80.00	+														
82.20	+	Amphibolite	ditto with 75.7~, partly blk band $\angle 65^{\circ}$												
83.90	+														
84.90	+	Adalt.													
87.30	+	Amphibolite	Gneissose str. wht & blk thin band. $\angle 50^{\circ} \sim 60^{\circ}$ finger skin like												
90.00	+														
92.65	+	Quartz Vein	91.65~3cm $\angle 30^{\circ}$ No. 10 QV	91.65~3cm QV		8 F	91.00	91.05	0.05						
92.15	+	Quartz Vein	92.15~1cm QV	92.15~1cm QV		52 A	91.65	91.68	0.03	< 0.1	0.4	< 1	< 1		
92.40	+	Quartz Vein	92.90~2cm clay vein	92.9~2cm QV		14 J	91.65	91.67	0.02						
92.90	+	Pegmat. gnis.	gry. fin. mass			25 X	92.90	92.92	0.02						
94.25	+	Amphibolite (gneiss)	ditto with 87.3~												
100.00	+														

Sample (A - Chemical Analysis, P - Polish Section, T - Thin Section, X - X-ray, I - Inclusion, E - EPMA, \* - Assayed in central laboratory, Ulanbator)

Fig. II-1-7 Geological column of MJMT-8 (1)

MJMT-8 (2)

100m ~ 200m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis					
						No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Ac* (g/t)	
101.90	A A	Amphibolite gneiss	Gneissose str. blk >> wht <45' clear												
102.40	A A														
	A A														
	A A														
110.00	A A														
110.70	# #	Pegmatite	large quartz, blackish feldspar, some iron												
112.70	#		ditto with 100.0~												
114.80	A A		dry part / dark grey part (plattis rich?) fine-sed, banded weak <30'												
118.80															
120.00															
130.00															
140.00															
150.00															
160.00															
170.00															
180.00															
190.00															
200.00															

Sample (A - Chemical Analysis, P - Polish Section, T - Thin Section, X - X-ray, I - Inclusion, E - EPMA, \* - Assayed in central laboratory, Hlanbatay)

Fig.II-1-7 Geological column of MJMT-8 (2)

MJMT-9

0m ~ 100m

Depth (m)	Geologic Column	Rock Name	Description	Vein	Alteration	Sample				Chemical Analysis				Ave. (g/t)
						No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	
0.40	x	Granodiorite	Biotite, muscovite bearing, rather fresh											
5.30	x x	Caly Vein		5.9~2m Clay	Argillization	30 X	5.90	5.92	0.02					
5.90														
8.90	x x	Quartz Vein	8.9~about 30cm, crushed, pale grey	about 8.9~2cm QV		53 A	8.90	9.00	0.10	1.7	0.7	70	3	
						54 A	9.00	9.10	0.10	1.5	0.6	56	2	
						55 A	9.10	9.20	0.10	0.8	0.6	54	4	
11.50	x x	Quartz Vein	11.5~about 20cm, crushed, pale grey	about 11.5~23cm QV		56 A	11.50	11.60	0.10	0.9	0.6	43	3	
						57 A	11.60	11.70	0.10	0.8	0.4	63	3	
13.85	x x	Quartz Vein	13.85~23cm, crushed, $\angle 5^{\circ}$ , pale grey	13.85~23cm QV		58 A	13.85	14.00	0.15	1.1	0.6	36	3	
14.80	x x	Granodiorite	14.83~23.3 oxidized crack common			15 I	13.98	14.00	0.02					
						59 A	14.00	14.08	0.08	1.0	0.6	50	3	
22.05	x x	Fault breccia	22.05~25cm argillized			31 X	22.05	22.30	0.25					
23.30	x x													
29.85	x x		29.85~30.2 brown, strong argillized Gr-Dr		Argillization	32 X	29.85	30.20	0.35					
30.02	x x	Quartz Vein	30.2~63cm No. 1 vein, lower boundary very sharp pale grey~whitish	30.2~63cm QV		60 A	30.20	30.38	0.15	< 0.1	0.6	31	2	< 0.1
30.83	x x		30.83~2cm argillized			61 A	30.35	30.51	0.16	< 0.1	1.1	17	2	0.1
			30.85~rather fresh			62 A	30.51	30.67	0.16	< 0.1	0.8	12	3	0.1
						16 I	30.65	30.67	0.02					
						63 A	30.67	30.83	0.16	0.2	1.0	21	3	1.1
		Granodiorite				33 X	30.83	30.85	0.02					
40.00	x x													
47.60	x x	Clay Vein	47.6~max 1cm, quartz bearing $\angle 25^{\circ}$	47.6~1cm Clay Vein	Argillization	34 X	47.60	47.61	0.01					
50.00	x x													
51.80	x x	Quartz Vein	51.8~21cm $\angle 70^{\circ}$	51.8~1cm QV										
60.00	x x													
62.70	x x	Clay Vein	62.7~64.5 whitish width 0.5~1cm $\angle 65^{\circ}$ ~ $90^{\circ}$	62.7~1cm Clay Vein	Argillization	35 X	62.70	62.71	0.01					
64.50	x x													
70.00	x x					9 Y	68.50	68.55	0.05					
76.18	x x	Granodiorite	pale grey, medium grain, homogeneous rather fresh											
76.18	x x	Clay Vein	76.18~2cm, whitish, $\angle 60^{\circ}$	76.18~2cm Clay Vein	Argillization	36 X	76.18	76.20	0.02					
80.00	x x													
80.60	x x													
90.00														
100.00														

Sample (A - Chemical Analysis, P - Polish Section, T - Thin Section, X - X-ray, I - Inclusion, E - EPMA, \* - Assayed in central laboratory, Lianbaer)

Fig. II-1-8 Geological column of MJMT-9







A-4 Microphotographs of rock thin section

Abbreviations of mineral names in the plate

Qz : quartz

Pl : plagioclase

Kf : potassium feldspar

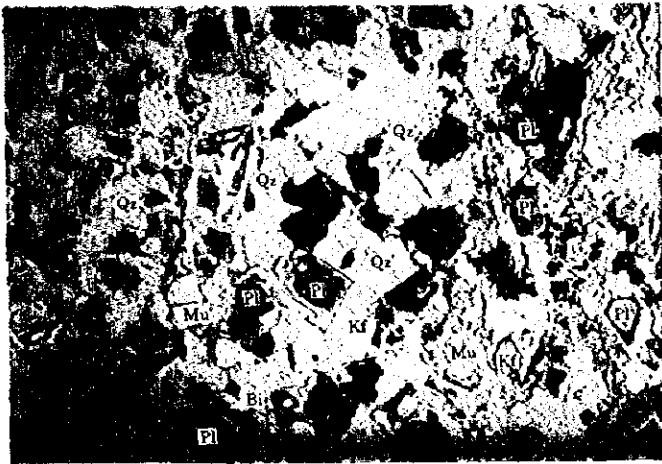
Bi : biotite

Mu : muscovite

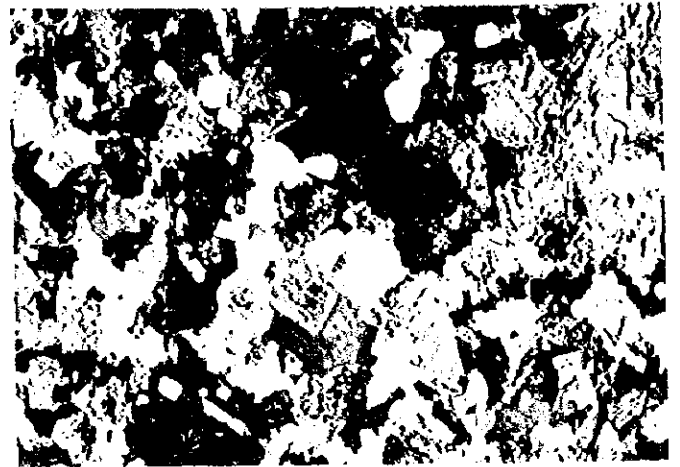
Ho : hornblende



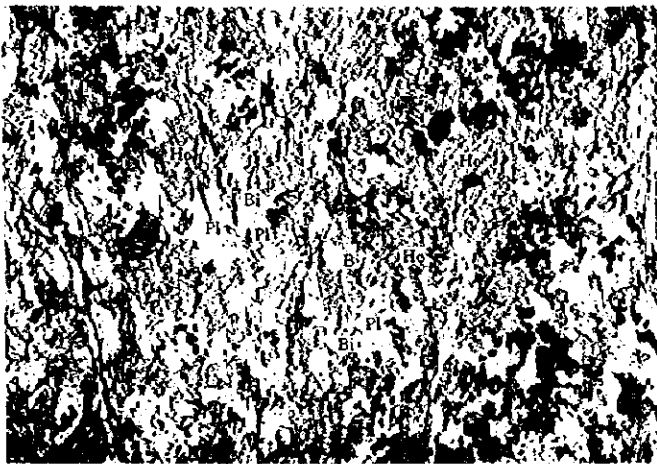
A-4 Microphotographs of rock thin section



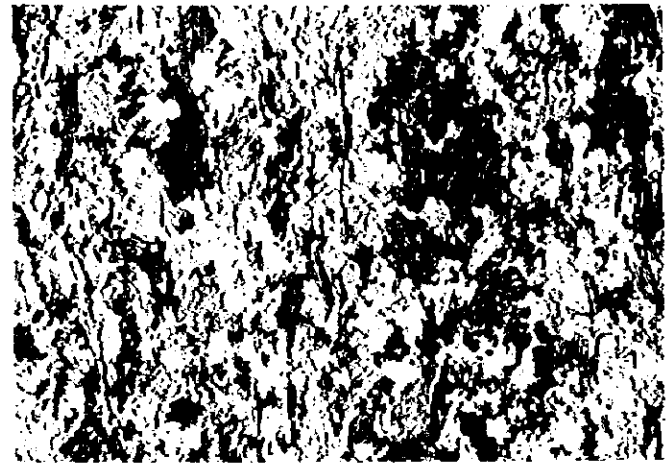
No.1 MJMT-4 57.65m Open nicol 1mm  
Two mica granodiorite



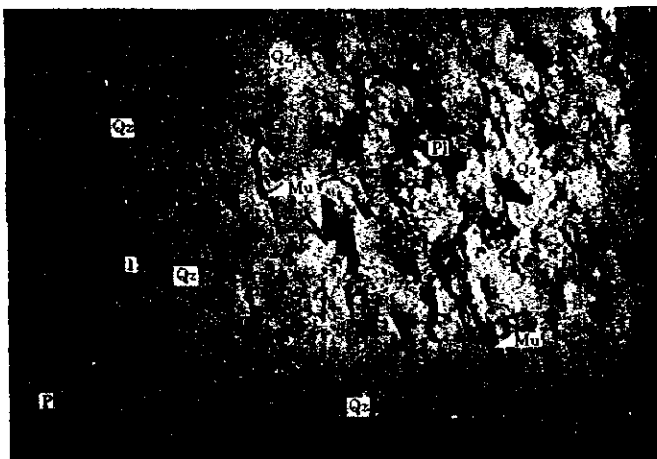
Cross nicol 1mm



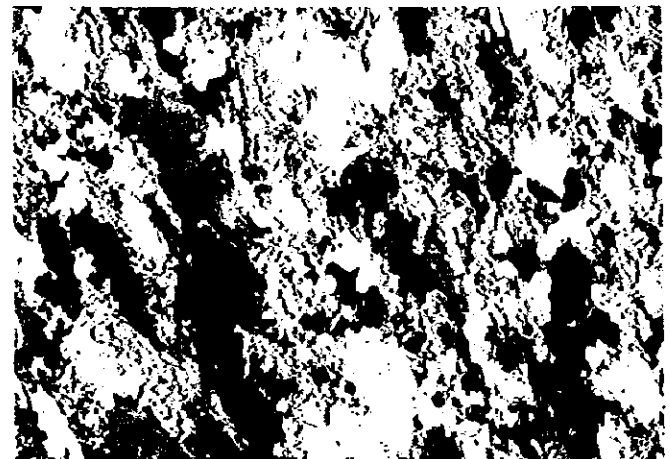
No.2 MJMT-6 36.70m Open nicol 1mm  
Biotite bearing hornblende gneiss



Cross nicol 1mm



No.3 MJMT-7 78.30m Open nicol 1mm  
Psammitic gneiss



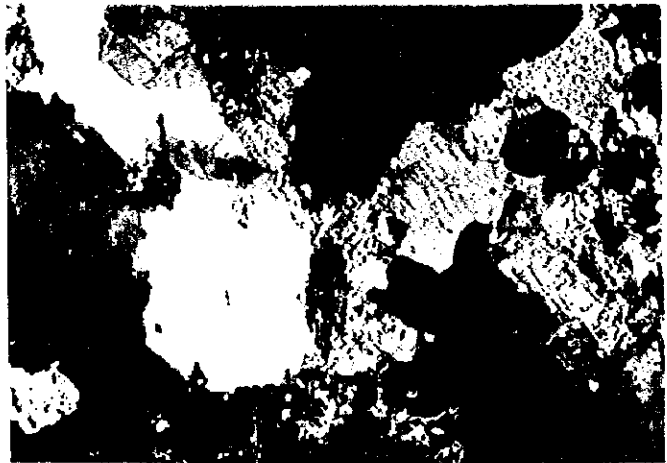
Cross nicol 1mm

A-4 Microphotographs of rock thin section

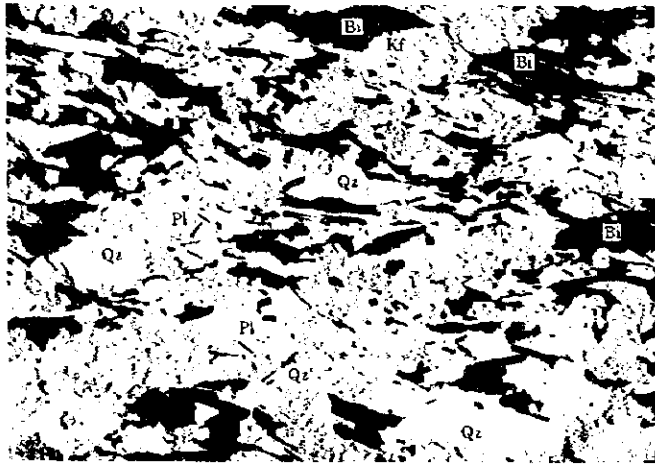


No.4 MJMT-7 93.80m Open nicol 1mm

Adamellite

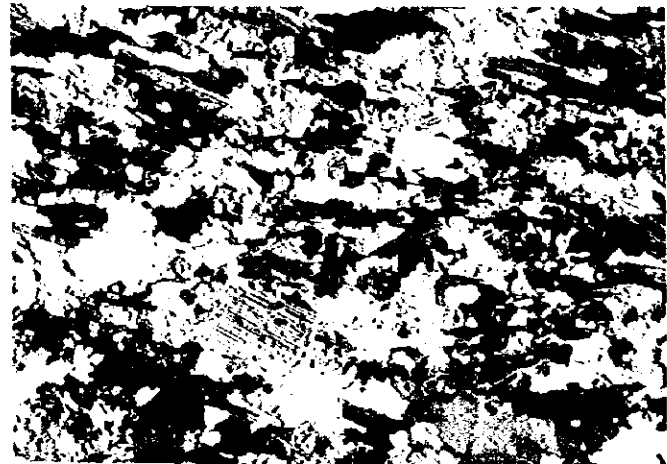


Cross nicol 1mm

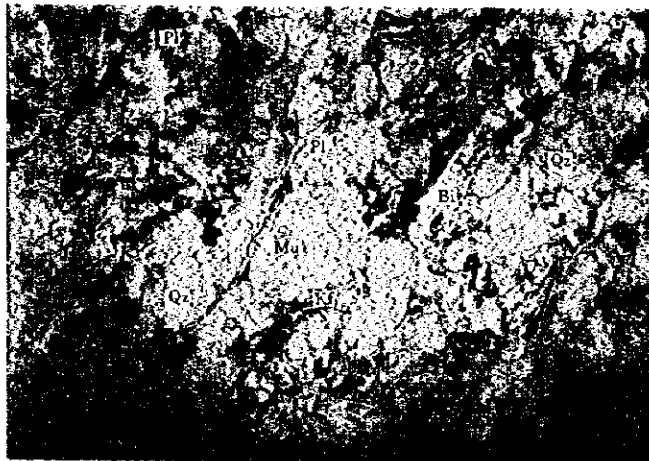


No.5 MJMT-8 32.60m Open nicol 1mm

Psammatic gneiss

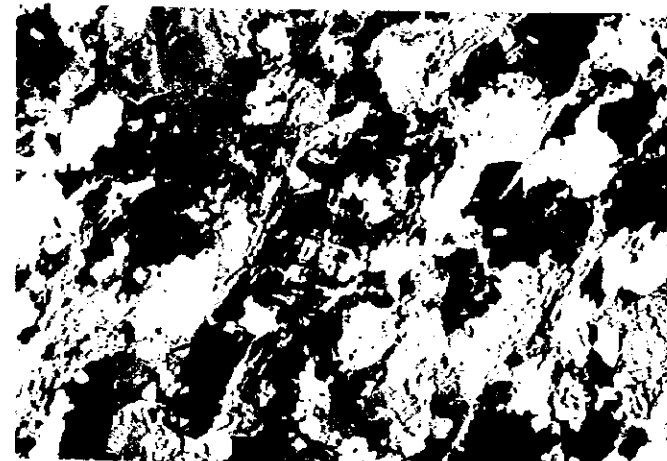


Cross nicol 1mm



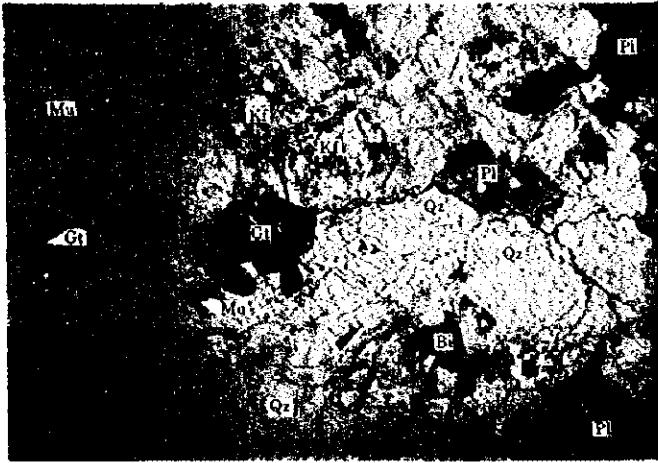
No.6 MJMT-8 54.00m Open nicol 1mm

Psammatic gneiss

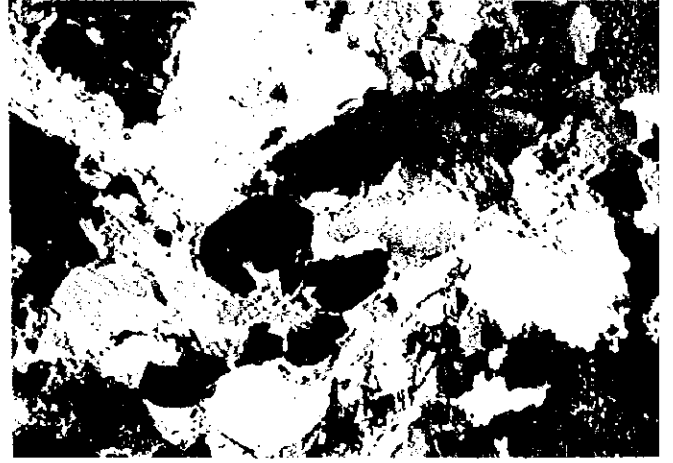


Cross nicol 1mm

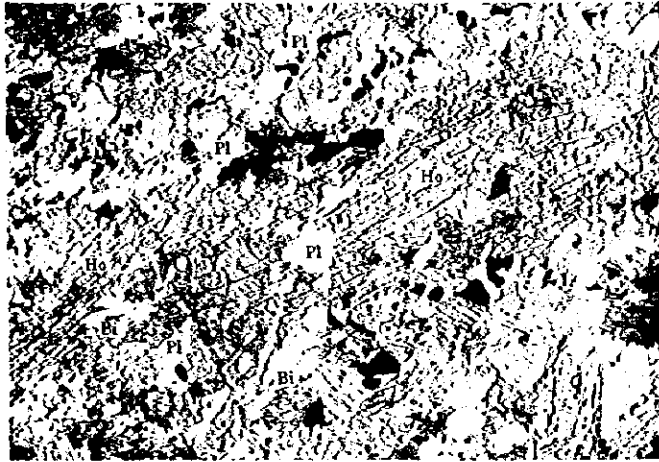
A-4 Microphotographs of rock thin section



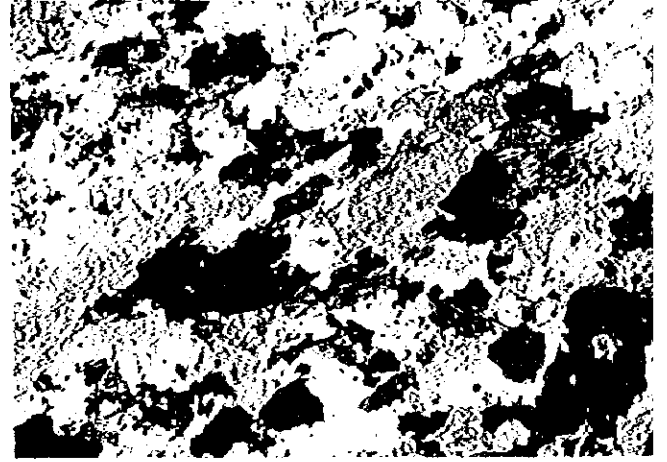
No.7 MJMT-8 55.10m Open nicol 1mm  
Psammitic gneiss



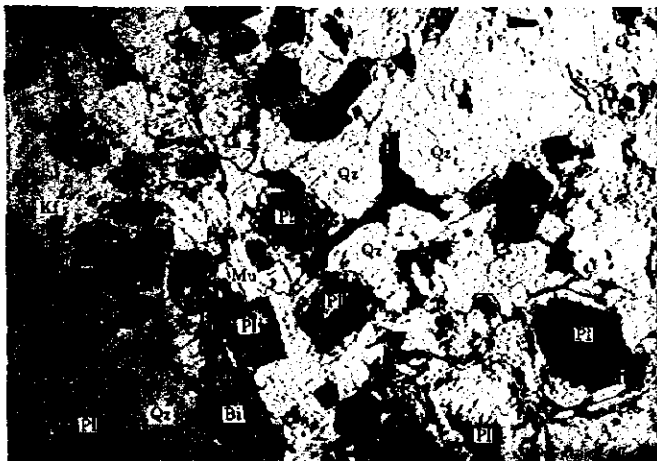
Cross nicol 1mm



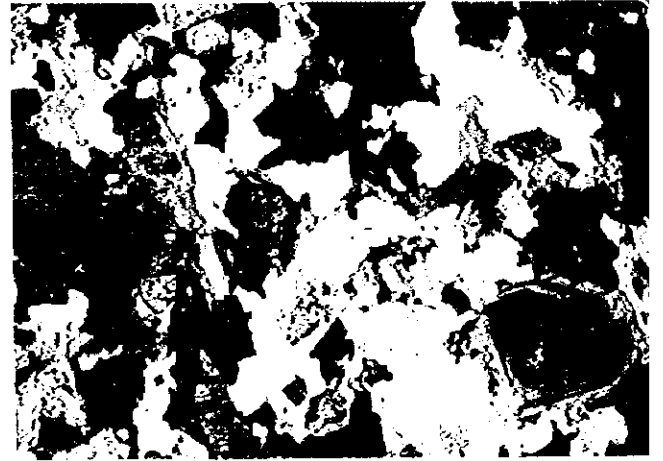
No.8 MJMT-8 91.00m Open nicol 1mm  
Amphibolite



Cross nicol 1mm

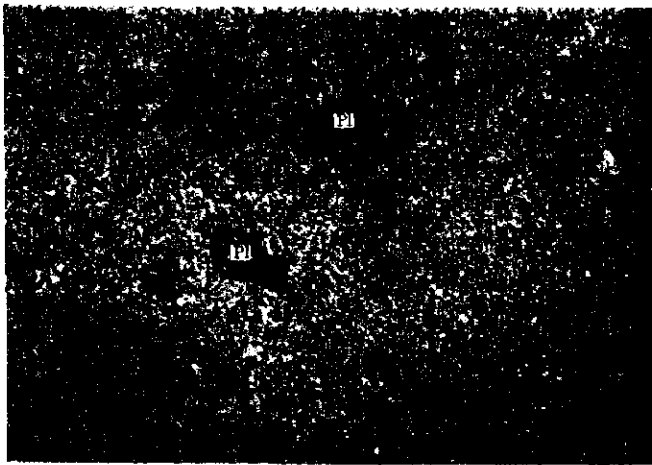


No.9 MJMT-9 68.50m Open nicol 1mm  
Two mica granodiorite



Cross nicol 1mm

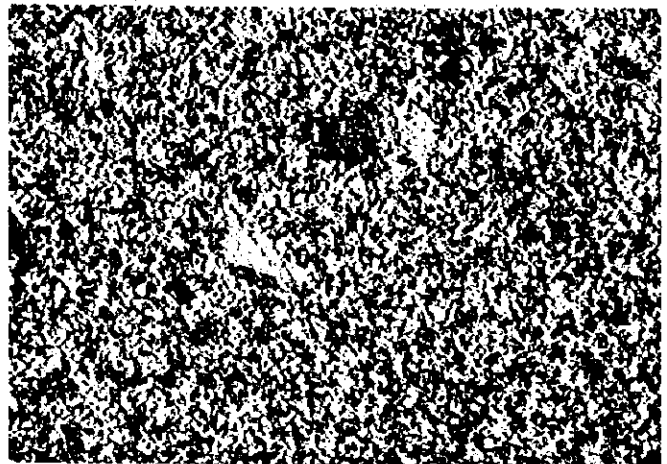
A-4 Microphotographs of rock thin section



No.10 野外

Aphyric rhyolite

Open nicol [ 1mm ]



Cross nicol [ 1mm ]

A-5 Microphotographs of ore polished section

Abbreviations of mineral names in the plate

Au : native gold

cp : chalcopyrite

gn : galena

cv : covellite

cc : chalcocite

tet: tetrahedrite

tet-ten : tetrahedrite-tennantite solid solution

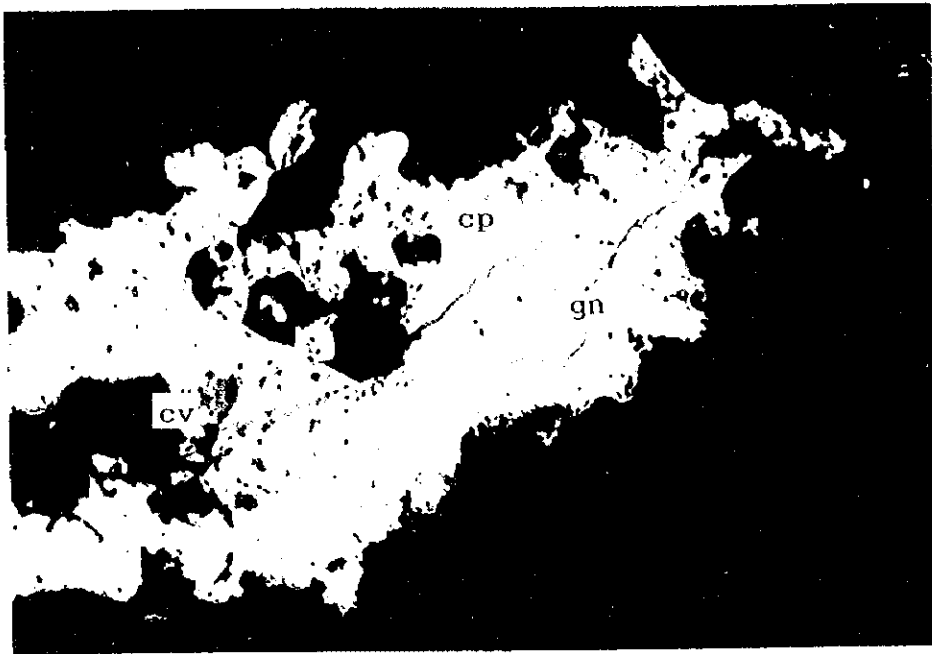
Cu, Pb, Sb, As oxides : oxide assemblage of each  
element individual

Cu oxide+zinc+Te : assemblage of copper oxide, zinkenite and  
tellurium mineral

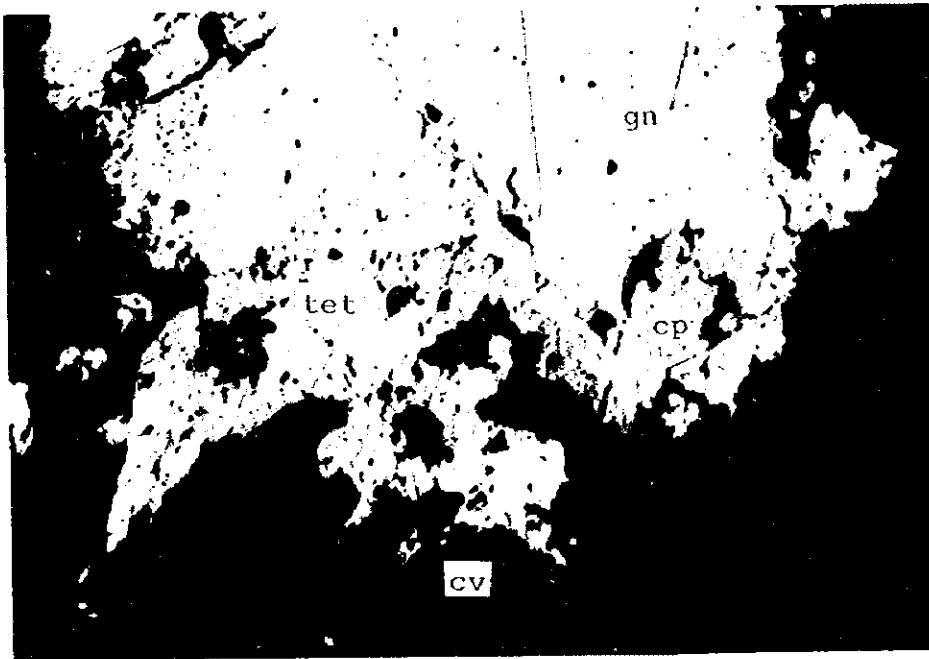




A-5 Microphotographs of ore polished section



EPMA-2

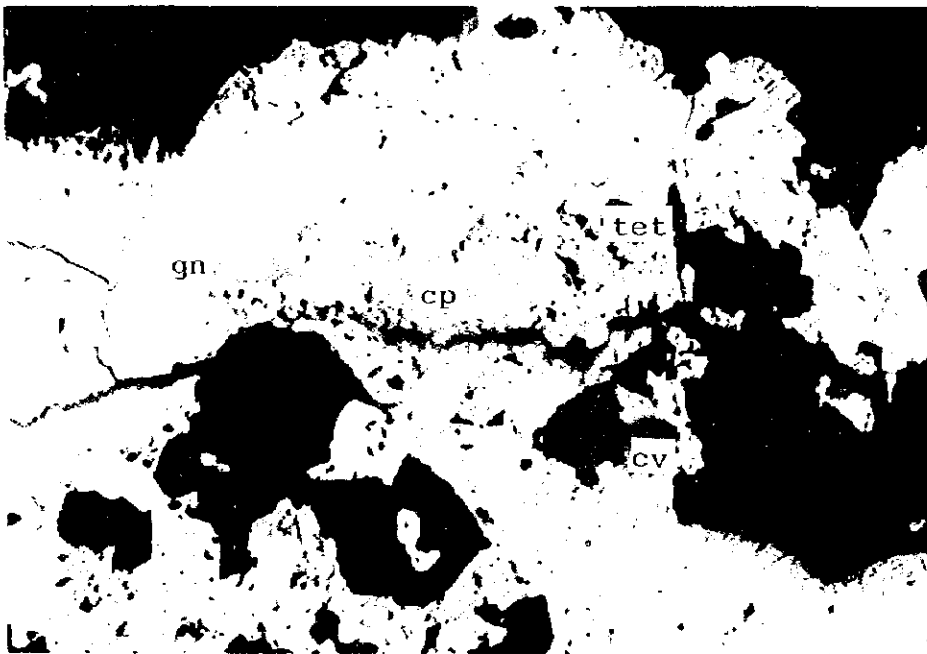
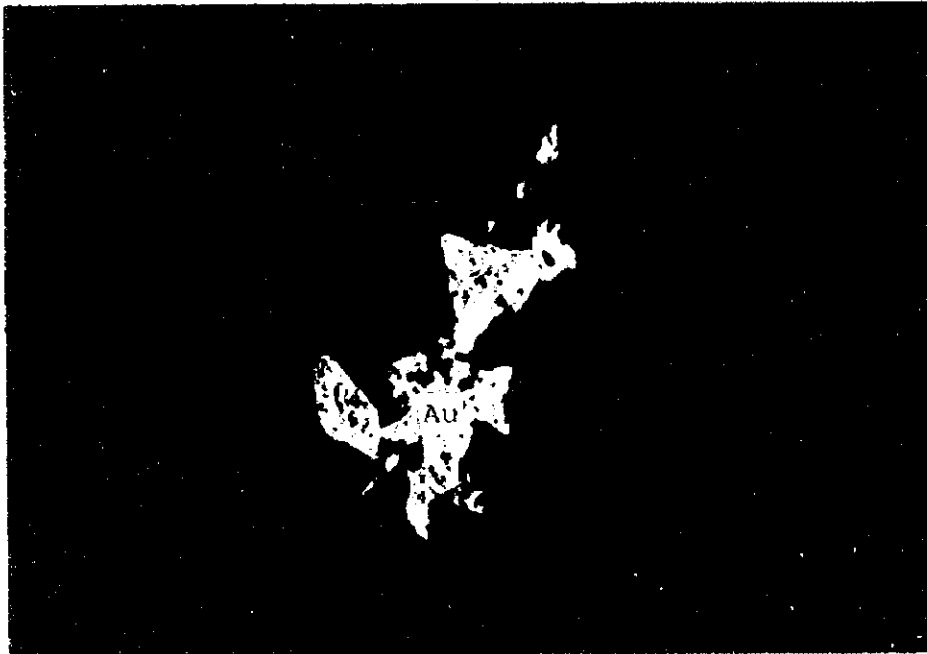


EPMA-1

0 0.2mm

Fig.1 Galena-chalcopyrite ore (MJMT-3 85.80m)

A-5 Microphotographs of ore polished section

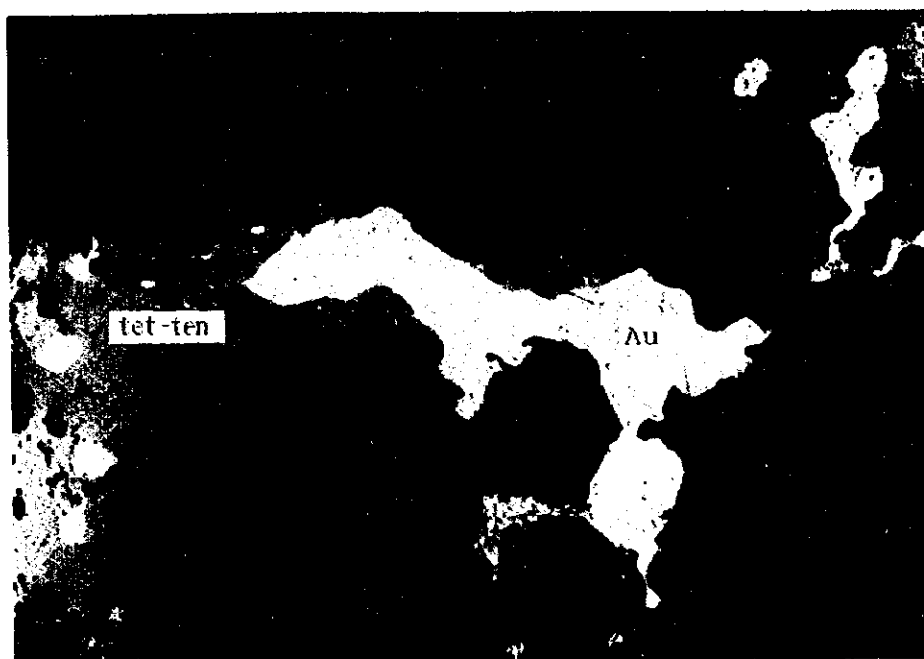


BPMA-3

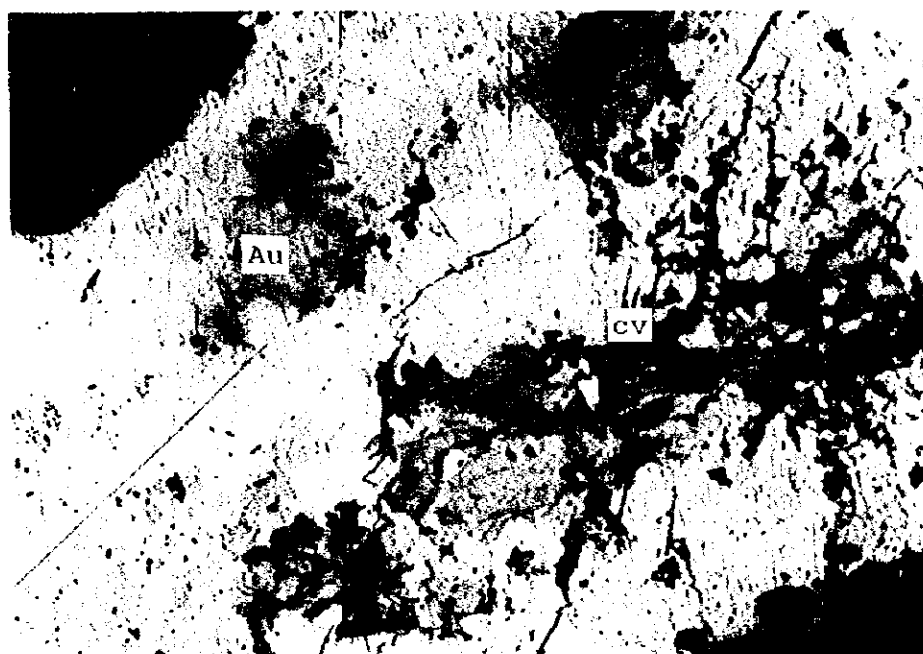
0 0.2mm

Fig.2-a Au ore (MJMT-3 86.22m)

A-5 Microphotographs of ore polished section



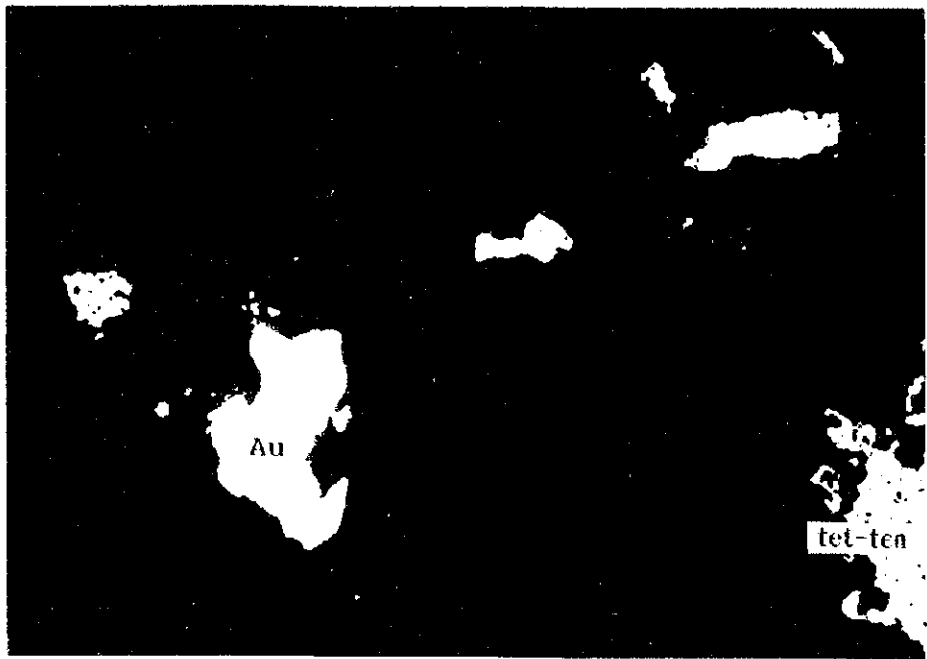
BPMA-5



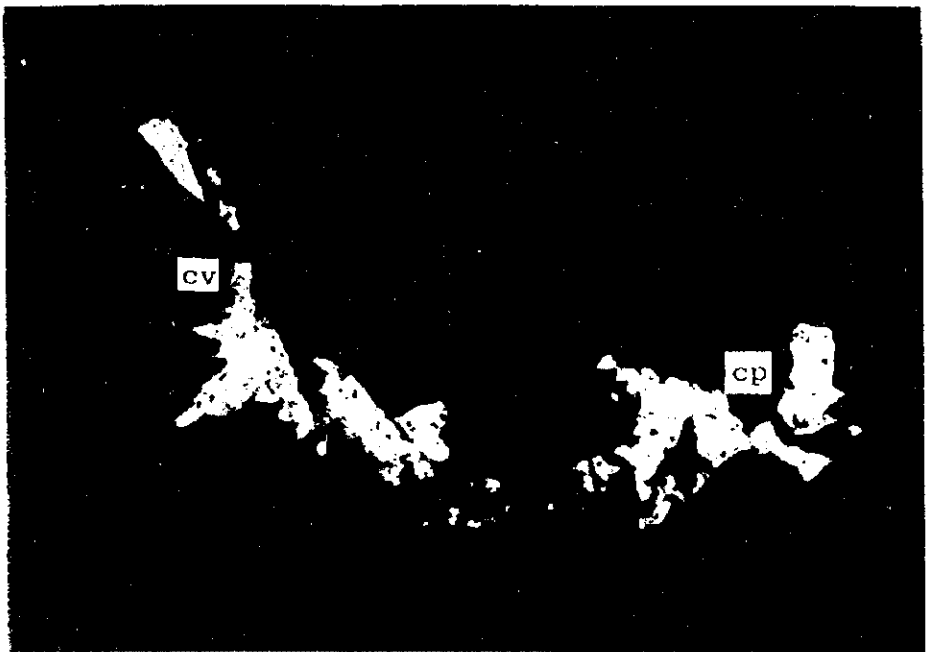
0 0.2mm

Fig.4 Au ore (MJMT-3 86.35m(2))

A-5 Microphotographs of ore polished section



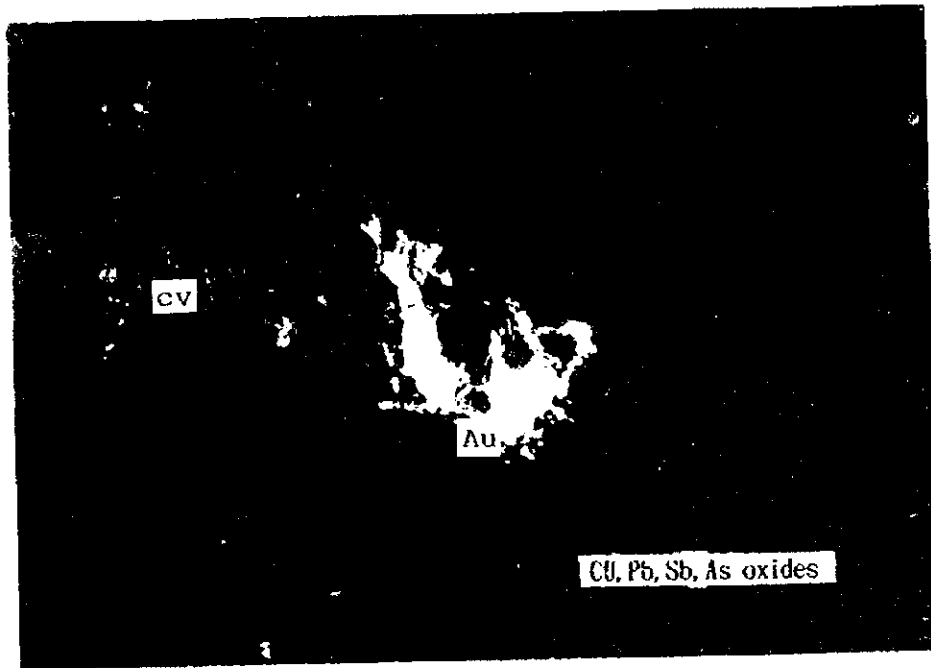
EPMA-6



0 0.2mm

Fig.6 Au ore (MJMT-3 86.35m(4))

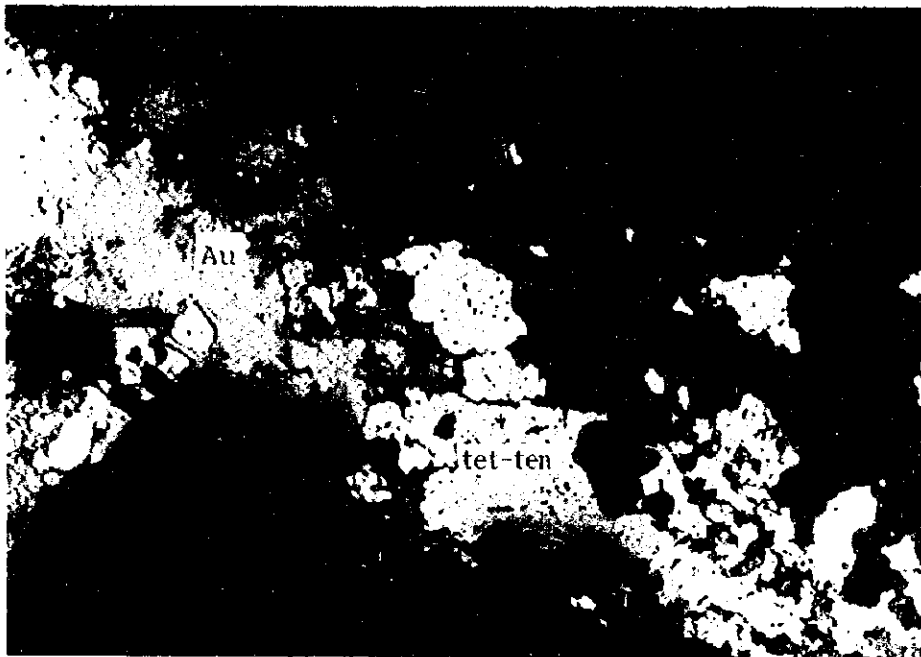
A-5 Microphotographs of ore polished section



EPMA-7

Fig.5 Au ore (MJMT-3 86.35m(3))

A-5 Microphotographs of ore polished section



EPMA-10

0 0.2mm

Fig.9 Au ore (MJMT-3 86.35m(7))

A-5 Microphotographs of ore polished section

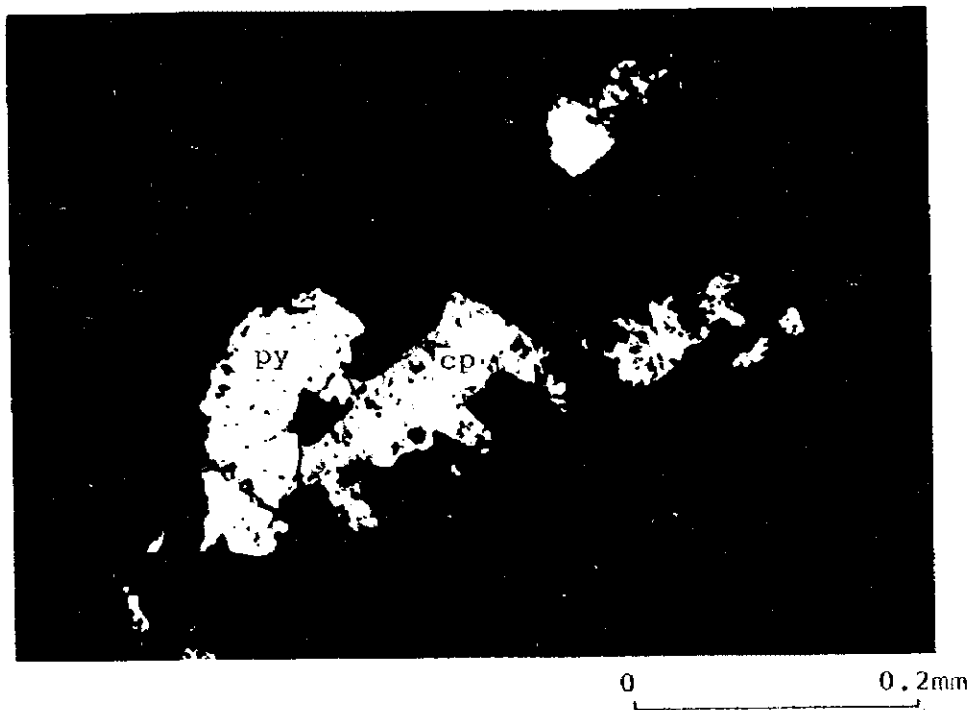
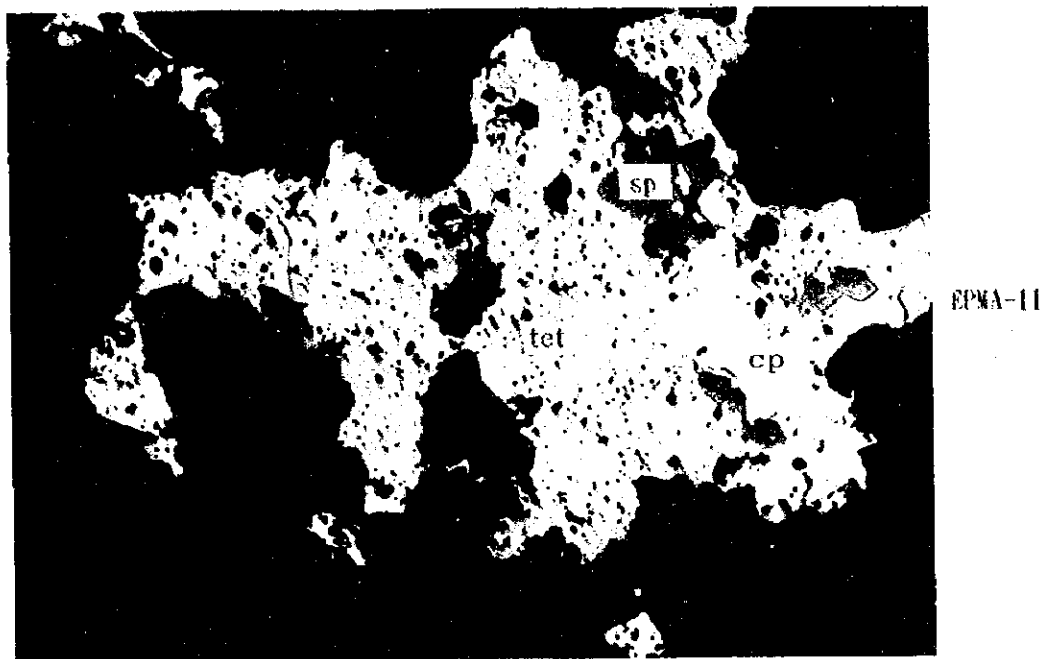


Fig.11 chalcopyrite ore (MJMT-6 76.20m)





A-6 Image map of EPMA

Au : gold (electrum)

cp : chalcopyrite

gn : galena

sp : sphalerite

th : tetrahedrite



>>> Map Measurement condition. <<<

Group : publicjx3                      Sample : jx3pub1  
 Comment : Fig 1 MJMT3 85.8m

Feb 21 20:23 1998

Stage No.1      Position mm   X : 67.1292    Y : 4.9992    Z : 11.5831

Accelerating Voltage            25.0    kV  
 Dwell Time                      25.0    m sec.  
 No. of Pixels                    X : 250            Y : 250  
 Pixel size (um)                 X : 3.00           Y : 3.00  
 Condenser Lens (C,F) 18, 36    Object Lens (C,F) 186, 452  
 Magnification                    500  
 Probe Diameter (um)             0  
 Probe Scan Off, Scan Mode PIC            , Scan Speed SR  
 Probe Current (A)                2.016E-07

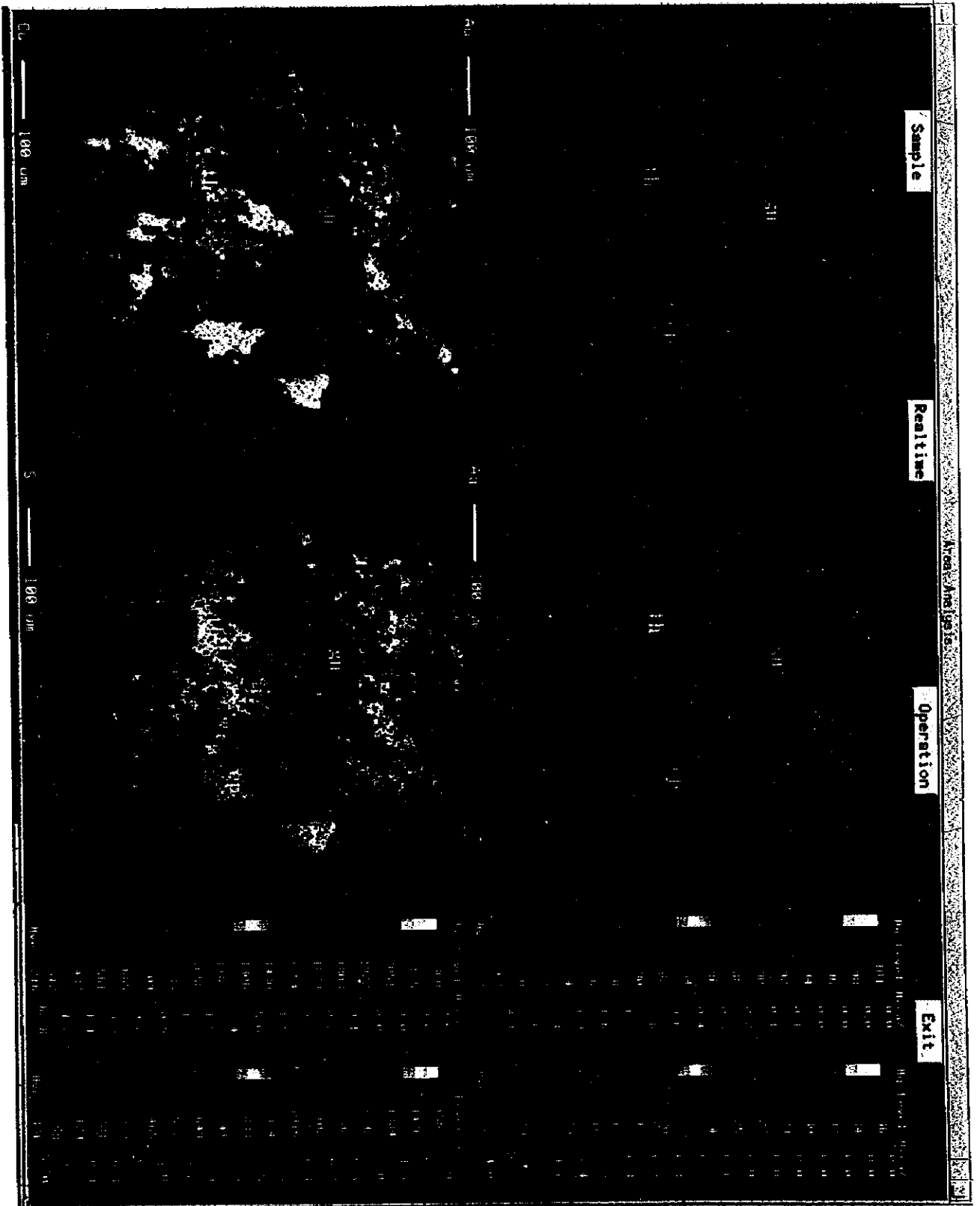
	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	81	36	699	1568	2584
Min. data	0	0	1	0	0
Ave. data	10	5	43	371	216

	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	993	101	1058	2059	1021
Min. data	0	0	0	0	0
Ave. data	15	32	295	102	57

FPMA-1

Feb 21 20:23 1998 .map/tmp Page 2

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	317
Min. data	0
Ave. data	28



CL 100 um

S 100 um

Sample

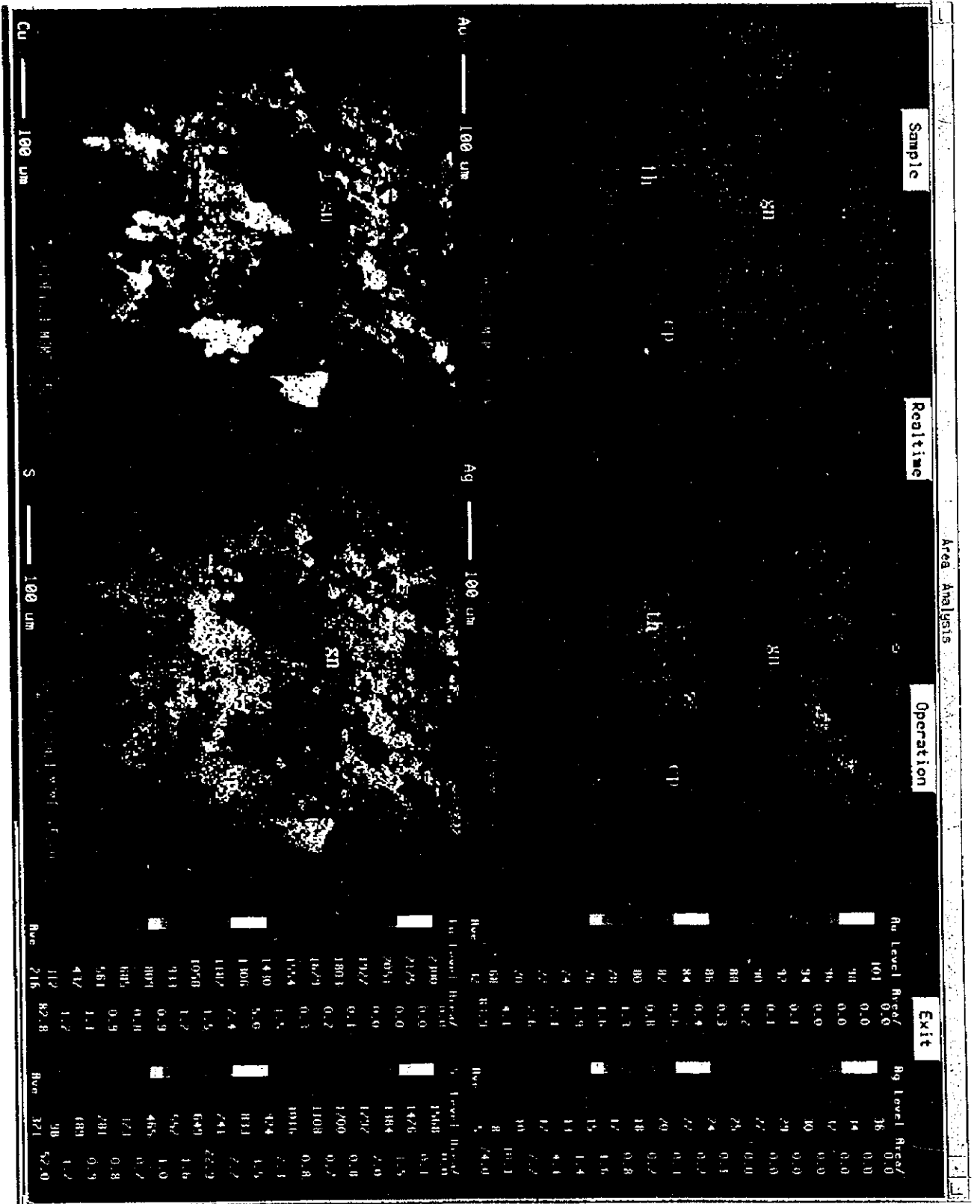
Realtime

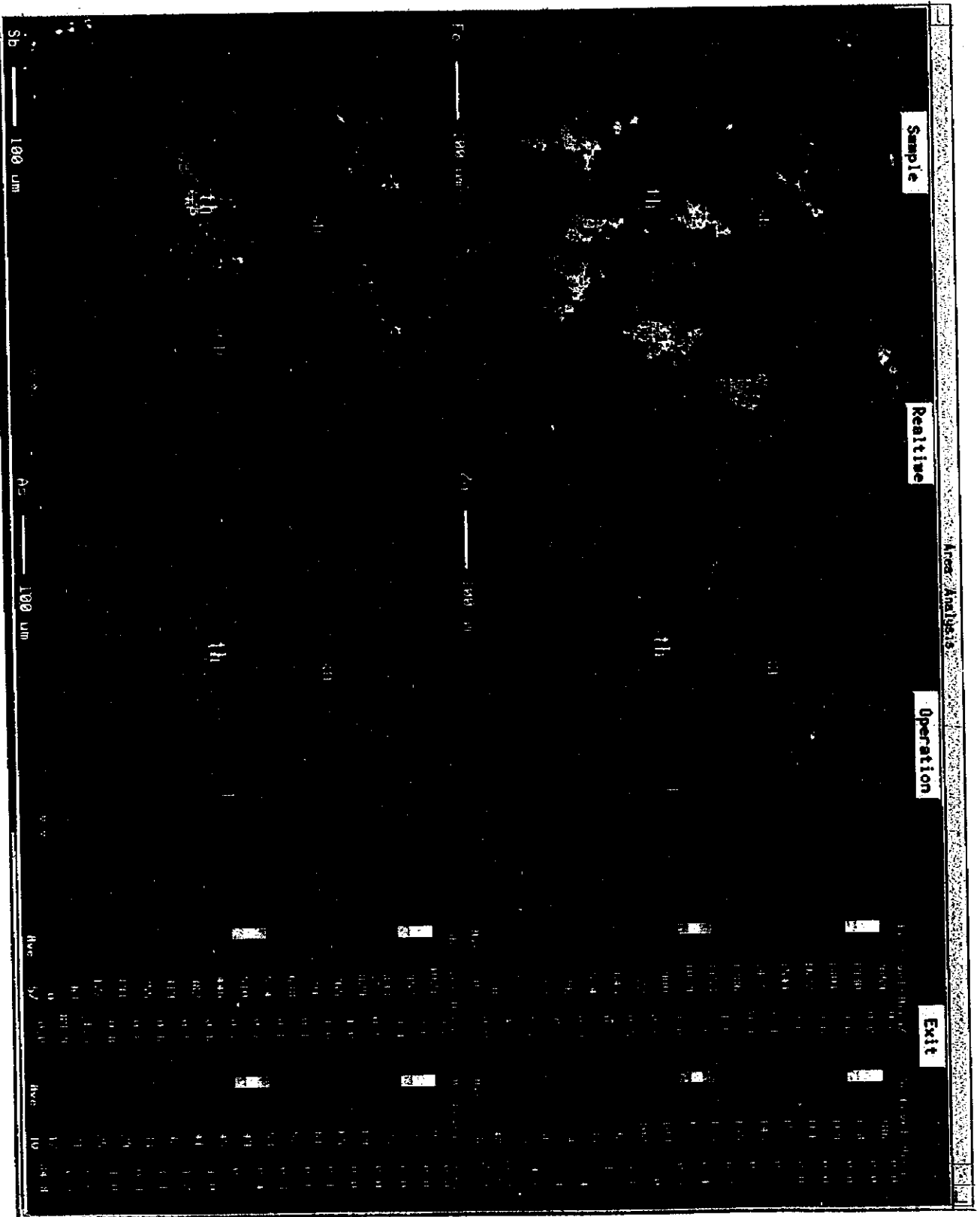
Operation

Exit

Area Analysis

Element	Area	Weight %	Atomic %
Al	100	100	100
Si	100	100	100
Fe	100	100	100
Mn	100	100	100
Mg	100	100	100
Ca	100	100	100
Na	100	100	100
K	100	100	100
Cl	100	100	100
S	100	100	100
P	100	100	100
Cr	100	100	100
Zn	100	100	100
As	100	100	100
Se	100	100	100
Br	100	100	100
Rb	100	100	100
Sr	100	100	100
Y	100	100	100
Zr	100	100	100
Nb	100	100	100
Mo	100	100	100
Tc	100	100	100
Ru	100	100	100
Rh	100	100	100
Pd	100	100	100
Ag	100	100	100
Cd	100	100	100
In	100	100	100
Sn	100	100	100
Sb	100	100	100
Te	100	100	100
I	100	100	100
Xe	100	100	100
Ba	100	100	100
La	100	100	100
Ce	100	100	100
Pr	100	100	100
Nd	100	100	100
Pm	100	100	100
Sm	100	100	100
Eu	100	100	100
Gd	100	100	100
Tb	100	100	100
Dy	100	100	100
Ho	100	100	100
Er	100	100	100
Tm	100	100	100
Yb	100	100	100
Lu	100	100	100
Hf	100	100	100
Ta	100	100	100
W	100	100	100
Re	100	100	100
Os	100	100	100
Ir	100	100	100
Pt	100	100	100
Au	100	100	100
Hg	100	100	100
Tl	100	100	100
Pb	100	100	100
Bi	100	100	100
Po	100	100	100
At	100	100	100
Rn	100	100	100
Ac	100	100	100
Th	100	100	100
Pa	100	100	100
U	100	100	100
Np	100	100	100
Pu	100	100	100
Am	100	100	100
Cm	100	100	100
Bk	100	100	100
Cf	100	100	100
Es	100	100	100
Fm	100	100	100
Mf	100	100	100
Unk	100	100	100







Exit

Area	Fe Level	Breadth	Area	Zn Level	Breadth
2059	0.0	0.0	186	0.0	0.0
1980	0.0	0.0	170	0.0	0.0
1901	0.0	0.0	169	0.0	0.0
1672	0.0	0.0	161	0.0	0.0
1544	0.1	0.1	152	0.1	0.1
1415	0.1	0.1	141	0.2	0.2
1286	1.0	1.0	135	0.2	0.2
1158	2.5	2.5	126	0.4	0.4
1029	1.0	1.0	117	0.5	0.5
900	0.8	0.8	109	1.0	1.0
772	0.8	0.8	100	1.1	1.1
641	0.8	0.8	92	1.1	1.1
514	0.9	0.9	83	1.4	1.4
386	1.2	1.2	74	1.4	1.4
257	1.1	1.1	66	4.1	4.1
129	14.5	14.5	57	11.5	11.5
0	0.0	0.0	48	76.6	76.6
107	0.0	0.0	40	0.0	0.0
1021	0.0	0.0	31	0.0	0.0
957	0.1	0.1	27	0.0	0.0
891	0.5	0.5	23	0.0	0.0
829	1.0	1.0	19	0.0	0.0
765	1.0	1.0	15	0.1	0.1
701	0.8	0.8	11	0.1	0.1
638	0.8	0.8	7	0.1	0.1
574	0.7	0.7	53	0.4	0.4
510	0.7	0.7	49	0.7	0.7
446	0.6	0.6	45	1.0	1.0
382	0.5	0.5	41	1.2	1.2
319	0.6	0.6	37	1.1	1.1
255	0.6	0.6	33	0.1	0.1
191	0.8	0.8	29	1.0	1.0
122	1.3	1.3	25	2.2	2.2
63	89.9	89.9	21	6.2	6.2
0	0.0	0.0	17	84.8	84.8

Operation

Realtime

Sample

Fe 100 um

Zn 100 um

Sb 100 um

As 100 um

1000 | 1000 | 1000

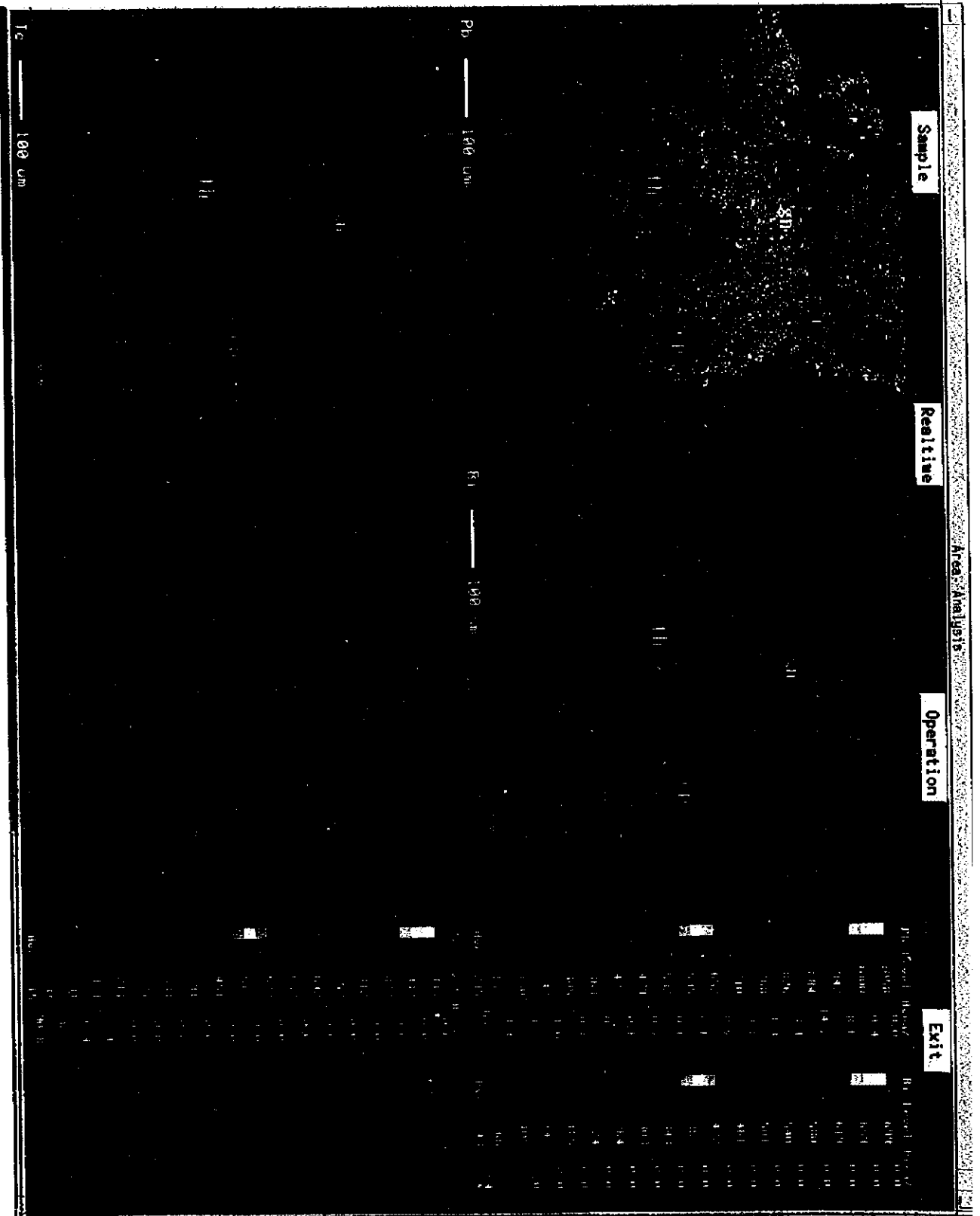
1000 | 1000 | 1000

Area

Area

1000







Sample

Realtime

Operation

Exit

Te 100 um

Pb 100 um

Bi 100 um

100 um

Rev

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>>> Map Measurement condition. <<<

Group : publicjx3                      Sample : jx3pub1  
 Comment : Fig 2b MJMT3 85.8m

Feb 21 23:06 1998

Stage No.2      Position mm    X : 69.9965    Y : 18.6725    Z : 11.5423

Accelerating Voltage      25.0 kV  
 Dwell Time                25.0 m sec.  
 No. of Pixels             X : 250                    Y : 250  
 Pixel size (um)           X : 3.00                   Y : 3.00  
 Condenser Lens (C,F) 18, 36    Object Lens (C,F) 186, 452  
 Magnification             500  
 Probe Diameter (um)       0  
 Probe Scan Off, Scan Mode PIC                    , Scan Speed SR  
 Probe Current (A)         2.034E-07

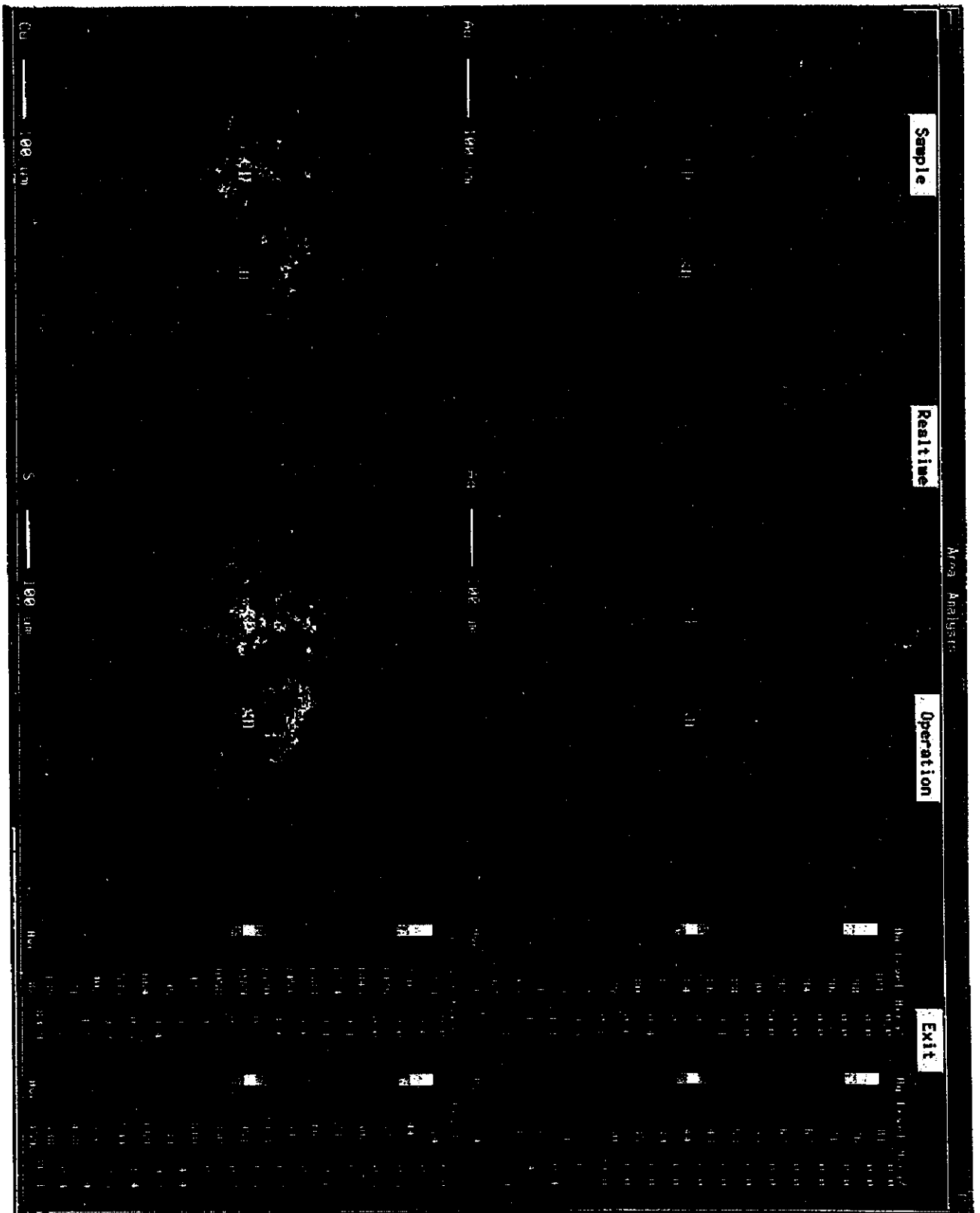
	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	158	81	923	1774	2239
Min. data	0	0	1	0	0
Ave. data	6	4	28	159	87

	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	1090	101	1062	1514	981
Min. data	0	0	0	0	0
Ave. data	10	21	148	28	22

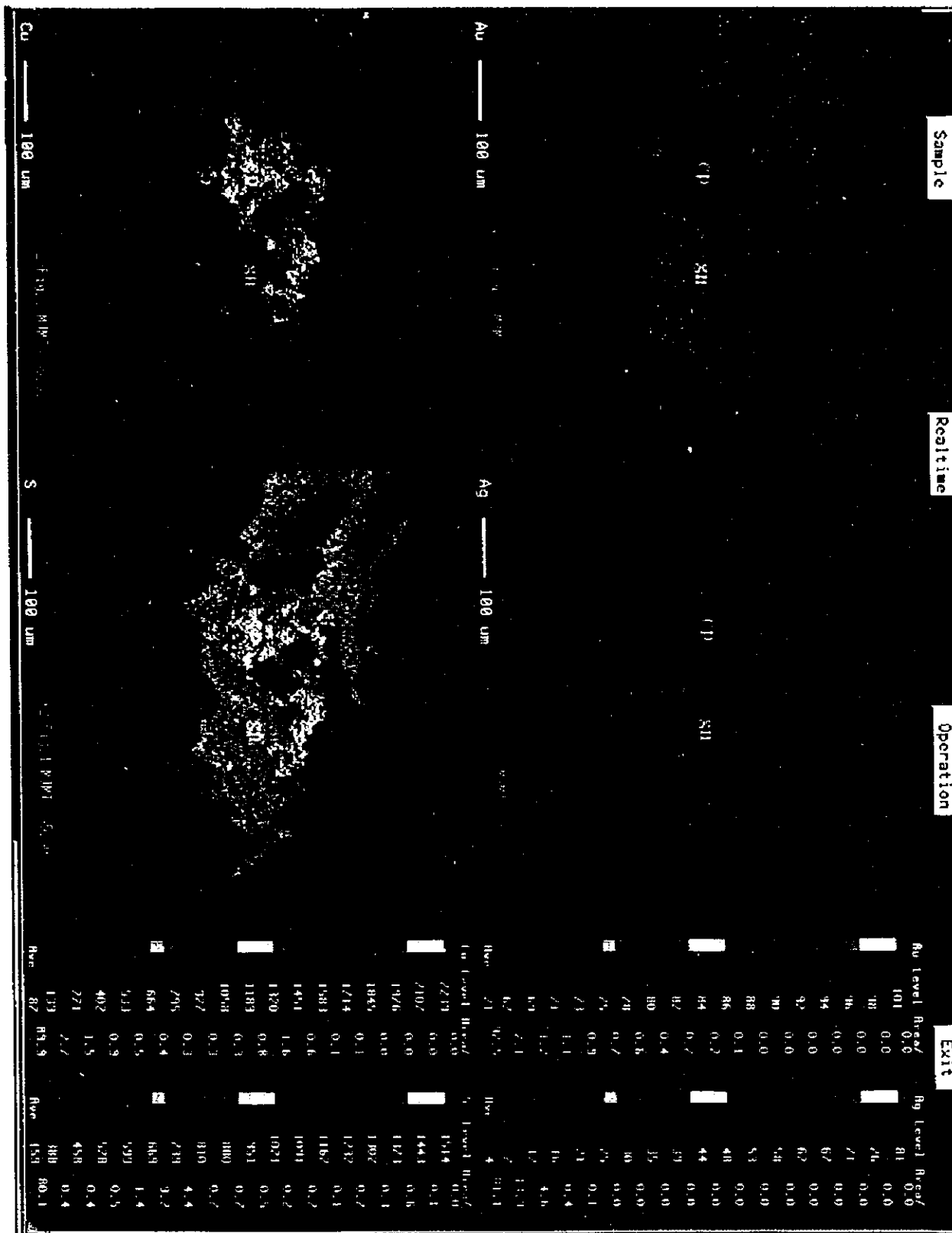
EPVA-2

Feb 21 23:06 1998 .map/tmp Page 2

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	264
Min. data	0
Ave. data	18



Area Analysis



Exit	Au Level Area/Reef	Ag Level Area/Reef	
101	0.0	81	0.0
10	0.0	46	0.0
16	0.0	71	0.0
95	0.0	67	0.0
92	0.0	62	0.0
10	0.0	54	0.0
88	0.1	53	0.0
86	0.2	48	0.0
84	0.2	44	0.0
82	0.4	39	0.0
80	0.6	35	0.0
78	0.7	30	0.0
75	0.9	25	0.1
73	1.1	21	0.4
71	1.2	16	4.6
69	2.1	12	13.1
67	3.5	7	21.1
65	6.5	4	
2219	0.0	1914	0.1
2107	0.0	1443	0.6
1976	0.0	1171	0.1
1845	0.1	1102	0.2
1714	0.1	1232	0.1
1583	0.6	1167	0.2
1451	1.6	1091	0.2
1320	0.8	1021	0.3
1189	0.3	951	0.2
1058	0.3	880	0.2
927	0.3	810	4.4
795	0.4	739	3.2
664	0.5	664	1.4
533	0.8	593	0.5
402	1.5	528	0.4
271	2.7	458	0.4
139	89.9	888	
87		531	80.1



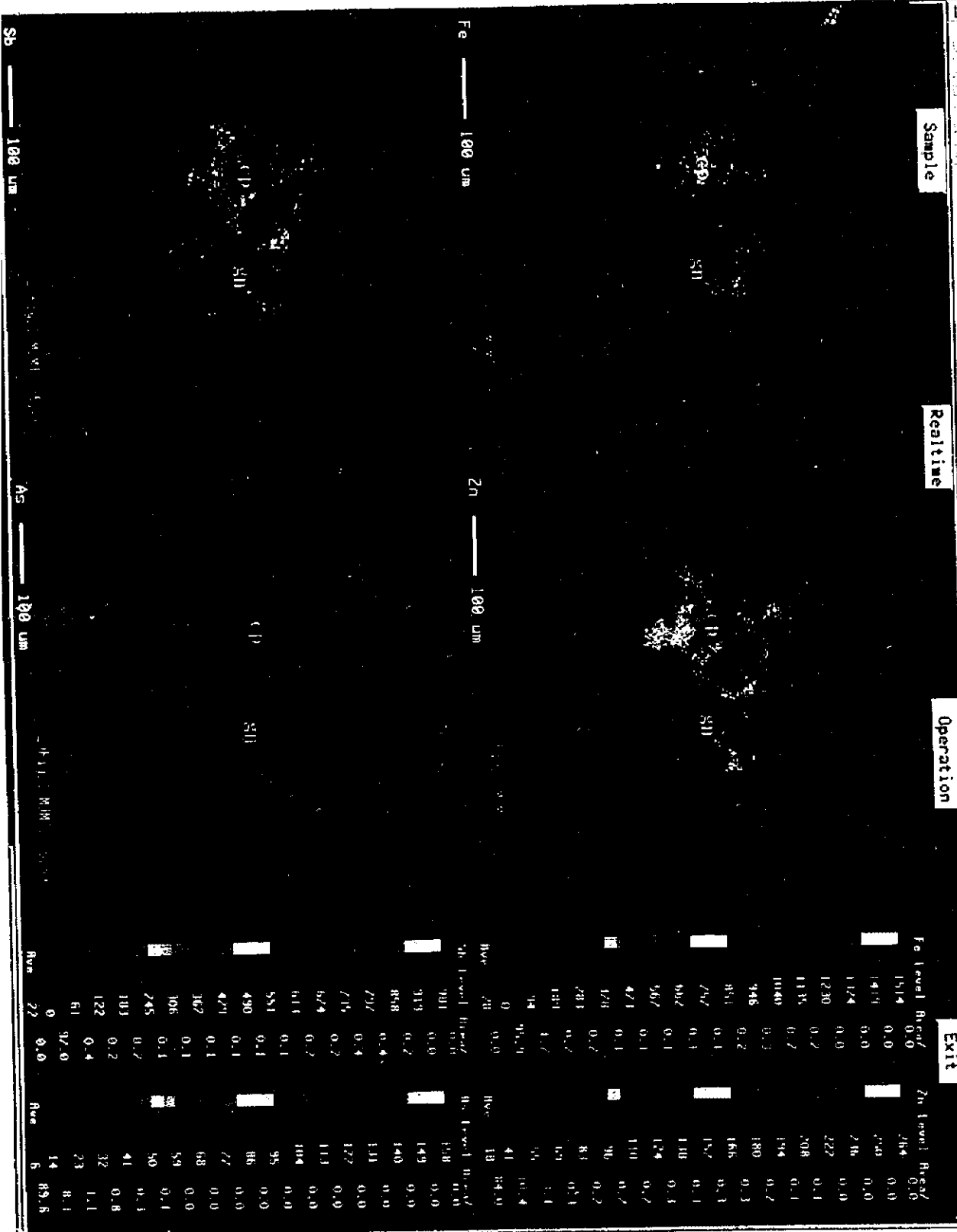


Sample

Realtime

Operation

Exit

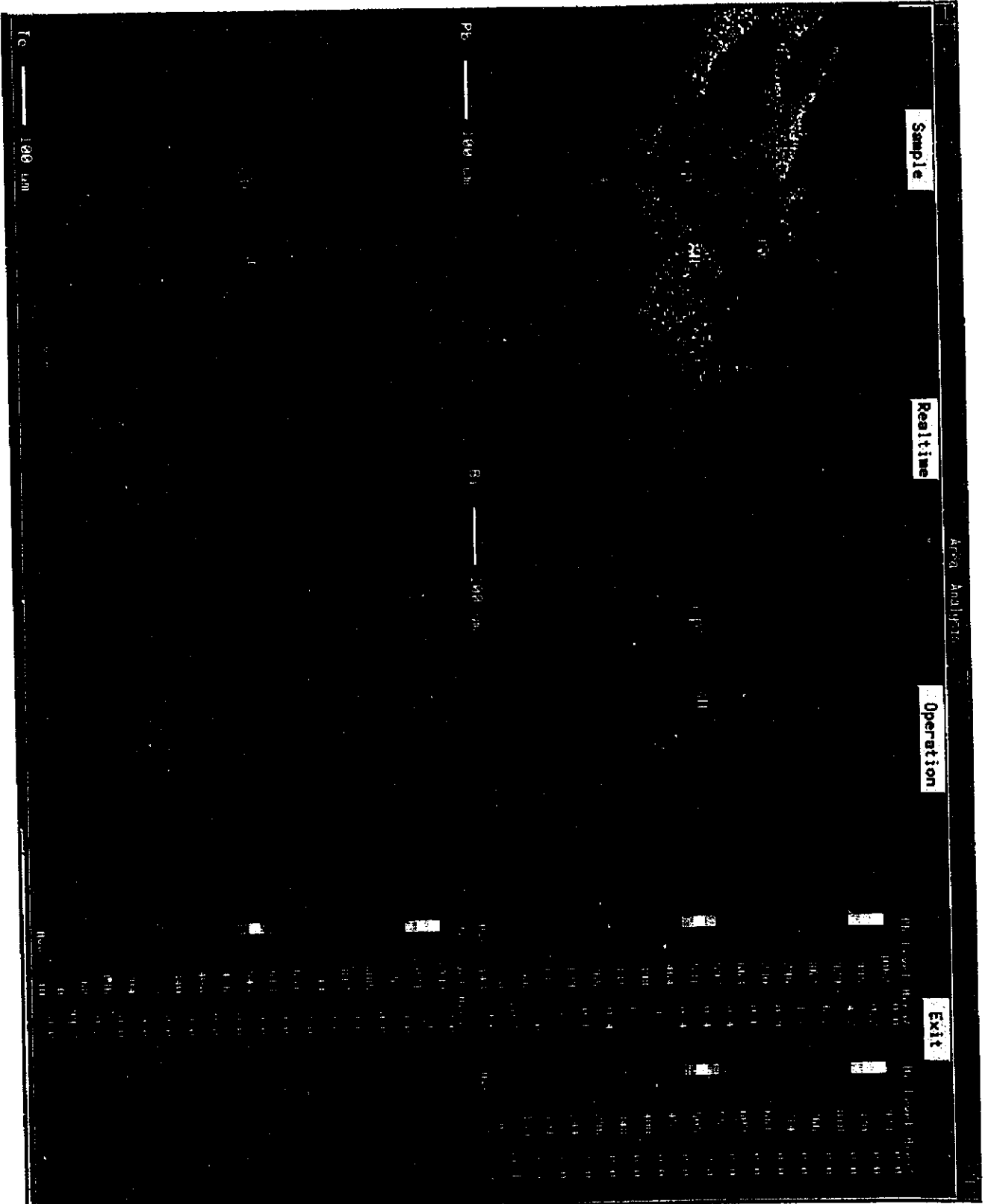


Area	Fe Level	Area	Zn Level
1514	0.0	764	0.0
1411	0.0	240	0.0
1124	0.0	276	0.0
1230	0.2	222	0.1
1135	0.7	208	0.1
1040	0.3	194	0.2
946	0.2	180	0.3
851	0.1	166	0.3
757	0.1	157	0.1
602	0.1	148	0.1
567	0.1	124	0.2
471	0.1	110	0.2
378	0.2	98	0.2
281	0.2	83	0.1
181	1.7	69	1.1
94	75.1	55	10.4
0	0.0	41	84.0
Area	28	Area	18
10 Level	0.0	10 Level	0.0
701	0.0	128	0.0
313	0.2	149	0.0
868	0.4	140	0.0
737	0.4	131	0.0
716	0.2	122	0.0
674	0.2	113	0.0
611	0.1	104	0.0
581	0.1	95	0.0
480	0.1	86	0.0
421	0.1	77	0.0
367	0.1	68	0.0
306	0.1	59	0.0
245	0.1	50	0.1
183	0.2	41	0.8
122	0.4	32	1.1
61	97.0	23	8.1
0	0.0	14	89.8
Area	22	Area	6

Sb 100 um

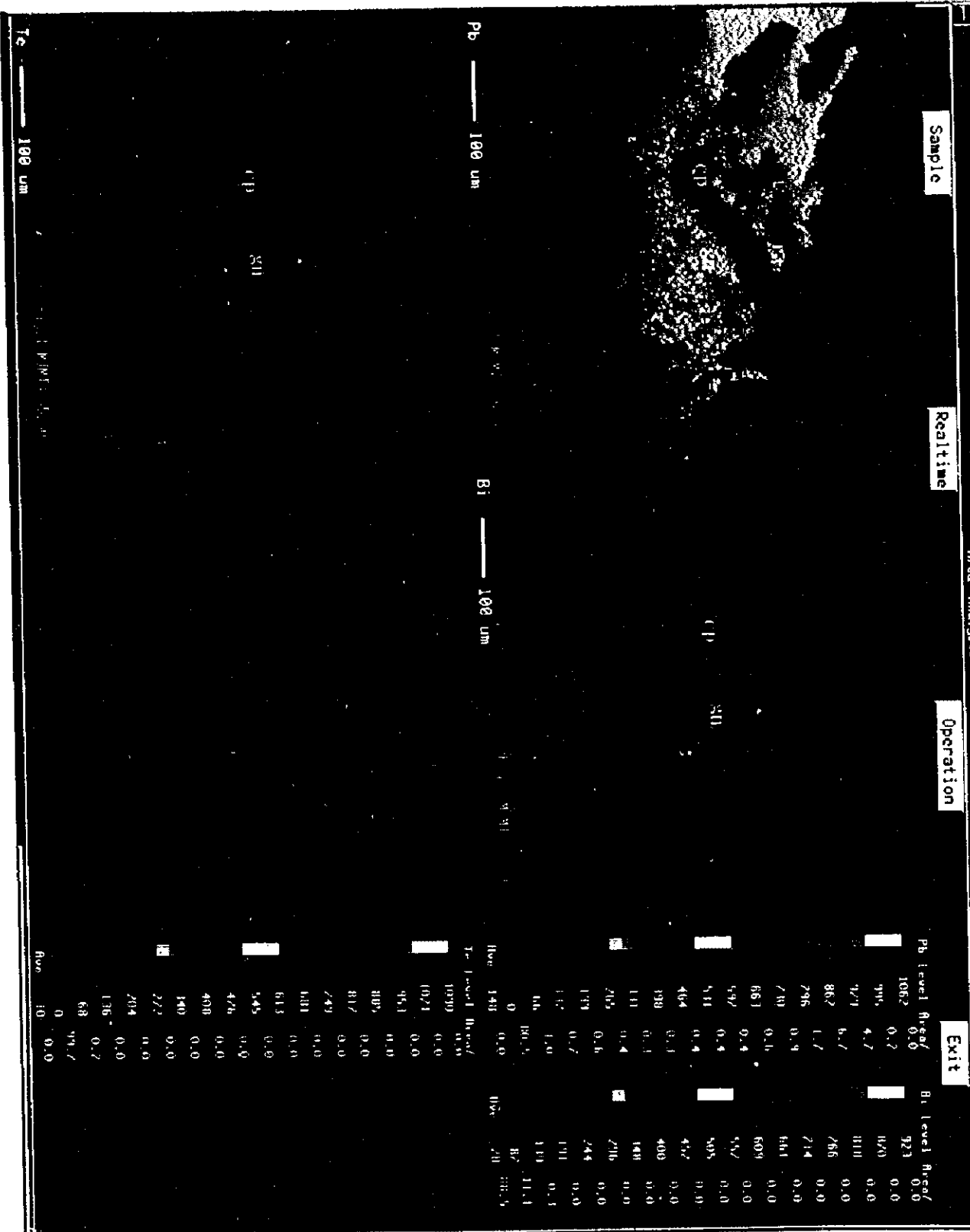
As 100 um

0.11.11.11



100 L/min

100



Element	Level	Area	Rate
Pb	1062	0.2	923
Pb	975	4.7	860
Pb	727	6.7	810
Pb	862	1.7	786
Pb	796	0.9	714
Pb	710	0.6	641
Pb	663	0.4	609
Pb	597	0.4	567
Pb	511	0.4	505
Pb	464	0.1	452
Pb	398	0.1	400
Pb	111	0.4	148
Pb	205	0.6	210
Pb	179	0.7	244
Pb	152	1.0	191
Pb	106	1.0	119
Pb	0	0.0	11.1
Bi	140	0.0	210
Bi	1030	0.0	
Bi	621	0.0	
Bi	451	0.0	
Bi	305	0.0	
Bi	217	0.0	
Bi	149	0.0	
Bi	111	0.0	
Bi	613	0.0	
Bi	545	0.0	
Bi	476	0.0	
Bi	408	0.0	
Bi	340	0.0	
Bi	272	0.0	
Bi	204	0.0	
Bi	136	0.0	
Bi	68	0.0	
Bi	0	0.0	



Feb 22 02:58 1998 .map/tmp Page 1

&gt;&gt;&gt; Map Measurement condition. &lt;&lt;&lt;

Group : publicjx3                      Sample : jx3publ  
 Comment : Fig - MJMT3 86.22m

Feb 22 02:58 1998

Stage No.3      Position mm   X : 33.5603    Y : 11.9418    Z : 11.3704

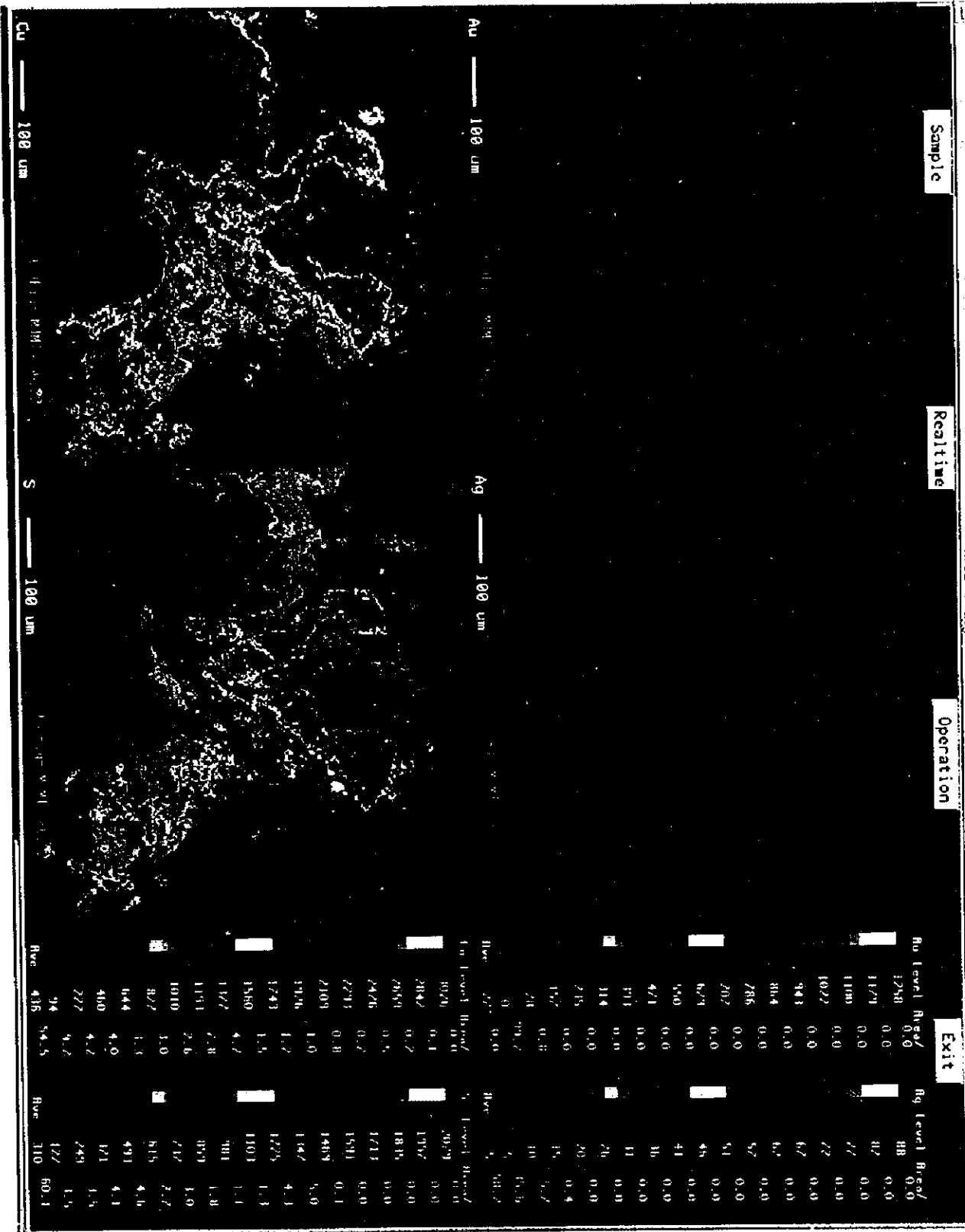
Accelerating Voltage      25.0 kV  
 Dwell Time                25.0 m sec.  
 No. of Pixels             X : 300            Y : 300  
 Pixel size (um)          X : 3.00           Y : 3.00  
 Condenser Lens (C,F) 18, 36    Object Lens (C,F) 186, 452  
 Magnification             500  
 Probe Diameter (um)       0  
 Probe Scan Off, Scan Mode PIC    , Scan Speed SR  
 Probe Current (A)         2.045E-07

	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	148	88	597	2079	3026
Min. data	0	0	1	0	0
Ave. data	8	5	36	310	436

	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	383	1258	1033	1788	1059
Min. data	0	0	0	0	0
Ave. data	12	27	180	237	33

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	322
Min. data	0
Ave. data	21





Cu 100 um

Au 100 um

Ag 100 um

S 100 um

Sample

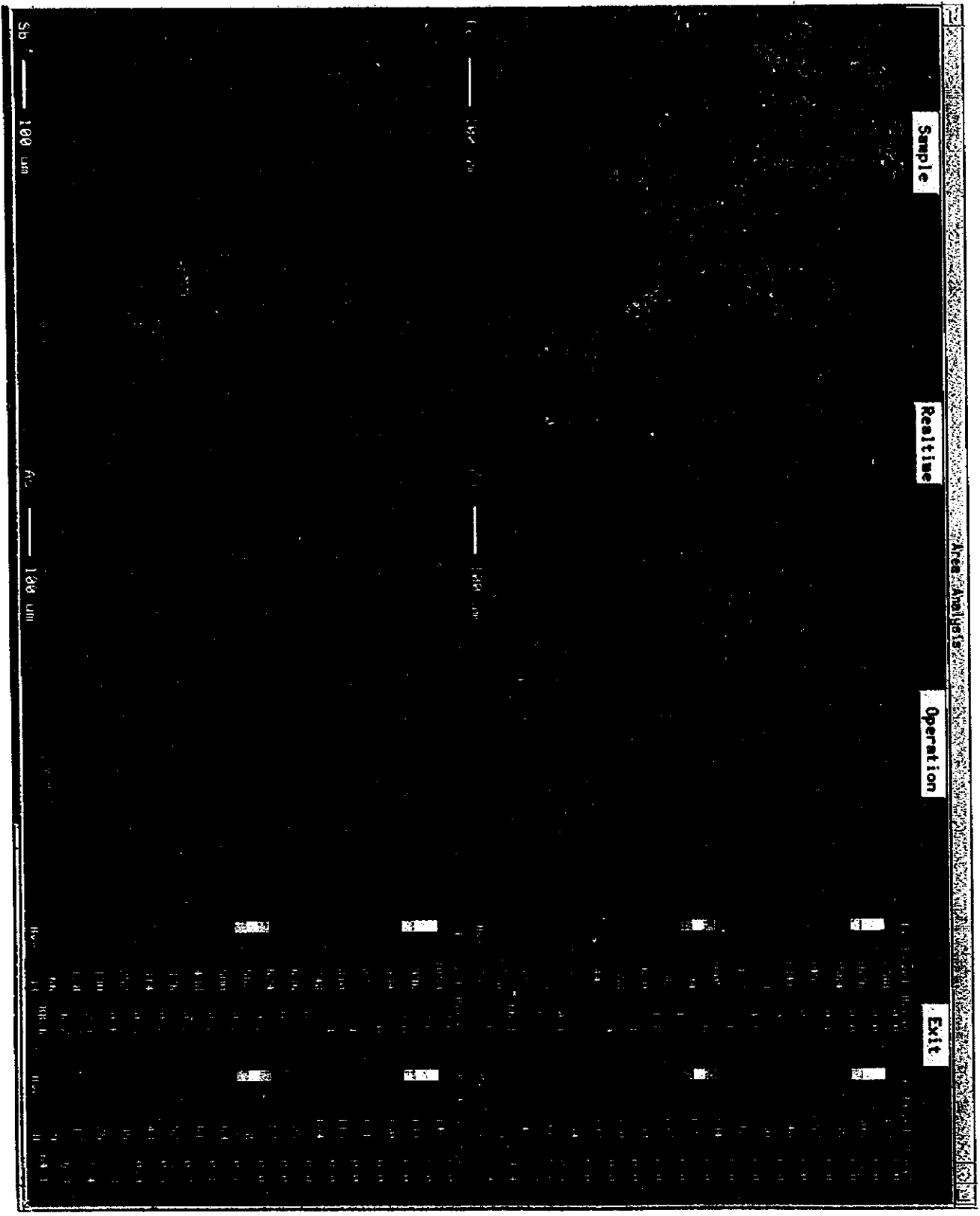
Realtime

Operation

Exit

Peak No	Level	Area/	Exit	Area/	Exit
		0.0		0.0	
1258	0.0	0.0	88	0.0	0.0
1179	0.0	0.0	87	0.0	0.0
1100	0.0	0.0	77	0.0	0.0
1022	0.0	0.0	72	0.0	0.0
943	0.0	0.0	67	0.0	0.0
884	0.0	0.0	62	0.0	0.0
785	0.0	0.0	57	0.0	0.0
702	0.0	0.0	51	0.0	0.0
629	0.0	0.0	45	0.0	0.0
500	0.0	0.0	41	0.0	0.0
471	0.0	0.0	38	0.0	0.0
371	0.0	0.0	31	0.0	0.0
314	0.0	0.0	26	0.0	0.0
275	0.0	0.0	20	0.0	0.0
152	0.0	0.0	15	0.0	0.0
28	0.0	0.0	10	0.0	0.0
0	0.0	0.0	5	0.0	0.0
Level	277	0.0	Level	3	0.0
Level	8020	0.0	Level	2029	0.0
Level	2842	0.2	Level	1752	0.0
Level	2659	0.5	Level	1815	0.0
Level	2476	0.2	Level	1713	0.0
Level	2293	0.8	Level	1591	0.1
Level	2109	1.0	Level	1489	0.0
Level	1936	1.2	Level	1347	4.1
Level	1743	1.5	Level	1225	1.3
Level	1560	4.7	Level	1103	1.1
Level	1377	7.8	Level	981	1.8
Level	1193	2.6	Level	859	3.0
Level	1010	3.0	Level	737	2.2
Level	827	1.3	Level	615	4.6
Level	644	4.0	Level	491	4.1
Level	460	4.2	Level	371	1.5
Level	277	4.2	Level	249	1.5
Level	94	54.5	Level	127	60.1
Level	415		Level	310	





Sb 100 um

As 100 um

Sample

Realtime

Operation

Exit

Area Analyzers

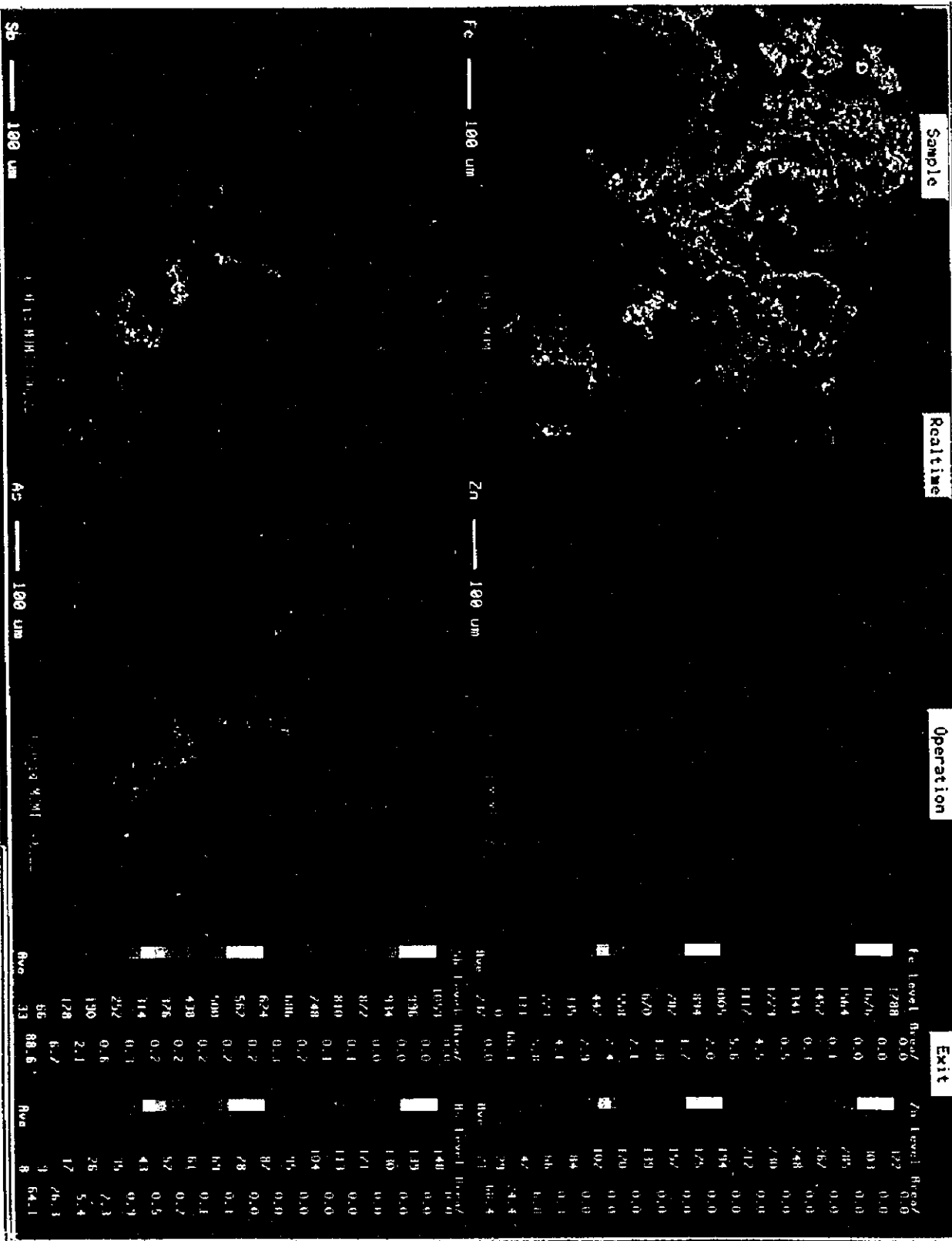
Area	Count	Rate	Area	Count	Rate
1	1000	1000	1	1000	1000
2	2000	2000	2	2000	2000
3	3000	3000	3	3000	3000
4	4000	4000	4	4000	4000
5	5000	5000	5	5000	5000
6	6000	6000	6	6000	6000
7	7000	7000	7	7000	7000
8	8000	8000	8	8000	8000
9	9000	9000	9	9000	9000
10	10000	10000	10	10000	10000

Sample

Realtime

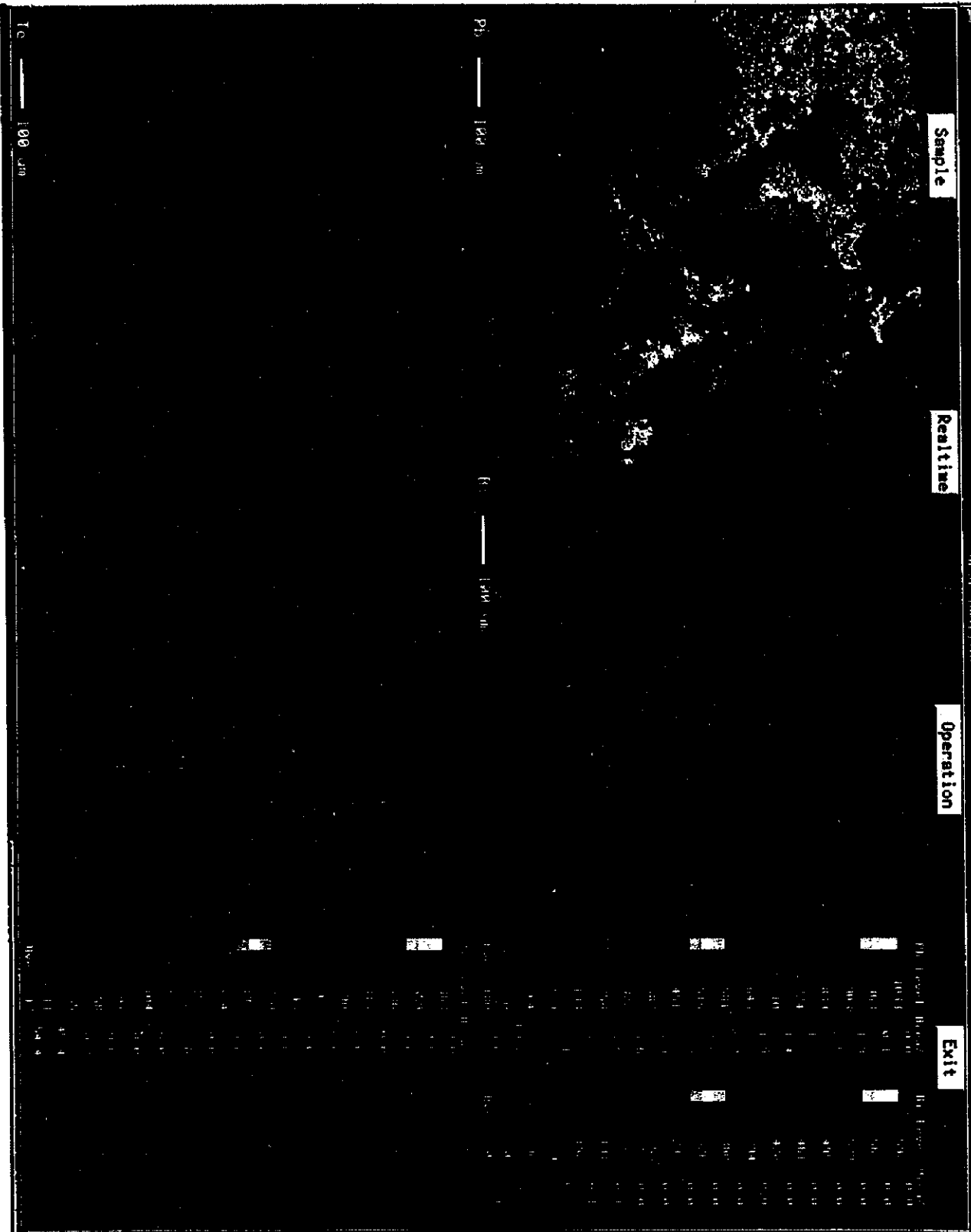
Operation

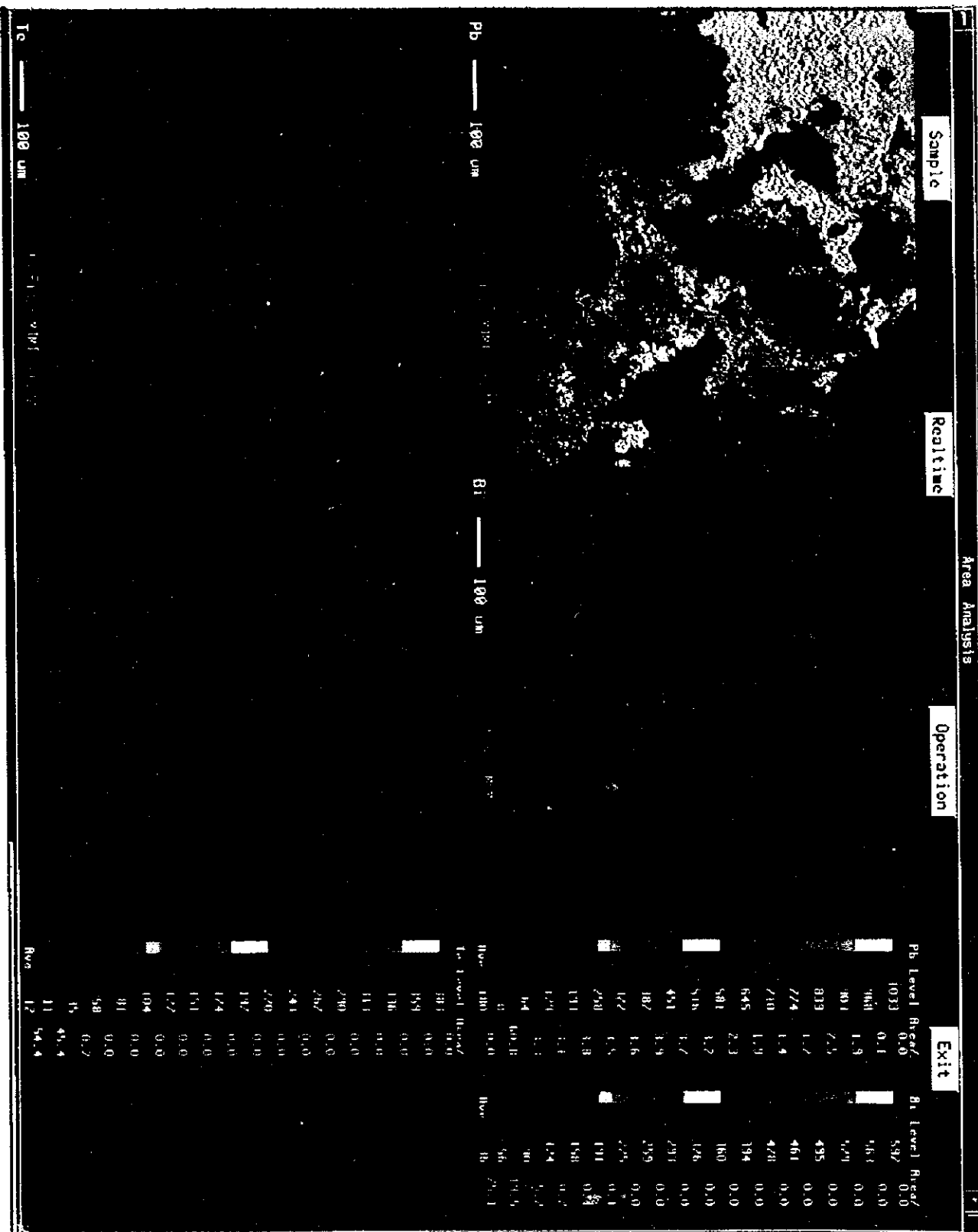
Exit



Fe Level	Area/	Zn Level	Area/
1288	0.0	122	0.0
1676	0.0	103	0.0
1564	0.1	785	0.0
1452	0.1	262	0.0
1341	0.5	248	0.0
1229	4.5	730	0.0
1117	5.6	212	0.0
1005	2.0	194	0.0
894	1.7	125	0.0
782	1.8	157	0.0
670	2.1	139	0.0
558	2.4	120	0.0
447	2.9	102	0.0
335	4.1	84	0.1
223	5.8	66	0.0
111	8.1	47	0.0
0	16.1	29	0.4
Ave	33	Ave	8

101.3 MIN







Feb 22 06:49 1998 .map/tmp Page 1

&gt;&gt;&gt; Map Measurement condition. &lt;&lt;&lt;

Group : publicjx3                      Sample : jx3pub1  
 Comment : Fig 4 MJMT3 86.35m (2)

Feb 22 06:49 1998

Stage No.4      Position mm    X : 15.8653    Y : 19.5538    Z : 11.2947

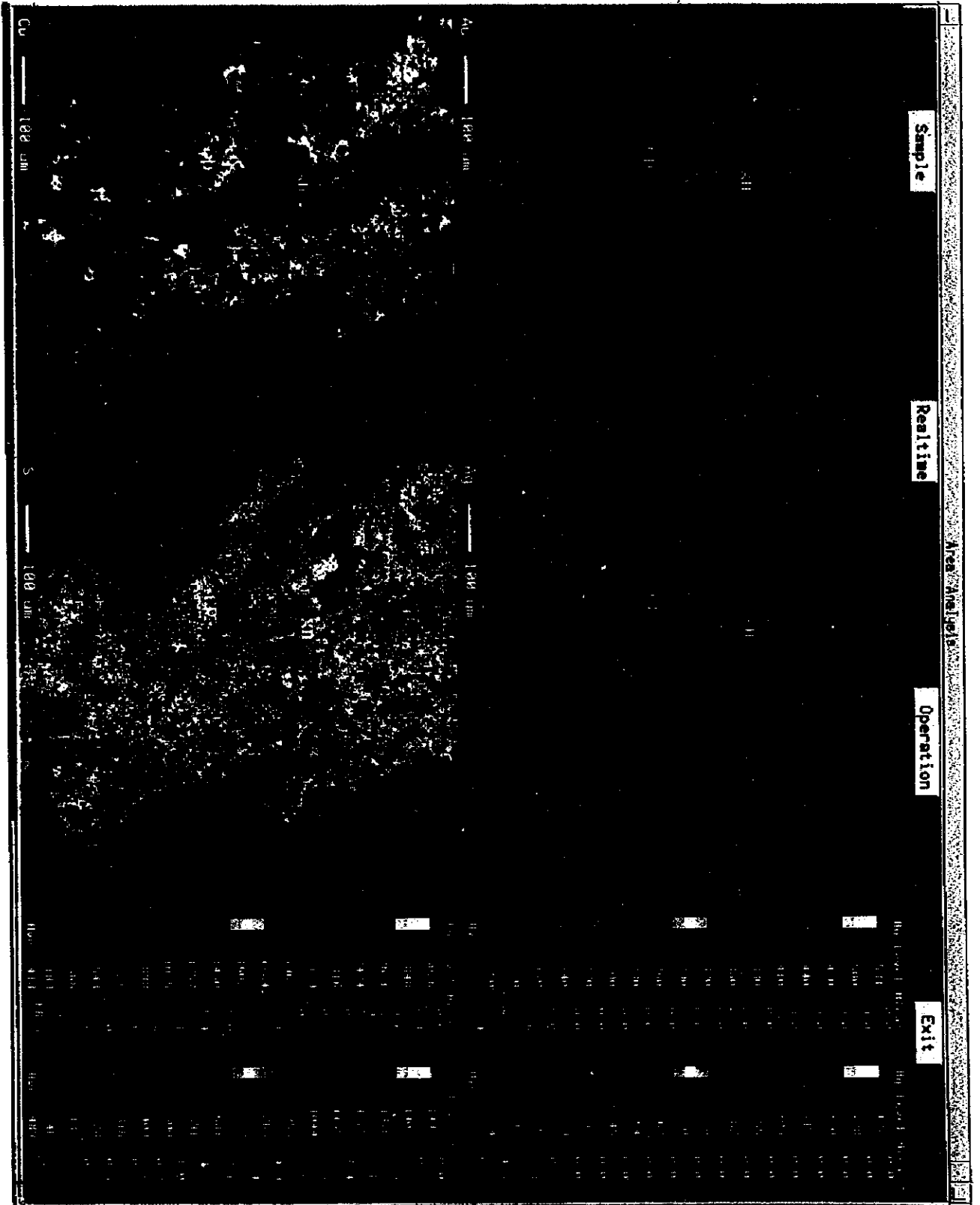
Accelerating Voltage      25.0 kV  
 Dwell Time                25.0 m sec.  
 No. of Pixels             X : 300            Y : 300  
 Pixel size (um)          X : 3.00           Y : 3.00  
 Condenser Lens (C,F) 18, 36    Object Lens (C,F) 186, 452  
 Magnification             500  
 Probe Diameter (um)      0  
 Probe Scan Off, Scan Mode PIC      , Scan Speed SR  
 Probe Current (A)        2.034E-07

	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	248	137	519	1498	3026
Min. data	0	0	1	0	0
Ave. data	14	6	47	489	418

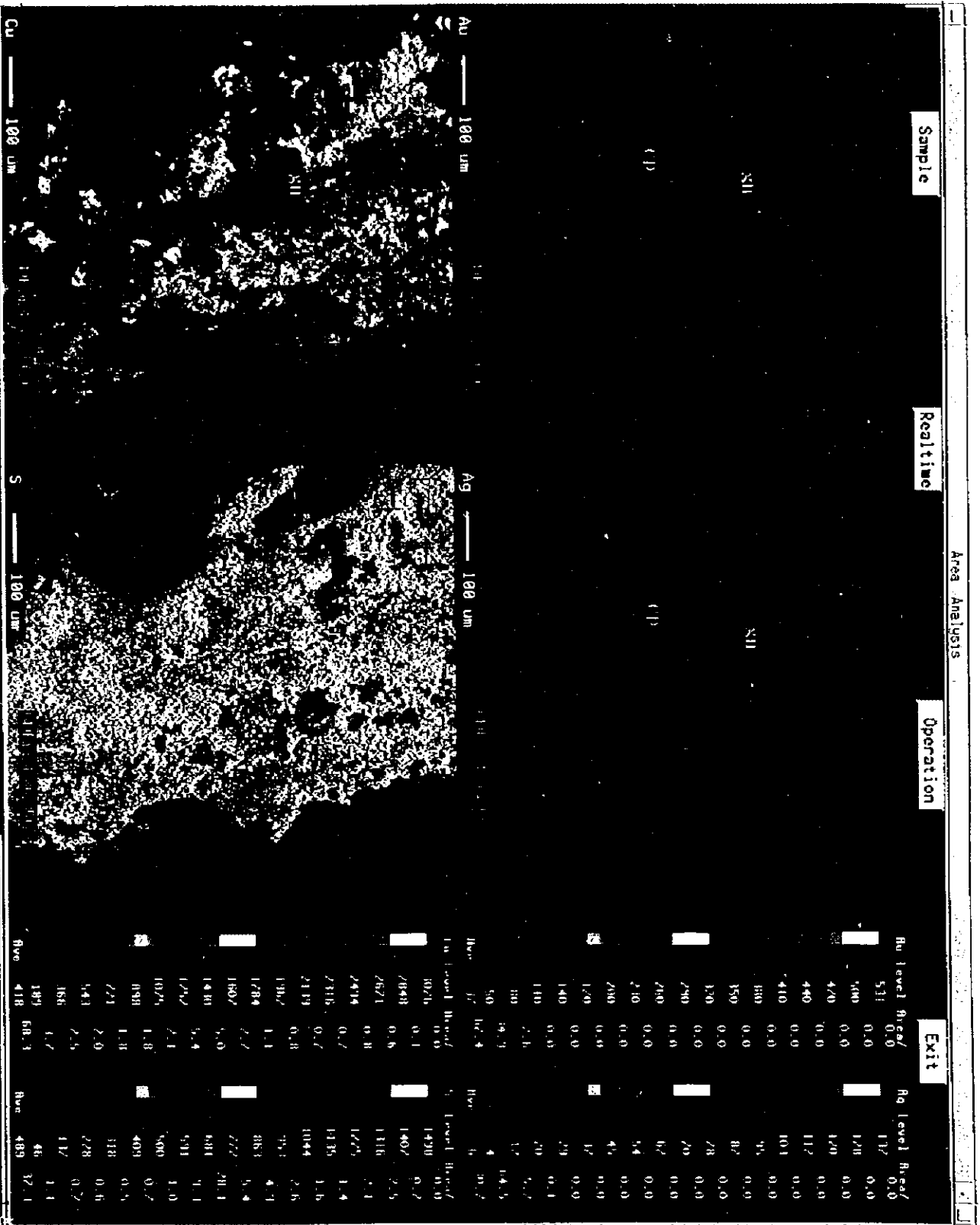
	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	1511	531	1029	1710	1136
Min. data	0	1	0	0	0
Ave. data	17	37	357	122	64

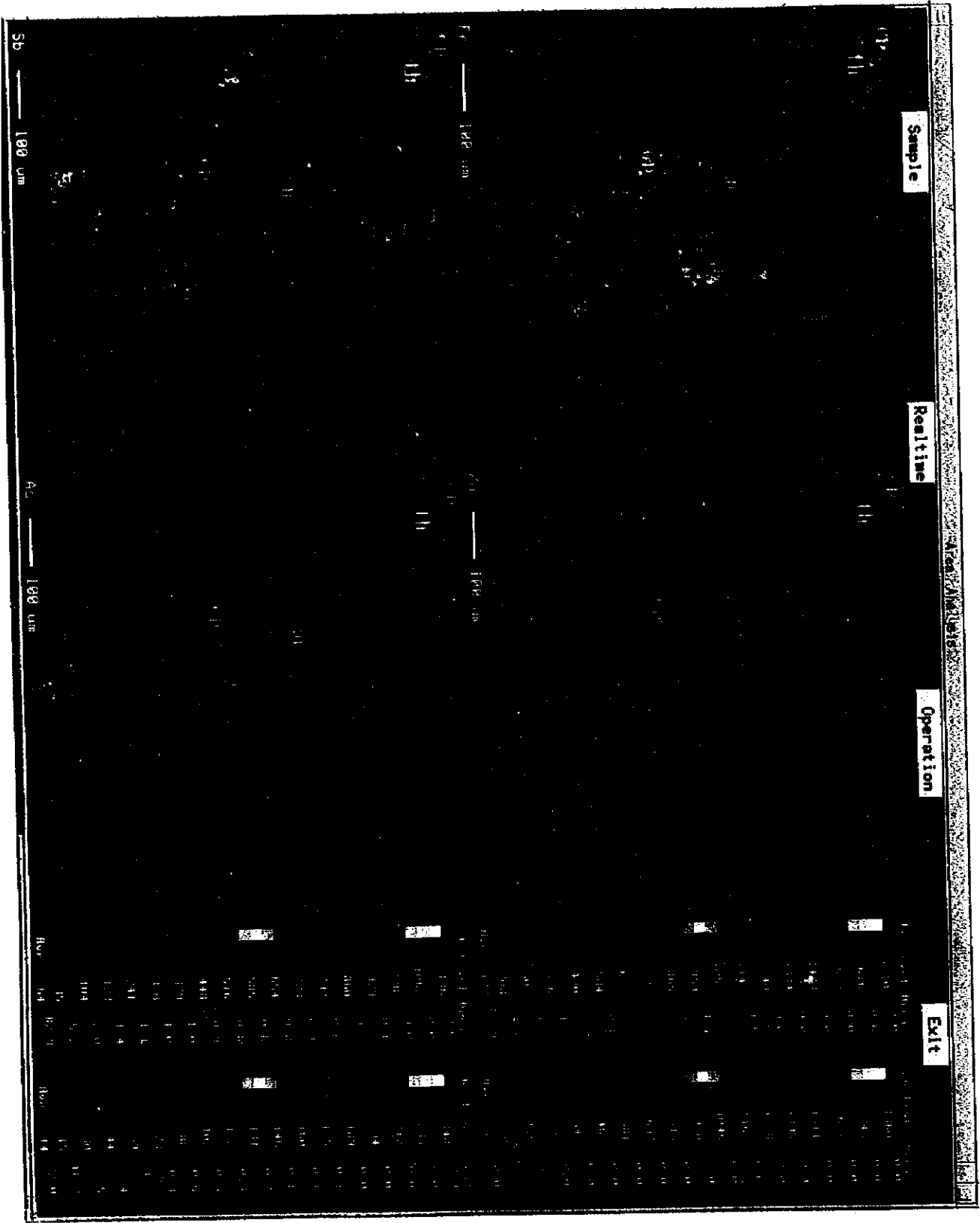
Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	1860
Min. data	0
Ave. data	32

A-6 EPMA-4 (NJMT-3, 85.80m)









Sample

Realtime

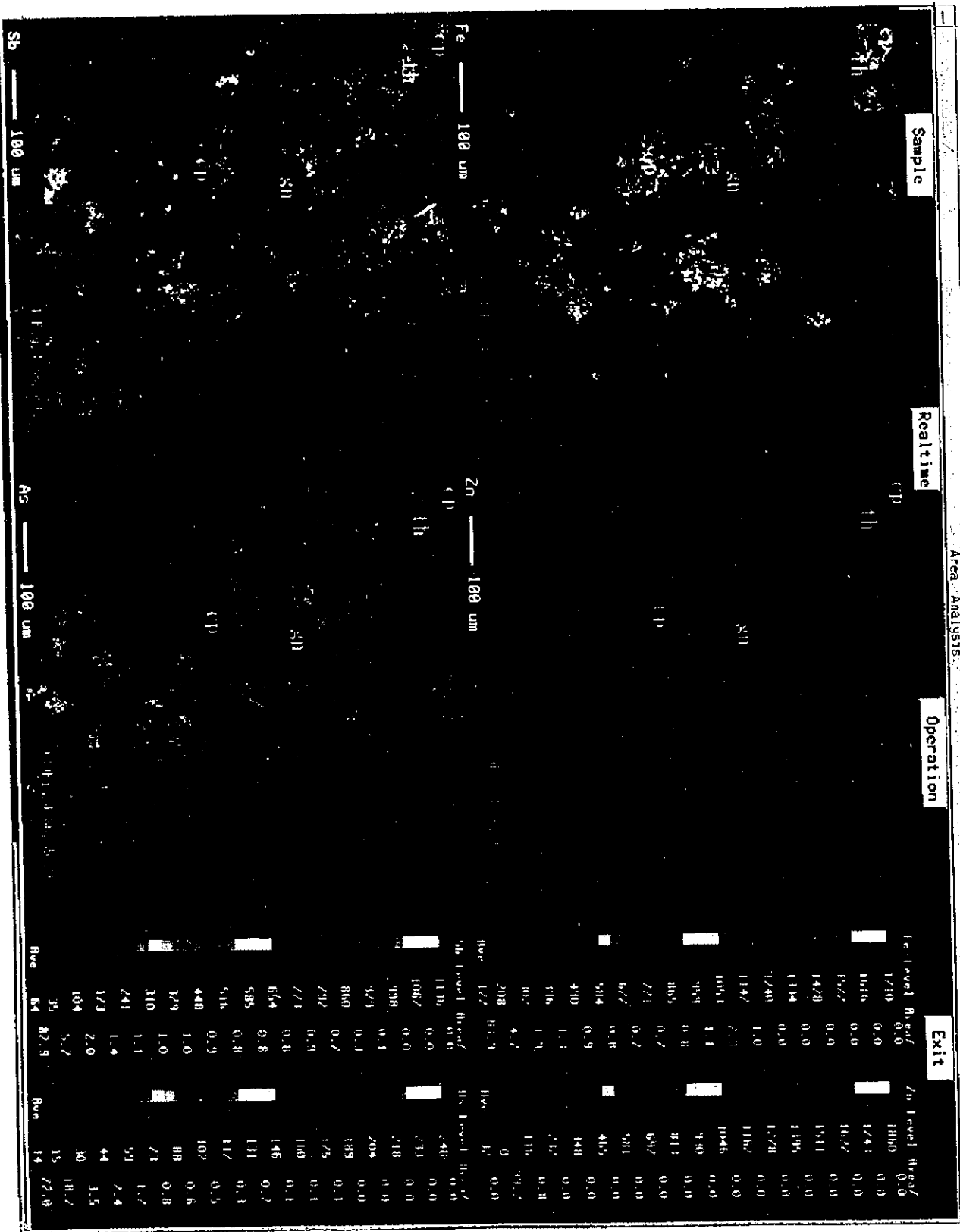
Operation

Exit

Sb 100 um

Ag 100 um

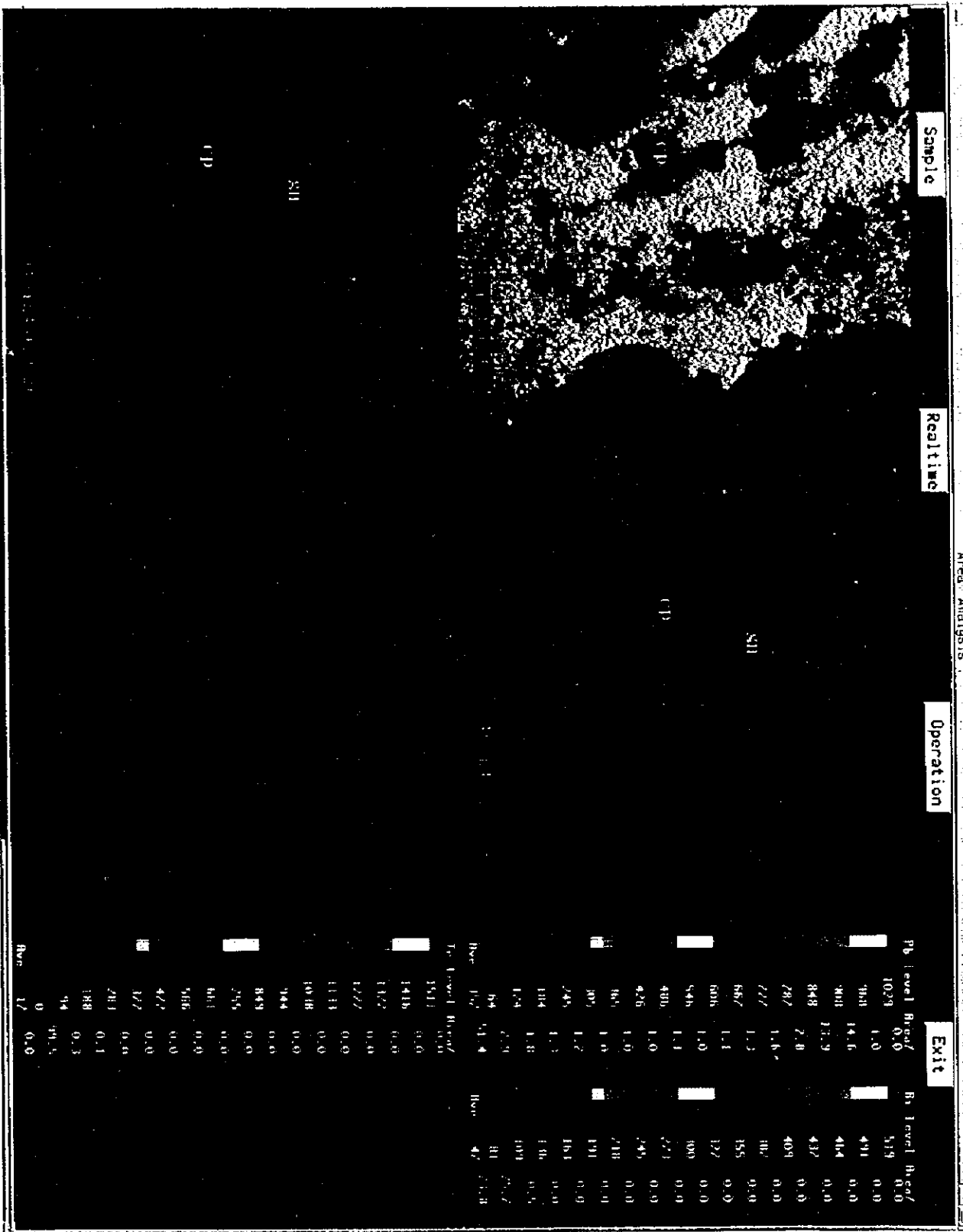
Flow: 14 Rev: 14



Exit

Level	Height	Area	Height	Area
1710	0.0	1880	0.0	0.0
1616	0.0	1743	0.0	0.0
1522	0.0	1627	0.0	0.0
1428	0.0	1511	0.0	0.0
1134	0.0	1395	0.0	0.0
1240	1.0	1278	0.0	0.0
1147	2.1	1162	0.0	0.0
1051	1.1	1046	0.0	0.0
959	0.8	940	0.0	0.0
865	0.7	843	0.0	0.0
771	0.7	692	0.0	0.0
677	0.8	581	0.0	0.0
584	0.9	485	0.0	0.0
490	1.1	348	0.0	0.0
396	1.3	27	0.8	0.8
302	4.2	15	11.2	11.2
208	8.3	0	0.0	0.0
122	11.0	0	0.0	0.0
1110	0.0	740	0.0	0.0
1067	0.0	733	0.0	0.0
998	0.1	718	0.0	0.0
929	0.1	704	0.0	0.0
880	0.1	689	0.0	0.0
800	0.7	675	0.1	0.1
792	0.9	660	0.1	0.1
771	0.8	646	0.1	0.1
654	0.8	631	0.1	0.1
585	0.8	617	0.1	0.1
516	0.9	602	0.5	0.5
448	1.0	588	0.6	0.6
379	1.0	573	0.8	0.8
310	1.1	559	1.2	1.2
241	1.4	544	2.4	2.4
173	2.0	529	3.5	3.5
104	3.2	514	18.7	18.7
54	82.8	14	72.0	72.0

Sample	Realtime	Operation	Exit
1	10:00	Start	10:00
2	10:05	Run	10:05
3	10:10	Stop	10:10
4	10:15	Start	10:15
5	10:20	Run	10:20
6	10:25	Stop	10:25
7	10:30	Start	10:30
8	10:35	Run	10:35
9	10:40	Stop	10:40
10	10:45	Start	10:45
11	10:50	Run	10:50
12	10:55	Stop	10:55
13	11:00	Start	11:00
14	11:05	Run	11:05
15	11:10	Stop	11:10
16	11:15	Start	11:15
17	11:20	Run	11:20
18	11:25	Stop	11:25
19	11:30	Start	11:30
20	11:35	Run	11:35
21	11:40	Stop	11:40
22	11:45	Start	11:45
23	11:50	Run	11:50
24	11:55	Stop	11:55
25	12:00	Start	12:00
26	12:05	Run	12:05
27	12:10	Stop	12:10
28	12:15	Start	12:15
29	12:20	Run	12:20
30	12:25	Stop	12:25
31	12:30	Start	12:30
32	12:35	Run	12:35
33	12:40	Stop	12:40
34	12:45	Start	12:45
35	12:50	Run	12:50
36	12:55	Stop	12:55
37	13:00	Start	13:00
38	13:05	Run	13:05
39	13:10	Stop	13:10
40	13:15	Start	13:15
41	13:20	Run	13:20
42	13:25	Stop	13:25
43	13:30	Start	13:30
44	13:35	Run	13:35
45	13:40	Stop	13:40
46	13:45	Start	13:45
47	13:50	Run	13:50
48	13:55	Stop	13:55
49	14:00	Start	14:00
50	14:05	Run	14:05
51	14:10	Stop	14:10
52	14:15	Start	14:15
53	14:20	Run	14:20
54	14:25	Stop	14:25
55	14:30	Start	14:30
56	14:35	Run	14:35
57	14:40	Stop	14:40
58	14:45	Start	14:45
59	14:50	Run	14:50
60	14:55	Stop	14:55
61	15:00	Start	15:00
62	15:05	Run	15:05
63	15:10	Stop	15:10
64	15:15	Start	15:15
65	15:20	Run	15:20
66	15:25	Stop	15:25
67	15:30	Start	15:30
68	15:35	Run	15:35
69	15:40	Stop	15:40
70	15:45	Start	15:45
71	15:50	Run	15:50
72	15:55	Stop	15:55
73	16:00	Start	16:00
74	16:05	Run	16:05
75	16:10	Stop	16:10
76	16:15	Start	16:15
77	16:20	Run	16:20
78	16:25	Stop	16:25
79	16:30	Start	16:30
80	16:35	Run	16:35
81	16:40	Stop	16:40
82	16:45	Start	16:45
83	16:50	Run	16:50
84	16:55	Stop	16:55
85	17:00	Start	17:00
86	17:05	Run	17:05
87	17:10	Stop	17:10
88	17:15	Start	17:15
89	17:20	Run	17:20
90	17:25	Stop	17:25
91	17:30	Start	17:30
92	17:35	Run	17:35
93	17:40	Stop	17:40
94	17:45	Start	17:45
95	17:50	Run	17:50
96	17:55	Stop	17:55
97	18:00	Start	18:00
98	18:05	Run	18:05
99	18:10	Stop	18:10
100	18:15	Start	18:15



CP  
SH

CP  
SH

CP  
SH



>>> Map Measurement condition. <<<

Group : publicjx3                      Sample : jx3publ  
 Comment : Fig 4 MJMT3 86.35m (2)

Feb 22 09:32 1998

Stage No.5      Position mm X : 14.5398    Y : 18.9992    Z : 11.2765

Accelerating Voltage      25.0 kV  
 Dwell Time                25.0 m sec.  
 No. of Pixels             X : 250                Y : 250  
 Pixel size (um)            X : 3.00                Y : 3.00  
 Condenser Lens (C,F) 18, 36    Object Lens (C,F) 186, 452  
 Magnification              500  
 Probe Diameter (um)        0  
 Probe Scan Off, Scan Mode PIC      , Scan Speed SR  
 Probe Current (A)          2.015E-07

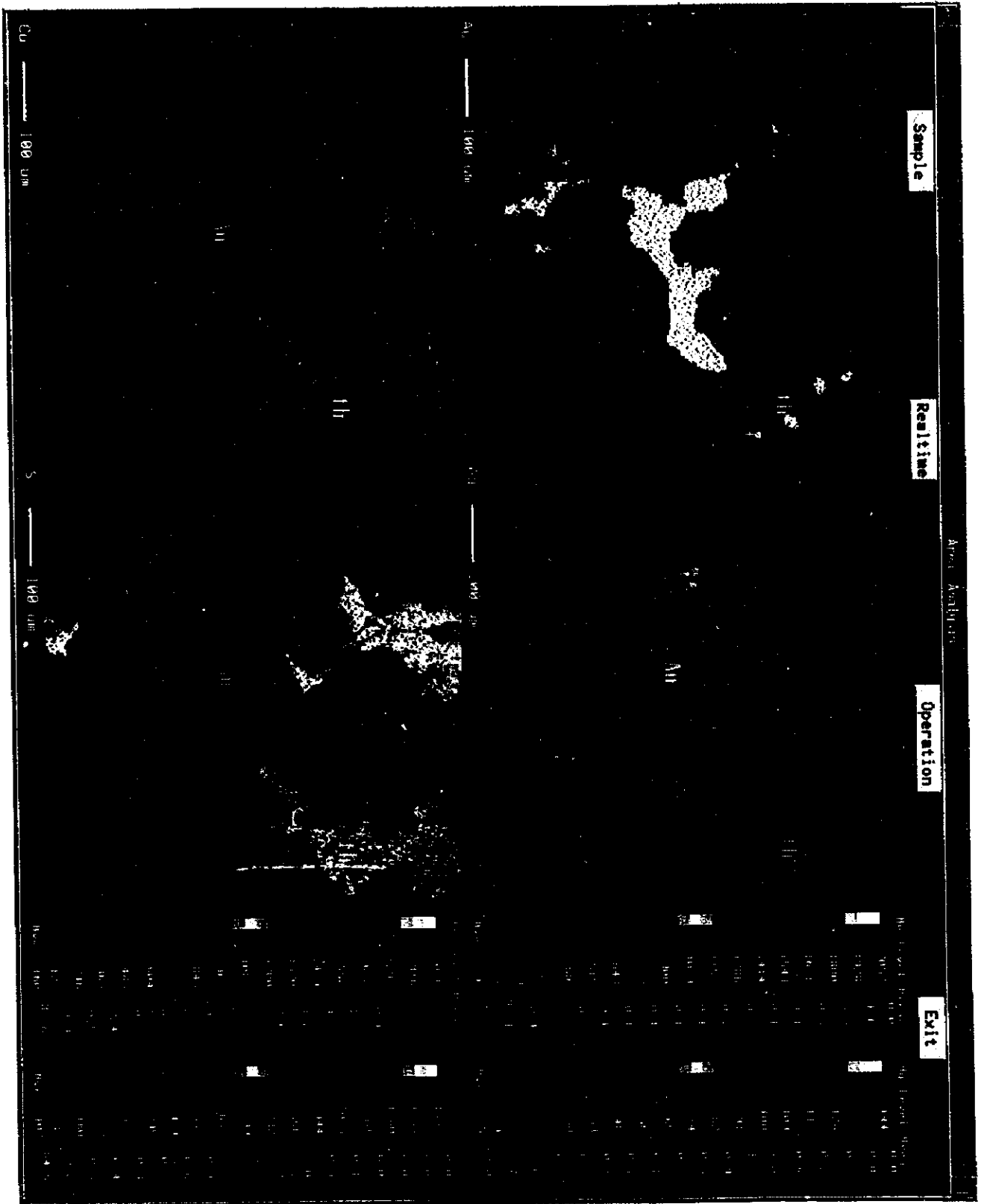
	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	156	144	139	1337	2036
Min. data	0	0	1	0	0
Ave. data	8	9	23	107	160

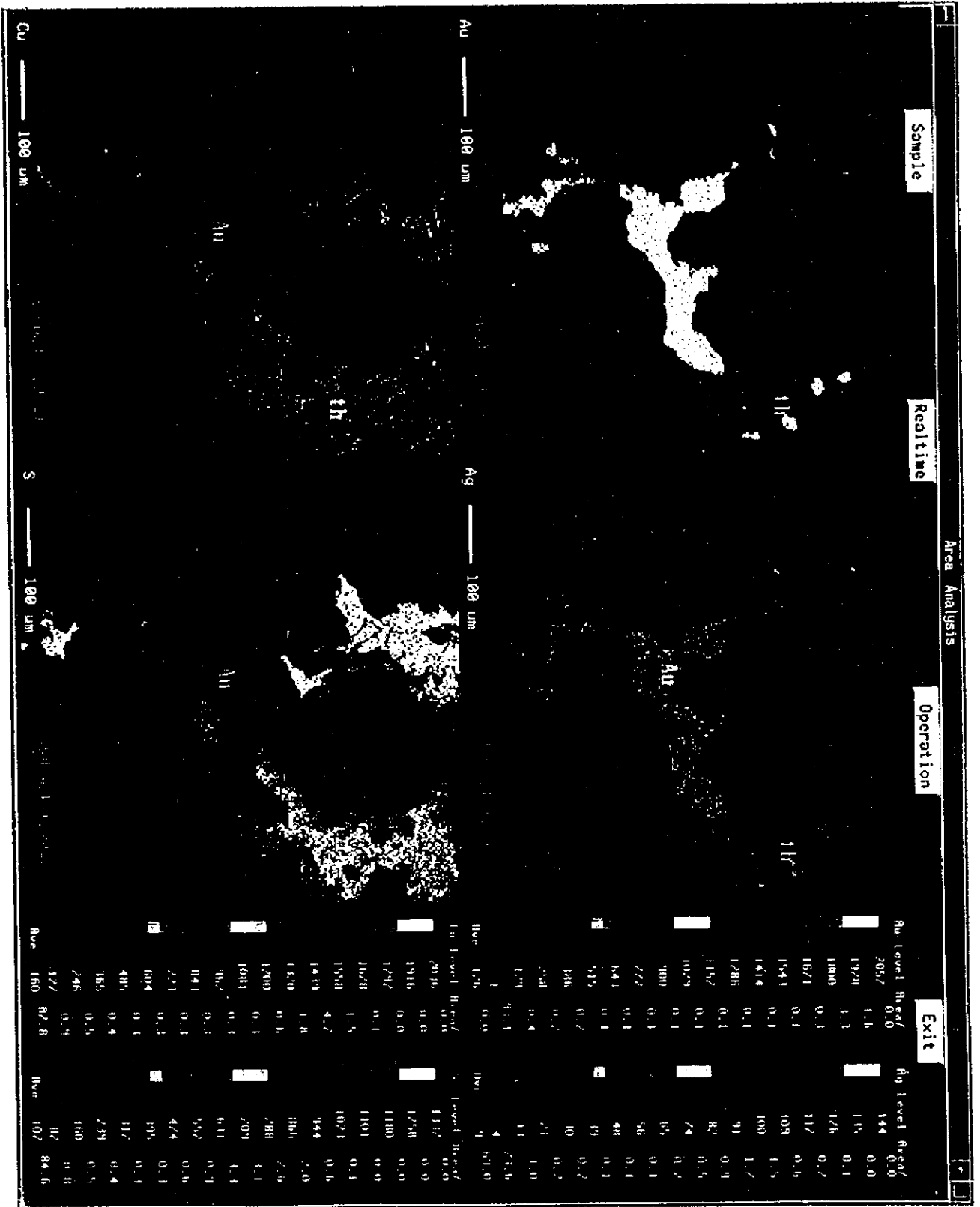
	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	222	2057	994	1073	1078
Min. data	0	1	0	0	0
Ave. data	9	126	36	21	75

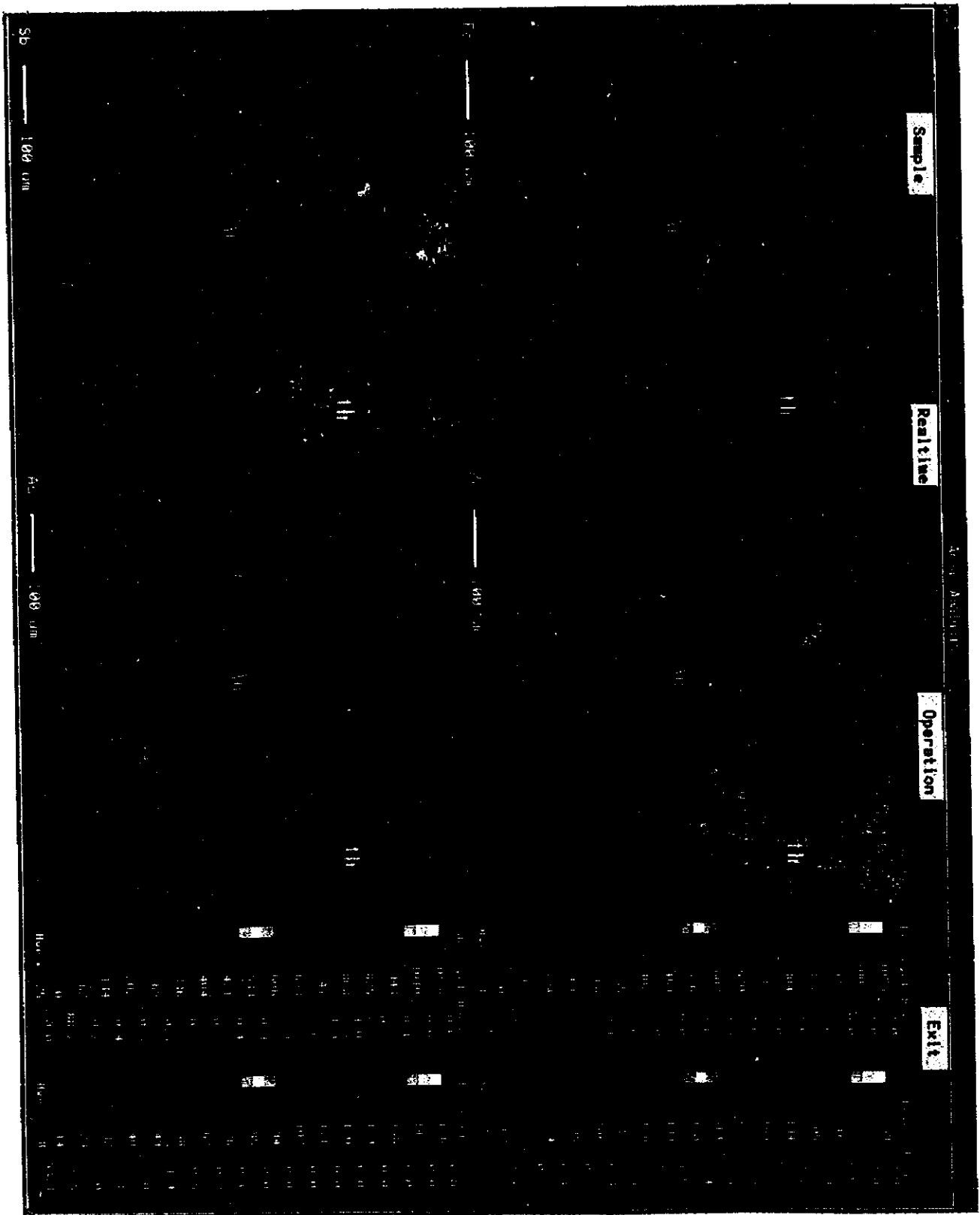
Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	239
Min. data	0
Ave. data	25



A-6 EPMA-5 (MJMT-3, 86.35m)





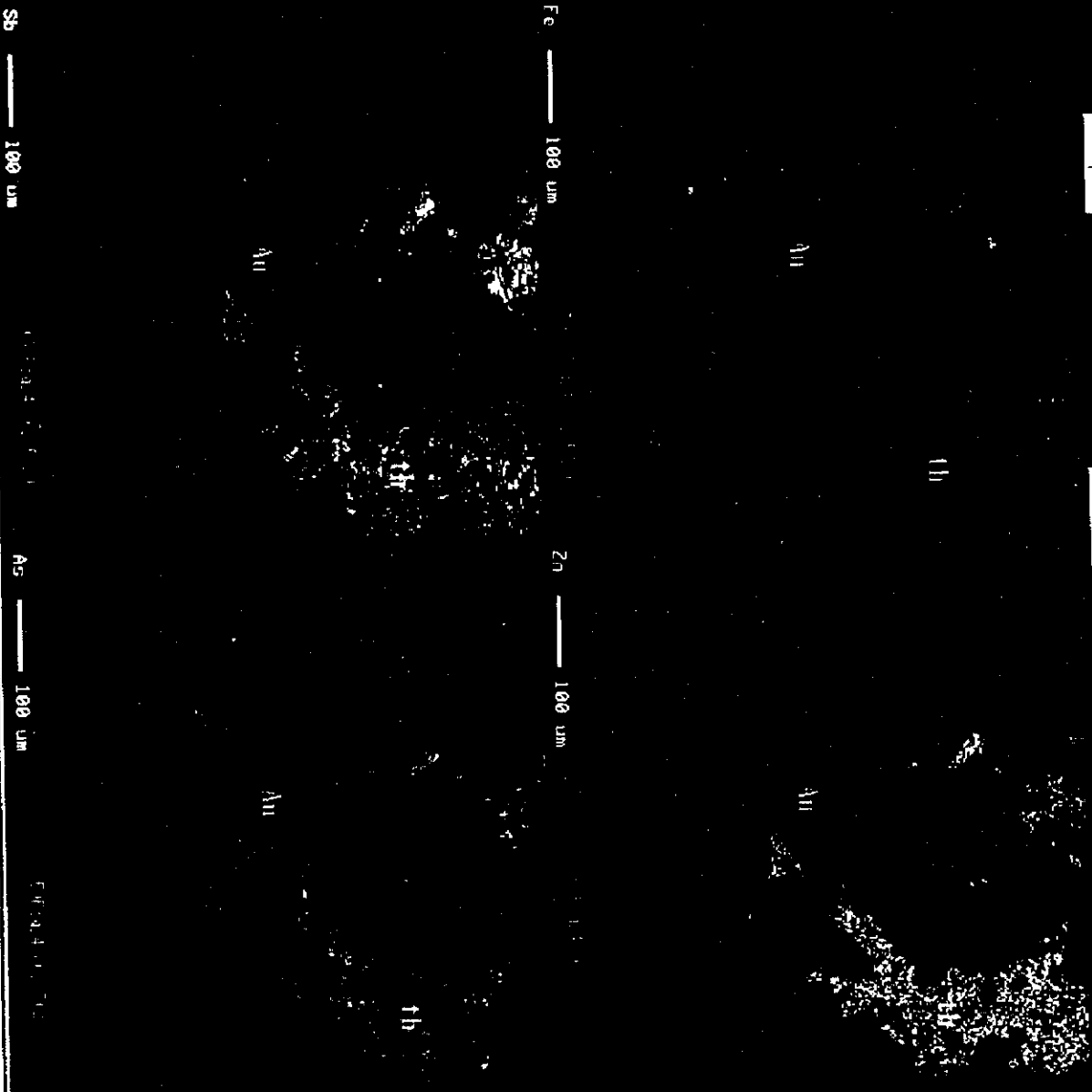


Sample

Realtime

Operation

Exit



Element	Level	Area	Count	Level	Area	Count
Fe	10/1	0.0	239	0.0		
	100/5	0.0	227	0.0		
	118	0.0	116	0.0		
	121	0.0	305	0.0		
	104	0.0	198	0.0		
	112	0.0	181	0.0		
	120	0.0	122	0.0		
	101	0.0	161	0.0		
	116	0.0	150	0.0		
	105	0.0	119	0.0		
	107	0.0	128	0.0		
	115	0.0	117	0.0		
	108	0.0	106	0.0		
	101	0.0	95	0.0		
	114	0.0	104	0.0		
	107	0.0	71	0.0		
	0	0.0	62	0.0		
			33	0.0		
			156	0.0		
			147	0.0		
			118	0.0		
			129	0.0		
			120	0.0		
			111	0.0		
			102	0.0		
			94	0.0		
			85	0.0		
			76	0.0		
			67	0.0		
			58	0.0		
			49	0.0		
			40	0.0		
			32	0.0		
			23	0.0		
			14	0.0		
			8	0.0		

Sb

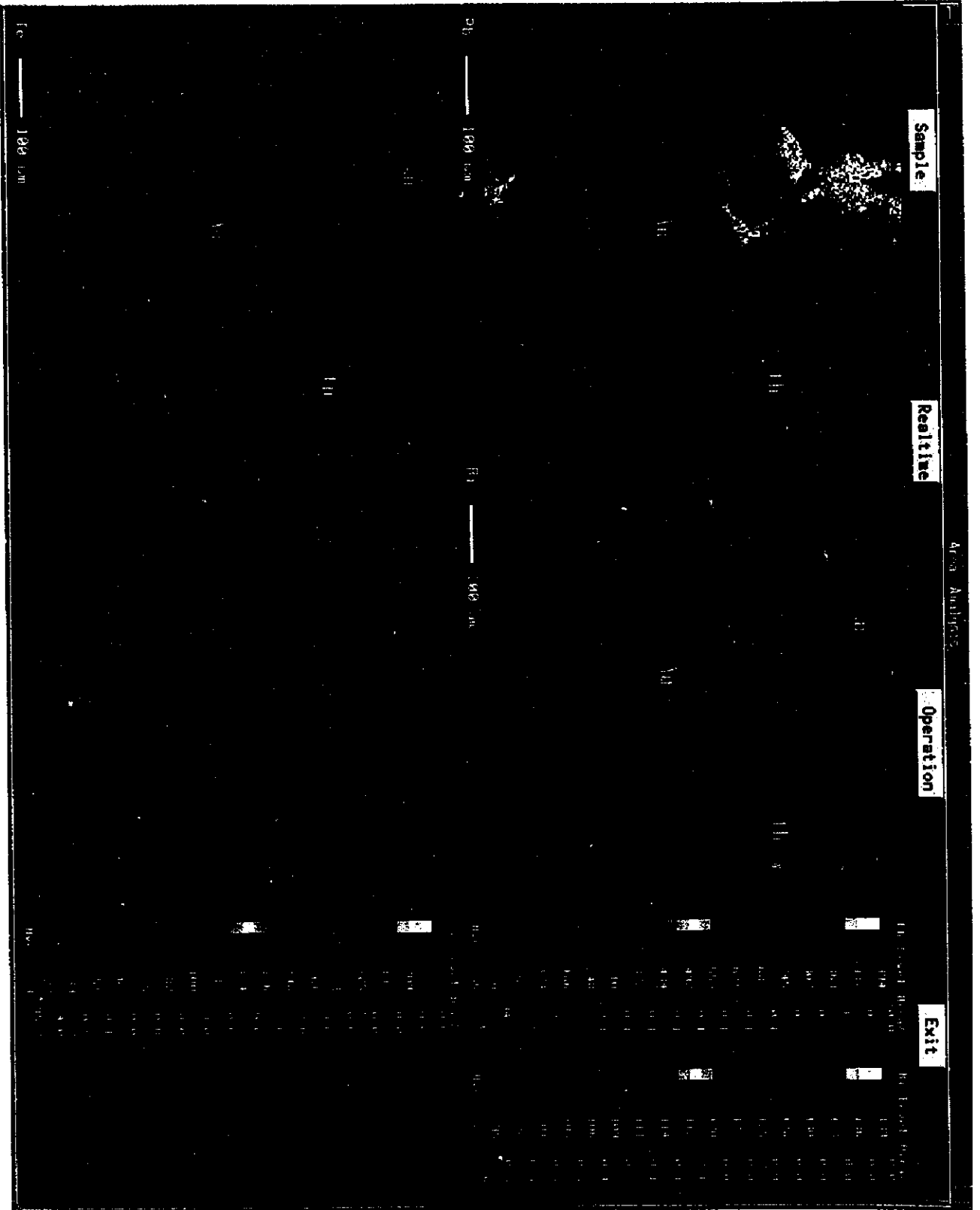
100 um

As

100 um

Ave

Ave







A-6 EPMA-6 (MJMT-3, 86.35m)

Feb 22 12:15 1998 .map/tmp Page 1

>>> Map Measurement condition. <<<

Group : publicjx3 Sample : jx3pub1  
 Comment : Fig 6 MJMT3 86.35m (4)

Feb 22 12:15 1998

Stage No.6 Position mm X : 67.2973 Y : 41.5758 Z : 11.4556

Accelerating Voltage 25.0 kV  
 Dwell Time 25.0 m sec.  
 No. of Pixels X : 250 Y : 250  
 Pixel size (um) X : 3.00 Y : 3.00  
 Condenser Lens (C,F) 18, 36 Object Lens (C,F) 186, 452  
 Magnification 500  
 Probe Diameter (um) 0  
 Probe Scan Off, Scan Mode PIC , Scan Speed SR  
 Probe Current (A) 2.002E-07

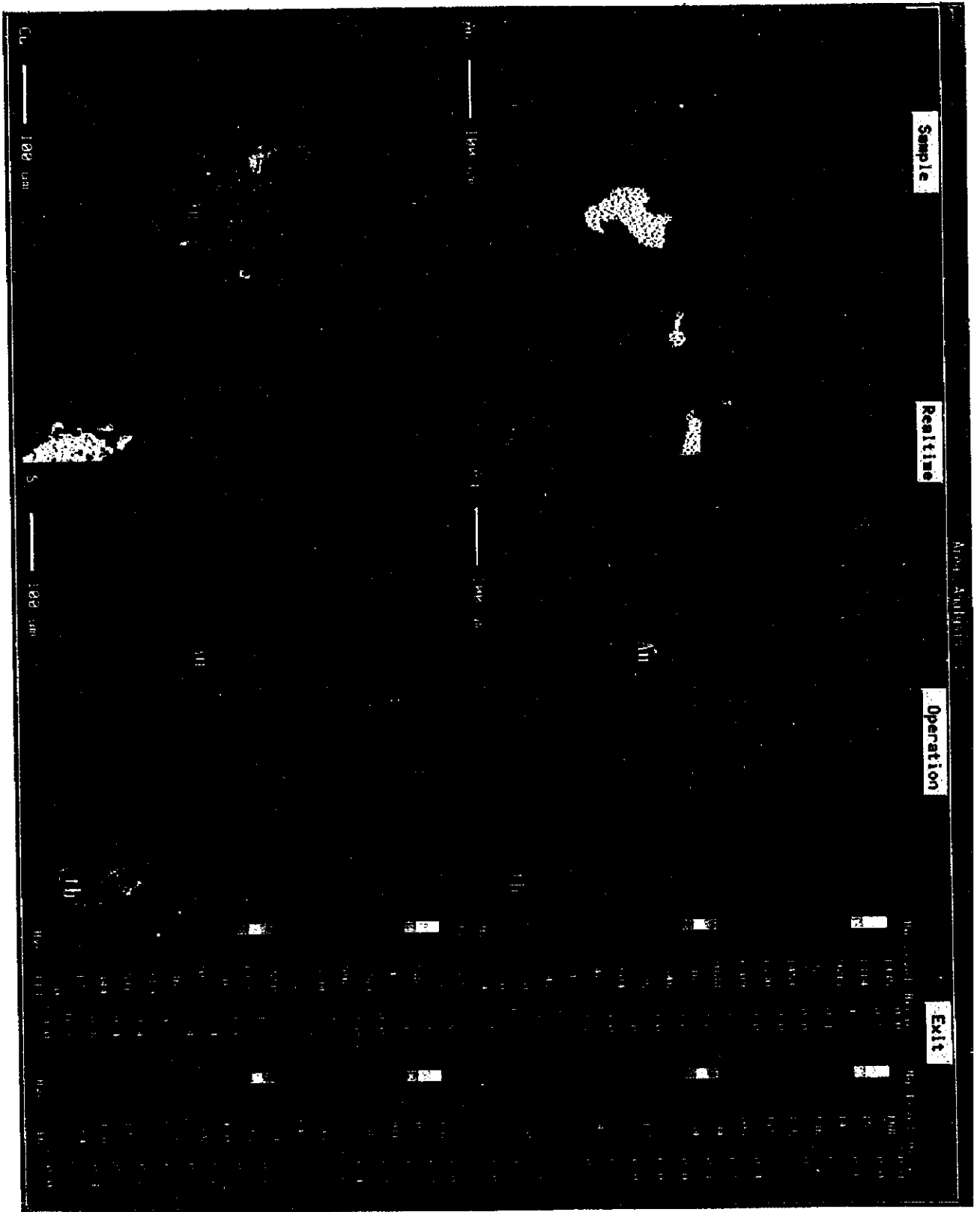
	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	385	168	126	1030	2756
Min. data	0	0	1	0	0
Ave. data	5	5	16	16	118

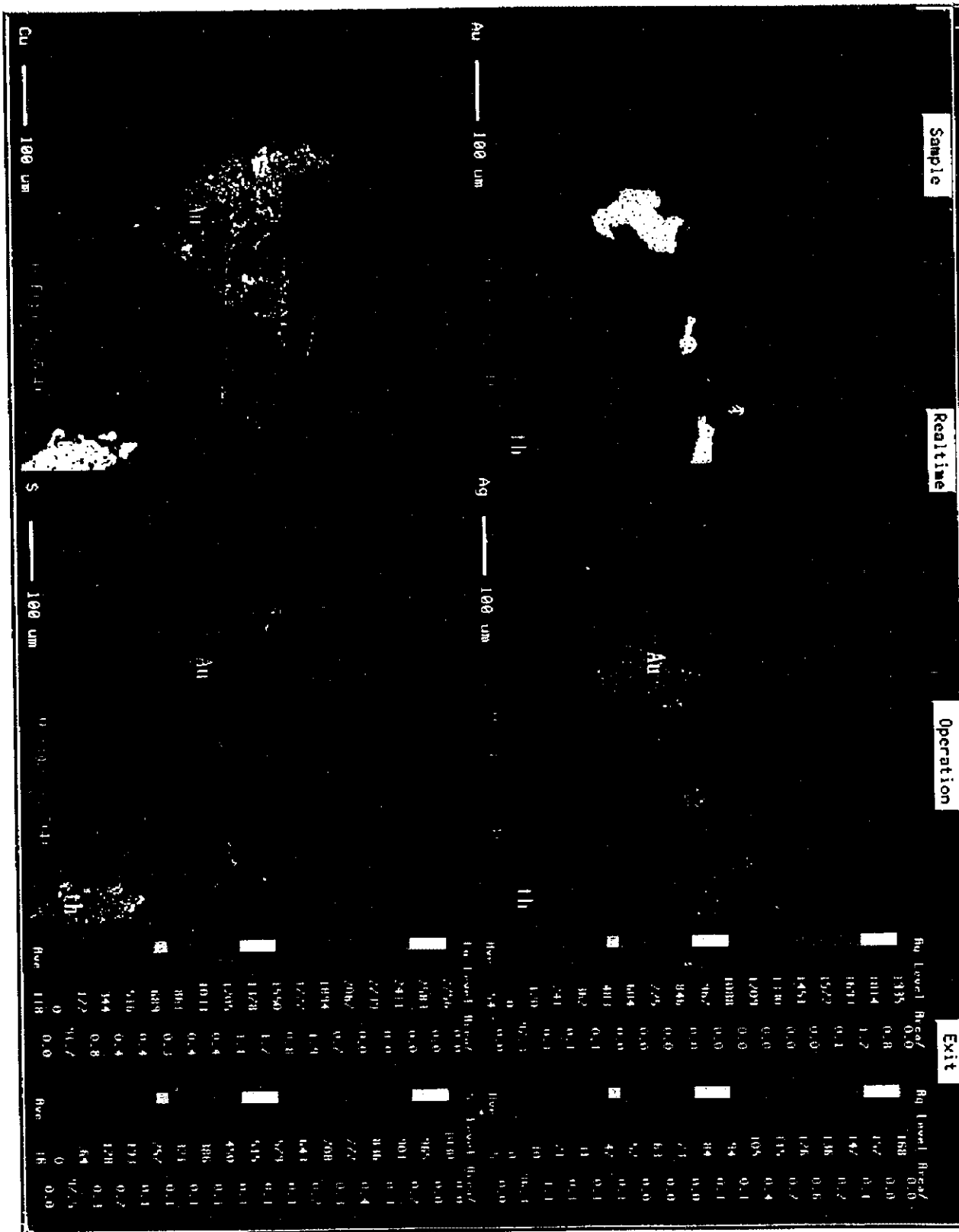
	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	117	1935	677	332	1093
Min. data	0	0	0	0	0
Ave. data	7	54	7	6	33

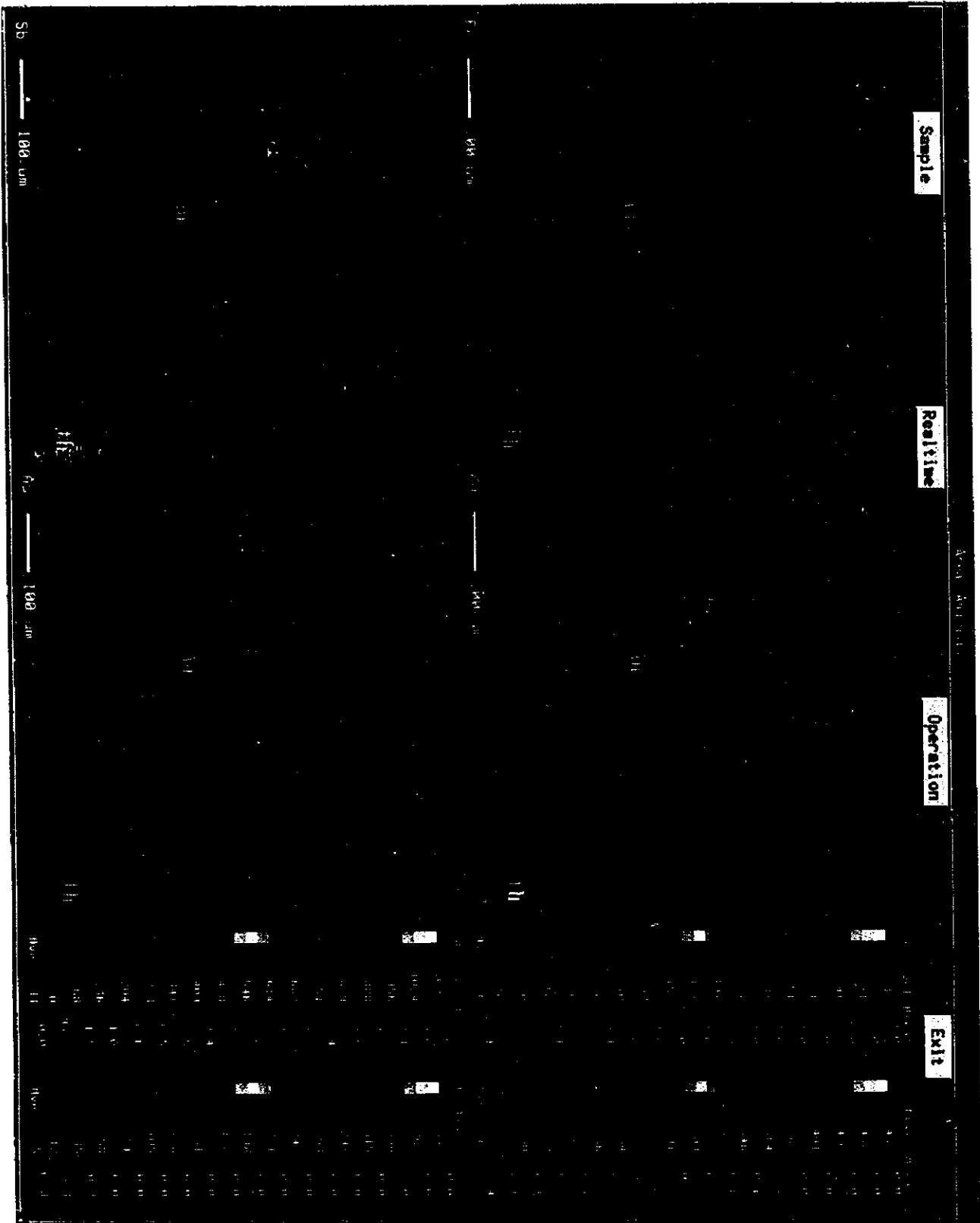


Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	457
Min. data	0
Ave. data	17

A-6 EPWA-6 (MJKT-3. 86.35a)





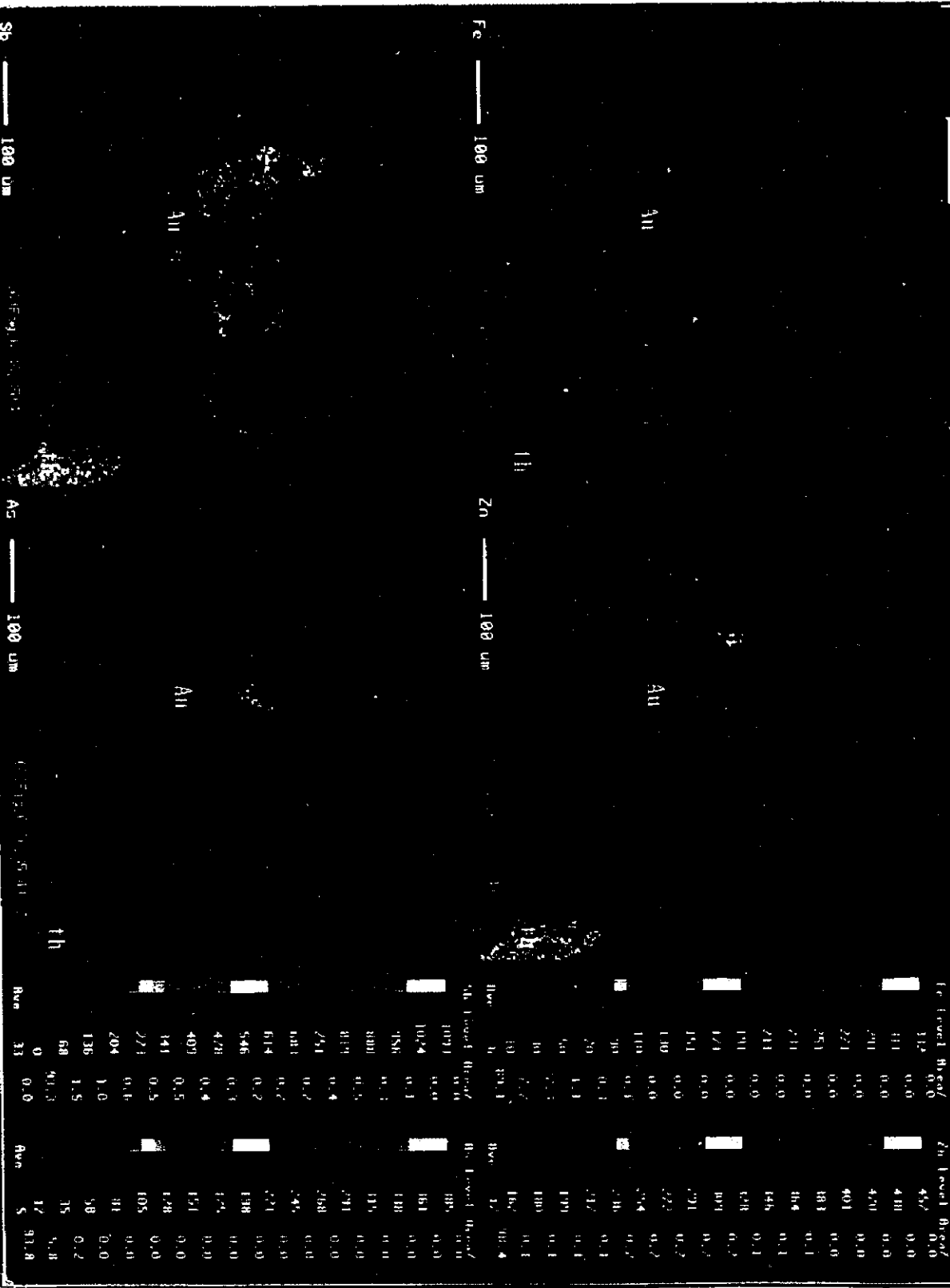


Sample

Realtime

Operation

Exit



Sb 100 um

Fe 100 um

Zn 100 um

0.000000

As 100 um

0.000000

Area

Ave

Fe Level: 0.0%

Zn Level: 0.0%

Au Level: 0.0%

As Level: 0.0%

Sb Level: 0.0%

Area: 33

Ave: 0.0

112 0.0

431 0.0

291 0.0

221 0.0

251 0.0

211 0.0

211 0.0

191 0.0

171 0.0

151 0.0

130 0.0

110 0.0

90 0.0

29 0.0

50 0.0

30 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

10 0.0

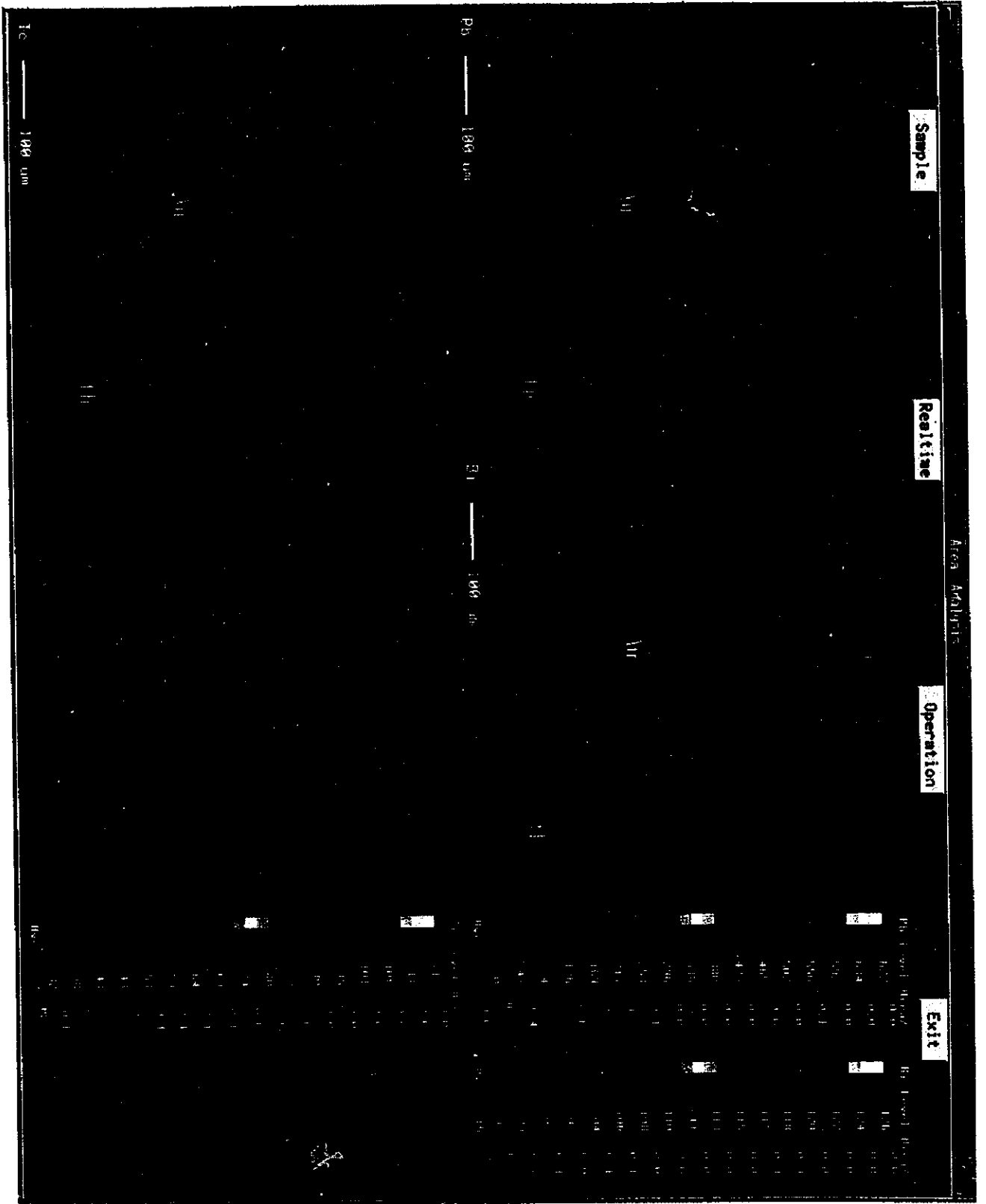
10 0.0

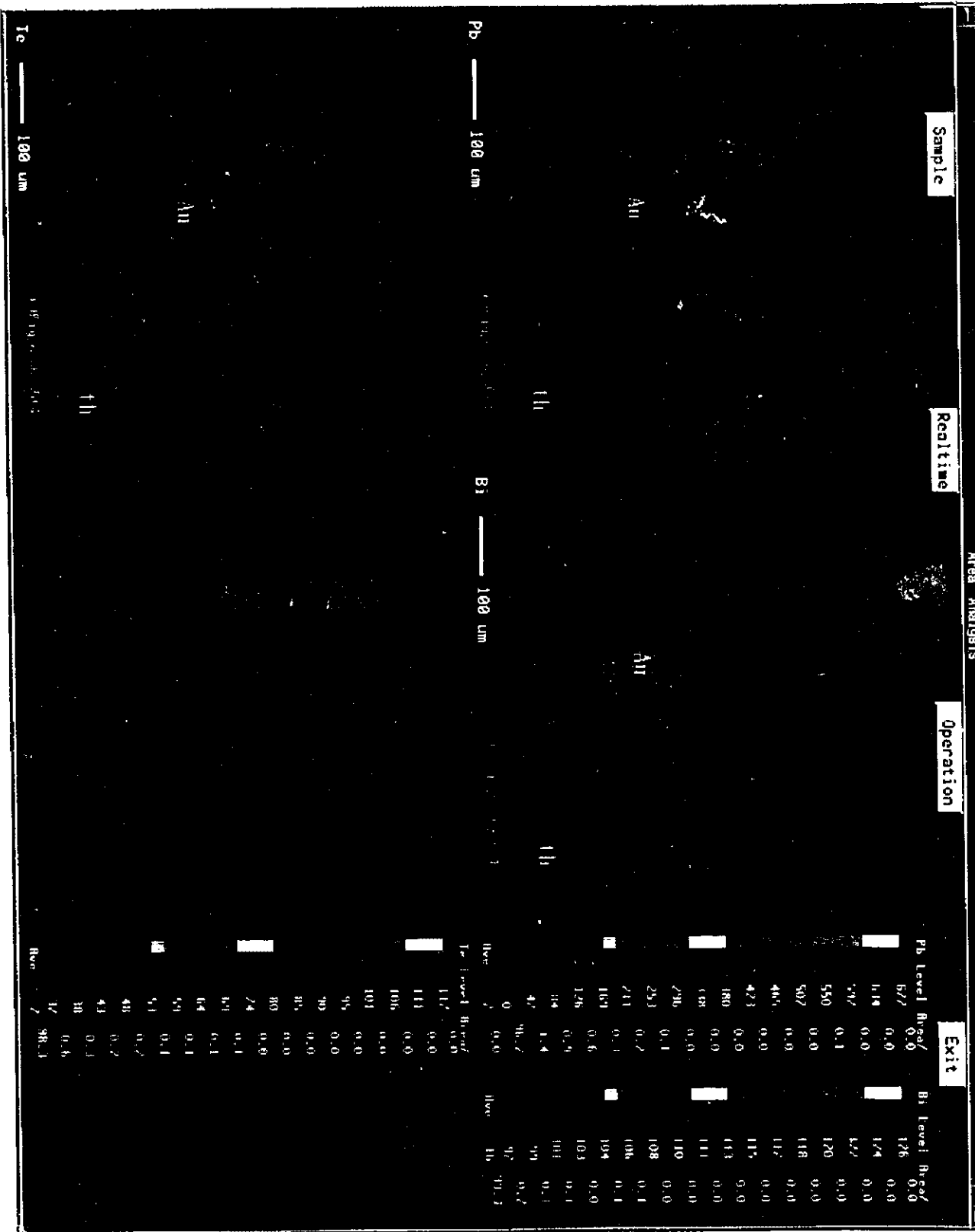
10 0.0

10 0.0

10 0.0

10 0.0





Operation

Exit

Exit	Pb Level	Bi Level
677	0.0	176
114	0.0	174
507	0.1	177
550	0.0	170
507	0.0	118
405	0.0	117
423	0.0	115
180	0.0	113
68	0.0	111
296	0.0	110
253	0.1	108
211	0.2	106
169	0.1	104
126	0.6	103
89	0.9	101
47	1.4	99
0	36.2	97
0	0.0	95
117	0.0	93
111	0.0	91
106	0.0	89
101	0.0	87
95	0.0	85
90	0.0	83
85	0.0	81
80	0.0	79
74	0.1	77
61	0.1	75
61	0.1	73
64	0.1	71
59	0.1	69
51	0.2	67
48	0.2	65
43	0.3	63
38	0.6	61
37	0.6	59

Te 100 um

Pb 100 um

Bi 100 um

100 um

100 um





>>> Map Measurement condition. <<<

Group : publicjx3                      Sample : jx3publ  
 Comment : Fig 5 MJMT3 86.35m (3)

Feb 22 14:58 1998

Stage No.7      Position mm    X : 35.8655    Y : 37.7298    Z : 11.2980

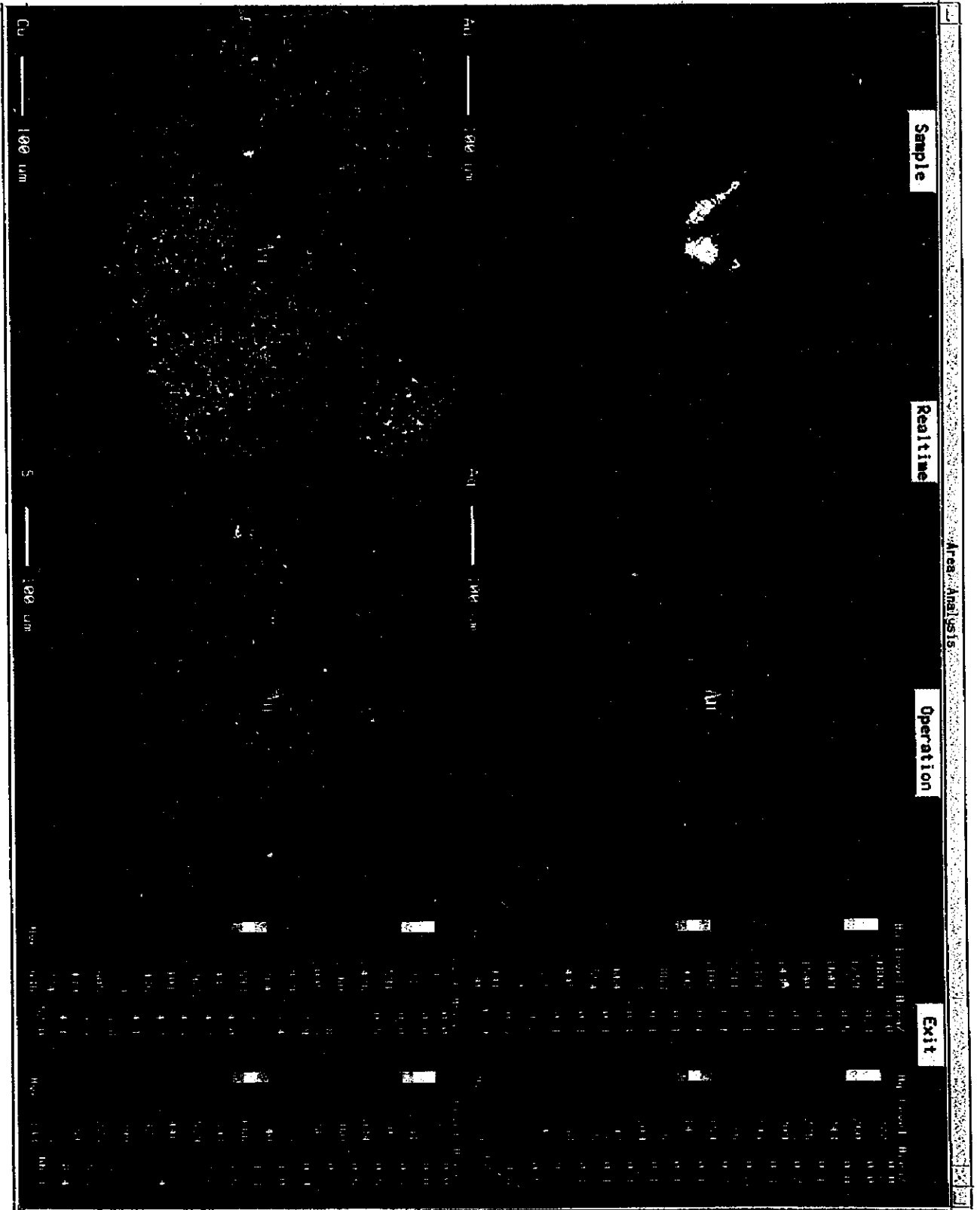
Accelerating Voltage      25.0 kV  
 Dwell Time                25.0 m sec.  
 No. of Pixels             X : 250            Y : 250  
 Pixel size (um)           X : 3.00           Y : 3.00  
 Condenser Lens (C,F) 18, 36    Object Lens (C,F) 186, 452  
 Magnification             500  
 Probe Diameter (um)       0  
 Probe Scan Off, Scan Mode PIC    , Scan Speed SR  
 Probe Current (A)         2.012E-07

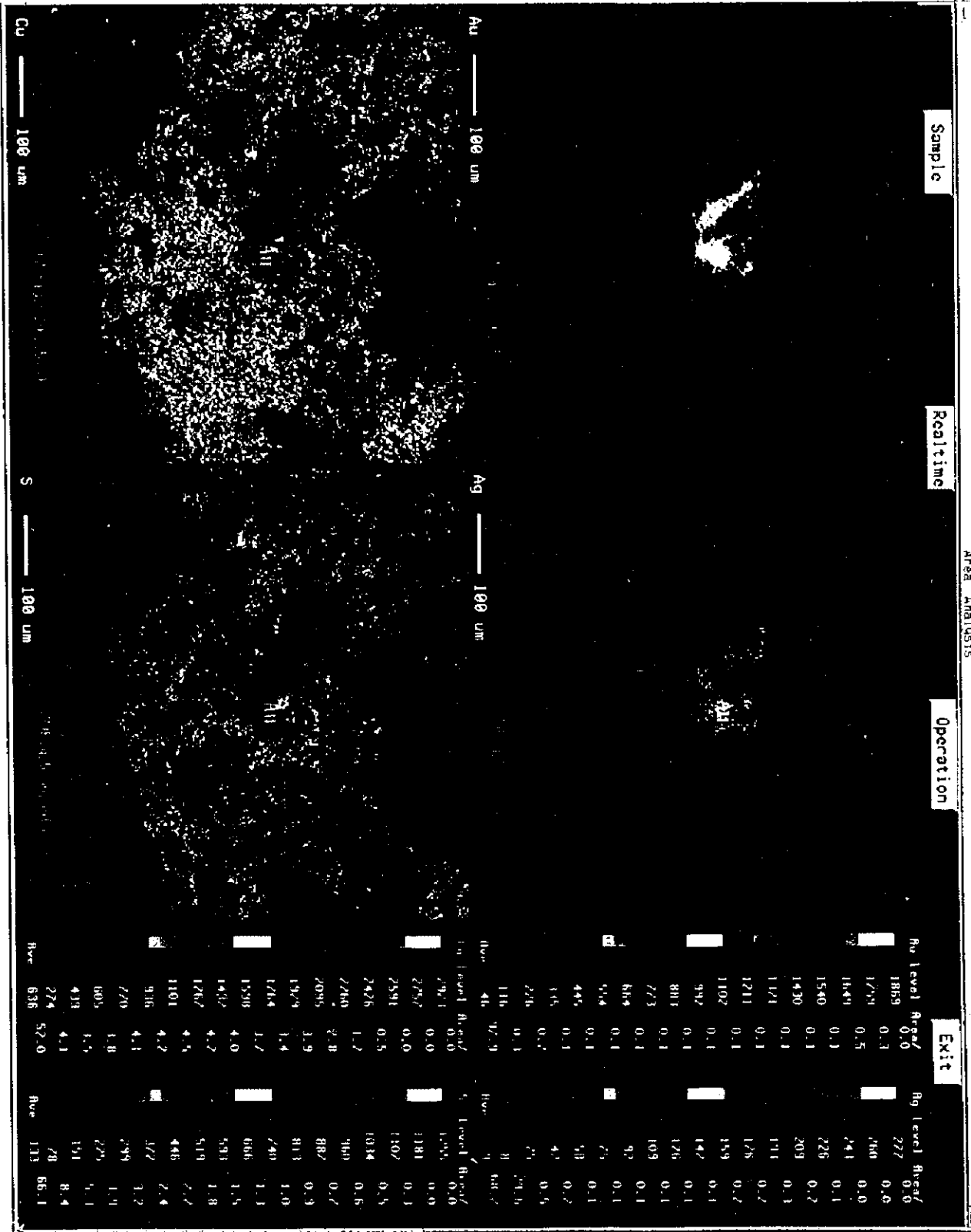
	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	417	277	119	1255	2923
Min. data	0	0	1	0	0
Ave. data	17	9	31	133	636

	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	119	1869	716	742	1025
Min. data	0	0	0	0	0
Ave. data	16	46	105	30	242

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	2307
Min. data	0
Ave. data	24

A-6 EPMA-7 (N)WT-3, S6, 35m)







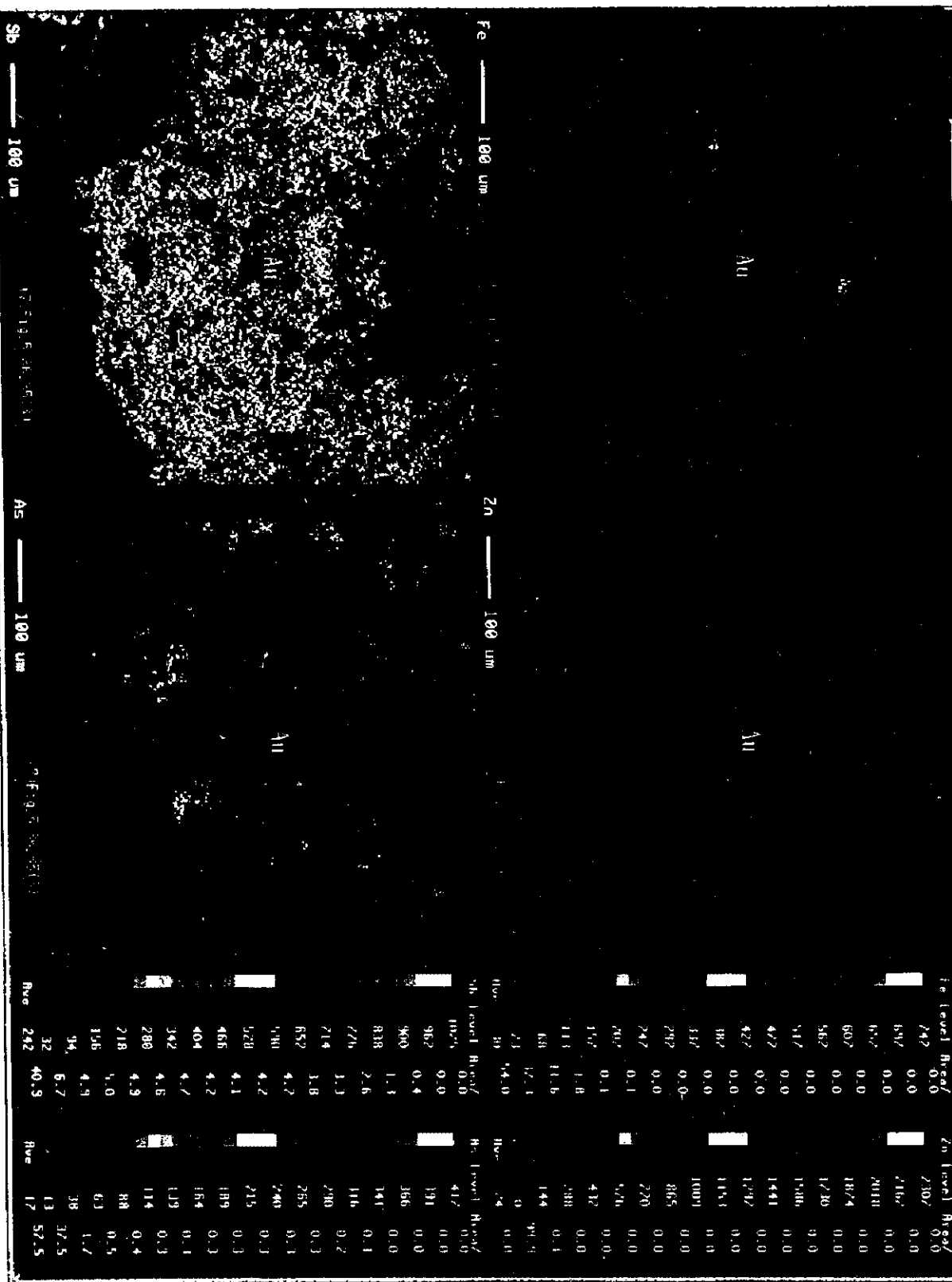
Area Analysis

Sample

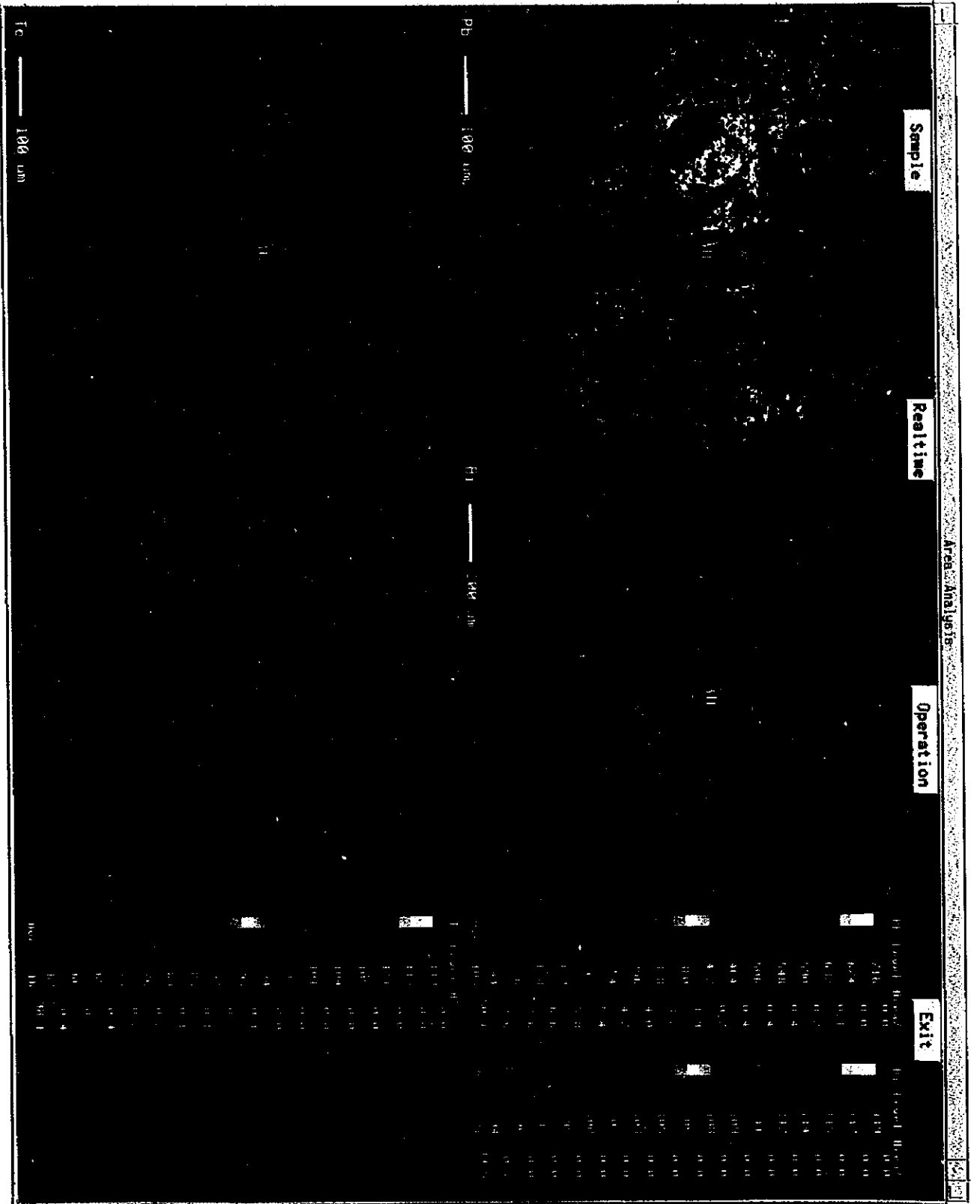
Realtime

Operation

Exit



EPMA









>>> Map Measurement condition. <<<

Group : publicjx3 Sample : jx3pub1  
 Comment : Fig 7 MJMT3 86.35m (5)

Feb 22 21:33 1998

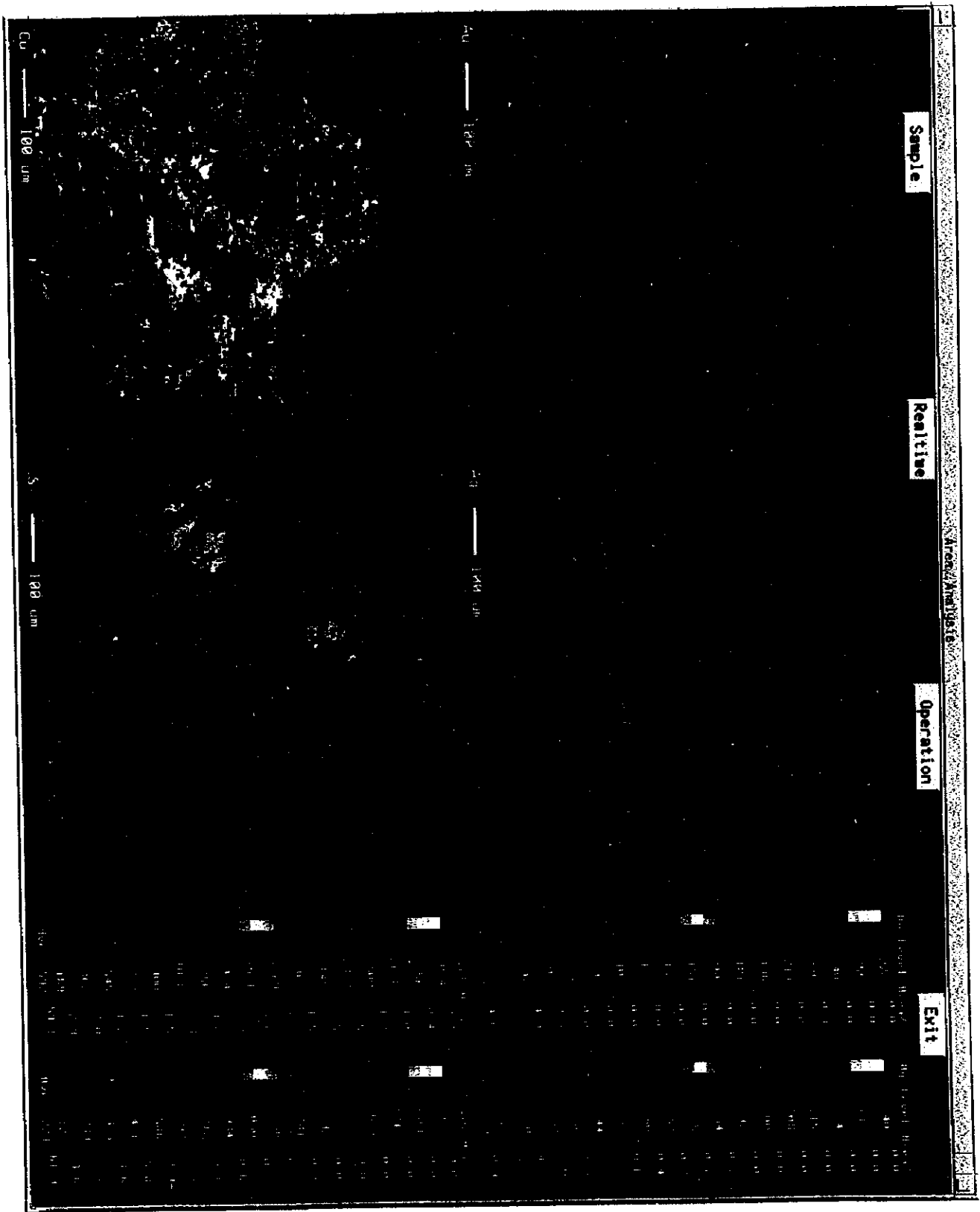
Stage No.8 Position mm X : 19.7310 Y : 40.3790 Z : 11.3600

Accelerating Voltage 25.0 kV  
 Dwell Time 25.0 m sec.  
 No. of Pixels X : 300 Y : 300  
 Pixel size (um) X : 3.00 Y : 3.00  
 Condenser Lens (C,F) 18, 36 Object Lens (C,F) 186, 452  
 Magnification 500  
 Probe Diameter (um) 0  
 Probe Scan Off, Scan Mode PIC , Scan Speed SR  
 Probe Current (A) 2.021E-07

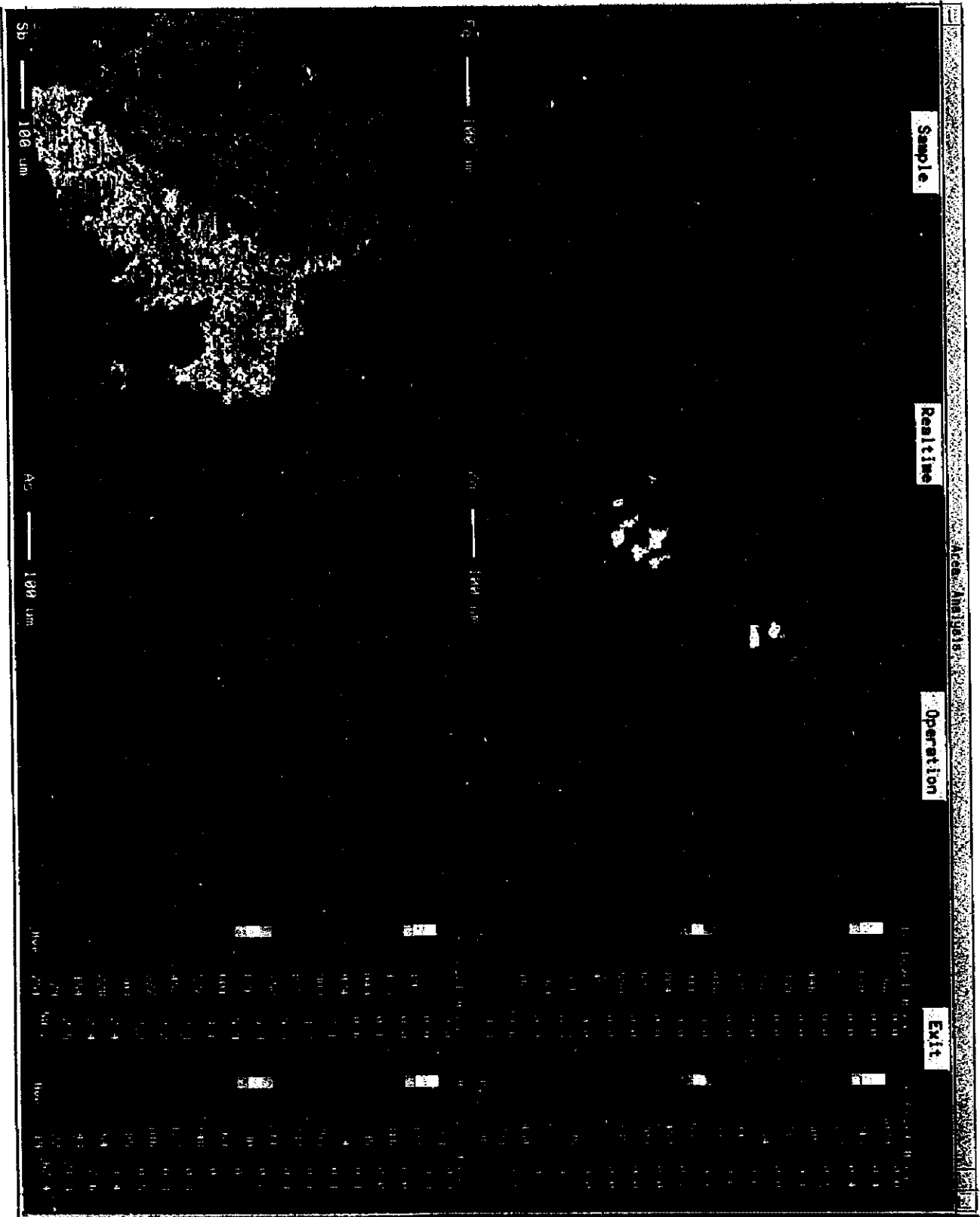
	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1420	133.1400	79.2940	172.1590	107.2430
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	359	140	101	1977	3034
Min. data	0	0	1	0	0
Ave. data	19	9	26	229	592

	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.4260	88.7400	169.3220	134.7480	110.2460
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	83	270	701	1768	1273
Min. data	0	0	0	0	0
Ave. data	11	21	51	22	251

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.8620
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	3020
Min. data	0
Ave. data	106







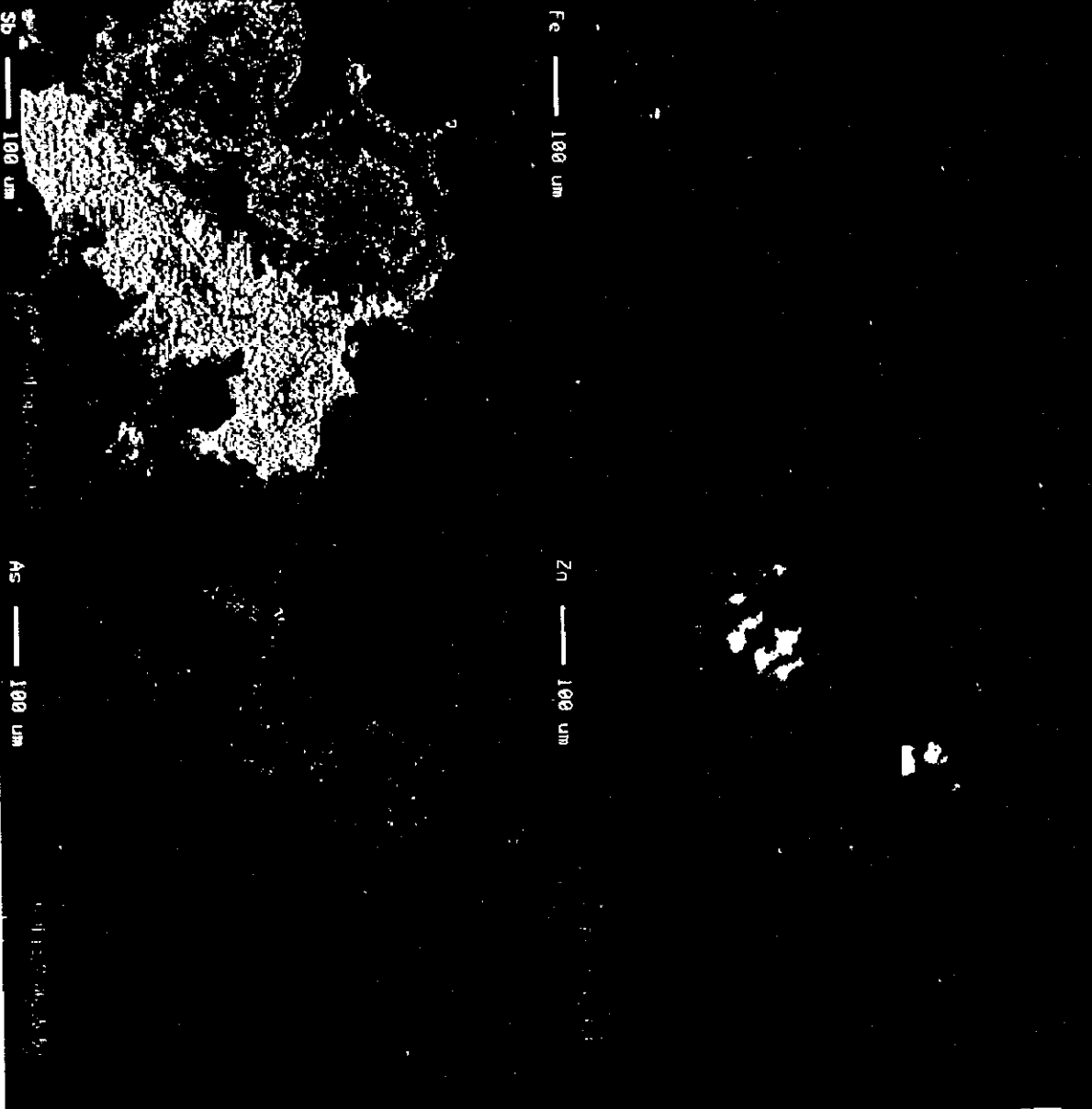
Area Analysis

Sample

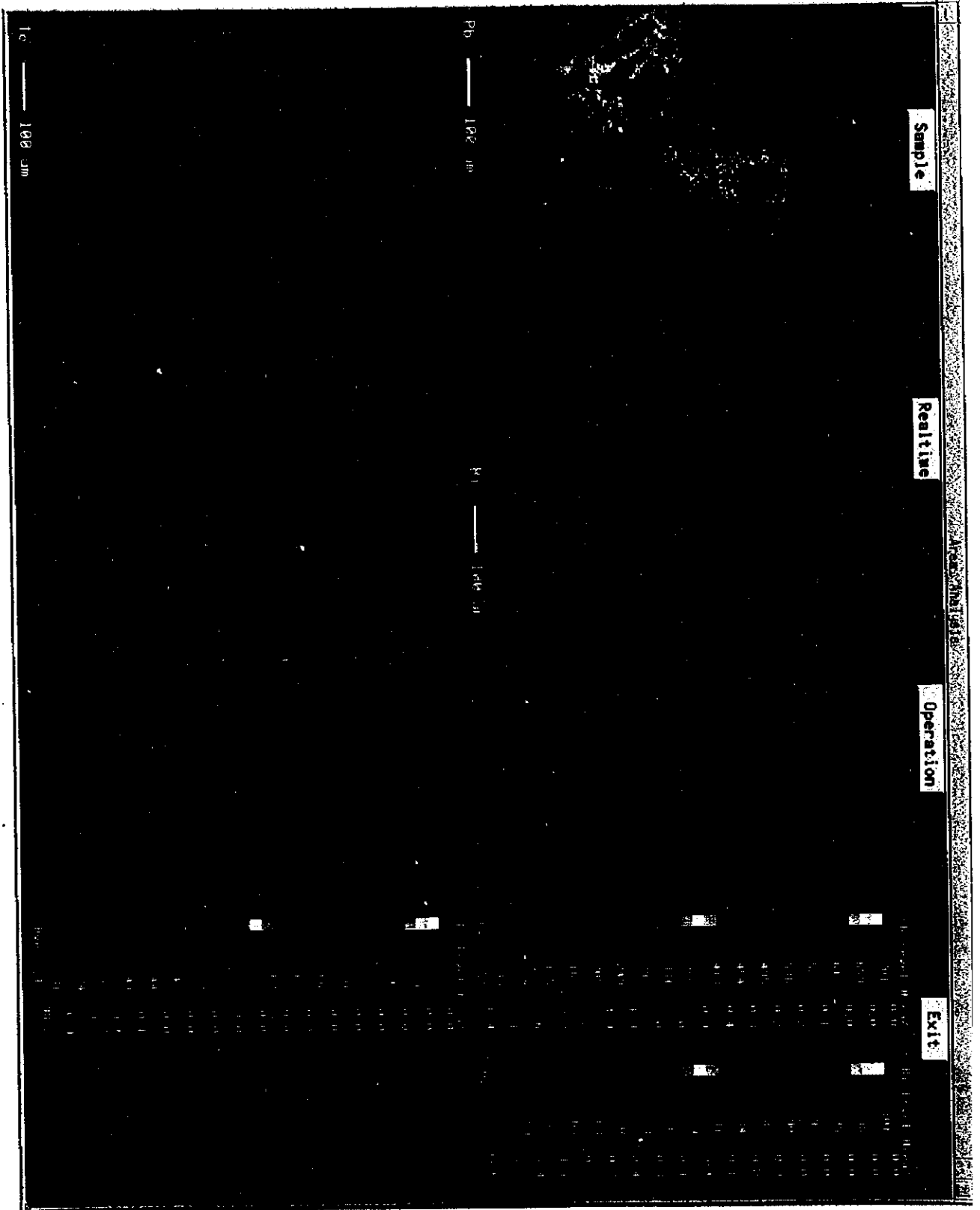
Realtime

Operation

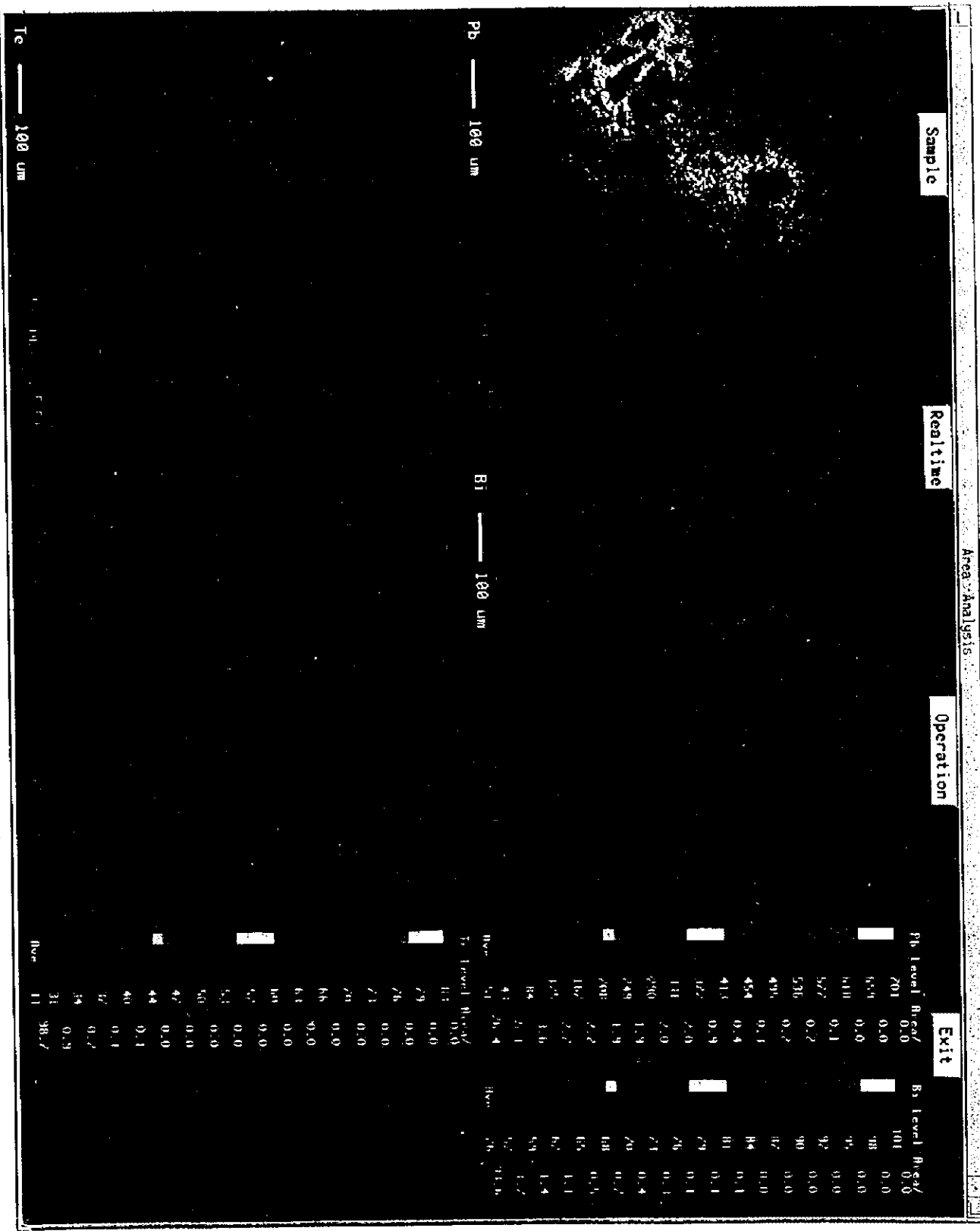
Exit



Fe Level	Area/	Zn Level	Area/
1248	0.0	3020	0.4
1660	0.0	2848	0.4
1551	0.0	2822	0.3
1446	0.0	2906	0.1
1339	0.0	2335	0.0
1232	0.0	2104	0.0
1125	0.0	1993	0.0
1018	0.0	1822	0.1
911	0.0	1851	0.1
804	0.0	1400	0.0
697	0.0	1309	0.0
580	0.0	1138	0.0
481	0.0	782	0.0
376	0.0	236	0.1
269	0.0	625	0.2
162	0.0	454	0.1
55	0.0	201	0.0
22	0.0	82	0.0
0.0	0.0	0.0	0.0
1274	0.0	69	0.0
1198	0.0	337	0.0
1123	0.0	116	0.0
1045	0.1	295	0.0
964	0.6	274	0.1
806	2.1	253	0.1
825	3.7	232	0.1
740	5.1	211	0.1
676	6.9	190	0.2
603	5.9	169	0.2
522	3.1	148	0.2
452	2.3	127	0.1
372	2.2	106	0.1
301	2.4	85	0.5
220	2.4	64	1.4
154	2.4	43	7.6
79	2.5	22	21.3
251	58.2	19	67.4









>>> Map Measurement condition. <<<

Group : publicjx3                      Sample : jx3pub1  
 Comment : Fig - MJMT3 86.35m (6)

Feb 23 20:55 1998

Stage No.9      Position mm   X : 19.6085    Y : 24.8960    Z : 11.2127

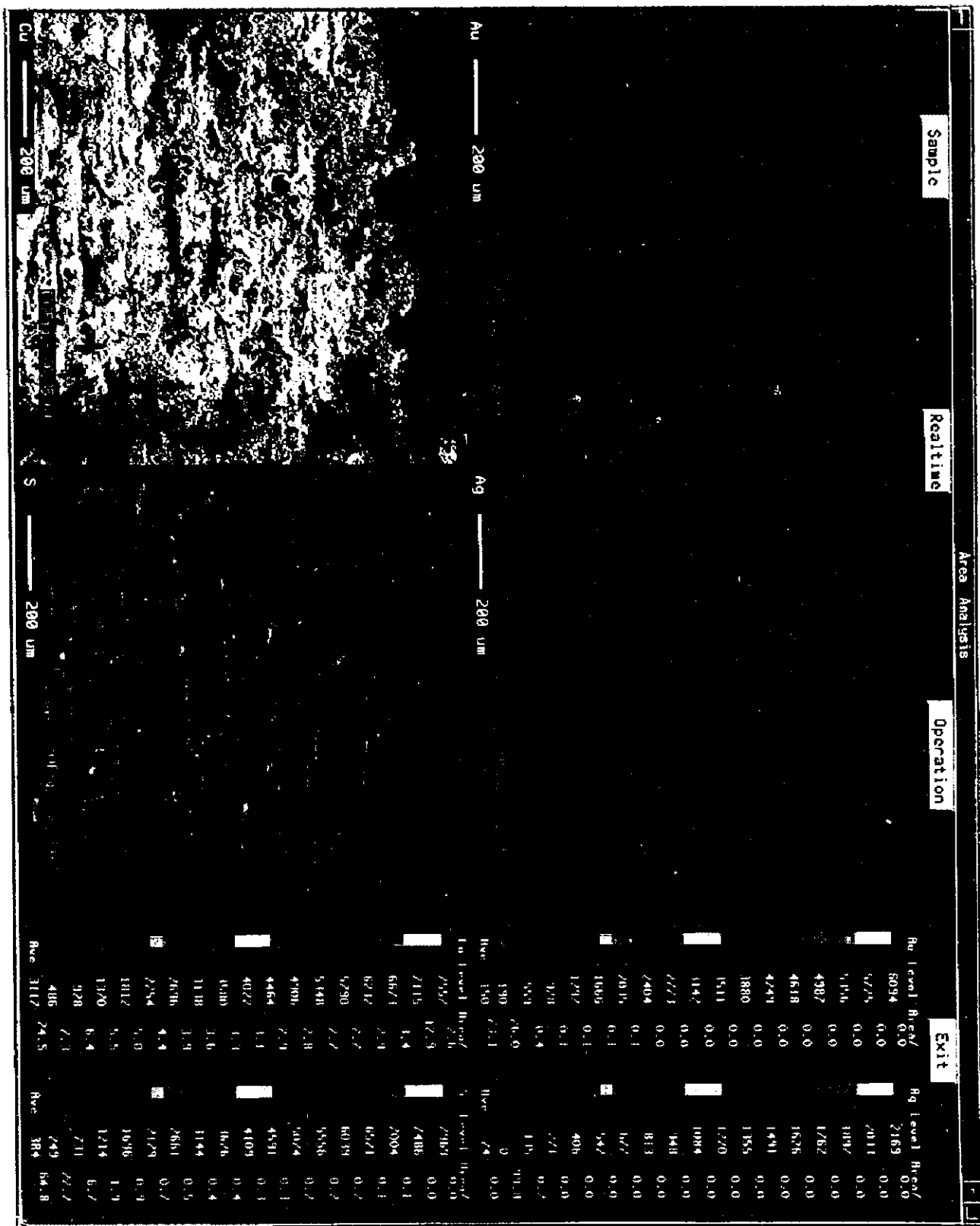
Accelerating Voltage            25.0    kV  
 Dwell Time                      25.0    m sec.  
 No. of Pixels                    X : 400            Y : 400  
 Pixel size (um)                 X : 3.00           Y : 3.00  
 Condenser Lens (C,F) 3, 12    Object Lens (C,F) 186, 452  
 Magnification                    500  
 Probe Diameter (um)             0  
 Probe Scan Off, Scan Mode PIC    , Scan Speed TV  
 Probe Current (A)                2.010E-07

	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1170	133.0600	79.3010	172.0880	107.1240
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	267	2169	1102	7969	7786
Min. data	0	0	0	0	0
Ave. data	31	24	208	384	3117

	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.3460	88.6290	169.2170	134.6710	110.1710
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	6455	6094	2942	5903	5113
Min. data	0	0	0	0	0
Ave. data	82	150	77	642	273

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.7800
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	4949
Min. data	0
Ave. data	132





Au 200 um

Cu 200 um

Sample

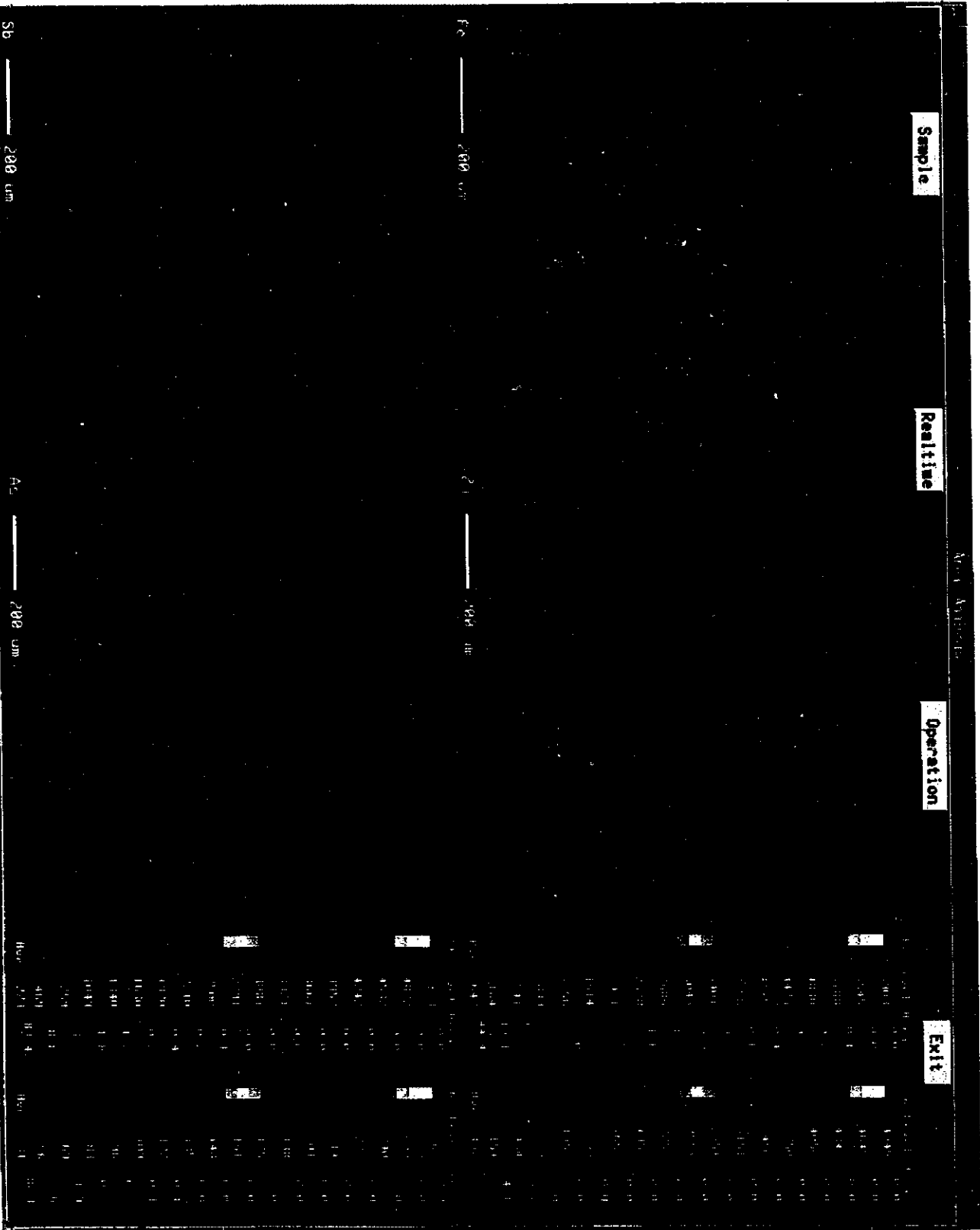
Realtime

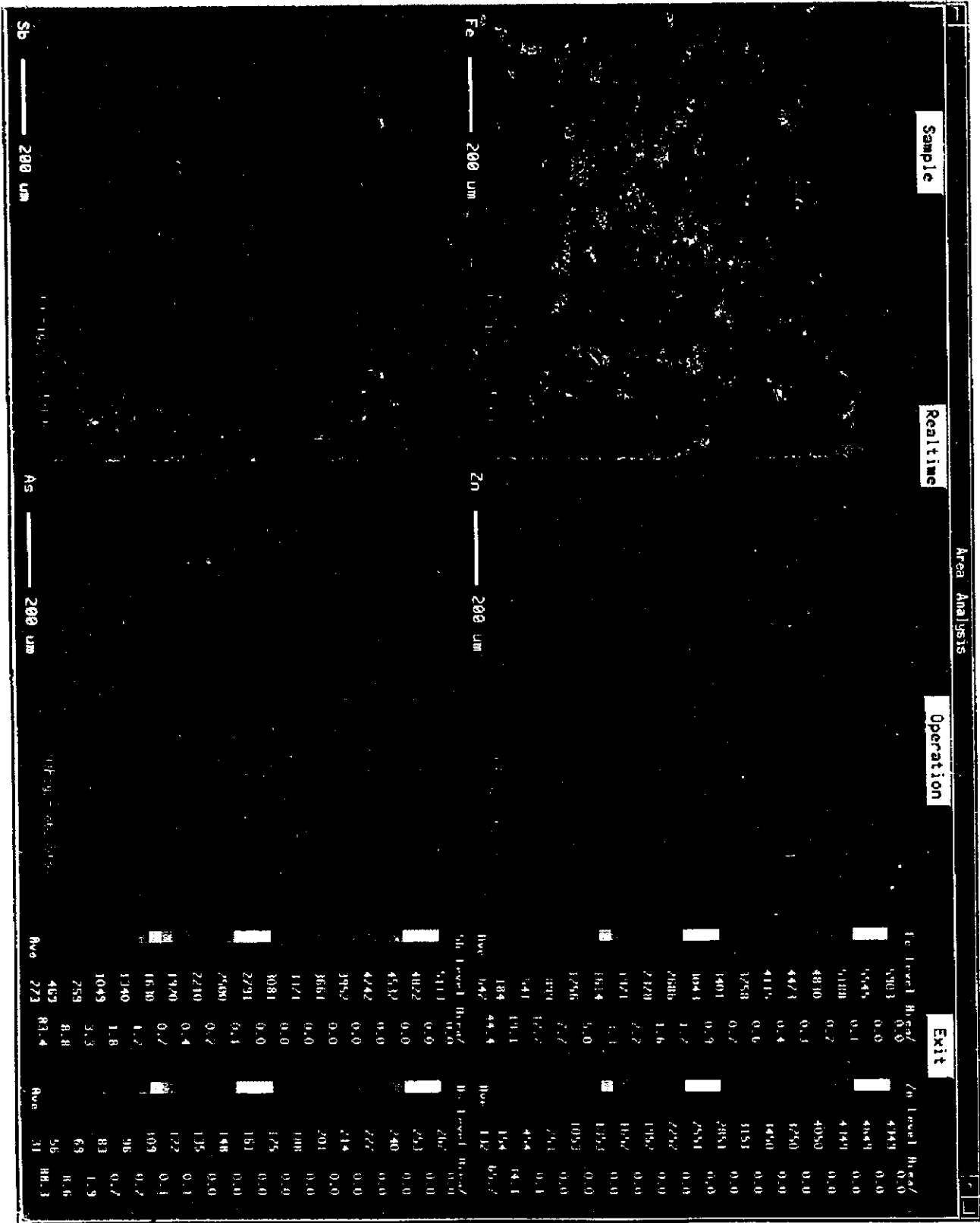
Operation

Area Analysis

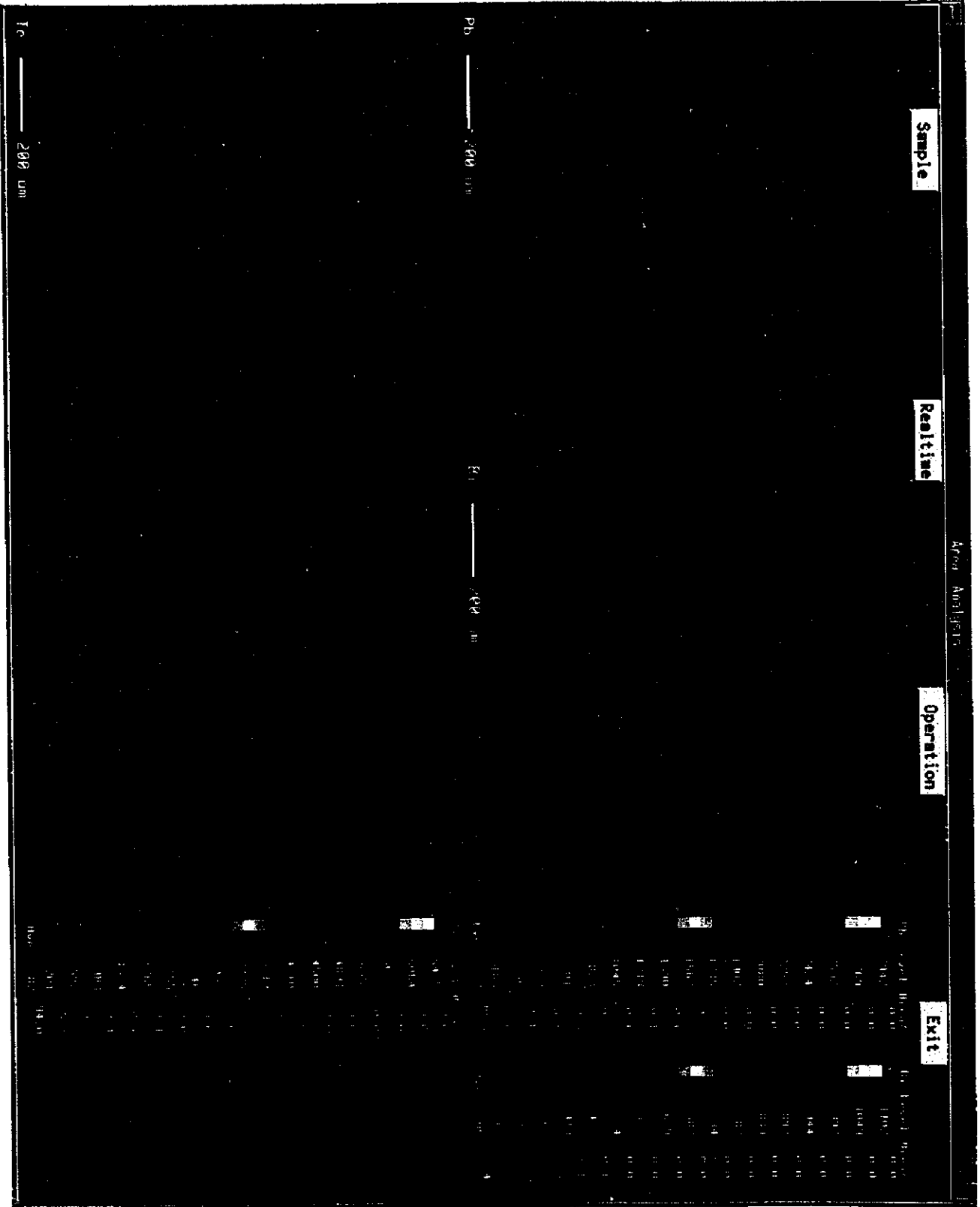
Exit

Element	Area	Concentration (%)	Weighted Avg. Atomic No.	Weighted Avg. Atomic Weight
Au	200 um	12.5	79	197.0
Cu	200 um	24.5	29	63.5
S	200 um	7.3	16	32.1
Ag	200 um	2.8	108	217.0
Bi	200 um	0.1	209	209.0
As	200 um	0.1	75	75.0
Br	200 um	0.1	80	79.9
Ca	200 um	0.1	20	40.1
Cl	200 um	0.1	35	35.5
Co	200 um	0.1	59	58.9
Cr	200 um	0.1	52	52.0
Fe	200 um	0.1	56	55.8
Mn	200 um	0.1	55	54.9
Ni	200 um	0.1	59	58.7
Pb	200 um	0.1	207	207.2
Pt	200 um	0.1	195	195.1
Se	200 um	0.1	78	78.4
Si	200 um	0.1	28	28.1
Sr	200 um	0.1	88	87.6
Ta	200 um	0.1	182	182.0
Ti	200 um	0.1	48	47.9
V	200 um	0.1	51	50.9
Zn	200 um	0.1	65	65.4









Sample	Realtime	Operation	Exit
Pb	200 um		
Bi	200 um		
Te	200 um		
Pb Level	2942	0.0	1102
Bi Level	2764	0.0	1049
Te Level	2597	0.0	992
...	2424	0.0	944
...	2252	0.0	892
...	2080	0.0	840
...	1907	0.0	787
...	1735	0.1	734
...	1562	0.1	682
...	1390	0.1	629
...	1218	0.1	572
...	1045	0.1	524
...	871	0.2	472
...	701	0.3	419
...	528	0.7	367
...	356	1.5	315
...	183	3.0	262
...	72	90.3	214
Te Level	9475	0.0	1102
...	8064	0.0	1049
...	6623	0.0	992
...	5282	0.0	944
...	4891	0.0	892
...	4500	0.0	840
...	4110	0.0	787
...	3719	0.0	734
...	3328	0.0	682
...	2937	0.0	629
...	2546	0.0	572
...	2155	0.1	524
...	1765	0.1	472
...	1374	0.1	419
...	983	0.3	367
...	592	0.7	315
...	201	3.0	262
...	82	96.0	214

0.00000



Feb 24 02:07 1998 .map/tmp Page 1

&gt;&gt;&gt; Map Measurement condition. &lt;&lt;&lt;

Group : publicjx3                      Sample : jx3pub1  
 Comment : Fig 9 MJMT3 86.35m (7)

Feb 24 02:07 1998

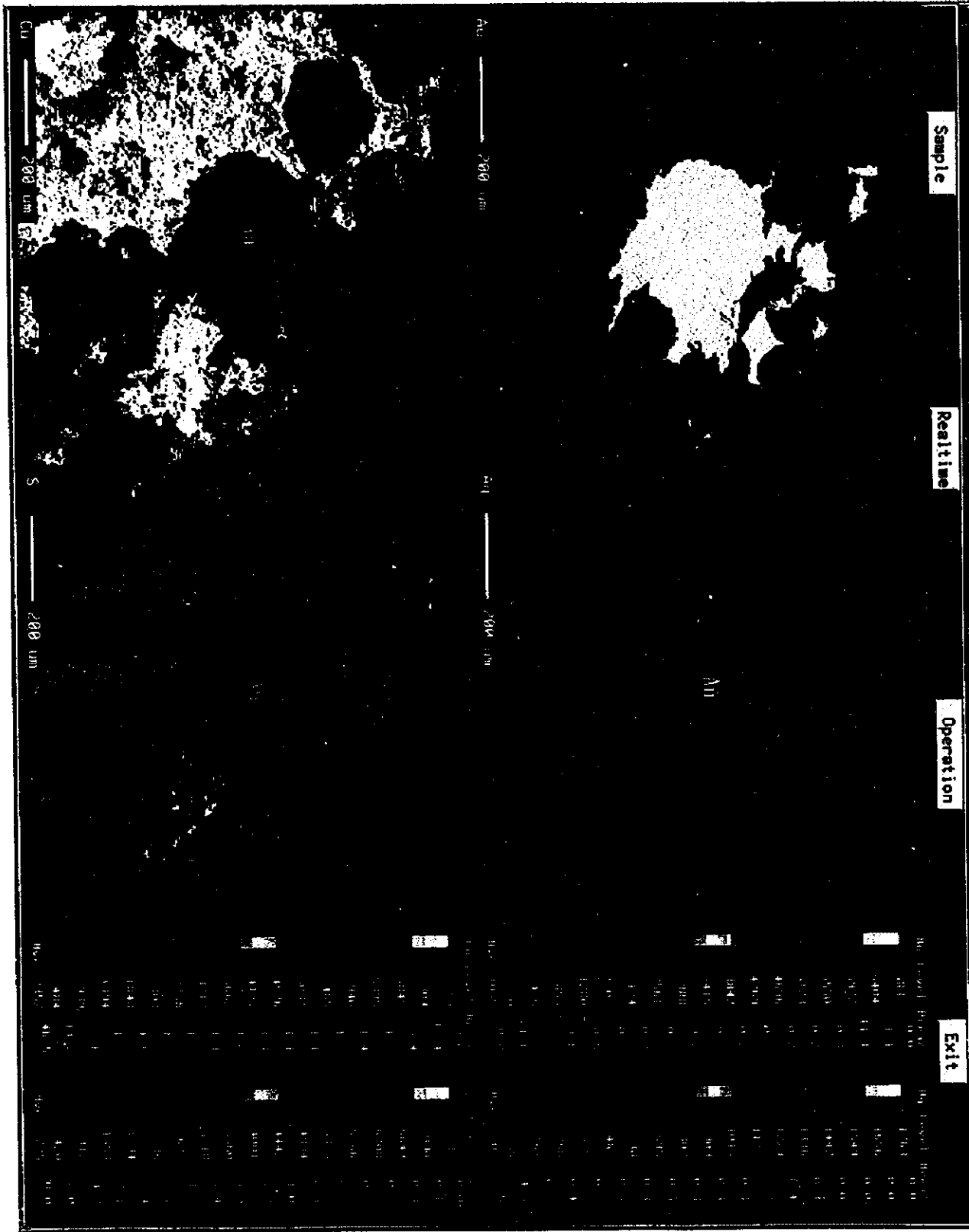
Stage No.10    Position mm    X : 50.9320    Y : 53.5970    Z : 11.3409

Accelerating Voltage            25.0 kV  
 Dwell Time                      25.0 m sec.  
 No. of Pixels                    X : 350                      Y : 350  
 Pixel size (um)                 X : 3.00                      Y : 3.00  
 Condenser Lens (C,F) 3, 12    Object Lens (C,F) 186, 452  
 Magnification                    500  
 Probe Diameter (um)              0  
 Probe Scan Off, Scan Mode PIC    , Scan Speed TV  
 Probe Current (A)                2.048E-07

	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1170	133.0600	79.3010	172.0880	107.1240
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	425	1763	1255	7532	7759
Min. data	0	0	11	0	0
Ave. data	69	207	366	725	2357

	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.3460	88.6290	169.2170	134.6710	110.1710
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	4223	6831	6319	5888	5524
Min. data	0	0	0	0	0
Ave. data	228	1035	182	423	301

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.7800
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	2827
Min. data	0
Ave. data	273



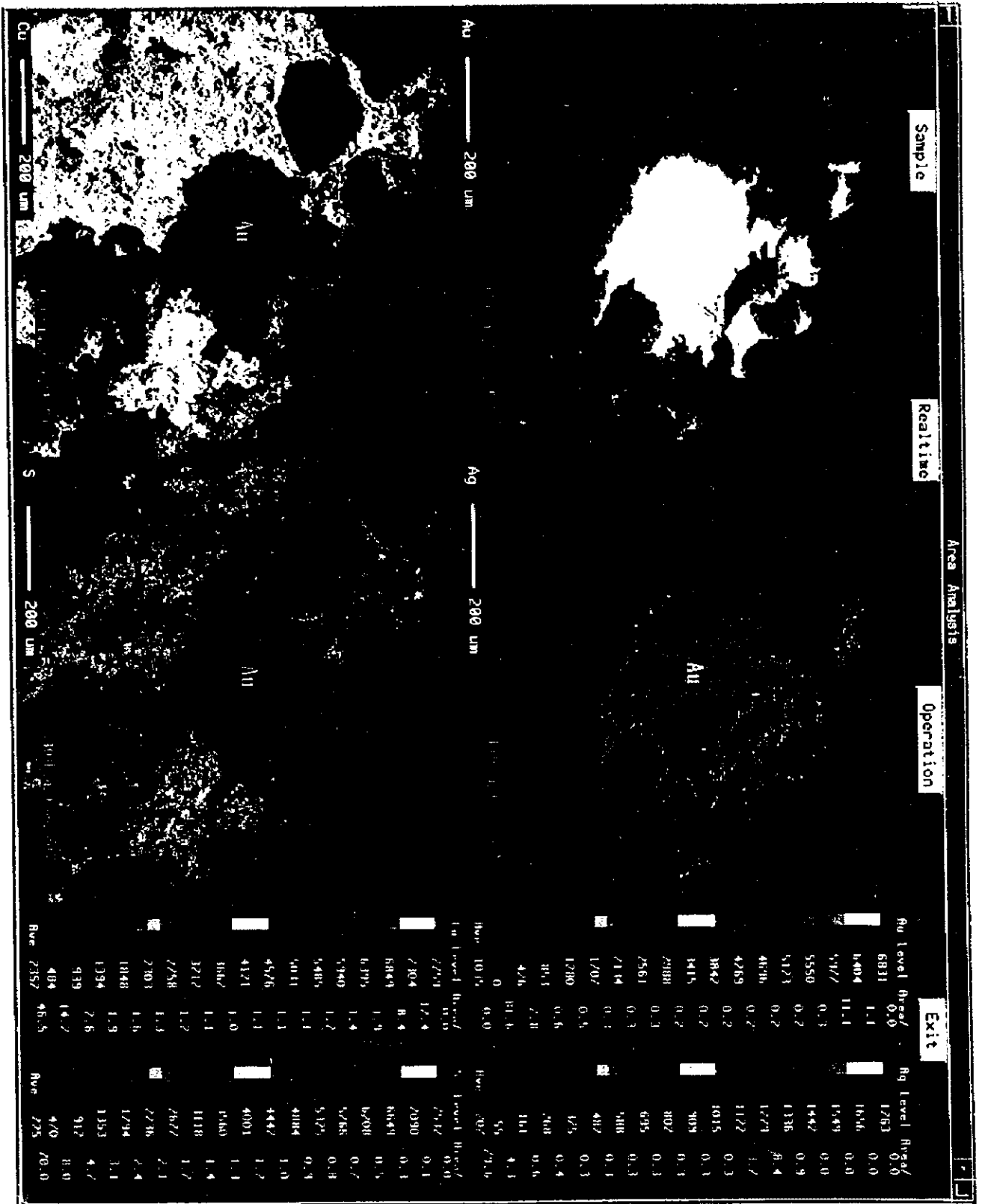
Sample

Realtime

Operation

Exit

Element	Area	Count	Concentration	Std. Dev.	Weight	Area	Count	Concentration	Std. Dev.	Weight
Cu	1.1	1000	1000	1000	1.1	1000	1000	1000	1000	1.1
S	1.1	1000	1000	1000	1.1	1000	1000	1000	1000	1.1







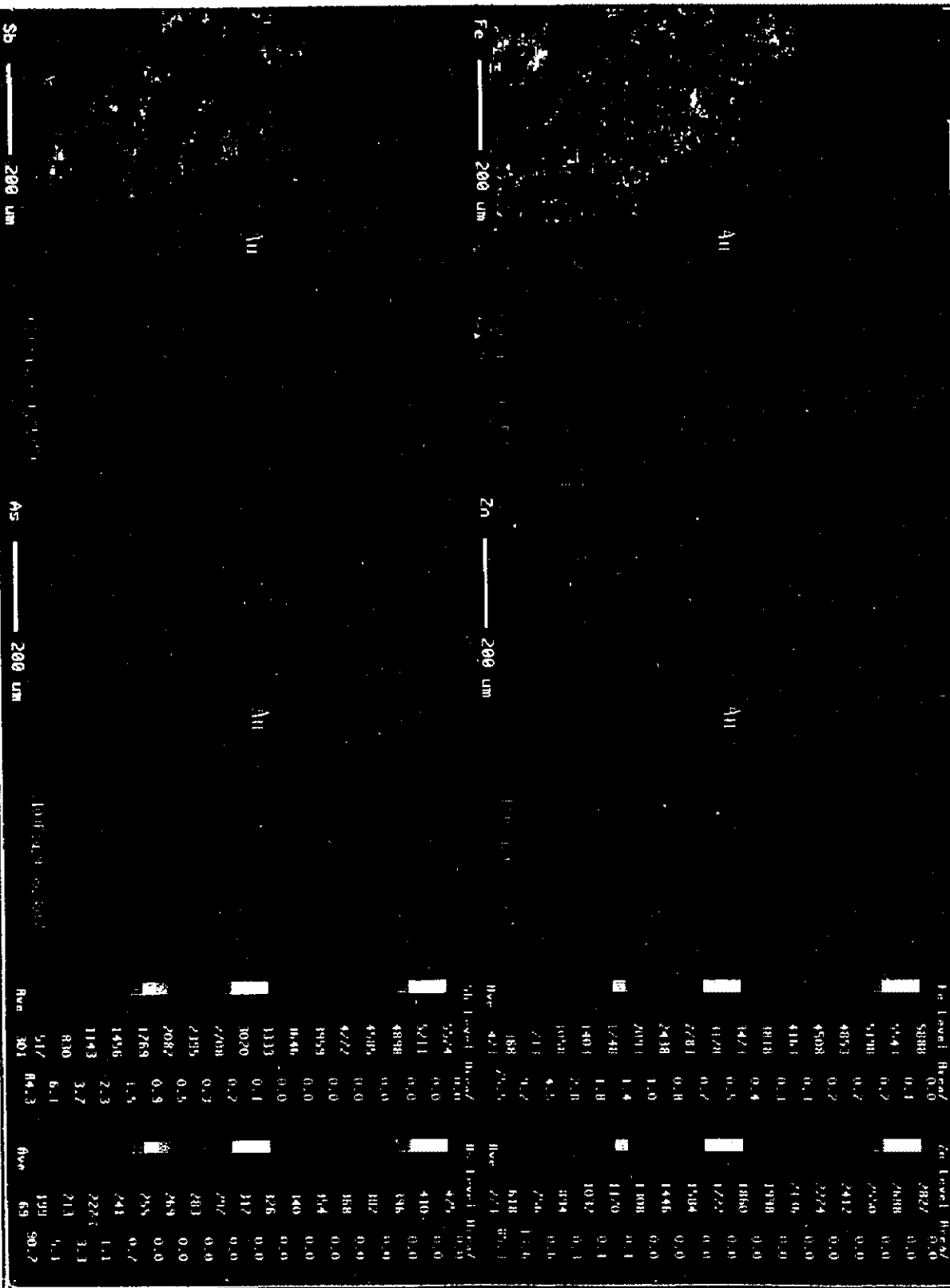
Area Analysis

Sample

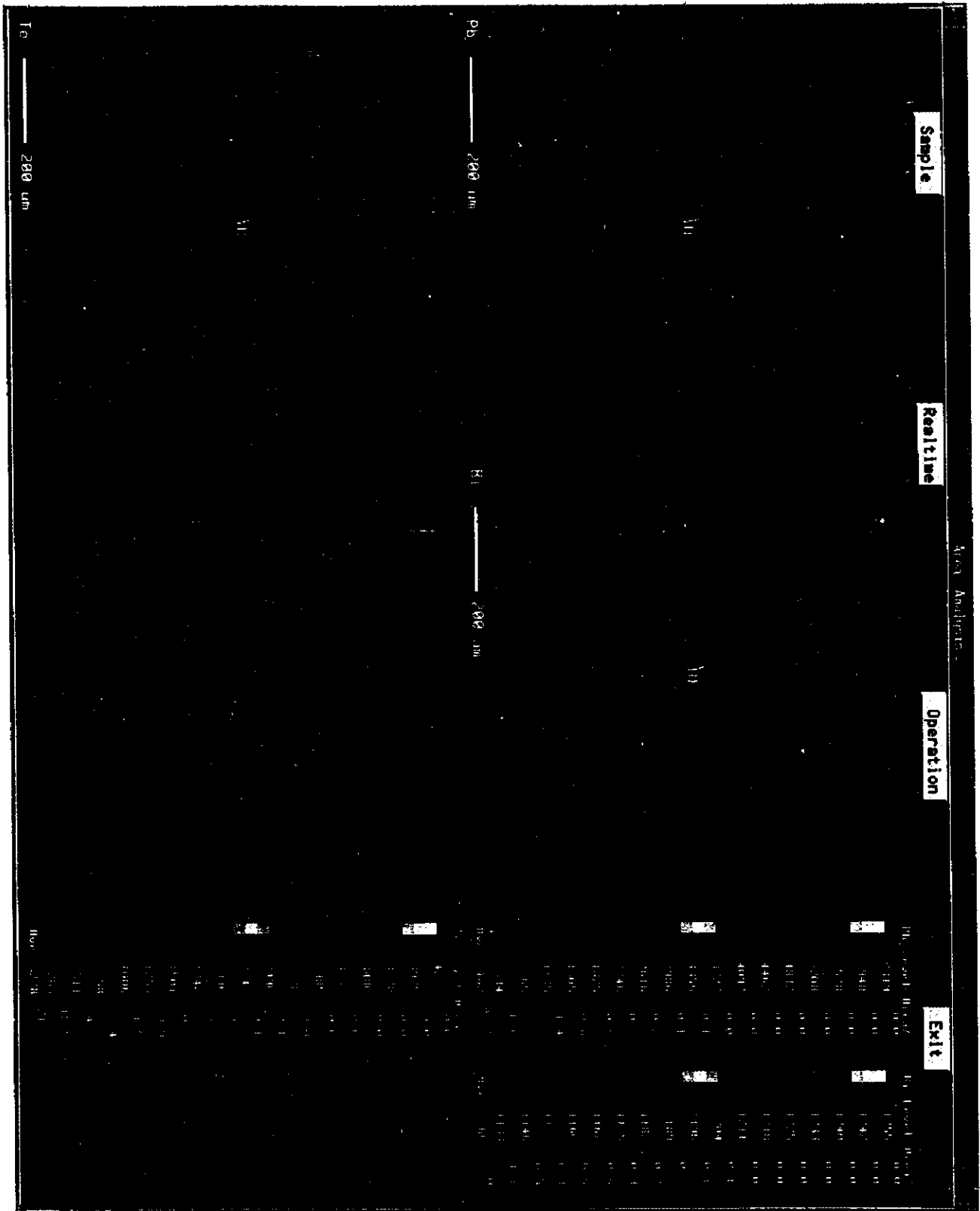
Realtime

Operation

Exit



Element	Level	Area	Intensity	Count	Ratio	
Sb	5524	0.0	427	0.0	0.0	
	5211	0.0	410	0.0	0.0	
	4898	0.0	38	0.0	0.0	
	4585	0.0	82	0.0	0.0	
	4272	0.0	88	0.0	0.0	
	3959	0.0	94	0.0	0.0	
	3646	0.0	140	0.0	0.0	
	3333	0.1	26	0.0	0.0	
	3020	0.2	32	0.0	0.0	
	2708	0.3	297	0.0	0.0	
Zn	2395	0.5	283	0.0	0.0	
	2082	0.9	289	0.0	0.0	
	1769	1.5	255	0.0	0.0	
	1456	2.3	241	0.0	0.0	
	1143	3.7	222	0.0	0.0	
	830	6.1	213	0.0	0.0	
	517	84.3	190	0.0	0.0	
	301	69	50.2	0.0	0.0	
	Total					
			100.0	100.0	100.0	100.0

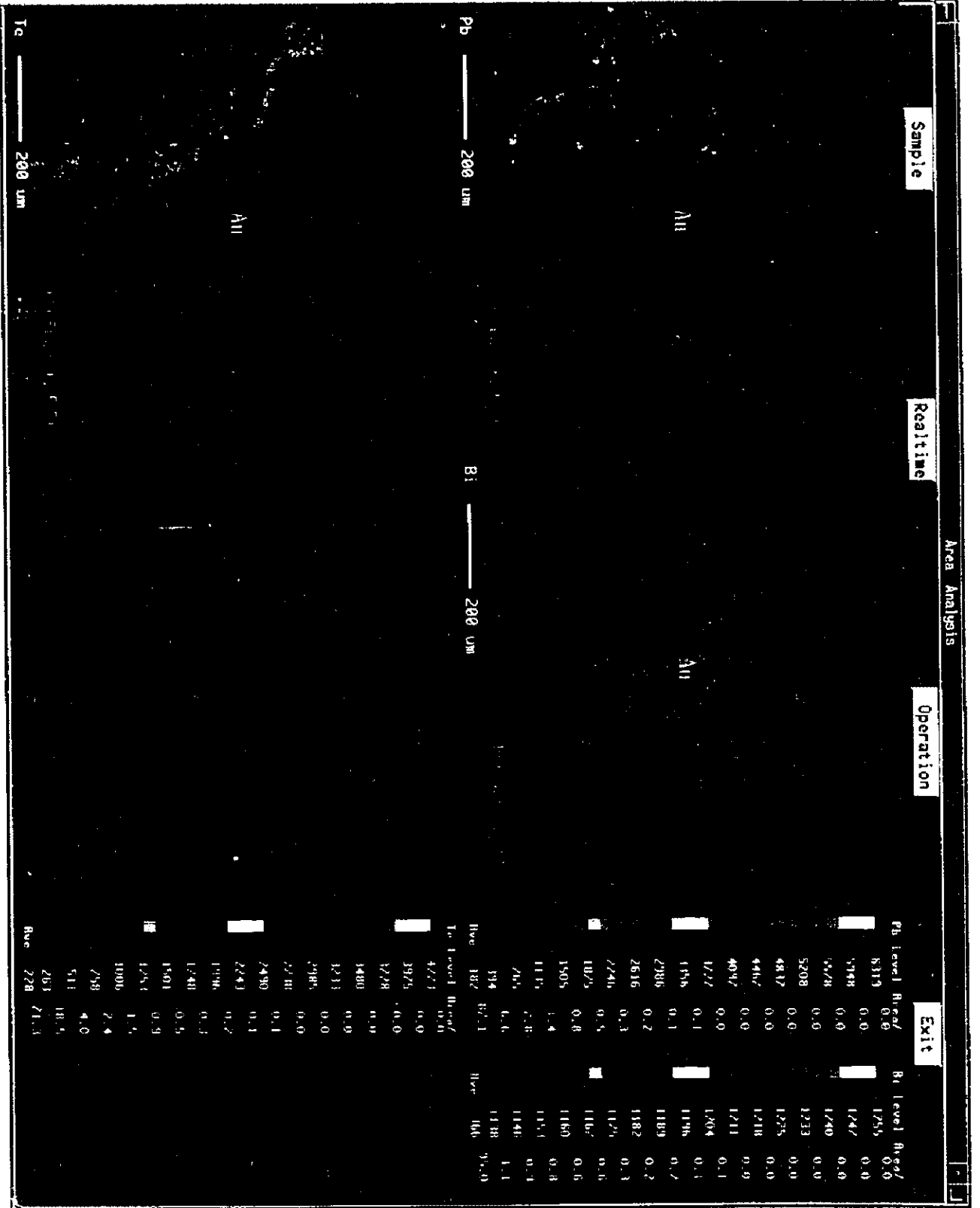


To 200 μm

PB 200 μm

BI 200 μm

Flow 2.0 ml/min





>>> Map Measurement condition. <<<

Group : publicjx3 Sample : jx3pub1  
 Comment : Fig 11 MJMT6 76.20m

Mar 1 01:07 1998

Stage No.11 Position mm X : 17.9128 Y : 57.9845 Z : 11.1905

Accelerating Voltage 25.0 kV  
 Dwell Time 25.0 m sec.  
 No. of Pixels X : 300 Y : 300  
 Pixel size (um) X : 3.00 Y : 3.00  
 Condenser Lens (C,F) 18, 152 Object Lens (C,F) 186, 452  
 Magnification 800  
 Probe Diameter (um) 0  
 Probe Scan Off, Scan Mode PIC , Scan Speed TV  
 Probe Current (A) 2.002E-07

	Elem-1	Elem-2	Elem-3	Elem-4	Elem-5
Elements	As	Ag	Bi	S	Cu
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	La	Ka	Ka
Order	1	1	1	1	1
Channel	1	3	4	3	4
Crystal	TAP	PETJ	LIF	PETJ	LIF
Spect. Pos.	105.1510	133.0600	79.3010	172.1030	107.1200
PHA Gain	32	64	32	64	32
High Volt(V)	1698	1690	1648	1724	1700
Base Level(V)	1.0000	1.2000	1.0000	1.0000	1.0000
Window (V)	9.0000	8.8000	9.0000	9.0000	9.0000
Diff/Int	Int	Int	Int	Int	Int
Max. data	995	2257	145	1873	3882
Min. data	0	0	0	0	0
Ave. data	7	37	16	206	344

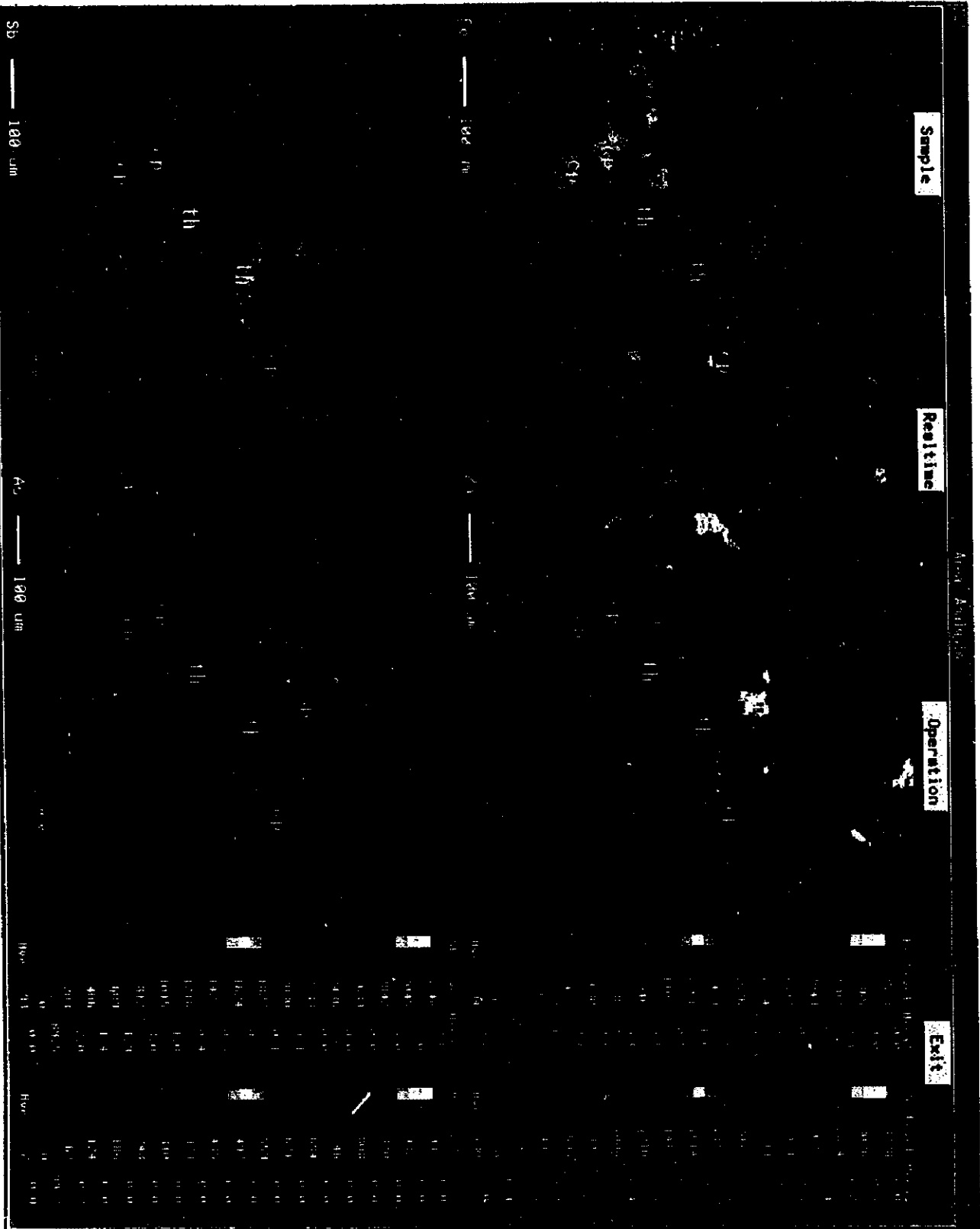
	Elem-6	Elem-7	Elem-8	Elem-9	Elem-10
Elements	Te	Au	Pb	Fe	Sb
Signal	WDS	WDS	WDS	WDS	WDS
X-ray Name	La	La	Ma	Ka	La
Order	1	1	1	1	1
Channel	3	4	3	4	3
Crystal	PETJ	LIF	PETJ	LIF	PETJ
Spect. Pos.	105.3760	88.6110	169.2780	134.6600	110.1960
PHA Gain	64	32	64	32	64
High Volt(V)	1664	1664	1688	1648	1672
Base Level(V)	1.2000	1.2000	1.0000	1.0000	1.2000
Window (V)	8.8000	8.8000	9.0000	9.0000	8.8000
Diff/Int	Int	Int	Int	Int	Int
Max. data	1295	336	915	2523	3248
Min. data	0	0	0	0	0
Ave. data	15	13	4	94	93

Elem-11	
Elements	Zn
Signal	WDS
X-ray Name	Ka
Order	1
Channel	4
Crystal	LIF
Spect. Pos.	99.7760
PHA Gain	32
High Volt(V)	1678
Base Level(V)	1.2000
Window (V)	8.8000
Diff/Int	Int
Max. data	3228
Min. data	0
Ave. data	130









Sample

Realtime

Operation

Exit

Area: 100.00

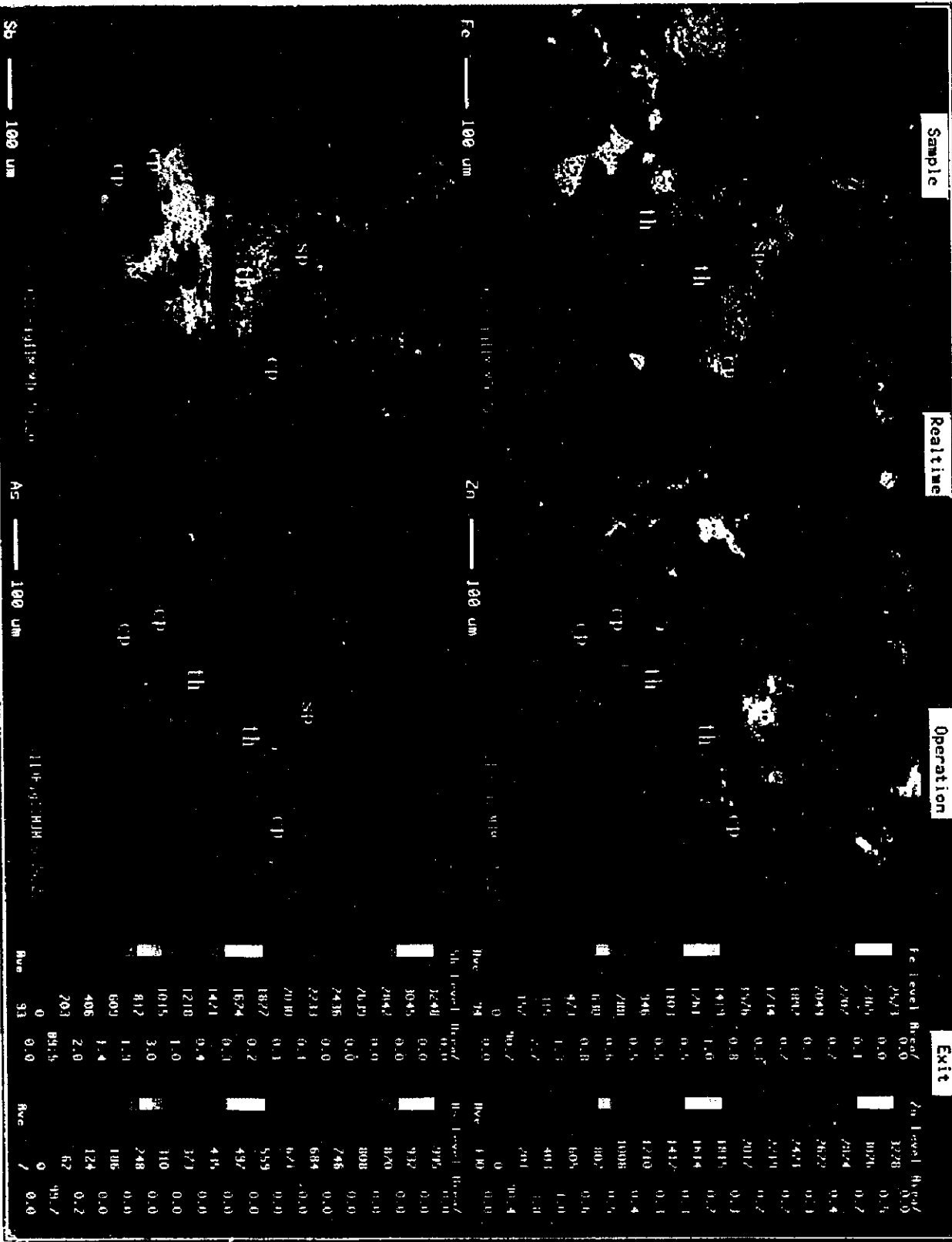
Sb 100 um

Au 100 um

Pos: 11.000000

Pos: 11.000000

Area Analysis



Sample

Realtime

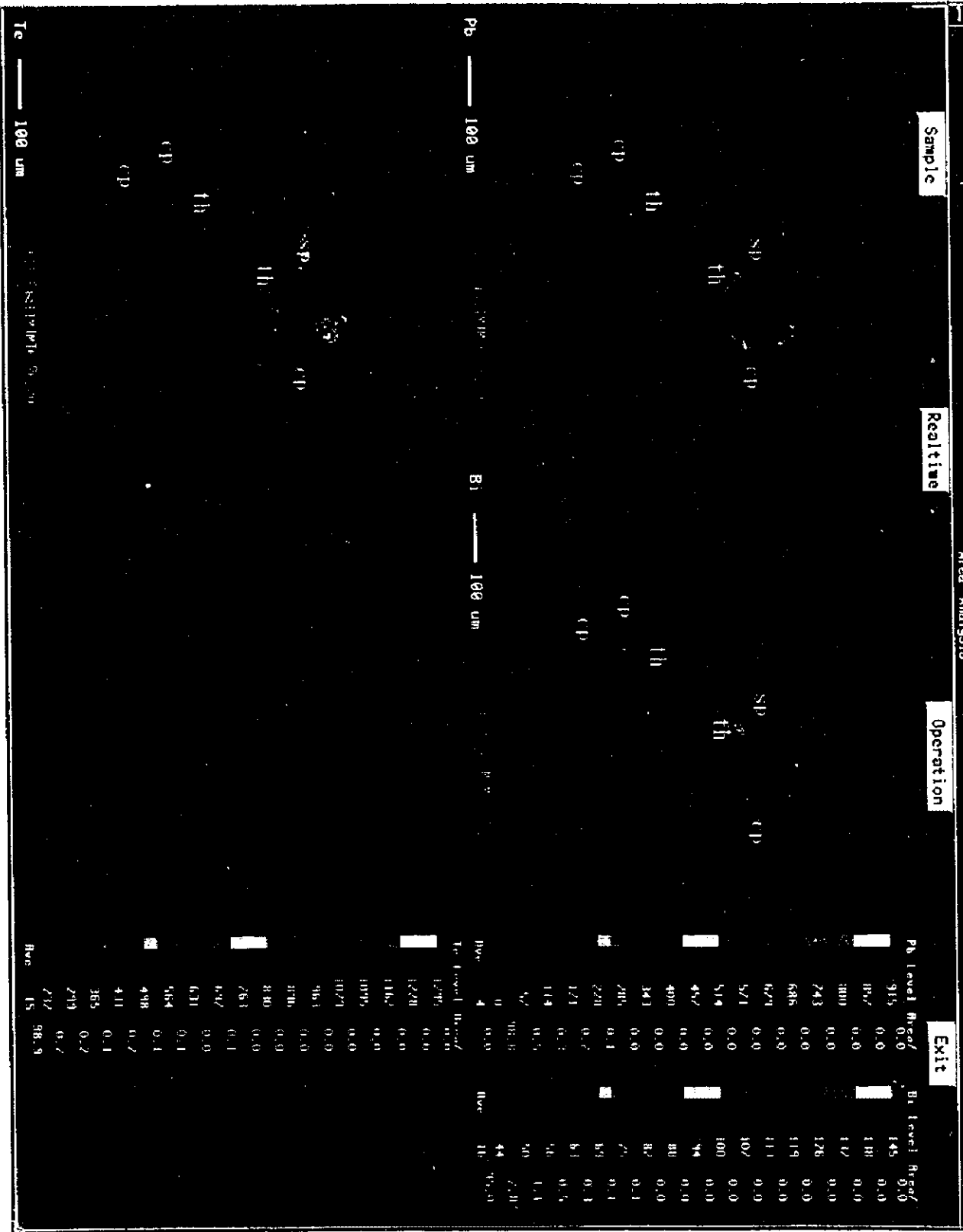
Operation

Exit

Fe Level	Area/	Zn Level	Area/
2523	0.0	3228	0.0
2705	0.0	8026	0.5
2707	0.1	2024	0.2
2049	0.2	2622	0.4
3892	0.3	2471	0.1
1714	0.2	2219	0.2
1576	0.3	2012	0.2
1413	0.8	1815	0.1
1281	1.0	1614	0.2
1101	0.5	1412	0.1
946	0.5	1210	0.1
788	0.5	1008	0.4
630	0.5	802	0.5
471	0.8	605	0.6
315	1.3	401	1.0
157	2.7	201	1.0
0	90.7	0	103.4
0	0.0	0	0.0
74	0.0	180	0.0
1248	0.0	975	0.0
8045	0.0	932	0.0
2862	0.0	870	0.0
7635	0.0	808	0.0
2436	0.0	746	0.0
2233	0.1	684	0.0
7030	0.1	621	0.0
1822	0.2	559	0.0
1624	0.3	497	0.0
1421	0.4	435	0.0
1218	1.0	373	0.0
1015	3.0	310	0.0
812	1.3	248	0.0
609	1.4	186	0.0
406	2.0	124	0.0
201	84.5	62	0.2
0	0.0	0	0.0
93	0.0	7	0.0

11/20/01















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