APPENDICES

Appendix 1-1 Summary of Drilling Operation of MJSU-1

MJSU-1	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Transportation/Preparation	Sep. 4, 1999-Sep. 10, 1999		7	6	1	48.0	63.5
Drilling	Sep. 11, 1999-Sep. 26, 1999		16	14	2	68.0	69.5
Dismantling	Sep. 26, 1999						
Total			23	20	3	116.0	133.0

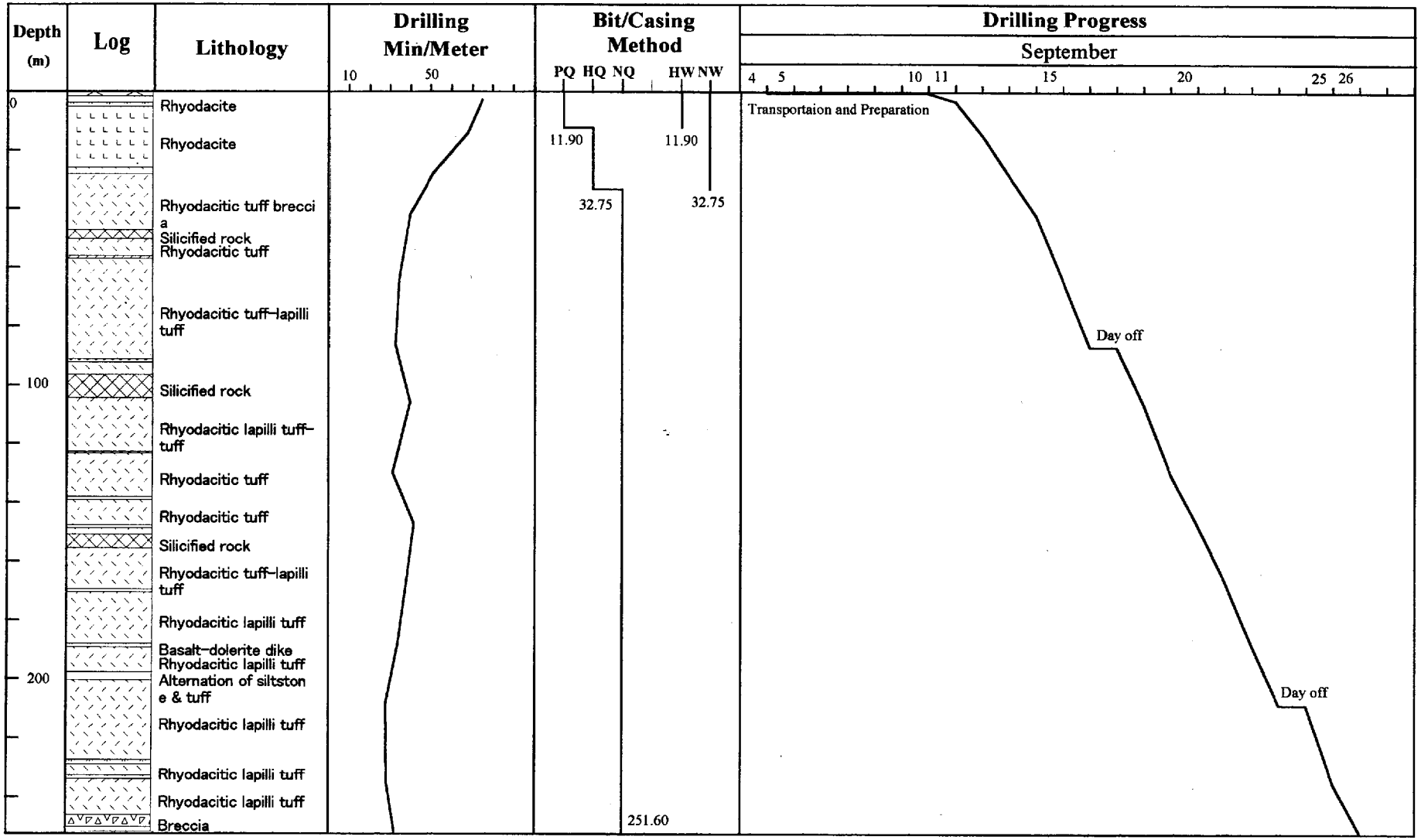
Drilling Length	(m)		(m)	Core Recovery of 100m Hole			
Length Planned	250.00	Overburden	0.00	Depth of Hole	Core Recovery	Cumulative Core Recovery	
Increase/Decrease in Length	1.60	Core Length	251.20	(m)	(%)	(%)	
Length Drilled	251.60	Core Recovery(%)	99.84	0.00 to 100.00	99.60	99.60	
				100.00 to 200.00	100.00	99.80	
Working Hours	(h)	(%)	(%)	200.00 to 251.40	100.00	99.84	
Drilling	154.5	71.5	58.5				
Other Work	60.5	28.0	22.9				
Recovering	1.0	0.5	0.4	**Efficiently of Drilling**			
Subtotal	216.0	100.0	81.8	Total Length/	m	day	m/day
Preparation	16.0		6.1	Drilling Period	251.60	16.0	15.73
Dismantlement			0.0	Total Length/	m	shift	m/shift
Transportation	32.0		12.1	Total Drilling Shifts	251.60	27.0	9.32
Grand Total	264.0		100.0	**Drilling Length/Each Bit(m)**			

Casing Pipe Inserted				Bit Size	Drilling Length	Core Length
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)	PQ	11.90	11.50
				HQ	20.85	20.85
HW	11.9	4.7	100.0	NQ	218.85	218.85
NW	32.8	13.0	100.0			

Appendix 1-2 Record of Drilling Operation of MJSU-1

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling (m)	Drilling (cum m)	Core (m)	Core (cum m)	Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
Sep. 4	Transportation							1	9.0	12.0
5	Transportation							1	9.0	12.0
6	Preparation							1	9.0	12.0
7	Preparation							1	9.0	12.0
8	Preparation							1	9.0	12.0
9	Preparation							1	3.0	3.5
10	Day off									
11	2.80		2.80	2.80	2.80	2.80	1	1	3.0	3.5
12	6.30	5.00	11.30	14.10	10.90	13.70	2	2	5.0	4.5
13	5.30	8.55	13.85	27.95	13.85	27.55	2	2	5.0	5.5
14	4.80	8.95	13.75	41.70	13.75	41.30	2	2	5.0	5.5
15	10.15	12.00	22.15	63.85	22.15	63.45	2	2	5.0	5.5
16	15.00	7.55	22.55	86.40	22.55	86.00	2	2	5.0	5.0
17	Day off		0.00	86.40	0.00	86.00				
18	9.95	9.40	19.35	105.75	19.35	105.35	2	2	5.0	5.0
19	13.00	11.05	24.05	129.80	24.05	129.40	2	2	5.0	5.0
20	8.30	9.10	17.40	147.20	17.40	146.80	2	2	5.0	5.0
21	9.65	9.00	18.65	165.85	18.65	165.45	2	2	5.0	5.0
22	14.00	7.95	21.95	187.80	21.95	187.40	2	2	5.0	5.0
23	17.05	3.40	20.45	208.25	20.45	207.85	2	2	5.0	5.0
24	Day off		0.00	208.25	0.00	207.85				
25	8.60	18.00	26.60	234.85	26.60	234.45	2	2	5.0	5.0
26	13.15	3.60	16.75	251.60	16.75	251.20	2	2	5.0	5.0
Total				251.60		251.20	27	33	116.0	133.0

Appendix 1-3 Drilling Progress of MJSU-1



Appendix 1-4 Summary of Drilling Operation of MJSU-2

MJSU-2	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Preparation	Sep. 9, 1999-Sep. 10, 1999		2	1	1	3.0	3.5
Drilling	Sep. 11, 1999-Sep. 27, 1999		17	15	2	73.0	76.5
Dismantling	Sep. 27, 1999		0	0	0	0.0	0.0
Total			19	16	3	76.0	80.0

Drilling Length	(m)		(m)
Length Planned	250.00	Overburden	0.00
Increase/Decrease in Length	0.00	Core Length	250.00
Length Drilled	250.00	Core Recovery(%)	100.00

Working Hours	(h)	(%)	(%)
Drilling	146.2	63.0	60.9
Other Work	79.4	34.2	33.1
Recovering	6.5	2.8	2.7
Subtotal	232.1	100.0	96.7
Preparation	8.0		3.3
Dismantlement			0.0
Transportation	0.0		0.0
Grand Total	240.1		100.0

Core Recovery of 100m Hole			
Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)	
0.00 to 100.00	100.00	100.00	
100.00 to 200.00	100.00	100.00	
200.00 to 250.00	100.00	100.00	

Efficiently of Drilling			
Total Length/ Drilling Period	m	day	m/day
	250.00	16.5	15.15
Total Length/ Total Drilling Shifts	m	shift	m/shift
	250.00	29.0	8.62

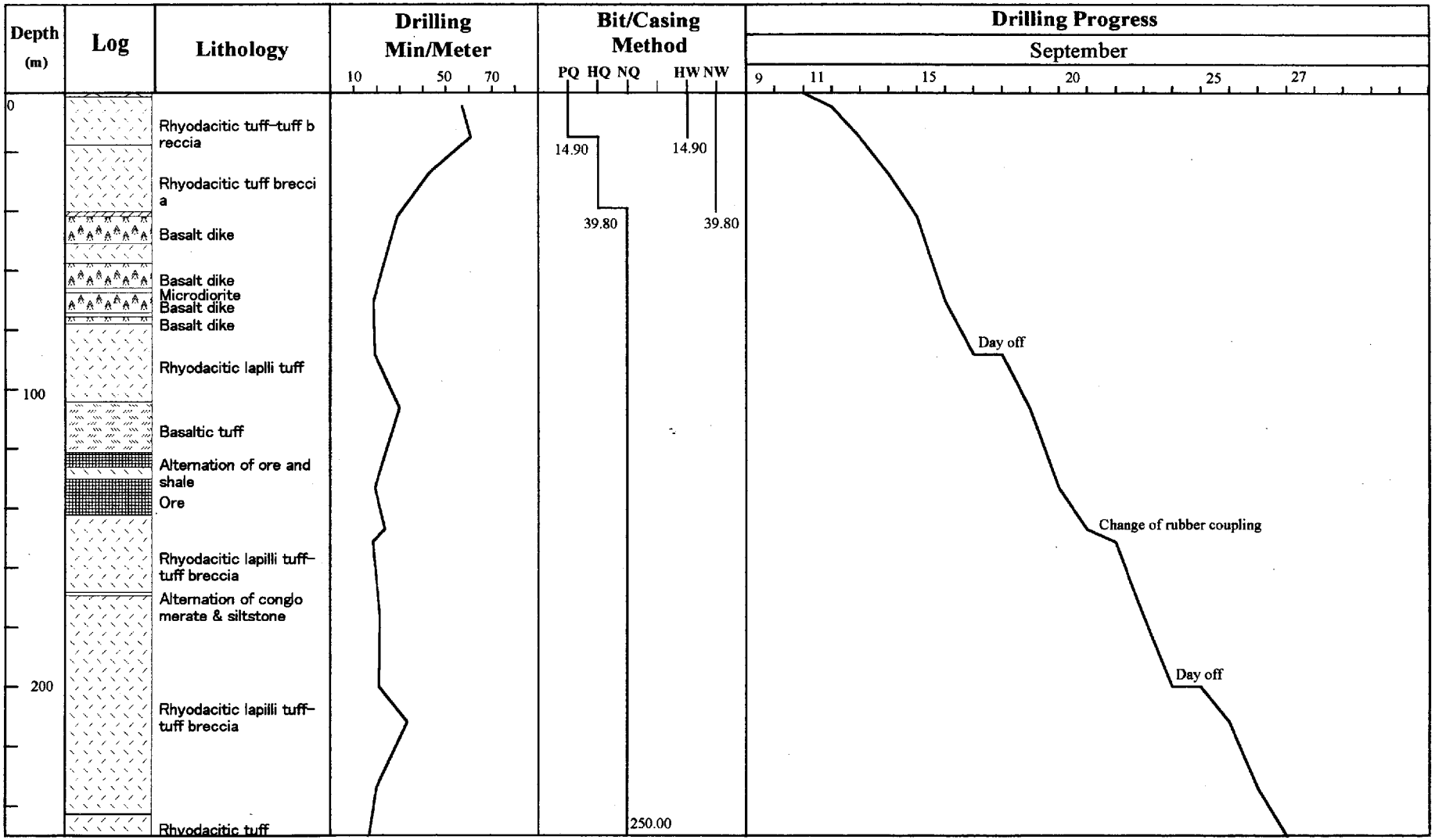
Casing Pipe Inserted			
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)
HW	14.9	6.0	100.0
NW	39.8	15.9	100.0

Drilling Length/Each Bit(m)		
Bit Size	Drilling Length	Core Length
PQ	14.90	14.90
HQ	24.90	24.90
NQ	210.20	210.20

Appendix 1-5 Record of Drilling Operation of MJSU-2

Date	Drilling Length		Drilling Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling (m)	Drilling (cum m)	Core (m)	Core (cum m)	Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
Sep. 9	Preparation							1	3.0	3.5
10	Day off									
11	4.70		4.70	4.70	4.70	4.70	1	1	3.0	4.5
12	5.45	4.75	10.20	14.90	10.20	14.90	2	2	5.0	5.5
13	3.00	9.30	12.30	27.20	12.30	27.20	2	2	5.0	5.5
14	11.70	2.70	14.40	41.60	14.40	41.60	2	2	5.0	5.5
15	13.05	15.60	28.65	70.25	28.65	70.25	2	2	5.0	5.5
16	12.00	5.90	17.90	88.15	17.90	88.15	2	2	5.0	5.0
17	Day off		0.00	88.15	0.00	88.15				
18	7.05	11.05	18.10	106.25	18.10	106.25	2	2	5.0	5.0
19	12.00	14.85	26.85	133.10	26.85	133.10	2	2	5.0	5.0
20	11.65	2.25	13.90	147.00	13.90	147.00	2	2	5.0	5.0
21	0.00	4.25	4.25	151.25	4.25	151.25	2	2	5.0	5.0
22	10.50	14.50	25.00	176.25	25.00	176.25	2	2	5.0	5.0
23	14.00	9.75	23.75	200.00	23.75	200.00	2	2	5.0	5.0
24	Day off		0.00	200.00	0.00	200.00				
25	8.25	3.60	11.85	211.85	11.85	211.85	2	2	5.0	5.0
26	10.00	12.30	22.30	234.15	22.30	234.15	2	2	5.0	5.0
27	15.85	Casing take-out	15.85	250.00	15.85	250.00	2	2	5.0	5.0
Total				250.00		250.00	29	30	76.0	80.0

Appendix 1-6 Drilling Progress of MJSU-2



Appendix 1-7 Summary of Drilling Operation of MJSU-3

MJSU-3	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Preparation	Oct. 13, 1999		1.0	1.0	0.0	5.0	5.0
Drilling	Oct. 14, 1999-Oct. 28, 1999		14.5	12.5	2.0	65.0	65.0
Dismantling	Oct. 28, 1999		0.0	0.0	0.0	0.0	0.0
Total			15.5	13.5	2.0	70.0	70.0

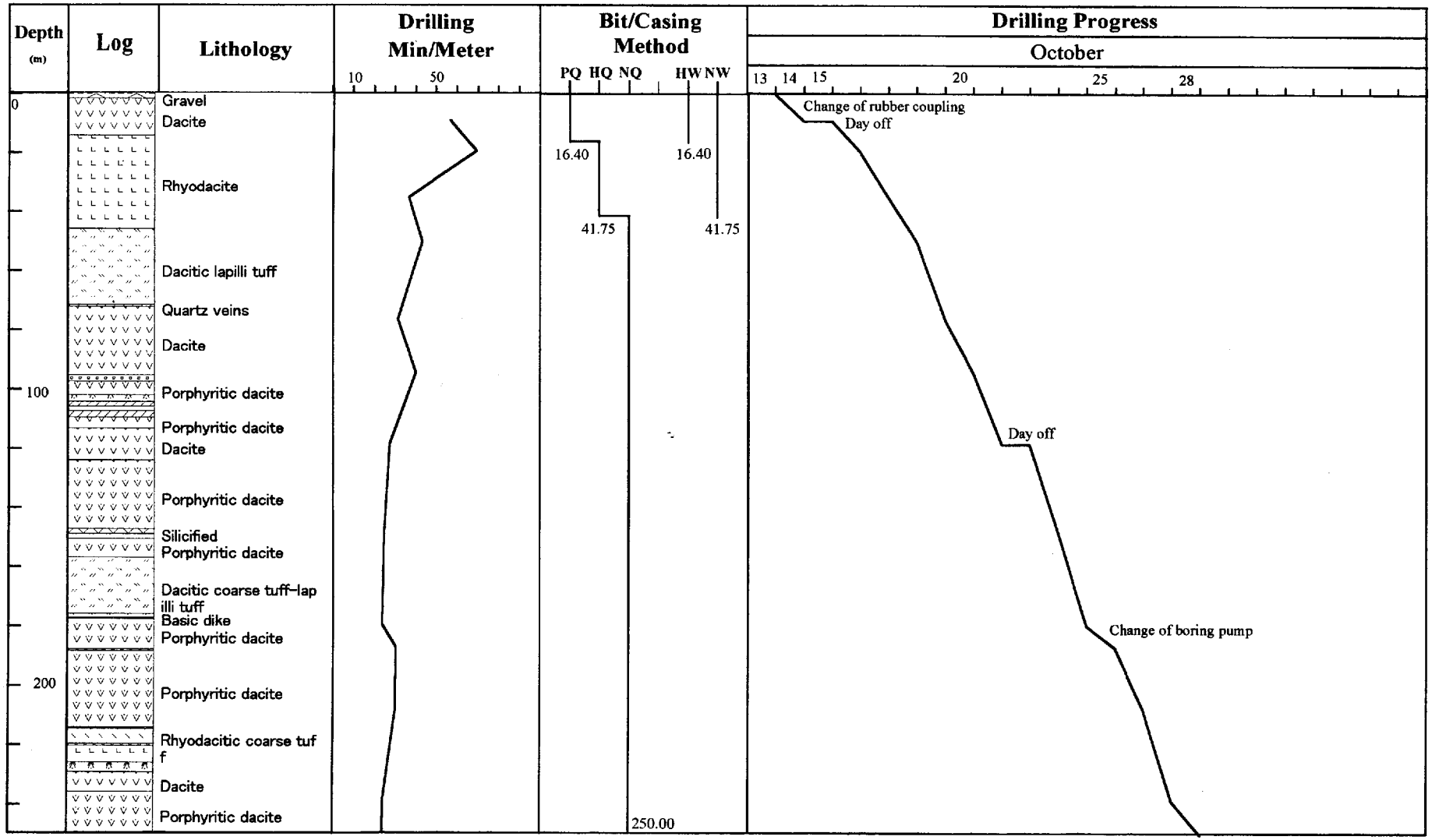
Drilling Length	(m)		(m)	Core Recovery of 100m Hole		
Length Planned	250.00	Overburden	0.00	Depth of Hole	Core Recovery	Cumulative Core Recovery
Increase/Decrease in Length	0.00	Core Length	250.00	(m)	(%)	(%)
Length Drilled	250.00	Core Recovery(%)	100.00	0.00 to 100.00	100.00	100.00
				100.00 to 200.00	100.00	100.00
Working Hours	(h)	(%)	(%)	200.00 to 250.00	100.00	100.00
Drilling	134.0	61.2	59.8			
Other Work	61.2	27.9	27.3			
Recovering	23.8	10.9	10.6	Efficiently of Drilling		
Subtotal	219.0	100.0	97.8	Total Length/	m	day / m/day
Preparation	5.0		2.2	Drilling Period	250.00	14.5 / 17.24
Dismantlement			0.0	Total Length/	m	shift / m/shift
Transportation	0.0		0.0	Total Drilling Shifts	250.00	25.0 / 10.00
Grand Total	224.0		100.0	Drilling Length/Each Bit(m)		

Casing Pipe Inserted				Bit Size	Drilling Length	Core Length
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)	PQ	16.40	16.40
				HQ	25.35	25.35
HW	16.4	6.6	100.0	NQ	208.25	208.25
NW	41.8	16.7	100.0	"		

Appendix 1-8 Record of Drilling Operation of MJSU-3

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling (m)	Drilling (cum m)	Core (m)	Core (cum m)	Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
Oct. 13	Preparation	Repairing	0.00	0.00	0.00	0.00	0	2	5.0	5.0
14	3.65	5.60	9.25	9.25	9.25	9.25	2	2	5.0	5.0
15	Day off		0.00	9.25	0.00	9.25				
16	5.55	4.85	10.40	19.65	10.40	19.65	2	2	5.0	5.0
17	7.75	7.85	15.60	35.25	15.60	35.25	2	2	5.0	5.0
18	6.50	8.45	14.95	50.20	14.95	50.20	2	2	5.0	5.0
19	12.45	13.85	26.30	76.50	26.30	76.50	2	2	5.0	5.0
20	7.80	10.20	18.00	94.50	18.00	94.50	2	2	5.0	5.0
21	15.45	8.55	24.00	118.50	24.00	118.50	2	2	5.0	5.0
22	Day off		0.00	118.50	0.00	118.50				
23	10.85	19.15	30.00	148.50	30.00	148.50	2	2	5.0	5.0
24	19.50	11.70	31.20	179.70	31.20	179.70	2	2	5.0	5.0
25	7.35	Repairing	7.35	187.05	7.35	187.05	1	2	5.0	5.0
26	10.80	10.00	20.80	207.85	20.80	207.85	2	2	5.0	5.0
27	12.65	18.25	30.90	238.75	30.90	238.75	2	2	5.0	5.0
28	11.25	Casing take-out	11.25	250.00	11.25	250.00	2	2	5.0	5.0
Total				250.00		250.00	25	28	70.0	70.0

Appendix 1-9 Drilling Progress of MJSU-3



Appendix 1-10 Summary of Drilling Operation of MJSU-4

MJSU-4	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Preparation	Sep. 27		0.0	0.0	0.0	0.0	0.0
Drilling	Sep. 27, 1999-Oct. 13, 1999		17.0	15.0	2.0	75.0	75.0
Dismantling	Oct. 13, 1999		0.0	0.0	0.0	0.0	0.0
Total			17.0	15.0	2.0	75.0	75.0

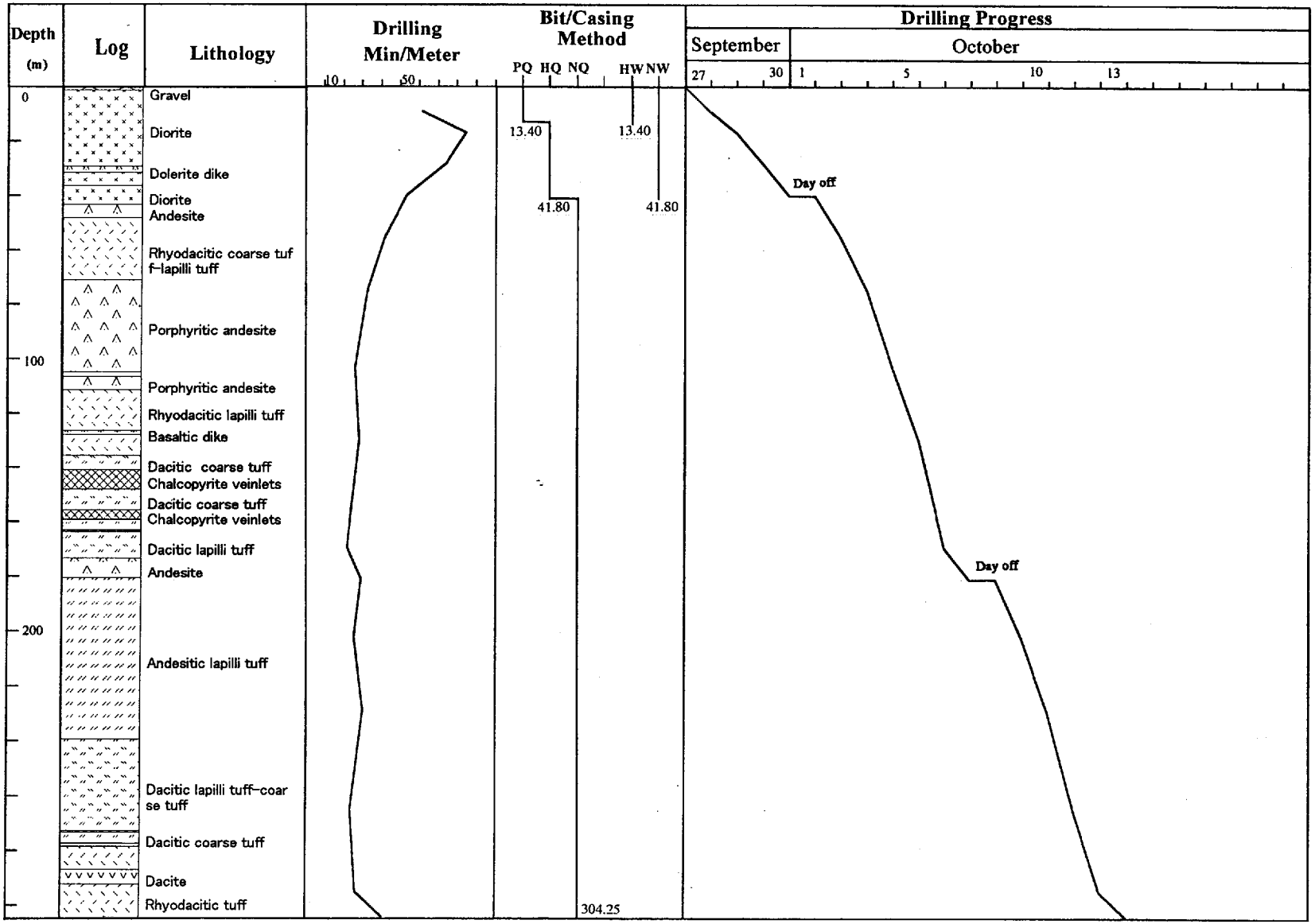
Drilling Length	(m)		(m)	Core Recovery of 100m Hole		
Length Planned	250.00	Overburden	0.00	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)
Increase/Decrease in Length	54.25	Core Length	302.85			
Length Drilled	304.25	Core Recovery(%)	99.54	0.00 to 100.00	98.60	98.60
				100.00 to 200.00	100.00	99.30
Working Hours	(h)	(%)	(%)	200.00 to 300.00	100.00	99.53
Drilling	168.3	71.5	70.1	200.00 to 304.25	100.00	99.54
Other Work	62.1	26.4	25.9			
Recovering	4.9	2.1	2.0	**Efficiently of Drilling**		
Subtotal	235.3	100.0	98.0	Total Length/ Drilling Period	m / 304.25	day / 17.0	m/day / 17.90
Preparation	4.8		2.0				
Dismantlement			0.0	Total Length/ Total Drilling Shifts	m / 304.25	shift / 30.0	m/shift / 10.14
Transportation	0.0		0.0				
Grand Total	240.1		100.0	**Drilling Length/Each Bit(m)**			

Casing Pipe Inserted				Bit Size	Drilling Length	Core Length
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)	PQ	13.40	13.40
				HQ	28.40	27.00
HW	13.4	4.4	100.0	NQ	262.45	262.45
NW	41.8	13.7	100.0	"		

Appendix 1-11 Record of Drilling Operation of MJSU-4

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling (m)	Drilling (cum m)	Core (m)	Core (cum m)	Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
Sep. 27	2.50	6.55	9.05	9.05	9.05	9.05	2	2	5.0	5.0
28	4.00	3.80	7.80	16.85	7.80	16.85	2	2	5.0	5.0
29	5.00	6.15	11.15	28.00	11.15	28.00	2	2	5.0	5.0
30	6.20	5.60	11.80	39.80	10.40	38.40	2	2	5.0	5.0
Oct. 1	Day off		0.00	39.80	0.00	38.40				
2	3.35	12.15	15.50	55.30	15.50	53.90	2	2	5.0	5.0
3	12.85	6.70	19.55	74.85	19.55	73.45	2	2	5.0	5.0
4	11.45	17.00	28.45	103.30	28.45	101.90	2	2	5.0	5.0
5	16.00	10.50	26.50	129.80	26.50	128.40	2	2	5.0	5.0
6	18.50	21.00	39.50	169.30	39.50	167.90	2	2	5.0	5.0
7	5.45	6.20	11.65	180.95	11.65	179.55	2	2	5.0	5.0
8	Day off		0.00	180.95	0.00	179.55				
9	9.30	12.05	21.35	202.30	21.35	200.90	2	2	5.0	5.0
10	12.85	13.65	26.50	228.80	26.50	227.40	2	2	5.0	5.0
11	17.00	19.20	36.20	265.00	36.20	263.60	2	2	5.0	5.0
12	18.30	11.75	30.05	295.05	30.05	293.65	2	2	5.0	5.0
13	8.10	1.10	9.20	304.25	9.20	302.85	2	2	5.0	5.0
Total				304.25		302.85	30	30	75.0	75.0

Appendix 1-12 Drilling Progress of MJSU-4



Appendix 1-13 Summary of Drilling Operation of MJSU-5

MJSU-5	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Preparation	Sep. 28, 1999		0.0	0.0	0.0	0.0	0.0
Drilling	Sep. 28, 1999-Oct. 12, 1999		15.0	13.0	2.0	65.0	65.0
Dismantling	Oct. 12, 1999		0.0	0.0	0.0	0.0	0.0
Total			15.0	13.0	2.0	65.0	65.0

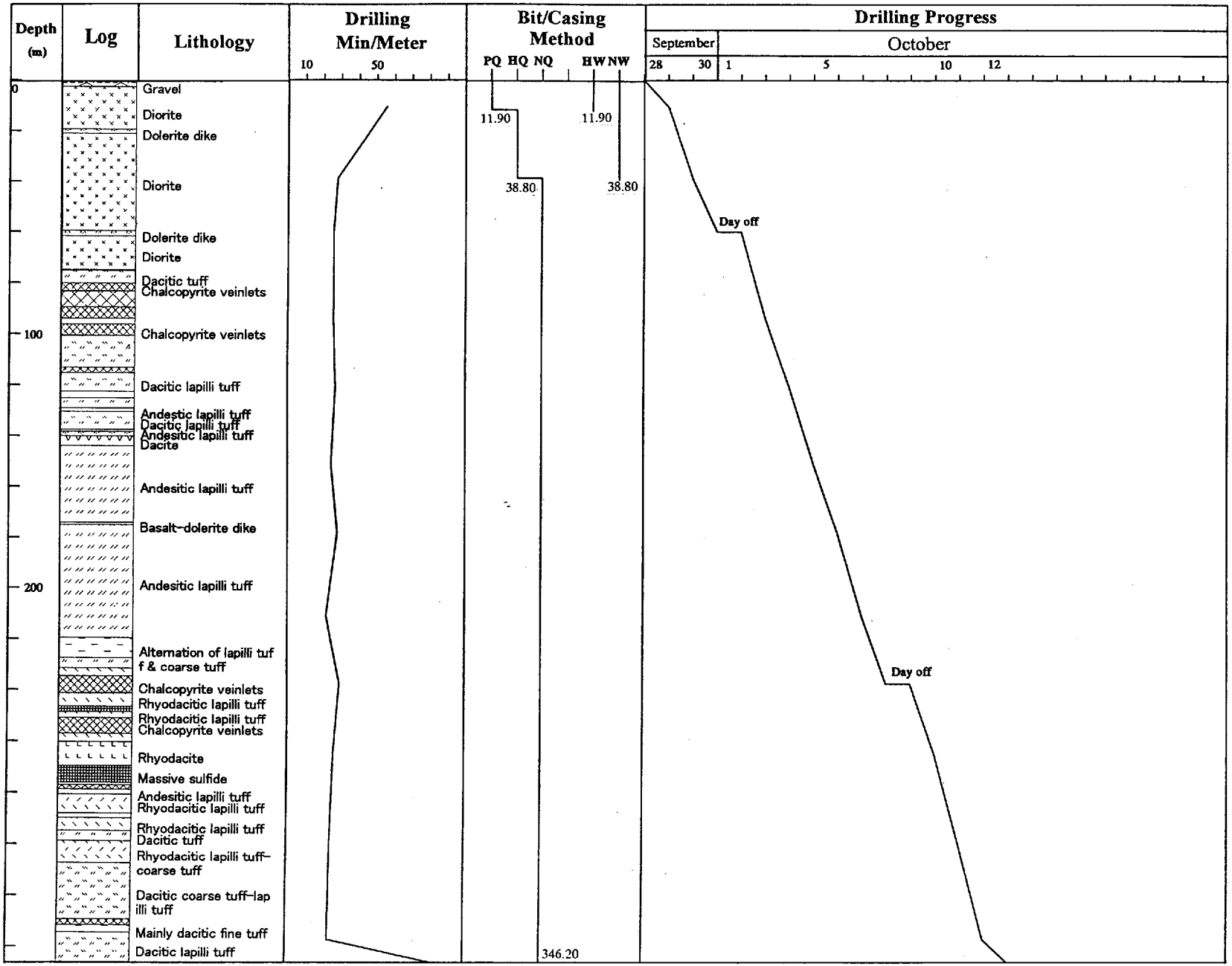
Drilling Length	(m)		(m)	Core Recovery of 100m Hole		
Length Planned	250.00	Overburden	0.00	Depth of Hole	Core Recovery	Cumulative Core Recovery
Increase/Decrease in Length	96.20	Core Length	346.20	(m)	(%)	(%)
Length Drilled	346.20	Core Recovery(%)	100.00	0.00 to 100.00	100.00	100.00
				100.00 to 200.00	100.00	100.00
Working Hours	(h)	(%)	(%)	200.00 to 300.00	100.00	100.00
Drilling	160.6	78.9	77.2	200.00 to 346.20	100.00	100.00
Other Work	42.0	20.6	20.2			
Recovering	1.0	0.5	0.5	**Efficiently of Drilling**		
Subtotal	203.6	100.0	97.8	Total Length/	m	day / m/day
Preparation	4.5		2.2	Drilling Period	346.20	15.0 / 23.08
Dismantlement			0.0	Total Length/	m	shift / m/shift
Transportation	0.0		0.0	Total Drilling Shifts	346.20	26.0 / 13.32
Grand Total	208.1		100.0	**Drilling Length/Each Bit(m)**		

Casing Pipe Inserted				Bit Size	Drilling Length	Core Length
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)	PQ	11.90	11.90
				HQ	26.90	26.90
HW	11.9	3.4	100.0	NQ	307.40	307.40
NW	38.8	11.2	100.0	"		

Appendix 1-14 Record of Drilling Operation of MJSU-5

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1	Shift 2	Drilling		Core		Drilling	Total	Engineer	Worker
	(m)	(m)	(m)	(cum m)	(m)	(cum m)	(Shift)	(Shift)	(man)	(man)
Sep. 28	3.40	7.15	10.55	10.55	10.55	10.55	2	2	5.0	5.0
29	7.90	20.35	28.25	38.80	28.25	38.80	2	2	5.0	5.0
30	8.60	12.60	21.20	60.00	21.20	60.00	2	2	5.0	5.0
Oct. 1	Day off		0.00	60.00	0.00	60.00				
2	18.65	15.55	34.20	94.20	34.20	94.20	2	2	5.0	5.0
3	14.00	13.00	27.00	121.20	27.00	121.20	2	2	5.0	5.0
4	18.00	12.20	30.20	151.40	30.20	151.40	2	2	5.0	5.0
5	13.80	13.00	26.80	178.20	26.80	178.20	2	2	5.0	5.0
6	17.45	15.35	32.80	211.00	32.80	211.00	2	2	5.0	5.0
7	12.20	14.30	26.50	237.50	26.50	237.50	2	2	5.0	5.0
8	Day off		0.00	237.50	0.00	237.50				
9	18.50	9.05	27.55	265.05	27.55	265.05	2	2	5.0	5.0
10	13.45	21.55	35.00	300.05	35.00	300.05	2	2	5.0	5.0
11	19.15	18.00	37.15	337.20	37.15	337.20	2	2	5.0	5.0
12	9.00	Casing take-out	9.00	346.20	9.00	346.20	2	2	5.0	5.0
Total				346.20		346.20	26	26	65.0	65.0

Appendix 1-15 Drilling Progress of MJSU-5



Appendix 1-16 Summary of Drilling Operation of MJSU-6

MJSU-6	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Preparation	Oct. 14, 1999		0.0	0.0	0.0	0.0	0.0
Drilling	Oct. 14, 1999-Oct. 26, 1999		13.0	11.0	2.0	55.0	55.0
Dismantling	Oct. 26, 1999		0.0	0.0	0.0	0.0	0.0
Total			13.0	11.0	2.0	55.0	55.0

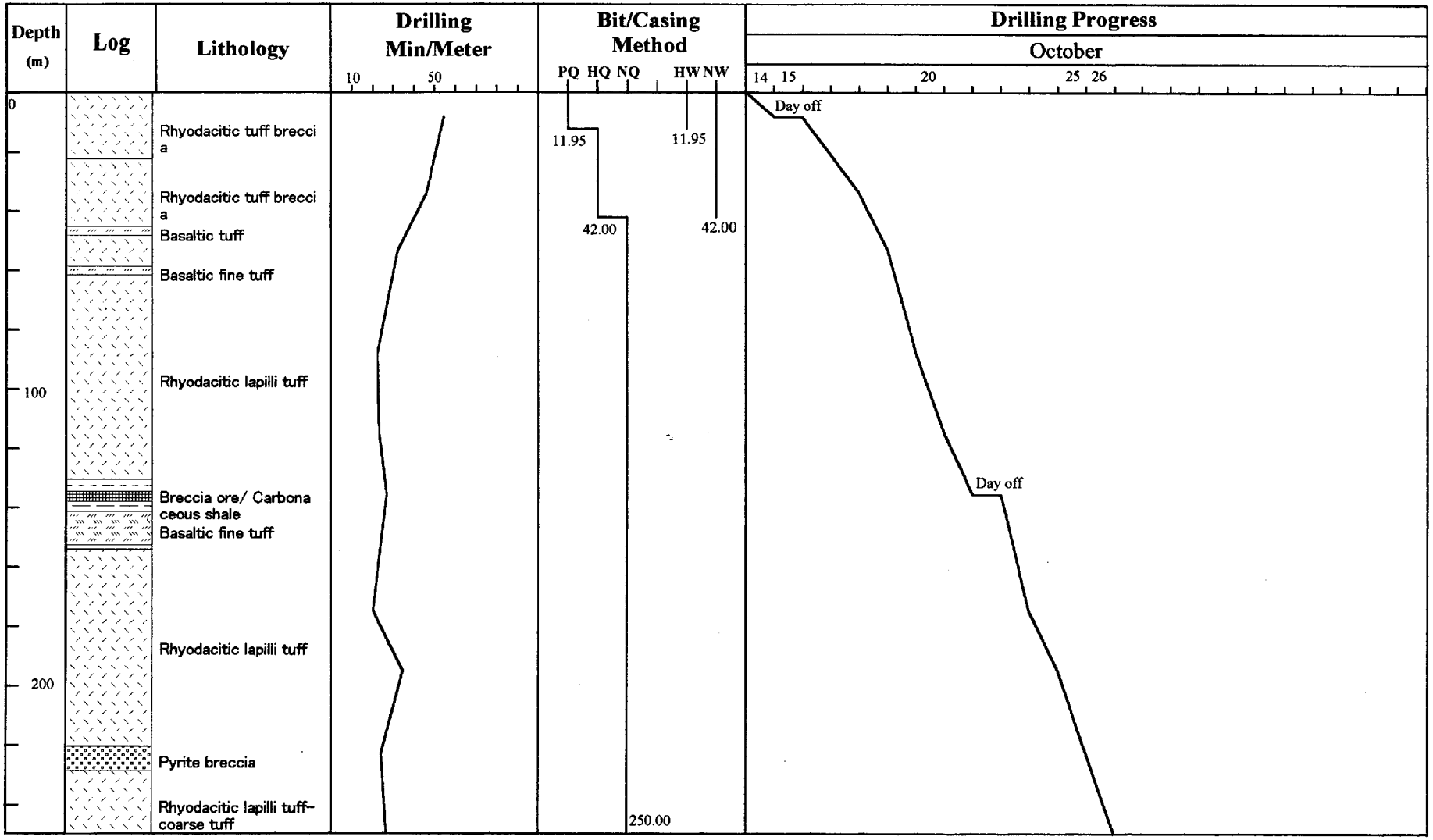
Drilling Length	(m)		(m)	Core Recovery of 100m Hole		
Length Planned	250.00	Overburden	0.00	Depth of Hole	Core Recovery	Cumulative Core Recovery
Increase/Decrease in Length	0.00	Core Length	250.00	(m)	(%)	(%)
Length Drilled	250.00	Core Recovery(%)	100.00	0.00 to 100.00	100.00	100.00
				100.00 to 200.00	100.00	100.00
Working Hours	(h)	(%)	(%)	200.00 to 250.0	100.00	100.00
Drilling	119.5	69.9	67.9			
Other Work	47.0	27.5	26.7			
Recovering	4.5	2.6	2.6	**Efficiently of Drilling**		
Subtotal	171.0	100.0	97.2	Total Length/	m	day / m/day
Preparation	5.0		2.8	Drilling Period	250.00	13.0 / 19.23
Dismantlement	0.0		0.0	Total Length/	m	shift / m/shift
Transportation	0.0		0.0	Total Drilling Shifts	250.00	22.0 / 11.36
Grand Total	176.0		100.0	**Drilling Length/Each Bit(m)**		

Casing Pipe Inserted				Bit Size	Drilling Length	Core Length
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)	PQ	11.95	11.95
				HQ	30.05	30.05
HW	12.0	4.8	100.0	NQ	208.00	208.00
NW	42.0	16.8	100.0	"		

Appendix 1-17 Record of Drilling Operation of MJSU-6

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1	Shift 2	Drilling		Core		Drilling	Total	Engineer	Worker
	(m)	(m)	(m)	(cum m)	(m)	(cum m)	(Shift)	(Shift)	(man)	(man)
Oct. 14	3.45	4.80	8.25	8.25	8.25	8.25	2	2	5.0	5.0
15	Day off		0.00	8.25	0.00	8.25				
16	5.50	7.35	12.85	21.10	12.85	21.10	2	2	5.0	5.0
17	7.05	6.00	13.05	34.15	13.05	34.15	2	2	5.0	5.0
18	7.85	11.30	19.15	53.30	19.15	53.30	2	2	5.0	5.0
19	19.60	15.10	34.70	88.00	34.70	88.00	2	2	5.0	5.0
20	18.00	9.15	27.15	115.15	27.15	115.15	2	2	5.0	5.0
21	11.85	8.75	20.60	135.75	20.60	135.75	2	2	5.0	5.0
22	Day off		0.00	135.75	0.00	135.75				
23	22.75	16.30	39.05	174.80	39.05	174.80	2	2	5.0	5.0
24	10.20	10.15	20.35	195.15	20.35	195.15	2	2	5.0	5.0
25	9.85	18.00	27.85	223.00	27.85	223.00	2	2	5.0	5.0
26	16.50	10.50	27.00	250.00	27.00	250.00	2	2	5.0	5.0
Total				250.00		250.00	22	22	55.0	55.0

Appendix 1-18 Drilling Progress of MJSU-6



Appendix 1-19 Summary of Drilling Operation of MJSU-7

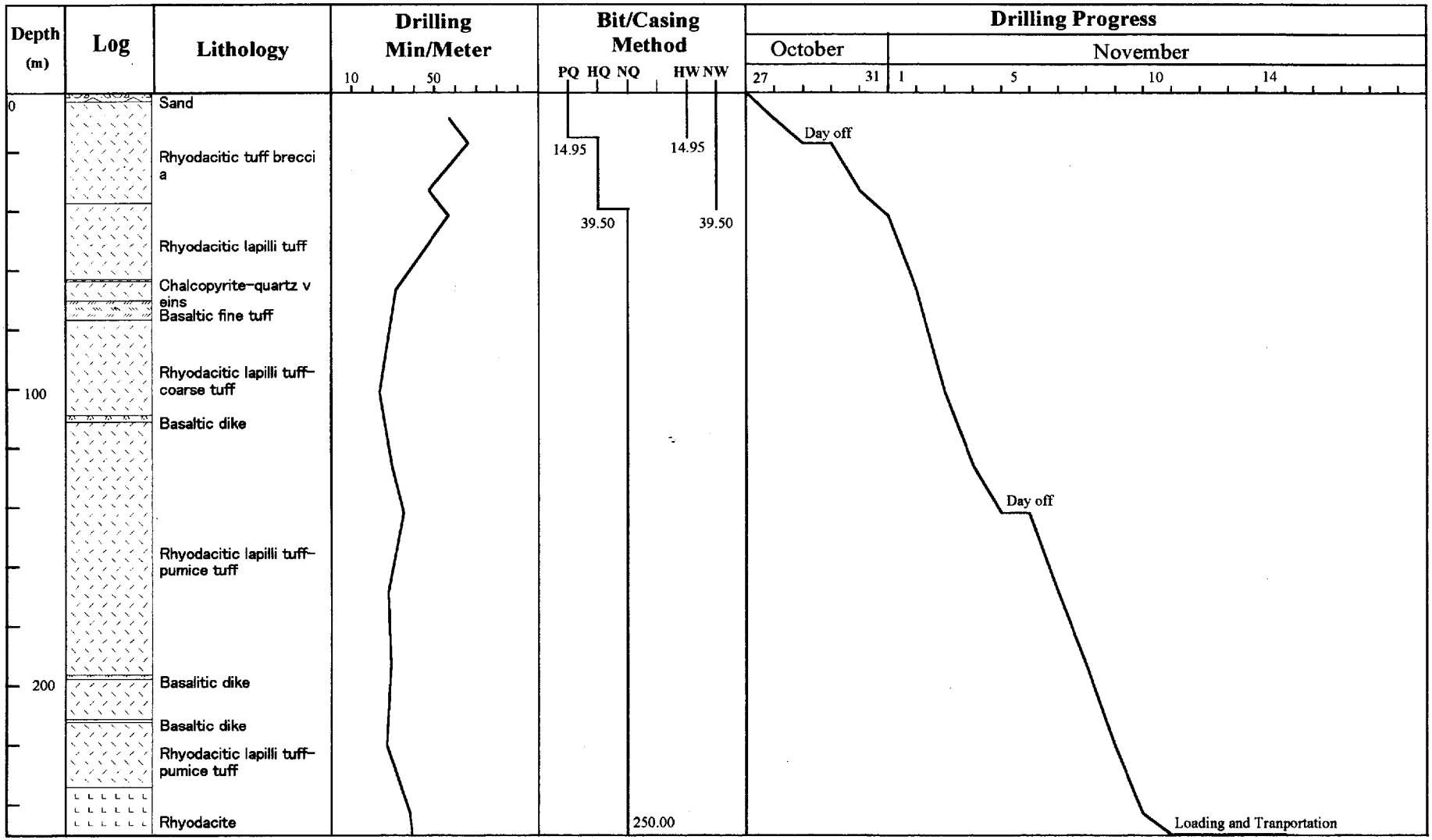
MJSU-6	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Preparation	Oct. 27, 1999		0.0	0.0	0.0	0.0	0.0
Drilling	Oct. 27, 1999-Sep. 10, 1999		15.0	13.0	2.0	70.0	70.0
Dismantling/Transport	Sep. 11, 1999-Sep.14, 1999		4.0	3.0	1.0	10.0	10.0
Total			19.0	16.0	3.0	80.0	80.0
Drilling Length	(m)		(m)	**Core Recovery of 100m Hole**			
Length Planned	250.00	Overburden	0.00	Depth of Hole	Core Recovery	Cumulative Core Recovery	
Increase/Decrease in Length	0.00	Core Length	249.65	(m)	(%)	(%)	
Length Drilled	250.00	Core Recovery(%)	99.86	0.00 to 100.00	99.65	99.65	
				100.00 to 200.00	100.00	99.83	
Working Hours	(h)	(%)	(%)	200.00 to 250.0	100.00	99.86	
Drilling	140.8	68.6	60.7				
Other Work	64.3	31.4	27.7				
Recovering	0.0	0.0	0.0	**Efficiently of Drilling**			
Subtotal	205.1	100.0	88.4	Total Length/	m	day	m/day
Preparation	3.0		1.3	Drilling Period	250.00	15.0	16.67
Dismantlement	24.0		10.3	Total Length/	m	shift	m/shift
Transportation	0.0		0.0	Total Drilling Shifts	250.00	26.0	9.62
Grand Total	232.1		100.0	**Drilling Length/Each Bit(m)**			

Casing Pipe Inserted				Bit Size	Drilling Length	Core Length
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)	PQ	14.95	14.95
HW	15.0	6.0	100.0	HQ	24.55	24.20
NW	39.5	15.8	100.0	NQ	210.50	210.50
				"		

Appendix 1-20 Record of Drilling Operation of MJSU-7

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1	Shift 2	Drilling		Core		Drilling	Total	Engineer	Worker
	(m)	(m)	(m)	(cum m)	(m)	(cum m)	(Shift)	(Shift)	(man)	(man)
Oct. 27	1.60	7.10	8.70	8.70	8.70	8.70	2	2	5.0	5.0
28	5.55	2.85	8.40	17.10	8.05	16.75	2	2	5.0	5.0
29	Day off		0.00	17.10	0.00	16.75				
30	8.00	7.95	15.95	33.05	15.95	32.70	2	2	5.0	5.0
31	6.45	2.05	8.50	41.55	8.50	41.20	2	2	5.0	5.0
Nov. 1	14.95	10.05	25.00	66.55	25.00	66.20	2	2	5.0	5.0
2	19.45	15.20	34.65	101.20	34.65	100.85	2	2	5.0	5.0
3	15.80	8.85	24.65	125.85	24.65	125.50	2	2	5.0	5.0
4	10.05	5.95	16.00	141.85	16.00	141.50	2	2	5.0	5.0
5	Day off		0.00	141.85	0.00	141.50				
6	13.65	13.00	26.65	168.50	26.65	168.15	2	2	5.0	5.0
7	12.50	12.00	24.50	193.00	24.50	192.65	2	2	5.0	5.0
8	13.00	14.00	27.00	220.00	27.00	219.65	2	2	5.0	5.0
9	12.00	11.05	23.05	243.05	23.05	242.70	2	2	5.0	5.0
10	6.95	Casing take-out	6.95	250.00	6.95	249.65	2	2	5.0	5.0
11	Loading							1	5.0	5.0
12	Day off									
13	Loading							1	5.0	5.0
14	Transportation							1	5.0	5.0
Total				250.00		249.65	26	29	80.0	80.0

Appendix 1-21 Drilling Progress of MJSU-7



Appendix 1-22 Summary of Drilling Operation of MJSU-8

MJSU-6	Survey Period					Total Man-day	
Operation	Period		Day	Work Day	Off Day	Engineer	Worker
Preparation	Oct. 29, 1999		1.5	0.5	1.0	2.5	2.5
Drilling	Oct. 30, 1999-Sep. 13, 1999		14.5	13.5	1.0	62.5	62.5
Dismantling/Transportation	Sep. 14, 1999-Sep. 16, 1999		3.0	3.0	0.0	15.0	15.0
Total			19.0	17.0	2.0	80.0	80.0

Drilling Length	(m)		(m)
Length Planned	250.00	Overburden	0.00
Increase/Decrease in Length	0.00	Core Length	249.40
Length Drilled	250.00	Core Recovery(%)	99.76

Working Hours	(h)	(%)	(%)
Drilling	135.8	61.7	56.6
Other Work	83.3	37.8	34.7
Recovering	1.0	0.5	0.4
Subtotal	220.1	100.0	91.7
Preparation	4.0		1.7
Dismantlement/Transportation	16.0		6.7
Grand Total	240.1		100.0

Core Recovery of 100m Hole			
Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)	
0.00 to 100.00	99.40	99.40	
100.00 to 200.00	100.00	99.70	
200.00 to 250.0	100.00	99.76	

Efficiently of Drilling			
Total Length/ Drilling Period	m	day	m/day
	250.00	14.5	17.24
Total Length/ Total Drilling Shifts	m	shift	m/shift
	250.00	27.0	9.26

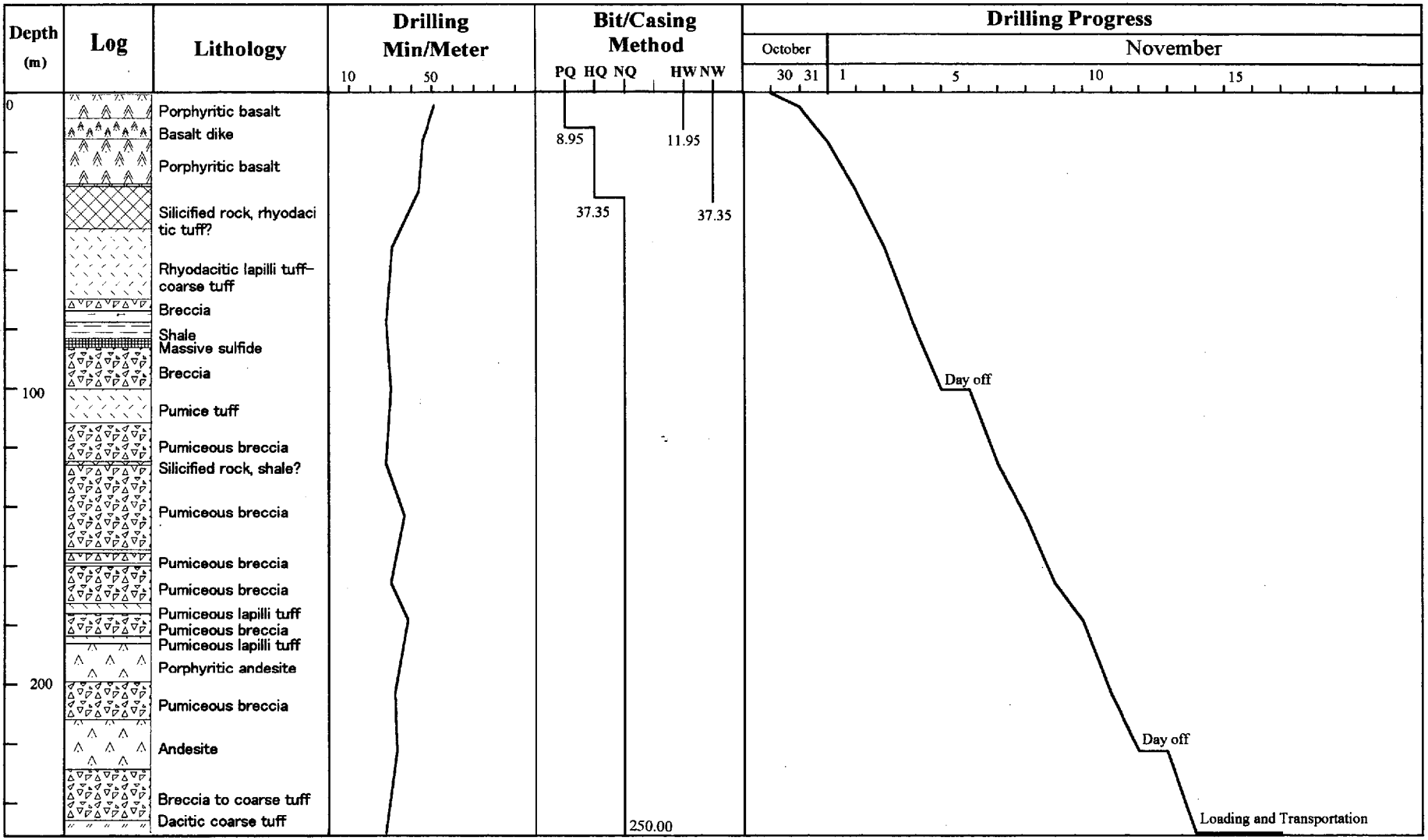
Casing Pipe Inserted			
Size	Meterage (m)	Meterage/Drilling Length ×100(%)	Recovery (%)
HW	12.0	4.8	100.0
NW	37.4	14.9	100.0

Drilling Length/Each Bit(m)		
Bit Size	Drilling Length	Core Length
PQ	8.95	8.95
HQ	28.40	27.80
NQ	212.65	211.65
〃		

Appendix 1-23 Record of Drilling Operation of MJSU-8

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1	Shift 2	Drilling		Core		Drilling	Total	Engineer	Worker
	(m)	(m)	(m)	(cum m)	(m)	(cum m)	(Shift)	(Shift)	(man)	(man)
Oct. 29	Day off									
30	Preparation	4.70	4.70	4.70	4.70	4.70	1	2	5.0	5.0
31	6.55	5.40	11.95	16.65	11.35	16.05	2	2	5.0	5.0
Sep. 1	8.35	8.25	16.60	33.25	16.60	32.65	2	2	5.0	5.0
2	4.10	15.05	19.15	52.40	19.15	51.80	2	2	5.0	5.0
3	18.00	7.40	25.40	77.80	25.40	77.20	2	2	5.0	5.0
4	13.60	9.00	22.60	100.40	22.60	99.80	2	2	5.0	5.0
5	Day off		0.00	100.40		99.80				
6	10.60	14.55	25.15	125.55	25.15	124.95	2	2	5.0	5.0
7	7.70	10.05	17.75	143.30	17.75	142.70	2	2	5.0	5.0
8	11.10	11.40	22.50	165.80	22.50	165.20	2	2	5.0	5.0
9	5.50	7.10	12.60	178.40	12.60	177.80	2	2	5.0	5.0
10	15.00	9.50	24.50	202.90	24.50	202.30	2	2	5.0	5.0
11	9.50	10.10	19.60	222.50	19.60	221.90	2	2	5.0	5.0
12	Day off		0.00	222.50		221.90				
13	7.70	19.80	27.50	250.00	27.50	249.40	2	2	5.0	5.0
14	Casing take-out	Casing take-out					2	2	5.0	5.0
15	Loading							1	5.0	5.0
16	Transportation							1	5.0	5.0
Total				250.00		249.40	27	30	80.0	80.0

Appendix 1-24 Drilling Progress of MJSU-8



Appendix 1-25 Drilling Meterage of Diamond Bit Used

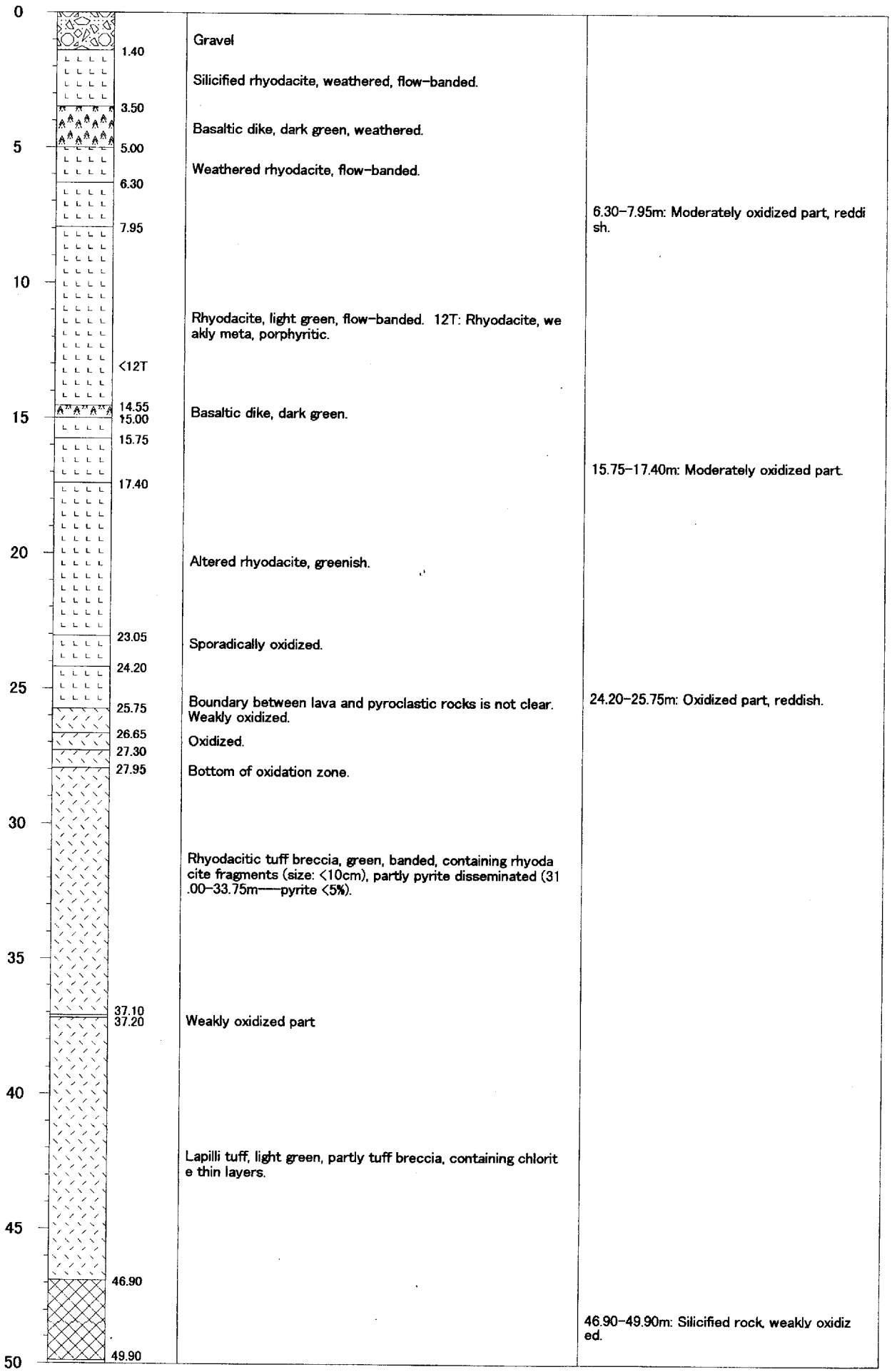
Item	Size	Bit No.	Drilling Meterage／Each Bit								Total (m)
			MJSU-1	MJSU-4	MJSU-6	MJSU-7	MJSU-2	MJSU-5	MJSU-3	MJSU-8	
Diamond Bit	PQ	#162468	10.30								10.30
		#5557-2	1.60	9.05	4.80						15.45
		#162469		4.35	3.45						7.80
		#845581			3.70						3.70
		#845579				1.60					1.60
		#843664				8.60					8.60
		#162465				4.75					4.75
		#5557-3					14.90	11.90	12.75	7.45	47.00
		#843657							3.65	1.50	5.15
		Subtotal	11.90	13.40	11.95	14.95	14.90	11.90	16.40	8.95	104.35
		Average									11.59
	HQ	#9283361	20.85	14.05							34.90
		#9283405		4.30							4.30
		#845581		3.45							3.45
		#81588		6.60	2.95						9.55
		#9283398			27.10	0.55					27.65
		#83341				9.55					9.55
		#18773				14.45					14.45
		#9283401					24.90	26.90	25.35	17.10	94.25
		#83535								11.30	11.30
		Subtotal	20.85	28.40	30.05	24.55	24.90	26.90	25.35	28.40	209.40
		Average									23.27
	NQ	#9284332	97.20	6.70							103.90
		#8459261	11.05								11.05
		#9284330	45.00								45.00
		#8459264	65.60	26.35							91.95
		#8459222		115.40							115.40
		#8459263		104.80							104.80
		#9284224		9.20	93.60	77.50					180.30
		#8459227			52.10						52.10
		#186532			8.30	31.20					39.50
		#8459256			54.00					2.95	56.95
		#9284763				24.85				36.20	61.05
		#186544				76.95					76.95
		#9284335					55.40	26.80			82.20
		#8459262					20.50				20.50
		#845976					38.50				38.50
		#9284334					57.65	24.90			82.55
		#8459259					38.15				38.15
		#9284709						76.00			76.00
		#9284331						11.70			11.70
		#8459257						77.80			77.80
		#9284208						81.20	87.60		168.80
		#9284268						9.00			9.00
		#9284225							78.50		78.50
		#9284717							42.15	69.85	112.00
		#9284329								22.95	22.95
		#186531								35.65	35.65
		#186547								20.00	20.00
		#8459192								25.05	25.05
		Subtotal	218.85	262.45	208.00	210.50	210.20	307.40	208.25	212.65	1,838.30
		Average									65.65
		Total	251.60	304.25	250.00	250.00	250.00	346.20	250.00	250.00	2,152.05

Appendix 1-26 Consumables Used

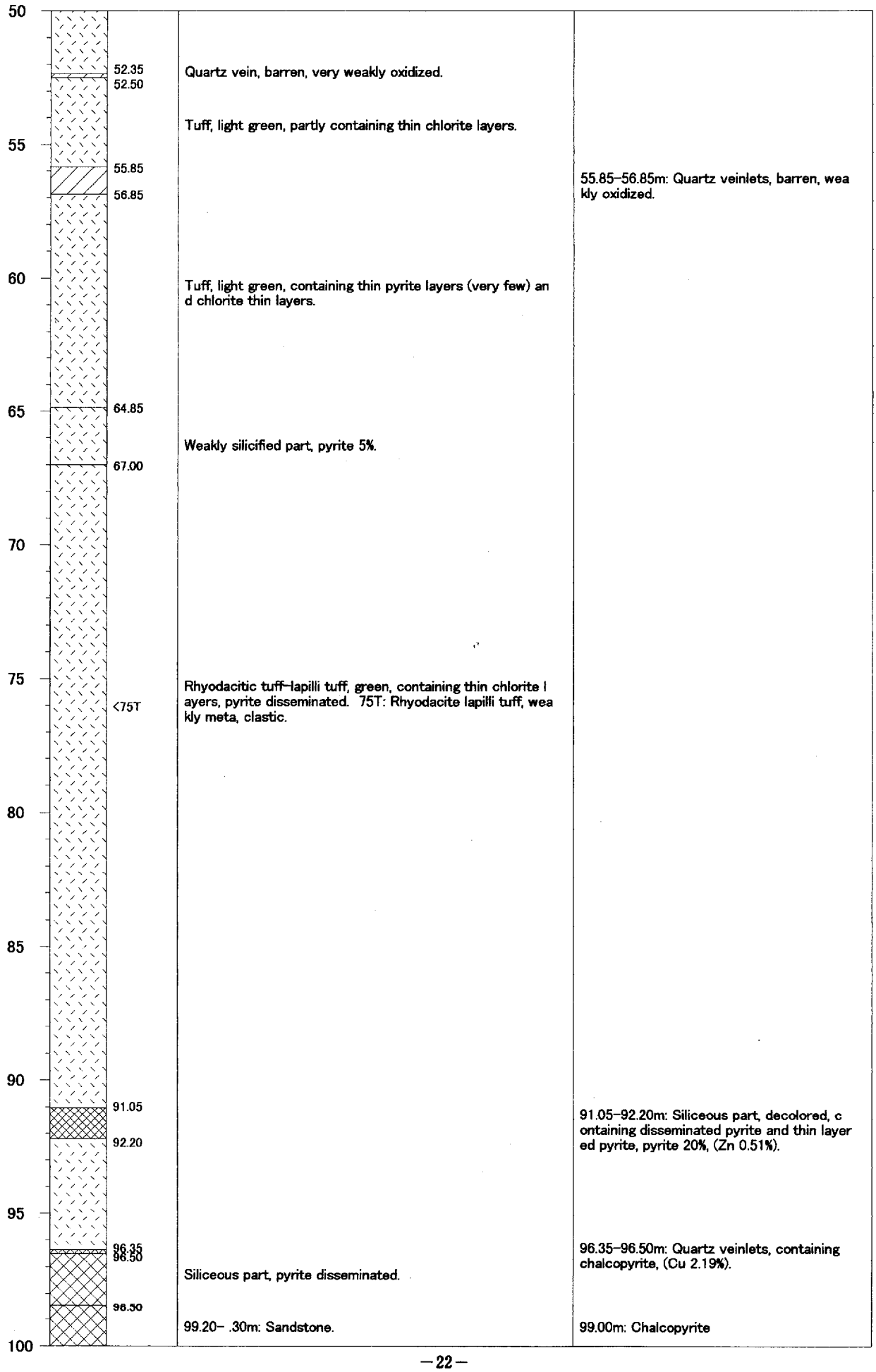
Expendable Items	Spec.	Unit	Drill Hole No.								Total Amount
			MJSU-1	MJSU-2	MJSU-3	MJSU-4	MJSU-5	MJSU-6	MJSU-7	MJSU-8	
Diesel Fuel		l	1,055	1,020	1,005	1,140	1,125	990	1,115	1,100	8,550
Gasoline		l	218	211	265	283	233	216	250	285	1,961
Hydraulic. Oil		l	38	70	40	15	30		20	40	253
Engine Oil		l	48	43	34	39	45	23	45	68	345
Gear Oil		l	2	7	9	5	9	6	2	6	46
Grease		kg	4	13	10	8	21	5	3	13	77
Soda		kg								2	2
Polymer GS550		kg	128	105	123	147	130	115	114	117	979
GS20		l	8	35		4	34		9	4	94
Lubtub		kg				2				9	11
Solcut		l	89	40	23	45	40	56	76	75	444
Stop Plus		kg			6			3	5	5	19
Bentonite		kg								50	50
Diamond Bit	PQ	pcs						1			1
Diamond Bit	HQ	pcs				2			2		4
Diamond Bit	NQ	pcs	2		2	3	3	3	3	3	19
Reaming Shell	NQ	pcs	1		1	1			1	1	5
Core Lifter	HQ	pcs				3	1				4
Core Lifter	NQ	pcs	7	1		3	5	5	6	9	36
Core Lifter Case	HQ	pcs				1					1
Core Lifter Case	NQ	pcs		1		1	2		1	3	8
Core Barrel	NQ	pcs				2					2
Outer Tube	NQ	pcs	1								1
Outer Tube Barrel	HQ	pcs							1		1
Temperature Gauge		pcs	1								1
Oil Pressure Gauge		pcs	1								1
Shaft Off Valve	NQ	pcs	2	1							3
Stop Ring	NQ	pcs	1								1
Adapter Coupling	NQ	pcs	1		1	2		1	1		6
Locking Coupling	NQ	pcs			1			1	1		3
Engine Belt		pcs	2								2
Barrel Outer	NQ	pcs			1						1
Stabilizer	NQ	pcs			1						1
Landing Ring	NQ	pcs			1						1
Latch Spilling	NQ	pcs			1						1
Inner Tube Head	NQ	pcs			1						1
Water Swivel		pcs				1				1	2
Pipe Wrench		pcs					1	4			5
Drill Rod	NQ	pcs					1			1	2
Rubber Coupling		pcs		1		1					2

Appendix 1-27 Geological Logs of MJSU-1 to MJSU-8

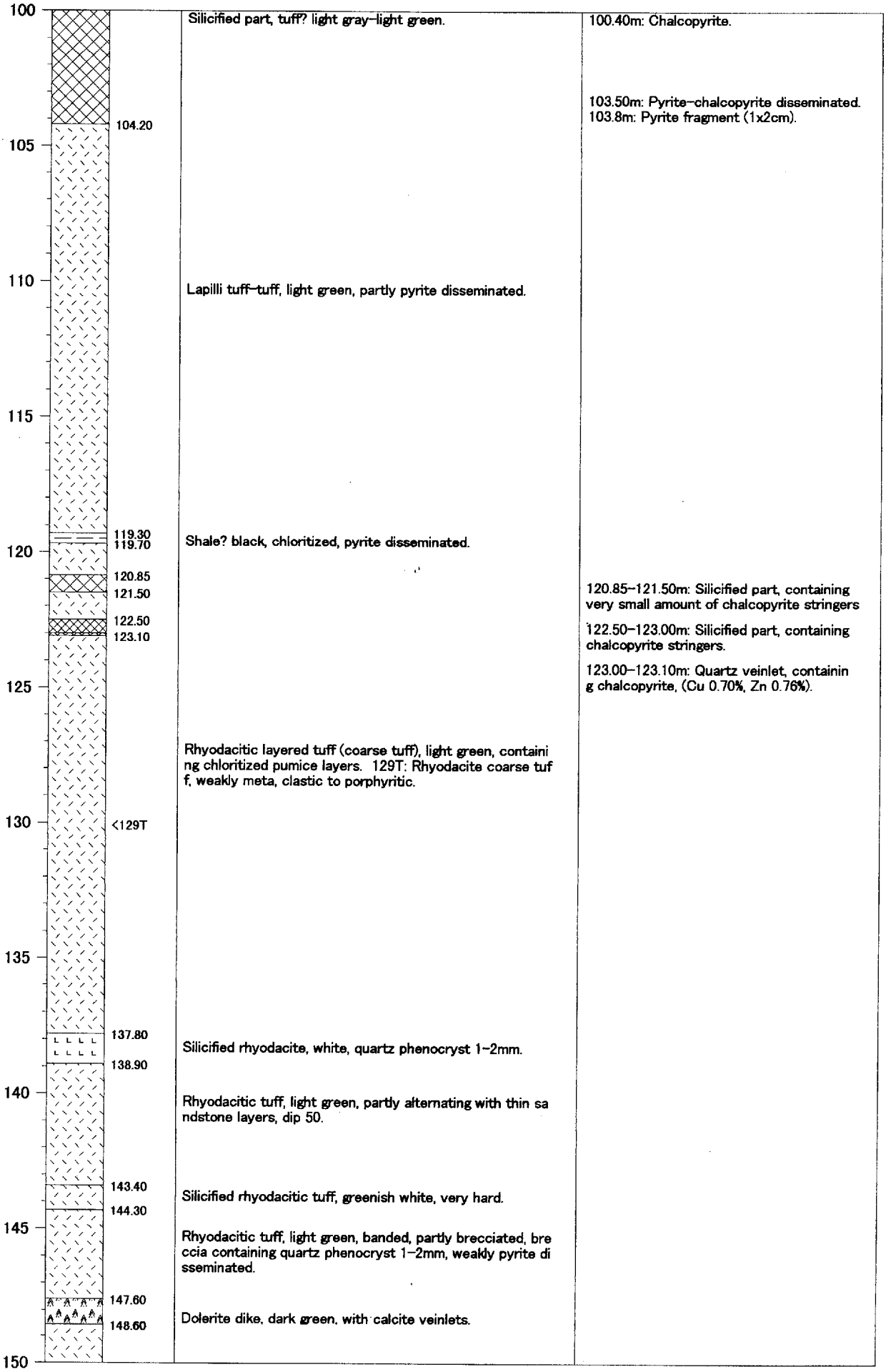
Drill Hole No.:	MJSU-1	Easting:	E 708.478	
Date Started:	September 11	Northing:	N 2,617.501	
Date Completed:	September 26	Elevation(mSL):	955	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-1	Easting:	E 708.478	
Date Started:	September 11	Northing:	N 2,617.501	
Date Completed:	September 26	Elevation(mSL):	955	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-1	Easting:	E 708.478	
Date Started:	September 11	Northing:	N 2,617.501	
Date Completed:	September 26	Elevation(mSL):	955	Drilled by DMMR/BRGM

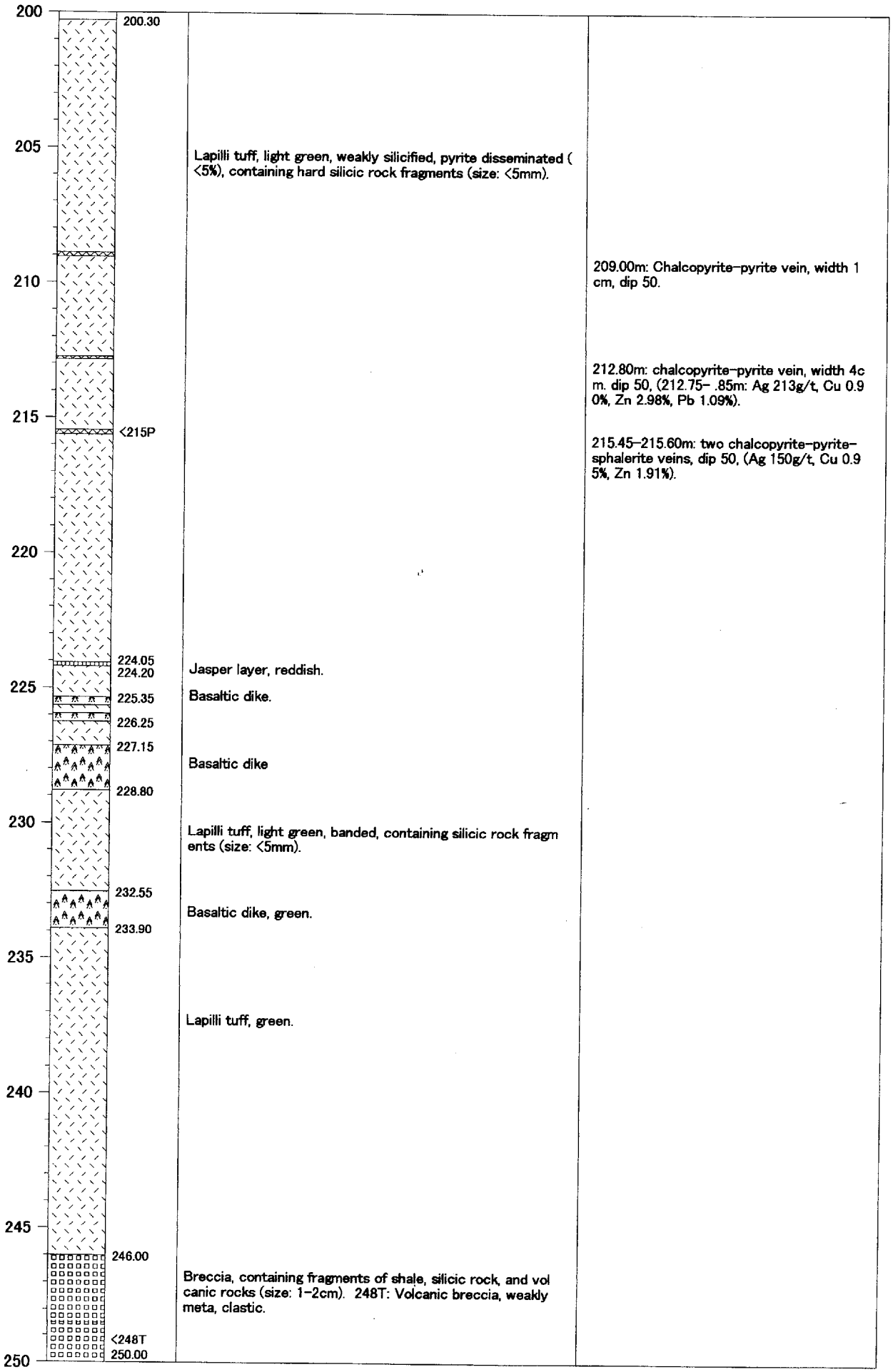


Drill Hole No.:	MJSU-1	Easting:	E 708.478
Date Started:	September 11	Northing:	N 2,617.501
Date Completed:	September 26	Elevation(mSL):	955

Drilled by DMMR/BRGM

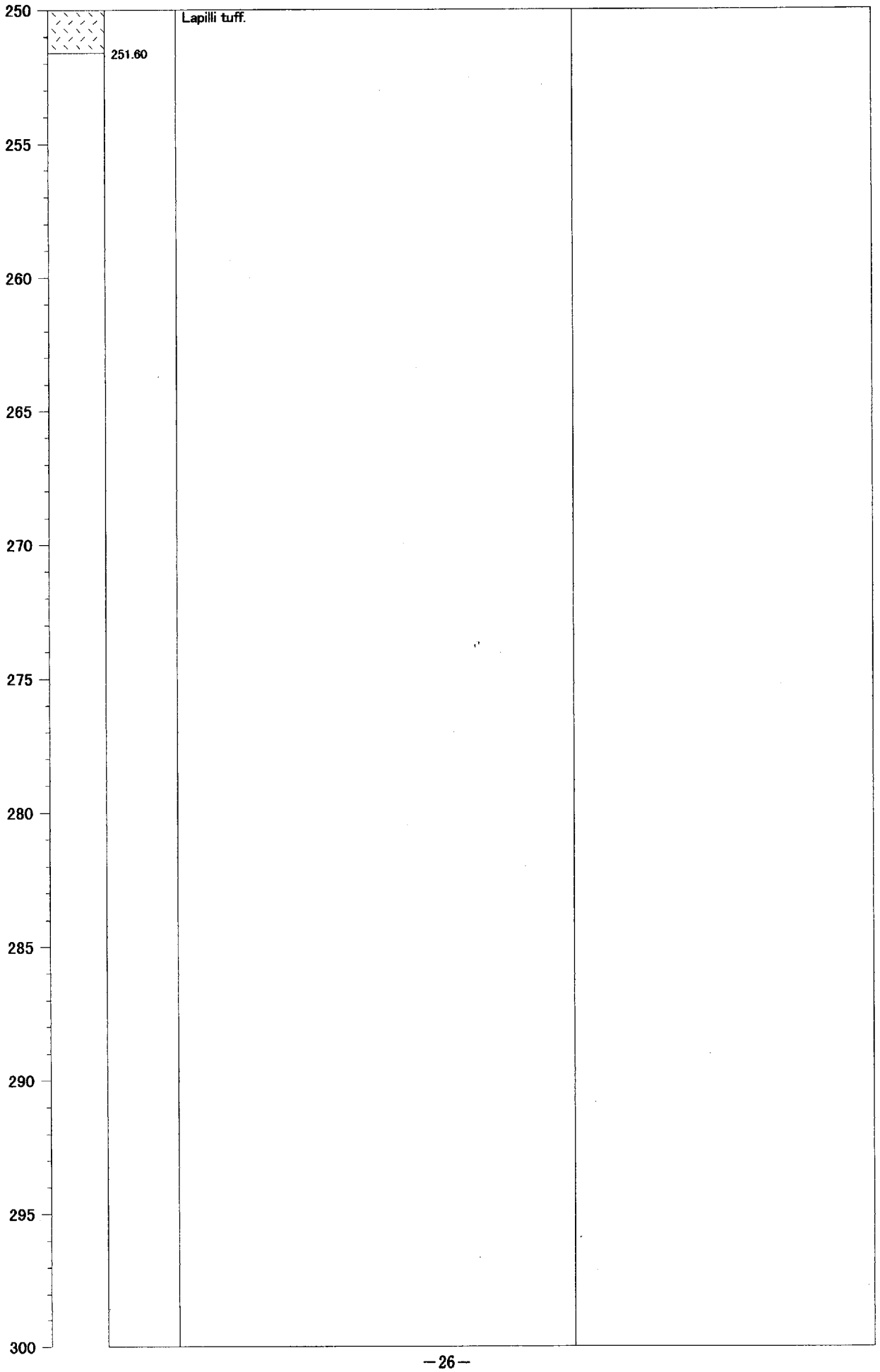
Depth	Lithology	Mineralization & Alteration
150.70	Silicified rhyodacitic tuff, white, very hard.	152.70–152.30m: Weakly pyrite disseminated, with reddish jasper.
152.30	Dolerite dike	150.70–153.40m: Weakly pyrite disseminated.
152.70	Rhyodacitic tuff, light green, banded.	153.40–154.10m: Chalcopyrite stringers, and hematite veinlets.
153.40 <153P	Silicified rhyodacitic tuff, very hard.	154.10–155.30m: Weakly pyrite disseminated, with reddish jasper.
154.10	Rhyodacitic tuff, partly silicified, very hard, fragment contains quartz phenocryst 1–2mm.	
155.30		
156.30	Dolerite dike, dark green.	
156.70		
	Rhyodacitic tuff, light green, flow-banded.	
162.00		
	Silicified lapilli tuff, white, very hard.	
169.30		
170.40	Breccia, size of fragment 5–10mm.	
	Lapilli tuff, hard, light gray, partly containing black thin layers (chlorite?, 5mm in thickness).	
187.80	Basalt-dolerite dike, dark green, with calcite veinlets.	
189.15		
	Lapilli tuff, light green, containing silicic fragments (size 2–3mm), banded.	
197.50		
<199T	Alternating bed of siltstone and tuff, with grading. 199T: Dacitic tuff, weakly meta, clastic.	

Drill Hole No.:	MJSU-1	Easting:	E 708.478	
Date Started:	September 11	Northing:	N 2,617.501	
Date Completed:	September 26	Elevation(mSL):	955	Drilled by DMMR/BRGM

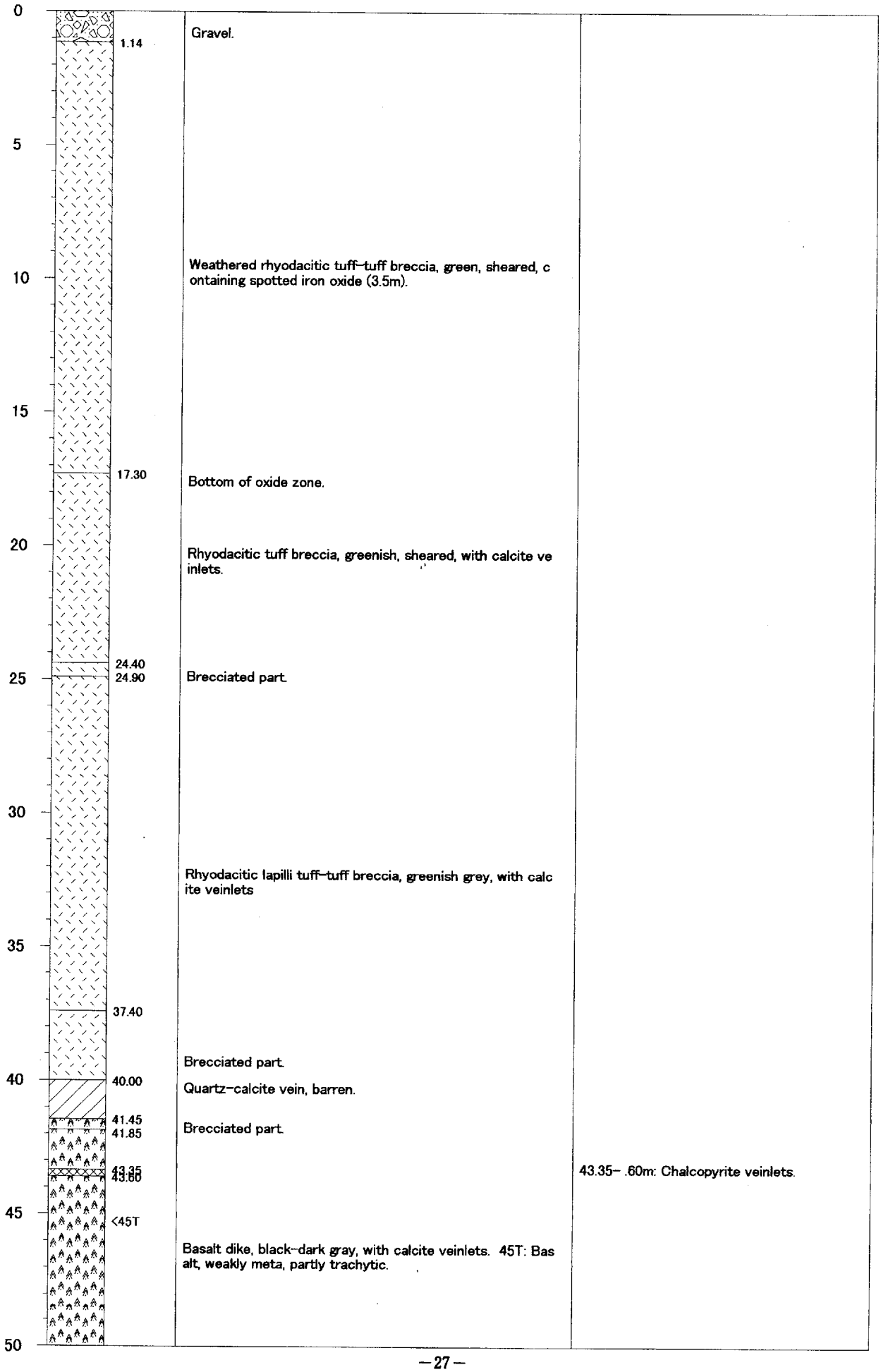


Drill Hole No.:	MJSU-1	Easting:	E 708.478	
Date Started:	September 11	Northing:	N 2,617.501	
Date Completed:	September 26	Elevation(mSL):	955	Drilled by DMMR/BRGM

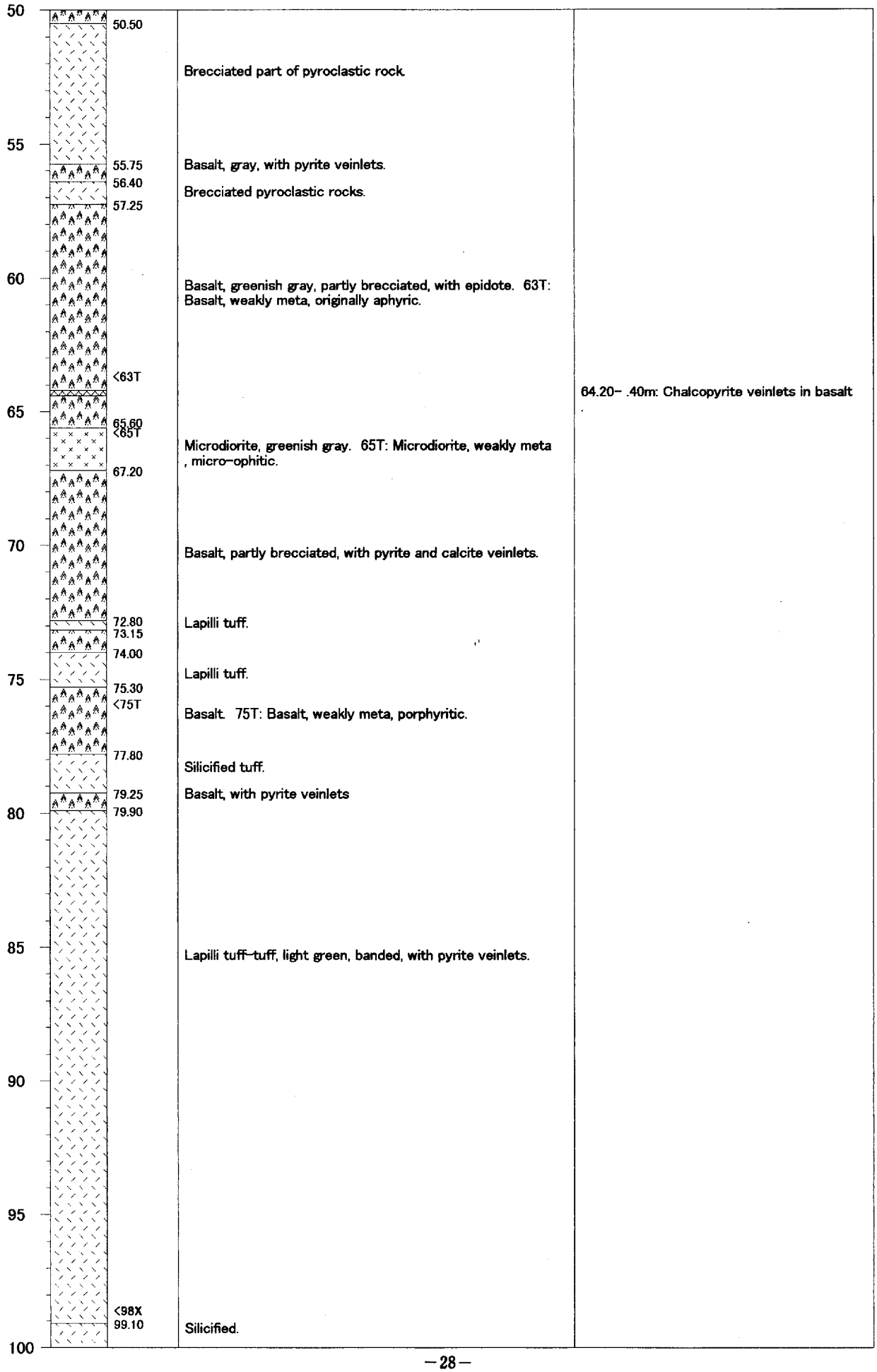
Depth | Lithology | Mineralization & Alteration



Drill Hole No.:	MJSU-2	Easting:	E 708.524	
Date Started:	September 11	Northing:	N 2,617.686	
Date Completed:	September 27	Elevation(mSL):	958	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-2	Easting:	E 708.524	
Date Started:	September 11	Northing:	N 2,617.686	
Date Completed:	September 27	Elevation(mSL):	958	Drilled by DMMR/BRGM



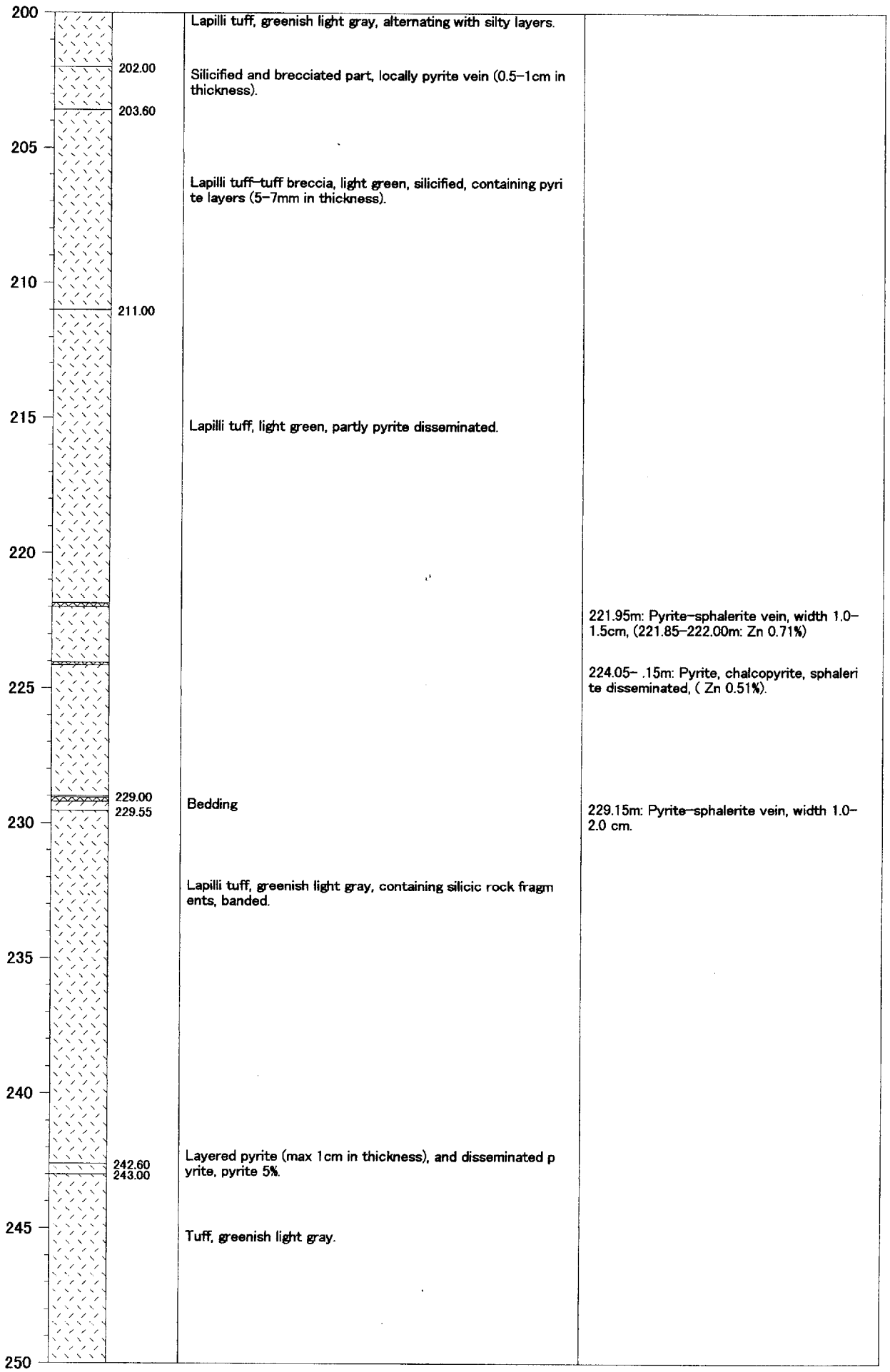
Drill Hole No.:	MJSU-2	Easting:	E 708.524	
Date Started:	September 11	Northing:	N 2,617.686	
Date Completed:	September 27	Elevation(mSL):	958	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration
100	Tuff, light green, weakly silicified.	
104.20		
105	Basaltic tuff, black to dark gray. 106T: Basaltic tuff, weakly meta, clastic to sub-trachytic.	
<106T		
106.25	Basaltic tuff?	106.25–109.05m: Siliceous part, with layered pyrite, pyrite 15%.
109.05		
110		
115	Basaltic tuff, greenish.	
<117X		
120	Reverse grading. 120T: Basaltic tuff, weakly meta, clastic.	
<120T		
121.15		
125		
125.40		
128.10		
128.20		
130	Lithology and mineralization at the interval between 121.15–144.8m are shown in the attached detailed lithologic log (scale 1:50).	
130.10		
135		
140		
142.25		
145		
144.80		
150		

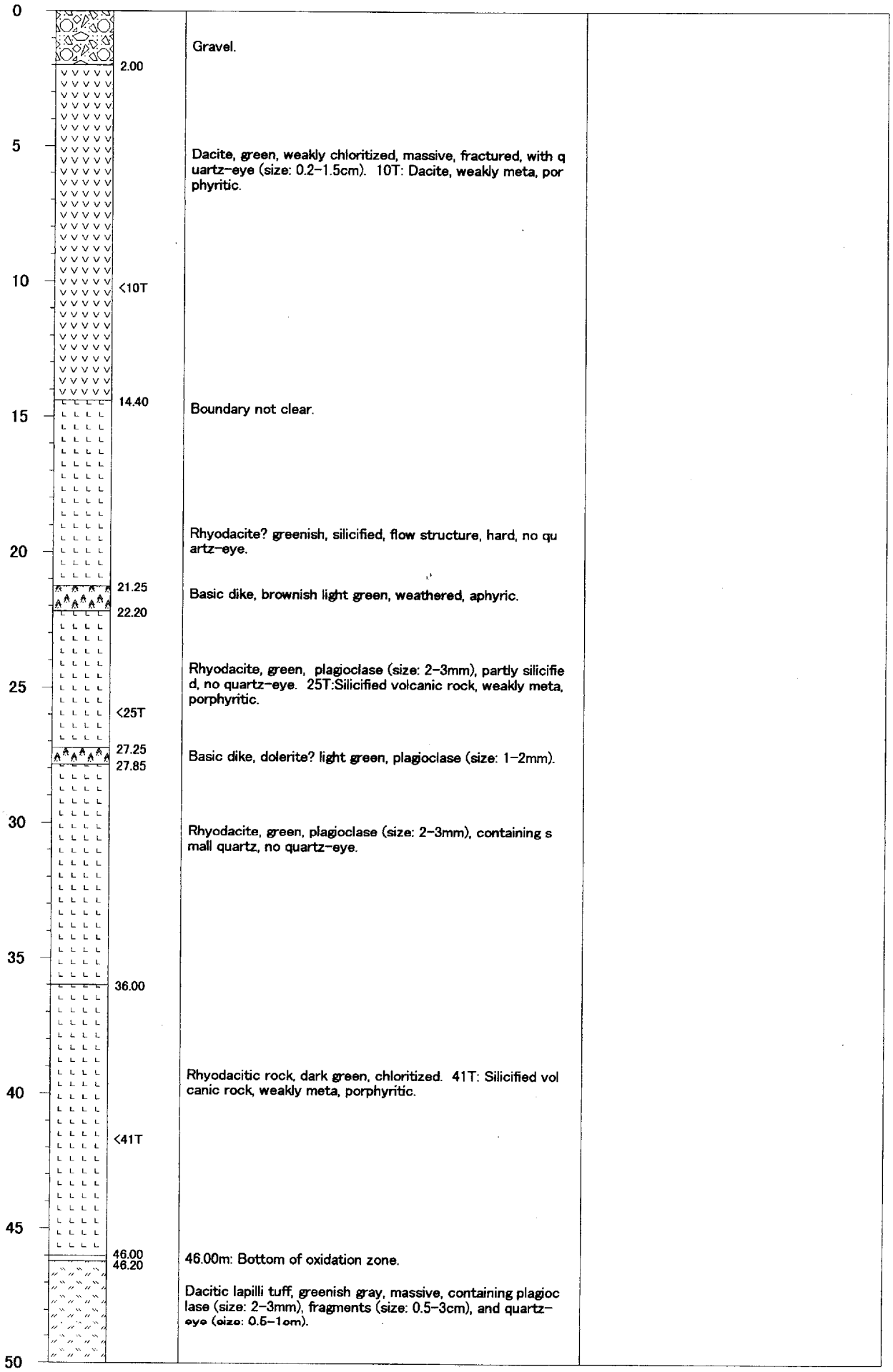
Drill Hole No.:	MJSU-2	Easting:	E 708.524	
Date Started:	September 11	Northing:	N 2,617.686	
Date Completed:	September 27	Elevation(mSL):	958	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration
150	Lapilli tuff, greenish light gray, partly tuff breccia.	
153.25–153.60	Quartz veinlets, barren.	
155		155.30m: Quartz vein, 1cm width, containing pyrite, dip 45.
156.30–157.00	Shale, dark gray, hard, containing pyrite (grain size: 1–2mm), dip50.	
160	Tuff breccia, greenish light gray, hard, containing silicic rock fragments (size: 0.5–4cm).	
165		163.75m: Quartz vein, 1cm width, containing chalcopyrite.
168.25–169.40	Alternating bed of conglomerate (consisting of silicic rock fragment, 1–3cm) and siltstone, greenish light gray, hard.	
170	Lapilli tuff, light gray.	
172.60–172.95	Siltstone, light gray, hard, dip 50.	
175	Lapilli tuff, rhyodacitic, greenish light gray, hard, containing silicic rock fragments (size: <5mm).	
180	Lapilli tuff, rhyodacitic, light green, partly conglomeritic, banded.	
185		
185.20–185.70	Basalt–dolerite dike, greenish.	
190	Lapilli tuff–tuff breccia, rhyodacitic, green, containing chlorite layers, pyrite disseminated.	
195		
196.30		
199.00	Weakly silicified tuff, hard, banded, pyrite disseminated, pyrite <1%.	
200		

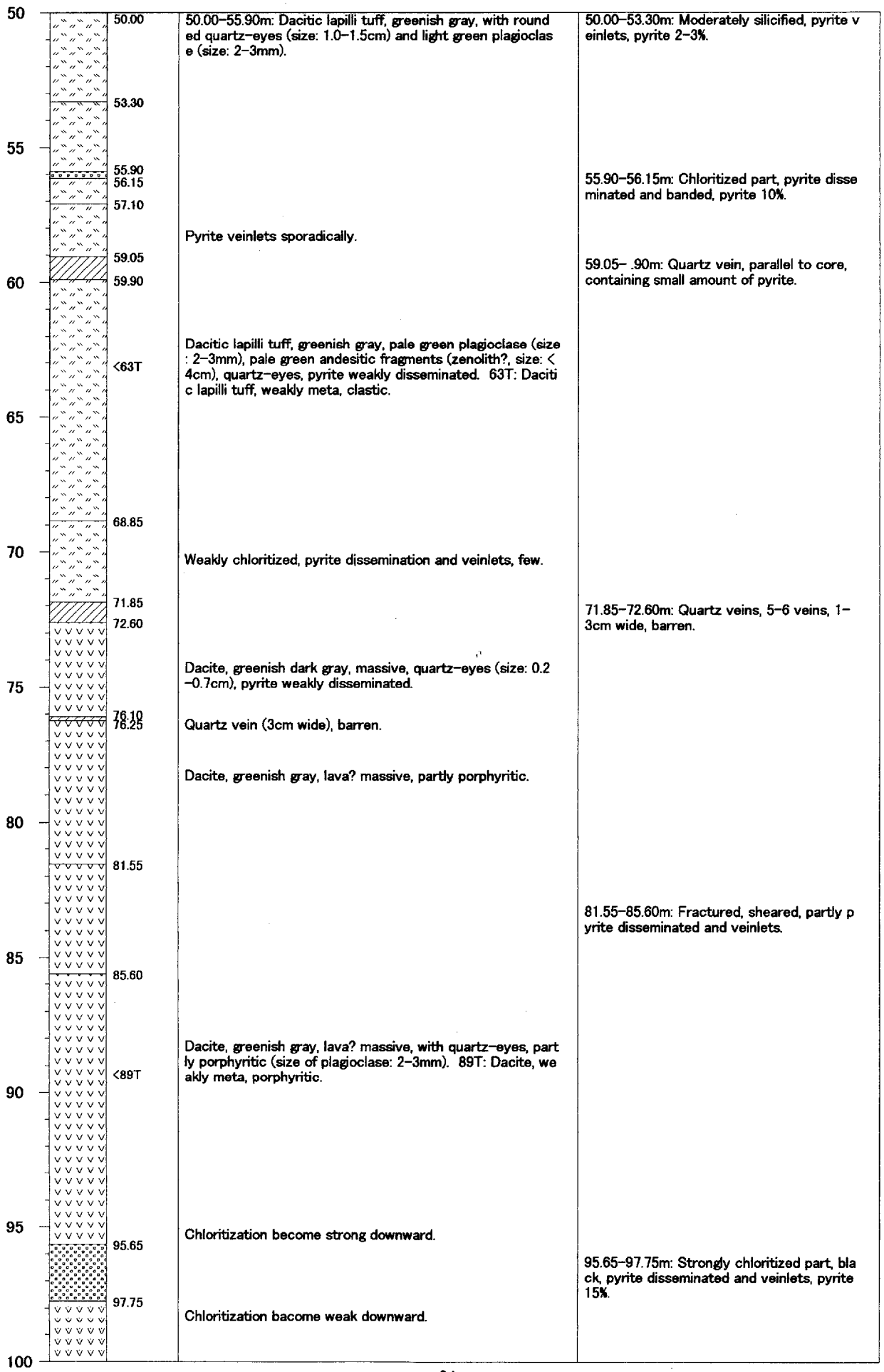
Drill Hole No.:	MJSU-2	Easting:	E 708.524	
Date Started:	September 11	Northing:	N 2,617.686	
Date Completed:	September 27	Elevation(mSL):	958	Drilled by DMMR/BRGM



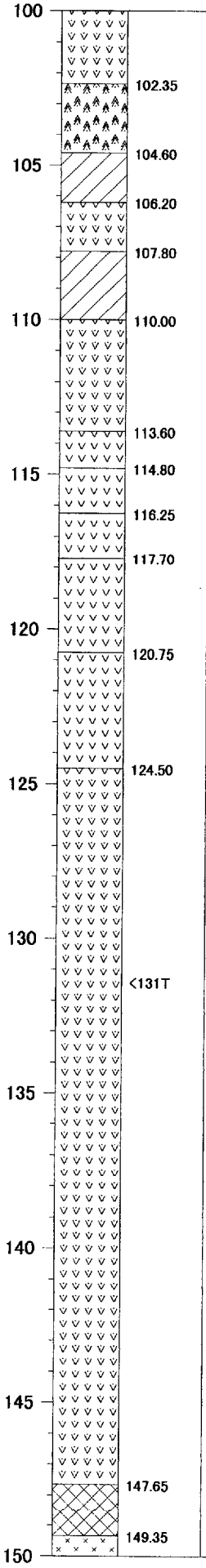
Drill Hole No.:	MJSU-3	Easting:	E 709.596	
Date Started:	October 14	Northing:	N 2,619.288	
Date Completed:	October 28	Elevation(mSL):	957	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-3	Easting:	E 709.596	
Date Started:	October 14	Northing:	N 2,619.288	
Date Completed:	October 28	Elevation(mSL):	957	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-3	Easting:	E 709.596	
Date Started:	October 14	Northing:	N 2,619.288	
Date Completed:	October 28	Elevation(mSL):	957	Drilled by DMMR/BRGM



Depth	Lithology	Mineralization & Alteration
100	Dacite, porphyritic, intrusive?	
102.35	Boundary not clear.	
	Basic dike, dark green, with calcite veinlets and quartz-eyes.	
104.60		104.60–106.20m: Quartz veinlets, pyrite veinlets few.
106.20	Porphyritic dacite, with quartz-eyes.	
107.80		107.80–110.00m: Quartz veinlets, pyrite veinlets few.
110.00		
	Porphyritic dacite, greenish gray, plagioclases (size:2–4mm), with quartz-eyes.	
113.60	Weakly silicified, plagioclase few.	
114.80		114.80–116.25m: Epidote veins, with hematite and pyrite.
116.25	Silicified, no mineralization.	
117.70		117.70–120.75m: Weakly silicified, pyrite veinlets, epidote veins.
120.75	Silicified dacite, greenish gray, plagioclase few, quartz-eye few.	
124.50		
<131T	Porphyritic dacite, greenish gray, with quartz-eyes (size: 0.5–1.0cm), pyrite weakly disseminated, epidotized plagioclases (size: 2–3mm). 131T: Porphyritic dacite, weakly meta, porphyritic.	
147.65	Moderately silicified, brownish white.	
149.35		
150		

Drill Hole No.:	MJSU-3	Easting:	E 709.596	
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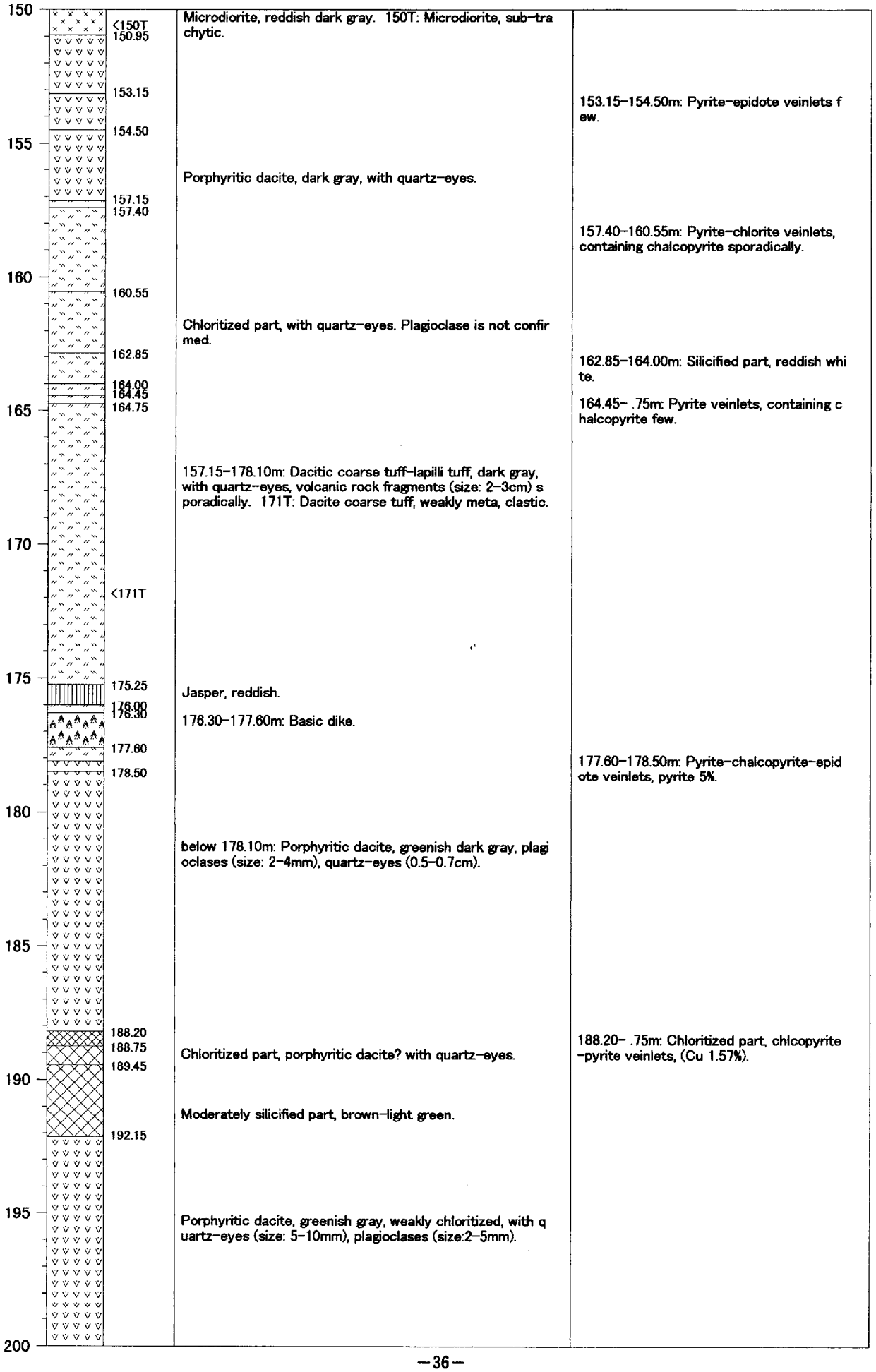
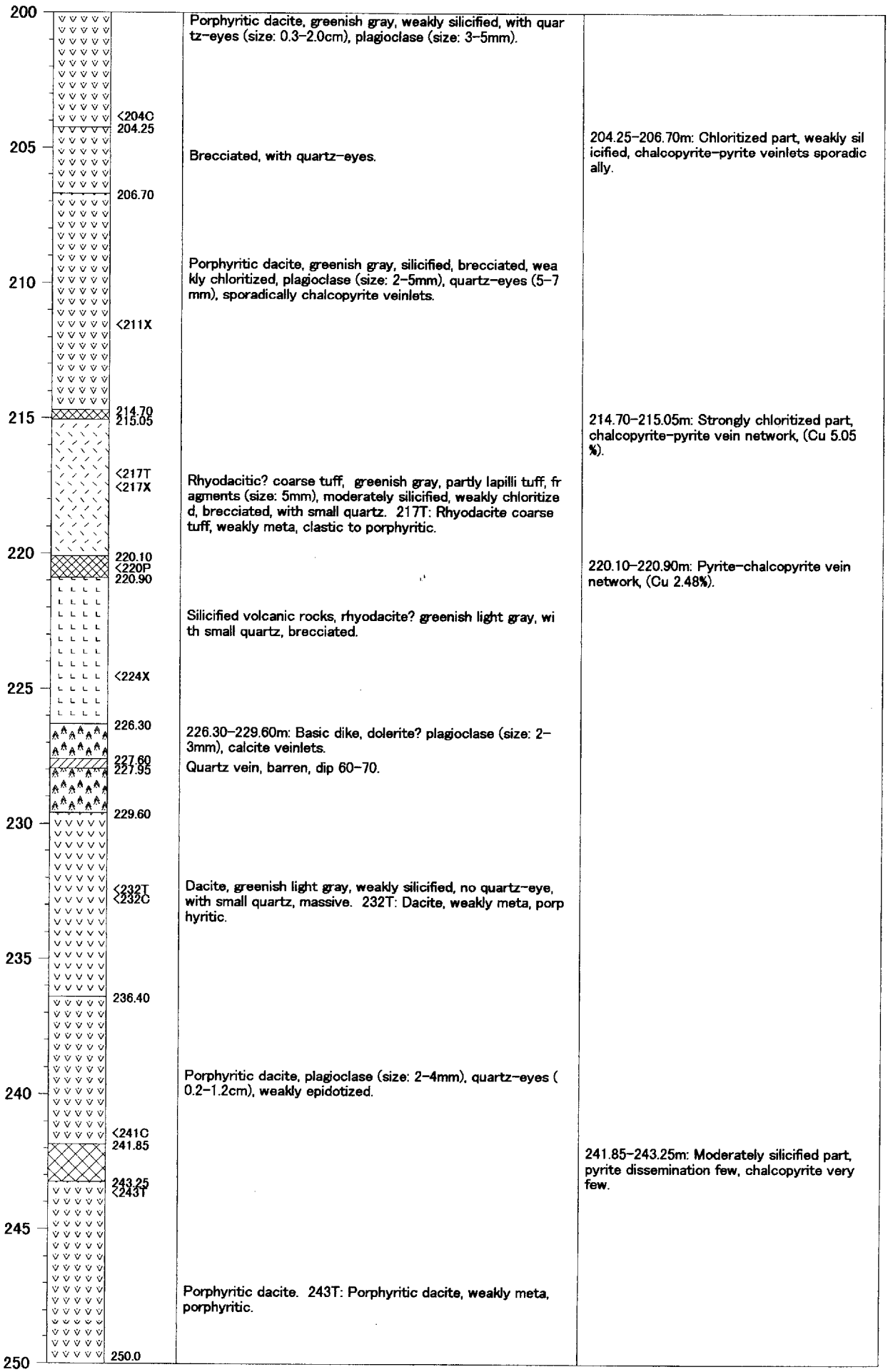
Date Completed:	October 28	Elevation(mSL):	957	Drilled by DMMR/BRGM

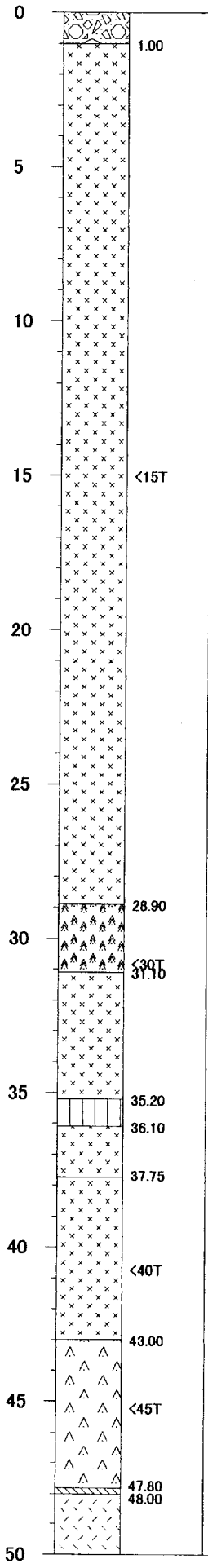


Drill Hole No.:	MJSU-3	Easting:	E 709.596	
Date Started:	October 14	Northing:	N 2,619.288	
Date Completed:	October 28	Elevation(mSL):	957	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-4	Easting:	E 709.167	
Date Started:	September 27	Northing:	N 2,619.582	
Date Completed:	October 13	Elevation(mSL):	958	Drilled by DMMR/BRGM

Depth | Lithology | Mineralization & Alteration



Gravel.

Diorite, greenish light gray, coarse grain. Mafic minerals are chloritized.

Many fractures, sporadically weathered. 15T: Diorite, weak ly meta, ophitic.

Dolerite dike, green. 30T: Dolerite, weakly meta, micro-op hitic

Diorite, fractured, oxidized, pyrite disseminated, pyrite 2-3 %.

Non-core, big crack? 35.20-36.10m: Bottom of oxidation zone.

Diorite, light green, brecciated, pyrite disseminated, partly s ilicified. 40T: Diorite, weakly meta, equigranular.

Andesite? light green, silicified, brecciated, pyrite veinlets few. 45T: Silicified volcanics, weakly meta, porphyritic.

Sheared chloritized part, dip 25.

Rhyodacitic coarse tuff, green-light green, partly white pat ches, containing chloritized patches, no quartz-eye.

Drill Hole No.:	MJSU-4	Easting:	E 709.167	
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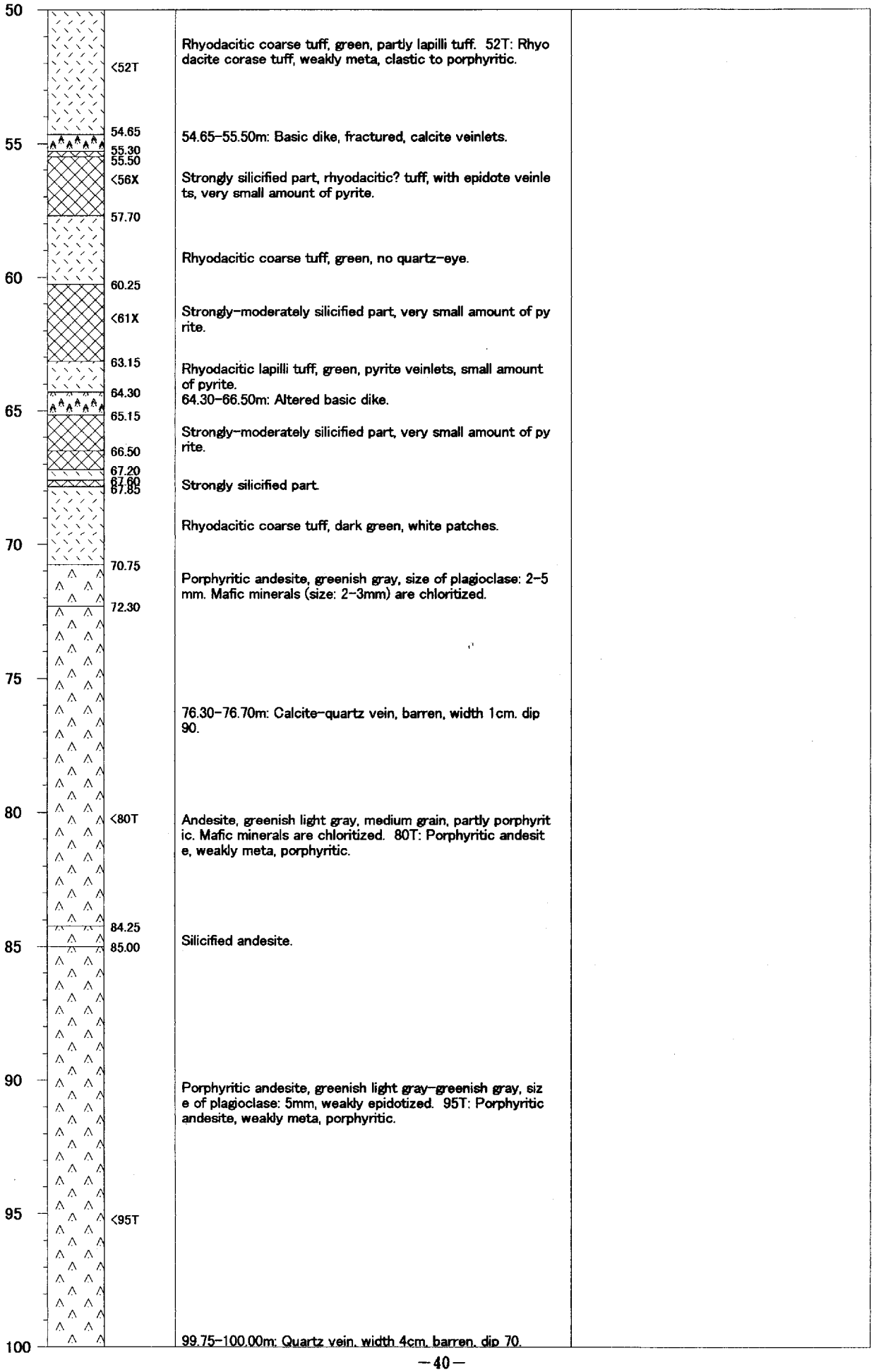
Date Completed:	October 13	Elevation(mSL):	958	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-4	Easting:	E 709.167
Date Started:	September 27	Northing:	N 2,619.582
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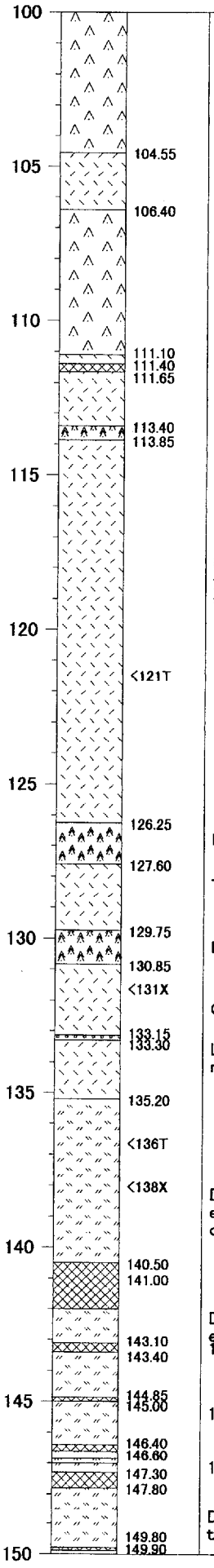

Depth	Lithology	Mineralization & Alteration
0.00–104.55	Porphyritic andesite, greenish gray, size of phenocrysts: 3–4mm, containing reddish feldspar. Plagioclases are weakly epidotized.	
104.55–106.40	Lapilli tuff, greenish light gray, layered, rhyodacitic, size of fragments: <5mm.	
106.40–111.10	Porphyritic andesite, greenish dark gray, weakly silicified, with epidote.	
111.40–111.65	Silicified rhyodacitic tuff, greenish gray, white patches.	111.40–.65m: Pyrite–chalcopyrite veinlets, (Cu 1.82%).
113.40–113.85	Basaltic dike, greenish gray.	
113.85–<121T	Rhyodacitic lapilli tuff, greenish gray–light green, layered, silicified, containing silicic rock fragments (size: 1–3cm), partly tuff breccia. 121T: Rhyodacite lapilli tuff, weakly meta, clastic to porphyritic.	
126.25	Basaltic dike, greenish gray, with calcite veinlets.	
127.60–129.75	Tuff breccia, greenish gray, rhyodacitic, partly layered.	
129.75–130.85	Basaltic dike, greenish light gray, with calcite veinlets.	
<131X–133.15	Coarse tuff, greenish gray, layered.	
133.30–135.20	Lapilli tuff–coarse tuff, light green, layered, containing fragments (size: <1cm) sporadically, clayey.	133.15–.30m: Pyrite 25%, banded.
<136T–<138X	Dacitic coarse tuff, dark green, containing quartz-eye (size: 1cm) sporadically. 136T: Dacite coarse tuff, weakly meta, clastic to porphyritic.	
140.50–141.00		140.50–141.00m: Chalcopyrite veinlets, width 0.5–1cm, (Cu 1.31%).
143.10–143.40	Dacitic coarse tuff, containing chlorite patches, quartz-eye sporadically. 143.1m: <143X.	143.10–.40m: Chalcopyrite veins, width 4cm, three veins, dip 40, (Cu 10.40%). 143.3m: <143P.
144.85–145.00	145.3m: <145X.	144.85–145.00m: Chalcopyrite veinlets, (Cu 4.77%).
146.40–146.60	146.85–147.00m: Basaltic dike	146.40–.60m: Chalcopyrite veinlets, (Cu 4.60%).
147.30–147.80		147.30–.80m: Chalcopyrite veinlets, (Cu 1.37%).
149.80–149.90	Dacitic coarse tuff, dark green, chloritized, containing quartz-eye sporadically.	149.80–.90m: Chalcopyrite veinlets. 149.9m: <149P

Drill Hole No.:	MJSU-4	Easting:	E 709.167	
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Date Completed:	October 13	Elevation(mSL):	958	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration
150	Massive.	
152.60	Dacitic coarse tuff, dark green, layered, containing white fl at patches (1–2mm thick) and quartz-eyes (size: 1cm).	
155		155.50–156.05m: Chalcopyrite veinlets, (C u 2.54%).
155.50		
156.05		156.05– .20m: Chalcopyrite vein, dip 40, (C u 18.95%). 156.1m: <156P.
156.20	156.70– .90m: Basaltic dike.	
157.45		157.45–158.25m: Chalcopyrite veinlets, (C u 1.82%).
158.25		
158.55	158.25– .55m: Basaltic dike.	158.55– .85m: Chalcopyrite veinlets, (Cu 3. 64%).
158.85		
160	Dacitic lapilli tuff, dark green, partly layered, with quartz-ey es.	
162.85		162.85–163.00m: Chalcopyrite veinlets, (C u 2.72%).
163.00		
163.30		163.30– .40m: Quartz vein containing chal copyrite, (Cu 1.82%).
163.40		
165	164.15– .20m: Basaltic dike.	
	Dacitic lapilli tuff, dark green, partly layered, with quartz-ey es.	
	167.90– .95m: Basaltic dike.	
	168.20– .30m: Basaltic dike, light green.	
168.80		
170	Tuff, dark green, layered, with quartz-eyes.	
170.30		
	Sheared part, light green, clayey.	
173.15		
175	Andesite, greenish light gray, massive, epidotized plagioclas e, with quartz-eyes, partly containing andesitic rock fragm ents (size: <4cm), lava? 175T: Andesite, weakly meta, porp hyritic.	
<175T		
180		
180.45?		
	Andesitic lapilli tuff, partly layered, with quartz-eyes, white flat patches (1–2mm thick), lava?	
185		
185.00?		
	Andesitic lapilli tuff, greenish gray, massive, containing frag ments (size: 1–2cm) and quartz-eyes, lava?	
189.15?		
190	Andesitic? lapilli tuff, greenish gray, a few fragments, weakly silicified.	
190.55?		
	Andesitic lapilli tuff, greenish gray, containing andesitic frag ments (size: <2cm), with quartz-eye sporadically, massive, weakly pyrite disseminated. Fragments are weakly epidotize d. 193T: Andesite lapilli tuff, weakly meta, clastic to porphy ritic.	
<193T		
195		
	197.45– .70m: Quartz vein network, barren.	
200		

Drill Hole No.:	MJSU-4	Easting:	E 709.167	
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Depth	Lithology	Mineralization & Alteration
200		
	Andesitic lapilli tuff, gray, partly tuff breccia, massive, with quartz-eye (size: 0.5-1cm), lava? Plagioclases are weakly epidotized.	
205		
210		
212.30		
	212.30-213.50m: Lapilli tuff, layered, weakly silicified.	213.10- .20m: Chloritized part, with chalcopyrite veinlets, (Cu 1.36%).
213.50		213.65- .85m: Chloritized part, with chalcopyrite veinlets, (Cu1.34%).
215 215.00 215.15		215.00- .15m: chalcopyrite-quartz veinlet, (Cu 0.64%).
		217.05m: chalcopyrite vein, width 1cm, (217.00-. 10m: Cu 0.76%).
	Andesitic lapilli tuff, gray-dark gray, partly tuff breccia, massive, with quartz-eye (size: 0.5-1cm) sporadically, lava? Plagiclases and fragments are weakly epidotized. 222T: Andesite lapilli tuff, weakly meta, clastic to porphyritic.	
220		
<222T		
225		
		226.80m: chalcopyrite vein, width 1cm, (226.75- .85m: Cu3.28%).
227.25		
228.05		227.25-228.05m: Chalcopyrite bearing quartz veins, three veins (width 0.2-1cm).
230		
	Andesitic lapilli tuff, greenish gray, containing andesitic fragments (size: 0.5-2cm) and quartz-eyes (size: 0.5-1cm), massive.	
231.65		
	Andesitic coarse tuff, greenish dark gray, partly layered lapilli tuff, with quartz-eye (size: 0.5-1cm).	
234.30		
235		
	Andesitic lapilli tuff, greenish gray, andesitic fragments (size: <3cm), weakly epidotized, slightly layered.	
236.00		
236.50	Dolerite dike, greenish gray.	
<238T		
	Andesitic lapilli tuff, greenish gray, fragments (size: <2cm), weakly epidotized, layered, epiditized plagioclase until 239.20m. 238T: Andesite lapilli tuff, weakly meta, clastic to porphyritic.	
239.20		
240		
	Dacitic coarse tuff-lapilli tuff, greenish light gray, layered.	
241.20		
	Dacitic coarse tuff, dark green.	241.20-242.80m: Weakly chloritized, with chalcopyrite veinlets, Cu very low.
242.80		
245		
	Dacitic lapilli tuff-coarse tuff, greenish gray, layered, containing lenticular silicic rock fragments (1cm thick).	
250		

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Depth	Lithology	Mineralization & Alteration
253.45		
253.70	Basic dike, light green.	
	Dacitic lapilli tuff, greenish gray, layered, containing lenticul ar silicic rock fragments (1cm thick), with quartz-eyes. 25 9T: Dacitic lapilli tuff, strongly by carbonete, clastic to porp hyritic.	
<259T		
260.90		
261.25	Weakly silicified.	
	Dacitic lapilli tuff, greenish gray, containing lenticular silicic rock fragments and quartz-eyes.	
263.50		
263.75		263.50- .75m: Pyrite veinlets, few chalcopy rite.
		263.75-267.05m: Chalcopyrite veinlets, sp oradic.
267.05		
267.50	267.05- .50m and 267.70- .90m: Basic dike, greenish light gray.	
	Dacitic coarse tuff, greenish dark gray, with quartz-eyes.	
272.70		272.70-273.25m: chloritized veinlets, cont aining chalcopyrite, (Cu 1.11%).
273.25		
273.60	Weakly silicified.	
	Dacitic coarse tuff, greenish dark gray, containing thin chl orite layers and quartz-eyes.	
276.55	Bedded chlorite layer and fine tuff.	
277.35	Basic dike, dark green.	
278.45		
278.95		278.95-279.35m: Chloritized, chlcopyrite v einlets, (Cu 2.72%). 279.1m: <279P.
279.35		
	Rhyodacitic coarse tuff, greenish gray, layered, white spott ed. 282T: Rhyodacite coarse tuff, silicified, clastic to porp hyritic.	
<282T		
283.80	Sheared part, clayey.	
285.70		285.70-286.75m: Pyrite rich, pyrite 10%. 2 85.8m: <285X.
286.75		
287.05	Sheared part.	
<288T		
	Dacitic dike? light green, plagioclase 1mm, siliceous, hard, massive. 288T: Dacite, weakly meta, porphyritic.	
292.30		292.30- .60m: Pyrite banded, pyrite 10%.
292.60		292.60-293.00m: Banded pyrite and tuff, py rite 30%.
293.00	Brecciated rhyodacitic tuff, light green, clayey.	293.00-294.25m: Pyrite veinlets.
294.25	Silicified tuff, weakly brecciated.	294.25-295.15m: Pyrite veinlets.
295.15		
<296T		
	Rhyodacitic tuff, light green, with chlorite layers. 296T: Rh yodacite tuff, weakly meta, clastic to porphyritic.	

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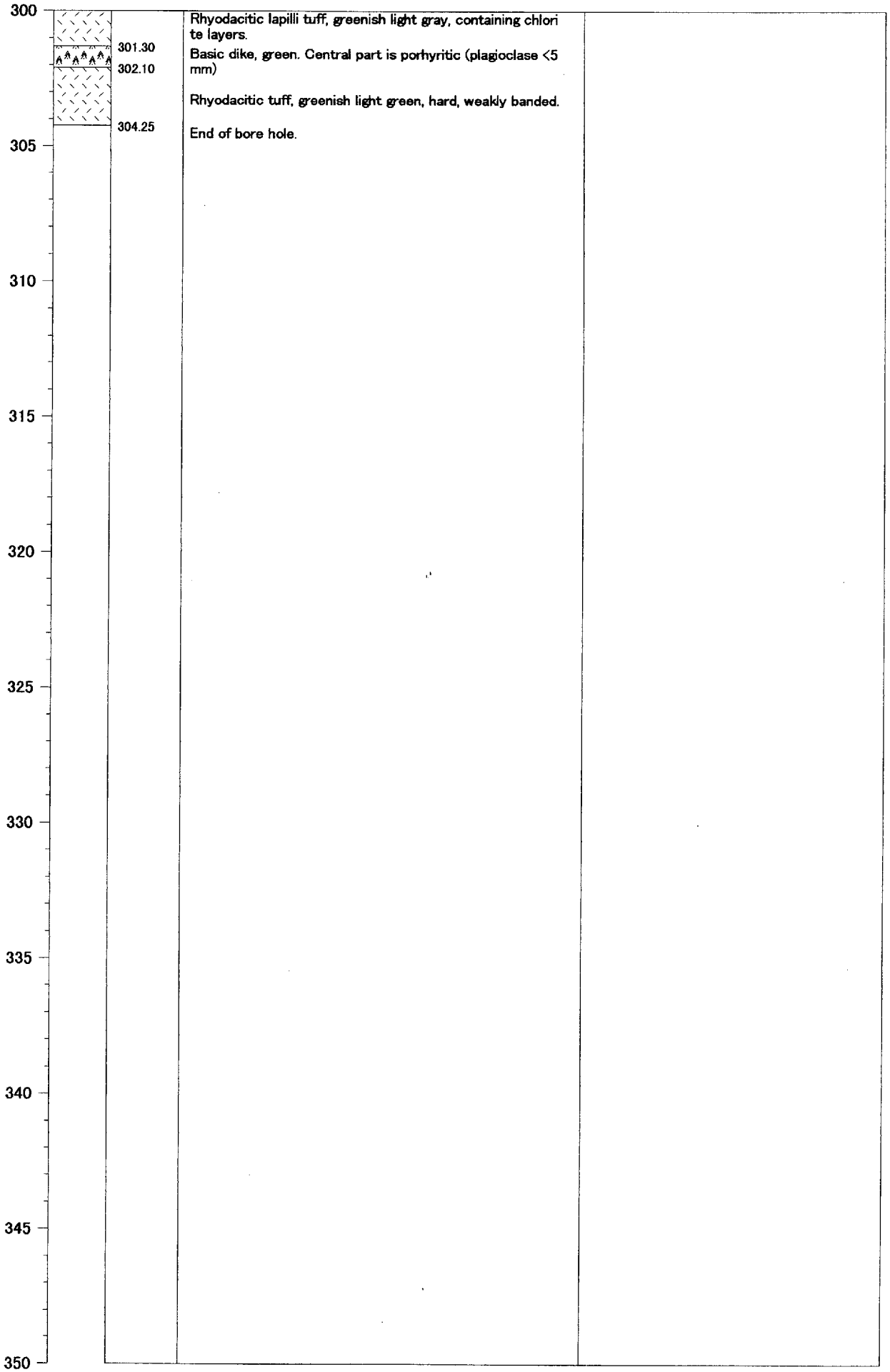
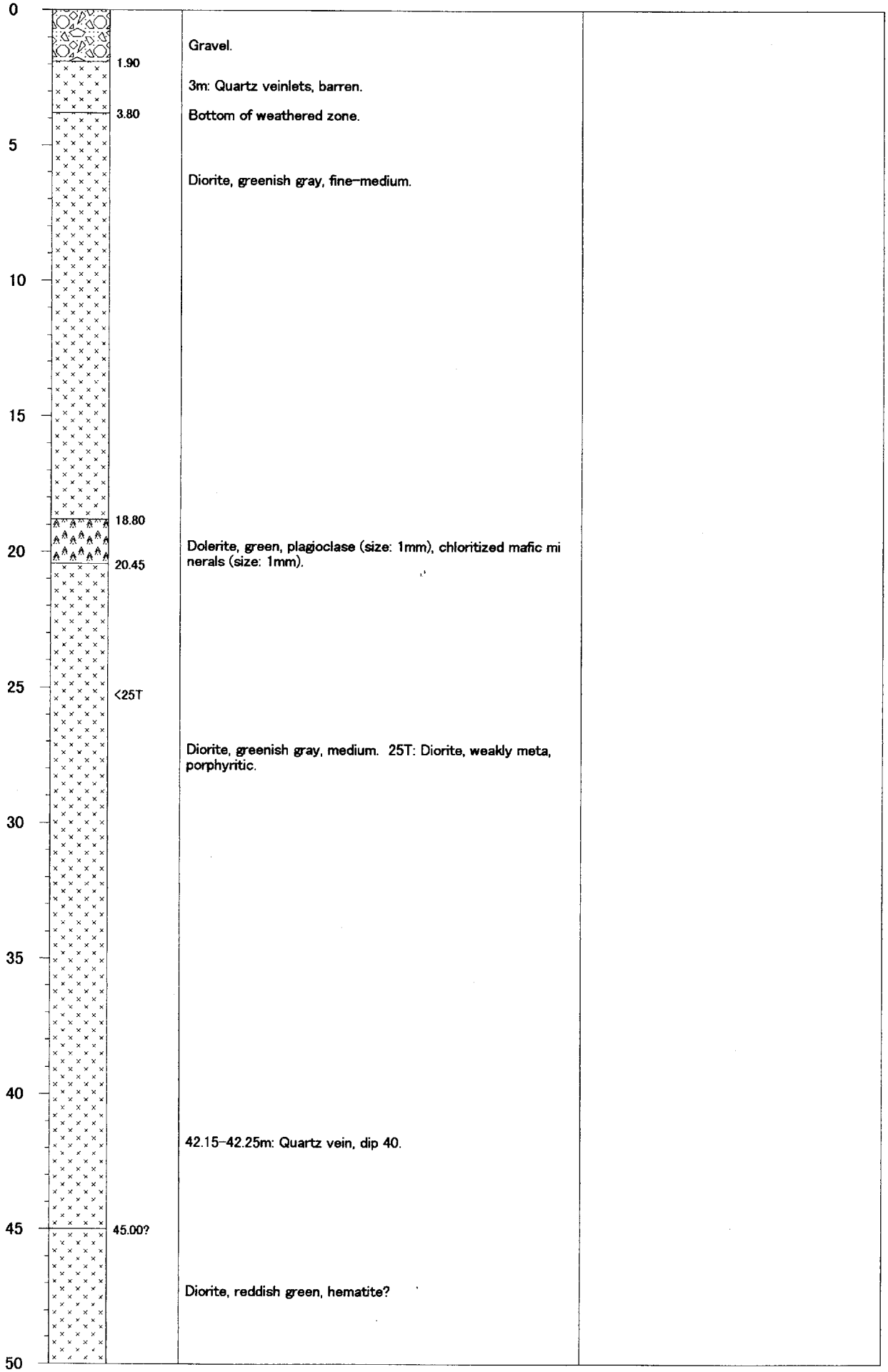
Depth | Lithology | Mineralization & Alteration



Drill Hole No.:	MJSU-5	Easting:	E 709.148
Date Started:	September 28	Northing:	N 2,619.738
Date Completed:	October 12	Elevation(mSL):	963

Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration



Drill Hole No.:	MJSU-5	Easting:	E 709.148	
Date Started:	September 28	Northing:	N 2,619.738	
Date Completed:	October 12	Elevation(mSL):	963	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration
50		
	Diorite, reddish green.	
55		
58.80		
60	Dolerite dike, greenish gray.	
61.00		
<63T		
64.00	Dolerite dike.	
64.15		
65	Diorite, reddish green, weathered. Plagioclase is altered. Mafic minerals are chloritized. 63T: Diorite, weakly metamorphitic.	
70		
74.15	Brecciated part.	
74.45		
75	Dacitic? tuff, green-dark green, weakly chloritized.	
77.70	Pyrite disseminated, strongly chloritized.	
79.40		79.40-.90m: Chalcopyrite veinlets, (Cu 1.86%). 79.6m: <79X.
79.90	79.90-80.55m: Strongly chloritized tuff, pyrite dissemination.	
80		
80.55		80.55-.95m: Chalcopyrite veinlets, (Cu 4.62%).
80.95	Silicified, strongly chloritized tuff, pyrite few.	
81.70		81.70-82.55m: Pyrite disseminated & layered, massive sulfide deposit type?, containing chalcopyrite, (Cu 4.28%). 81.8m: <81P.
82.55		
85	Strongly chloritized & silicified tuff, dacitic? black, pyrite dissemination and veinlets, pyrite 20%.	
88.90		
90	Dacitic lapilli tuff.	88.90-93.20m: Strongly chloritized, weakly silicified, pyrite-chalcopyrite dissemination and veinlets, (Cu 1.93%).
93.20		
95	Dacitic lapilli tuff, green, containing silicic rock fragments (size: 0.2-1.0cm), with epidote veinlets, pyrite dissemination and veinlets.	
95.50		
<96X		
<96P	Strongly chloritized, weakly silicified, dacitic tuff?	95.50-99.90m: Chalcopyrite-pyrite veinlets, (Cu 3.70%).
99.90		
100		

Drill Hole No.:	MJSU-5	Easting:	E 709.148	
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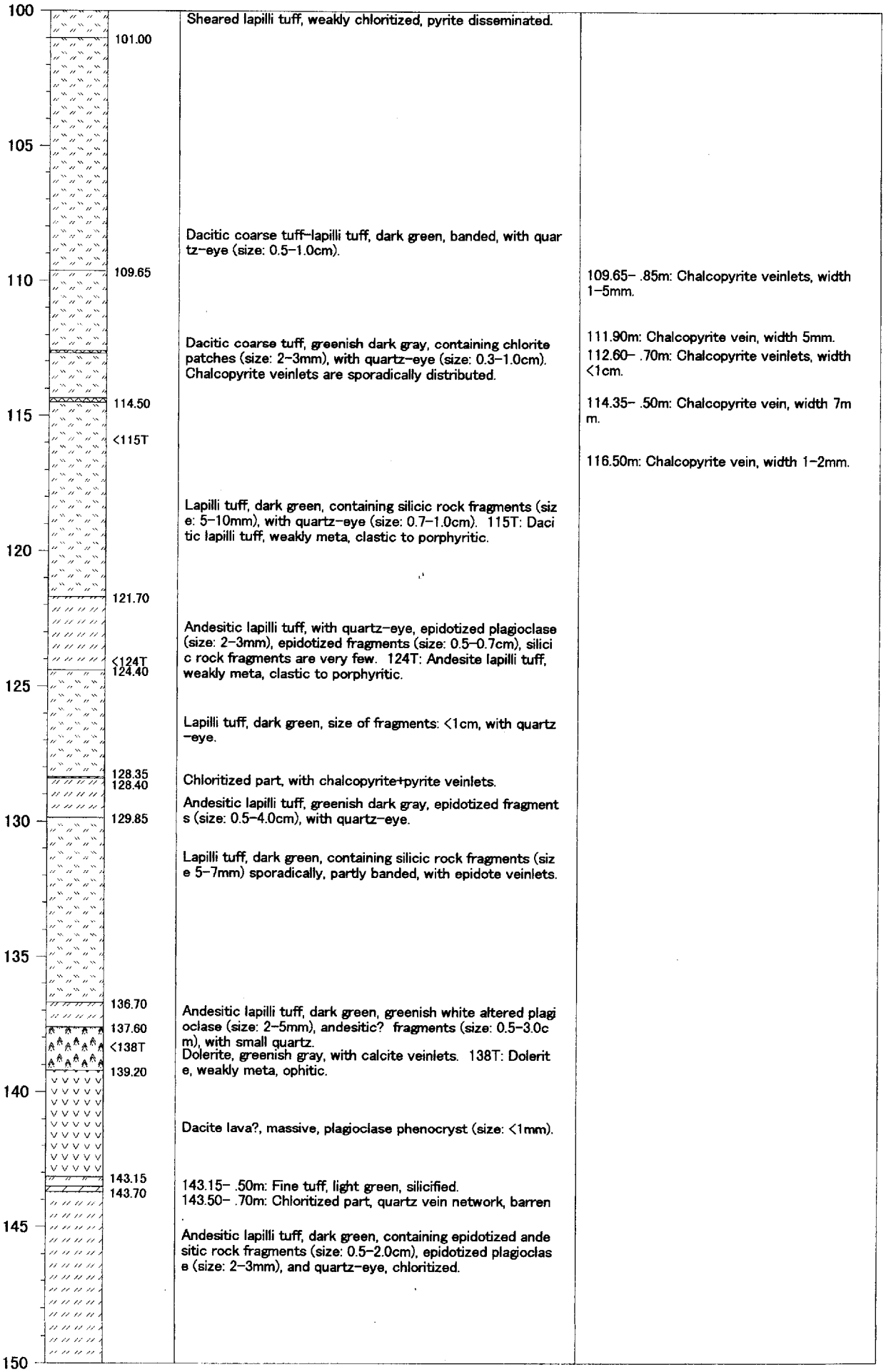
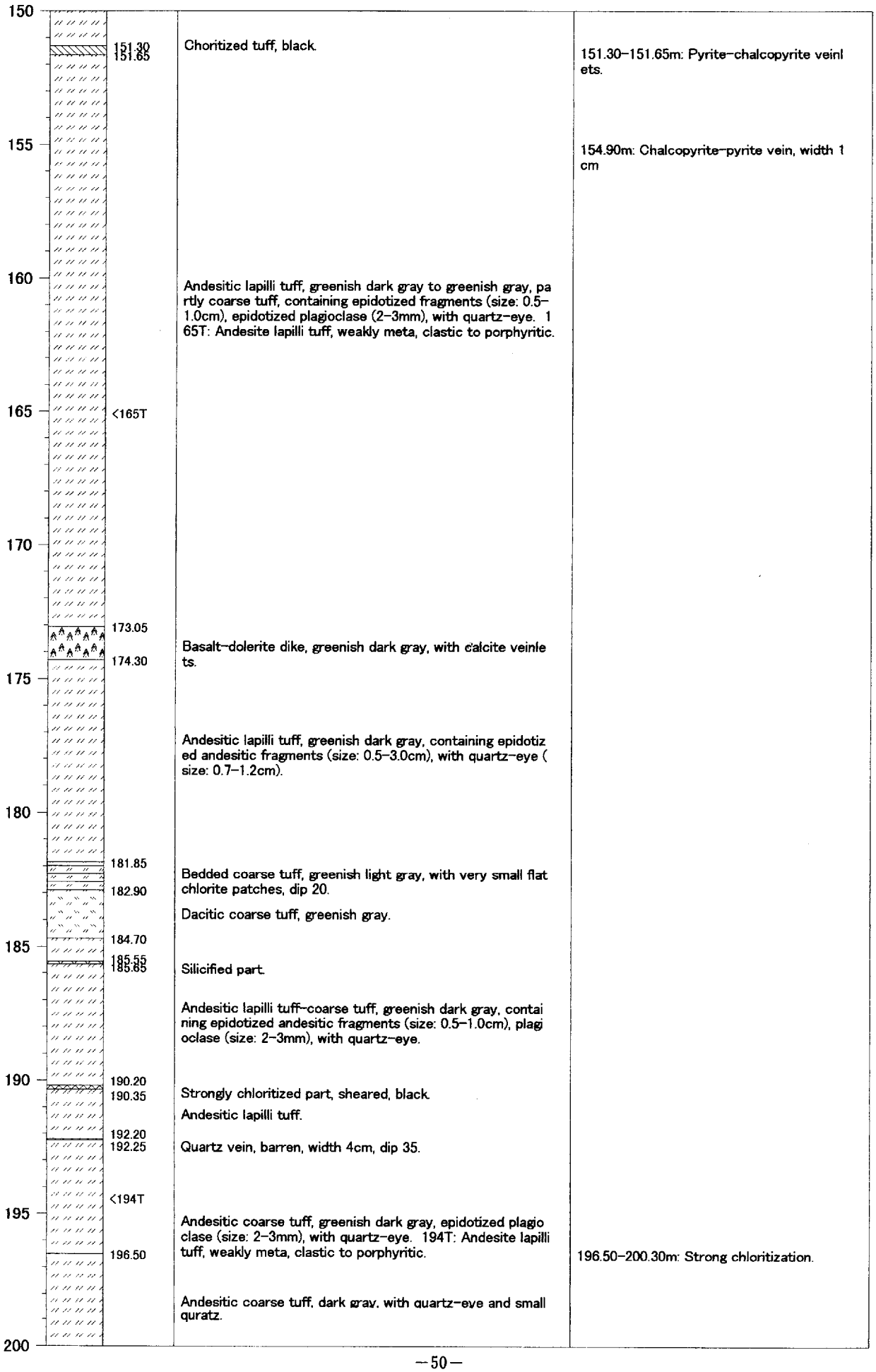
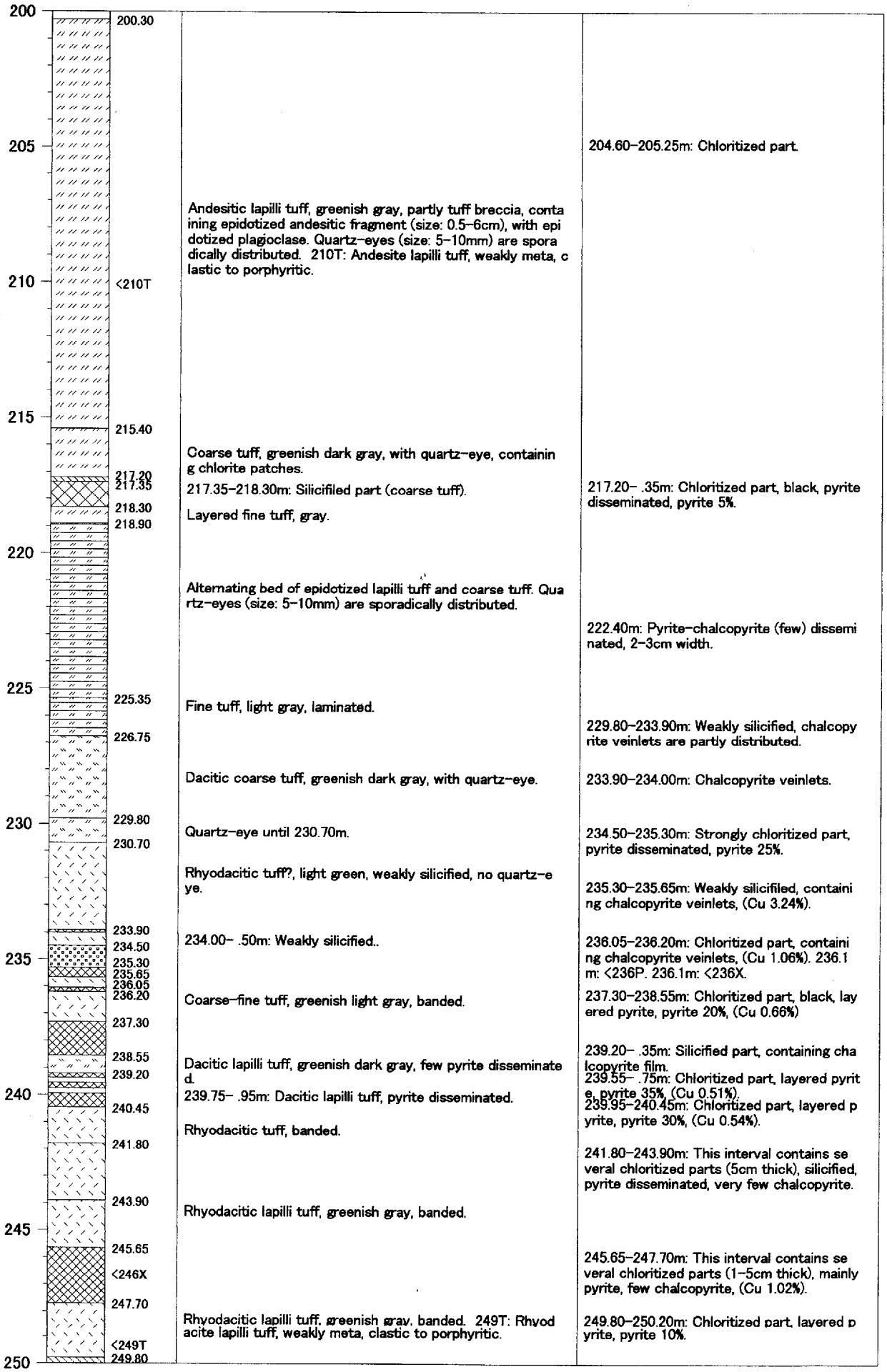
Date Completed:	October 12	Elevation(mSL):	963	Drilled by DMMR/BRGM



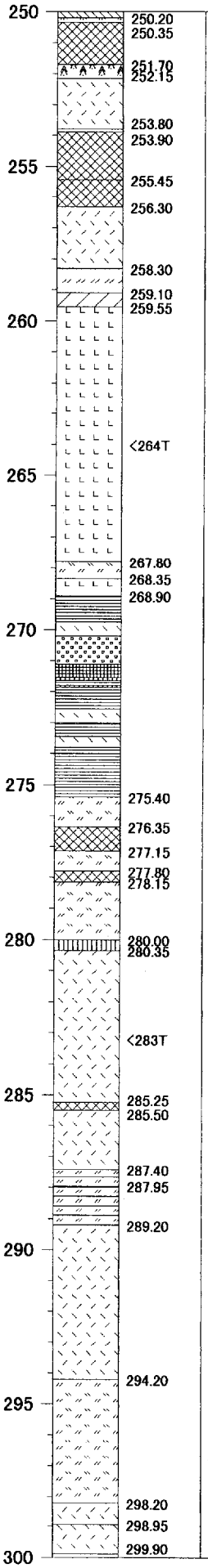
Drill Hole No.:	MJSU-5	Easting:	E 709.148	
Date Started:	September 28	Northing:	N 2,619.738	
Date Completed:	October 12	Elevation(mSL):	963	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-5	Easting:	E 709.148	
Date Started:	September 28	Northing:	N 2,619.738	
Date Completed:	October 12	Elevation(mSL):	963	Drilled by DMMR/BRGM

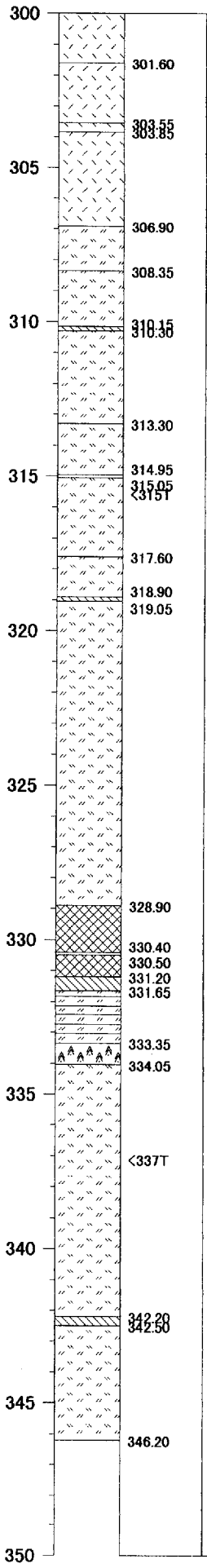


Drill Hole No.:	MJSU-5	Easting:	E 709.148	
Date Started:	September 28	Northing:	N 2,619.738	
Date Completed:	October 12	Elevation(mSL):	963	Drilled by DMMR/BRGM



Depth	Lithology	Mineralization & Alteration
250.20		
250.35	Basic dike, not altered.	250.35–251.70m: This interval contains several chloritized parts (approx. 5cm), pyrite 5%, chalcopyrite few, (Cu 0.62%).
251.70		
252.15	Dolerite dike.	
	Rhyodacitic tuff.	
253.80		
253.90	Basic dike.	
	Rhyodacitic lapilli tuff, dark green, containing 2–3mm thick pyrite layers.	
255.45		255.45–256.30m: Chloritized, pyrite banded, chlcopyrite veins cut the pyrite bands, (Cu 2.58%).
256.30		
	Bedded rhyodacitic fine–coarse tuff, light gray .	
258.30		
	Andesitic lapilli tuff, silicified, plagioclase weakly epidotized, mafic minerals (size: 1–2mm) are chloritized. small quartz.	
259.10		
259.55	259.10– .55m: Chloritized part, with quartz veinlets.	
<264T	Rhyodacite dike? greenish light gray, hard, massive, plagioclase 1mm, epidotized. 264T: Rhyodacite, weakly meta, porphyritic.	
267.80		
268.35	Dacitic? coarse tuff, dark green, dip 55.	
268.90		
	Lithology and mineralization at the interval between 268.90–275.40m are shown in the attached detailed lithologic log (scale 1:50).	
275.40		
276.35	Dacitic coarse tuff, greenish dark gray, containing flat chlorite patches, with quartz-eye.	276.35–277.15m: This interval contains 4 chalcopyrite veins, each vein is 1–3cm wide, chloritized, (Cu 0.70%).
277.15	Dacitic coarse tuff, greenish dark gray, with quartz-eye.	277.80–278.15m: Chloritized part containing chalcopyrite, (Cu 1.06%).
277.80		
278.15		
	Dacitic coarse tuff, containing chlorite patches, with quartz-eye.	
280.00		280.00– .35m: Siliceous part, containing jasper fragments, pyrite banded.
280.35		
<283T	Rhyodacitic lapilli tuff, light green, with chlorite patches. 283T: Rhyodacite lapilli tuff, weakly meta, clastic to porphyritic.	
285.25		
285.50		285.25– .50m: Chloritized, with chalcopyrite veinlets, (Cu 1.96%).
	Rhyodacitic coarse tuff, banded with chlorite layers, pyrite disseminated, strongly chloritized.	
287.40		
287.95	Coarse tuff, greenish gray, grading, fine dawnward.	
	Alternating beds of light green fine-grained clastic layers and chlorite layers.	
289.20		
	Rhyodacitic tuff, greenish gray–greenish dark gray, with chlorite thin layers.	
294.20		
	Dacitic tuff, greenish gray, containing chlorite thin layers, with quartz-eye sporadically.	
298.20		
	Banded rhyodacitic coarse tuff.	
298.95		298.95–299.90m: Weakly chloritized, with chalcopyrite veinlets, few.
299.90		

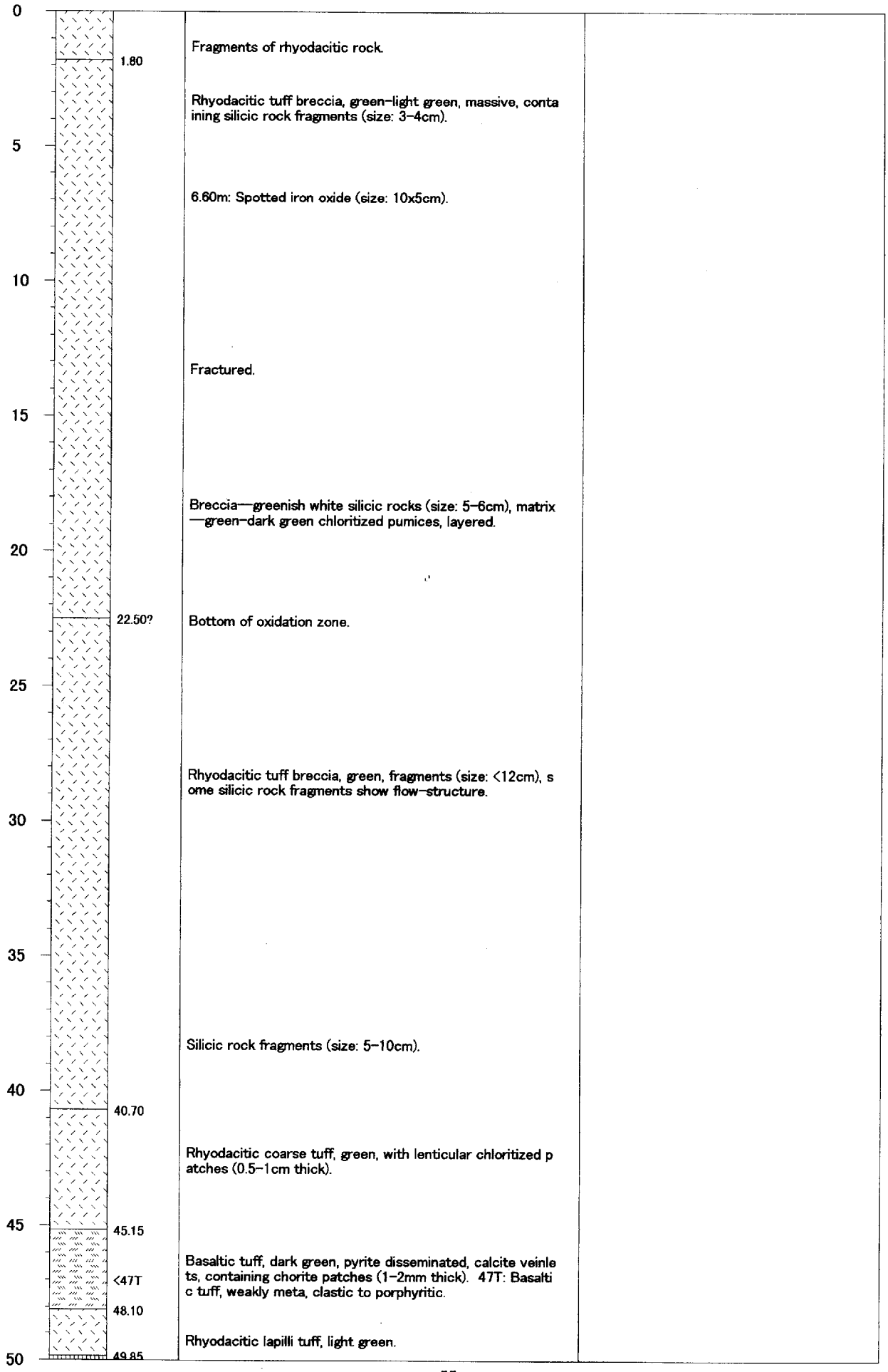
Drill Hole No.:	MJSU-5	Easting:	E 709.148	
Date Started:	September 28	Northing:	N 2,619.738	
Date Completed:	October 12	Elevation(mSL):	963	Drilled by DMMR/BRGM



Depth	Lithology	Mineralization & Alteration
300	Rhyodacitic tuff.	299.90–301.60m: Moderately chloritized, sporadic chalcopyrite veinlets.
301.60	Rhyodacitic coarse tuff–lapilli tuff, greenish gray, containing chlorite patches and silicic rock fragments.	
303.55		303.55– .85m: Weakly chloritized, quartz veinlets containing chalcopyrite.
303.85	Rhyodacitic coarse tuff–lapilli tuff, white spotted.	
305		
306.90	Dacitic lapilli tuff, with quartz–eye.	306.90–308.35m: Weakly chloritized, sporadic quartz veinlets containing chalcopyrite.
308.35	Lapilli tuff, containing lenticular chlorite patches, with quartz–eye.	
310		
310.15		310.15– .30m: Weakly chloritized, sporadic chalcopyrite veinlets.
310.30	Dacitic coarse tuff–lapilli tuff, with quartz–eye.	
313.30	313.30–317.60m: Dacitic lapilli tuff, greenish gray, containing silicic rock fragments (size: <5cm), weakly epidotized, with quartz–eye. 315T: Dacitic lapilli tuff, weakly meta, clastic to porphyritic.	
314.95		314.95–315.05m: Chalcopyrite dissemination.
315		
315.05		
<315T		
317.60	Dacitic coarse tuff, conatining chlorite flat pacthes, with quartz–eye.	
318.90	Chloritized part.	
319.05		
320	Dacitic coarse tuff–lapilli tuff, greenish gray, containing lenticular silicic rock fragments, with quartz–eye.	
		322.30m: 1cm thick pyrite vein.
325		
328.90		328.90–330.40m: Strongly chloritized, silicified, chalcopyrite veinlets, (Cu 7.13%). 331.1m: <331X. 329.6m: <329P.
330		
330.40		
330.50	330.40– .50m: Fine tuff, light gray, bedded with chlorite band (1mm thick), no mineralization.	330.50–331.20m: Strongly chloritized, silicified, chlcopyrite veinlets, (Cu 6.10%).
331.20		
331.65	Dacitic fine tuff, greenish gray, bedded with chlorite thin layers, containing silicic rock fragments, with quartz–eye.	331.20–331.65m: Chloritized, silicified, pyrite dissemination and veinlets, pyrite 5%.
333.35	Dolerite, greenish gray, with calcite veinlets.	
334.05		
335		
<337T	Dacitic lapilli tuff, greenish dark gray, containing chloritized patches (0.5–1cm thick), with quartz–eye sporadically. 337T: Dacitic lapilli tuff, weakly meta, clastic to porphyritic.	
340		
342.20		342.20–342.50m: Strongly chloritized, pyrite dissemination, pyrite 5%.
342.50	Dacitic lapilli tuff–coarse tuff, greenish dark gray, containing chloritized patches, with quartz–eye sporadically.	
345		
346.20	End of drill hole.	
350		

Drill Hole No.:	MJSU-6	Easting:	E 708.555	
Date Started:	October 14	Northing:	N 2,617.812	
Date Completed:	October 26	Elevation(mSL):	964	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration

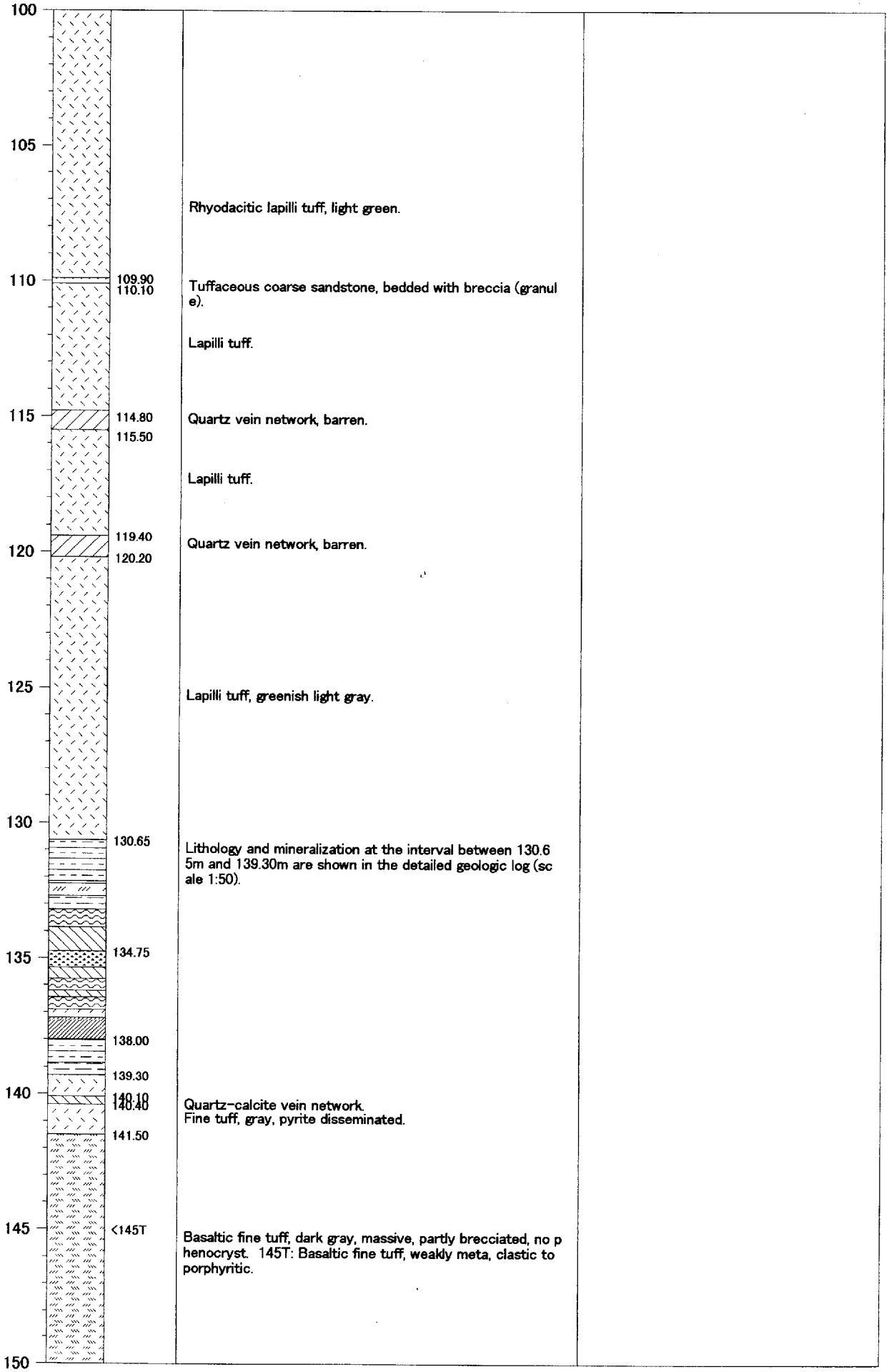


Drill Hole No.:	MJSU-6	Easting:	E 708.555	
Date Started:	October 14	Northing:	N 2,617.812	
Date Completed:	October 26	Elevation(mSL):	964	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration
50.55	49.85–50.55m: this interval contains reddish jasper fragments (size: 0.5–3.0cm) in lapilli tuff.	
52.65	Rhyodacitic lapilli tuff–coarse tuff, green. 52.65–58.65m: clayey, calcite veinlets.	
58.65		
<59T	Basaltic fine tuff, greenish gray, calcite veinlets. 58T: Basaltic fine tuff, weakly meta, clastic to porphyritic.	
61.60	Layered tuff, greenish gray, containing chlorite thin layers.	
64.15		64.15–65.20m: This interval contains pyrite layers (0.5cm thick) sporadically.
65.20		
66.15		66.15–66.90m: This interval contains pyrite layers (1–2mm thick) sporadically.
66.90		
	Rhyodacitic coarse tuff, layered, white spotted.	
72.60		
73.00	Basaltic fine tuff, dark green.	
74.10		
<74T	Dolerite, greenish gray, massive, dip 70. 74T: Dolerite, weakly meta, micro-ophitic.	
75.00		
	Rhyodacitic lapilli tuff–coarse tuff, light green, containing chlorite thin layers.	
82.00	82.00–88.00m: this interval contains jasper fragments sporadically in light green layered tuff.	
83.05		83.05–85.00m: This interval contains pyrite layers (1cm thick) sporadically.
85.00		
88.00?		
	Layered tuff, light green, containing chlorite bands.	
		92.60m: 1–4cm thick pyrite layer.
97.00		
	Lapilli tuff, partly tuff breccia.	
98.70		98.70–99.90m: This interval contains pyrite layers.
99.90		

Drill Hole No.:	MJSU-6	Easting:	E 708.555	
Date Started:	October 14	Northing:	N 2,617.812	
Date Completed:	October 26	Elevation(mSL):	964	Drilled by DMMR/BRGM

Depth | Lithology | Mineralization & Alteration

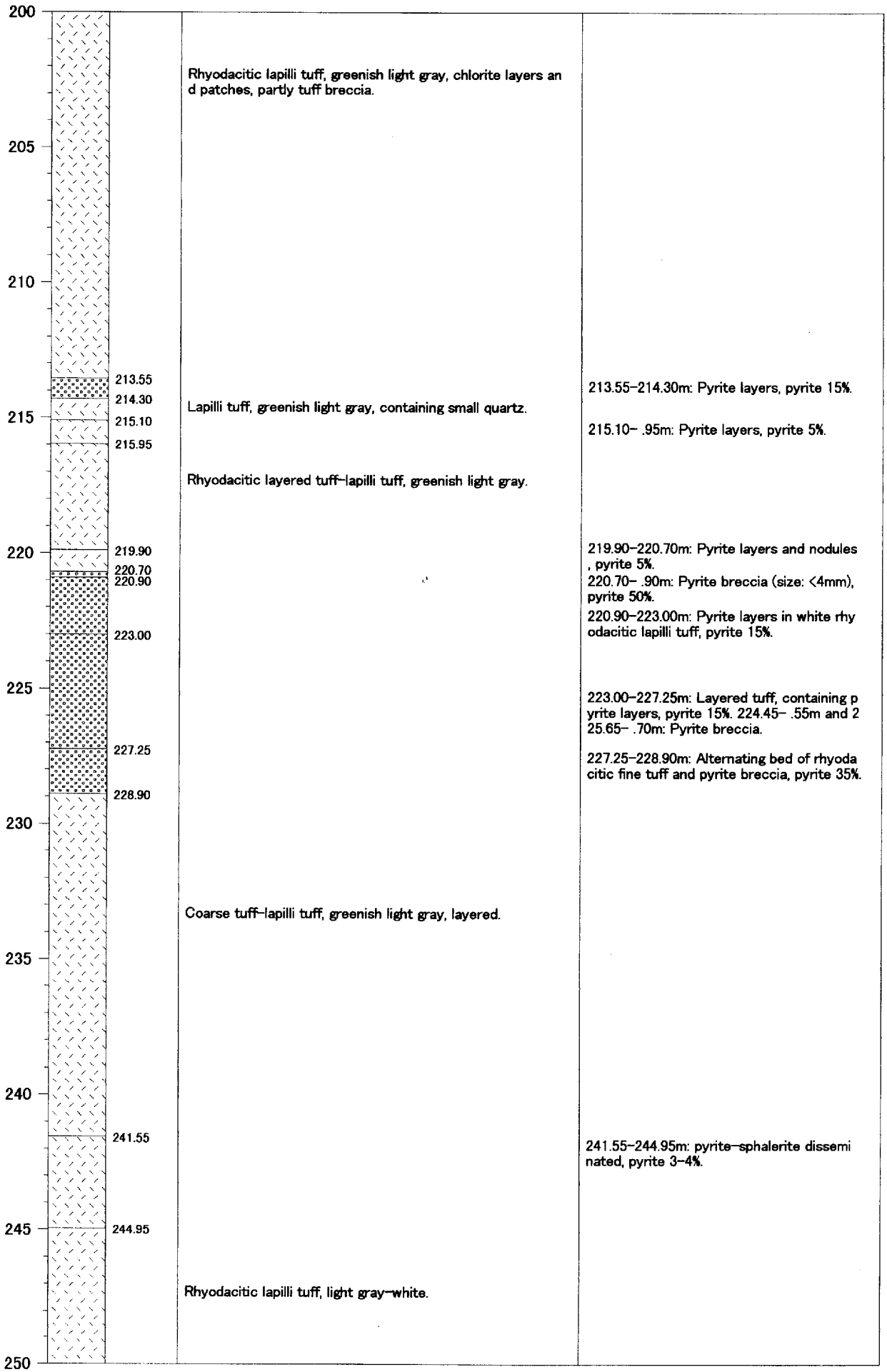


Drill Hole No.:	MJSU-6	Easting:	E 708.555	
Date Started:	October 14	Northing:	N 2,617.812	
Date Completed:	October 26	Elevation(mSL):	964	Drilled by DMMR/BRGM

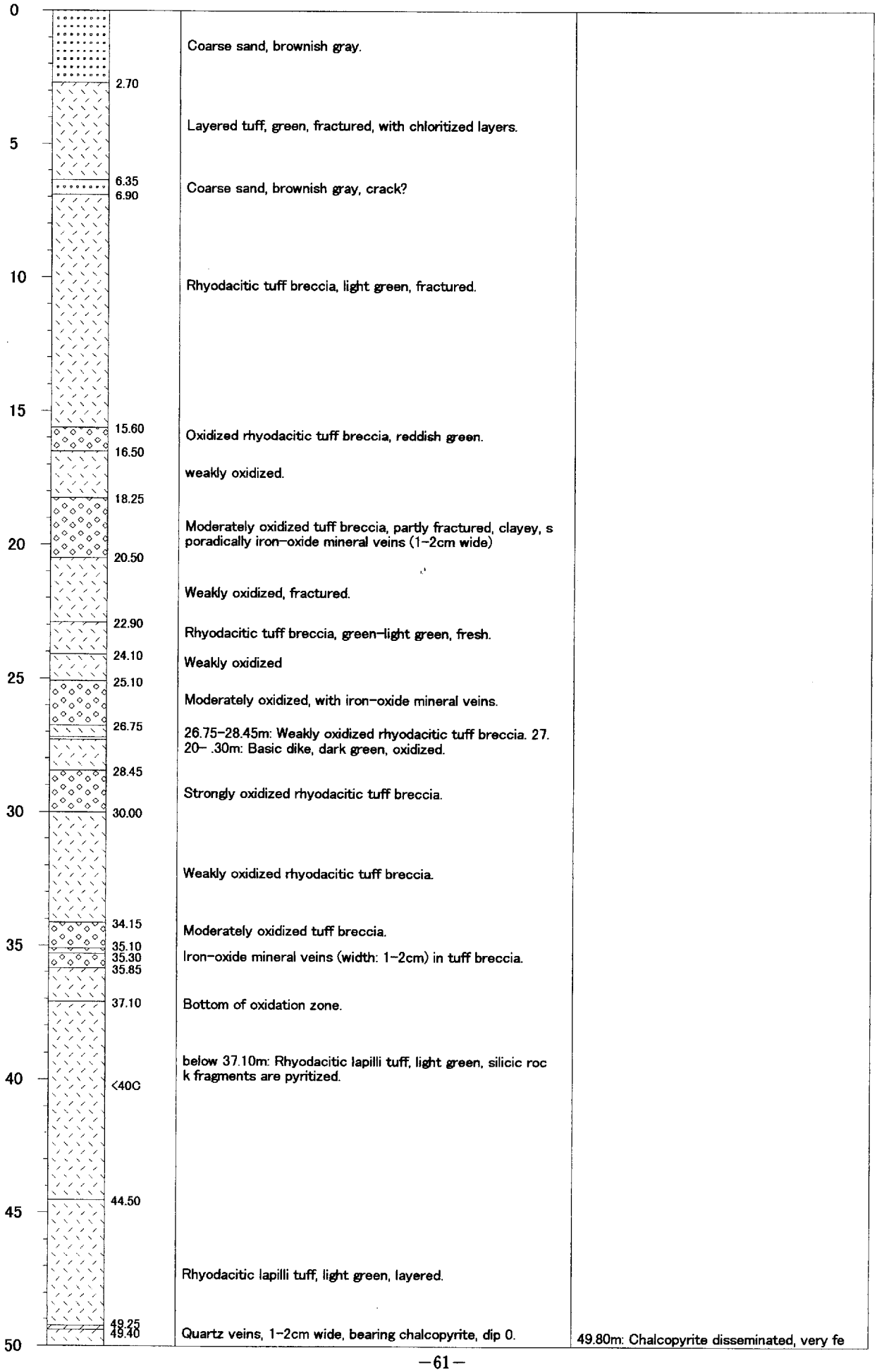
Depth	Lithology	Mineralization & Alteration
150		
	Basaltic tuff, calcite veinlets.	
152.75		
152.90	Quartz vein, barren Rhyodacitic lapilli tuff, dark green, choloritized.	
154.05		154.05- .25m: Chloritized lapilli tuff, black, c ontaining pyrite-chalcopyrite layers.
154.25	154.25- .60m: Pyrite-calcite-quartz veinlets, 154.60- .85 m: Rhyodacitic tuff, containing pyrite veinlets.	
155		
155.05		
155.90	Dolerite dike, greenish light gray, weakly epidotized. Mafic minerals are chloritized.	
	Rhyodacitic coarse tuff, light gray, partly lapilli tuff, white sp otted.	
159.60		
160	Tuff breccia.	
160.75		
160.95	Sandy coarse tuff.	
	Layered tuff, light gray, partly lapilli tuff, white spotted.	
165		
166.80		
167.05	Fine-coarse tuff, greenish gray.	166.80-167.05m: Tuffaceous coarse sands tone, containing thin pyrite layers, pyrite 5 %.
167.70		
	Lapilli tuff, greenish light gray, containing chlorite patches and layers.	
170		
170.00	Tuff breccia, greenish light gray.	
171.70		
	Layered tuff, greenish light gray, chlorite thin layers, white spotted.	
174.20		
174.35		174.20- .35m: Chalcopyrite disseminated v ery few.
175		
180		
182.15		
182.90		182.15- .90m: Pyrite-chalcopyrite layers in layered tuff.
185	Lapilli tuff-white spotted coarse tuff.	
190		
191.30		
191.50	Basic dike, light green.	
195	Rhyodacitic lapilli tuff, greenish light gray.	
200		

Drill Hole No.:	MJSU-6	Easting:	E 708.555
Date Started:	October 14	Northing:	N 2,617.812
Date Completed:	October 26	Elevation(mSL):	964

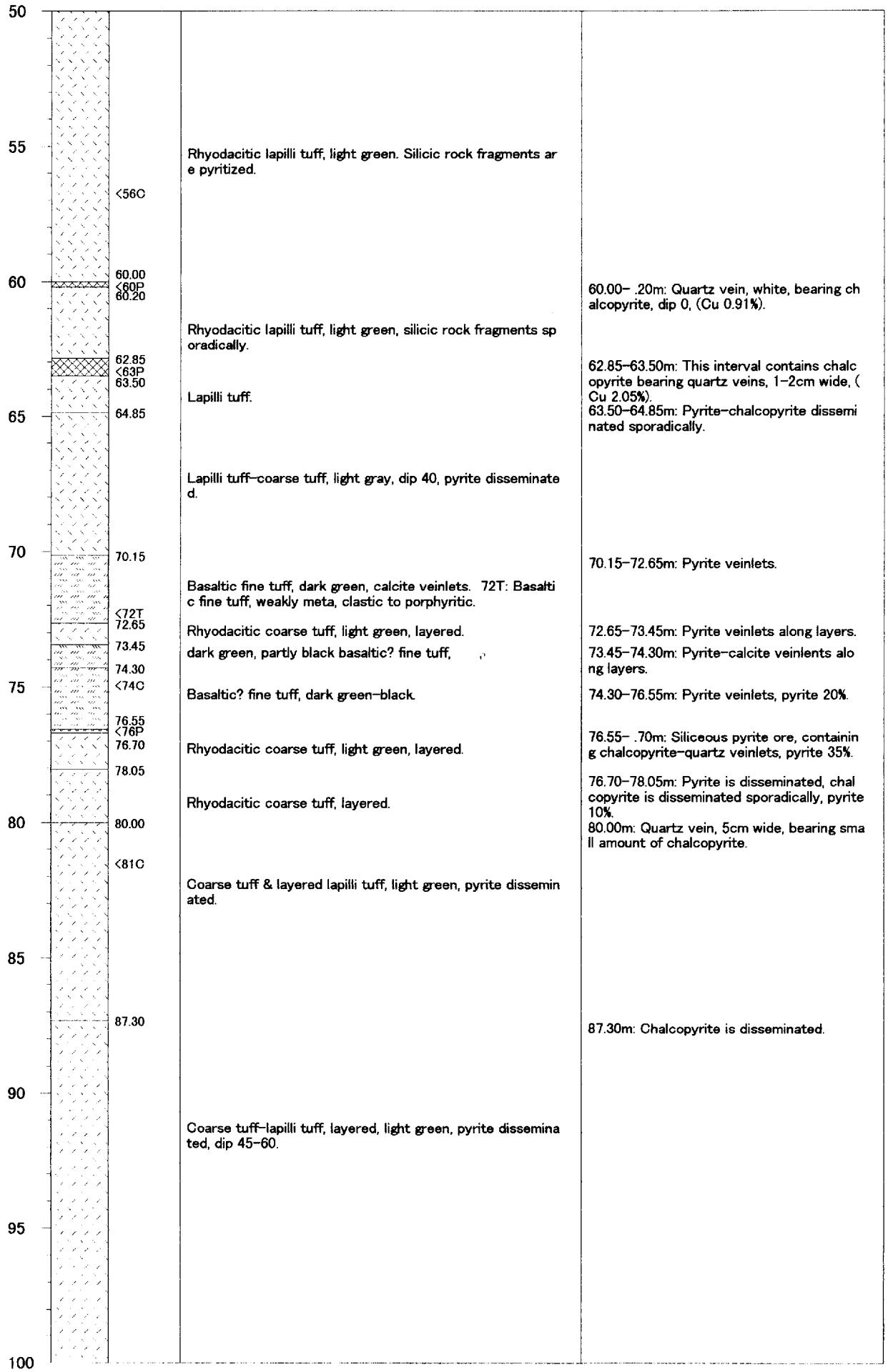
Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-7	Easting:	E 708.792	
Date Started:	October 27	Northing:	N 2,618.171	
Date Completed:	November 10	Elevation(mSL):	956	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-7	Easting:	E 708.792	
Date Started:	October 27	Northing:	N 2,618.171	
Date Completed:	November 10	Elevation(mSL):	956	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-7	Easting:	E 708.792	
Date Started:	October 27	Northing:	N 2,618.171	
Date Completed:	November 10	Elevation(mSL):	956	Drilled by DMMR/BRGM

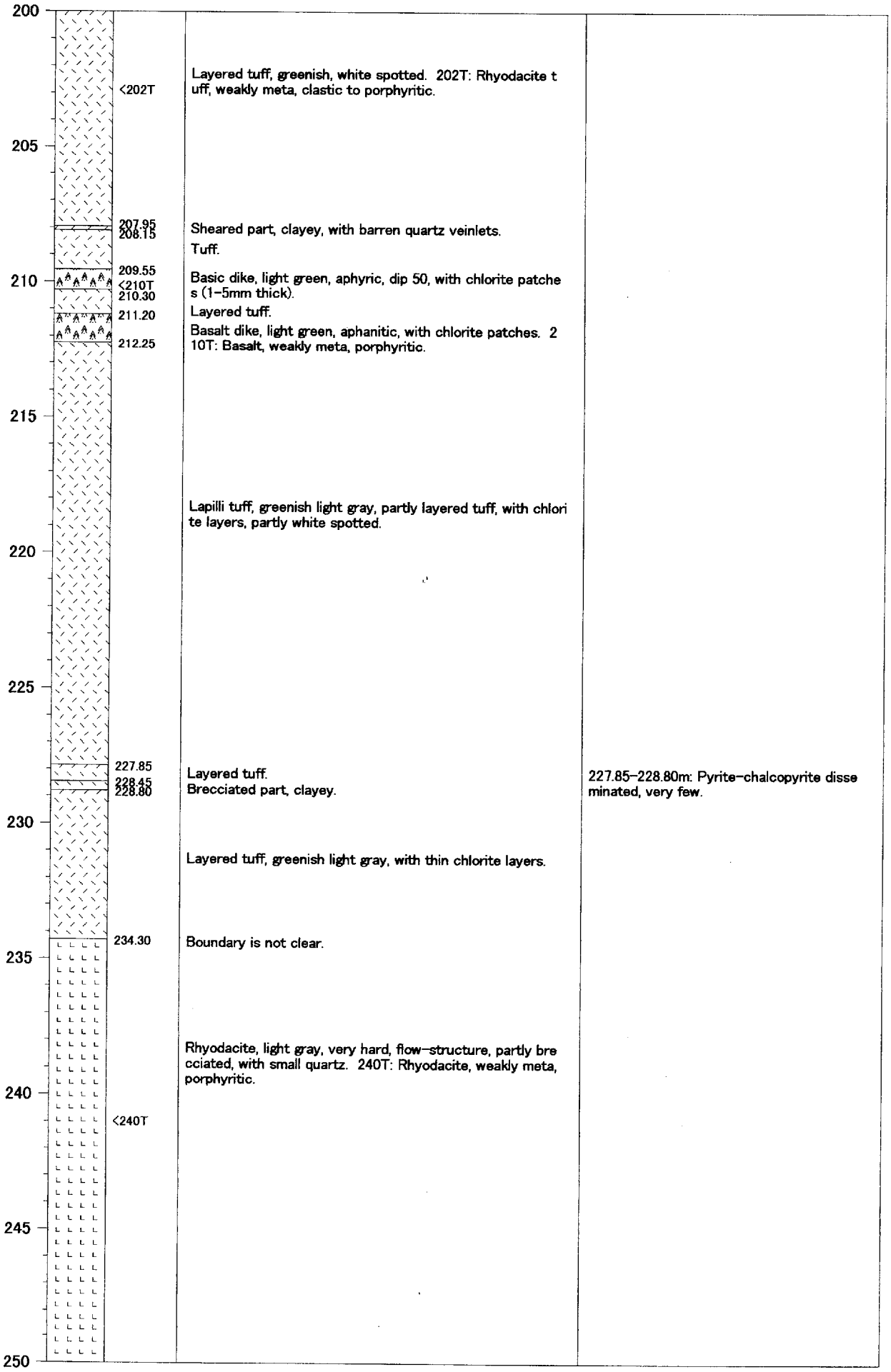
Depth	Lithology	Mineralization & Alteration
100	Layered tuff (coarse tuff), light green, pyrite disseminated.	
105		
108.25		
108.75	Basic dike, dolerite? light green, containing chlorite patches (size: 1-3mm).	108.25- .75m: Pyrite-chalcopyrite veinlets along layers, few.
110		
111.00		
115	Layered tuff (coarse-fine tuff), light green, pyrite disseminated, partly white spotted.	
119.00	Pyritization is weak below 119.0m.	
119.80		
120	Barren quartz vein.	
120.05		
125	Layered tuff (coarse tuff), light green.	
130	Pyrite is very few.	
135		
138.00?		
140	Lapilli tuff, light green, silicic rock fragments (size: <2cm).	
145	Lapilli tuff-layered tuff, light green, containing chlorite thin layers, dip 40.	
<149C		
150		

Drill Hole No.:	MJSU-7	Easting:	E 708.792	
Date Started:	October 27	Northing:	N 2,618.171	
Date Completed:	November 10	Elevation(mSL):	956	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration
150		
	Lapilli tuff, white-light green.	
155		
156.10		
156.65	Basic dike, dolerite? light green, dip 70.	
	Rhyodacitic lapilli tuff, pyrite disseminated, pyrite 2-3%, part ly hematite stains.	
159.80		
160		
	Rhyodacitic layered tuff, with chlorite layers, white spotted .	
165		
170.00		
170		
	Tuff breccia, white silicic rock fragments (size: <5cm), with small quartz.	
173.85	173.85-179.0m: Lapilli tuff-layered tuff.	173.85-174.55m: Chalcopyrite disseminate d, very few.
174.55		174.55-176.00m: Pyrite-chalcopyrite-sph alerite layers.
175		
176.00		
177.90		177.90m: Chalcopyrite-pyrite-spharerite v einlets.
179.00		
180		
	Lapilli tuff, light green, silicic rock fragments (size: <3cm), w ith small quartz, partly layered, with chlorite layers, weakly pyrite disseminated.	
185		
190.30		
190.40	Brecciated and silicified part, black, pyrite disseminated.	
190	Lapilli tuff, layered, light green.	
192.65	192.65-194.55m: Lapilli tuff, whitish.	192.65-193.55m: Chalcopyrite-sphalerite d isseminated, few.
193.55		193.55-194.55m: Chalcopyrite-sphalerite d isseminated, very few.
194.55		
195.00		
195		
195.10	195.00- .10m & 195.70- .95m: Basic dike, light green, with chlorite patches.	
195.70		
195.95		
196.50	Basic dike, dolerite, green, with chlorite patches.	
197.90		197.90-198.30m: Pyrite-chalcopyrite-sph alerite veinlets, few.
198.30		
	Layered tuff, greenish light gray, with small quartz.	
200		

Drill Hole No.:	MJSU-7	Easting:	E 708.792	
Date Started:	October 27	Northing:	N 2,618.171	
Date Completed:	November 10	Elevation(mSL):	956	Drilled by DMMR/BRGM

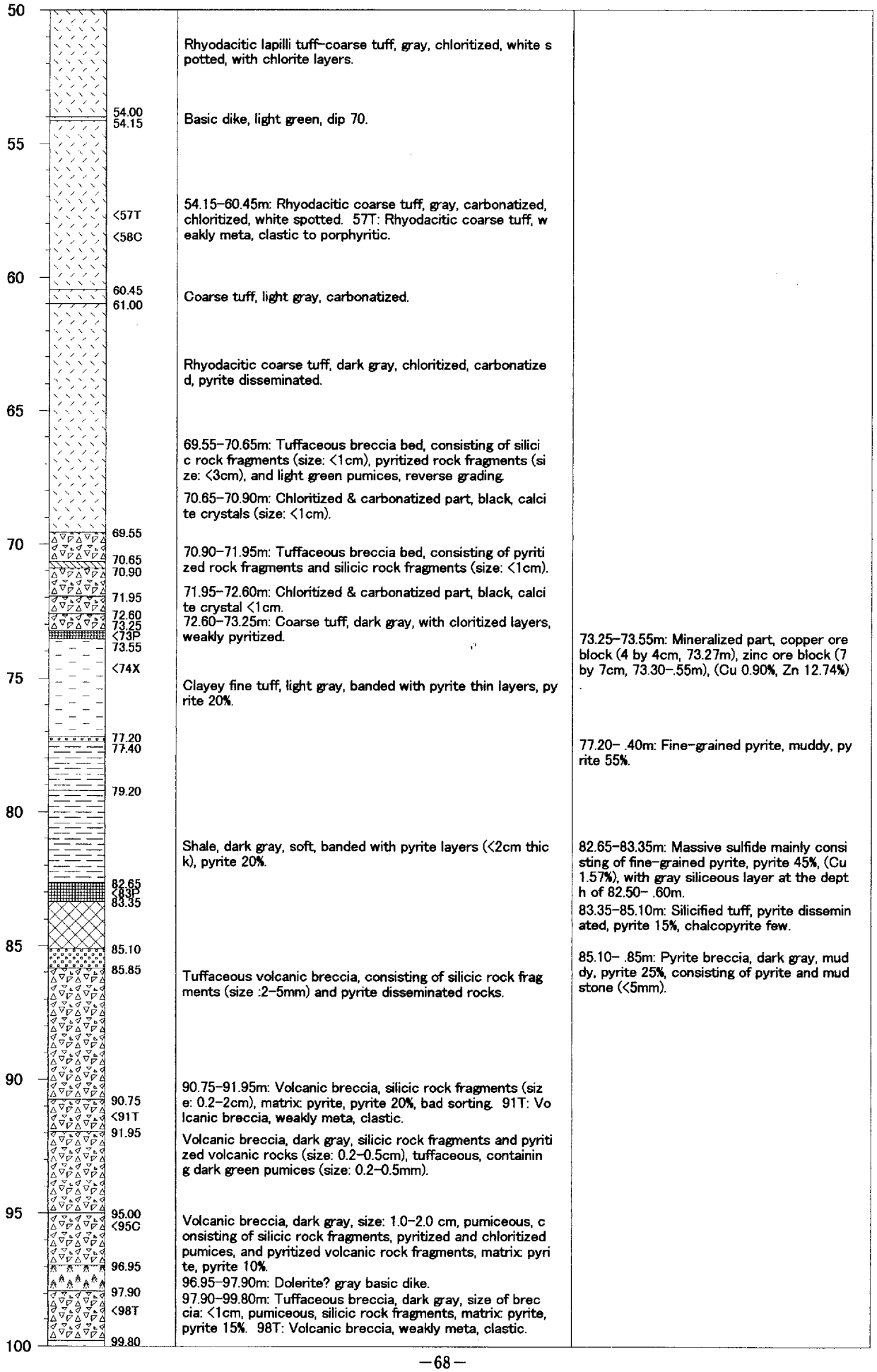
Depth	Lithology	Mineralization & Alteration



Drill Hole No.:	MJSU-8	Easting:	E707.196	
Date Started:	October 30	Northing:	N2,620.623	
Date Completed:	November 13	Elevation(mSL):	955	Drilled by DMMR/BRGM

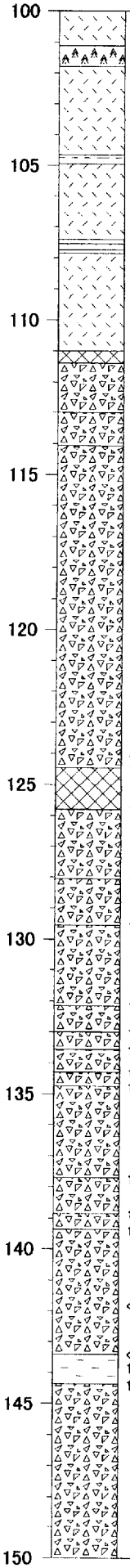
Depth	Lithology	Mineralization & Alteration
0.50	Slime.	
	Porphyritic rock, light green, plagioclases are dominant (size: 2–8mm), fresh mafic minerals are not confirmed, weakly epidotized and chloritized.	
8.00		
9.10	Non-core, crack	
9.70		
<10T	8.00–13.30m: Basalt dike, greenish light gray, aphyric, weakly epidotized, partly fractured, calcite veinlets. 10T: Basalt, weakly meta, porphyritic.	
13.30		
14.20	14.20–15.30m: Basic dike, 14.20–15.00m: Sheared & oxidized part, 15.00–15.30m: Silicified part.	
15.00		
15.30		
<16C	Porphyritic rock.	
18.25		
18.50	18.25–18.50m: plagioclase small (size: 1–2mm).	
<20T		
	Porphyritic rock, green-light green, fresh mafic mineral few, plagioclase dominant (size: <0.7 cm), chloritized. 20T: Porphyritic basalt, weakly meta, porphyritic.	
<28C		
30.30	30.30– .70m: Strongly silicified rock, light gray, porphyritic dacite?, with quartz veinlets (1–3cm wide).	
30.70		
31.25	30.70–31.25m: Oxidized and brecciated part.	
33.30	Basic dike, no mineralization.	
33.70		
	Silicified rock, white-light gray, brecciated, pyrite veinlets, pyrite 10%. 39T: Rhyodactic tuff? hightly silicifiled, clastic to porphyritic.	
<38C		
<39T		
<41X		
42.45		42.45–45.65m: Pyrite veins (2–4cm wide) sporadically, pyrite 10%.
45.65		
	Rhyodacitic lapilli tuff?, dark green, chloritized, containing silicic rcok fragments (size: 0.5–1.0cm).	

Drill Hole No.:	MJSU-8	Easting:	E707.196	
Date Started:	October 30	Northing:	N2,620.623	
Date Completed:	November 13	Elevation(mSL):	955	Drilled by DMMR/BRGM



Drill Hole No.:	MJSU-8	Easting:	E707.196	
Date Started:	October 30	Northing:	N2,620.623	
Date Completed:	November 13	Elevation(mSL):	955	Drilled by DMMR/BRGM

Depth | Lithology | Mineralization & Alteration



99.80–101.10m: Pumiceous lapilli tuff, dark gray, pumice: light green and clayey, matrix: pyrite, pyrite 15%.

101.10– .80m: Basic dike, dolerite? dark green

101.80–104.65m: Pumice tuff, dark gray, matrix: 10%, layered pyrite.

104.65– 104.95m: Alternation of dark gray fine tuff (soft) and pumice tuff, dip 70.

104.95– 107.40m: Pumice tuff, dark gray, light green pumice layers, pyritized, pyrite 20%.

107.40– .55m: Shale, dark gray, hard, pyrite veinlets.

107.75– .85m: Shale

107.85–111.00m: Pumice tuff, dark gray, light green pumice (size: 0.2–0.4cm), pyritized, pyrite 20%,

111.00– .40m: Strongly silicified part, dark gray, shale? pyrite veinlets, pyrite 10%.

111.40–113.00m: Pumiceous breccia bed, dark gray, breccIated, silicified, pyrite veinlets, pyrite 10%.

113.00–114.05m: Breccia bed, partly silicified, pyrite veinlets, pyrite 15%.

114.05–124.45m: Pumiceous breccia, dark gray, breccia: silicic rock fragments (size: 0.5–1.0cm), light green pumice (size: 0.2–0.4cm), pyrite veinlets, pyrite 10%.

124.45–125.80m: Silicified part, shale? dark gray, pyrite veinlets, pyrite 5%.

125.80–128.05m: Pumiceous breccia bed, size of fragments: 0.2–0.7cm, chloritized pumice, pyrite 15%.

128.05–129.55m: Clayey fine tuff, dark gray, bedded with pyrite thin layers.

129.55–132.15m: Very strongly silicified part, ocher, origin: breccia bed and fine tuff?, size of fragments: 0.2–1.0cm.

132.15–133.00m: Pumiceous breccia bed, size of fragments: 0.3–2.0cm, size of pumice: <3.0cm, matrix: pyritized, pyrite 20%.

133.00–133.55m: Very strongly silicified part, ocher.

133.55–134.30m: Silicified tuff, dark gray, containing pyrite bands (2.0–3.0 cm thick), pyrite 10%.

134.30–134.75m: Very strongly silicified part, ocher.

134.75–137.70m: Pumiceous breccia bed, partly fine tuff, size of fragments: 0.2–1.0cm, pyrite veinlets, pyrite 5%.

137.70–138.85m: Breccia bed, dark gray, partly pumiceous, size of fragments: 2.0–4.0cm, silicified, pyrite veinlets, pyrite 10%.

138.85–139.35m: Brecciated fine tuff, dark gray, pyrite few

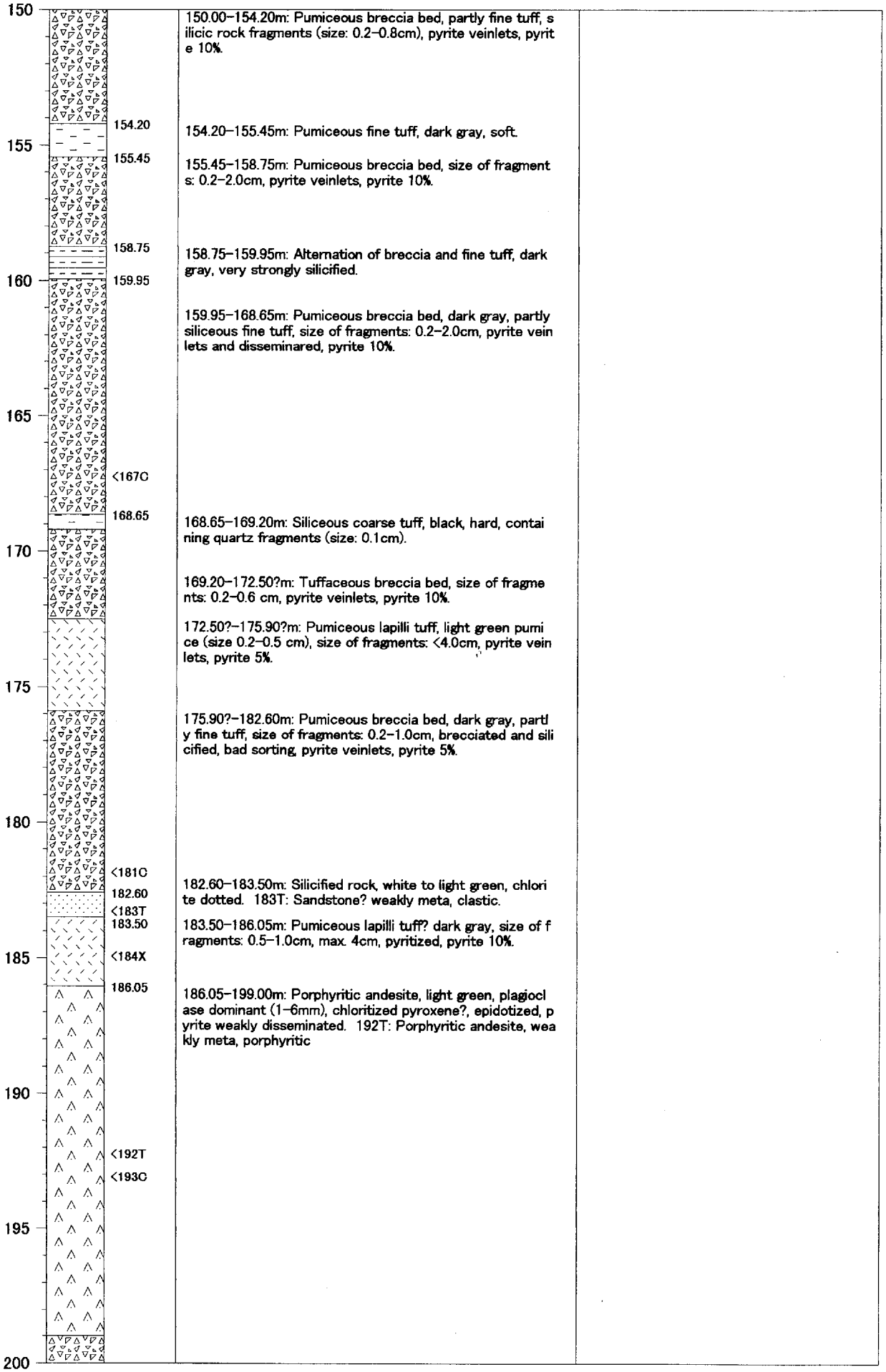
139.35–143.40m: Pumiceous breccia bed, dark gray, size of fragments: 0.2–1.5cm, pyrite veinlets, pyrite 10%.

143.40–144.35m: Fine–coarse tuff, dark gray, pyrite disseminated.

144.35–150.00m: Pumiceous breccia bed, dark gray, bad sorting, size of fragment 1.0–4.0cm, pyrite veinlets, pyrite 10%.

Drill Hole No.:	MJSU-8	Easting:	E707.196	
Date Started:	October 30	Northing:	N2,620.623	
Date Completed:	November 13	Elevation(mSL):	955	Drilled by DMMR/BRGM

Depth	Lithology	Mineralization & Alteration



150.00–154.20m: Pumiceous breccia bed, partly fine tuff, s ilicic rock fragments (size: 0.2–0.8cm), pyrite veinlets, pyrit e 10%.

154.20–155.45m: Pumiceous fine tuff, dark gray, soft.

155.45–158.75m: Pumiceous breccia bed, size of fragment s: 0.2–2.0cm, pyrite veinlets, pyrite 10%.

158.75–159.95m: Alternation of breccia and fine tuff, dark gray, very strongly silicified.

159.95–168.65m: Pumiceous breccia bed, dark gray, partly siliceous fine tuff, size of fragments: 0.2–2.0cm, pyrite vein lets and disseminared, pyrite 10%.

168.65–169.20m: Siliceous coarse tuff, black, hard, contai ning quartz fragments (size: 0.1cm).

169.20–172.50?m: Tuffaceous breccia bed, size of fragme nts: 0.2–0.6 cm, pyrite veinlets, pyrite 10%.

172.50?–175.90?m: Pumiceous lapilli tuff, light green pumi ce (size 0.2–0.5 cm), size of fragments: <4.0cm, pyrite vein lets, pyrite 5%.

175.90?–182.60m: Pumiceous breccia bed, dark gray, partl y fine tuff, size of fragments: 0.2–1.0cm, brecciated and sili cified, bad sorting, pyrite veinlets, pyrite 5%.

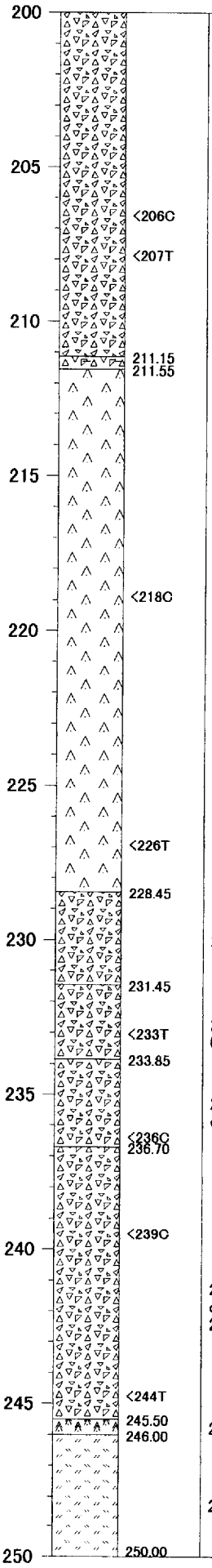
182.60–183.50m: Silicified rock, white to light green, chlori te dotted. 183T: Sandstone? weakly meta, clastic.

183.50–186.05m: Pumiceous lapilli tuff? dark gray, size of f ragments: 0.5–1.0cm, max. 4cm, pyritized, pyrite 10%.

186.05–199.00m: Porphyritic andesite, light green, plagiocl ase dominant (1–6mm), chloritized pyroxene?, epidotized, p yrite weakly disseminated. 192T: Porphyritic andesite, wea kly meta, porphyritic

Drill Hole No.:	MJSU-8	Easting:	E707.196	
Date Started:	October 30	Northing:	N2,620.623	
Date Completed:	November 13	Elevation(mSL):	955	Drilled by DMMR/BRGM

Depth | Lithology | Mineralization & Alteration



199.00–211.15m: Pumiceous breccia bed, dark gray, green –light green pumice (size: 0.2–5.0cm), size of fragments: 0. 2–2.0cm, pyrite veinlets, pyrite 5%. 207T: Pumiceous volc anic breccia, weakly meta, clastic.

211.15– .55m: Coarse tuff, dark gray, silicified, with chlorite patches (size: 0.2–0.5cm).

211.55–228.45m: Andesite, light green, intrusive, white pat ches (size: 1–2mm, plagioclase?). 226T: Andesite, weakly meta, porphyritic.

228.45–231.45m: Breccia bed, partly oxidized.

231.45–233.85m: Oxidized breccia bed, size of fragments: 0.2–1.0 cm. 233T: Volcanic breccia, weakly meta, clastic.

233.85–236.70m: Breccia bed, partly oxidized, size of fragm ents: 0.2–1.0 cm, pyrite veinlets, pyrite 5%.

236.70–245.50m: Volcanic breccia to coarse tuff, green t o light gray, plagioclase (size: 2–4 mm), strongly epidotized. 244T: Volcanic breccia, weakly meta, clastic.

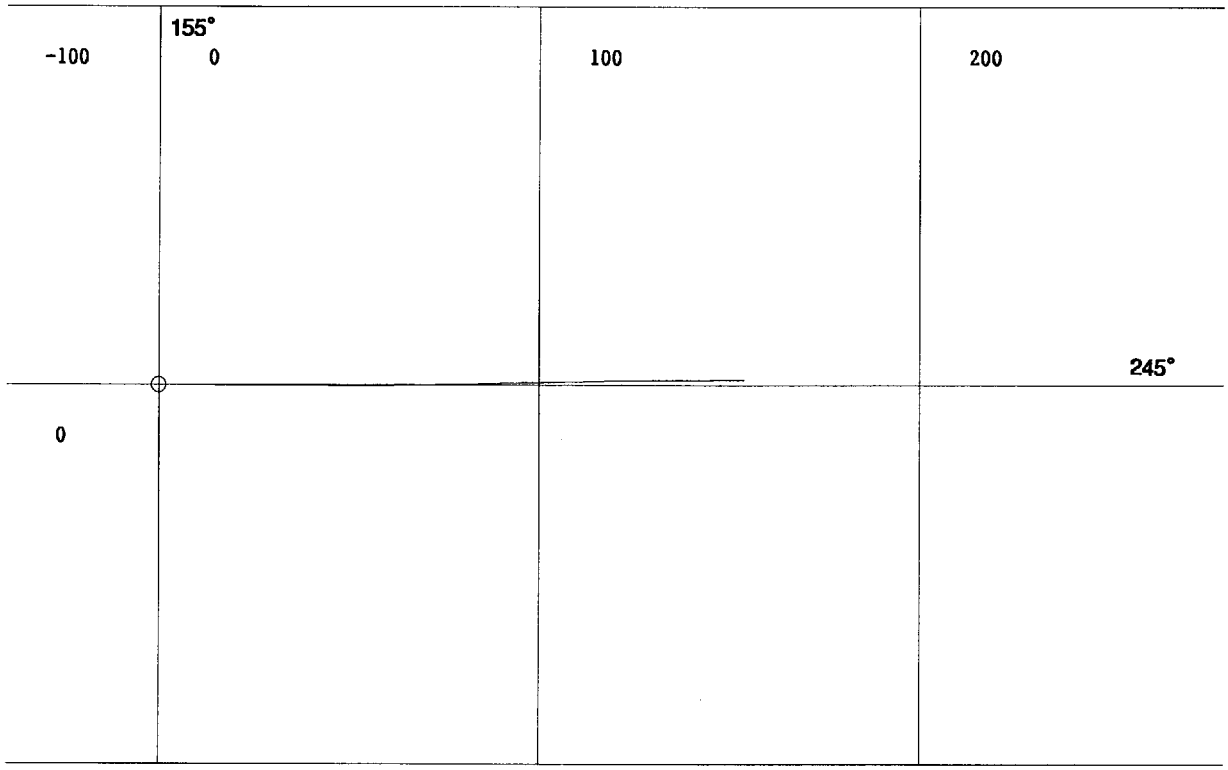
245.50–246.00m: Basic dike, gray, aphyric.

246.00–250.00m: Dacitic coarse tuff?

Appendix 1-28 Borehole Deviations of MJSU-1 to MJSU-8

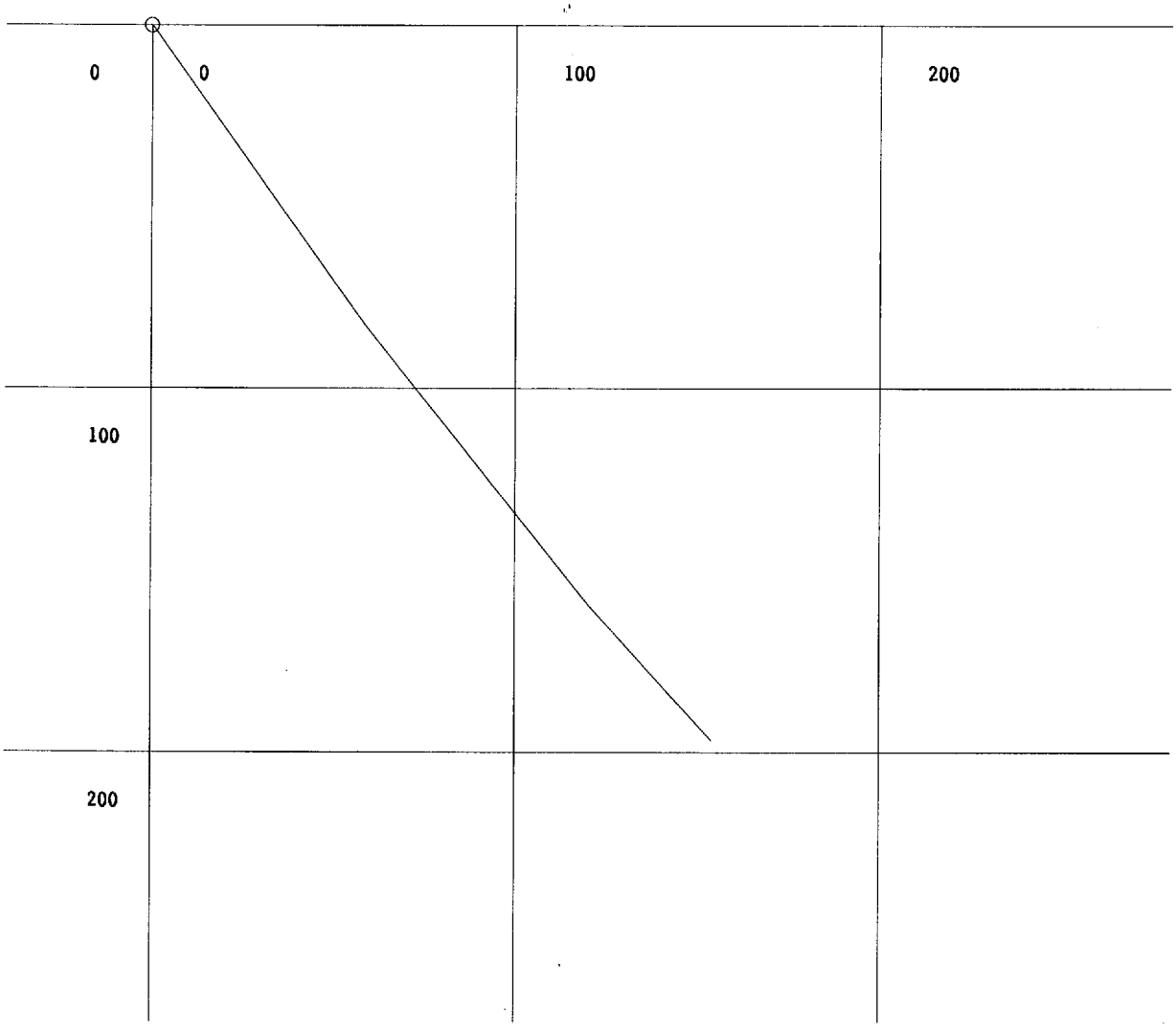
PLAN at 1/2000 grid 100m interval

MJSU-1



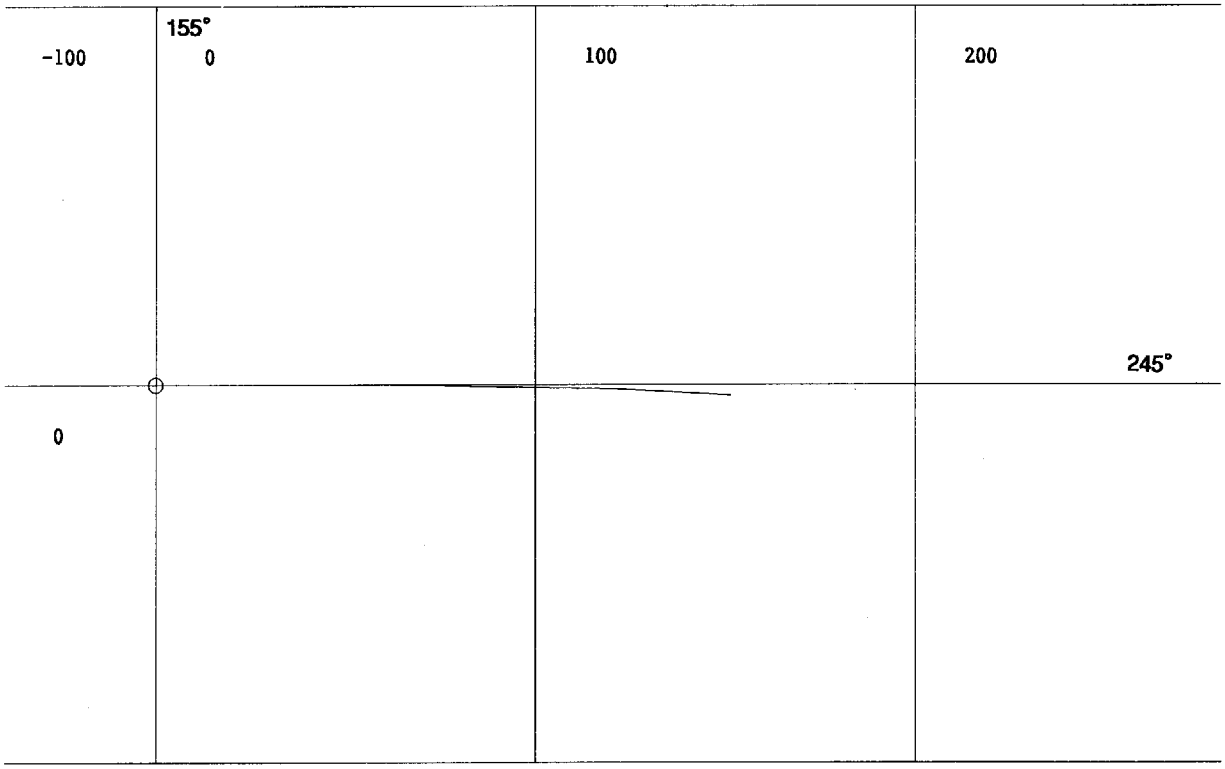
100

SECTION Looking 155°

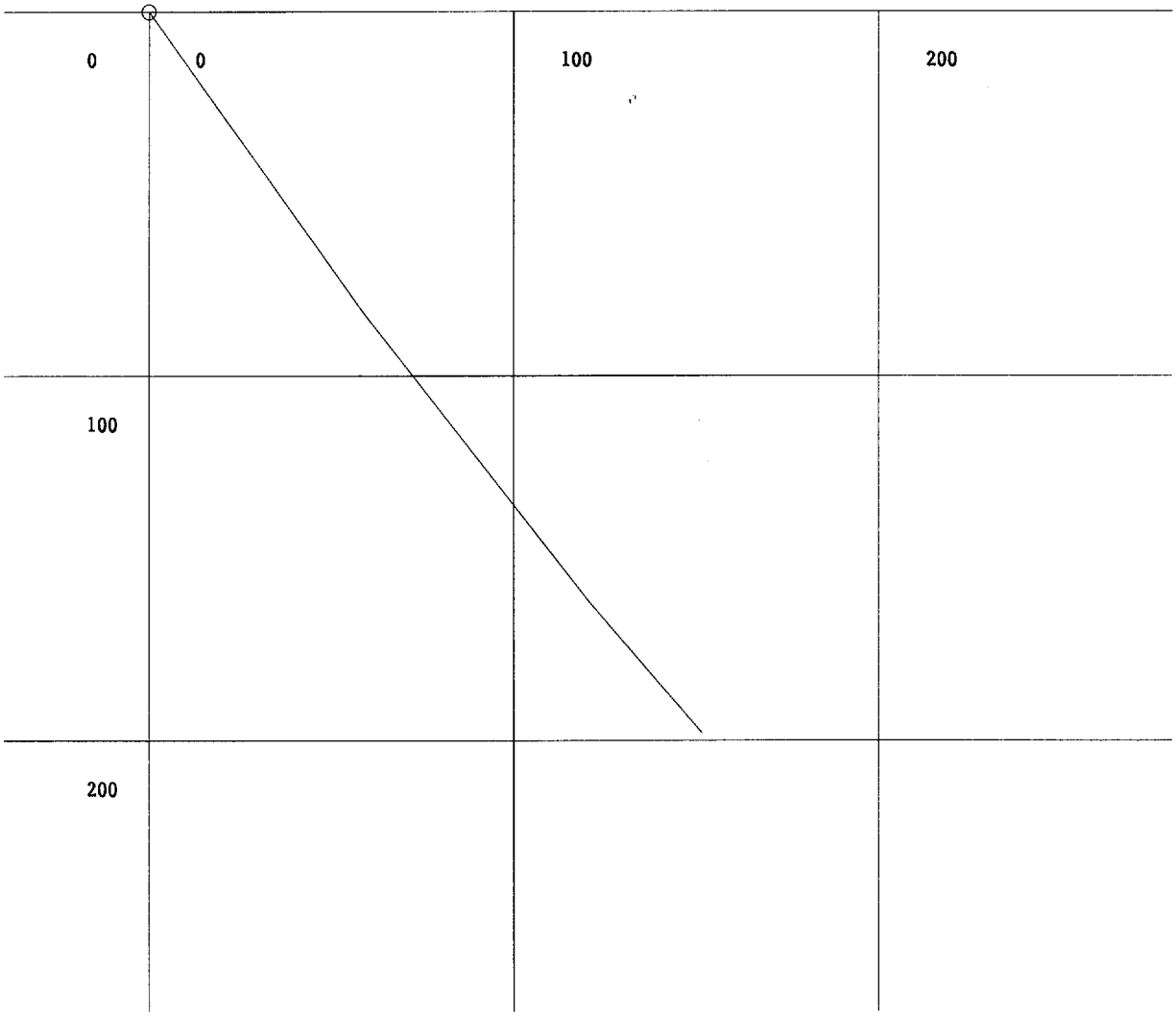


PLAN at 1/2000 grid 100m interval

MJSU-2

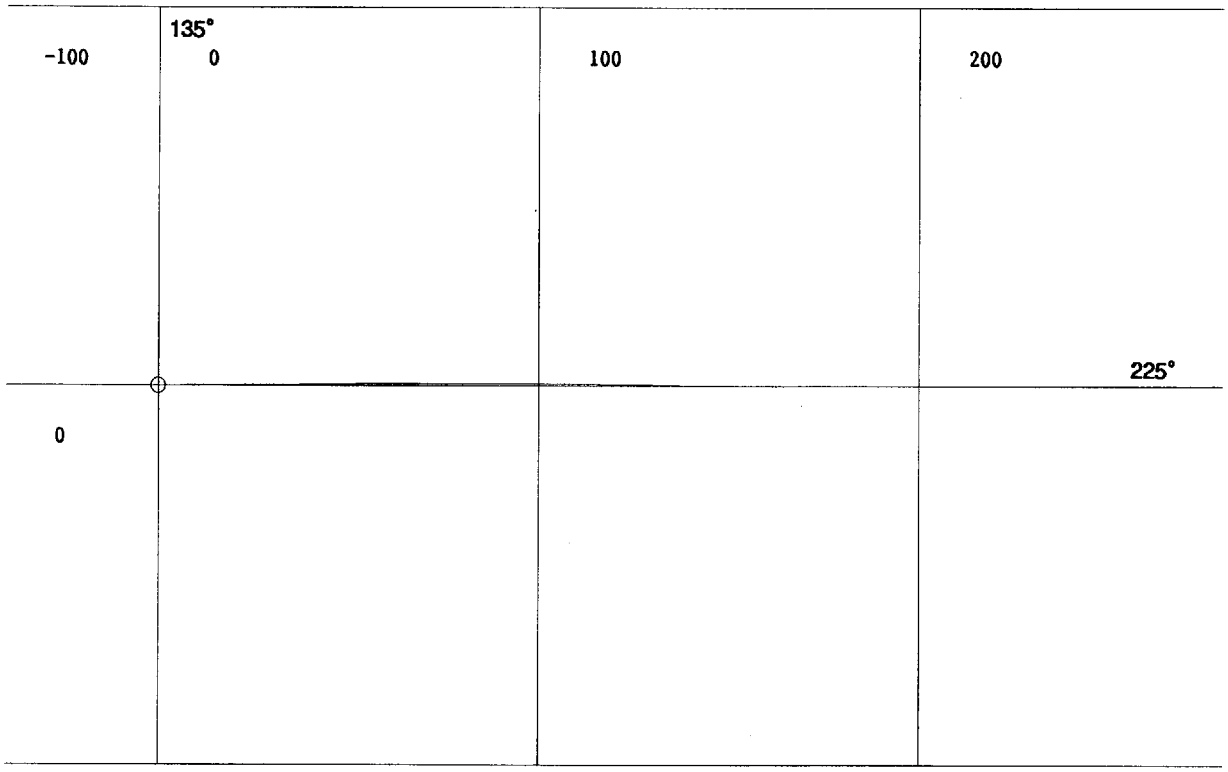


SECTION Looking 155°



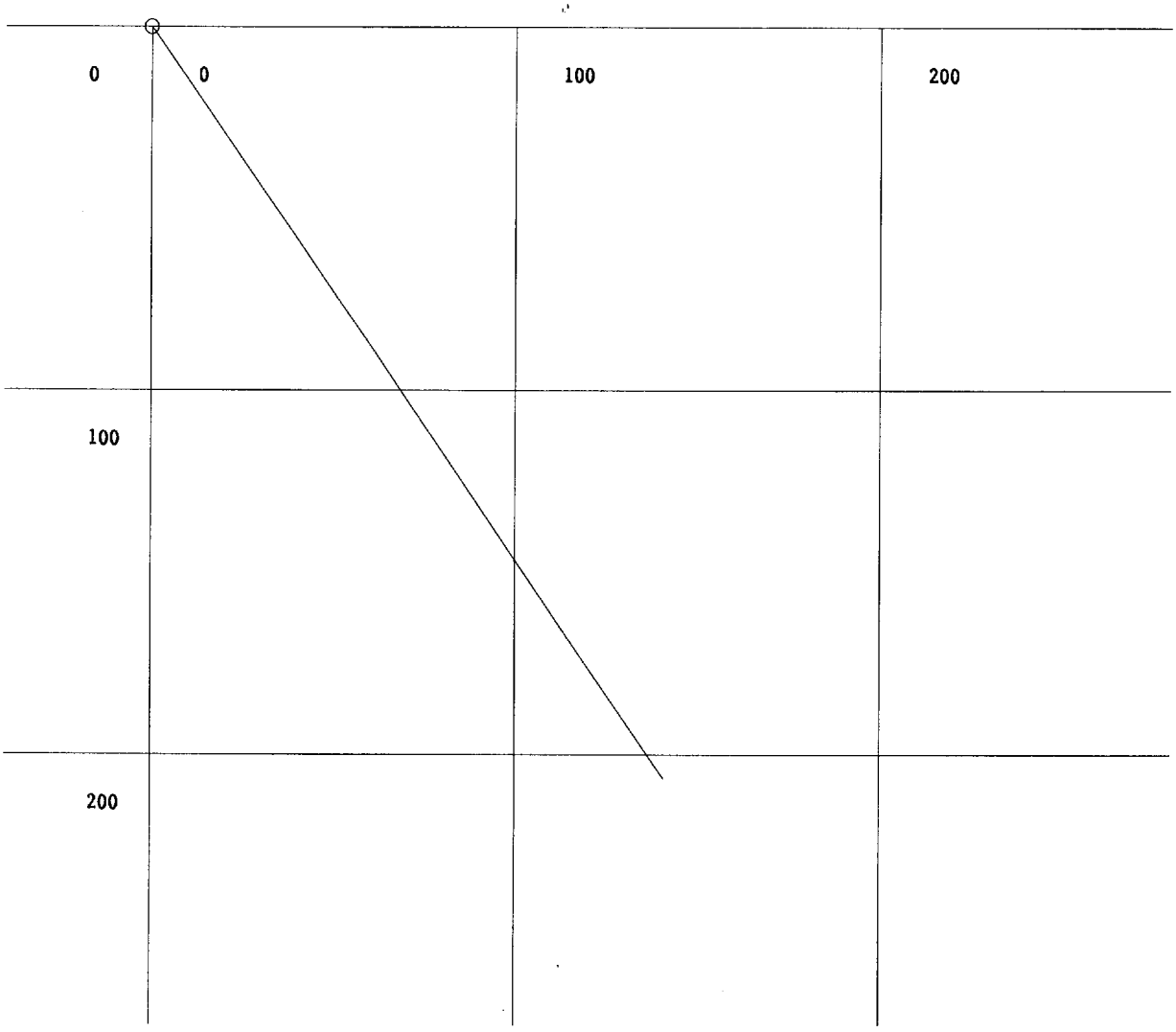
PLAN at 1/2000 grid 100m interval

MJSU-3



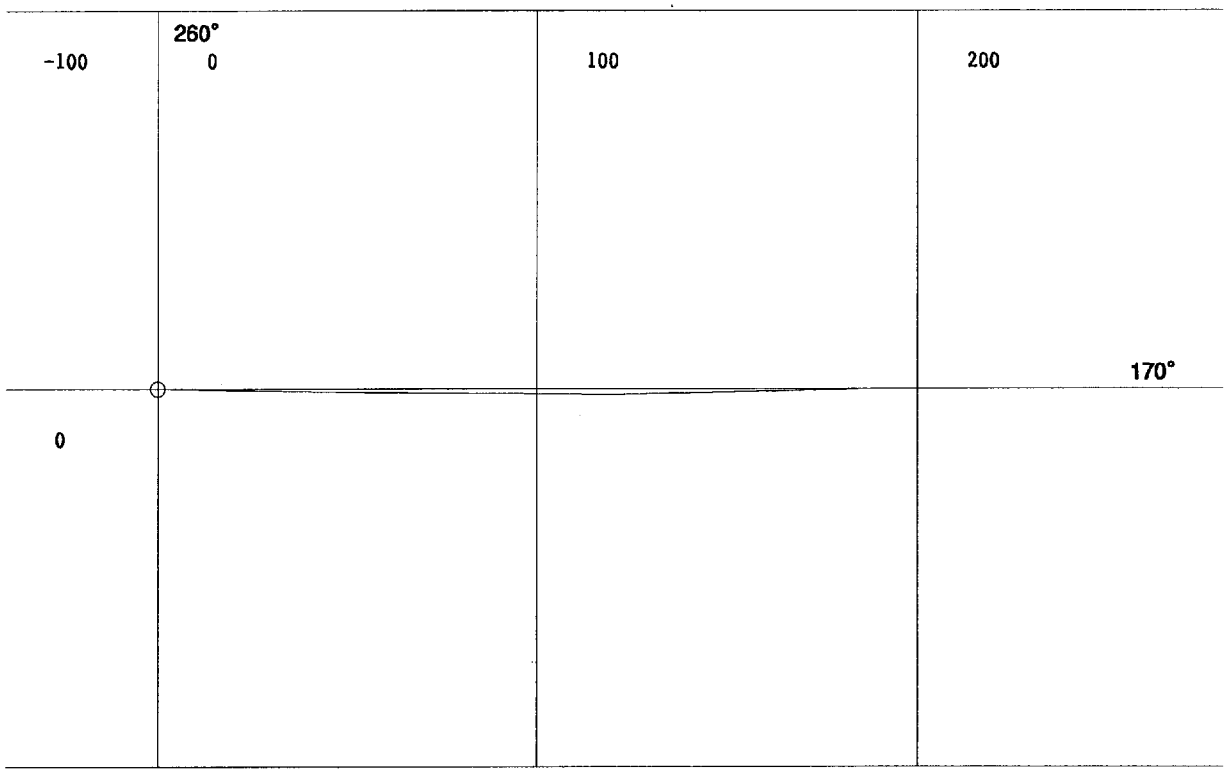
100

SECTION Looking 135°

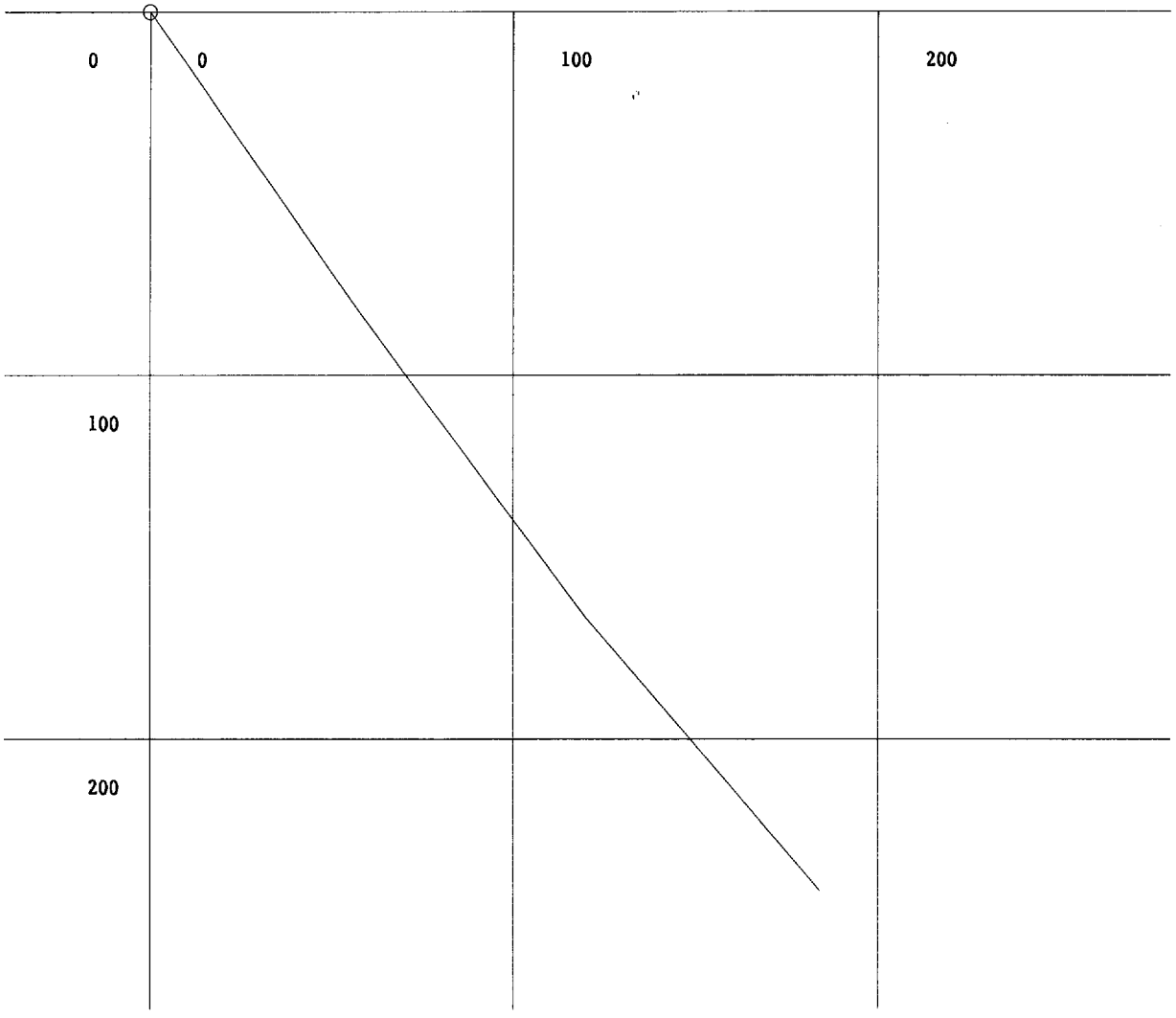


PLAN at 1/2000 grid 100m interval

MJSU-4

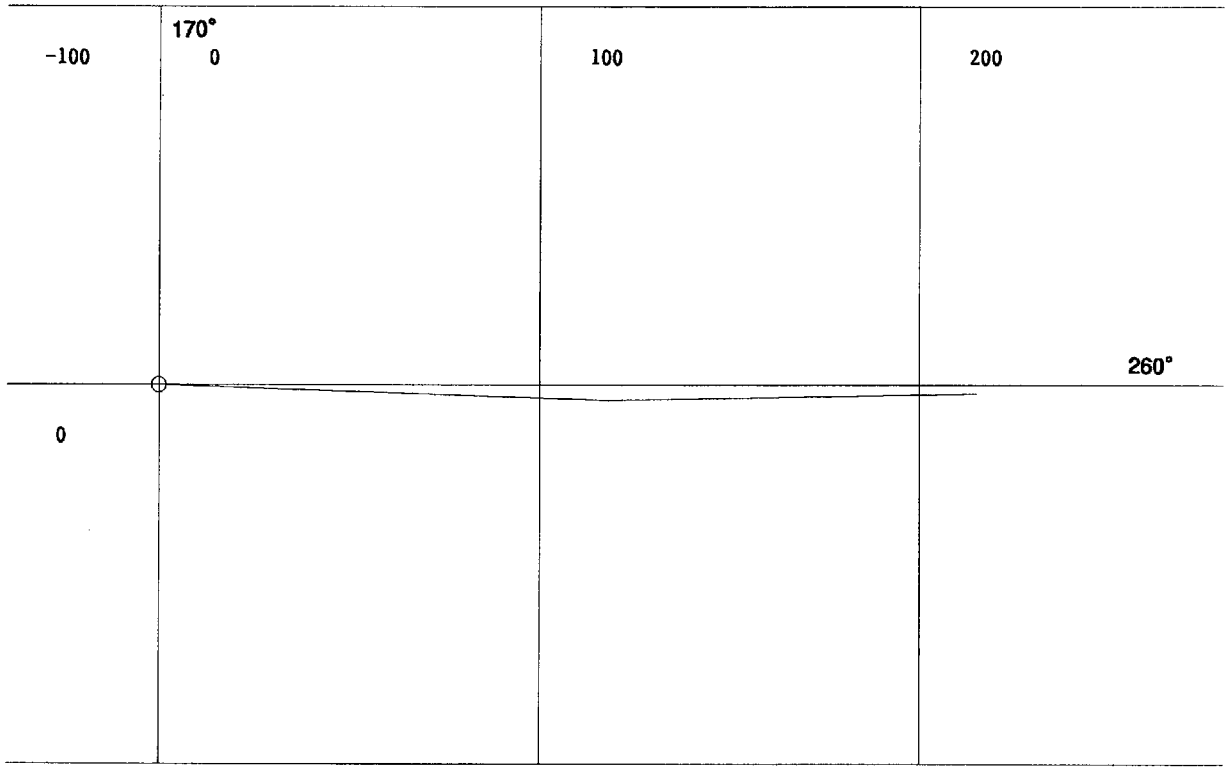


SECTION Looking 170°



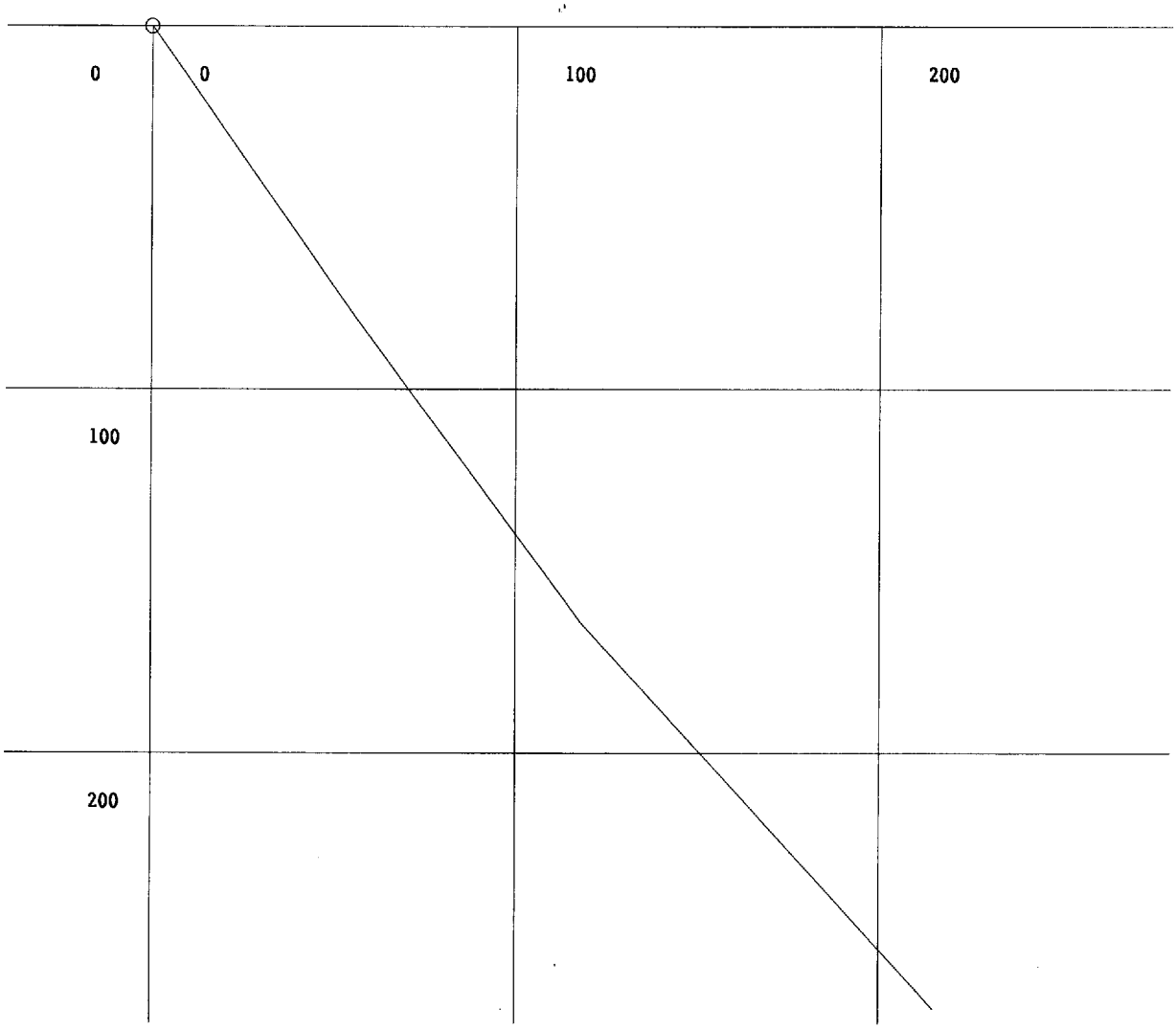
PLAN at 1/2000 grid 100m interval

MJSU-5



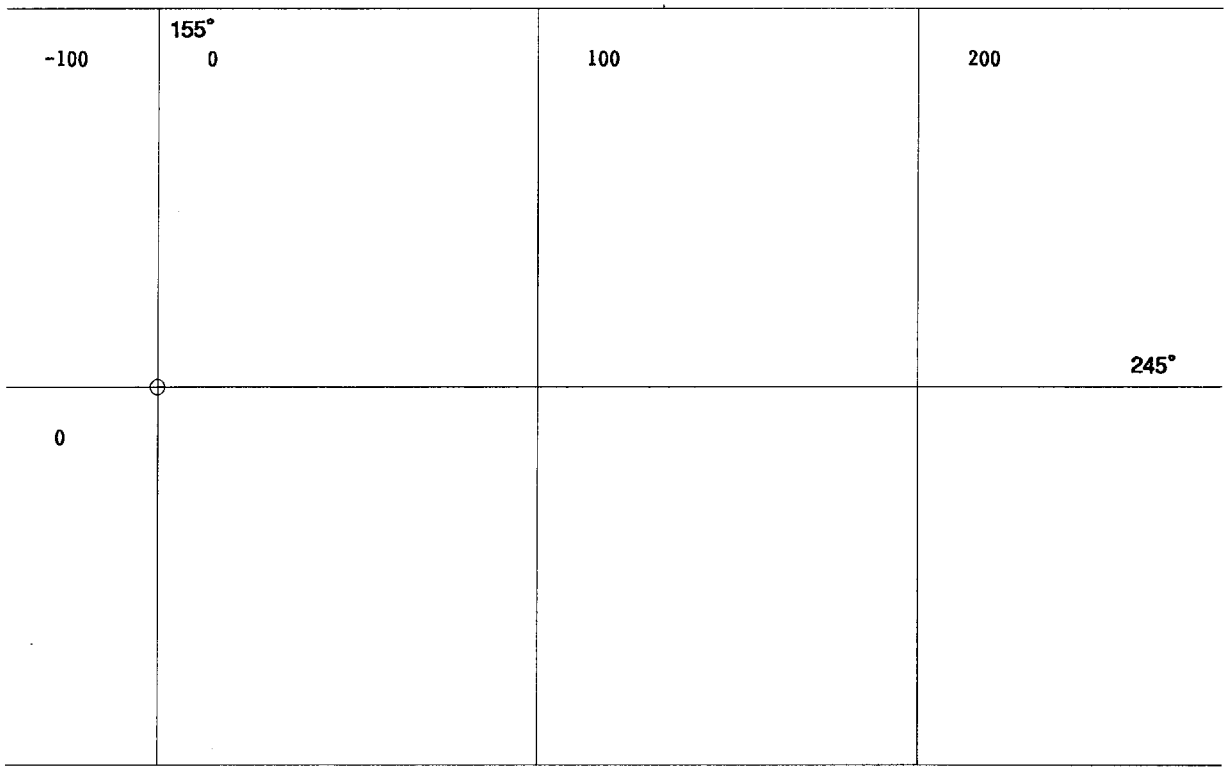
100

SECTION Looking 170°



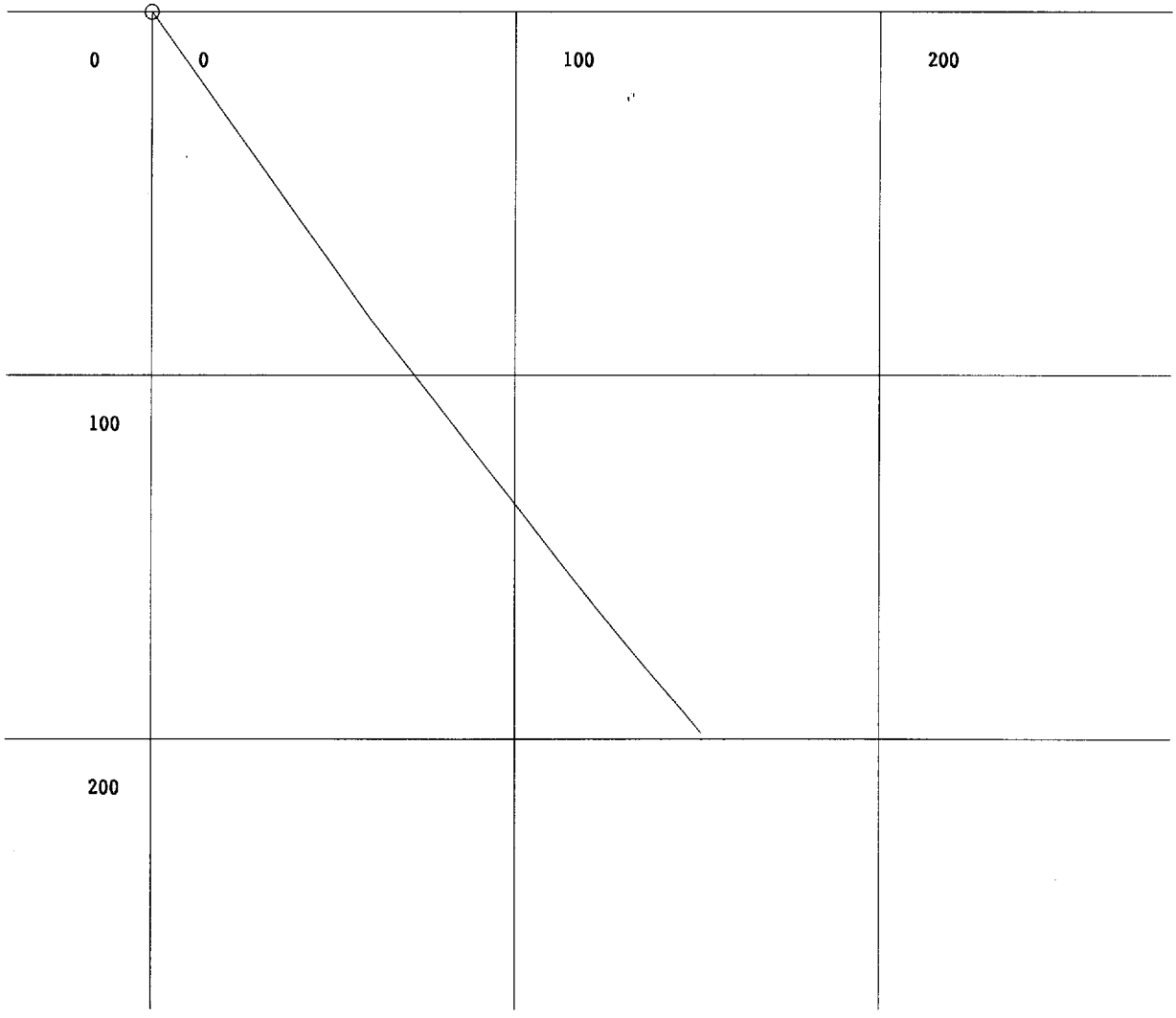
PLAN at 1/2000 grid 100m interval

MJSU-6



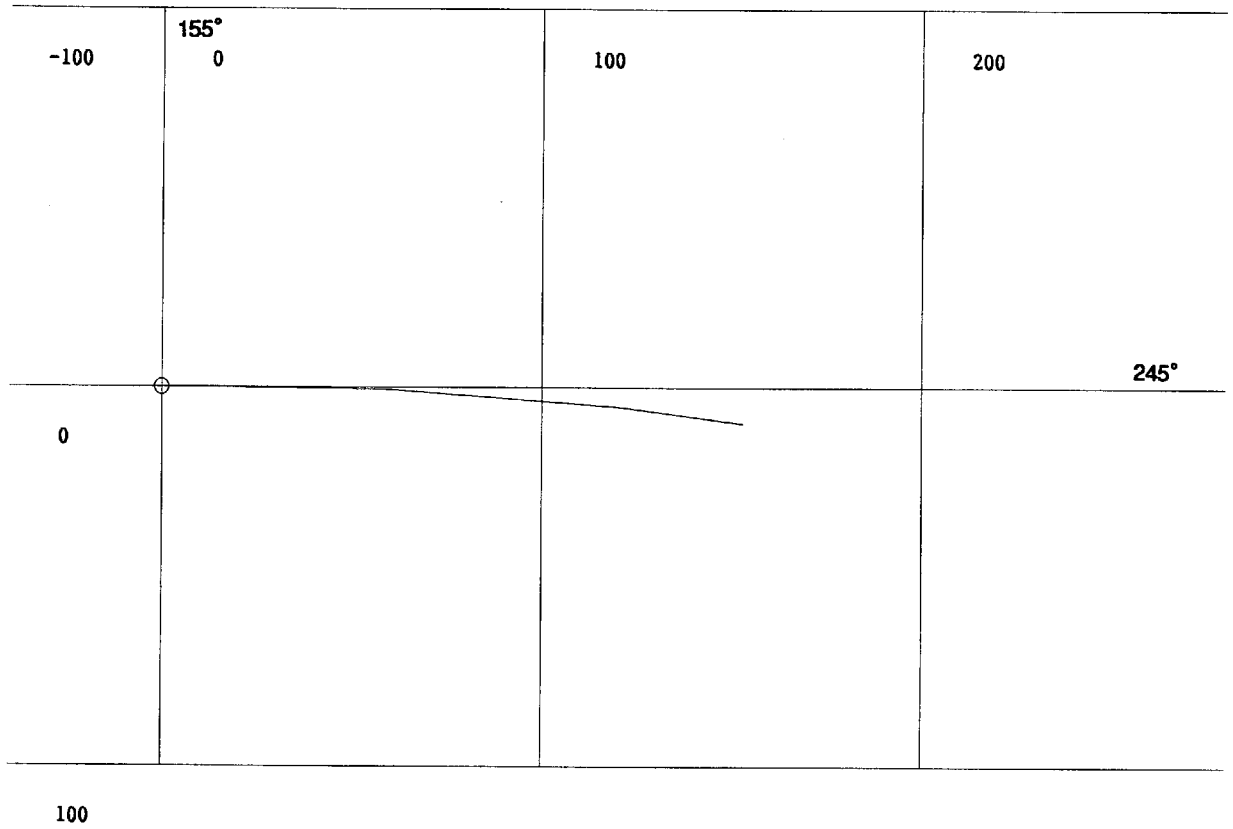
100

SECTION Looking 155°

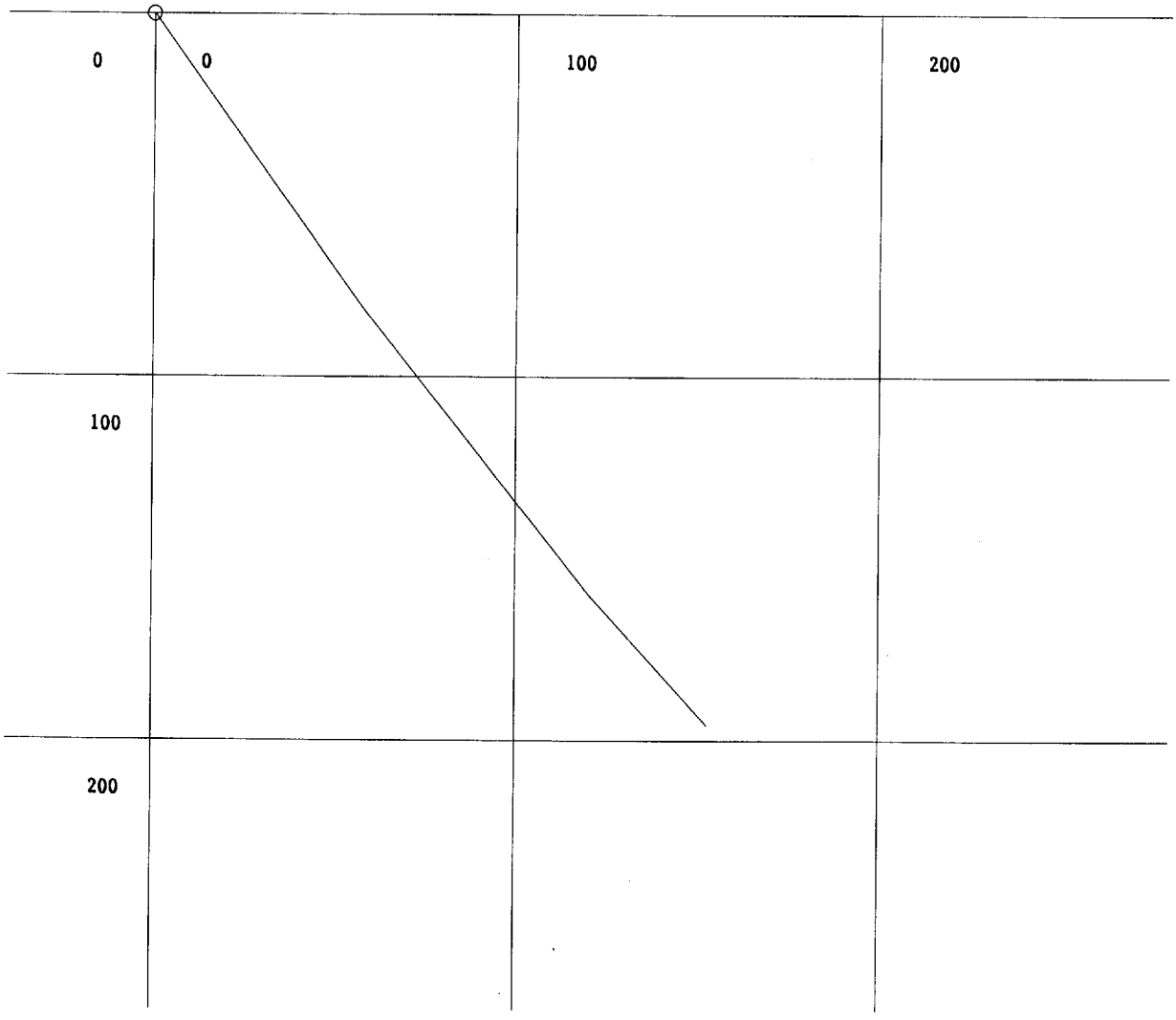


PLAN at 1/2000 grid 100m interval

MJSU-7

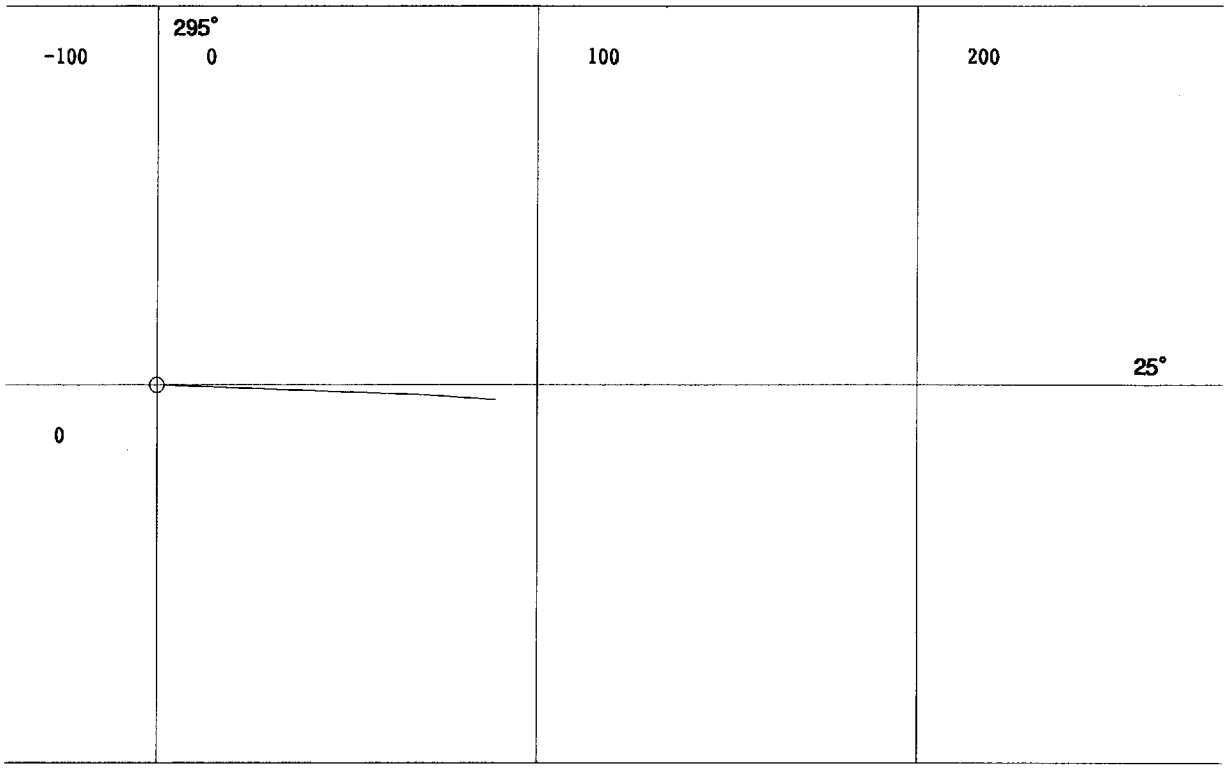


SECTION Looking 155°



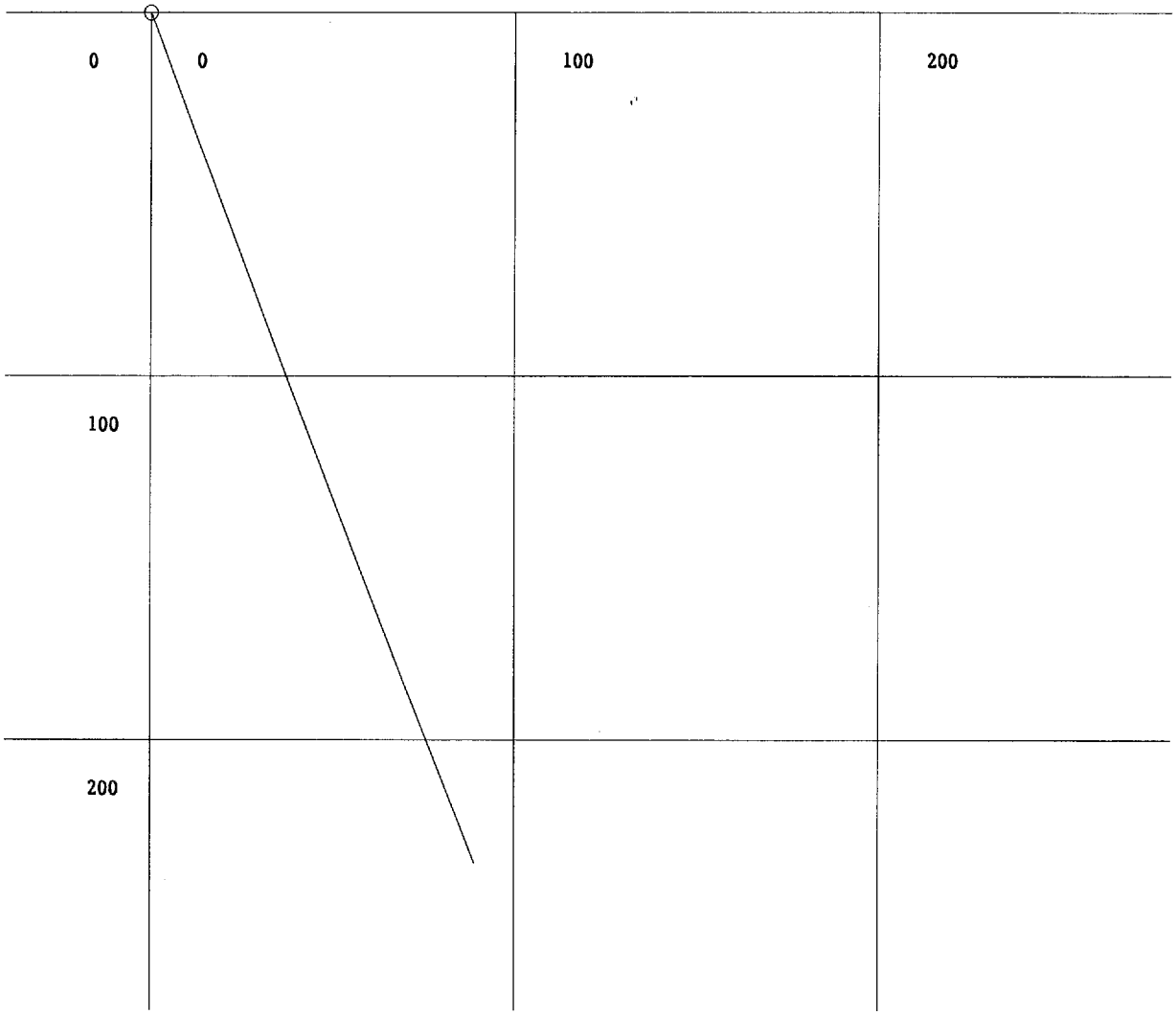
PLAN at 1/2000 grid 100m interval

MJSU-8



100

SECTION Looking 295°



Borehole Deviations

Drill Hole No.	Depth	Direction	Inclination
MJSU-1	0.0	245.0	-55.0
	102.0	245.5	-54.0
	200.0	242.0	-49.0
	250.0	247.0	-46.0
MJSU-2	0.0	245.0	-55.0
	102.0	245.0	-54.0
	202.0	247.0	-50.0
	249.5	249.0	-49.0
MJSU-3	0.0	225.0	-55.0
	105.0	224.0	-56.0
	200.0	226.0	-56.0
	250.0	226.0	-55.0
MJSU-4	0.0	260.0	-55.0
	102.0	262.0	-55.0
	205.0	259.0	-52.0
	304.0	258.5	-47.0
MJSU-5	0.0	260.0	-55.0
	102.0	264.0	-55.0
	202.0	260.0	-52.0
	346.0	258.0	-43.0
MJSU-6	0.0	245.0	-55.0
	104.0	245.0	-54.0
	205.0	245.0	-50.0
	249.5	245.0	-50.0
MJSU-7	0.0	245.0	-55.0
	100.0	246.0	-54.0
	200.0	252.0	-49.0
	249.0	253.0	-46.0
MJSU-8	0.0	25.0	-70.0
	105.0	29.0	-69.0
	200.0	29.0	-69.0
	250.0	29.0	-68.0

Appendix 1-29 Results of Ore Assay (Core Samples)

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-1	1	6.30	7.95	1.65	<0.05	0.6	0.00	0.00	0.00	0.14
	2	13.50	14.55	1.05	<0.05	0.6	0.00	0.00	0.00	<0.05
	3	14.55	15.00	0.45	<0.05	0.7	0.00	0.01	0.00	<0.05
	4	15.00	15.75	0.75	<0.05	0.6	0.00	0.00	0.00	<0.05
	5	15.75	17.40	1.65	<0.05	0.7	0.01	0.01	0.00	<0.05
	6	17.40	18.65	1.25	<0.05	0.6	0.00	0.01	0.00	<0.05
	7	23.05	24.20	1.15	<0.05	0.5	0.00	0.01	0.00	0.32
	8	24.20	25.75	1.55	<0.05	0.6	0.00	0.01	0.00	1.05
	9	25.75	26.65	0.90	<0.05	0.5	0.00	0.01	0.00	0.43
	10	26.65	27.30	0.65	<0.05	0.6	0.01	0.01	0.00	1.45
	11	31.00	32.75	1.75	<0.05	0.6	0.00	0.00	0.00	1.95
	12	32.75	33.75	1.00	<0.05	0.6	0.00	0.01	0.00	1.40
	13	46.90	47.90	1.00	<0.05	1.0	0.01	0.01	0.00	<0.05
	14	47.90	48.90	1.00	<0.05	1.2	0.04	0.01	0.00	1.50
	15	48.90	49.90	1.00	<0.05	1.1	0.01	0.01	0.00	0.26
	16	55.85	56.85	1.00	<0.05	0.7	0.00	0.01	0.00	0.40
	17	91.05	92.20	1.15	<0.05	2.7	0.01	0.51	0.01	10.50
	18	96.35	96.50	0.15	<0.05	13.2	2.19	0.01	0.01	5.92
	19	96.50	97.50	1.00	<0.05	0.9	0.02	0.01	0.00	3.10
	20	97.50	98.50	1.00	<0.05	1.3	0.01	0.01	0.00	5.20
	21	98.50	99.50	1.00	<0.05	1.5	0.02	0.01	0.00	3.80
	22	99.50	100.50	1.00	<0.05	1.1	0.03	0.01	0.00	1.26
	23	100.50	101.50	1.00	<0.05	1.1	0.06	0.01	0.00	3.10
	24	101.50	102.50	1.00	<0.05	1.0	0.02	0.00	0.00	4.30
	25	102.50	103.50	1.00	<0.05	0.7	0.03	0.00	0.00	2.80
	26	103.50	104.20	0.70	<0.05	1.0	0.11	0.00	0.00	7.05
	27	120.85	121.50	0.65	<0.05	2.5	0.04	0.01	0.01	1.51
	28	122.50	123.00	0.50	<0.05	9.4	0.47	0.17	0.05	2.00
	29	123.00	123.10	0.10	<0.05	5.8	0.70	0.76	0.06	1.94
	30	150.70	151.60	0.90	<0.05	2.1	0.02	0.01	0.01	1.43
	31	151.60	152.30	0.70	<0.05	1.0	0.00	0.01	0.00	1.57
	32	152.70	153.40	0.70	<0.05	3.4	0.02	0.02	0.01	2.80
	33	153.40	154.10	0.70	0.05	8.3	0.09	0.26	0.11	4.42
	34	154.10	155.30	1.20	<0.05	0.7	0.00	0.01	0.00	3.15
	35	208.90	209.05	0.15	<0.05	4.1	0.37	0.16	0.01	1.30
	36	212.75	212.85	0.10	0.33	213.0	0.90	2.98	1.09	7.70
	37	215.45	215.60	0.15	0.48	150.0	0.95	1.91	0.48	4.66
MJSU-2	1	41.45	41.85	0.40	<0.05	<0.5	0.01	0.04	0.00	0.48
	2	41.85	43.35	1.50	<0.05	<0.5	0.08	0.03	0.00	1.72
	3	43.35	43.60	0.25	0.05	1.3	0.36	0.04	0.00	1.00
	4	64.20	64.40	0.20	<0.05	4.6	0.16	0.06	0.00	0.95
	5	106.25	107.25	1.00	<0.05	3.0	0.00	0.02	0.00	10.67
	6	107.25	108.25	1.00	<0.05	1.3	0.01	0.04	0.00	5.70
	7	108.25	109.05	0.80	<0.05	1.0	0.00	0.02	0.00	4.04
	8	121.15	121.60	0.45	0.12	14.9	1.70	0.18	0.02	18.05
	9	121.60	122.30	0.70	0.14	18.6	0.17	0.03	0.01	1.32
	10	122.30	122.90	0.60	0.28	10.7	2.71	0.08	0.00	11.04
	11	122.90	123.90	1.00	0.12	7.0	0.07	0.02	0.00	3.95
	12	123.90	124.25	0.35	0.06	3.4	0.09	0.08	0.01	1.75
	13	124.25	124.75	0.50	0.65	55.4	1.66	9.81	0.45	14.00
	14	124.75	125.10	0.35	1.00	63.1	1.03	5.90	1.30	7.96
	15	125.10	125.40	0.30	1.40	44.9	0.99	6.81	0.68	10.34
	16	125.40	126.20	0.80	0.10	3.9	0.03	1.21	0.16	3.34
	17	126.20	127.15	0.95	<0.05	2.3	0.01	0.04	0.00	2.15
	18	127.15	128.10	0.95	<0.05	1.9	0.01	0.02	0.00	1.08
	19	128.10	128.20	0.10	0.30	12.6	0.96	0.19	0.00	23.30

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-2	20	128.20	129.05	0.85	<0.05	0.8	0.00	0.03	0.00	0.65
	21	129.05	130.10	1.05	<0.05	0.5	0.01	0.04	0.00	0.20
	22	130.10	130.40	0.30	0.56	13.3	0.89	3.65	0.02	11.75
	23	130.40	130.50	0.10	0.74	1.5	0.23	0.03	0.00	2.00
	24	130.50	131.15	0.65	0.67	28.8	0.68	9.55	0.03	21.70
	25	131.15	132.10	0.95	0.13	37.6	1.46	24.68	0.09	28.50
	26	132.10	133.10	1.00	0.21	21.7	1.78	4.41	0.57	6.40
	27	133.10	133.90	0.80	0.21	9.7	1.23	3.95	0.01	7.10
	28	133.90	134.15	0.25	<0.05	7.6	0.48	1.97	0.02	23.00
	29	134.15	134.90	0.75	0.18	9.9	0.29	4.13	0.62	3.25
	30	134.90	136.20	1.30	<0.05	12.5	0.67	0.81	0.00	26.55
	31	136.20	137.20	1.00	<0.05	2.8	0.20	0.10	0.00	1.20
	32	137.20	137.40	0.20	0.70	51.6	4.79	0.24	0.01	23.60
	33	137.40	138.00	0.60	<0.05	2.8	0.20	0.09	0.00	1.20
	34	138.00	138.90	0.90	0.14	12.9	0.50	0.22	0.00	11.25
	35	138.90	139.10	0.20	0.08	8.0	0.32	0.12	0.00	4.65
	36	139.10	140.30	1.20	0.19	11.1	1.17	0.50	0.00	5.50
	37	140.30	141.15	0.85	0.35	6.1	0.32	0.55	0.00	13.83
	38	141.15	141.55	0.40	5.83	15.8	4.58	0.08	0.00	33.83
	39	141.55	142.25	0.70	<0.05	4.5	1.05	0.12	0.01	18.70
	40	221.85	222.00	0.15	<0.05	9.0	0.03	0.71	0.00	3.90
	41	224.05	224.15	0.10	<0.05	1.5	0.10	0.51	0.00	0.85
	42	229.05	229.20	0.15	<0.05	5.3	0.02	0.46	0.00	2.50
MJSU-3	1	50.00	51.90	1.90	<0.05	1.6	0.00	0.01	0.00	1.30
	2	51.90	53.30	1.40	<0.05	1.0	0.01	0.02	0.00	1.53
	3	55.90	56.15	0.25	<0.05	1.7	0.07	0.05	0.00	5.75
	4	56.15	57.10	0.95	0.06	1.4	0.02	0.02	0.00	2.50
	5	57.10	59.05	1.95	<0.05	0.8	0.01	0.01	0.00	2.65
	6	59.05	59.90	0.85	<0.05	1.2	0.01	0.01	0.00	1.40
	7	68.85	71.85	3.00	<0.05	1.3	0.02	0.01	0.00	2.55
	8	71.85	72.60	0.75	<0.05	1.3	0.02	0.01	0.00	1.70
	9	81.55	83.55	2.00	<0.05	0.9	0.02	0.02	0.00	2.20
	10	83.55	85.60	2.05	<0.05	1.1	0.04	0.02	0.00	2.60
	11	95.65	97.75	2.10	<0.05	1.3	0.19	0.09	0.00	7.00
	12	104.60	106.20	1.60	0.09	0.8	0.01	0.01	0.00	2.00
	13	106.20	107.80	1.60	0.07	1.0	0.01	0.02	0.00	1.70
	14	107.80	110.00	2.20	<0.05	1.0	0.02	0.01	0.00	1.80
	15	114.80	116.25	1.45	<0.05	1.1	0.01	0.01	0.00	2.10
	16	116.25	117.70	1.45	<0.05	1.1	0.00	0.01	0.00	0.35
	17	117.70	119.20	1.50	<0.05	1.0	0.02	0.00	0.00	1.50
	18	119.20	120.75	1.55	<0.05	0.6	0.03	0.00	0.00	1.25
	19	153.15	154.50	1.35	<0.05	0.5	0.01	0.01	0.00	2.10
	20	154.50	157.40	2.90	<0.05	0.6	0.01	0.01	0.00	9.50
	21	157.40	159.00	1.60	<0.05	2.8	0.37	0.02	0.00	2.80
	22	159.00	160.55	1.55	<0.05	2.3	0.19	0.01	0.00	0.60
	23	160.55	162.85	2.30	<0.05	0.9	0.09	0.01	0.00	1.30
	24	162.85	164.45	1.60	<0.05	1.1	0.01	0.01	0.00	0.90
	25	164.45	164.75	0.30	<0.05	1.5	0.09	0.01	0.00	1.70
	26	177.60	178.50	0.90	<0.05	1.1	0.06	0.02	0.00	1.50
	27	188.20	188.75	0.55	<0.05	3.9	1.57	0.02	0.00	8.45
	28	188.75	189.45	0.70	<0.05	0.9	0.02	0.01	0.00	0.40
	29	189.45	192.15	2.70	<0.05	1.1	0.09	0.01	0.00	1.20
	30	204.25	206.70	2.45	<0.05	1.8	0.23	0.01	0.00	<0.05
	31	206.70	208.60	1.90	<0.05	1.9	0.33	0.01	0.00	<0.05
	32	208.60	210.60	2.00	<0.05	0.9	0.03	0.01	0.00	<0.05
	33	210.60	212.45	1.85	<0.05	0.9	0.03	0.01	0.00	0.25

Appendix 1-29 Results of Ore Assay (Core Samples)

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-3	34	212.45	214.70	2.25	<0.05	1.0	0.09	0.01	0.00	1.20
	35	214.70	215.05	0.35	<0.05	13.3	5.05	0.06	0.00	5.10
	36	215.05	217.05	2.00	<0.05	0.8	0.01	0.00	0.00	0.26
	37	217.05	218.90	1.85	<0.05	1.2	0.08	0.01	0.00	1.60
	38	218.90	220.10	1.20	<0.05	0.8	0.02	0.01	0.00	8.45
	39	220.10	220.90	0.80	<0.05	6.6	2.48	0.03	0.00	3.00
	40	220.90	223.50	2.60	<0.05	0.7	0.03	0.01	0.00	1.25
	41	223.50	226.30	2.80	<0.05	0.8	0.01	0.00	0.00	4.00
	42	241.85	243.25	1.40	<0.05	<0.5	0.06	0.01	0.00	4.38
MJSU-4	1	31.50	32.50	1.00	<0.05	<0.5	0.00	0.01	0.00	0.73
	2	32.50	33.30	0.80	<0.05	<0.5	0.01	0.01	0.00	0.40
	3	33.30	34.20	0.90	<0.05	<0.5	0.00	0.01	0.00	0.64
	4	55.30	56.30	1.00	<0.05	<0.5	0.02	0.00	0.00	0.47
	5	56.30	57.70	1.40	<0.05	<0.5	0.01	0.00	0.00	0.48
	6	60.25	61.25	1.00	<0.05	<0.5	0.00	0.00	0.00	0.08
	7	61.25	62.25	1.00	<0.05	<0.5	0.00	0.00	0.00	0.18
	8	62.25	63.15	0.90	<0.05	<0.5	0.05	0.01	0.00	1.20
	9	63.15	64.30	1.15	<0.05	<0.5	0.01	0.01	0.00	0.65
	10	64.30	65.15	0.85	<0.05	<0.5	0.02	0.01	0.00	3.15
	11	65.15	66.15	1.00	<0.05	<0.5	0.02	0.01	0.00	1.40
	12	66.15	67.20	1.05	<0.05	<0.5	0.02	0.00	0.00	0.25
	13	67.20	67.60	0.40	<0.05	<0.5	0.01	0.01	0.00	0.43
	14	67.60	67.85	0.25	0.06	<0.5	0.01	0.00	0.00	0.22
	15	111.40	111.65	0.25	0.07	12.0	1.82	0.10	0.00	5.40
	16	133.15	133.30	0.15	0.07	1.8	0.24	0.02	0.00	13.80
	17	140.50	141.00	0.50	<0.05	15.1	1.31	0.05	0.00	3.30
	18	141.00	142.00	1.00	0.12	20.8	7.65	0.02	0.00	5.66
	19	142.00	143.10	1.10	<0.05	0.5	0.10	0.02	0.00	0.53
	20	143.10	143.40	0.30	0.28	24.7	10.40	0.19	0.00	12.20
	21	143.40	144.85	1.45	<0.05	4.0	0.20	0.03	0.00	0.83
	22	144.85	145.00	0.15	0.14	27.3	4.77	0.02	0.00	6.53
	23	145.00	146.40	1.40	<0.05	2.4	0.15	0.01	0.00	0.32
	24	146.40	146.60	0.20	0.15	38.6	4.60	0.03	0.00	5.77
	25	146.60	147.30	0.70	<0.05	0.7	0.09	0.01	0.00	0.40
	26	147.30	147.80	0.50	<0.05	16.7	1.37	0.01	0.00	2.10
	27	147.80	148.80	1.00	<0.05	4.4	0.18	0.01	0.00	0.82
	28	148.80	149.80	1.00	<0.05	0.6	0.09	0.01	0.00	0.43
	29	149.80	149.90	0.10	<0.05	4.0	0.32	0.03	0.00	0.95
	30	149.90	151.50	1.60	<0.05	1.4	0.13	0.02	0.00	0.54
	31	151.50	153.00	1.50	<0.05	0.8	0.07	0.02	0.00	1.54
	32	153.00	154.50	1.50	<0.05	<0.5	0.07	0.03	0.00	2.80
	33	154.50	155.50	1.00	<0.05	<0.5	0.02	0.01	0.00	2.10
	34	155.50	156.05	0.55	<0.05	5.1	2.54	0.07	0.00	3.40
	35	156.05	156.20	0.15	<0.05	12.0	18.95	0.87	0.04	12.94
	36	156.20	157.45	1.25	<0.05	2.3	0.38	0.02	0.00	1.41
	37	157.45	158.25	0.80	<0.05	9.9	1.82	0.02	0.00	2.50
	38	158.25	158.55	0.30	<0.05	1.2	0.29	0.03	0.00	1.30
	39	158.55	158.85	0.30	0.07	17.7	3.64	0.07	0.00	4.00
	40	158.85	160.50	1.65	<0.05	<0.5	0.05	0.02	0.00	0.70
	41	160.50	162.00	1.50	<0.05	0.6	0.09	0.04	0.00	1.02
	42	162.00	162.85	0.85	<0.05	0.7	0.06	0.03	0.00	0.07
	43	162.85	163.00	0.15	<0.05	20.9	2.72	0.03	0.00	2.80
	44	163.00	163.30	0.30	<0.05	1.0	0.04	0.02	0.00	0.83
	45	163.30	163.40	0.10	<0.05	7.4	1.82	0.05	0.00	2.40
	46	213.10	213.20	0.10	<0.05	4.0	1.36	0.03	0.00	2.28
	47	213.65	213.85	0.20	0.09	7.8	1.34	0.02	0.00	3.90

Appendix 1-29 Results of Ore Assay (Core Samples)

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-4	48	215.00	215.15	0.15	<0.05	4.3	0.64	0.02	0.00	3.33
	49	217.00	217.10	0.10	<0.05	4.9	0.76	0.05	0.00	3.42
	50	226.75	226.85	0.10	<0.05	13.0	3.28	0.03	0.00	3.33
	51	227.25	228.05	0.80	<0.05	2.0	0.35	0.01	0.00	1.06
	52	241.20	242.05	0.85	<0.05	<0.5	0.05	0.01	0.00	0.75
	53	242.05	242.80	0.75	<0.05	0.7	0.05	0.03	0.00	0.80
	54	263.50	263.75	0.25	<0.05	0.8	0.09	0.06	0.00	2.62
	55	263.75	265.10	1.35	<0.05	<0.5	0.09	0.01	0.00	0.78
	56	265.10	267.05	1.95	<0.05	<0.5	0.17	0.01	0.00	0.92
	57	272.70	273.25	0.55	0.07	1.1	1.11	0.01	0.00	1.42
	58	278.95	279.35	0.40	<0.05	6.9	2.72	0.03	0.00	4.63
	59	285.70	286.75	1.05	<0.05	0.7	0.04	0.01	0.00	4.40
	60	292.30	292.60	0.30	<0.05	<0.5	0.00	0.01	0.00	4.60
	61	292.60	293.00	0.40	<0.05	<0.5	0.01	0.02	0.00	17.34
	62	293.00	294.25	1.25	<0.05	<0.5	0.01	0.01	0.00	2.20
	63	294.25	295.30	1.05	<0.05	<0.5	0.01	0.01	0.00	2.00
MJSU-5	1	77.70	79.40	1.70	0.05	2.8	0.19	0.03	0.00	5.67
	2	79.40	79.90	0.50	<0.05	11.0	1.86	0.03	0.00	3.71
	3	79.90	80.55	0.65	<0.05	5.4	0.83	0.06	0.00	2.90
	4	80.55	80.95	0.40	0.13	35.9	4.62	0.17	0.00	7.88
	5	80.95	81.70	0.75	0.07	2.1	0.16	0.02	0.00	<0.05
	6	81.70	82.55	0.85	0.12	27.8	4.28	0.07	0.00	11.07
	7	82.55	84.00	1.45	<0.05	2.2	0.36	0.02	0.00	16.03
	8	84.00	85.50	1.50	<0.05	0.8	0.09	0.01	0.00	7.29
	9	85.50	87.00	1.50	<0.05	2.2	0.19	0.01	0.00	9.61
	10	87.00	88.90	1.90	<0.05	1.9	0.15	0.01	0.00	7.42
	11	88.90	89.90	1.00	<0.05	10.5	1.42	0.04	0.00	3.45
	12	89.90	90.90	1.00	0.11	12.0	0.95	0.03	0.00	8.83
	13	90.90	91.90	1.00	0.08	15.8	1.59	0.03	0.00	8.39
	14	91.90	93.20	1.30	<0.05	15.7	3.33	0.03	0.00	4.90
	15	93.20	94.70	1.50	<0.05	1.4	0.17	0.01	0.00	0.70
	16	94.70	95.50	0.80	<0.05	1.5	0.41	0.02	0.00	1.15
	17	95.50	96.50	1.00	0.10	15.3	4.25	0.01	0.00	6.44
	18	96.50	97.50	1.00	<0.05	12.4	4.21	0.01	0.00	4.79
	19	97.50	98.50	1.00	<0.05	12.1	4.10	0.02	0.00	3.86
	20	98.50	99.50	1.00	<0.05	12.9	2.85	0.02	0.00	2.45
	21	99.50	99.90	0.40	0.36	5.8	2.12	0.02	0.00	2.58
	22	99.90	101.00	1.10	<0.05	2.6	0.35	0.02	0.00	1.50
	23	109.65	111.00	1.35	0.05	<0.5	0.13	0.01	0.00	0.08
	24	111.00	112.50	1.50	0.10	0.6	0.13	0.01	0.00	0.15
	25	112.50	114.00	1.50	<0.05	0.9	0.49	0.01	0.00	1.20
	26	114.00	114.50	0.50	<0.05	3.8	1.38	0.01	0.00	1.15
	27	151.30	151.65	0.35	<0.05	0.6	0.29	0.02	0.00	3.20
	28	229.80	231.30	1.50	<0.05	0.6	0.20	0.00	0.00	0.75
	29	231.30	232.80	1.50	0.05	<0.5	0.29	0.00	0.00	1.30
	30	232.80	233.90	1.10	<0.05	<0.5	0.13	0.00	0.00	0.63
	31	233.90	234.50	0.60	<0.05	0.5	0.50	0.01	0.00	3.82
	32	234.50	235.30	0.80	<0.05	0.5	0.41	0.01	0.00	14.11
	33	235.30	235.65	0.35	<0.05	2.9	3.24	0.01	0.00	6.56
	34	235.65	236.05	0.40	<0.05	<0.5	0.44	0.01	0.00	1.42
	35	236.05	236.20	0.15	<0.05	3.0	1.06	0.01	0.00	4.88
	36	236.20	237.30	1.10	<0.05	<0.5	0.05	0.02	0.00	1.06
	37	237.30	238.55	1.25	0.10	6.6	0.66	0.02	0.00	11.64
	38	238.55	239.20	0.65	<0.05	1.5	0.39	0.01	0.00	6.37
	39	239.20	239.35	0.15	<0.05	2.1	0.93	0.01	0.00	6.11
	40	239.35	239.55	0.20	<0.05	0.7	0.51	0.02	0.00	6.91

Appendix 1-29 Results of Ore Assay (Core Samples)

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-5	41	239.55	239.75	0.20	0.06	0.9	0.51	0.02	0.00	20.50
	42	239.75	239.95	0.20	0.60	<0.5	0.18	0.01	0.00	5.93
	43	239.95	240.45	0.50	0.13	3.5	0.54	0.02	0.00	17.26
	44	240.45	241.80	1.35	<0.05	<0.5	0.03	0.00	0.00	1.00
	45	241.80	242.60	0.80	0.08	<0.5	0.07	0.01	0.00	2.90
	46	242.60	243.90	1.30	0.05	<0.5	0.07	0.01	0.00	1.60
	47	243.90	245.65	1.75	<0.05	<0.5	0.07	0.01	0.00	0.70
	48	245.65	247.70	2.05	<0.05	2.0	1.02	0.02	0.00	6.34
	49	247.70	249.80	2.10	<0.05	<0.5	0.05	0.01	0.00	1.05
	50	249.80	250.20	0.40	<0.05	1.0	0.21	0.03	0.00	4.50
	51	250.35	251.70	1.35	<0.05	2.2	0.62	0.02	0.00	3.90
	52	252.15	253.80	1.65	0.09	1.0	0.34	0.01	0.00	1.91
	53	253.90	255.45	1.55	<0.05	1.4	0.81	0.01	0.00	5.13
	54	255.45	256.30	0.85	0.12	21.9	2.58	0.02	0.00	9.30
	55	268.90	269.75	0.85	<0.05	1.8	0.95	0.01	0.00	9.20
	56	269.75	270.20	0.45	<0.05	<0.5	0.04	0.01	0.00	0.99
	57	270.20	271.10	0.90	<0.05	0.9	0.23	0.01	0.00	16.30
	58	271.10	271.55	0.45	<0.05	2.0	1.06	0.01	0.00	32.30
	59	271.55	271.85	0.30	0.09	8.6	2.49	0.02	0.00	6.32
	60	271.85	273.45	1.60	<0.05	3.3	1.48	0.01	0.00	1.95
	61	273.45	274.20	0.75	0.10	2.1	2.01	0.01	0.00	5.20
	62	274.20	275.40	1.20	<0.05	1.0	0.27	1.01	0.00	8.73
	63	275.40	276.35	0.95	0.06	<0.5	0.11	0.02	0.00	0.80
	64	276.35	277.15	0.80	0.27	2.6	0.70	0.01	0.00	2.16
	65	277.15	277.80	0.65	<0.05	<0.5	0.04	0.01	0.00	0.45
	66	277.80	278.15	0.35	<0.05	1.7	1.06	0.01	0.00	3.36
	67	278.15	280.00	1.85	<0.05	1.1	0.34	0.01	0.00	1.40
	68	280.00	280.35	0.35	<0.05	<0.5	0.28	0.01	0.00	1.54
	69	285.25	285.50	0.25	<0.05	6.4	1.96	0.01	0.00	4.33
	70	285.50	287.40	1.90	<0.05	<0.5	0.03	0.02	0.00	2.83
	71	298.95	299.90	0.95	0.18	<0.5	0.24	0.01	0.00	2.00
	72	299.90	301.60	1.70	<0.05	1.3	0.31	0.01	0.00	0.90
	73	303.55	303.85	0.30	<0.05	<0.5	0.17	0.01	0.00	1.36
	74	306.90	308.35	1.45	<0.05	<0.5	0.04	0.01	0.00	1.25
	75	308.35	310.30	1.95	<0.05	<0.5	0.12	0.01	0.00	0.30
	76	314.95	315.05	0.10	<0.05	<0.5	0.36	0.02	0.00	1.00
	77	318.90	319.05	0.15	<0.05	<0.5	0.19	0.01	0.00	0.50
	78	328.90	329.90	1.00	<0.05	8.6	7.04	0.02	0.00	5.00
	79	329.90	330.40	0.50	0.33	5.2	7.32	0.01	0.00	3.30
	80	330.50	331.20	0.70	<0.05	7.4	6.10	0.02	0.00	5.10
	81	331.20	331.65	0.45	0.05	<0.5	0.33	0.02	0.00	2.25
	82	342.20	342.50	0.30	0.09	0.8	0.47	0.02	0.00	2.60
MJSU-6	1	64.15	65.20	1.05	<0.05	0.7	0.02	0.02	0.00	1.15
	2	65.20	66.15	0.95	<0.05	<0.5	0.01	0.02	0.00	1.10
	3	66.15	66.90	0.75	<0.05	<0.5	0.03	0.03	0.00	2.25
	4	83.05	85.00	1.95	<0.05	<0.5	0.00	0.01	0.00	1.15
	5	98.70	99.90	1.20	<0.05	<0.5	0.00	0.03	0.00	2.20
	6	133.20	133.85	0.65	<0.05	4.6	0.28	0.24	0.01	6.50
	7	133.85	134.75	0.90	<0.05	1.9	0.16	0.48	0.02	1.75
	8	134.75	135.35	0.60	<0.05	71.6	1.71	16.20	0.36	10.00
	9	135.35	135.75	0.40	<0.05	1.1	0.06	0.47	0.02	1.10
	10	135.75	136.20	0.45	<0.05	15.0	0.17	0.04	0.02	4.60
	11	136.20	136.45	0.25	0.06	3.7	0.25	0.02	0.01	1.24
	12	136.45	136.90	0.45	<0.05	15.4	0.61	0.04	0.01	3.70
	13	136.90	137.20	0.30	<0.05	2.7	0.03	0.02	0.00	0.64
	14	137.20	138.00	0.80	<0.05	40.3	0.97	3.17	0.06	10.70

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-6	15	138.00	138.85	0.85	<0.05	<0.5	0.03	0.04	0.00	0.47
	16	138.85	139.30	0.45	<0.05	3.2	0.23	0.06	0.01	2.90
	17	139.30	140.10	0.80	<0.05	<0.5	0.02	0.03	0.00	2.85
	18	140.10	140.40	0.30	<0.05	<0.5	0.03	0.03	0.00	2.10
	19	140.40	141.50	1.10	<0.05	<0.5	0.04	0.03	0.00	2.60
	20	154.05	154.25	0.20	<0.05	1.5	0.05	0.22	0.00	5.40
	21	154.25	154.60	0.35	<0.05	0.7	0.01	0.02	0.00	10.60
	22	154.60	154.85	0.25	<0.05	3.2	0.12	0.03	0.00	2.14
	23	166.80	167.05	0.25	<0.05	<0.5	0.00	0.01	0.00	2.68
	24	174.20	174.35	0.15	<0.05	1.4	0.00	0.00	0.00	3.10
	25	182.15	182.90	0.75	<0.05	2.1	0.10	0.01	0.00	5.57
	26	213.55	214.30	0.75	<0.05	<0.5	0.00	0.00	0.00	8.36
	27	214.30	215.10	0.80	0.05	<0.5	0.00	0.01	0.00	1.30
	28	215.10	215.95	0.85	<0.05	<0.5	0.00	0.01	0.00	2.70
	29	215.95	218.00	2.05	<0.05	<0.5	0.00	0.01	0.00	0.80
	30	218.00	219.90	1.90	<0.05	0.5	0.00	0.01	0.00	6.16
	31	219.90	220.70	0.80	0.07	<0.5	0.00	0.01	0.00	2.00
	32	220.70	220.90	0.20	<0.05	4.0	0.03	0.00	0.00	26.15
	33	220.90	223.00	2.10	<0.05	<0.5	0.01	0.00	0.00	7.35
	34	223.00	225.65	2.65	<0.05	<0.5	0.00	0.01	0.00	4.00
	35	225.65	227.25	1.60	<0.05	<0.5	0.00	0.00	0.00	13.40
	36	227.25	228.90	1.65	<0.05	0.6	0.00	0.00	0.00	20.00
	37	241.55	243.65	2.10	<0.05	1.2	0.01	0.02	0.00	2.30
	38	243.65	244.95	1.30	<0.05	1.4	0.06	0.01	0.00	1.75
MJSU-7	1	18.25	20.50	2.25	<0.05	<0.5	0.02	0.01	0.00	0.62
	2	25.10	26.75	1.65	<0.05	0.8	0.06	0.04	0.00	0.57
	3	28.45	30.00	1.55	<0.05	0.7	0.05	0.21	0.00	0.65
	4	34.15	35.85	1.70	<0.05	0.6	0.03	0.02	0.00	1.00
	5	49.25	49.85	0.60	<0.05	2.4	0.10	0.01	0.00	3.80
	6	60.00	60.20	0.20	<0.05	9.1	0.91	0.03	0.00	4.88
	7	62.85	63.50	0.65	<0.05	29.0	2.05	0.08	0.00	6.60
	8	63.50	64.85	1.35	<0.05	3.8	0.33	0.04	0.00	2.75
	9	70.15	72.65	2.50	<0.05	1.3	0.03	0.03	0.00	4.88
	10	72.65	73.45	0.80	<0.05	1.8	0.09	0.03	0.00	2.64
	11	73.45	74.30	0.85	<0.05	1.3	0.08	0.02	0.00	4.50
	12	74.30	76.55	2.25	<0.05	1.9	0.07	0.05	0.00	10.80
	13	76.55	76.70	0.15	<0.05	4.3	0.38	0.45	0.00	20.32
	14	76.70	78.05	1.35	<0.05	0.6	0.05	0.03	0.00	5.38
	15	79.90	80.15	0.25	<0.05	<0.5	0.05	0.02	0.00	2.60
	16	87.20	87.40	0.20	<0.05	1.0	0.04	0.04	0.00	2.84
	17	108.25	108.75	0.50	<0.05	3.6	0.10	0.01	0.00	2.28
	18	173.85	174.55	0.70	<0.05	1.1	0.04	0.09	0.01	3.00
	19	174.55	176.00	1.45	<0.05	2.2	0.07	0.22	0.03	2.95
	20	176.00	178.00	2.00	<0.05	0.9	0.02	0.11	0.01	2.50
	21	192.65	193.55	0.90	<0.05	3.4	0.04	0.09	0.05	3.20
	22	193.55	194.55	1.00	<0.05	1.5	0.01	0.33	0.03	3.00
	23	197.90	198.30	0.40	<0.05	1.0	0.08	0.21	0.00	2.65
	24	227.85	228.80	0.95	<0.05	<0.5	0.03	0.18	0.00	2.80
MJSU-8	1	14.20	15.00	0.80	<0.05	<0.5	0.00	0.01	0.00	0.33
	2	30.30	30.70	0.40	<0.05	1.2	0.01	0.01	0.00	0.60
	3	30.70	31.25	0.55	0.07	1.2	0.01	0.02	0.00	0.90
	4	31.25	33.30	2.05	<0.05	<0.5	0.01	0.01	0.00	4.00
	5	33.70	35.70	2.00	0.06	0.6	0.01	0.01	0.00	4.50
	6	35.70	37.70	2.00	<0.05	0.6	0.02	0.01	0.00	4.10
	7	37.70	39.70	2.00	<0.05	0.7	0.03	0.01	0.00	4.35
	8	39.70	41.70	2.00	<0.05	0.7	0.02	0.01	0.00	4.42

Appendix 1-29 Results of Ore Assay (Core Samples)

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-8	9	41.70	43.70	2.00	0.09	1.2	0.01	0.03	0.00	4.30
	10	43.70	45.65	1.95	0.08	<0.5	0.01	0.02	0.00	3.69
	11	69.55	71.95	2.40	<0.05	<0.5	0.01	0.05	0.00	3.30
	12	71.95	73.25	1.30	0.06	0.9	0.02	0.19	0.01	5.37
	13	73.25	73.55	0.30	<0.05	3.9	0.90	12.74	0.01	14.00
	14	73.55	75.50	1.95	0.06	0.8	0.03	0.06	0.01	10.66
	15	75.50	77.20	1.70	0.14	1.0	0.02	0.01	0.01	11.35
	16	77.20	77.40	0.20	2.52	6.1	0.08	0.02	0.03	28.90
	17	77.40	79.20	1.80	0.07	0.8	0.02	0.01	0.01	12.10
	18	79.20	81.00	1.80	0.08	0.9	0.02	0.01	0.01	12.64
	19	81.00	82.65	1.65	0.08	1.1	0.02	0.00	0.01	11.48
	20	82.65	83.35	0.70	0.24	19.5	1.57	0.01	0.02	25.00
	21	83.35	85.10	1.75	0.10	6.2	0.11	0.25	0.01	7.00
	22	85.10	85.85	0.75	0.51	35.3	0.15	0.24	0.02	13.36
	23	85.85	87.85	2.00	0.05	4.0	0.01	0.02	0.03	5.62
	24	87.85	90.75	2.90	<0.05	0.5	0.01	0.01	0.00	5.55
	25	90.75	91.95	1.20	<0.05	0.8	0.02	0.02	0.00	9.00
	26	91.95	95.00	3.05	<0.05	0.6	0.01	0.01	0.00	4.07
	27	95.00	96.95	1.95	<0.05	0.9	0.01	0.01	0.00	4.80
	28	97.90	101.10	3.20	0.17	2.0	0.02	0.01	0.00	8.79
	29	101.80	104.65	2.85	<0.05	1.0	0.01	0.03	0.00	6.70
	30	104.65	107.55	2.90	<0.05	1.3	0.02	0.01	0.00	9.60
	31	107.55	110.00	2.45	<0.05	1.5	0.04	0.02	0.01	10.00
	32	110.00	113.00	3.00	<0.05	<0.5	0.01	0.01	0.00	5.60
	33	113.00	114.05	1.05	<0.05	0.8	0.02	0.10	0.00	7.95
	34	114.05	117.00	2.95	<0.05	<0.5	0.01	0.01	0.00	4.75
	35	117.00	120.00	3.00	<0.05	0.8	0.01	0.01	0.00	6.10
	36	120.00	123.00	3.00	0.07	0.9	0.01	0.01	0.00	5.15
	37	123.00	124.45	1.45	<0.05	0.5	0.01	0.01	0.00	5.75
	38	124.45	125.80	1.35	<0.05	0.5	0.01	0.01	0.00	4.00
	39	125.80	128.05	2.25	<0.05	0.7	0.01	0.01	0.00	6.80
	40	128.05	129.55	1.50	<0.05	1.0	0.04	0.01	0.01	10.40
	41	129.55	132.15	2.60	<0.05	1.0	0.02	0.03	0.00	6.00
	42	132.15	133.00	0.85	<0.05	1.0	0.03	0.01	0.00	9.73
	43	133.00	134.75	1.75	0.07	1.0	0.02	0.01	0.00	5.15
	44	134.75	137.70	2.95	<0.05	<0.5	0.01	0.01	0.00	3.70
	45	137.70	138.85	1.15	<0.05	0.5	0.01	0.00	0.00	4.80
	46	138.85	139.35	0.50	<0.05	<0.5	0.00	0.01	0.00	3.55
	47	139.35	142.00	2.65	<0.05	<0.5	0.01	0.02	0.00	5.55
	48	142.00	143.40	1.40	<0.05	<0.5	0.01	0.00	0.00	5.20
	49	143.40	144.35	0.95	<0.05	<0.5	0.01	0.00	0.00	4.60
	50	144.35	146.00	1.65	<0.05	<0.5	0.01	0.00	0.00	6.10
	51	146.00	147.50	1.50	<0.05	0.7	0.01	0.02	0.00	4.30
	52	147.50	149.00	1.50	<0.05	0.6	0.01	0.01	0.00	4.55
	53	149.00	150.50	1.50	<0.05	<0.5	0.01	0.00	0.00	4.14
	54	150.50	152.00	1.50	<0.05	0.7	0.01	0.01	0.00	5.50
	55	152.00	153.50	1.50	<0.05	0.6	0.01	0.01	0.00	4.00
	56	153.50	154.20	0.70	<0.05	0.6	0.01	0.03	0.01	5.10
	57	154.20	155.45	1.25	<0.05	0.6	0.02	0.04	0.00	8.80
	58	155.45	157.00	1.55	<0.05	<0.5	0.01	0.03	0.01	4.02
	59	157.00	158.75	1.75	<0.05	0.8	0.01	0.01	0.00	5.52
	60	158.75	159.95	1.20	<0.05	1.0	0.01	0.04	0.00	6.45
	61	159.95	161.50	1.55	<0.05	1.8	0.02	0.04	0.01	7.26
	62	161.50	163.00	1.50	<0.05	2.5	0.01	0.02	0.01	6.90
	63	163.00	164.50	1.50	<0.05	2.6	0.01	0.02	0.01	10.12
	64	164.50	166.00	1.50	<0.05	1.0	0.02	0.04	0.01	6.18

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)
MJSU-8	65	166.00	167.50	1.50	<0.05	0.7	0.01	0.02	0.00	4.27
	66	167.50	169.00	1.50	<0.05	0.5	0.01	0.03	0.00	4.06
	67	169.00	170.50	1.50	<0.05	0.6	0.01	0.01	0.00	5.35
	68	170.50	172.00	1.50	<0.05	0.7	0.00	0.02	0.00	3.90
	69	172.00	173.50	1.50	<0.05	<0.5	0.01	0.03	0.00	3.12
	70	173.50	175.00	1.50	<0.05	1.0	0.01	0.02	0.00	4.25
	71	175.00	176.50	1.50	<0.05	0.8	0.01	0.01	0.00	3.90
	72	176.50	178.00	1.50	<0.05	1.0	0.01	0.01	0.00	3.95
	73	178.00	179.50	1.50	<0.05	0.6	0.00	0.01	0.00	3.00
	74	179.50	181.00	1.50	<0.05	0.6	0.01	0.01	0.00	3.78
	75	181.00	182.60	1.60	<0.05	<0.5	0.01	0.01	0.00	3.39
	76	183.50	185.00	1.50	<0.05	1.0	0.01	0.01	0.00	4.22
	77	185.00	186.05	1.05	<0.05	1.5	0.00	0.01	0.00	5.66
	78	199.00	200.50	1.50	<0.05	<0.5	0.00	0.00	0.00	2.25
	79	200.50	202.00	1.50	<0.05	<0.5	0.00	0.00	0.00	2.50
	80	202.00	203.50	1.50	<0.05	<0.5	0.01	0.00	0.00	2.42
	81	203.50	205.00	1.50	<0.05	<0.5	0.01	0.00	0.00	1.85
	82	205.00	206.50	1.50	<0.05	<0.5	0.01	0.00	0.00	3.35
	83	206.50	208.00	1.50	<0.05	<0.5	0.00	0.00	0.00	1.65
	84	208.00	209.50	1.50	<0.05	<0.5	0.01	0.00	0.00	2.25
	85	209.50	211.15	1.65	<0.05	<0.5	0.01	0.01	0.00	2.90
	86	228.45	230.00	1.55	<0.05	<0.5	0.01	0.00	0.00	1.15
	87	230.00	231.45	1.45	<0.05	<0.5	0.01	0.01	0.00	3.00
	88	231.45	232.95	1.50	<0.05	0.9	0.01	0.00	0.00	1.00
	89	232.95	233.85	0.90	<0.05	<0.5	0.01	0.00	0.00	0.85
	90	233.85	235.35	1.50	<0.05	<0.5	0.00	0.00	0.00	3.10
	91	235.35	236.70	1.35	<0.05	0.7	0.01	0.00	0.00	4.45

Appendix 1-30 Results of Microscopic Observation of Thin Section (Core Samples)

Drill Hole No.	Sample No.	Rock type	Texture	phenocryst or fragment								groundmass or matrix								metamorphic or alteration						
				MP	cpx	hb	qz	pl	Kf	op	others	MP	hb	qz	pl	Kf	gl	op	others	ep	chl	amp	ser	tit	cb	others
MJSU-1	12	Rhyodacite weakly meta	porphyritic				◎	○		△				○	○		⟨◎⟩	·	apa (·)		○		○			
		Sericite develops stongly along cracks and partly replace plagioclase. Devitrified glass partly into chlorite.																								
	75	Rhyodacite lapilli tuff weakly meta	clastic				○	○		○				○	○		⟨◎⟩	△			·		○		○	
		Sericite occurs widely as a layer. Carbonate occurs in a matrix and as a vein.																								
	129	Rhyodacite coarse tuff weakly meta	clastic to porphyritic				○	○		△				○	○		⟨◎⟩	·			△		◎	·	·	
		Sericite widely develops with a mesh-like structure.																								
	199	Dacite tuff weakly meta	clastic				◎	○		△				○	○		⟨◎⟩	·			△		△		○	
		Carbonate vein is common. Chlorite and sericite replace devitrified glass.																								
	248	Volcanic breccia weakly meta	clastic				◎	△	△	·				○	△		⟨◎⟩	·			○		○		△	
		Sericite occurs as a layer replacing matrix. Chlorite replaces devitrified glass.																								
MJSU-2	45	Basalt weakly meta	partly trachytic									⟨○⟩		○	◎		⟨◎⟩	·			○		△		◎	
		Most of the minerals and glass are carbonatized and chloritized. Sericite occurs along a crack.																								
	63	Basalt weakly meta	originally aphyric									⟨○⟩		○	○		⟨◎⟩	△			◎		△		○	
		Mafic minerals are totally replace by chlorite, sericite and carbonate. Carbonate vein.																								
	65	Microdiorite weakly meta	micro-ophitic									⟨○⟩		○	◎		⟨◎⟩	·			◎		△		○	
		Glassy part and mafic minerals are totally replaced by chlorite and carbonate.																								
	75	Basalt weakly meta	porphyritic				○							△	○		⟨◎⟩	○	apa (·)		◎		○	·	△	
		Glassy part is totally replaced by chlorite and sericite. Sericite occurs along cracks.																								
	106	Basaltic tuff weakly meta	clastic to sub-trachytic									⟨○⟩		○	◎	△	⟨◎⟩	○			◎		△		○	
		Mafic minerals are totally replaced by chlorite and carbonate. Amygdule is filled by quartz and carbonate.																								
	120	Basaltic tuff weakly meta	clastic				○	○		△				○	○		⟨◎⟩	○			◎		○		○	
		Glassy part is totally replaced by chlorite, sericite and carbonate. carbonate vein.																								
MJSU-3	10	Dacite weakly meta	porphyritic	⟨○⟩			○	⟨○⟩	○	·		⟨○⟩		○	⟨○⟩		⟨◎⟩	·			◎		○	·	△	
		Glass and mafic minerals is into chlorite and sericite. Plagioclase is strongly replaced by sericite.																								
	25	Silicified volcanic rock weakly meta	porphyritic				○	⟨○⟩						◎	⟨○⟩			·	apa (·)		○		○			
		Matrix is strongly silicified.																								
	41	Silicified volcanic rock weakly meta	porphyritic				○	⟨○⟩						◎	⟨○⟩			·			△		◎		△	
		Matrix and feldspar are strongly silicified and sericitized. Carbonate vein.																								
	63	Dacitic lapilli tuff weakly meta	clastic	⟨○⟩			○	◎	△	·		⟨○⟩		○	○		⟨○⟩	·		○	○		△		△	
		Mafic minerals and matrix are replaced by chlorite and sericite. Plagioclase strongly by epidote and sericite.																								
	89	Dacite weakly meta	porphyritic	⟨○⟩			○	◎	△	·		⟨○⟩		○	◎	△		·		○	○		○		△	
		Mafic minerals are replaced by chlorite. Plagioclase strongly by epidote and sericite.																								
	131	Porphyritic dacite weakly meta	porphyritic	⟨○⟩			○	◎		·		⟨○⟩		○	◎			·		○	○		·		△	
		Mafic minerals is replaced by chlorite. plagioclase by epidote. Carbonate vein.																								
	150	Microdiorite weakly meta	sub-trachytic									⟨○⟩		○	◎			△	apa (·)		◎		△	·	○	
		Mafic minerals is replaced totally by chlorite. plagioclase by sericite. Carbonate vein.																								
	171	Dacite coarse tuff weakly meta	clastic	⟨△⟩			○	○		·				◎	○		⟨◎⟩	·			△		◎			
		Mafic minerals by chlorite. Glassy part is by sericite.																								

Appendix 1-30 Results of Microscopic Observation of Thin Section (Core Samples)

Drill Hole No.	Sample No.	Rock type	Texture	phenocryst or fragment								groundmass or matrix								metamorphic or alteration						
				MP	cpx	hb	qz	pl	Kf	op	others	MP	hb	qz	pl	Kf	gl	op	others	ep	chl	amp	ser	tit	cb	others
MJSU-3	217	Rhyodacite coarse tuff	clastic to	⟨△⟩			○	⟨○⟩		·		⟨△⟩		○	⟨○⟩		⟨◎⟩	·			△		○			
		weakly meta	porphyritic	Mafic minerals are replaced by chlorite. Plagioclase is replaced strongly by sericite. Carbonate vein.																						
	232	Dacite	porphyritic	⟨○⟩			○	⟨○⟩		△		⟨△⟩		○	⟨○⟩		⟨◎⟩	·		○	○		○		○	
		weakly meta		Mafic minerals are replaced by epidote and chlorite. Plagioclase is replaced mainly by sericite. Carbonate vein.																						
	243	Porphyritic dacite	porphyritic	⟨○⟩			○	⟨○⟩		·		⟨○⟩		○	○		⟨◎⟩	△		◎	△		○		○	
		weakly meta		Mafic minerals are replaced by epidote and chlorite. Plagioclase is replaced mainly by sericite. Carbonate vein.																						
MJSU-4	15	Diorite	ophitic	⟨○⟩			○	○	○	△	apa (·)									○	○		△		○	
		weakly meta		Mafic minerals are by epidote and chlorite. Plagioclase is locally by epidote. Graphic texture develops.																						
	30	Dolerite	micro-ophitic					△				⟨○⟩	○	△	◎					○	○		△	△	○	
		weakly meta		Mafic minerals except for hornblende are replaced by chlorite. Plagioclase is partly by epidote.. carbonate vein.																						
	40	Diorite	equigranular	⟨○⟩			○	⟨◎⟩		△	apa (·)										○		◎		○	
		weakly meta		Plagioclase and mafic minerals are replaced totally by chlorite and sericite. Carbonate vein.																						
	45	Silicified volcanics	porphyritic?	⟨○⟩						△				◎	○						○			·	○	
		weakly meta		Mafic minerals are replaced by chlorite. Carbonate vein is common.																						
	52	Rhyodacite coarse tuff	clastic to	⟨△⟩			○	⟨△⟩		·				◎	○		⟨◎⟩	△	apa (·)		○		○	·	△	
		weakly meta	porphyritic	Mafic minerals are replaced by chlorite. Plagioclase is replaced by sericite.																						
	80	Porphyritic andesite	porphyritic			○		◎		○			⟨△⟩	△	○		⟨◎⟩	·		○	○	·	△	△	○	
		weakly meta		Hornblende is partly by chlorite, carbonate and actinolite. plagioclase by epidote. Carbonate vein.																						
	95	Porphyritic andesite	porphyritic	⟨△⟩				◎		·		⟨△⟩		○	◎	△		·		◎	○			△	○	
		weakly meta		Mafic minerals are replaced by chlorite, epidote and carbonate. Plagioclase by sericite and carbonate.																						
	121	Rhyodacite lapilli tuff	clastic to	⟨△⟩			○	⟨○⟩	○	△				○	○		⟨◎⟩	△			○		○	·	○	
		weakly meta	porphyritic	Mafic minerals and matrix are by chlorite, carbonate and sericite. Plagioclase partly by sericite and carbonate.																						
	136	Dacite coarse tuff	clastic to	⟨○⟩			○	⟨○⟩		○		⟨△⟩		◎	○	△		△			○		○	·	◎	
		weakly meta	porphyritic	Mafic minerals are by chlorite and carbonate. Plagioclase is by sericite and carbonate.																						
	175	Andesite	porphyritic	⟨○⟩			○	⟨◎⟩		△		⟨○⟩		○	◎	○		·		◎	○		·	△	○	
		weakly meta		Mafic minerals are replaced by chlorite. Plagioclase is replaced strongly by sericite.																						
	193	Andesite lapilli tuff	clastic to	⟨○⟩			○	⟨◎⟩		△		⟨○⟩		○	◎	○		·		◎	○		△	·	○	
		weakly meta	porphyritic	Mafic minerals are replaced by chlorite. Plagioclase is replaced strongly by sericite. Carbonate vein.																						
	222	Andesite lapilli tuff	clastic to	⟨○⟩			○	⟨◎⟩		△		⟨○⟩		○	◎	○		·		◎	○		·	△	○	
		weakly meta	porphyritic	Mafic minerals are replaced by chlorite. Plagioclase is replaced strongly by sericite. Carbonate vein.																						
	238	Andesite lapilli tuff	clastic to	⟨○⟩			○	⟨◎⟩		·		⟨○⟩		◎	○	△		·		◎	○		○	·	○	
		weakly meta	porphyritic	Mafic minerals by chlorite and carbonate. Plagioclase by sericite and epidote. Carbonate and sericite veins.																						
	259	Dacitic lapilli tuff	clastic to				○	⟨○⟩		△								·			○		○		◎	
		strongly by carbonate	porphyritic	Plagioclase and matrix are strongly replaced by carbonate. Sericite occurs as a layer. Chlorite vein.																						
	282	Rhyodacite coarse tuff	clastic to											◎	○			△	apa (·)		○		◎	·	△	
		silicified	porphyritic	Strongly silicified. Sericitization and chloritization are widespread. Carbonate vein.																						
	288	Dacite	porphyritic	⟨○⟩				⟨○⟩		△		⟨○⟩		○	◎	○		△	apa (·)		○		○	·	○	
		weakly meta		Mafic minerals are replaced by chlorite. Plagioclase is by sericite. Carbonate vein.																						

Appendix 1-30 Results of Microscopic Observation of Thin Section (Core Samples)

Drill Hole No.	Sample No.	Rock type	Texture	phenocryst or fragment								groundmass or matrix								metamorphic or alteration						
				MP	cpx	hb	qz	pl	Kf	op	others	MP	hb	qz	pl	Kf	gl	op	others	ep	chl	amp	ser	tit	cb	others
MJSU-4	296	Rhyodacite tuff weakly meta	clastic to porphyritic				○	⟨△⟩		·				◎	○	○		·			○		○	·	△	
		Mafic minerals are replaced by chlorite and sericite. Plagioclase phenocryst totally by sericite.																								
MJSU-5	25	Diorite weakly meta	porphyritic	◎			○	◎		△	apa (·)								zir (·)		○		○		·	
		Hornblende is partly replaced by chlorite. Plagioclase is strongly by epidote and sericite.																								
	63	Diorite weakly meta	ophitic	⟨○⟩			○	⟨◎⟩	△	○										△	○		○	△	△	
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst strongly by sericite. Carbonate vein.																								
	115	Dacitic lapilli tuff weakly meta	clastic to porphyritic	⟨○⟩			○	⟨○⟩						○	○		⟨◎⟩	·			◎		○			
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst totally by sericite																								
	124	Andesite lapilli tuff weakly meta	clastic to porphyritic	⟨○⟩			○	⟨○⟩				⟨○⟩		○	○		⟨◎⟩	·		○	○				◎	
		Mafic minerals are by chlorite. Plagioclase phenocryst strongly by epidote and sericite. Carbonate vein.																								
	138	Dolerite weakly meta	ophitic	⟨○⟩	△	◎	△	◎		·										○	○	·			△	
		Clinopyroxene is strongly by chlorite and carbonate. Orthopyroxene(?) is totally by chlorite.																								
	165	Andesite lapilli tuff weakly meta	clastic to porphyritic	⟨○⟩			○	⟨○⟩				⟨○⟩		○	○		⟨◎⟩	·		◎	○				○	
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst strongly by sericite. Carbonate vein.																								
	194	Andesite coarse tuff weakly meta	clastic to porphyritic	⟨○⟩			○	⟨○⟩		△		⟨○⟩		○	◎		⟨○⟩	△		◎	○				○	
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst strongly by sericite.																								
	210	Andesite lapilli tuff weakly meta	clastic to porphyritic	⟨○⟩			○	⟨○⟩		△		⟨○⟩		○	◎		⟨○⟩	△		◎	○			·	○	
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst strongly by sericite. Carbonate vein.																								
	264	Rhyodacite weakly meta	porphyritic	⟨○⟩			○	○				⟨○⟩		○	◎	△	⟨○⟩	·		△	○		△		○	
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst strongly by sericite and epidote. Carbonate vein.																								
	249	Rhyodacite lapilli tuff weakly meta	clastic to porphyritic	⟨○⟩			○			○		⟨○⟩		○	○		⟨◎⟩	·			○		◎		○	
		Mafic minerals by chlorite. Matrix strongly by sericite and chlorite. sericite occurs as a layer. Carbonate vein.																								
	283	Rhyodacite lapilli tuff weakly meta	clastic to porphyritic				○							○	○		⟨◎⟩	·	apa (·)		○		◎		·	
		Matrix strongly by sericite and chlorite. sericite layer develops.																								
	315	Dacitic lapilli tuff weakly meta	clastic to porphyritic	⟨○⟩			○	○		△		⟨○⟩		○	○	△	⟨◎⟩	·		○	○		○		○	
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst strongly by sericite and epidote. Carbonate vein.																								
	337	Dacitic lapilli tuff weakly meta	clastic to porphyritic	⟨○⟩			○	⟨○⟩				⟨△⟩		○	○	△	⟨◎⟩	·			◎		○			
		Mafic minerals are replaced by chlorite. Plagioclase phenocryst strongly by sericite.																								
MJSU-6	47	Basaltic tuff weakly meta	clastic to porphyritic	⟨○⟩				⟨△⟩		○		⟨△⟩		○	○		⟨◎⟩	·			◎				○	
		Mafic minerals and matrix are replaced totally by chlorite. Carbonate vein.																								
	58	Basaltic fine tuff weakly meta	clastic to porphyritic	⟨△⟩				⟨○⟩						△	◎		⟨◎⟩	·			○		△		○	
		Mafic minerals and matrix are replaced by chlorite. plagioclase partly by sericite. Carbonate vein.																								
	74	Dolerite weakly meta	micro-ophitic									⟨◎⟩		△	◎			△			◎				○	goe (△)
		Mafic minerals are totally replaced by chlorite and goethite.																								
	132	Dacitic tuff weakly meta	clastic to porphyritic				○	⟨○⟩		△				○	○		⟨○⟩	·			○		△	·	△	
		Matrix is replaced by chlorite and sericite. Plagioclase phenocryst is highly by sericite.																								
	145	Basaltic fine tuff weakly meta	clastic to porphyritic	⟨○⟩				⟨○⟩		△					◎		⟨◎⟩	△			◎			·	○	
		Most of the minerals and matrix are replaced by chlorite and carbonate.																								

Appendix 1-30 Results of Microscopic Observation of Thin Section (Core Samples)

Drill Hole No.	Sample No.	Rock type	Texture	phenocryst or fragment								groundmass or matrix								metamorphic or alteration						
				MP	cpx	hb	qz	pl	Kf	op	others	MP	hb	qz	pl	Kf	gl	op	others	ep	chl	amp	ser	tit	cb	others
MJSU-7	72	Basaltic fine tuff weakly meta	clastic to porphyritic	⟨○⟩				⟨△⟩		○		⟨△⟩		△	◎		⟨◎⟩	△			◎		○	・	△	
		Mafic minerals by chlorite. Plagioclase phenocryst by sericite. Matrix by chlorite and sericite. Qz vein.																								
	202	Rhyodacite tuff weakly meta	clastic to porphyritic				○	○		△				◎	○			・	apa (・)		○		◎		○	
		Matrix is replaced highly by chlorite, sericite and carbonate. Pleochroic carbonate: ankerite																								
	210	Basalt weakly meta	porphyritic	⟨○⟩				⟨○⟩				⟨○⟩			○		⟨○⟩	・			◎		△	・	◎	
		Plagioclase is replaced highly by chlorite, sericite and carbonate. Matrix strongly by carbonate and chlorite.																								
	240	Rhyodacite weakly meta	porphyritic	⟨△⟩			○	△		△				◎	○			・	apa (・)		△		○	・	△	
		Mafic mineral (biotite?) is replaced by sericite. Sericite occurs commonly as a layer.																								
MJSU-8	10	Basalt weakly meta	porphyritic	⟨△⟩				○				⟨△⟩		△	○		⟨◎⟩	△			○				◎	goe(△)
		Mafic minerals are replaced totally by chlorite. Matrix is by carbonate and chlorite. Carbonate vein.																								
	20	Porphyritic basalt weakly meta	porphyritic	⟨○⟩				◎		・		⟨○⟩			◎		⟨◎⟩	・		○	◎		△		○	
		Mafic phenocryst are by carbonate. Matrix is by chlorite. Plagioclase is by carbonate and epidote.																								
	39	Rhyodacite tuff? highly silicified	clastic to porphyritic	⟨△⟩			○	△		○		⟨△⟩		◎	○		⟨◎⟩	△			○		△	△	○	
		Mafic minerals are by chlorite. Devirified glass is by chlorite(or clay minerals)																								
	57	Rhyodacite coarse tuff weakly meta	clastic to porphyritic	⟨△⟩			○	○		△				◎	○		⟨◎⟩	・		○	○		○	△	○	
		Mafic minerals are replaced by carbonate. Carbonate vein.																								
	91	Volcanic breccia weakly meta	clastic				○	△		△				◎	○		⟨◎⟩	△			○		○			
		Mafic minerals(?) are replaced mainly of aggregates o opaque minerals. Quartz vein.																								
	98	Volcanic breccia weakly meta	clastic				○	△		△				◎	○		⟨◎⟩	△			○		○			
		Mafic minerals(?) are replaced mainly of aggregates o opaque minerals.																								
	183	Sandstone? weakly meta	clastic				◎	○		△	apa (・)											○		○	△		
		Grain boundaries and glassy materials are highly replaced by sericite.																								
	192	Porphyritic andesite weakly meta	porphyritic	⟨△⟩			△	⟨◎⟩		△		⟨△⟩		○	⟨○⟩		⟨◎⟩	・		◎	○			△	○	prh(△)
		Plagioclase(saussurite) is partly replaced by prehnite and epidote. Mafic minerals are by chlorite and carbonate.																								
	207	Pumiceous volcanic breccia weakly meta	clastic				○							◎	○		⟨◎⟩	△					○			
		Fragment of qz aggregate is common. Glassy part is replaced by sericite.																								
	226	Andesite weakly meta	porphyritic	⟨○⟩				⟨◎⟩		○		⟨△⟩		◎	○		⟨◎⟩	・		○	○				△	
		Plagioclase, totally sussurite, is replaced partly by epidote. Mafic minerals are by chlorite and epidote.																								
	233	Volcanic breccia weakly meta	clastic				○					⟨○⟩		◎	○		⟨◎⟩	△					○	・		goe(△)
		Mafic minerals are replaced by chlorite. Sericite occurs at the grain boundaries among fragments.																								
	244	Volcanic breccia weakly meta	clastic	⟨△⟩				⟨△⟩		△		⟨△⟩		◎	○			△		○	○			△	○	prh(△)
		Mafic minerals by chlorite and epidote. Plagioclase strongly by epidote. Prehnite and carbonate veins.																								

abbrev. MP=pseudomorphs of mafic minerals, cpx=clinopyroxene, pl=plagioclase, op=opaque minerals, qz=quartz, hb=hornblende, kf=K-feldspar epi=epidote, gl=glass or microcrystalline aggregate, amp=green amphibole, cb.=carbonate, ser=sericite, tit=titanite, apa=apatite, cly=clay minerals, prh=prehnite

⟨ ⟩ shows almost totally decomposed

◎abundant, ○common, △small, ・rare

Appendix 1-31 Results of Microscopic Observation of Polished Sections (Core Samples)

Localities		Sample No.	Depth (m)	Rock Name	Pyrite	Chalcopyrite	Covellite	Chalcocite	Tetrahedrite	Sphalerite	Galena	Clausthalite (PbSe)	Altaite (PbTe)	Hessite (Ag_2Te)	Naumannite (Ag_2Se)	Magnetite	Hematite	Anatase
4/6 Gossan	MJSU-1	153P	153.5	cp-py-sph stringers	◎	○				◎	○							
		215P	215.5	cp-py-sph vein	◎	○				◎	△			△				
4/6 Gossan	MJSU-2	122P	122.4	cp-py breccia ore	○	◎				△								
		124P	124.3	py-cp-sph breccia ore	◎	○				◎	△		△					
		131P	131.2	py-sph-cp massive ore	◎	○	△			◎	△							
		132P	132.1	py-cp-sph massive ore	◎	○	△			◎	△							
		135P	135.7	py breccia ore	◎	△				△	△							
		141P	141.2	py-cp massive ore	◎	◎	△			△								
Umm ad Damar North	MJSU-3	214P	214.9	cp-py network vein	○	◎				○	△							
		220P	220.6	py-cp network vein	○	◎										○	△	
Umm ad Damar North	MJSU-4	143P	143.3	py-cp vein, 4cm wide	◎	◎				○								△
		149P	149.9	py-cp veinlets	○	◎				△								○
		156P	156.1	py-cp vein, 15cm wide	○	◎				○	△	△						△
		279P	279.1	py-cp veinlets	○	◎				△								
Umm ad Damar North	MJSU-5	81P	81.8	disseminated & layered cp-py	◎	◎				△								△
		96P	96.8	cp-py veinlets	△	◎				△								
		236P	236.1	cp veinlets, 15cm wide	△	◎												△
		271P	271.2	massive py	◎	○				△								
		273P	273.1	layered py-cp-sph	△	◎				○								○
		329P	329.6	cp veinlets, 1.5m wide	○	◎						△						△
4/6 Gossan	MJSU-6	135P	135.2	thinly banded breccia ore consisting of sph-py-cp	△	△	△	△		◎	△		△					
northeast of 4/6 Gossan	MJSU-7	60P	60.2	cp-qtz vein, 20cm wide	△	◎			△	△								
		63P	63.3	cp-qtz veinlets, 1-2cm wide	◎	◎				△		△			△			△
		76P	76.6	cp-qtz veinlets, 15cm wide	◎	△				△		△						△
Jabal Sujarah	MJSU-8	73P1	73.3	py-cp massive ore fragment, 4×4cm	○	○				△		△						
		73P2	73.5	sph massive ore fragment, 7×7cm	○	○				◎								
		83P	83.0	py-cp massive ore	◎	△												△

◎abundant, ○common, △small

Appendix 1-32 Results of X-ray Diffraction Analysis (Core Samples)

Localities (Drill Hole No.)		Sample No.	Depth(m)	Rock Name	Quartz	Calcite	Chlorite	Sericite	Plagioclase	Pyrite	Chalcopyrite
4/6 Gossan	MJSU-2	98X	98.6	Rhyodacitic lapilli tuff	◎		△	◎	○		
		117X	117.4	Basaltic tuff	◎	○	◎		△		
		125X	125.7	Rhyodacitic lapilli tuff	△		◎			○	
		129X	129.0	Rhyodacitic lapilli tuff	◎		△	△			
		142X	142.2	Rhyodacitic tuff	○		◎				
		144X	144.7	Rhyodacitic tuff	◎		△	△	△		
Umm ad Damar North	MJSU-3	211X	211.5	Porphyritic dacite	◎		○	△			
		217X	217.5	Rhyodacitic coarse tuff	◎		△	△			
		224X	224.5	Silicified volcanic rocks, rhyodacitic?	◎		△		△		
Umm ad Damar North	MJSU-4	56X	56.3	Strongly silicified rhyodacitic? rock	◎	△	◎	○		△	
		61X	61.5	Silicified rhyodacitic rock	◎	△		◎			
		131X	131.6	Rhyodacitic coarse tuff	◎	◎	○	△			
		138X	138.0	Dacitic coarse tuff	◎	△	◎	○			
		143X	143.1	Chloritized part	◎	△	◎	○		△	
		145X	145.3	Dacitic coarse tuff	◎	△	◎	○		○	
		285X	285.8	Pyritized part	◎	△	○	○		○	
Umm ad Damar North	MJSU-5	79X	79.6	Strongly chloritized part	◎	○	◎	○		△	
		96X	96.3	Strongly chloritized part	◎	◎	○				
		236X	236.1	Chloritized part	◎		◎			△	○
		246X	246.6	Chloritized part			◎			△	
		270X	270.6	Chlorite & siliceous layer in thinly banded pyrite ore	◎	△	○	△			
		274X	274.3	Chlorite & siliceous layer in banded pyrite ore	△		◎			△	△
		331X	331.1	Strongly chloritized part	△		◎				△
northeast of 4/6 Gossan	MJSU-6	134X	134.2	Qtz-vein in graphite	◎		○	△			
Jabal Sujarah	MJSU-8	41X	41.7	Brecciated silicified rock, rhyodacitic tuff?	◎	◎		○			
		74X	74.6	Clayey fine tuff	△		△	◎		◎	
		141X	141.8	Pumiceous volcanic breccia	◎		△	△		△	
		184X	184.9	Pumiceous lapilli tuff			△	◎		○	

Appendix 2-1 Results of Ore Assay (Core and Outcrop Samples)

Drill Hole No.	Sample No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	S (%)	Fe (%)
UAD-4	1	105.95	107.95	2.00	0.30	21.2	1.88	0.05	0.00	4.98	-
	2	107.95	109.95	2.00	0.35	26.8	2.37	0.07	0.00	6.98	-
	3	109.95	112.05	2.10	0.36	20.8	1.67	0.56	0.00	8.75	-
	4	112.05	114.05	2.00	1.00	38.4	3.56	3.60	0.00	15.50	-
	5	114.05	115.00	0.95	1.44	40.8	4.06	1.96	0.00	8.25	-
K0013101		4/6 Gossan Prospect			<0.05	<1.0	0.01	0.01	0.01	-	31.09
K0020503		B-12 Chargeability Anomaly			<0.05	3.2	0.04	0.02	0.11	-	2.30
K0020603		O-21 Chargeability Anomaly			<0.05	1.8	0.09	0.01	0.00	-	14.91
K0020604		O-21 chargeability Anomaly			<0.05	<1.0	0.06	0.02	0.00	-	19.77
K0021401		West of J-18 Chargeability Anomaly			<0.05	<1.0	0.02	0.01	0.00	-	14.44
K0021402		West of J-18 Chargeability Anomaly			0.08	6.2	0.02	0.01	0.00	-	8.86
K0021403		West of J-18 Chargeability Anomaly			<0.05	<1.0	0.02	0.01	0.00	-	8.33
K0021404		4/6 Gossan Prospect			0.05	1.4	0.01	0.01	0.01	-	3.31

Appendix 2-2 Results of Microscopic Observation of Thin Sections (Outcrop Samples)

Sample No.	Symbol	Locality	Rock type	Texture	Phenocrysts or fragmnets								Groundmass or matrix								Metamorphic or alteration						
					MP	clp	hb	qz	pl	Kf	op	others	MP	clp	hb	qz	pl	gl	Kf	op	others	epi	chl	amp	ser	tit	cb	others
K0020505	r	B-12 Anomaly	Rhyodacite weakly meta	glomero-porphyritic					◎	*						○	○					○	△		*		△	
					Feldspars are moderately altered to epidote and carbonate. Late microfractures are filled mainly by quartz and minor epidote, chlorite and carbonate.																								
K0020502	Adb	B-12 Anomaly	Rhyodacite weakly meta	porphyritic				*	△	*						○	*			*		◎	○				○	
					Rock is affected by propylitic alteration where feldspars are mostly altered to epidote and carbonate.																								
K0020501	d	B-12 Anomaly	Dacite weakly meta	porphyritic				△	○		*					○	△	<>				○	○		*		○	
					Feldspars are moderately altered to epidote, carbonate and chlorite. Glassy material is mostly altered to chlorite. Late fractures are filled by quartz, carbonate, and epidote.																								
K0021406	Ar	Southeast of J-18	Rhyodacite weakly meta	glomero-porphyritic				○	◎	△						○	○			*		*	△				△	
					Matrix is weakly chloritized and carbonatized. Carbonate forms patchy alteration. Locally mild iron staining along microfracture is due to oxidation of sulfides.																								
K0021408	r	Southeast of J-18	Rhyodacite weakly meta	porphyritic				○	○	*						◎	△			*			○		*		△	
					Weakly schistosed, some quartz phenocrysts show rotational effect and pressure shadows. Late microfractures parallel to shear plane are filled by quartz and carbonate.																								
K0013001	Ad	East of 4/6 Gossan	Dacite weakly meta	glomero-porphyritic					◎	*						○	△	<>		*		*	◎				△	
					Feldspars phenocrysts are mostly altered to carbonate, chlorite and epidote. Matrix is moderately chloritized. Late microfractures filled with carbonate.																								
K0020802	Ar	South of J-18	Rhyodacite weakly meta	glomero-porphyritic				△	◎	*	*					○	△					*	○		*		△	goe *
					Qz phenocrysts rimmed by silica. Feldspars phenocrysts are altered to cb, chl, & epi. Two types cb noted (iron-rich & iron-poor). Matrix is moderately chloritized.																								
K0012901	Ad	South of J-18	Andesite weakly meta	porphyritic & vesicular					○							△	◎			*		*	○				△	
					Andesite or dacite. Mafics totally altered to chl +/- epi. Amygdules (?) filled with chl, cb, epi & qz.																								
K0013002	Ad	East of 4/6 Gossan	Andesite weakly meta	porphyritic & vesicular					◎								◎	<>		*		△	◎				△	
					Basaltic andesite. Mafics totally altered to chl, epi, & cb. Amygdules filled with chl & qz.																								
K0021405	Ad	South of J-18	Andesite weakly meta	intersertal & vesicular													○			○		○	◎				△	
					Mafics totally altered to chl +/- epi. Plagioclase mostly altered to epi, chl & cb. Locally amygdules filled with chl, epi, cb & qz. Microfractures with epi, cb and qz fillings.																								

Abbrev. MP=pseudomorphs of mafic minerals, cpx=clinopyroxene, pl=plagioclase, op=opaque minerals, qz=quartz, hb=hornblend, Kf=K-feldspar, epi=epidote, gl=glass or microcrystalline aggreagte, amp=green amphibole, cb=carbonate, ser=sericite, tit=titanite, apa=apatite, cly=clay minerals.

<> shows totally decomposed

◎ abundant ○ common △ small * rare

Appendix 2-3 Results of Microscopic Observation of Polished Sections (Outcrop and Core Samples)

Localities		Sample No.	Depth (m)	Rock Name	Pyrite	Chalcopyrite	Covellite	Chalcocite	Tetrahedrite	Sphalerite	Galena	Clausthalite (PbSe)	Altaite (PbTe)	Hessite (Ag_2Te)	Naumannite (Ag_2Se)	Pyrrhotite	Magnetite	Hematite	Geothite	Anatase
Umm ad Damar South	UAD-4	108P	108.1	Py-cp-qtz vein	◎	△				△										
		111P	111.5	Py-cp-qtz vein	◎	○				○							△			
		112P1	112.2	Disseminated sp-py ore	◎	○	△			○							△			
		112P2	112.6	Disseminated sph-cp-py ore	◎	◎				○							△			
Umm ad Damar North	UAD-6	99P	99.1	Cp-py stringers	◎	◎	△			△						△			△	△
		104P	104.7	Cp-py stringers, dissemination	◎	○	△			△						△			△	
		111P	111.1	Cp-py stringers	◎	○	△			△									△	
		243P	243.6	Cp-py stringers, dissemination	◎	○													△	
South of 4/6 Gossan		K0013101		Siliceous Fe-oxides															◎	
Northeast of M-27 Anomaly		K0022403		Quartz vein? with Cu-oxides		△													△	

◎abundant, ○common, △small

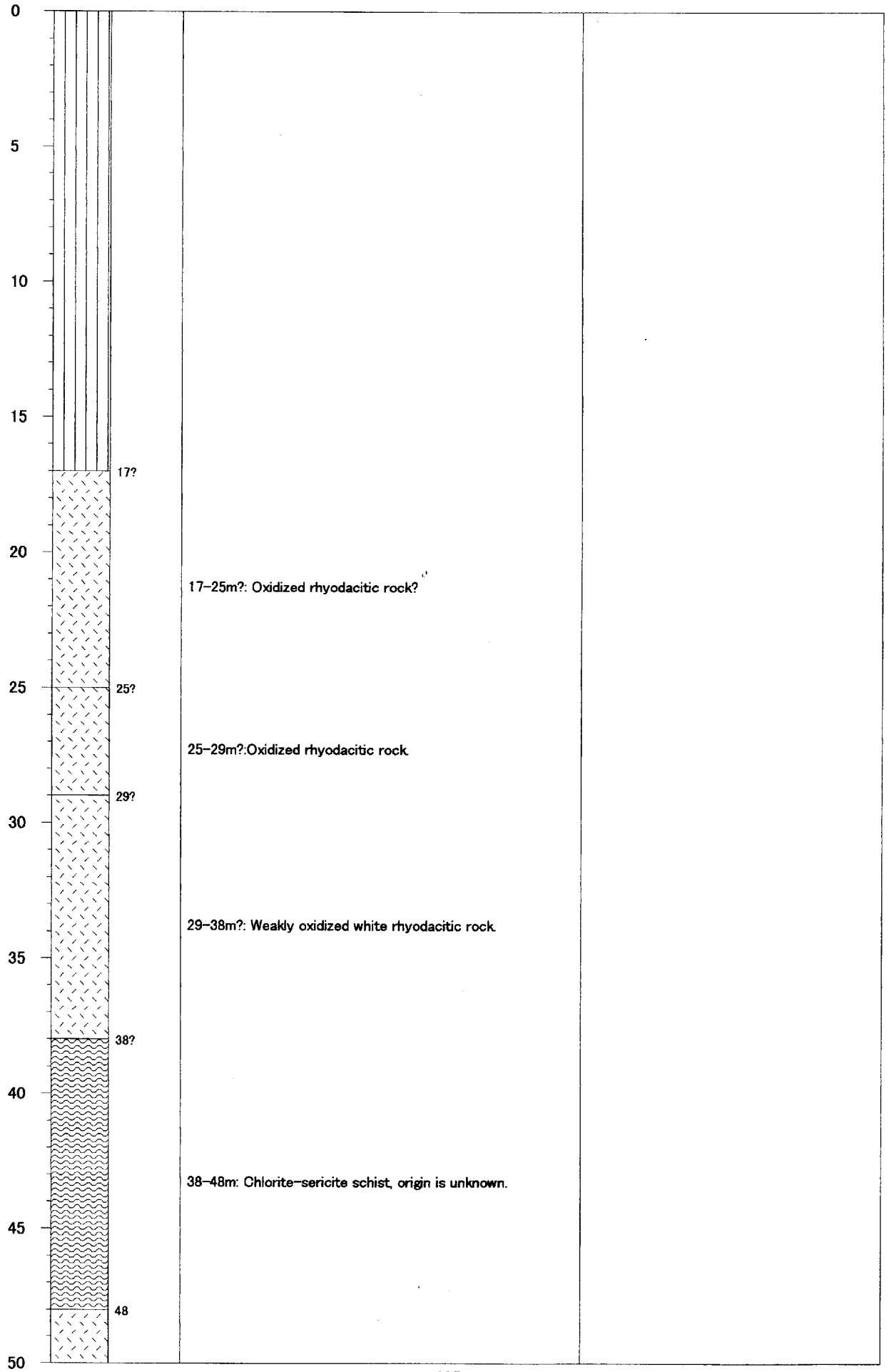
Appendix 2-4 Results of X-ray Diffraction Analysis (Outcrop and Core Samples)

Localities (Drill Hole No.)		Sample No.	Depth(m)	Rock Name	Quartz	Tremolite	Calcite	Chlorite	Sericite	Plagioclase	Epidote	Talc	Pyrite	Chalcopyrite	Hematite
Umm ad Damar South	UAD-4	112X	112.9	Chloritized rock	△		◎	△				◎	△	△	
		114X	114.5	Chloritized rock	◎		○	△					△		
West of Umm ad Damar South Prospect		K0020801		Strongly epidotized andesitic rock	△	◎	△	△			○				
West of J-18 Anomaly		K0021402		Silicified dacitic rock with hematite	◎				△						△
West of J-18 Anomaly		K0021403		Silicified and clayey dacitic rock with hematite	◎										△
North of MJSU-7		K0020602		Carbonatized rhyodacitic rock	◎		△	△	△						
Northeast of MJSU-7		K0020601		Ferruginous rhyodacitic rock	◎										△
North of Jabal Sujarah		K0020504		Silicified rock with hematite, jasper?	◎										
North of M-27 Anomaly		K0022401		Strongly silicified dacitic rock with hematite	◎			△	△						
J-18 Anomaly		K0022408		Rhyodacitic rock with hematite	◎			△	△						

Appendix 2-5 Geological Logs of UAD-3, UAD-4, UAD-6 and UAD-10

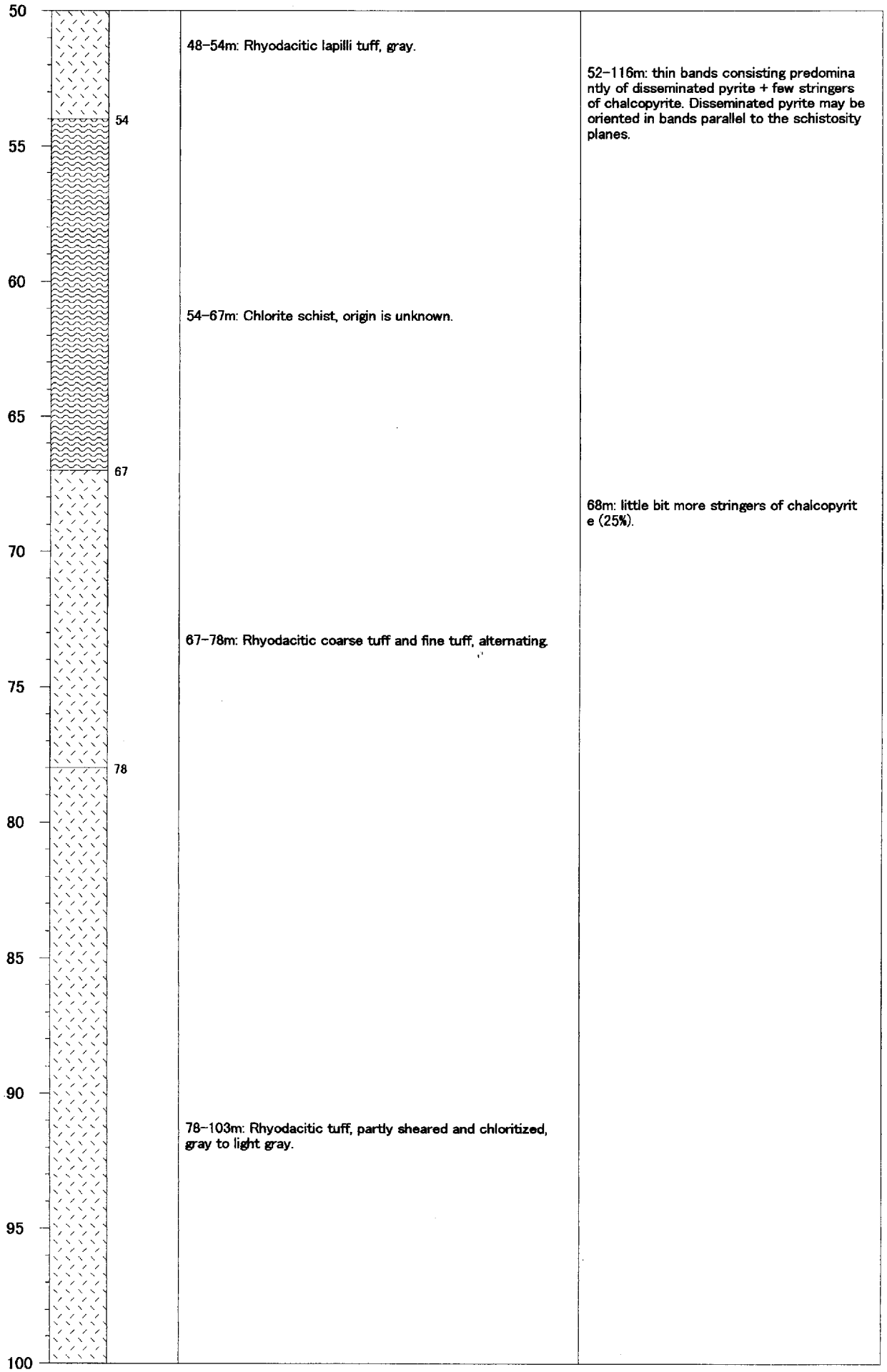
Drill Hole No.:	UAD-3	Easting:	E709.925	
Date Started:	1977	Northing:	N2617.370	
Date Completed:	1977	Elevation(mSL):	965m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



Drill Hole No.:	UAD-3	Easting:	E709.925	
Date Started:	1977	Northing:	N2617.370	
Date Completed:	1977	Elevation(mSL):	965m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



48–54m: Rhyodacitic lapilli tuff, gray.

54–67m: Chlorite schist, origin is unknown.

67–78m: Rhyodacitic coarse tuff and fine tuff, alternating.

78–103m: Rhyodacitic tuff, partly sheared and chloritized, gray to light gray.

52–116m: thin bands consisting predominantly of disseminated pyrite + few stringers of chalcopyrite. Disseminated pyrite may be oriented in bands parallel to the schistosity planes.

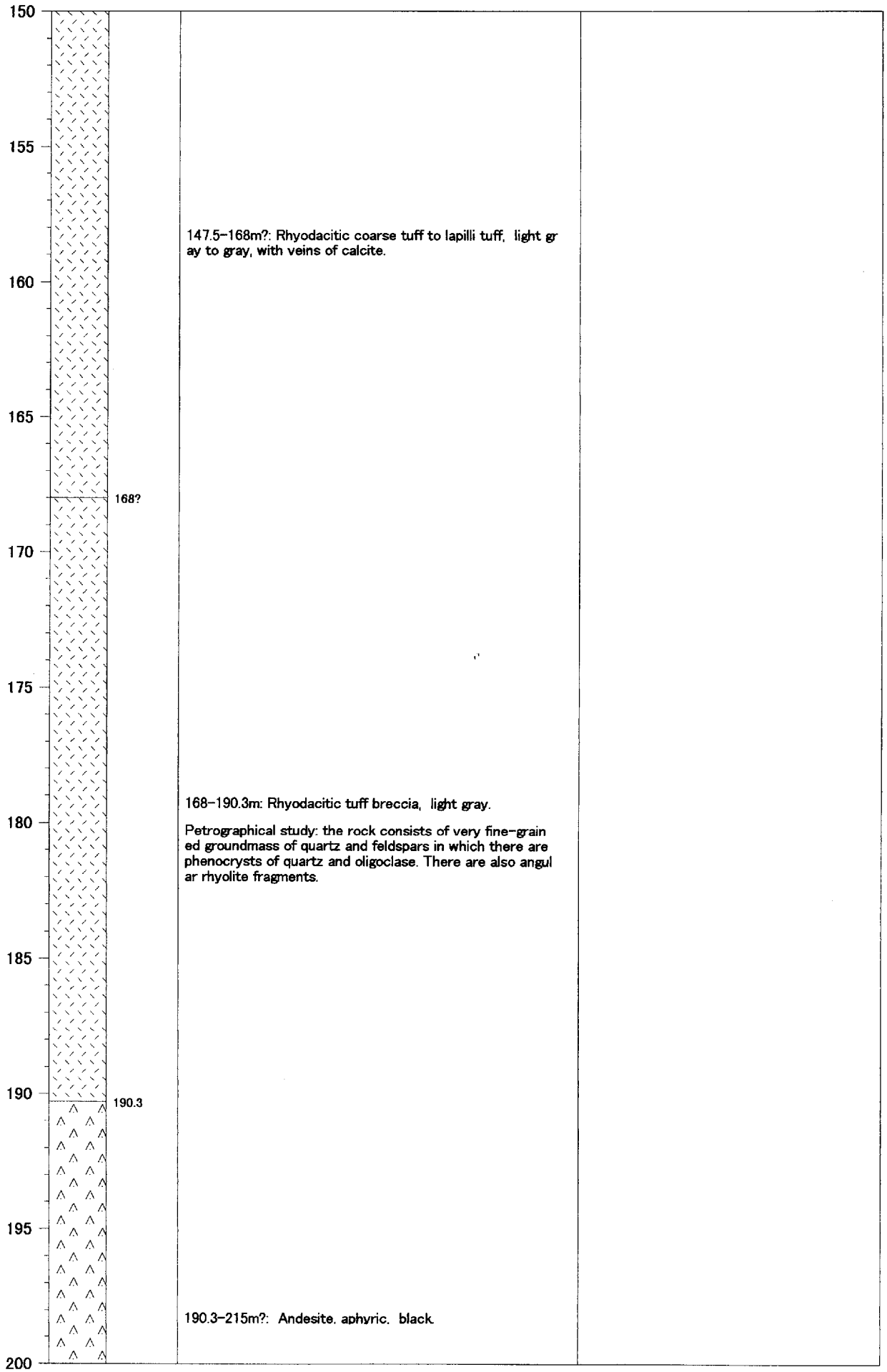
68m: little bit more stringers of chalcopyrite (25%).

Drill Hole No.:	UAD-3	Easting:	E709.925	
Date Started:	1977	Northing:	N2617.370	
Date Completed:	1977	Elevation(mSL):	965m	Drilled by SEREM/US Steel

Depth	Lithology	Mineralization & Alteration
100		
103		
105		
110	103–116.1m: Silicified rhyodacitic tuff? light gray.	109m: little bit more stringers of chalcopyrite (25%).
115		
116.1		
120		
125	116.1–139m: Rhyodacitic rock? weakly chloritized, gray.	
130		
135		
139		
140	139–147m: Altered rhyodacite, gray, barren quartz–calcite veinlets.	139–147m: root of copper–quartz vein?
145		
	147–147.5m: Andesite porphyry.	
147.0		
147.5	Petrographical study: the groundmass is composed of fine-grained crystals of tremolite–actinolite and plagioclase. Microphenocrysts are composed of plagioclase and tremolite–actinolite. The rock is cut by veinlets of calcite and quartz.	
150		

Drill Hole No.:	UAD-3	Easting:	E709.925	
Date Started:	1977	Northing:	N2617.370	
Date Completed:	1977	Elevation(mSL):	965m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



147.5–168m?: Rhyodacitic coarse tuff to lapilli tuff, light gray to gray, with veins of calcite.

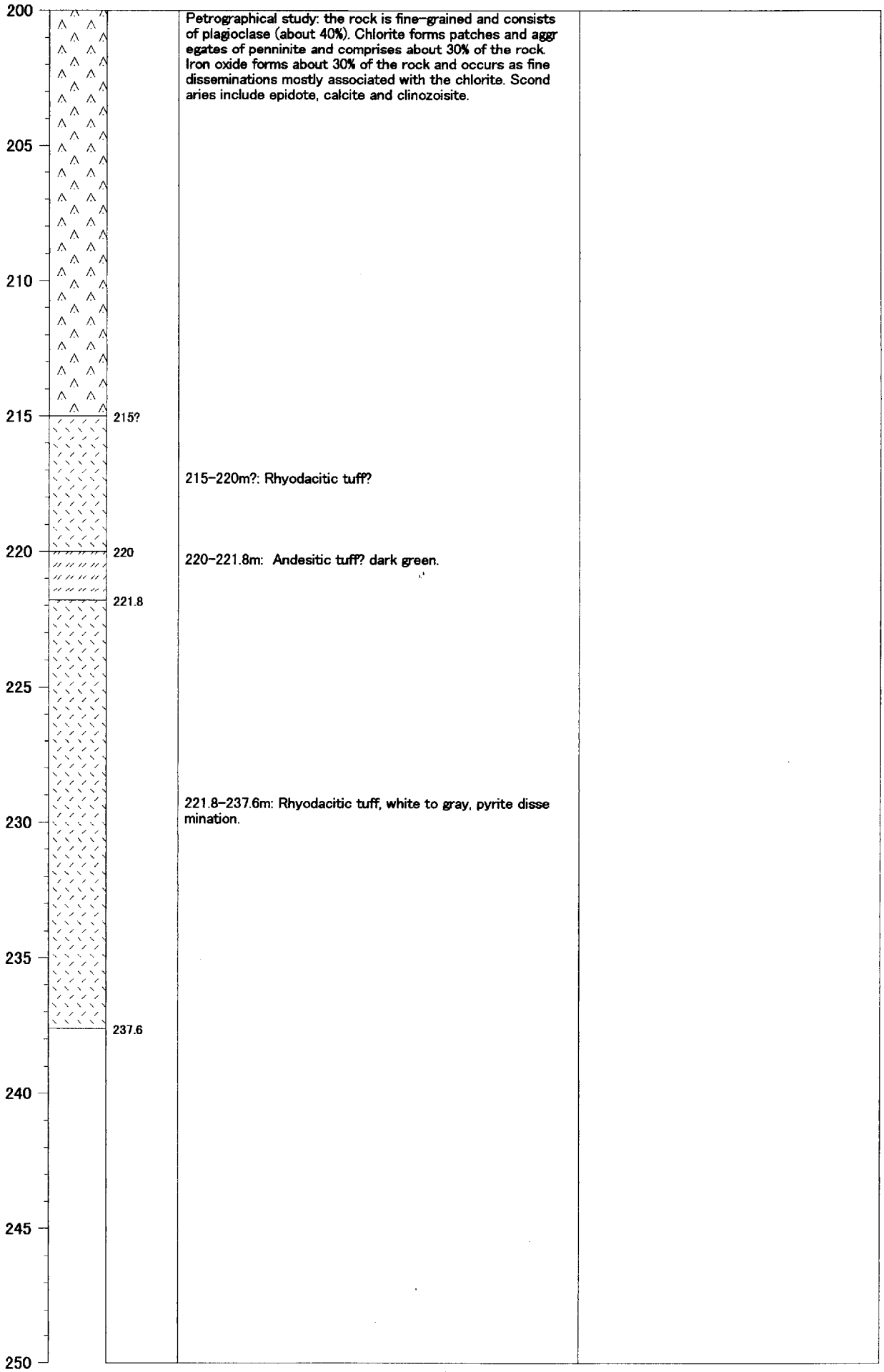
168–190.3m: Rhyodacitic tuff breccia, light gray.

Petrographical study: the rock consists of very fine-grained groundmass of quartz and feldspars in which there are phenocrysts of quartz and oligoclase. There are also angular rhyolite fragments.

190.3–215m?: Andesite, aphyric, black.

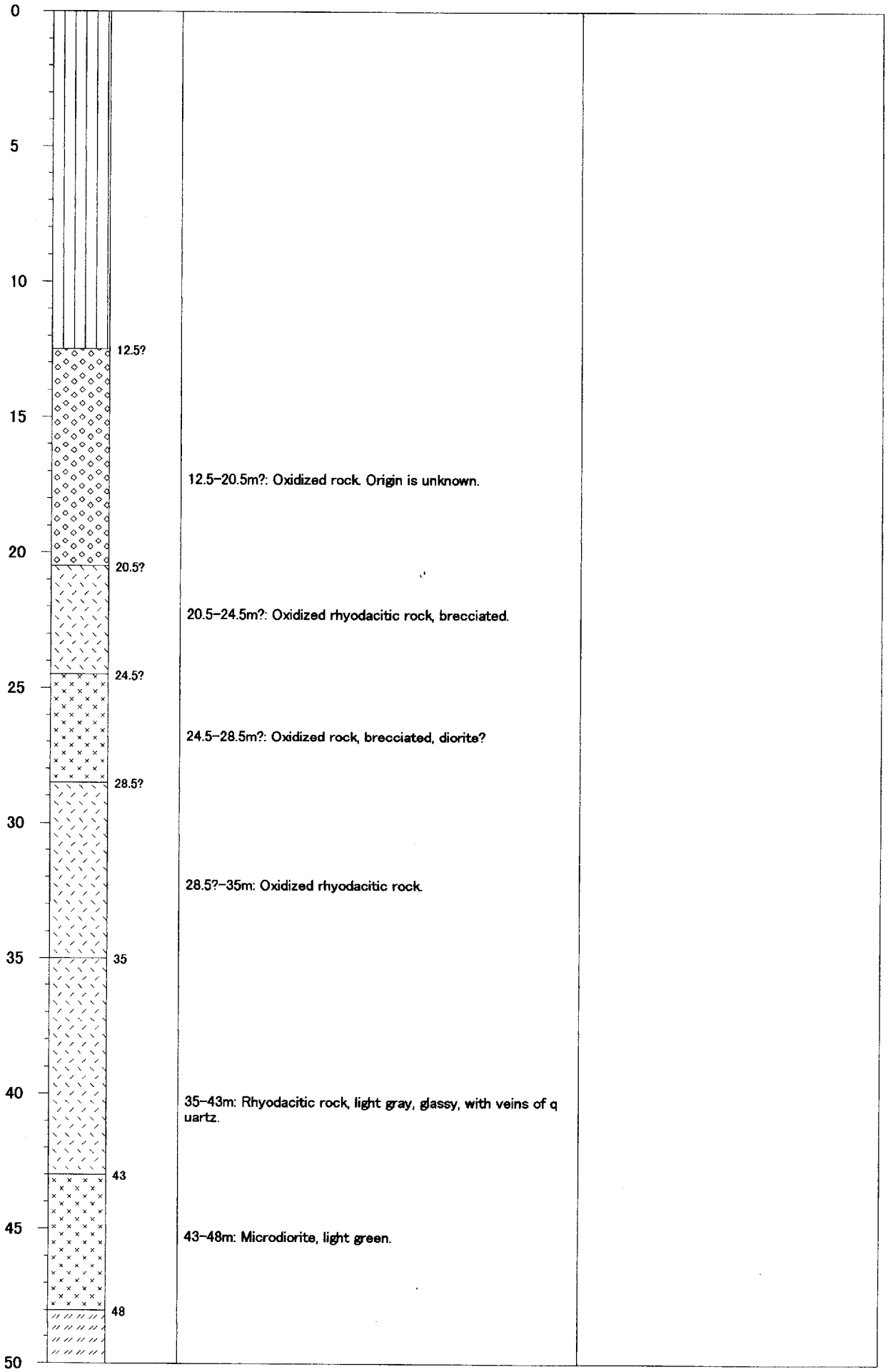
Drill Hole No.:	UAD-3	Easting:	E709.925	
Date Started:	1977	Northing:	N2617.370	
Date Completed:	1977	Elevation(mSL):	965m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



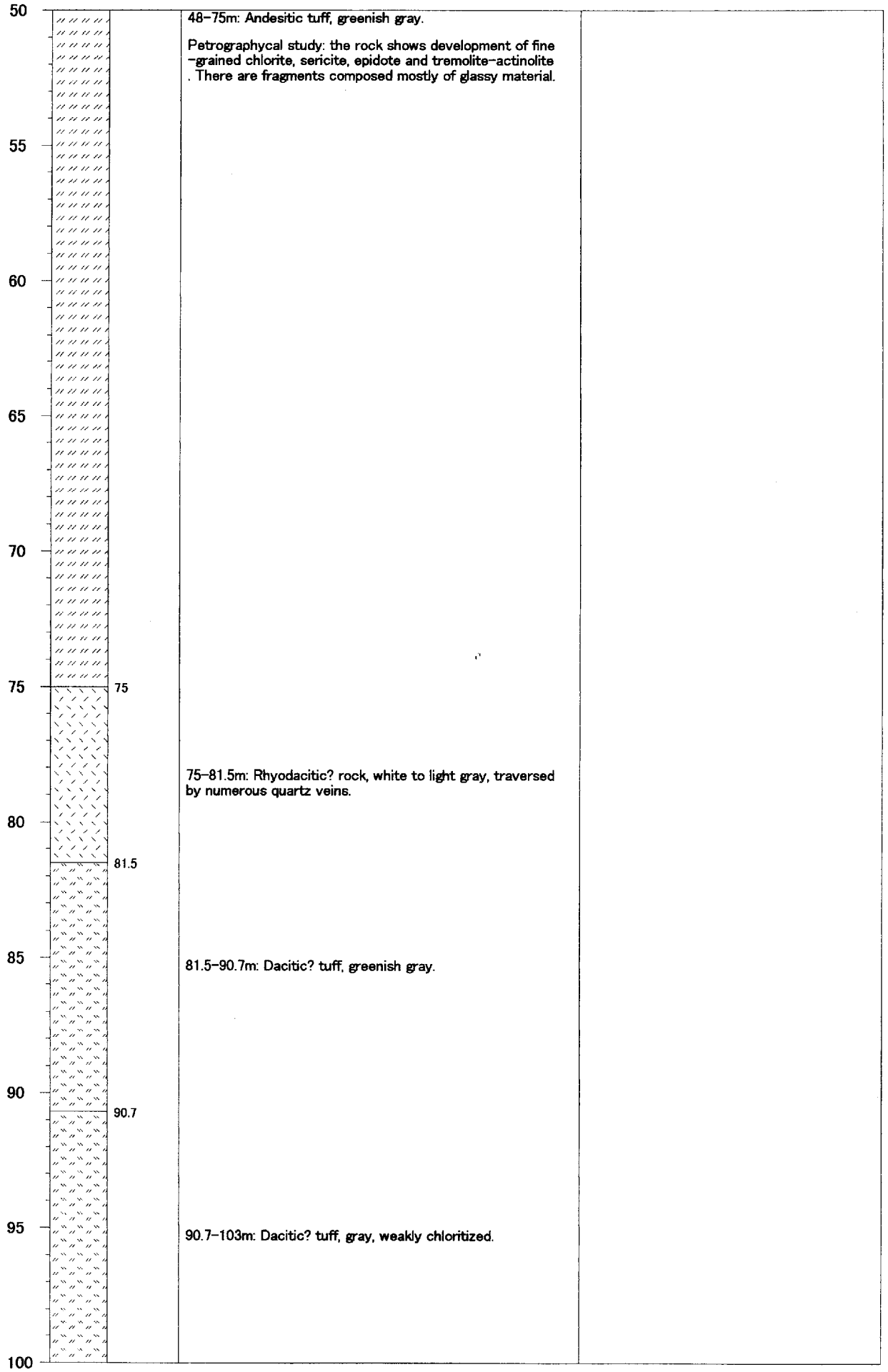
Drill Hole No.:	UAD-4	Easting:	E709.878	
Date Started:	1977	Northing:	N2617.295	
Date Completed:	1977	Elevation(mSL):	964m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



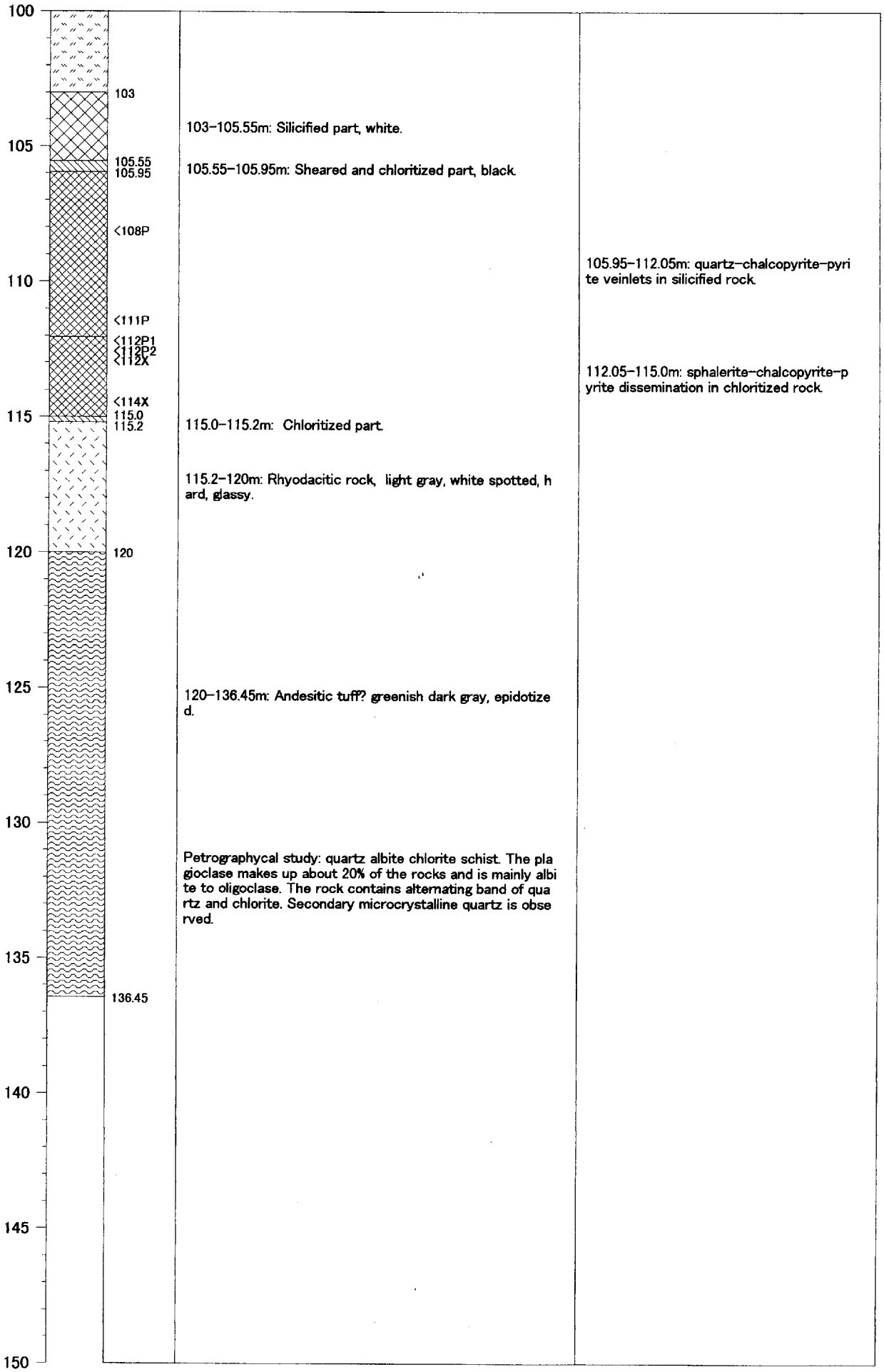
Drill Hole No.:	UAD-4	Easting:	E709.878	
Date Started:	1977	Northing:	N2617.295	
Date Completed:	1977	Elevation(mSL):	964m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



Drill Hole No.:	UAD-4	Easting:	E709.878	
Date Started:	1977	Northing:	N2617.295	
Date Completed:	1977	Elevation(mSL):	964m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration

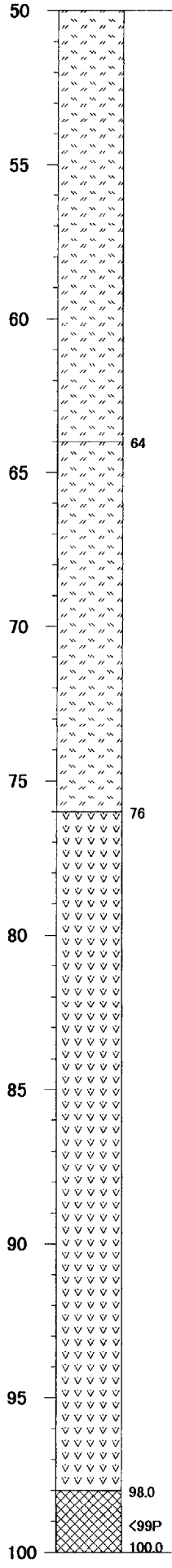


Drill Hole No.:	UAD-6	Easting:	E709.233	
Date Started:	1977	Northing:	N2619.284	
Date Completed:	1977	Elevation(mSL):	966m	Drilled by SEREM/US Steel

Depth	Lithology	Mineralization & Alteration
0		1–14.5m: oxidation zone containing stains of malachite and some iron oxides.
5.9	0–14.5m: Oxidized and weathered rock. Origin is unknown.	
14.5	14.5–20.5m: Weathered and oxidized rock, partly reddish, hematitized. Origin is unknown.	
20.5	20.5–27.4m: Chlorite–sericite schist. Origin is dacitic rock ?	20.3–27.4m: red oxidation zone composed of iron oxides with secondary copper miner als.
27.4	27.4–35m: Ferruginous zone with few coarse–grained cry stals of quartz embedded in a matrix of fine–grained red iro n oxides, quartz and carbonate, dacitic rock? chloritized.	
35	35–39m: Oxidized rock, dacitic tuff?	
39		
50		

Drill Hole No.:	UAD-6	Easting:	E709.233	
Date Started:	1977	Northing:	N2619.284	
Date Completed:	1977	Elevation(mSL):	966m	Drilled by SEREM/US Steel

Depth	Lithology	Mineralization & Alteration



39–64m: Chloritized and brecciated dacitic rock, green, partly hematitized

64–76m: Moderately chloritized, dacitic rock, greenish gray, brecciated, with quartz veins.

80–99.2m: local concentration of pyrite and chalcopyrite with some secondary carbonates (calcite). The mineralization is of the stringer type and contains minor amount of magnetite.

76–98m: Porphyritic dacite.

98–100m: Chloritized rock.

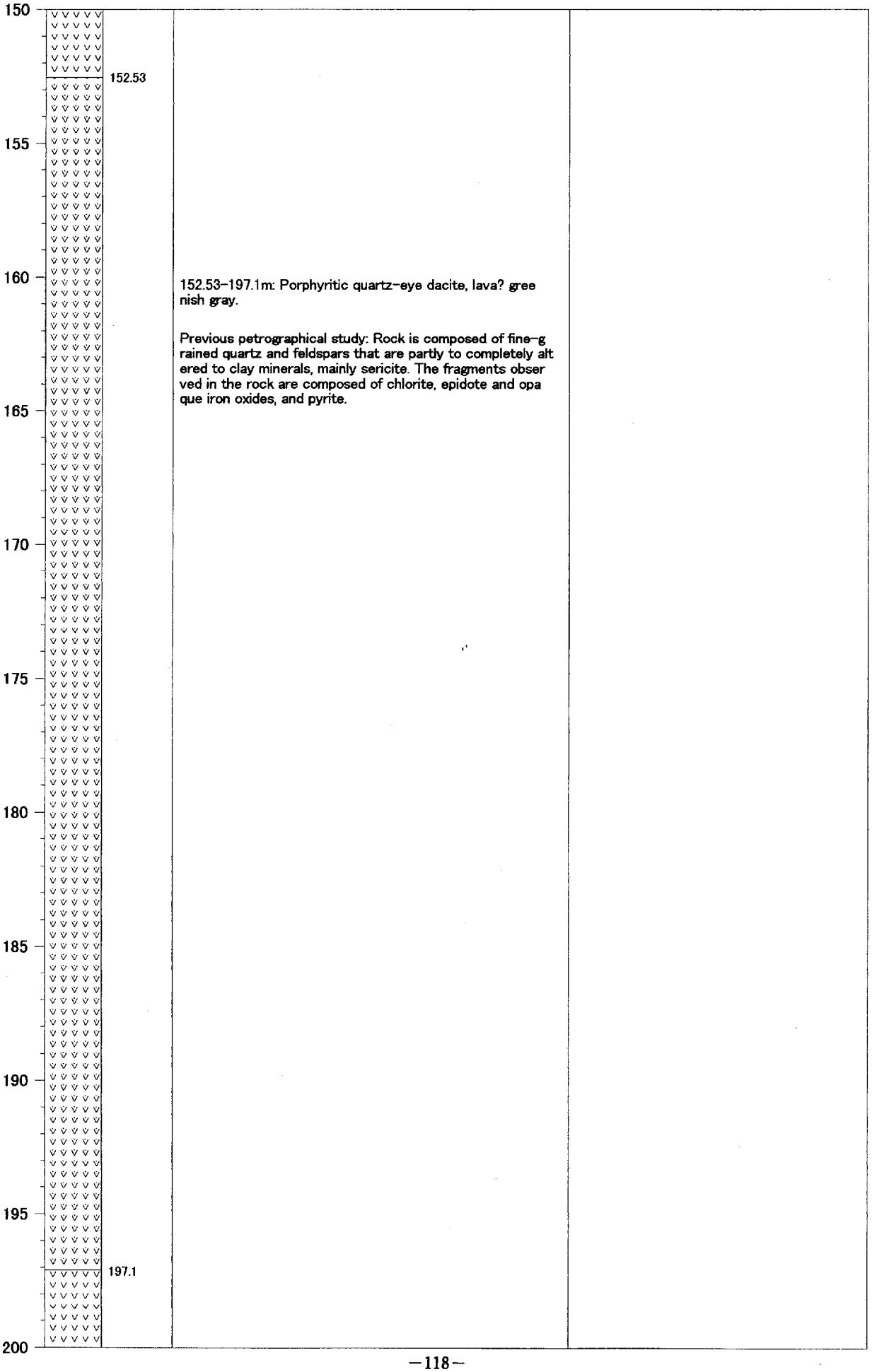
98–100m: interval for chemical analysis. pyrite–chalcopyrite dissemination and veinlets.

Drill Hole No.:	UAD-6	Easting:	E709.233	
Date Started:	1977	Northing:	N2619.284	
Date Completed:	1977	Elevation(mSL):	966m	Drilled by SEREM/US Steel

Depth	Lithology	Mineralization & Alteration
100	100–104m: Porphyritic dacite? greenish gray.	
104		
105	104–113m: Altered zone composed mainly of chlorite and quartz.	
<K903030 1(109.1m)		104–113m: interval for chemical analysis, pyrite–chalcopyrite dissemination and veinlets.
110		
<111P		
113		
115		
120	113–130m: Porphyritic dacite, greenish gray, size of plagioclase 2–5mm. Maific minerals are chloritized.	
125		
130	130	
	130–135m: Porphyritic dacite, size of plagioclase 2–5mm, partly contains quartz-eye.	
	Petrograhical study: meta-dacite porphyry composed of chlorite and sericite, and small crystal of plagioclase. There are phenocrysts of plagioclase and quartz. The phenocrysts of plagioclase are partly altered to sericite. The size of phenocrysts may reach up to 1mm in diameter.	
135	135	
	135–142.3m: Dacite, greenish gray.	
140		
142.3		142.3–186m: local dissemination of pyrite (<50%).
145	142.3–152.53m: Dacite, greenish gray, quartz-eye. Size of quartz is 5–8mm in diameter.	
150		

Drill Hole No.:	UAD-6	Easting:	E709.233	
Date Started:	1977	Northing:	N2619.284	
Date Completed:	1977	Elevation(mSL):	966m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



152.53–197.1m: Porphyritic quartz-eye dacite, lava? greenish gray.

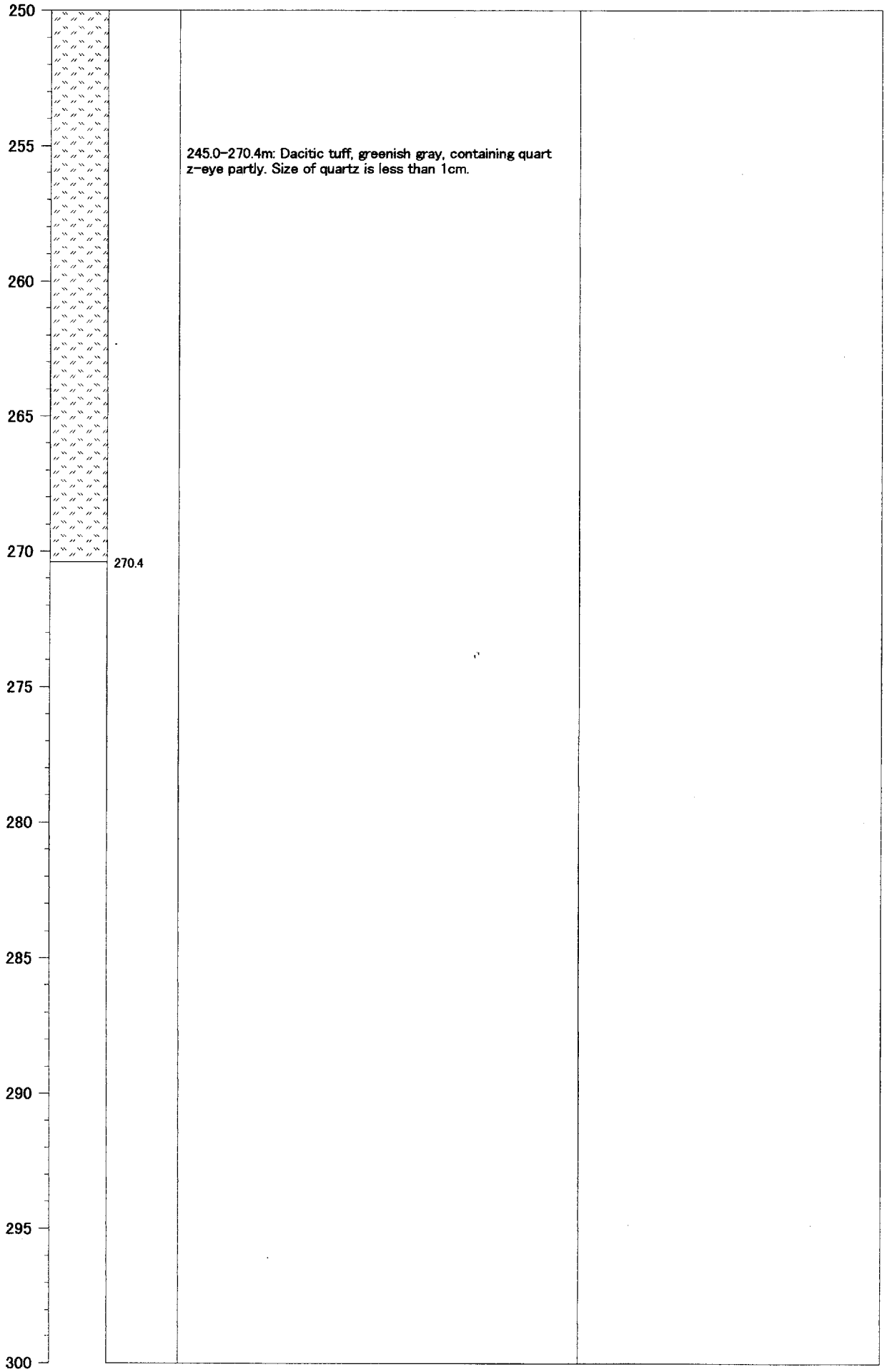
Previous petrographical study: Rock is composed of fine-grained quartz and feldspars that are partly to completely altered to clay minerals, mainly sericite. The fragments observed in the rock are composed of chlorite, epidote and opaque iron oxides, and pyrite.

Drill Hole No.:	UAD-6	Easting:	E709.233	
Date Started:	1977	Northing:	N2619.284	
Date Completed:	1977	Elevation(mSL):	966m	Drilled by SEREM/US Steel

Depth	Lithology	Mineralization & Alteration
200	197.1–212.54m: Porphyritic dacite, greenish gray, chloritized and epidotized. Size of plagioclase is 2–8mm in diameter.	
205		
210		
212.54		
215		
220	212.54–227.70m: Dacite? greenish gray.	
225		
227.70		
230	227.70–237.05m: Dacitic tuff, greenish gray, chloritized, containing angular silic fragments (size <1cm).	
235		
237.05	237.05–239.75m: Chloritized part.	237.05–239.75m: Interval for chemical analysis.
239.75	239.75–242.35m: Dacitic tuff.	
240		
242.35		
<243P	242.35–245.0m: Chloritized part.	242.35–245.0m: Interval for chemical analysis. Pyrite–chalcopyrite dissemination and veinlets.
245		
245.0		
250		

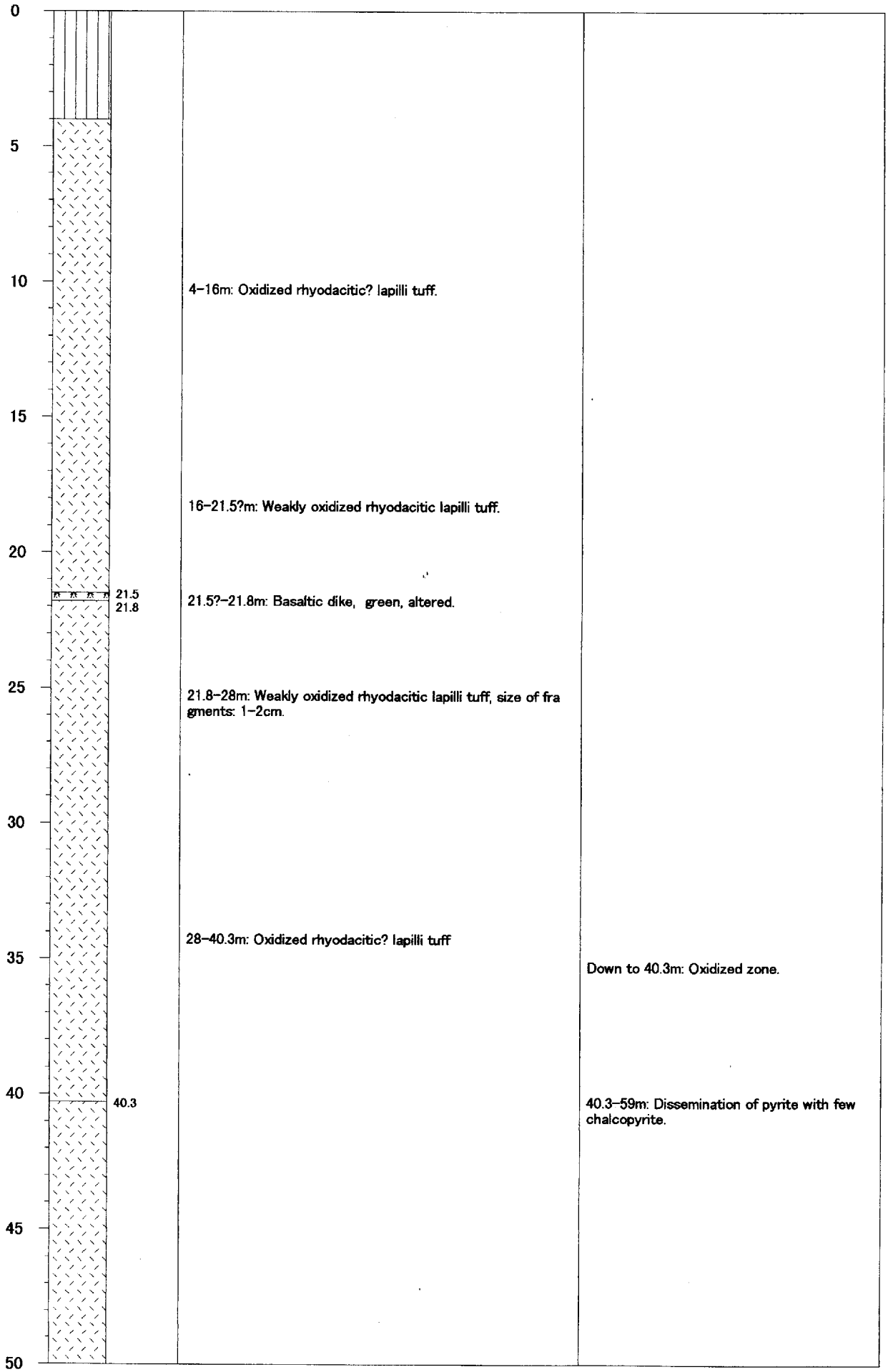
Drill Hole No.:	UAD-6	Easting:	E709.233	
Date Started:	1977	Northing:	N2619.284	
Date Completed:	1977	Elevation(mSL):	966m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



Drill Hole No.:	UAD-10	Easting:	E709.195	
Date Started:	1977	Northing:	N2618.928	
Date Completed:	1977	Elevation(mSL):	955m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration



Drill Hole No.:	UAD-10	Easting:	E709.195	
Date Started:	1977	Northing:	N2618.928	
Date Completed:	1977	Elevation(mSL):	955m	Drilled by SEREM/US Steel

Depth | Lithology | Mineralization & Alteration