

## 第Ⅲ部 結論及び提言

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### 第1章 結論

ウム・アダマール地域における第3年次調査として、第1年次及び第2年次に実施した地質調査、物理探査（IP法及びTEM法）及びボーリング調査により抽出された有望地域において、深部の地質状況を把握し、Au、Cu及びZnの鉱化状況の詳細を解明することを重点課題として、計8孔、全掘進長2,340.65mのボーリング調査を実施した。

その結果は以下の通り要約される。

- ① 調査地域には Jabal Sujarah 地区、Umm ad Damar North プロスペクト、Umm ad Damar South プロスペクト及び 4/6 Gossan プロスペクトの4箇所、Au、Cu及びZnを含む鉱化作用が認められる。今年次は、Jabal Sujarah 地区、Umm ad Damar North プロスペクトと Umm ad Damar South プロスペクトの中間地区、4/6 Gossan プロスペクトでボーリング調査を実施した。Umm ad Damar North プロスペクトと Umm ad Damar South プロスペクトの中間地区では物理探査で得られた有望地域を対象とした。
- ② Jabal Sujarah 地区には Cu 及び Zn を含む塊状鉱及び礫状鉱と黄鉄鉱鉱染からなる火山性塊状硫化物型鉱化作用がデイサイト質火山砕屑岩類中に分布する。塊状鉱や礫状鉱は頁岩、細粒凝灰岩、緑泥石化岩など挟在し、全体としての厚さは6m程度と推定される。今年次のボーリング調査では塊状鉱及び鉱染部を捕捉できたが、いずれも Cu 及び Zn を含まない。第2年次の調査結果と総合すると、塊状鉱及び礫状鉱の一部は Cu 及び Zn を含むが、それらの大部分は低品位であると言える。また、その走向方向の拡がりには200m程度であり、狭く限られている。黄鉄鉱鉱染帯については100m程度の厚さを見込めるが、Au、Cu及びZnともに低品位である。
- ③ 4/6 Gossan プロスペクトには塊状鉱、珪質鉱、礫状鉱などからなる火山性塊状硫化物型鉱化作用が分布する。第2年次に捕捉した鉱化帯の深部延長及び南方延長の調査を実施した。深部延長部では Zn に富む塊状鉱を捕捉できたが、その厚さは1.8m程度と薄いものであった。南方延長部では鉱化作用を認めることはできなかった。これらの結果、本プロスペクトに賦存する鉱化帯は3枚あるが、最も優勢な鉱化帯でも厚さ9.3m以下、走向延長100m程度、傾斜延長120m以上と小規模な鉱化帯であると考えられる。
- ④ Umm ad Damar North プロスペクトと Umm ad Damar South プロスペクトの中間地区で高充電率異常域であり、さらに導電性プレートが推定される箇所を対象に調査を実施した。この結果、高充電率異常は黄鉄鉱鉱染及び細脈の存在に起因したものであることを明らかにできたが、捕捉した鉱化帯は Au、Cu、Zn に乏しいものであった。

## 第2章 将来への提言

- ① 4/6 Gossan プロスペクトには, Cu 及び Zn に富む塊状鉱や礫状鉱など火山性塊状硫化物型鉱化作用が存在するが, その規模は小さいと判断される。よって, 本プロスペクトにおいてこれ以上の調査は必要ない。
- ② Jabal Sujarah 地区において, 火山性塊状硫化物型鉱化作用をターゲットに調査を行ったが, 一部に Cu 及び Zn に富む塊状鉱や礫状鉱を認めたのみで, 大部分は低品位であった。鉱床分布範囲も狭いものと判断される。よって, 本地区においてこれ以上の調査は必要ない。
- ③ Umm ad Damar North プロスペクト及び Umm ad Damar South プロスペクト周辺の, 高充電率異常域であり, さらに導電性プレートが推定される箇所は黄鉄鉱鉱染及び細脈群からなる鉱化帯であり, これ以上の調査は必要ない。

## 参考文献

## 参考文献

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## 卷末資料

**Appendix 1 Summary of Drilling Operation of MJSU-9**

MJSU-9 Operation		Suvey Period			Total Man-day			
		Period	Day	Work Day	Off Day	Engineer	Worker	
Transportation/Preparation		Sep. 16,2000						
Drilling		Sep. 16- Oct. 9,2000			24	21	3	
Dismantling		Oct. 9,2000						
Total					24	21	3	
Drilling Length		(m)		(m)	Core Recovery of Each 100m Hole			
Length Planned		275.00	Overburden	1.50	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)	
Increase/Decrease in Length		105.00	Core Length	378.25				
Length Drilled		380.00	Core Recovery	99.5	0.00 to 100.00	98.3	98.3	
Working Hours		(h)	(%)	(%)	100.00 to 200.00	100.0	99.4	
Drilling		184.9	62.5	60.9	200.00 to 300.00	100.0	99.5	
Other Work		92.1	31.1	30.3	300.00 to 380.00			
Recovering		19.0	6.4	6.3	Efficiency of Drilling			
Subtotal		296.0	100.0	97.5	Total Length / Drilling Period	m	day	m/day
Preparation		3.5		1.2		380.00	24.0	15.83
Dismantlement		4.0		1.3	Total Length / Total Drilling Shifts	m	shift	m/shift
Transportation				0.0		380.00	40.0	9.50
Grand Total		303.5		100.0	Drilling Length / Each Diameter (m)			
Casing Pipe Inserted				Bit Size	Drilling Length (m)	Core Length (m)		
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	PQ	5.90	4.15		
HW	5.90	1.6	100.0	HQ	35.80	35.80		
NW	41.70	11.0	100.0	NQ	338.30	338.30		

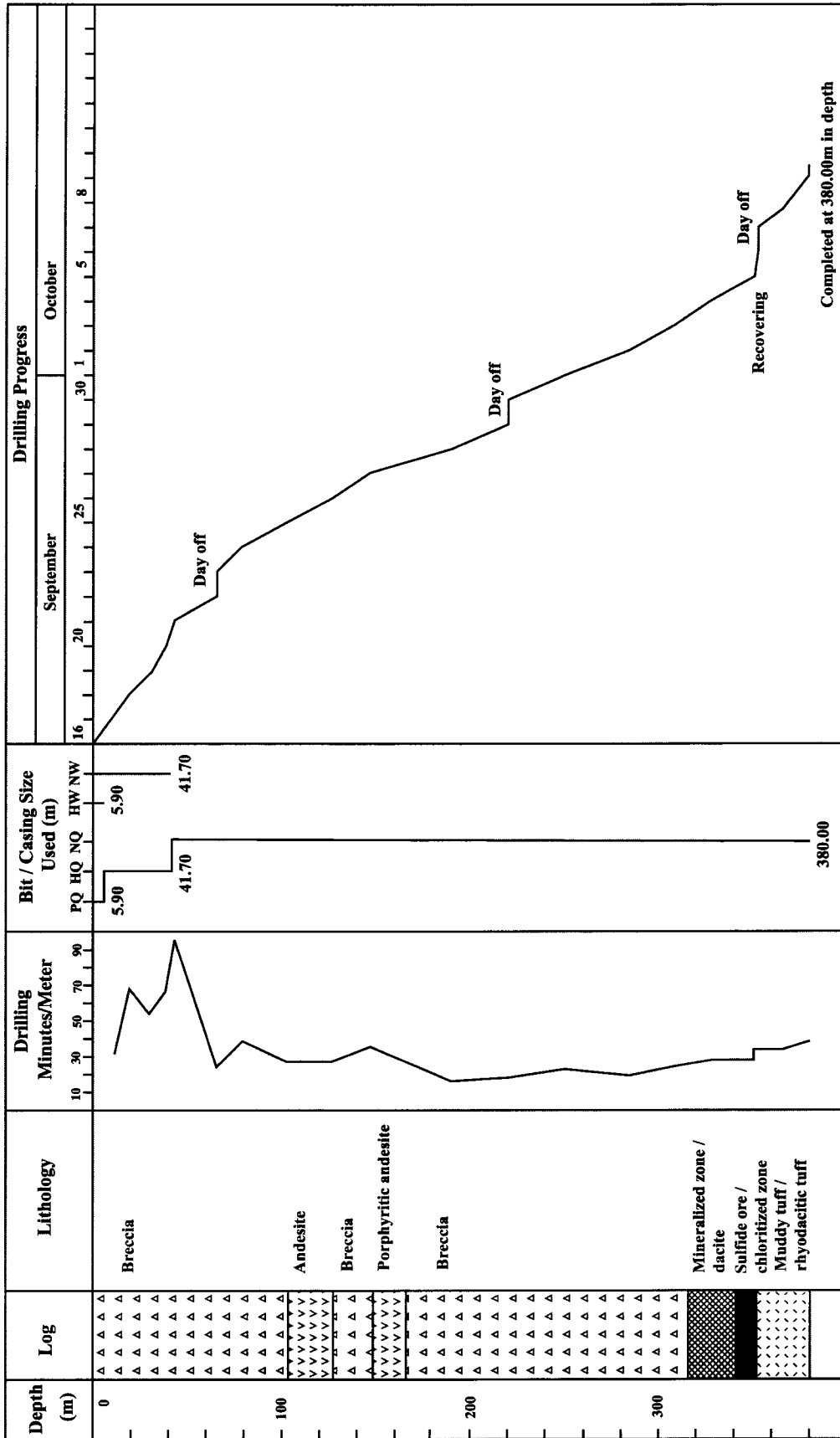
**Appendix 2 Record of Drilling Operation of MJSU-9**

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling		Core Length		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
			(m)	(Cum. m)	(m)	(Cum. m)				
Sep. 16	2.00	9.40	11.40	11.40	9.65	9.65	2	2	7	2
Sep. 17	3.80	4.15	7.95	19.35	7.95	17.60	2	2	7	2
Sep. 18	6.00	4.90	10.90	30.25	10.90	28.50	2	2	7	2
Sep. 19	5.55	2.65	8.20	38.45	8.20	36.70	2	2	7	2
Sep. 20	2.75	2.40	5.15	43.60	5.15	41.85	2	2	7	2
Sep. 21	14.40	7.30	21.70	65.30	21.70	63.55	2	2	7	2
Sep. 22	Day off									
Sep. 23	6.35	6.70	13.05	78.35	13.05	76.60	2	2	7	2
Sep. 24	12.65	11.10	23.75	102.10	23.75	100.35	2	2	7	2
Sep. 25	9.90	15.00	24.90	127.00	24.90	125.25	2	2	7	2
Sep. 26	10.00	10.00	20.00	147.00	20.00	145.25	2	2	7	2
Sep. 27	24.00	19.30	43.30	190.30	43.30	188.55	2	2	7	2
Sep. 28	17.70	12.00	29.70	220.00	29.70	218.25	2	2	7	2
Sep. 29	Day off									
Sep. 30	14.30	15.70	30.00	250.00	30.00	248.25	2	2	7	2
Oct. 1	15.00	19.25	34.25	284.25	34.25	282.50	2	2	7	2
Oct. 2	12.75	11.65	24.40	308.65	24.40	306.90	2	2	7	2
Oct. 3	7.35	12.00	19.35	328.00	19.35	326.25	2	2	7	2
Oct. 4	14.00	8.75	22.75	350.75	22.75	349.00	2	2	7	2
Oct. 5	1.80		1.80	352.55	1.80	350.80	1	2	7	2
Oct. 6	Day off									
Oct. 7	2.45	10.70	13.15	365.70	13.15	363.95	2	2	7	2
Oct. 8	9.10	5.20	14.30	380.00	14.30	378.25	2	2	7	2
Oct. 9									4	1
Total			380.00		378.25		39	40	144	41



Appendix 3 Drilling Progress of MJSU-9

MJSU-9



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

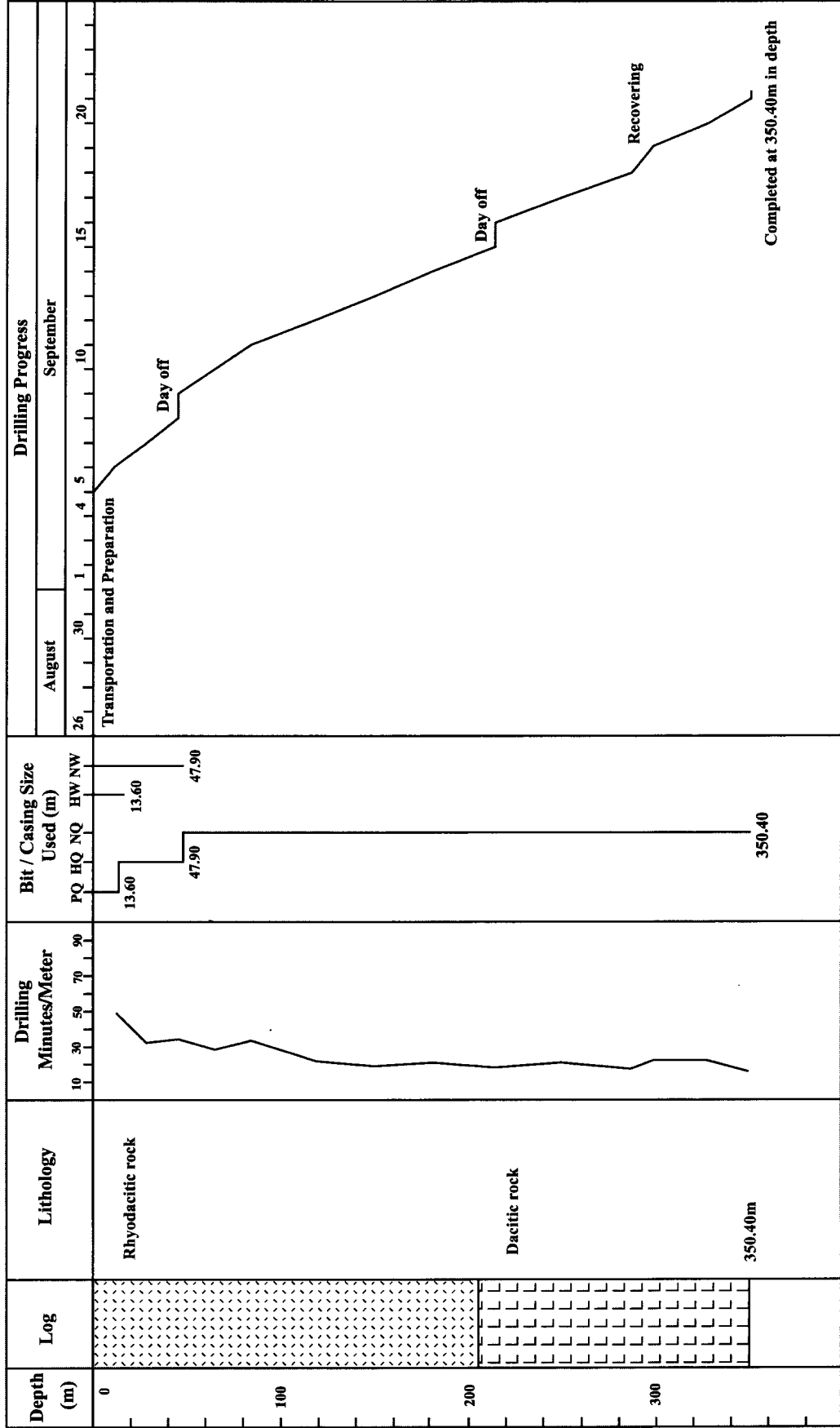
MJSU-10	Suvey Period				Total Man-day	
	Period	Day	Work Day	Off Day	Engineer	Worker
Operation						
Transportation/Preparation	Aug.26 - Sep.4,2000	10	9	1	63	14
Drilling	Sep. 5 - Sep.20,2000	16	14	2	98	28
Dismantling	Sep. 21,2000					
<b>Total</b>			23	3	161	42
Drilling Length	(m)	(m)	Core Recovery of Each 100m Hole			
Length Planned	250.00	Overburden 4.90	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)	
Increase/Decrease in Length	100.40	Core Length 345.50			0.00 to 100.00	95.1
Length Drilled	350.40	Core Recovery 98.6	100.00 to 200.00	100.0	97.6	
Working Hours	(h)	(%)	200.00 to 300.00	100.0	98.4	
Drilling	136.8	65.1	300.00 to 350.40	100.0	98.6	
Other Work	64.2	30.6				
Recovering	9.0	4.3	Efficiency of Drilling			
Subtotal	210.0	100.0	75.3	Total Length / Drilling Period	m	day
Preparation	52.5		18.8	350.40	16.0	m/day
Dismantlement	1.5		0.5	Total Length / Total	m	shift
Transportation	15.0		5.4	Drilling Shifts	350.40	28.0
<b>Grand Total</b>	279.0		100.0	Drilling Length / Each Diameter (m)		
Casing Pipe Inserted			Bit Size	Drilling Length	Core Length	
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	PQ	13.60	8.70
HW	13.60	3.9	100.0	HQ	34.30	34.30
NW	47.90	13.7	100.0	NQ	302.50	302.50

### Appendix 5 Record of Drilling Operation of MJSU-10

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling (m)		Core Length (m)		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
Aug. 26	Transportation							1	7	
Aug. 27	Transportation							1	7	
Aug. 28	Preparation							1	7	2
Aug. 29	Preparation							1	7	2
Aug. 30	Preparation							1	7	2
Aug. 31	Preparation							1	7	2
Sep. 01	Day off									
Sep. 02	Preparation							1	7	2
Sep. 03	Preparation							1	7	2
Sep. 04	Preparation							1	7	2
Sep. 05	6.25	5.90	12.15	12.15	7.25	7.25	2	2	7	2
Sep. 06	5.55	10.55	16.10	28.25	16.10	23.35	2	2	7	2
Sep. 07	9.80	7.30	17.10	45.35	17.10	40.45	2	2	7	2
Sep. 08	Day off									
Sep. 09	3.75	14.85	18.60	63.95	18.60	59.05	2	2	7	2
Sep. 10	6.95	12.95	19.90	83.85	19.90	78.95	2	2	7	2
Sep. 11	14.05	19.65	33.70	117.55	33.70	112.65	2	2	7	2
Sep. 12	15.00	17.30	32.30	149.85	32.30	144.95	2	2	7	2
Sep. 13	15.10	16.00	31.10	180.95	31.10	176.05	2	2	7	2
Sep. 14	18.00	15.00	33.00	213.95	33.00	209.05	2	2	7	2
Sep. 15	Day off									
Sep. 16	21.00	14.05	35.05	249.00	35.05	244.10	2	2	7	2
Sep. 17	21.95	15.45	37.40	286.40	37.40	281.50	2	2	7	2
Sep. 18	Recovering	11.55	11.55	297.95	11.55	293.05	2	2	7	2
Sep. 19	15.00	15.00	30.00	327.95	30.00	323.05	2	2	7	2
Sep. 20	18.00	4.45	22.45	350.40	22.45	345.50	2	2	7	2
Sep. 21										
<b>Total</b>			350.40		345.50		28	37	161	42

# Appendix 6 Drilling Progress of MJSU-10

**MJSU-10**



### Appendix 7 Summary of Drilling Operation Of MJSU-11

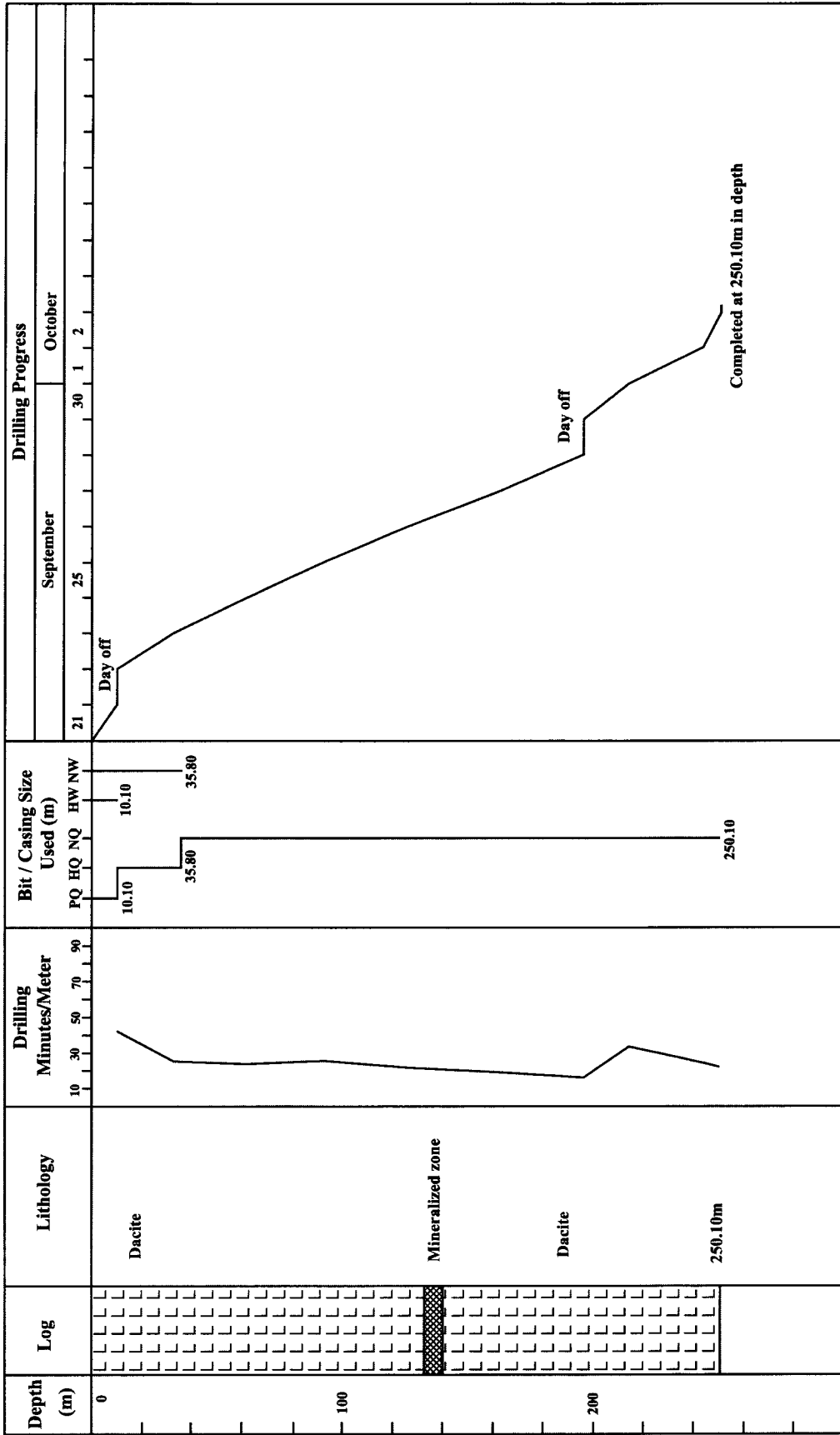
MJSU-11		Suvey Period				Total Man-day		
		Period	Day	Work Day	Off Day	Engineer	Worker	
Operation								
Transportation/Preparation		Sep.21,2000						
Drilling		Sep.21 - Oct. 2,2000		12	10	2	70 20	
Dismantling		Oct.2,2000						
Total				12	10	2	70 20	
Drilling Length		(m)	(m)	Core Recovery of Each 100m Hole				
Length Planned		250.00	Overburden 2.50	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)		
Increase/Decrease in Length		0.10	Core Length 247.60			0.00 to 100.00	97.5	97.5
Length Drilled		250.10	Core Recovery 99.0	100.00 to 200.00	100.0	98.8		
Working Hours		(h)	(%)	(%)	200.00 to 250.00	100.0	99.0	
Drilling		99.4	73.6	71.5				
Other Work		35.6	26.4	25.6				
Recovering		0.0	0.0	0.0	Efficiency of Drilling			
Subtotal		135.0	100.0	97.1	Total Length / Drilling Period	m 250.10	day 12.0	m/day 20.84
Preparation		1.0		0.7	Total Length / Total Drilling Shifts	m 250.10	shift 19.0	m/shift 13.16
Dismantlement		3.0		2.2				
Transportation		0.0		0.0				
Grand Total		139.0		100.0	Drilling Length / Each Diameter (m)			
Casing Pipe Inserted				Bit Size	Drilling Length	Core Length		
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	PQ	10.10	7.60		
				HQ	25.80	25.80		
HW	10.10	4.0	100.0	NQ	214.20	214.20		
NW	35.80	14.3	100.0					

### Appendix 8 Record of Drilling Operation of MJSU-11

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling		Core Length		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
			(m)	(Cum. m)	(m)	(Cum. m)				
Sep. 21	3.50	6.60	10.10	10.10	7.60	7.60	2	2	7	2
Sep. 22	Day off									
Sep. 23	8.00	14.70	22.70	32.80	22.70	30.30	2	2	7	2
Sep. 24	12.50	16.40	28.90	61.70	28.90	59.20	2	2	7	2
Sep. 25	14.10	16.70	30.80	92.50	30.80	90.00	2	2	7	2
Sep. 26	16.30	16.90	33.20	125.70	33.20	123.20	2	2	7	2
Sep. 27	18.40	18.70	37.10	162.80	37.10	160.30	2	2	7	2
Sep. 28	20.80	12.20	33.00	195.80	33.00	193.30	2	2	7	2
Sep. 29	Day off									
Sep. 30	8.60	9.40	18.00	213.80	18.00	211.30	2	2	7	2
Oct. 01	14.00	15.50	29.50	243.30	29.50	240.80	2	2	7	2
Oct. 02	6.80		6.80	250.10	6.80	247.60	2	2	7	2
Total			250.10		247.60		20	20	70	20

Appendix 9 Drilling Progress of MJSU-11

MJSU-11



**Appendix 10 Summary of Drilling Operation of MJSU-12**

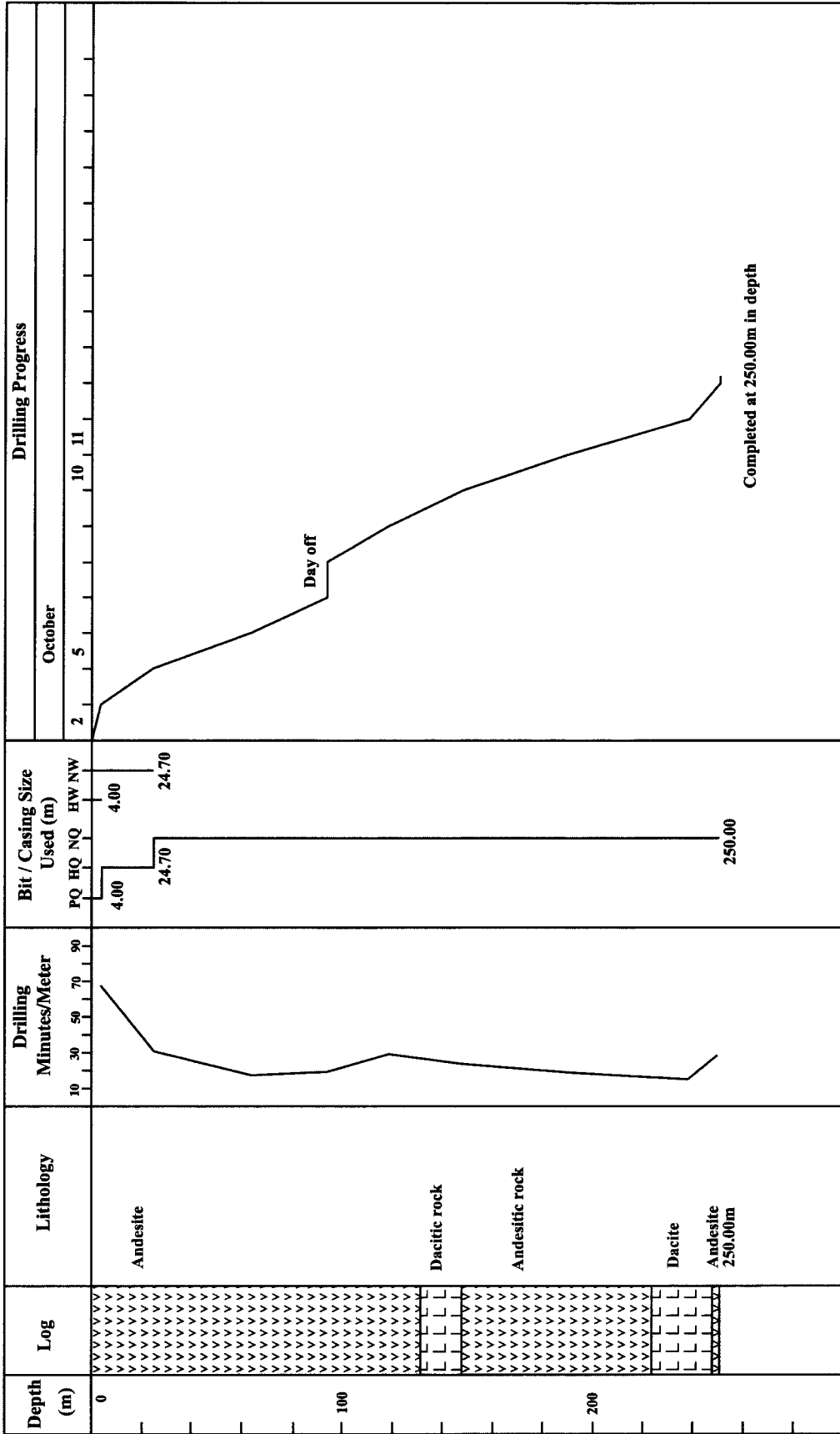
MJSU-12		Suvey Period				Total Man-day	
		Period	Day	Work Day	Off Day	Engineer	Worker
Operation							
Transportation/Preparation		Oct 2,2000					
Drilling		Oct. 2, 2000 - Oct.11,2000	10	9	1	56	18
Dismantling		Oct.11,2000					
Total			10	9	1	56	16
Drilling Length		(m)	(m)	Core Recovery of Each 100m Hole			
Length Planned		250.00	Overburden 1.20	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)	
Increase/Decrease in Length		0.00	Core Length 248.80				
Length Drilled		250.00	Core Recovery 99.5	0.00 to 100.00	98.8	98.8	
				100.00 to 200.00	100.0	99.4	
Working Hours		(h)	(%)	(%)	200.00 to 250.00	100.0	99.5
Drilling		91.7	75.2	73.7			
Other Work		30.3	24.8	24.3			
Recovering			0.0	0.0	Efficiency of Drilling		
Subtotal		122.0	100.0	98.0	Total Length / Drilling Period	m	day
Preparation		1.0		0.8	250.00	10.0	m/day 25.00
Dismantlement		1.5		1.2	Total Length / Total Drilling Shifts	m	shift
Transportation				0.0	250.00	16.0	m/shift 15.63
Grand Total		124.5		100.0	Drilling Length / Each Diameter (m)		
Casing Pipe Inserted				Bit Size	Drilling Length	Core Length	
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	PQ	4.00	2.80	
				HQ	20.70	20.70	
HW	4.00	1.6	100.0	NQ	225.30	225.30	
NW	24.70	9.9	100.0				

**Appendix 11 Record of Drilling Operation of MJSU-12**

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling		Core Length		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
			(m)	(Cum. m)	(m)	(Cum. m)				
Oct. 2		3.55	3.55	3.55	2.35	2.35	1	1	3	1
Oct. 3	8.15	13.00	21.15	24.70	21.15	23.50	2	2	7	2
Oct. 4	15.40	23.60	39.00	63.70	39.00	62.50	2	2	7	2
Oct. 5	21.00	9.00	30.00	93.70	30.00	92.50	2	2	7	2
Oct. 6	Day off									
Oct. 7	7.40	17.15	24.55	118.25	24.55	117.05	2	2	7	2
Oct. 8	11.05	18.40	29.45	147.70	29.45	146.50	2	2	7	2
Oct. 9	17.70	24.30	42.00	189.70	42.00	188.50	2	2	7	2
Oct. 10	25.00	23.00	48.00	237.70	48.00	236.50	2	2	7	2
Oct. 11	12.30		12.30	250.00	12.30	248.80	1	1	4	1
Total			250.00		248.80		16	16	56	16

Appendix 12 Drilling Progress of MJSU-12

MJSU-12



**Appendix 13 Summary of Drilling Operation og MJSU-13**

MJSU-13		Suvey Period				Total Man-day		
		Period	Day	Work Day	Off Day	Engineer	Worker	
Operation								
Transportation/Preparation		Oct 9,2000						
Drilling		Oct. 9- Oct.23,2000		15	13	2	91 26	
Dismantling		Oct.23,2000						
Total				15	13	2	91 26	
Drilling Length		(m)		(m)	Core Recovery of Each 100m Hole			
Length Planned		250.00	Overburden	0.90	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)	
Increase/Decrease in Length		0.00	Core Length	249.10				
Length Drilled		250.00	Core Recovery	99.6	0.00 to 100.00	99.1	99.1	
Working Hours		(h)	(%)	(%)	100.00 to 250.00	100.0	99.6	
Drilling		127.3	66.0	64.9				
Other Work		65.7	34.0	33.5				
Recovering			0.0	0.0	Efficiency of Drilling			
Subtotal		193.0	100.0	98.5	Total Length / Drilling Period	m 250.00	day 15.0	m/day 16.67
Preparation		2.0		1.0	Total Length / Total Drilling Shifts	m 250.00	shift 26.0	m/shift 9.62
Dismantlement		1.0		0.5				
Transportation				0.0				
Grand Total		196.0		100.0	Drilling Length / Each Diameter (m)			
Casing Pipe Inserted				Bit Size	Drilling Length	Core Length		
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	PQ	3.00	2.10		
HW	3.00	1.2	100.0	HQ	26.90	26.90		
NW	29.90	12.0	100.0	NQ	220.10	220.10		

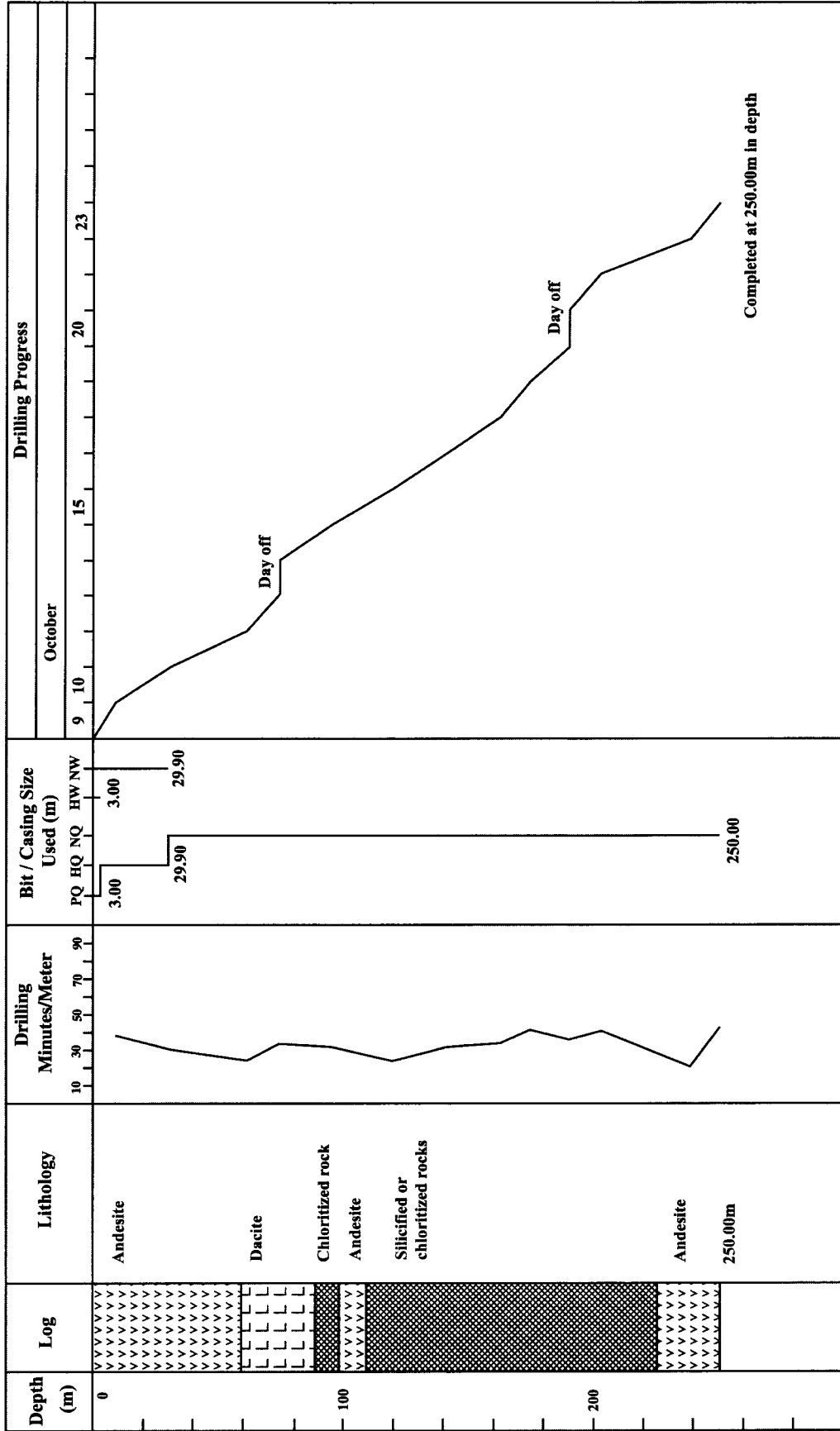
**Appendix 14 Record of Drilling Operation of MJSU-13**

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling		Core Length		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
			(m)	(Cum. m)	(m)	(Cum. m)				
Oct 9	1.10	8.00	9.10	9.10	8.20	8.20	2	2	7	2
Oct 10	13.25	8.60	21.85	30.95	21.85	30.05	2	2	7	2
Oct 11	17.30	13.05	30.35	61.30	30.35	60.40	2	2	7	2
Oct 12	8.70	3.85	12.55	73.85	12.55	72.95	2	2	7	2
Oct 13	Day off									
Oct 14	6.15	15.50	21.65	95.50	21.65	94.60	2	2	7	2
Oct 15	17.50	6.60	24.10	119.60	24.10	118.70	2	2	7	2
Oct 16	7.70	13.85	21.55	141.15	21.55	140.25	2	2	7	2
Oct 17	9.85	11.20	21.05	162.20	21.05	161.30	2	2	7	2
Oct 18	4.00	8.30	12.30	174.50	12.30	173.60	2	2	7	2
Oct 19	5.55	9.55	15.10	189.60	15.10	188.70	2	2	7	2
Oct 20	Day off									
Oct 21	7.20	6.10	13.30	202.90	13.30	202.00	2	2	7	2
Oct 22	16.10	19.10	35.20	238.10	35.20	237.20	2	2	7	2
Oct 23	8.60	3.30	11.90	250.00	11.90	249.10	2	2	7	2
Total			250.00		249.10		26	26	91	26



# Appendix 15 Drilling Progress of MJSU-13

**MJSU-13**



**Appendix 16 Summary of Drilling Operation of MJSU-14**

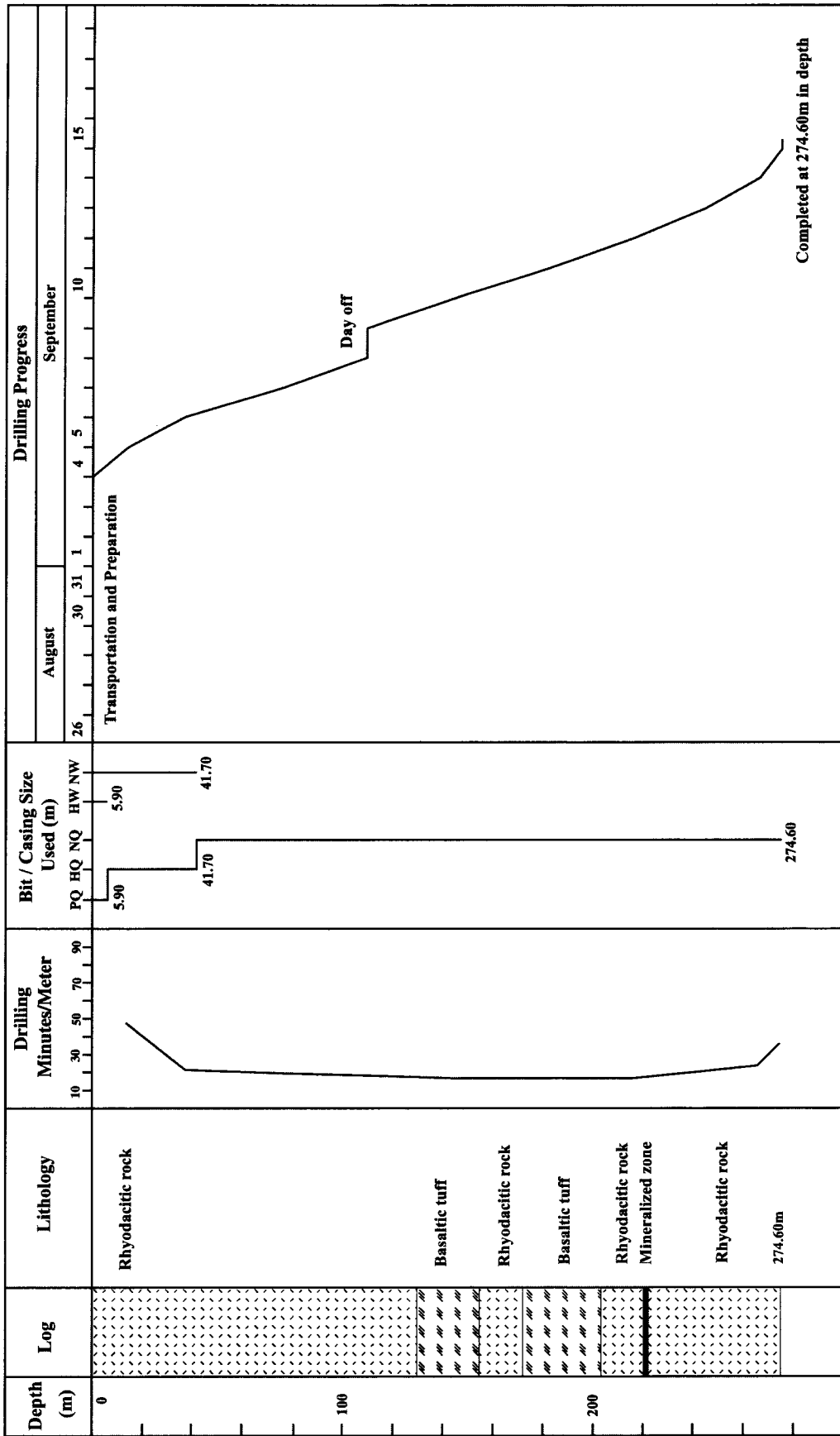
MJSU-14		Suvey Period			Total Man-day			
		Period	Day	Work Day	Off Day	Engineer	Worker	
Operation								
Transportation/Preparation		Aug. 26 - Sep.3,2000	8	7	1	49	7	
Drilling		Sep. 4 - Sep.14,2000	12	10	2	70	10	
Dismantling		Sep.16,2000						
Total			20	17	3	119	17	
Drilling Length		(m)	(m)	Core Recovery of Each 100m Hole				
Length Planned		375.00	Overburden 0.00	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)		
Increase/Decrease in Length		-100.40	Core Length 274.60					
Length Drilled		274.60	Core Recovery 100.0	0.00 to 100.00	100.0	100.0		
Working Hours		(h)	(%)	100.00 to 200.00	100.0	100.0		
Drilling		92.3	61.5	200.00 to 274.60	100.0	100.0		
Other Work		54.2	36.1					
Recovering		3.5	2.3					
Subtotal		150.0	100.0	74.1	Efficiency of Drilling			
Preparation		35.0		17.3	Total Length /	m	day	m/day
Dismantlement		2.5		1.2	Drilling Period	274.60	12.0	22.88
Transportation		15.0		7.4	Total Length / Total	m	shift	m/shift
Grand Total		202.5		100.0	Drilling Shifts	274.60	22.0	12.48
Casing Pipe Inserted					Drilling Length / Each Diameter (m)			
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	Bit Size	Drilling Length	Core Length		
				PQ	5.95	5.95		
HW	5.95	2.2	100.0	HQ	26.80	26.80		
NW	32.75	11.9	100.0	NQ	241.85	241.85		

**Appendix 17 Record of Drilling Operation of MJSU-14**

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling (m) (Cum. m)		Core Length (m) (Cum. m)		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
Aug. 26	Transportation							1	7	
Aug. 27	Transportation							1	7	
Aug. 28	Preparation							1	7	2
Aug. 29	Preparation							1	7	2
Aug. 30	Preparation							1	7	2
Aug. 31	Preparation							1	7	2
Sep. 01	Day off									
Sep. 02	Preparation							1	7	2
Sep. 03	Preparation							1	7	2
Sep. 04	3.80	9.65	13.45	13.45	13.45	13.45	2	2	7	2
Sep. 05	11.35	12.30	23.65	37.10	23.65	37.10	2	2	7	2
Sep. 06	19.00	20.00	39.00	76.10	39.00	76.10	2	2	7	2
Sep. 07	16.20	17.00	33.20	109.30	33.20	109.30	2	2	7	2
Sep. 08	Day off									
Sep. 09	16.60	18.50	35.10	144.40	35.10	144.40	2	2	7	2
Sep. 10	21.50	15.20	36.70	181.10	36.70	181.10	2	2	7	2
Sep. 11	22.50	11.90	34.40	215.50	34.40	215.50	2	2	7	2
Sep. 12	12.45	16.15	28.60	244.10	28.60	244.10	2	2	7	2
Sep. 13	15.00	6.00	21.00	265.10	21.00	265.10	2	2	7	2
Sep. 14	6.00	3.50	9.50	274.60	9.50	274.60	2	2	7	2
Sep. 15	Day off									
Sep. 16										
Total			274.60		274.60		20	28	126	32

Appendix 18 Drilling Progress of MJSU-14

MJSU-14



**Appendix 19 Summary of Drilling Operation of MJSU-15**

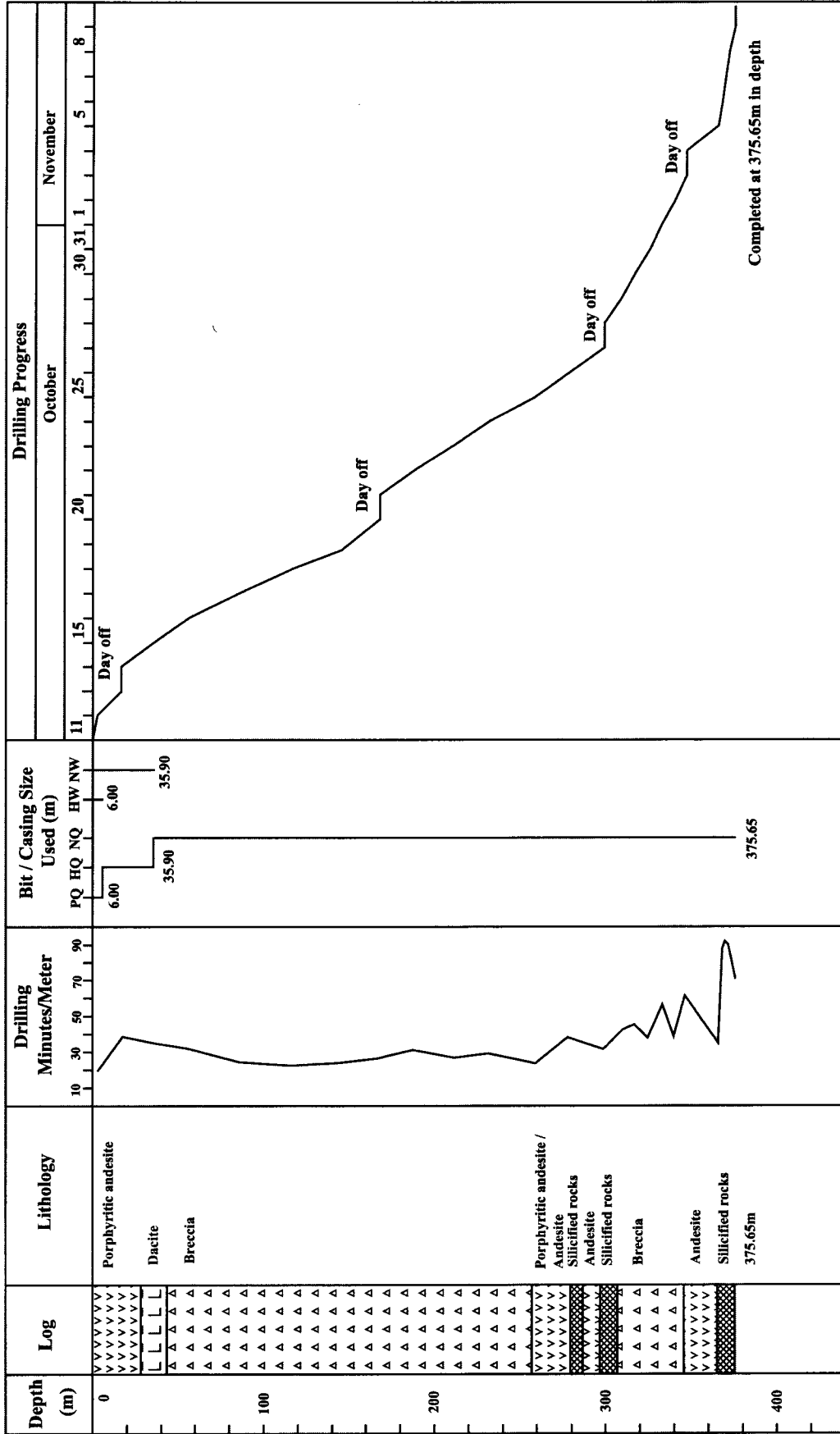
MJSU-15	Suvey Period				Total Man-day	
	Period	Day	Work Day	Off Day	Engineer	Worker
Operation						
Transportation/Preparation	Oct 11, 2000					
Drilling	Oct 11 - Nov. 8, 2000		29	25	4	171
Dismantling	Nov. 9, 2000		1	1		7
Total			30	26	4	178
Drilling Length	(m)		(m)	Core Recovery of Each 100m Hole		
Length Planned	375.00	Overburden	1.80	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)
Increase/Decrease in Length	0.65	Core Length	373.85			
Length Drilled	375.65	Core Recovery	99.5	0.00 to 100.00	98.2	98.2
				100.00 to 200.00	100.0	99.1
				200.00 to 300.00	100.0	99.4
Working Hours	(h)	(%)	(%)	200.00 to 375.65	100.0	99.5
Drilling	92.3	61.5	45.6			
Other Work	57.7	38.5	28.5			
Recovering			0.0	Efficiency of Drilling		
Subtotal	150.0	100.0	74.1	Total Length / Drilling	m	day
Preparation	35.0		17.3	Period	375.65	29.0
Dismantlement	2.5		1.2	Total Length / Total	m	shift
Transportation	15.0		7.4	Drilling Shifts	375.65	49.0
Grand Total	202.5		100.0	Drilling Length / Each Diameter (m)		
Casing Pipe Inserted				Bit Size	Drilling Length	Core Length
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	PQ	6.00	4.20
				HQ	29.90	29.90
HW	6.00	1.6	100.0	NQ	339.75	339.75
NW	35.90	9.6	100.0			

**Appendix 20 Record of Drilling Operation of MJSU-15**

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling		Core Length		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
			(m)	(Cum. m)	(m)	(Cum. m)				
Oct. 11		3.05	3.05	3.05	1.25	1.25	1	1	3	1
Oct. 12	8.00	6.00	14.00	17.05	14.00	15.25	2	2	7	2
Oct. 13	Day off									
Oct. 14	12.65	6.20	18.85	35.90	18.85	34.10	2	2	7	2
Oct. 15	10.90	9.40	20.30	56.20	20.30	54.40	2	2	7	2
Oct. 16	12.80	16.80	29.60	85.80	29.60	84.00	2	2	7	2
Oct. 17	16.20	15.00	31.20	117.00	31.20	115.20	2	2	7	2
Oct. 18	15.55	13.25	28.80	145.80	28.80	144.00	2	2	7	2
Oct. 19	12.00	9.00	21.00	166.80	21.00	165.00	2	2	7	2
Oct. 20	Day off									
Oct. 21	8.95	12.05	21.00	187.80	21.00	186.00	2	2	7	2
Oct. 22	11.85	11.80	23.65	211.45	23.65	209.65	2	2	7	2
Oct. 23	6.20	14.00	20.20	231.65	20.20	229.85	2	2	7	2
Oct. 24	7.00	20.15	27.15	258.80	27.15	257.00	2	2	7	2
Oct. 25	7.95	11.05	19.00	277.80	19.00	276.00	2	2	7	2
Oct. 26	10.20	10.80	21.00	298.80	21.00	297.00	2	2	7	2
Oct. 27	Day off									
Oct. 28	3.75	5.95	9.70	308.50	9.70	306.70	2	2	7	2
Oct. 29	2.85	5.25	8.10	316.60	8.10	314.80	2	2	7	2
Oct. 30	4.15	5.00	9.15	325.75	9.15	323.95	2	2	7	2
Oct. 31	4.35	2.00	6.35	332.10	6.35	330.30	2	2	7	2
Nov. 1	5.70	2.80	8.50	340.60	8.50	338.80	2	2	7	2
Nov. 2	1.95	4.20	6.15	346.75	6.15	344.95	2	2	7	2
Nov. 3	Day off									
Nov. 4	11.25	7.65	18.90	365.65	18.90	363.85	2	2	7	2
Nov. 5	1.50	0.95	2.45	368.10	2.45	366.30	2	2	7	2
Nov. 6	1.10	0.95	2.05	370.15	2.05	368.35	2	2	7	2
Nov. 7	1.10	0.75	1.85	372.00	1.85	370.20	2	2	7	2
Nov. 8	1.90	1.75	3.65	375.65	3.65	373.85	2	2	7	2
Nov. 9	Dismantlement							1	7	2
Nov. 10	Day off									
Nov. 11	Dismantlement							1	7	2
Nov. 12	Dismantlement							1	7	2
Nov. 13	Dismantlement							1	7	2
Total			375.65		373.85		49	53	199	57

Appendix 21 Drilling Progress of MJSU-15

MJSU-15



Completed at 375.65m in depth

**Appendix 22 Summary of Drilling Operation of MJSU-16**

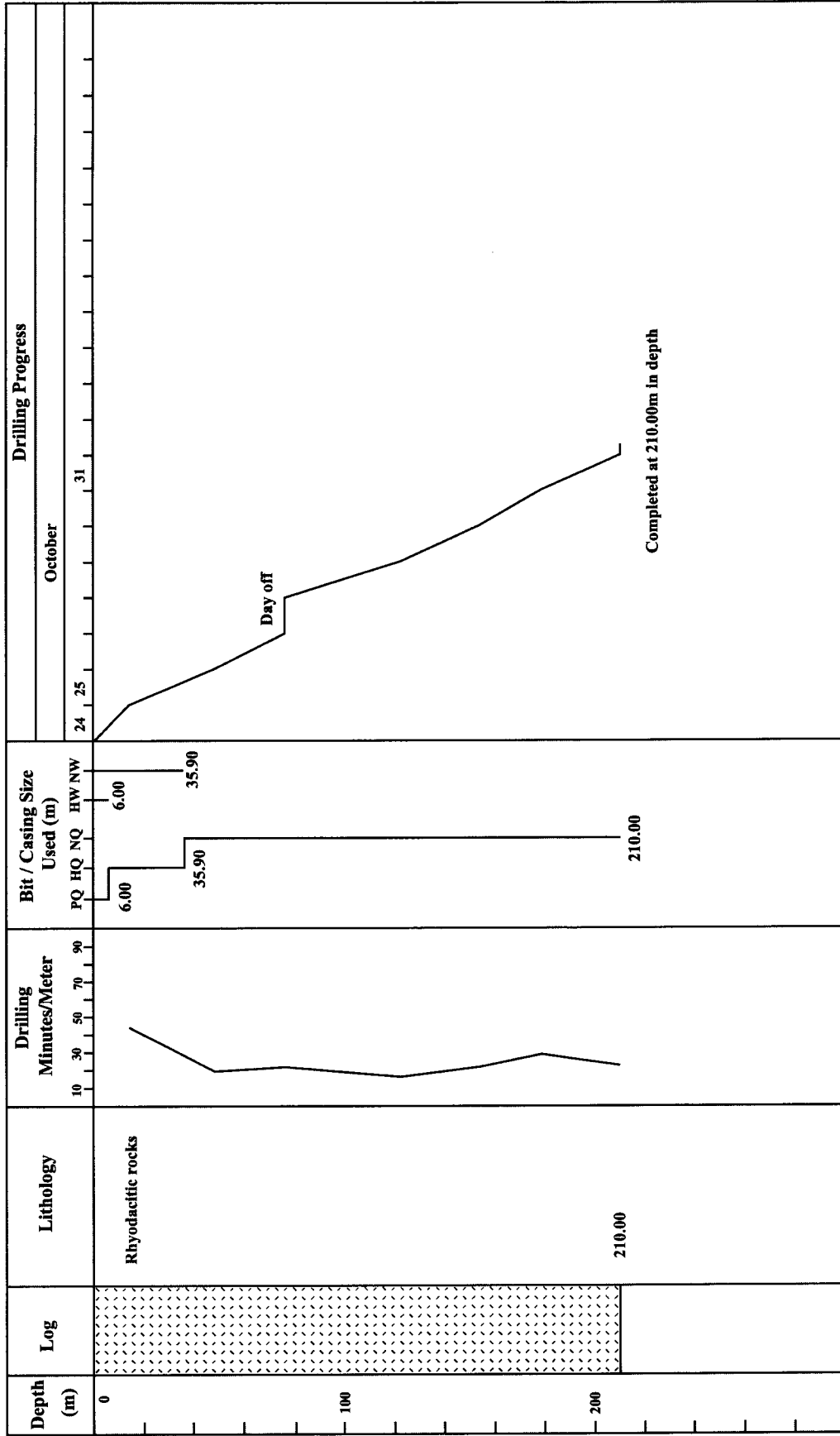
MJSU-16		Suvey Period				Total Man-day	
		Period	Day	Work Day	Off Day	Engineer	Worker
Operation							
Transportation/Preparation		Oct. 24, 2000					
Drilling		Oct 24 - Oct.31,2000		8	7	1	49 14
Dismantling		Nov. 1,2000		1	1		7 2
Total				9	8	1	56 16
Drilling Length		(m)	(m)	Core Recovery of Each 100m Hole			
Length Planned		200.00	Overburden 1.70	Depth of Hole (m)	Core Recovery (%)	Cumulative Core Recovery (%)	
Increase/Decrease in Length		10.00	Core Length 208.30			0.00 to 100.00	98.3
Length Drilled		210.00	Core Recovery 99.2	100.00 to 200.00	100.0	99.2	
Working Hours		(h)	(%)	(%)	200.00 to 210.00	100.0	99.2
Drilling		79.1	76.8	70.3			
Other Work		23.9	23.2	21.2			
Recovering				0.0	Efficiency of Drilling		
Subtotal		103.0	100.0	91.6	Total Length / m	day	m/day
Preparation		2.0		1.8	Drilling Period	210.00	8.0 26.25
Dismantlement		7.5		6.7	Total Length / Total	m	shift m/shift
Transportation				0.0	Drilling Shifts	210.00	14.0 15.00
Grand Total		112.5		100.0	Drilling Length / Each Diameter (m)		
Casing Pipe Inserted				Bit Size	Drilling Length	Core Length	
Size	Metrage (m)	Metrage/Drilling Length (%)	Recovery (%)	PQ	6.00	4.30	
				HQ	29.90	29.90	
HW	6.00	2.9	100.0	NQ	174.10	174.10	
NW	35.90	17.1	100.0				

**Appendix 23 Record of Drilling Operation of MJSU-16**

Date	Drilling Length		Daily Total				Shift		Man Working	
	Shift 1 (m)	Shift 2 (m)	Drilling		Core Length		Drilling (Shift)	Total (Shift)	Engineer (man)	Worker (man)
			(m)	(Cum. m)	(m)	(Cum. m)				
Oct. 24	6.00	8.00	14.00	14.00	12.30	12.30	2	2	7	2
Oct. 25	14.20	20.00	34.20	48.20	34.20	46.50	2	2	7	2
Oct. 26	19.50	8.40	27.90	76.10	27.90	74.40	2	2	7	2
Oct. 27	Day off									
Oct. 28	25.20	21.00	46.20	122.30	46.20	120.60	2	2	7	2
Oct. 29	15.60	15.85	31.45	153.75	31.45	152.05	2	2	7	2
Oct. 30	9.35	15.60	24.95	178.70	24.95	177.00	2	2	7	2
Oct. 31	17.40	13.90	31.30	210.00	31.30	208.30	2	2	7	2
Nov. 1	Dismantlement							1	7	2
Nov. 2										
Total			210.00		208.30		14	15	56	16

Appendix 24 Drilling Progress of MJSU-16

MJSU-16



## Appendix 25 Drilling Meterage of Diamond Bits Used

Item	Size	Bit No.	Drilling Meterage / Each Bit								Total (m)
			MJSU-14	MJSU-9	MJSU-13	MJSU-16	MJSU-10	MJSU-11	MJSU-12	MJSU-15	
Diamond Bit	PQ	#845578/8	5.95	5.90	3.00	6.00					20.85
		#843657/6					1.30		2.20	6.00	9.50
		#19907					6.80	10.10	1.80		18.70
		#19911					5.50				5.50
		Subtotal	5.95	5.90	3.00	6.00	13.60	10.10	4.00	6.00	54.55
	Average									13.64	
	HQ	#3987-12/9	26.80	7.50		17.25					51.55
		#8460118/10		0.60							0.60
		#9383402/9		11.15							11.15
		#9283407/9		5.10							5.10
		#9283403/9		7.40							7.40
		#81737		4.05	26.90	2.00					32.95
		#9283647/9				4.60					4.60
		#R68309					34.30				34.30
		#9283409/9						25.80			25.80
		#928364/9							20.70	29.90	50.60
		Subtotal	26.80	35.80	26.90	23.85	34.30	25.80	20.70	29.90	224.05
		Average									22.41
		NQ	#186547/10		5.90						
	#186548/10		3.00	2.95							5.95
	#186549/10									2.60	2.60
	#186552/10			49.95							49.95
	#2143133/10				1.10						1.10
	#2143136/10		20.50	27.75							48.25
	#2143138/10				4.65					40.85	45.50
	#2143139/10									7.40	7.40
	#2143141/10									21.10	21.10
	#2143142/10				20.35	38.45					58.80
	#8459201/10			4.90							4.90
	#8459352/10									0.40	0.40
	#8459365/10									0.70	0.70
	#8459367/10		7.60	3.50							11.10
	#8459368/10									1.70	1.70
	#8459369/10									1.75	1.75
	#8459371/10			2.80							2.80
	#8459373/10									1.70	1.70
	#8459374/10				48.80	55.80					104.60
	#8459375/10									8.20	8.20
	#8459376/10									27.10	27.10
	#8459379/10									6.55	6.55
	#8459382/10									3.45	3.45
	#8459383/10									8.75	8.75
	#8459384/10				39.75						39.75
	#8459385/10								22.30	21.30	43.60
	#8459386/10									9.50	9.50
	#8459387/10			14.90	2.00						16.90
	#8459389/10									4.45	4.45
	#8459391/10						53.90			0.25	54.15
	#8459392/10									2.60	2.60
	#8459393/10									23.10	23.10
	#8459396/10									17.45	17.45
	#8459398/10				27.65						27.65
	#8459399/10			59.85	38.55	27.00					125.40
	#8459400/10			16.70	16.70						33.40
	#8459401/10									56.25	56.25
	#8459884/10				1.00						1.00
	#9284225/9							64.00	10.00		74.00
	#9284329/9			24.05							24.05
	#9284334/9							61.65			61.65
	#9284335/9							39.15			39.15
	#9284337/9		76.55								76.55
	#9284761/9			17.90							17.90
	#9284856/9								76.25	3.00	79.25
	#9284865/9			42.55	2.10						44.65
	#9284869/9									20.90	20.90
	#9284875/9			17.45						17.45	
	#9284876/9					5.00				5.00	
	#9284881/9	36.85	1.95							38.80	
	#9284885/9		18.65							18.65	
	#9284896/9						114.70			114.70	
	#9284897/9						23.00			23.00	
	#9284901/9		44.00							44.00	
	#9284966/9								37.50	37.50	
	#9284967/9								222.30	222.30	
	#9284969/9							105.65		105.65	
	#9284970/9								14.20	14.20	
	#9739333/9		97.35							97.35	
	Subtotal	241.85	338.30	220.10	180.15	302.50	214.20	225.30	339.75	2,062.15	
	Average									34.95	
	Total		274.60	380.00	250.00	210.00	350.40	250.10	250.00	375.65	2,340.75

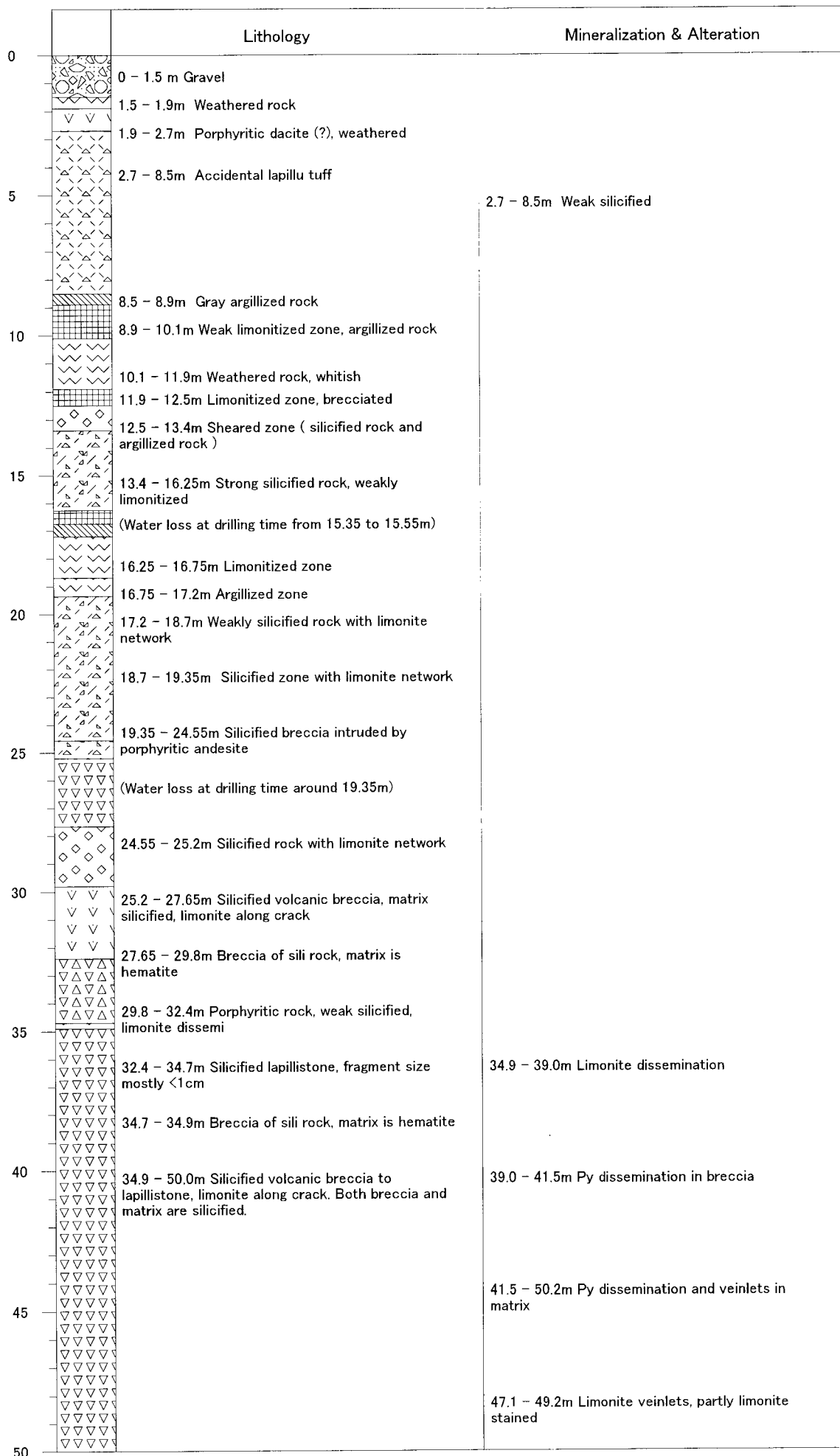
Item	Size	Bit No.	Drilling Meterage / Each Reaming Shell								Total (m)
			MJSU-14	MJSU-9	MJSU-13	MJSU-16	MJSU-10	MJSU-11	MJSU-12	MJSU-15	
Reaming Shell	PQ	#81626	5.95	5.90	3.00	6.00					20.85
		#83516					13.60	10.10	4.00	6.00	33.70
	HQ	#53972	26.80	35.80	26.90	22.20					111.70
		#6WR1746					34.30	25.80	20.70	29.90	110.70
	NQ	#8795112	241.85	338.30	220.10	181.80					982.05
		#879529					302.50	214.20	225.30		742.00
	#8795126									339.75	339.75
Total	274.60	380.00	250.00	210.00	350.40	250.10	250.00	375.65	2,340.75		



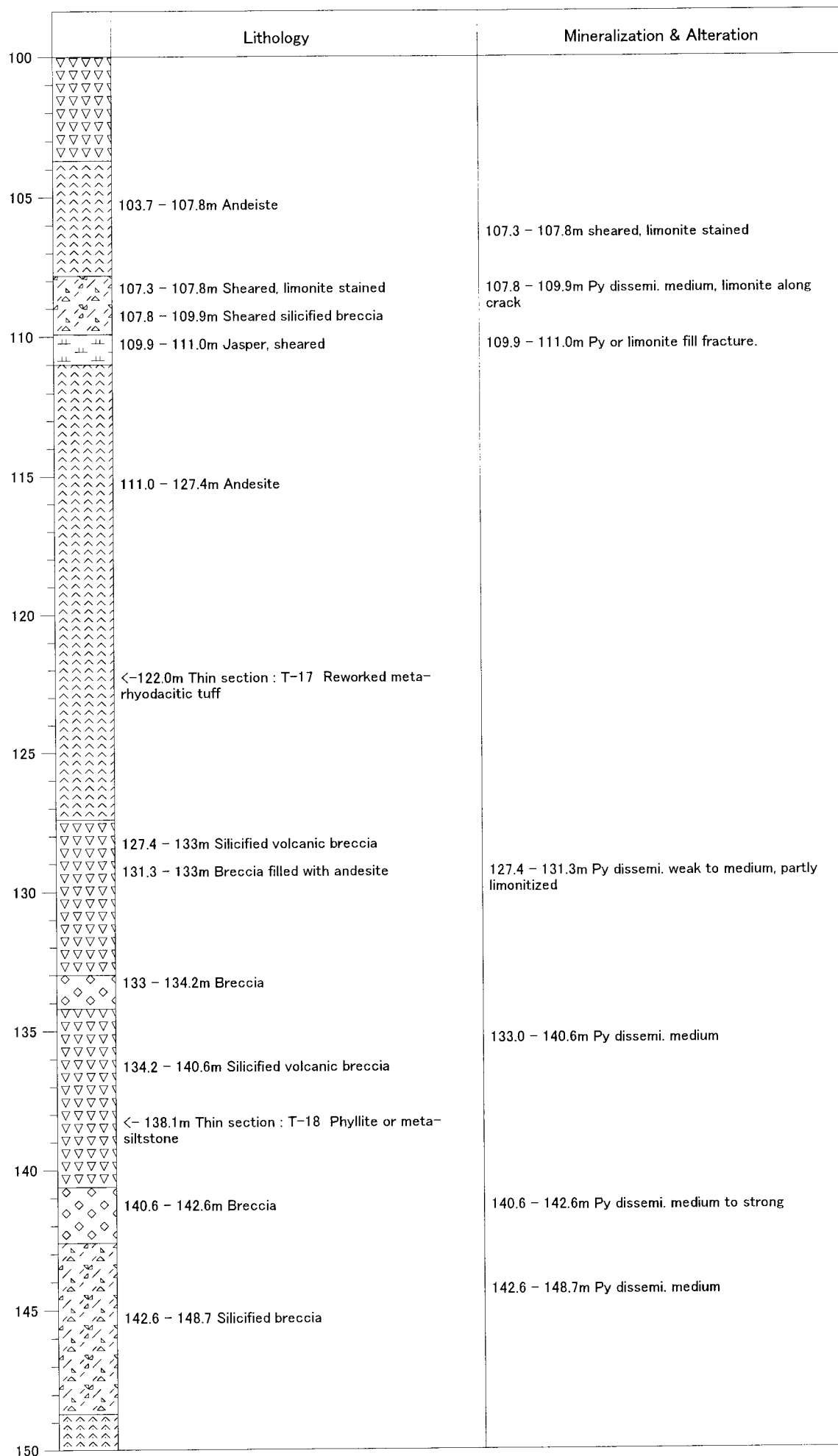
### Appendix 26 Consumables Used

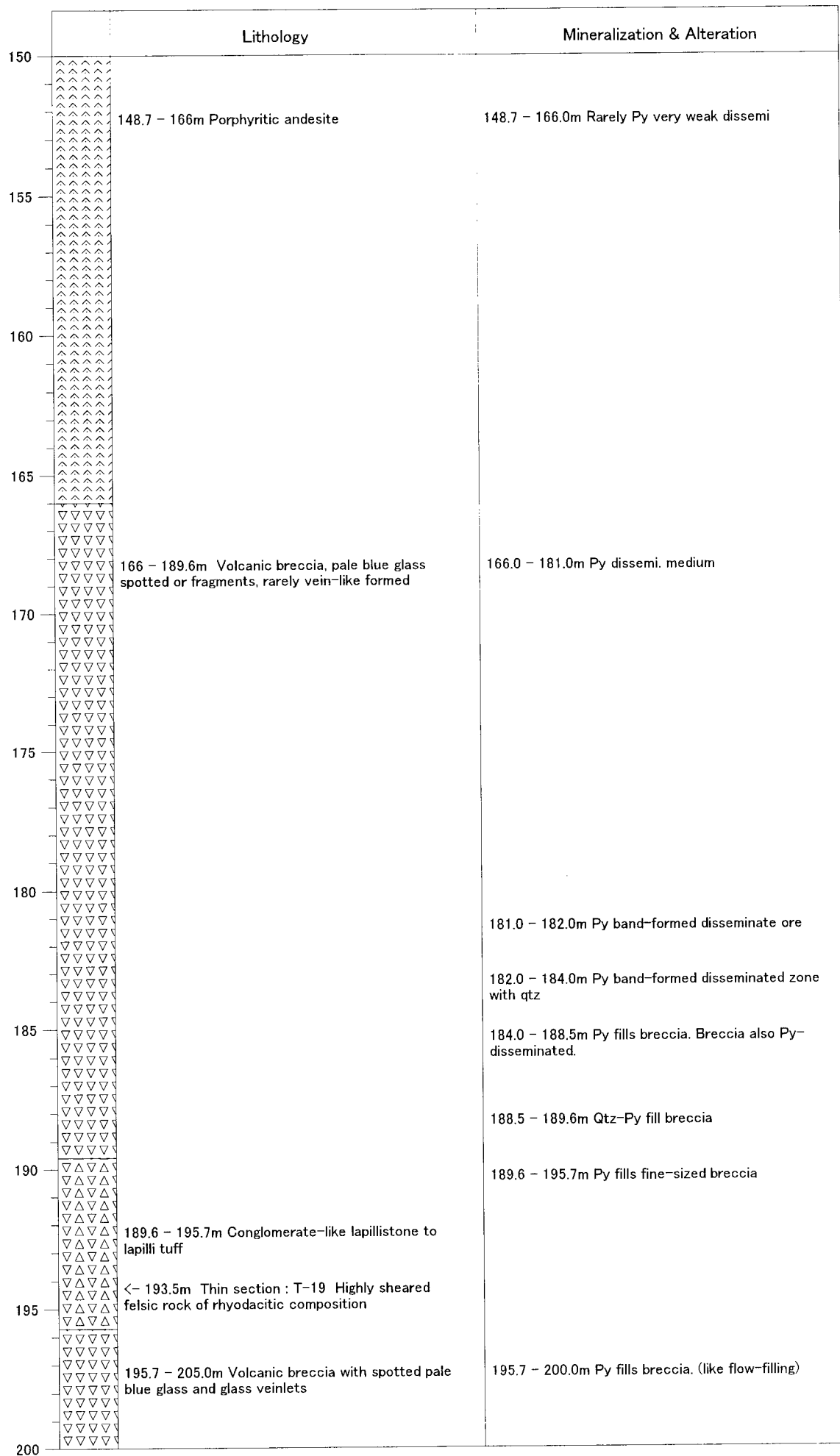
Expendable Items	Spec.	Unit	Drill Hole No.								Total Amount
			MJSU-9	MJSU-10	MJSU-11	MJSU-12	MJSU-13	MJSU-14	MJSU-15	MJSU-16	
Diesel Fuel		l	1,855	1,505	960	820	1,235	990	2,370	695	10,430
Gasoline		l	398	278	195	165	263	190	485	138	2,112
Hydraulic Oil		l	20			20	20	4	20		84
Engine Oil		l	60	10	42	22	42	40	91	20	326
Gear Oil		l	3	1	1		2	3	5		15
Grease		kg	15	8	12	2	10	8	15	6	76
Polymer GS550		kg	243	196	128	117	141	123	248	77	1,273
GS20		l					31		10		41
Lubtub		kg	10	20	25	20	3		7		85
Solcut		l	141		18	10	78	76	28	35	386
Stop Plus		kg	7	3	2	2	7	2	9	1	33
Inner Tube	PQ	pcs		1				1			2
Outer Tube	PQ	pcs		1				1			2
Adapter Coupling	PQ	pcs		1				1			2
Locking Coupling	PQ	pcs		1				1			2
Landing Ring	PQ	pcs						1			1
Stop Ring	PQ	pcs	1					1			2
Core Lifter	PQ	pcs	1	1				1			3
Core Lifter Case	PQ	pcs	1	1				1			3
Inner Tube	HQ	pcs		1				2			3
Outer Tube	HQ	pcs		2				1			3
Inner Tube Head Assem.	HQ	pcs		1				2			3
Adapter Coupling	HQ	pcs		1				1			2
Locking Coupling	HQ	pcs		1				1			2
Landing Ring	HQ	pcs						1			1
Stop Rong	HQ	pcs						2			2
Core Lifter	HQ	pcs	4			1		2			7
Core Lifter Case	HQ	pcs				1		2			3
Inner Tube	NQ	pcs		3			2	2			7
Outer Tube	NQ	pcs		1				1	1		3
Inner Tube Head Assem.	NQ	pcs		1				2			3
Adapter Coupling	NQ	pcs	1	1	1			1	2	1	7
Locking Coupling	NQ	pcs	1	1	1			1	2	1	7
Landing Ring	NQ	pcs		1				1		1	3
Stop Ring	NQ	pcs	1	2				2			5
Core Lifter	NQ	pcs	13	6	7	2	4	6	5	3	46
Core Lifter Case	NQ	pcs	4	5	1			3	1		14
Stabilizer	NQ	pcs		1						1	2
Shut off Valve	NQ	pcs					2	2			4
Core Box	PQ	pcs	3	5	4	2	2	2	3	3	24
Core Box	HQ	pcs	11	9	8	6	8	5	9	7	63
Core Box	NQ	pcs	75	67	47	50	50	57	74	39	459
Water (m <sup>3</sup> )			400	260	170	120	270	200	410	110	1,940

Appendix 27 Geological Log of MJSU-9 to MJSU-16

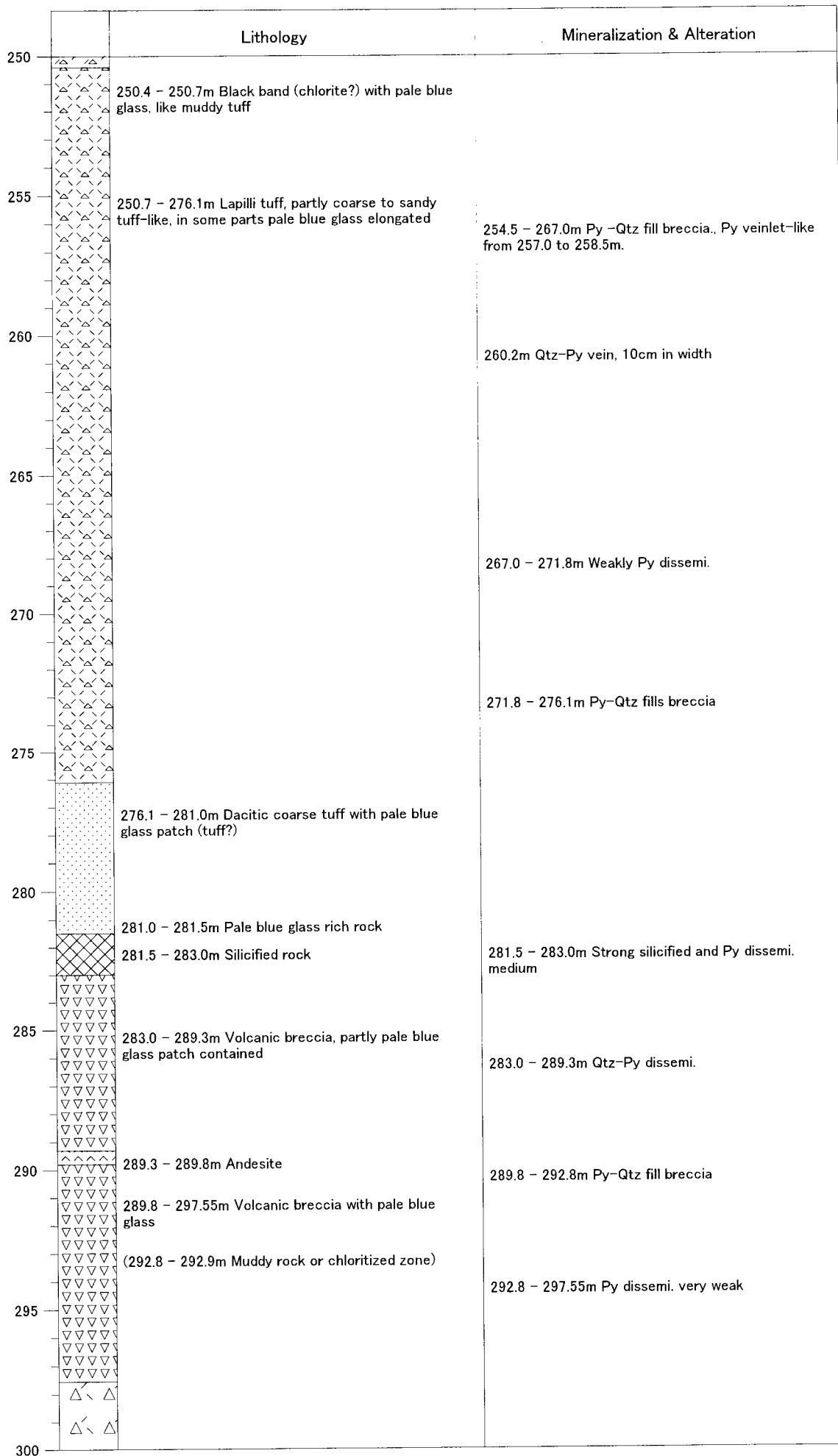


	Lithology	Mineralization & Alteration
50	50.0 - 52.0m Lapilli tuff	50 - 52m Py weak dissemi
55	52.0 - 66.0m Volcanic breccia, matrix composed of Qtz-Py, fragment : rhyodacite, shale, dacite, size <10cm angular, size <1cm subrounded	52 - 66m Py dissemination is weak to medium. Weak silicification
60	<- 58.8m Thin section : T-15 Meta-rhyodacitic lithic tuff	
65	66.0 - 79.4m Silicified volcanic breccia	66 - 79.4m Strong sili., Py medium dissemi.
70		
75		
80		79.4 - 92.9m Py weak dissemi
85	79.4 - 97.9m Volcanic breccia, fragment : porphyrite, chert, shale, silicified rocks	
90	<- 90.0m Thin section : T-16 Meta-rhyodacitic fine tuff	
95		92.9 - 93.2m Strong oxidized zone, hematite stained
		93.2 - 97.9m Oxidized zone, hematite in matrix
100	97.9 - 103.7 Silicified volcanic breccia	97.9 - 103.7m Py dissemi. weak



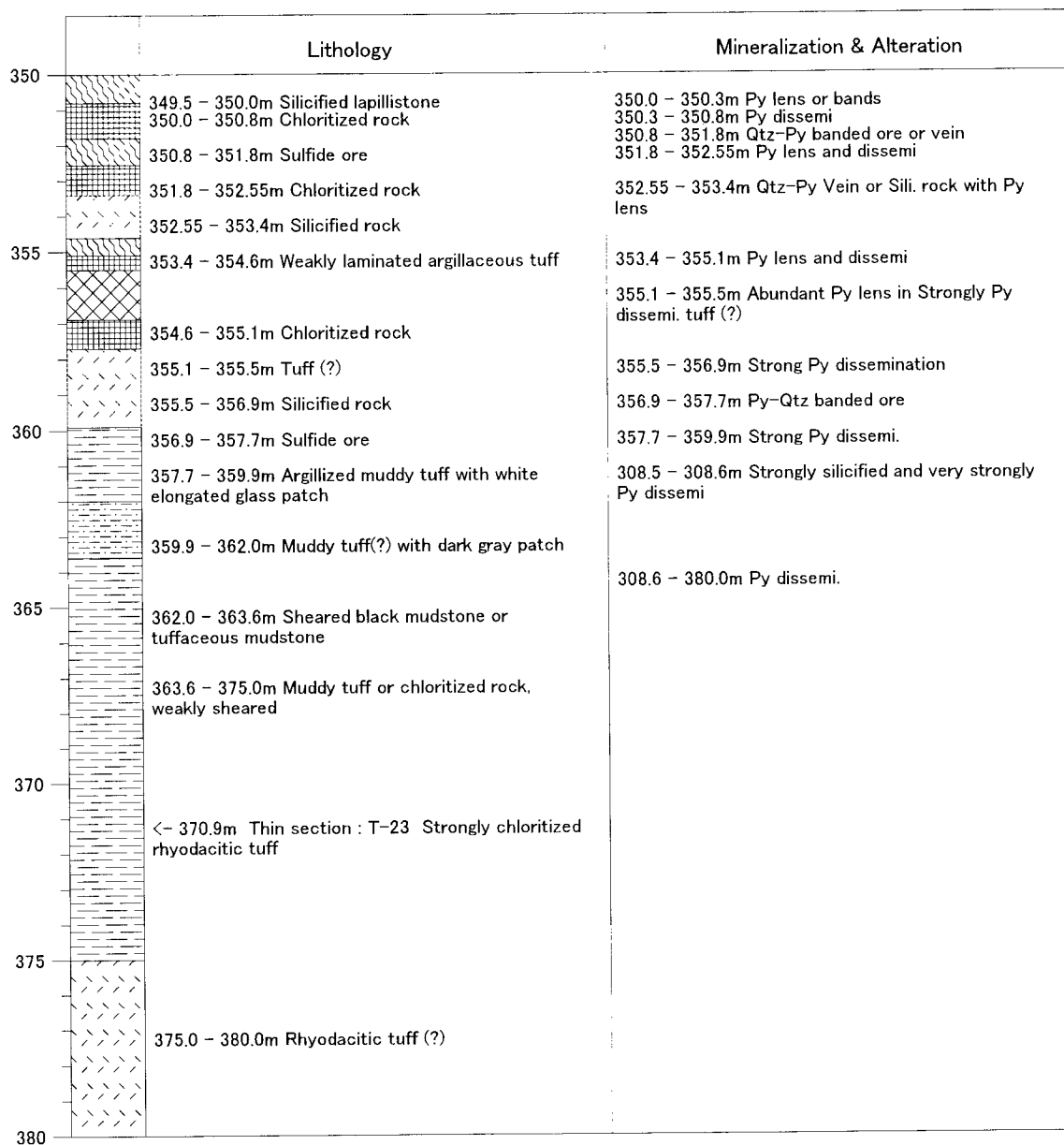


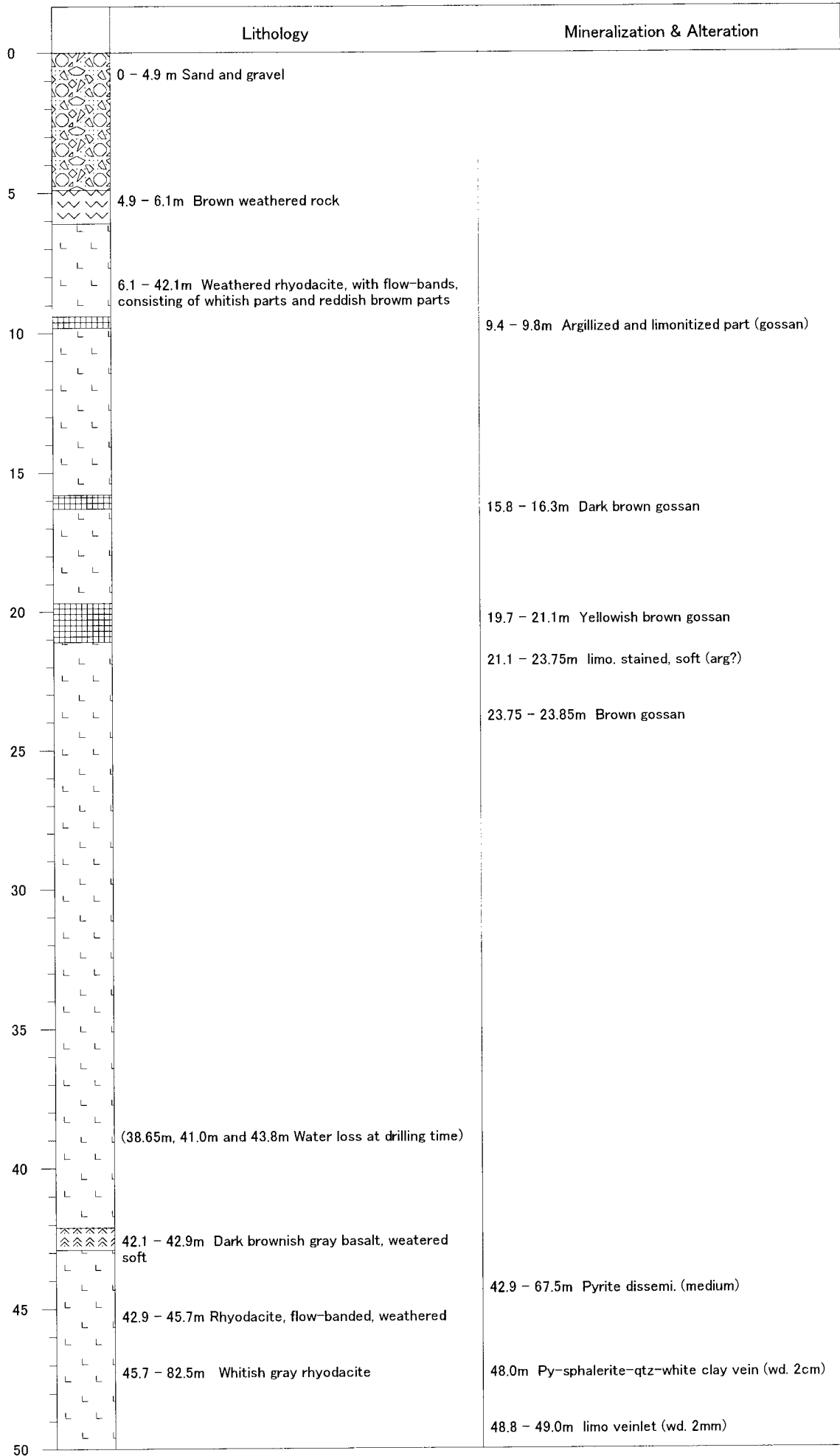
	Lithology	Mineralization & Alteration
200		
		200.0 – 205.0m Py medium dissemination and veinlets
205		
	<- 206.4m Thin section : T-20 Meta-rhyodacitic fine tuff	205.0 – 217.0m Py fills breccia
210	205.0 – 217.0m Volcanic breccia, smaller breccia is subangular and larger is angular. No pale blue glass	
215		
	217.0 – 219.0m Volcanic breccia containing siltstone big fragments	217.0 – 219.0m Py dissemination weak
220	<-219.0m Thin section : T-21 Meta-tuff of felsic composition	219.0 – 221.5m Qtz-Py fill breccia
	219.0 – 222.6m Lapillistone, max size of fragments is 3cm.	221.5 – 222.6m Py fills breccia
225	222.6 – 234.2m Volcanic breccia with black to gray bands (chlorite?) or patch, and pale blue glass patch	222.6 – 234.2m Py lens and dissemination in chloritized parts
	<- 228.0m Thin section : T-22 White-mica schist	
230		
235	234.2 – 246.2m Lapillistone to lapilli tuff Shape of fragments mainly subrounded, with pale blue glass elongated like veinlet or spotted	234.2 – 246.7m Qtz-Py fill breccia partly with strong Py dissemination
240		
245	246.2 – 246.7m Sandstone(?) with glass spots	
	246.7 – 250.4m Silicified breccia, small fragments dominant like conglomerate	246.7 – 254.5m Py dissemi. very weak
250		





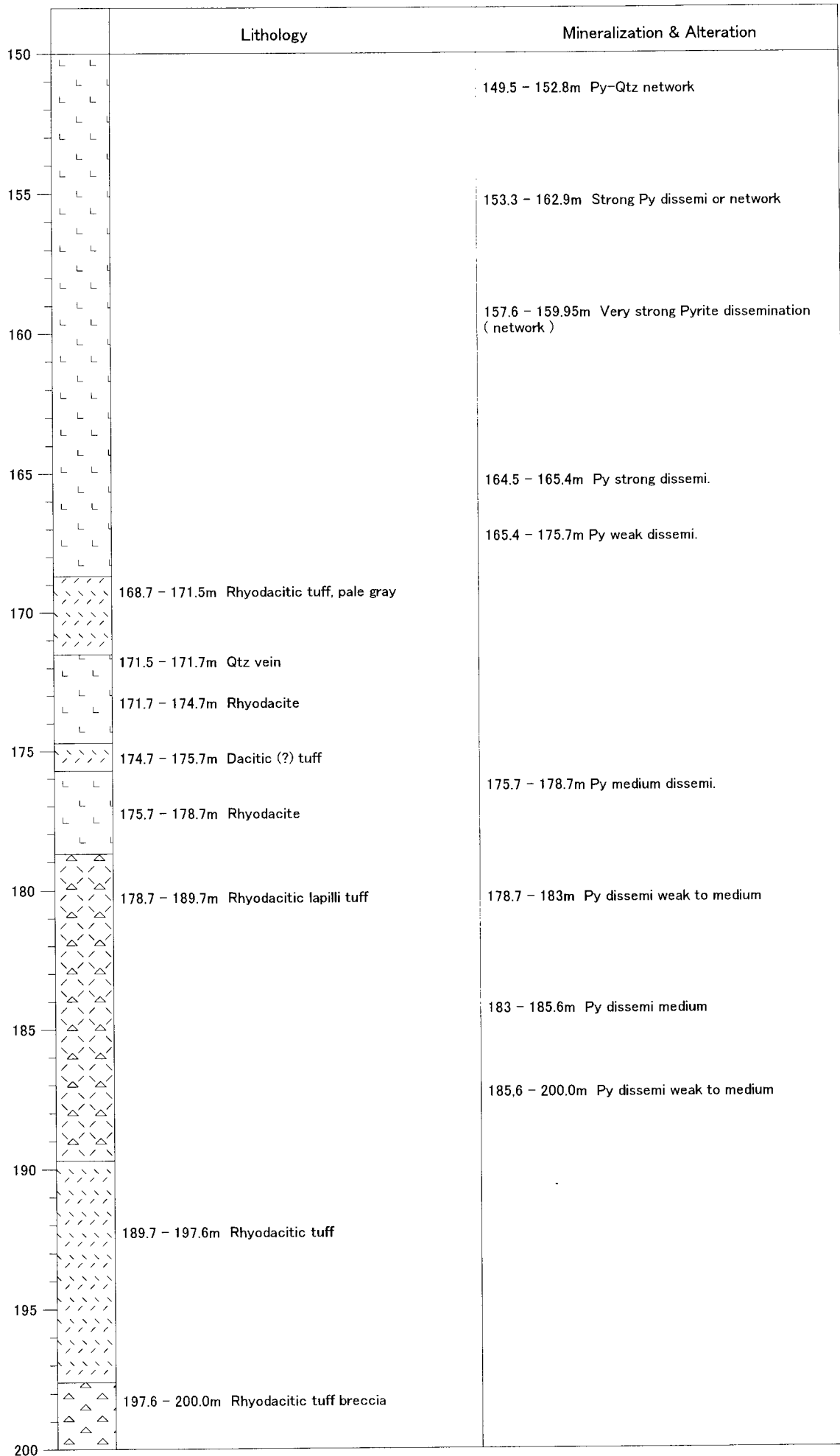
	Lithology	Mineralization & Alteration
300		
	297.55 – 310.0m Volcanic breccia or tuff breccia with elongated glass patch. Fragments are mainly angular.	297.55 – 310.0m Py fills breccia
305		306.4 – 309.0m Strong silicified
310	310.0 – 315.7m Volcanic breccia with pale blue glass	310.0 – 315.7m Py lensy dissemination medium to strong
315	315.7 – 318.5m Mineralized zone, partly strongly chloritized and weakly epidotized	315.7 – 318.5m Py-Qtz veinlets and Py strong dissemi
320	318.5 – 321.6m Silicified dacite(?)	318.5 – 321.6m Qtz-Py veinlets 3 to 4/m, but Py dissemi. very weak
	321.6 – 324.9m Chloritized tuff(?)	321.6 – 324.9m Py veinlets or lens abundant
325	324.9 – 326.9m Dacite with qtz and green patch (intrusive)	
	326.9 – 328.1m Chloritized rock	326.9 – 328.1m Py lens abundant
330	328.1 – 334.6m Dacite (? , intrusive)	331.1m Qtz (-Py) vein 4cm wide
	334.6 – 337.4m Lapillistone	334.6 – 336.7m Py-Qtz fill fine-sized breccia
	337.4 – 339.7m Chloritized zone, a side of core consists of dacite	336.7 – 337.4m Py fills fine-sized breccia
	339.7 – 339.9m Silicified breccia	337.4 – 339.7m Abundant Py lens in chloritized zone
340	339.9 – 341.25m Chloritized zone	339.7 – 341.25m Py-chlorite banded zone, partly cutted by Qtz-Py vein
	341.25 – 343.4m Sulfide ore	341.25 – 343.4m Py-Qtz banded ore
	343.4 – 343.9m Chloritized rock	343.4 – 343.9m Py banded dissemination
	343.9 – 345.0m Sulfide ore	343.9 – 345.0m Py-Qtz banded ore, cutted by Qtz vein (2cm in width)
345	345.0 – 347.3m Chloritized rock	345.0 – 347.3m Py dissemi. strong
	347.3 – 349.0m Sulfide ore	347.3 – 349.0m Banded ore with Py (-Cp) - Qtz, cutted by Qtz-Py veinlets
	349.0 – 349.5m Dacite (?)	349.5 – 350.0m Py-Qtz fill fine-grained breccia, cutted by Qtz-Py vein
350		





	Lithology	Mineralization & Alteration
50	45.7 - 82.5m Whitish gray rhyodacite	42.9 - 59.75m Weak silicified
55		
60	<- 60.0m Thin section : T-6 Meta-rhyodacitic fine tuff	
65		65.2 - 66.7m Glass part weakly argillized 66.7 - 67.5m Weakly silicified 67.5 - 70.6m Py dissemi. medium to strong, partly accompanied by Cp, rarely Sp, sili.
70		70.6 - 85.1m Silicified 70.6 - 71.0m Py dissemi medium 71.0 - 86.5m Py dissemi medium, weakly arg + sili
75		
80	<- 77.0m Thin section : T-7 Meta-siltstone or meta-volcanic fine tuff of felsic composition	
85	82.5 - 83.6m Dark green basalt (andesite?)	
90	83.6 - 90.2m Whitish gray rhyodacite	86.5 - 88.0m Py weak dissemi 88.4m and 88.9m Cp-Sp-Qtz veinlets (wd. 1cm)
95	90.2 - 95.3m Rhyodacitic tuff, pale greensih gray <- 93.0m Thin section : T-8 Meta-rhyolitic to rhyodacitic tuff	88.0 - 90.0m Py dissemi weak to medium 90.0 - 99.1m Py dissemi weak
	95.3 - 96.0m Rhyodacitic lapilli tuff	
	96.0 - 99.1m Rhyodacitic tuff	
	<- 99.5m Thin section : T-9 Reworked crystal rich tuff	
100	99.1 - 100.1m Basalt, dark gray	

	Lithology	Mineralization & Alteration
100		
	100.1 - 110.0m Rhyodacitic tuff, pale gray	
105		106.3 - 107.8m Py dissemi strong
		107.8 - 110.0m Py dissemi medium
110	110.0 - 110.7m Basalt, dark gray	
	110.7 - 113.3m Rhyodacitic tuff	110.7 - 113.3m Py dissemi weak
	113.3 - 116.15m Basalt	
115		
	116.15 - 116.9m Rhyodacitic tuff, pale green	116.15 - 116.9m Py dissemi medium
	116.9 - 117.5m Basalt	
	117.5 - 119.1m Rhyodacitic tuff	117.5 - 119.1m Py dissemi medium, 117.6 - 118.0m strong Py dissemi
	119.1 - 119.7m Basalt	
120		119.7 - 122.6m Py strong dissemi ( or network)
	119.7 - 132.6m Rhyodacitic tuff	
125		
		126.7 - 128.0m Py-Qtz network, wd max 2cm
		126.7 - 171.5m Py dissemi weak to medium
130		129.85 - 131.6m Py-Qtz network
	132.6 - 135.1m Rhyodacite without flow-band	
	← 133.5m Thin section : T-10 Meta-rhyolite	
135		
	135.1 - 136.8m Pale gray basalt	
		137.9 - 139.7m Py-Qtz network
140		
	136.8 - 168.7m Rhyodacite, whitish gray	
		141.5 - 142.2m Py (-Cp) - Qtz network, wd max 3mm
145		
		144.9 - 147.5m Py-Qtz network, wd max 5cm
150		



	Lithology	Mineralization & Alteration
200	200.0 - 202.7m Laminated tuff	200.0 - 202.7m Py medium impregnation along bedding
	202.7 - 203.5m Rhyodacite or tuff breccia	202.7 - 205.8m Py weak dissemi
	203.5 - 205.3m Rhyodacitic tuff	
205	205.3 - 205.8m Dacitic lapilli tuff	
	205.8 - 216.6m Dacitic tuff, small green patch tuff, rarely qtz fragments	
210	<- 210.0m Thin section : T-11 Highly sheared rhyolitic to rhyodacitic tuff	
		214.7 - 215.9m Qtz-Py veinlets
215		
	216.6 - 223.4m Qtz-eye dacitic tuff with small green patch, qtz eye 0.5 - 1cm in diameter	218.6 - 218.9m Qtz-Py veinlets
220		
	223.4 - 226.9m Dacitic fine tuff, similar to laminated tuff	223.4 - 226.9m Py medium dissemi
225		
	226.9 - 234.5m Dacitic tuff with small green patch and partly Qtz-eye	226.9 - 239.1m Qtz-Py veinlets seldomly
230		
	234.5 - 239.1m Dacitic tuff with elongated green patch and partly Qtz-eye, greenish gray	
235		
	239.1 - 245.5m Dacitic tuff with small green patch and partly Qtz-eye	239.1 - 245.5m Qtz-Py veinlets 2/m
240		
	245.5 - 251.1m Dacitic tuff with a small amount of green patch and Qtz-eye	245.5 - 251.6m Py weakly dissemi
245		
250		

	Lithology	Mineralization & Alteration
250	251.1 - 251.6m Quartz dacite	250.1m Qtz-Py veinlets, 5cm in wide
	251.6 - 261.2m Dacitic tuff, partly containing small green patch and Qtz-eye	251.6 - 261.2m Py-Qtz veinlets 2 or 3/m
255		
260		
	261.2 - 270.5m Dacite with rarely Qtz-eye or Qtz phenocrysts	261.2 - 270.5m Py(-Qtz) veinlets 1 or 2/m
265	<- 265.0m Thin section : T-12 Rhyodacitic crystal-rich tuff	
270		
	270.5 - 272.0m Dacitic tuff with small green patch	
	272.0 - 273.5m Dacitic fine tuff	
275	273.5 - 276.2m Dacitic tuff with small green patch	273.5 - 276.2m Py veinlets 3 or 4/m
	276.2 - 277.7m Dacitic coarse tuff	
280	277.7 - 284m Dacitic tuff, partly containing small green patch	
		283 - 284m Irregular-formed Py veinlets
285	284 - 285.1m Rhyodacite	
	285.1 - 286.6m Dacitic tuff	
	286.6 - 288.8m Dacitic tuff, partly muddy	286.9 - 287.0m & 287.9 - 288.0m Laminated Qtz-Py zones
	288.8 - 290.9m Dacitic tuff or dacite	
290	290.9 - 291.4m Rhyodacitic fine tuff	
	291.4 - 293.6m Tuff	291.4 - 293.6m Seldomly Qtz-Py veinlets
295	293.6 - 304.4m Dacitic tuff with small green patch and Qtz-eye	
		297.5 - 298.5m Py weakly dissemi
300		



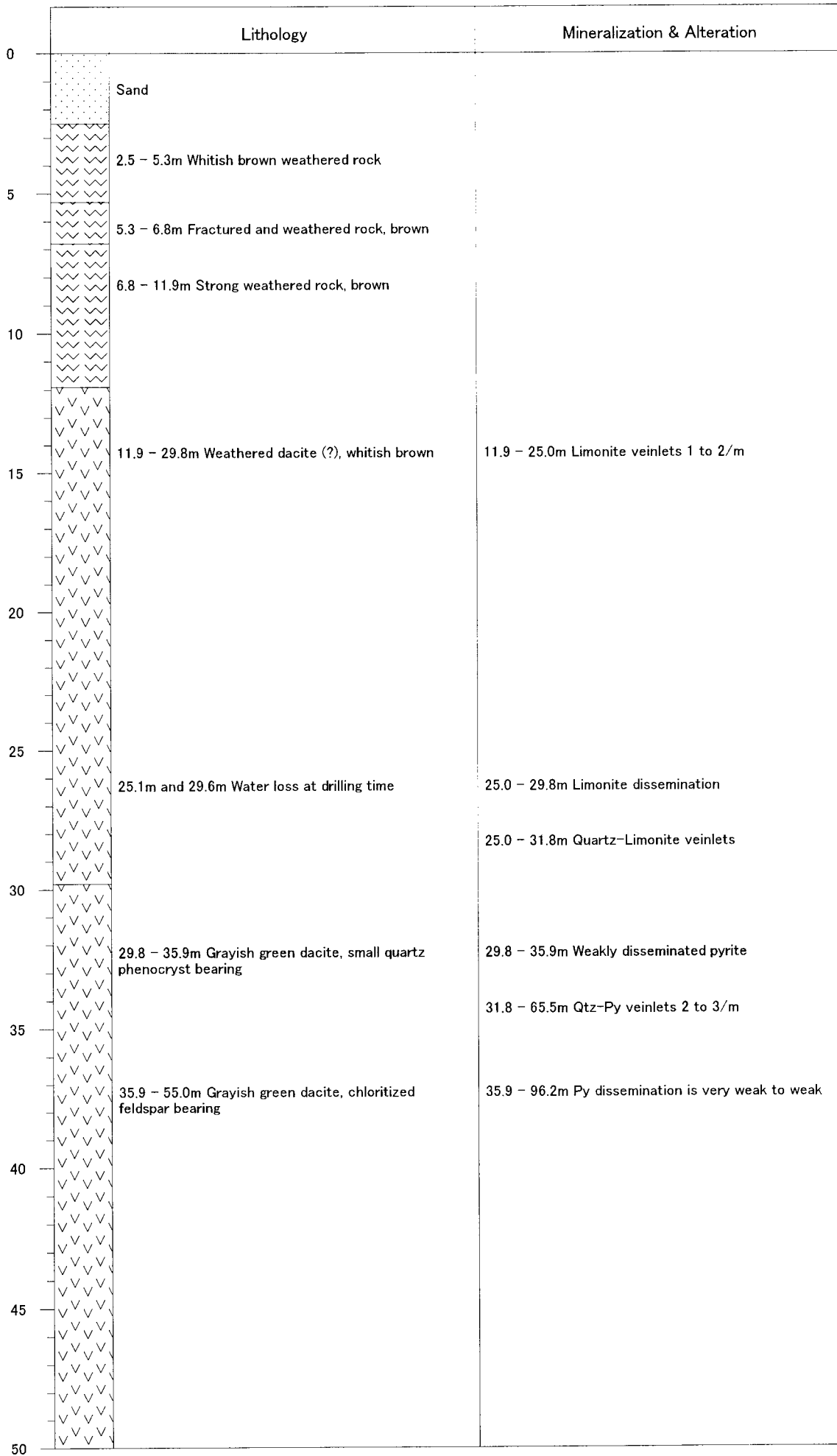
	Lithology	Mineralization & Alteration
300		
		301.0 – 302.4m Qtz veinlets and Py weakly dissemi
	304.4 – 309.95m Dacitic tuff without green patch, partly Qtz-eye bearing	307.0m Qtz vein, 10cm in width
		309 – 309.95m Py weakly dissemi., fine-sized
	309.95 – 314.3m Dacite, grayish green	309.95 – 314.3m Py dissemi very weakly
	314.3 – 330.7m Dacitic tuff, partly Qtz-eye bearing	
		317.5 – 318.95m Py weak dissemi
		321.6 – 350.4m Py weakly dissemi
	330.7 – 340.2m Dacite	
	340.2 – 350.4m Dacitic tuff	

Drill Hole No. : MJSU-11      Date Started Sep. 21, 2000      Date Completed : Oct. 2, 2000

Easting : E 710.023      Northing : N 2,618.581      Elevation (mSL) : 963

Azimuth : 150      Inclination : -55

Drilled by SGS/BRGM



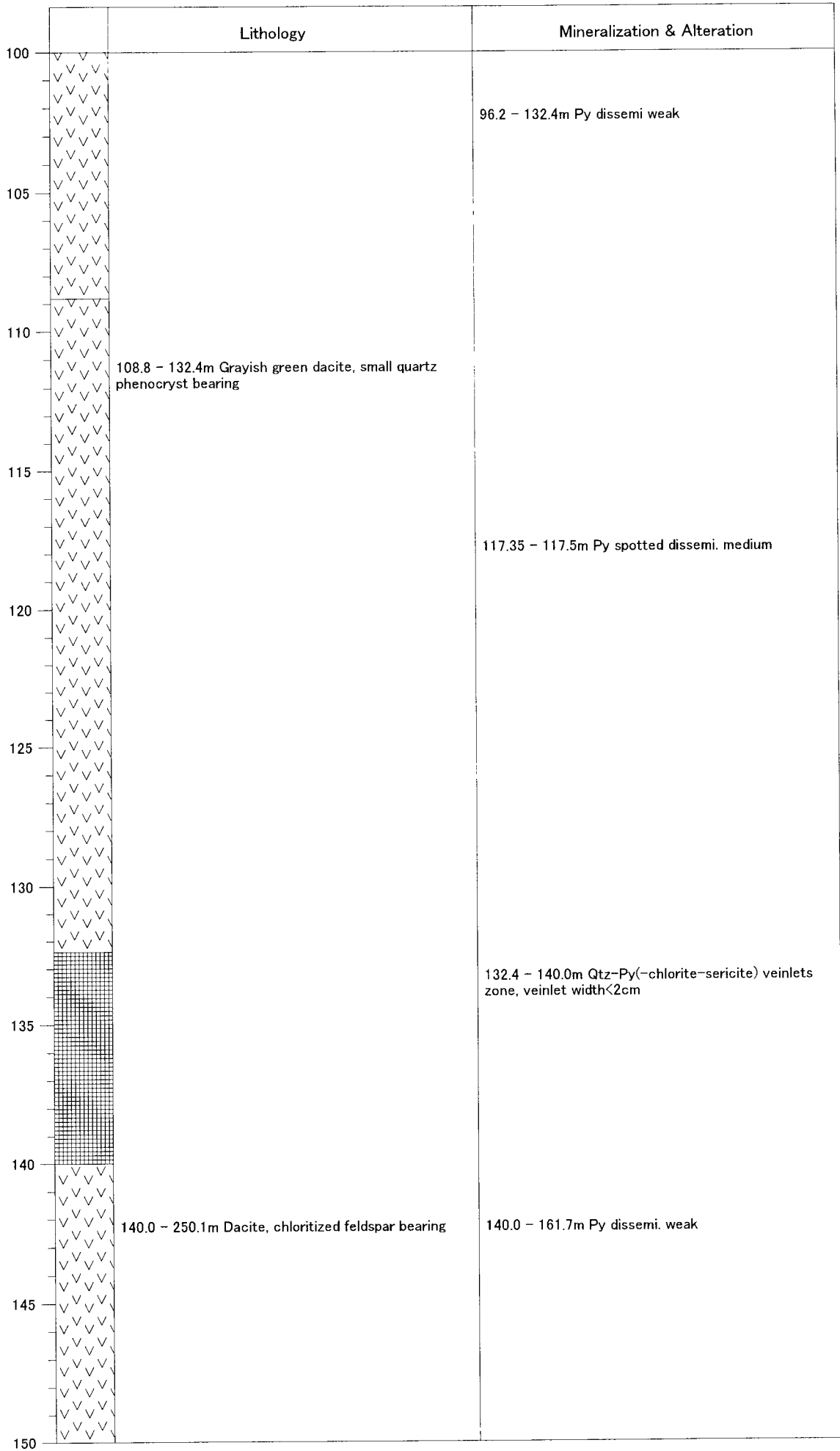
Drill Hole No. : MJSU-11      Date Started Sep. 21, 2000      Date Completed : Oct. 2, 2000

Easting : E 710.023      Northing : N 2,618.581      Elevation (mSL) : 963

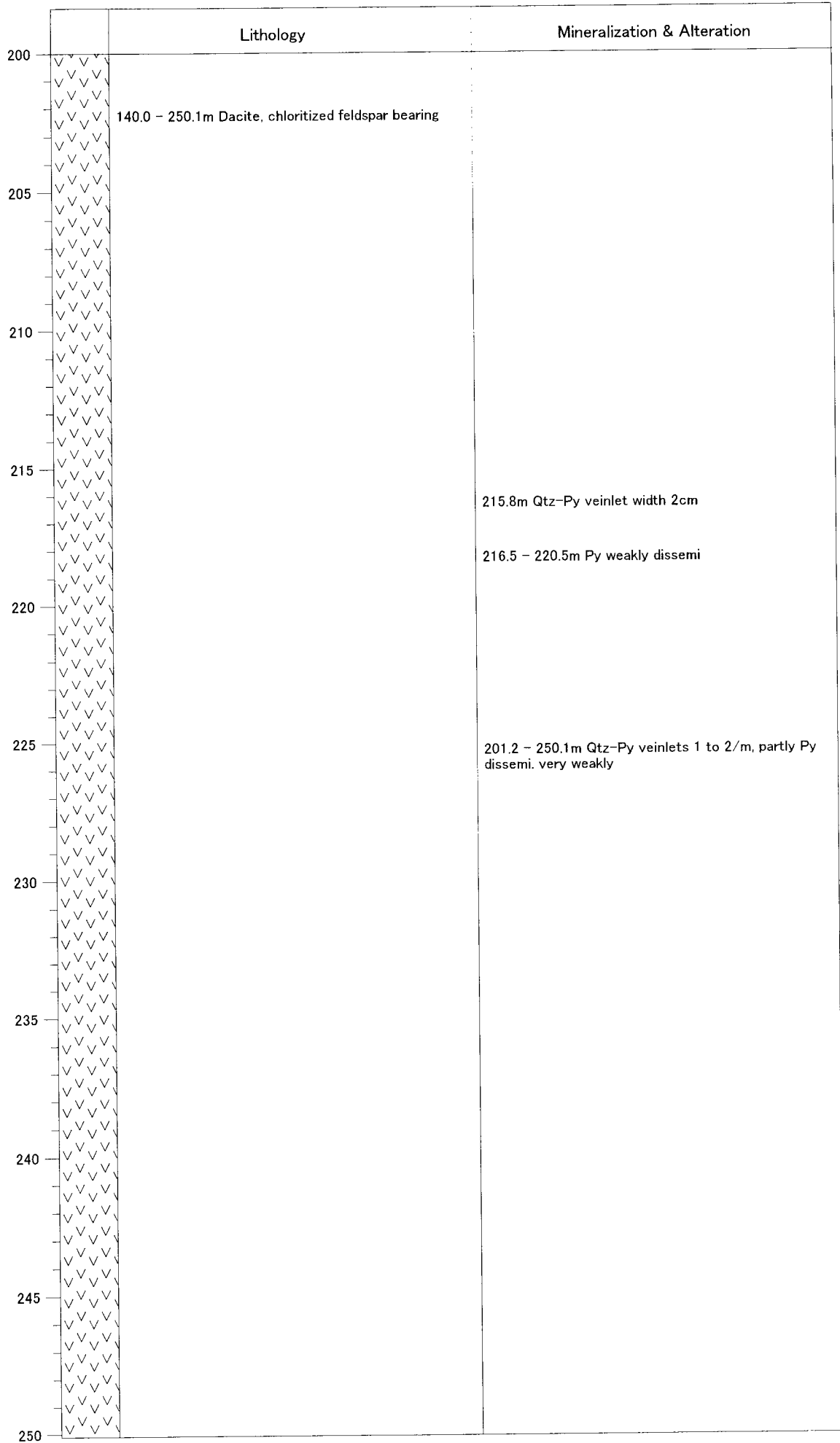
Azimuth : 150      Inclination : -55

Drilled by SGS/BRGM

	Lithology	Mineralization & Alteration
50		
55	55.0 – 65.5m Pale greenish gray dacite, small quartz phenocryst bearing	
60	← 57.6m Thin section : T-13 Rhyodacitic tuff or lava	
65	65.5 – 77.8m Grayish green dacite, chloritize feldspar bearing	67 – 70.2m Qtz-chlorite veinlets
70		71 – 75m Py spotted dissemi. weakly
75	← 75.3m Thin section : T-14 Rhyodacitic tuff or lava	77.8m Barren Qtz vein 3cm in width
80	77.8 – 80.0m Grayish green dacite, large chloritized feldspar rich	
85	(81.7 – 83.6m Sheared) 80.0 – 96.2m Grayish green dacite, small quartz phenocryst bearing, partly feldspar	
90		89.5 – 90.7m Py spotted dissemi
95		
100	96.2 – 108.8m Grayish green dacite, chloritized feldspar bearing	96.2 – 108.8m Qtz-Py veinlets 2 to 3/m, width < 1cm



	Lithology	Mineralization & Alteration
150	140.0 - 250.1m Dacite, chloritized feldspar bearing	
155		152.4 - 155.7m Py-Qtz veinlets 5/m, partly accompanied with Cp?  155.7 - 169.5m Py weak to medium dissemi.
160		
165		161.7 - 186.5m Py dissemi. medium 161.7 - 162.4m Qtz-Py veinlet zone  163.6 - 165.8m Py-Qtz veinlet zone
170		168.8 - 169.5m Qtz-Py veinlet zone
175		
180		177.8m Py-Qtz vein, 20cm wide
185		182.0-182.4m Py-Qtz veinlets, high angle  169.5 - 186.5m Py spotted dissemi. weak to medium
190		186.5 - 201.2m Py spotted dissemi. weakly  182.4 - 201.2m Qtz-Py veinlets 1 to 2/m
195		
200		

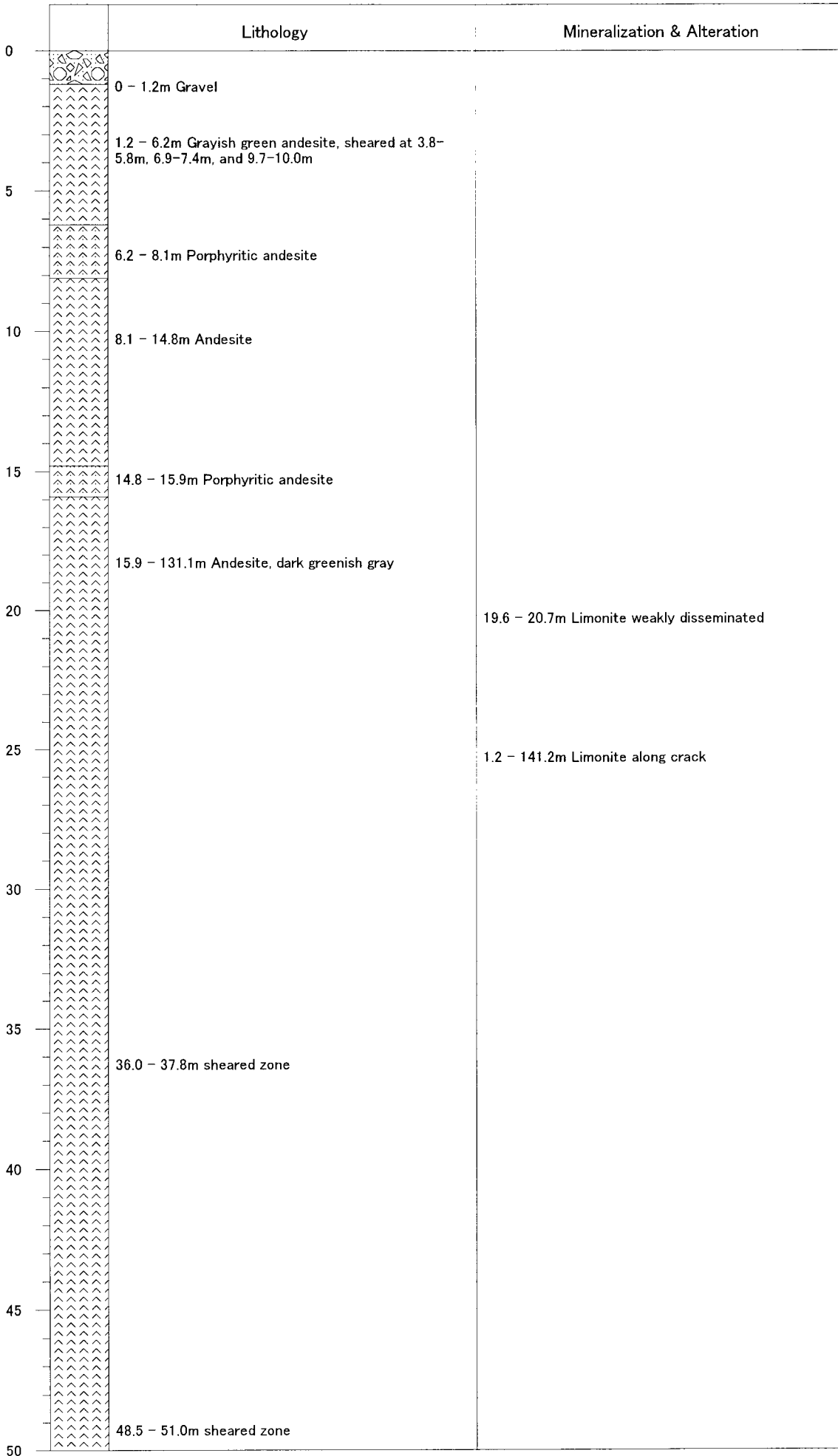


Drill Hole No. : MJSU-12      Date Started Oct. 2, 2000      Date Completed : Oct. 11, 2000

Easting : E 709.939      Northing : N 2,617.550      Elevation (mSL) : 965

Azimuth : 270      Inclination : -55

Drilled by SGS/BRGM



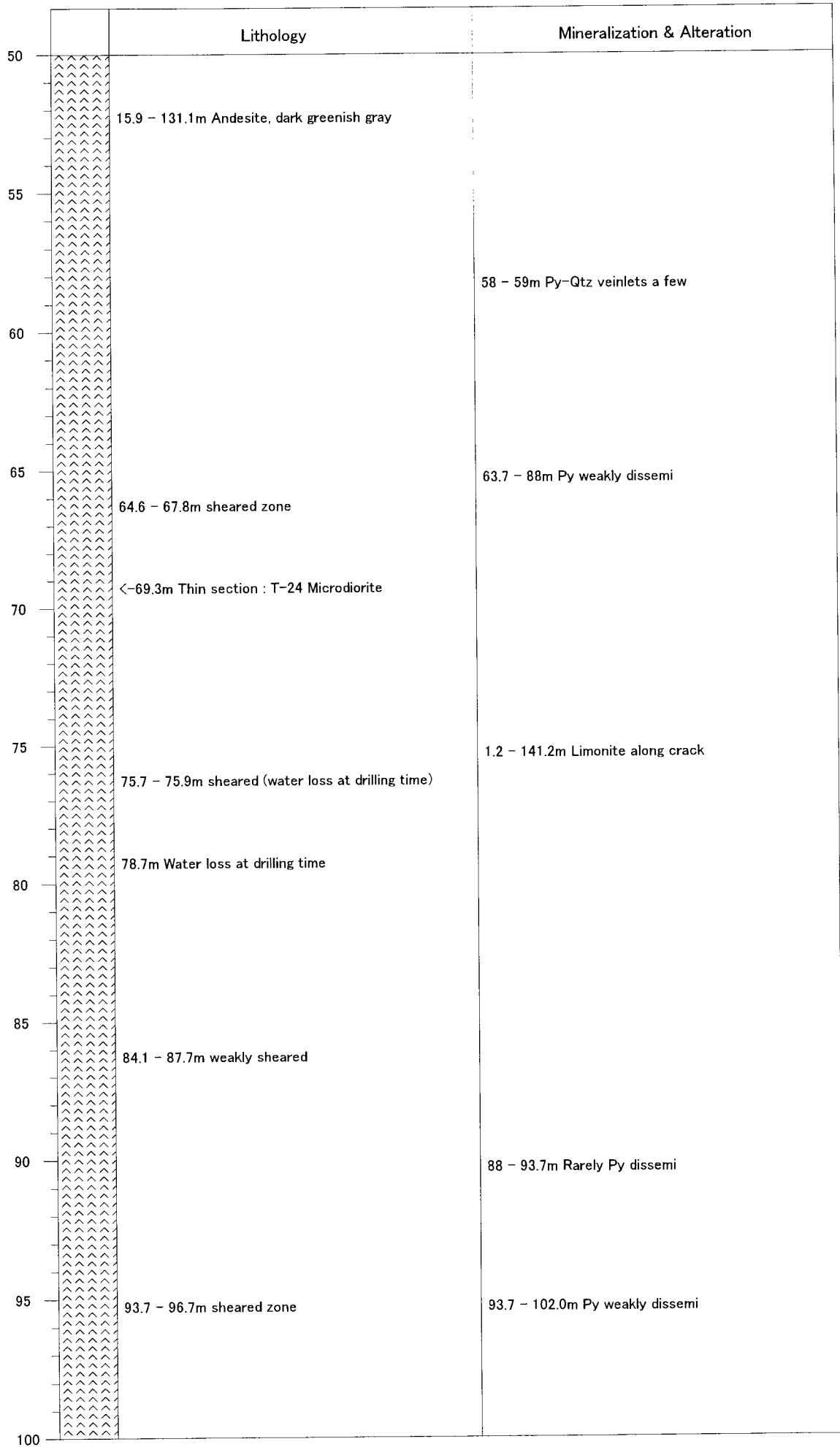
Drill Hole No. : MJSU-12      Date Started Oct. 2, 2000      Date Completed : Oct. 11, 2000

Easting : E 709.939      Northing : N 2,617.550      Elevation (mSL) : 965

Azimuth : 270

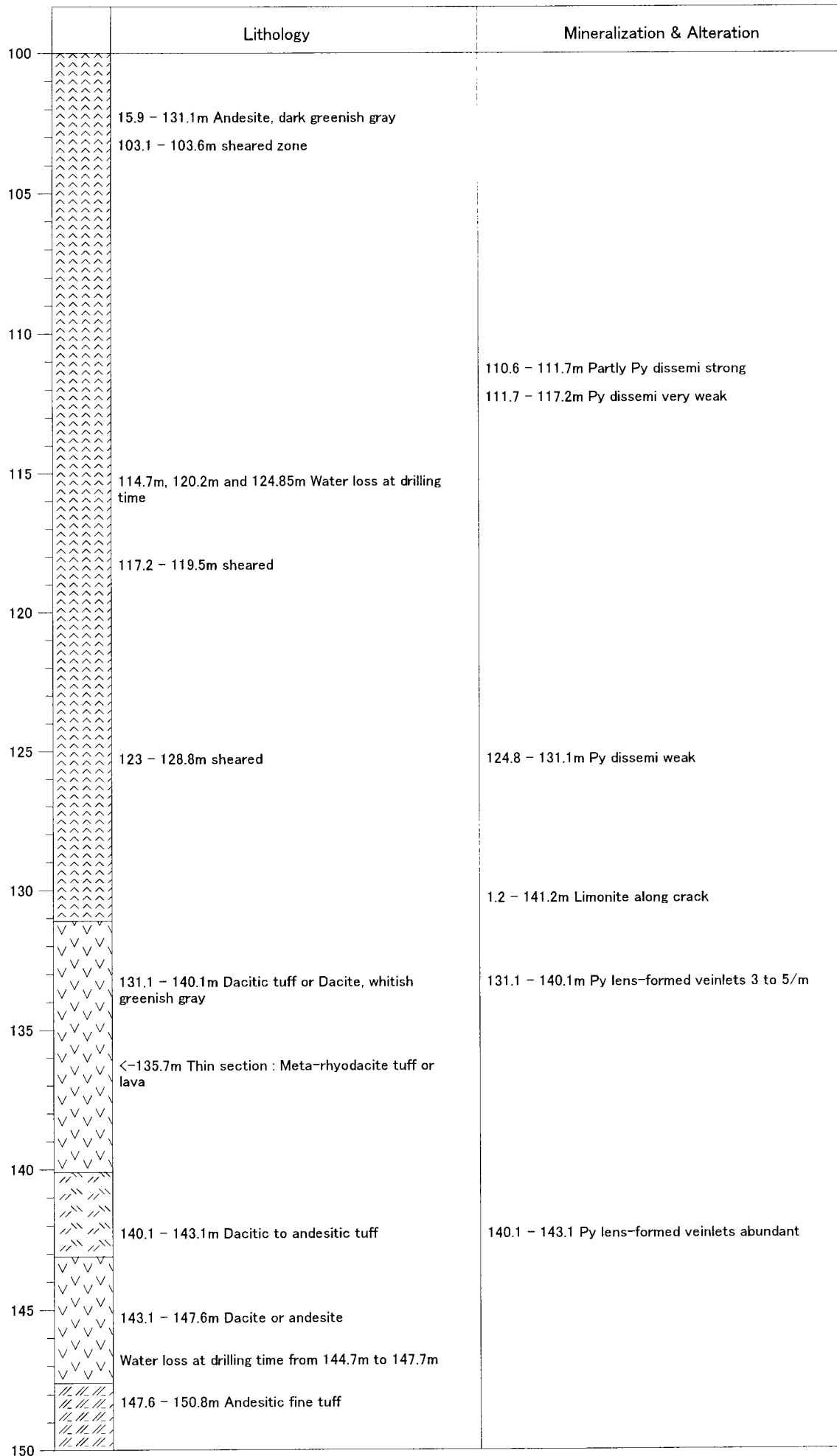
Inclination : -55

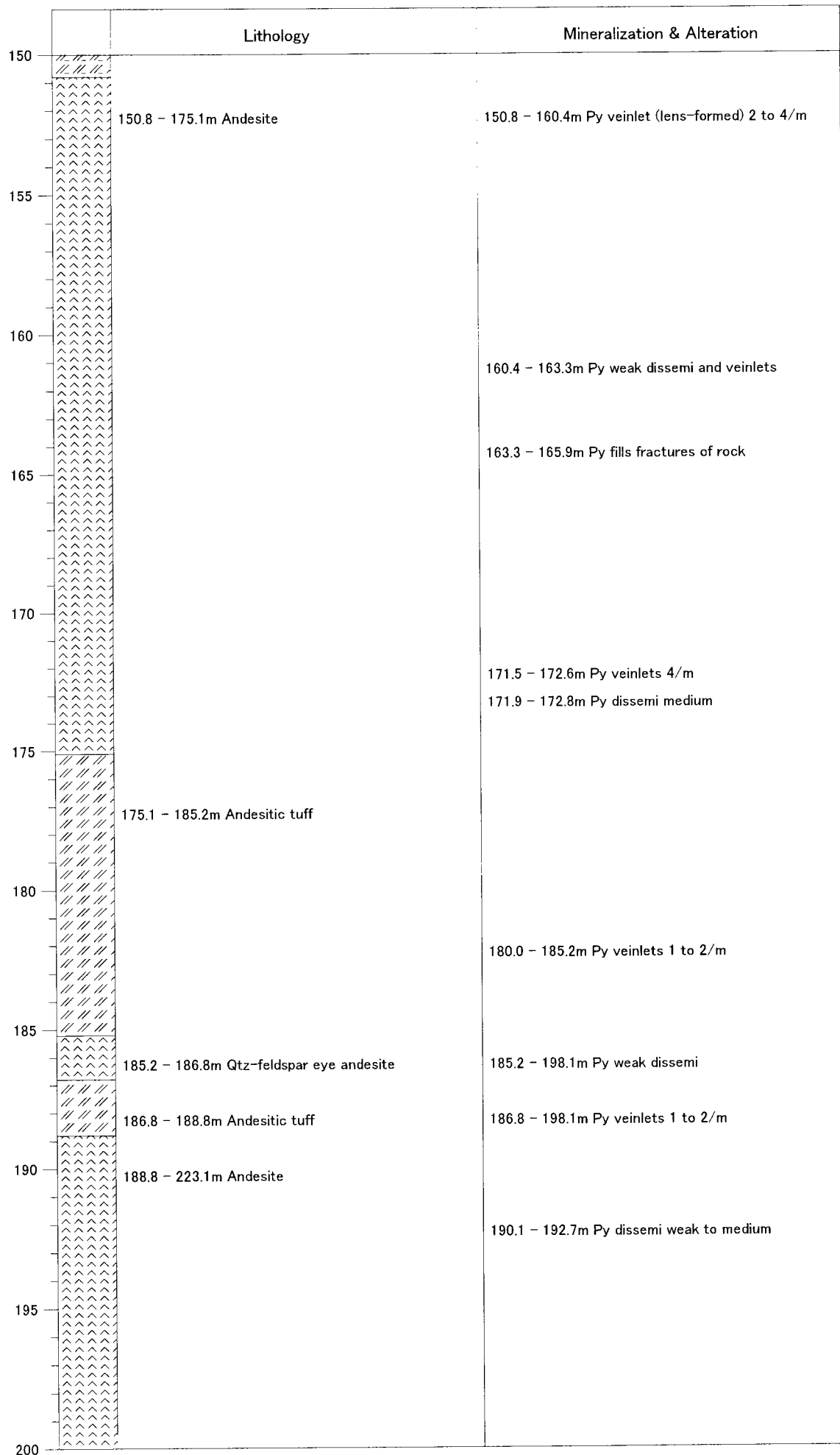
Drilled by SGS/BRGM



21







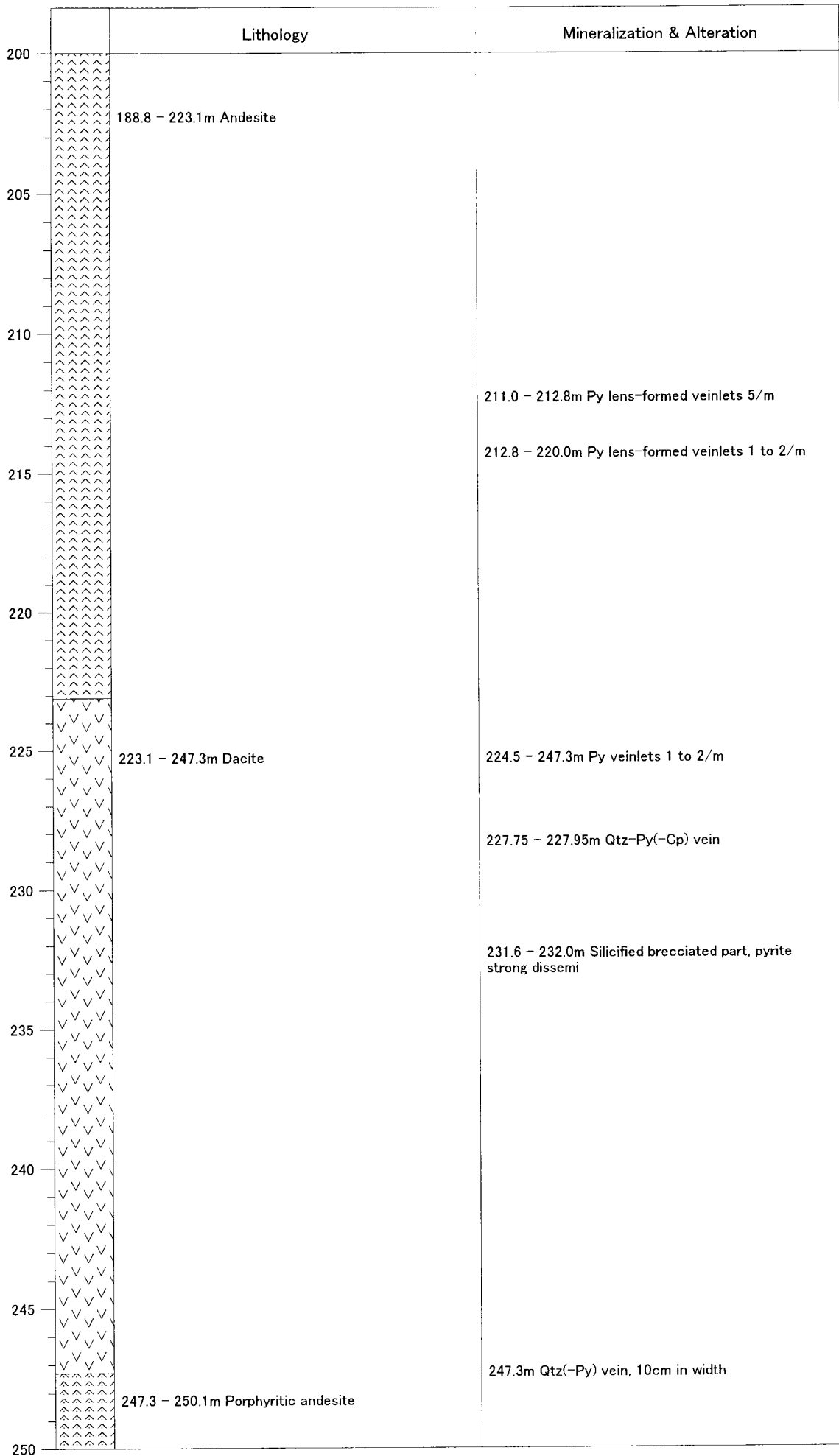
Drill Hole No. : MJSU-12      Date Started Oct. 2, 2000      Date Completed : Oct. 11, 2000

Easting : E 709.939      Northing : N 2,617.550      Elevation (mSL) : 965

Azimuth : 270

Inclination : -55

Drilled by SGS/BRGM



Drill Hole No. : MJSU-13

Date Started Oct. 9, 2000

Date Completed : Oct. 23, 2000

Easting : E 709.835

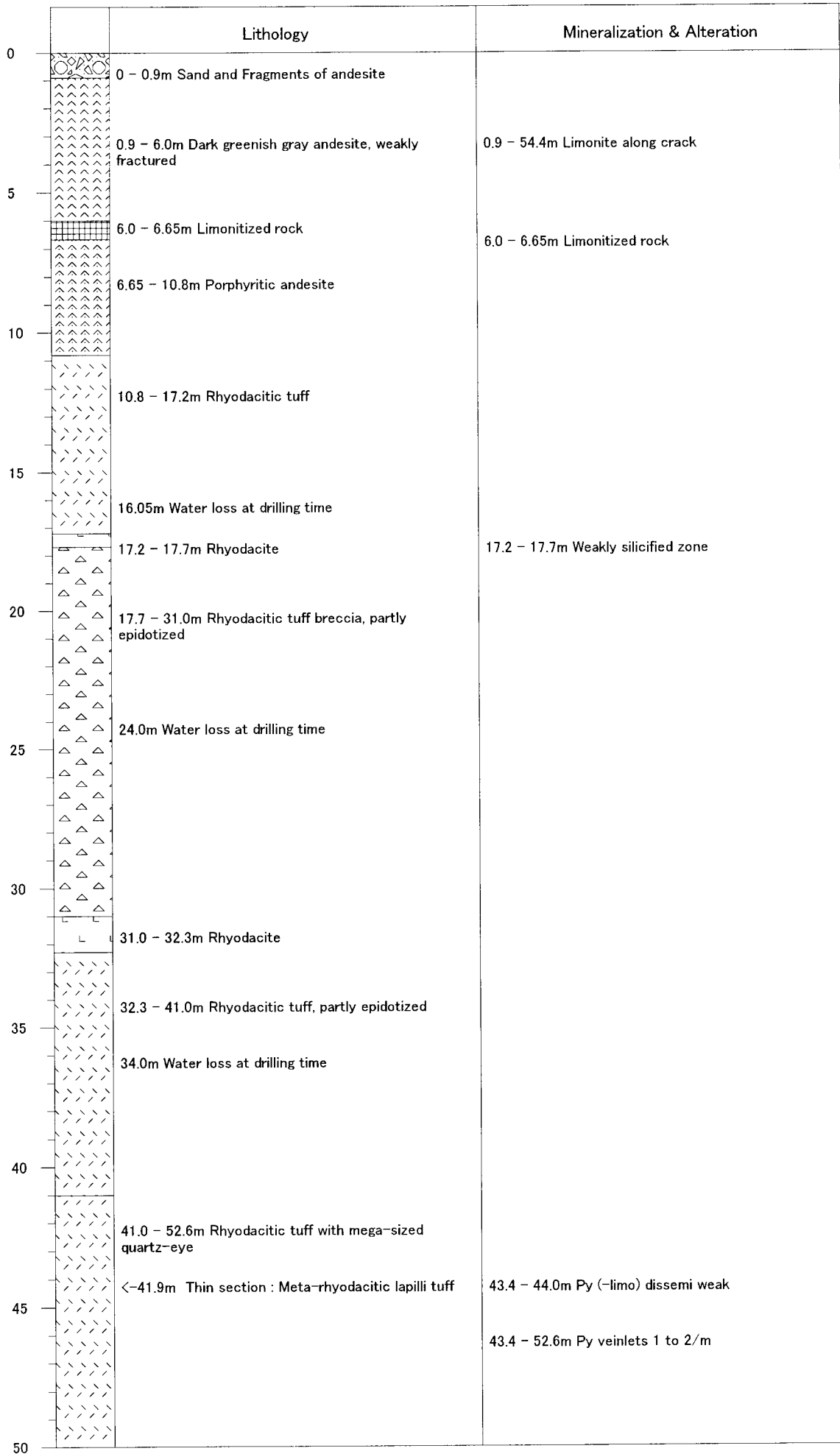
Northing : N 2,617.120

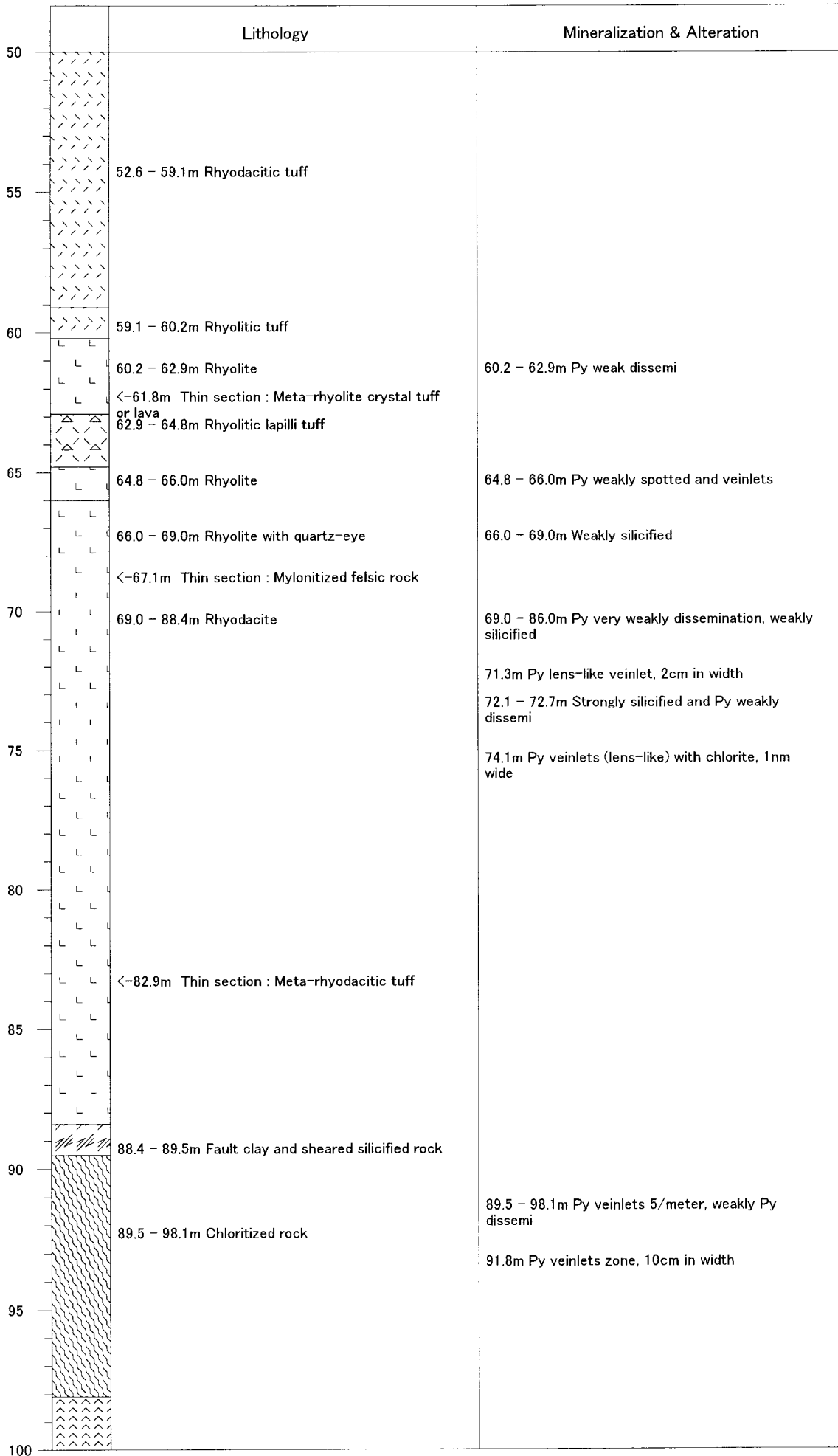
Elevation (mSL) : 965

Azimuth : 330

Inclination : -55

Drilled by SGS/BRGM



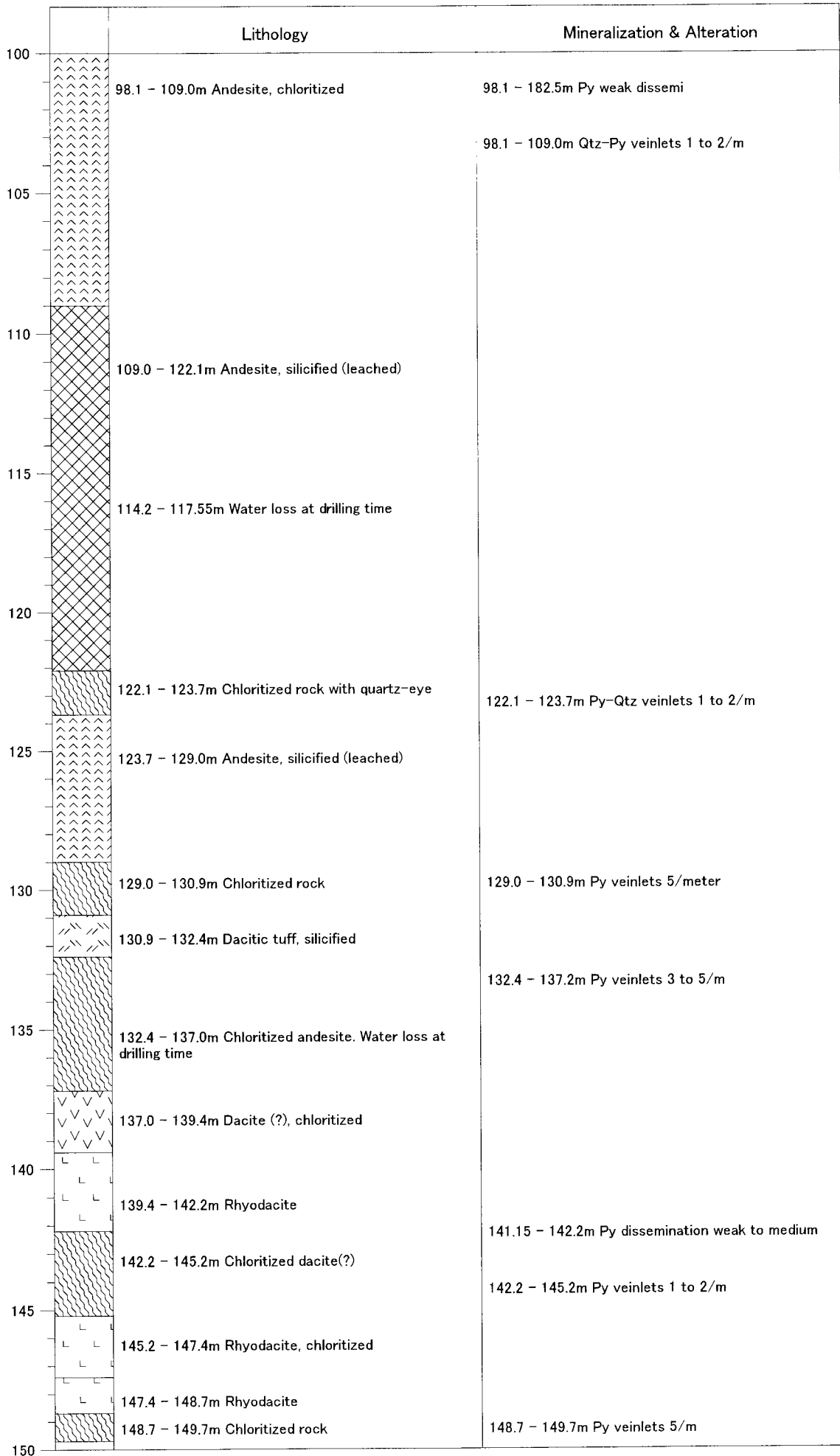


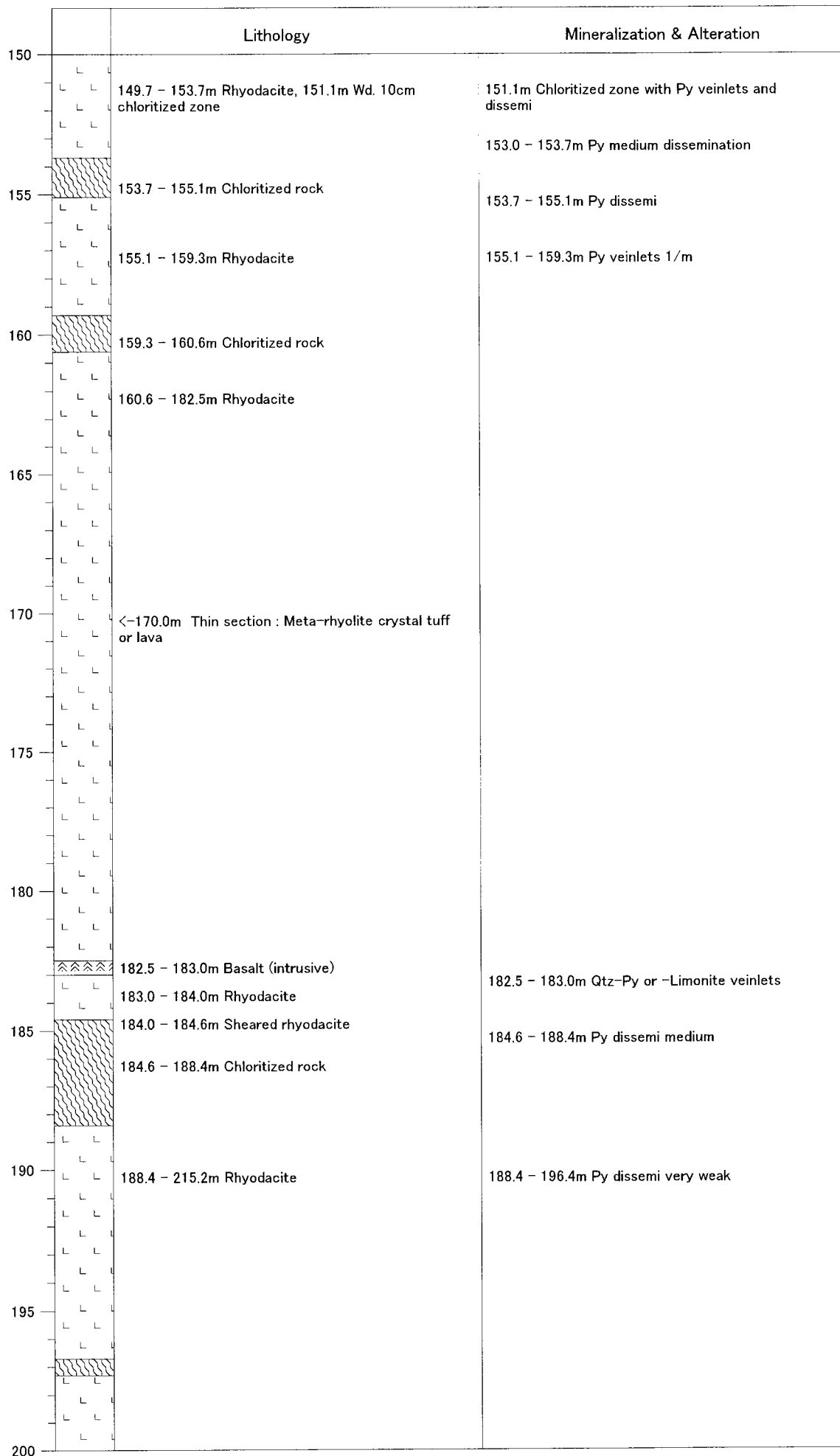
Drill Hole No. : MJSU-13      Date Started Oct. 9, 2000      Date Completed : Oct. 23, 2000

Easting : E 709.835      Northing : N 2,617.120      Elevation (mSL) : 965

Azimuth : 330      Inclination : -55

Drilled by SGS/BRGM



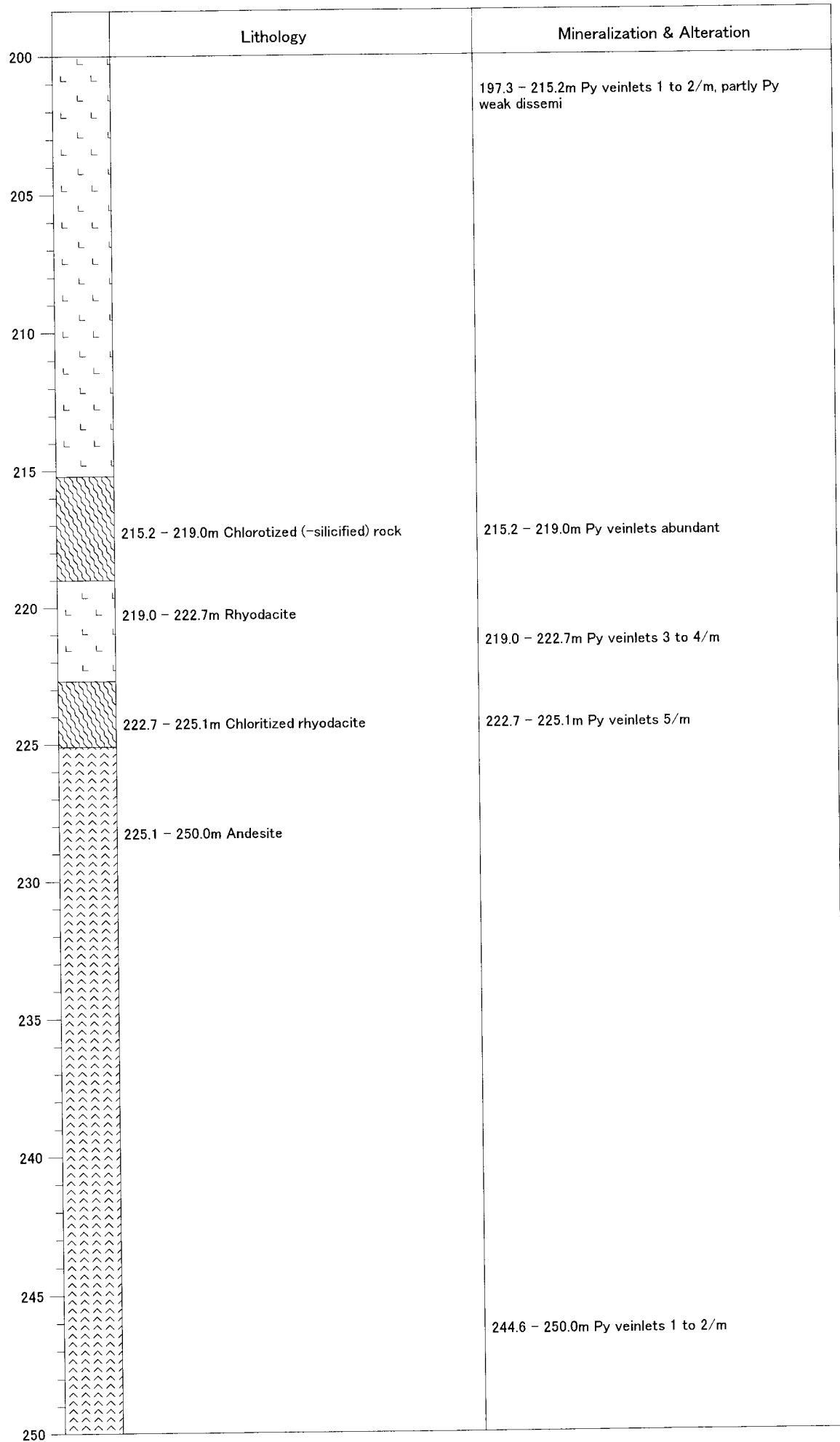


Drill Hole No. : MJSU-13      Date Started Oct. 9, 2000      Date Completed : Oct. 23, 2000

Easting : E 709.835      Northing : N 2,617.120      Elevation (mSL) : 965

Azimuth : 330      Inclination : -55

Drilled by SGS/BRGM





	Lithology	Mineralization & Alteration
0	0 - 1.0 m Strongly weathered rock	
5	1.0 - 19.0m Rhyodacitic tuff breccia, pale greenish gray	2.6 - 4.0m Weakly spotted limonite (hematite) in silicified breccia
10	12.0 - 12.2m Sheared and weathered zone	8.9 - 13.5m Quartz-calcite-sericite-chlorite veinlet, wd <1cm
15	19.05m and 21.85m Water loss at drilling time	13.5 - 14.2m Hema+limo. network + stained 14.2 - 18.0m Weakly spotted py - limo aggregates in breccia
20	19.0 - 22.7m Rhyodacitic lapilli tuff	18.0m Spotted py aggregates in matrix 19.0 - 22.7m Partly py spotted aggregates in breccia (max. 3mm)
25	22.7 - 22.9m Rhyodacitic tuff	22.7m Quartz veinlet wd. 1cm parallel to bedding
30	22.9 - 36.9m Rhyodacitic tuff breccia, pale greenish gray	23.7m Py aggregates in lens form in matrix (wd 1cm, length 3cm) 25.8m Py aggregates in lens form in matrix (wd 0.7cm)
35		30.6m Quartz veinlet cutted by py-cp-qtz veinlet (wd. 1cm) 33.0m - Very weakly py dissemi. in matrix
40	36.9 - 60.2m Rhyodacitic lapilli tuff, pale green	36.9 - 60.2m Partly py aggregates mainly in matrix
45		
50		

	Lithology	Mineralization & Alteration
50		
55		
60	60.2 - 68.0m Rhyodacitic tuff breccia, pale green	60.2 - 67.8m Partly py (-cp) aggregates in matrix, angular, cutted by calcite micro-veinlet
65		
70	68.0 - 70.0m Rhyodacitic lapilli tuff, pale green	67.8 - 68.3m Py-cp aggregates in breccia and matrnx
75	70.0 - 72.9m Basalt ( Micro-diorite ? ), dark green	69.0 - 69.5m Py-cp spotted aggregates in veinlet form (wd. 0.5-1cm)
	72.9 - 75.7m Rhyodacitic lappilli tuff	
	75.7 - 86.6m Rhyodacitic tuff, pale greenish gray	75.7 - 86.6m Py weakly dissemi.
80		
85	<84.1m Thin section : T-1 Fine vitric tuff of dacitic composition	
	86.8 - 90.0m Basalt (?), pale greenish gray	
	<- 88.0m Thin section : T-2 Reworked tuff of intermediate composition	
90		90.0 - 97.1m Hema-qtz irregular form
	90.0 - 98.6m Rhyodacite (?), pale greenish gray	
95		
100	98.6 - 109.4m Rhyodacitic lapilli tuff with black fragments or layers in matrix	97.9 - 98.3m Py strong dissemi.

	Lithology	Mineralization & Alteration
100		
	98.6 - 109.4m Rhyodacitic lapilli tuff with black fragments or layers in matrix	98.6 - 109.4m Py dissemi. (medium)
105		
	109.4 - 115.0m Rhyodacite, massive, partly flow-banded, pale greenish gray	109.4 - 115.0m Py dissemi. (medium), partly py-qtz aggregates 2x4mm
110		
	115.0 - 122.0 Rhyodacitic tuff breccia, partly rhyodacite	115.0 - 122.0m Py dissemi. medium to weak
115		
	122.0 - 129.55m Rhyodacitic tuff, pale greenish gray	122.0 - 132.65m Py dissemi. weak
120		
	123.1 - 123.3m Basalt	125.6 - 126.5m Weakly arg.
125		
	129.55 - 132.65m Basaltic tuff	
130		
	132.65 - 135.75m Basalt(?)	132.7m Several Cp-Qtz veinlets
135		
	135.75 - 136.5m Basaltic tuff	
	136.5 - 138.8m Basalt	136.5 - 141.5m Py dissemi. weak
	<- 136.8m Thin section : T-3 Meta-andesitic to dacitic fine tuff	
140		
	138.8 - 139.5m Basaltic tuff	140.2 - 141.1m Many Py-Qtz veinlets parallel to bedding, wd. 1 to 2cm.
	139.5 - 141.5m Rhyodacite, flow-banded	
	141.5 - 144.5m Basalt - basaltic tuff	141.5 - 154.4m Py dissemi. weak to medium
145		
	144.5 - 146.3m Rhyodacitic tuff, partly containing basalt breccia	
	146.3 - 154.4m Basaltic tuff, pale gray	
150		148.0 - 150.5m Py-Qtz veinlets - network

	Lithology	Mineralization & Alteration
150		150.5 - 152.6m Qtz-Py network
155	154.4 - 154.6m Lapilli tuff ( basic ?)	154.0 - 154.2m Py veinlets - network 155.4m Py disseminated band, wd.2cm
	154.6 - 158.6m Rhyodacitic tuff, pale greenish gray	158.6 - 159.6m Py dissemi very weak
	158.6 - 159.6m Rhyodacitic lapilli tuff	159.6 - 160.8m Py-Qtz veinlets, Py dissemi medium to strong
160	159.6 - 160.8m Basalt, dark gray	160.8 - 165.7m Py dissemi very weak, partly Py-Qtz aggregates
	160.8 - 166.1m Rhyodacitic tuff, partly lapilli tuff, pale greenish gray	
165		165.7 - 166.3m Py-Qtz veinlets, Py dissemi strong, silicified
	166.1 - 168.8m Black shale or shale flattened ball in rhyodacitic tuff <- 167.2m Thin section : T-4 Phyllite (meta-volcanic equivalent of fine dacitic tuff)	166.3 - 168.8m Py dissemi medium 168.8 - 169.1m Py weak to medium disseminated
	168.8 - 169.1m Basaltic tuff	
170	169.1 - 170.8m Rhyodacitic lapilli tuff	169.1 - 170.8m Py medium dissemi.
	170.8 - 171.7m Basaltic tuff	170.8 - 172.3m Py dissemi strong 170.8 - 172.3m Py dissemi medium to strong
	171.7 - 176.8m Basalt breccia in rhyodacite or rhyodacitic tuff	172.3 - 176.8m Py dissemi weak to medium
175		
	176.8 - 182.0m Basaltic tuff, dark gray	176.8 - 179.0m Py weak dissemi.
180		179.0 - 182.0m Py-Qtz aggregates or veinlets rich
	182.0 - 185.6m Rhyodacitic tuff containing black mud patch	182.0 - 185.6m Py dissemi weak, partly Py-Cp strong dissemi.
185		
	185.6 - 190.9m Basalt breccia filled with rhyodacite <- 188.5m Thin section : T-5 Highly sheared meta-volcanic rock	185.6 - 190.9m Py dissemi weak to nul.
190		
	190.9 - 195.7m Dark gray basaltic tuff	190.9 - 195.7m Py dissemi weak, Many Py-Qtz veinlets (wd.<1cm)
195		
	195.7 - 196.3m Basaltic tuff, dark gray	195.7 - 196.3m A lot of Cp-Py patch, Py patch (wd.<3mm) and basaltic tuff layers in tuff
	198.9 - 199.2m Tuff with black mud patch, basalt fragments	198.9 - 202.9m Py weak dissemi.
200		

	Lithology	Mineralization & Alteration
200	199.2 - 202.9m Dark gray basaltic tuff	
	203.2 - 204.1m Rhyodacitic tuff with black mud patch, gray	202.9 - 203.2m Siliceous tuff with black mud patch, Qtz layers, Py-Qtz patch and Py impregnation
205	204.45 - 204.5m Gray muddy tuff	204.1 - 204.45m Gray tuffaceous mud with Py-Cp-Sp-Qtz inpregnation and layers
	204.5 - 209.6m Rhyodacitic tuff, partly with black mud patch, pale greenish gray	
210	209.6 - 210.9m Rhyodacitic lapilli tuff, pale greenish gray	209.6 - 210.9m Py weak dissemi
	210.9 - 214.1m Rhyodacitic lapilli tuff with black mud patch	210.9 - 214.1m Py weak dissemi, weakly sili 214.1 - 215.5m Strong silicified, Py weak dissemi
215	214.1 - 215.5m Whitish gray strong silicified rock with mud patch	215.5 - 219.15m partly Py or Py-Cp veinlets and aggregats
	215.5 - 219.15m Lapilli tuff with mud patch	219.15 - 219.8m Py-Cp patch, Py weak dissemi, partly Py-Cp aggregates
	219.15 - 219.8m Muddy lapilli tuff	219.8 - 220.1m Py-Cp strongly impregnated in mud
220	219.8 - 220.1m Black mud	220.1 - 220.2m Barren Qtz vein
	220.9 - 221.0m Black shale	220.2 - 220.9m Fine banded ore (Sp rich + Py-Cp or unknown mineral rich), wd of bands 1 to 15 mm
	221.0 - 221.2m Gray muddy tuff	
	221.75 - 221.8m Black shale	220.9 - 221.0 Py weak dissemi
225	221.8 - 222.35m Muddy lapilli tuff	221.0 - 221.2m Py or Cp patch, black shale patch, Py-Cp-Sp dissemi strong
	222.35 - 233.6m Rhyodacitic lapilli tuff with mud patch, partly tuff breccia	221.2 - 221.75m Massive sulfide ore, weakly banded with Sp rich + Py-Cp rich, Qtz-clay layers
230		221.75 - 221.8m Silicified 221.8 - 222.35m Py weak dissemi, partly Py(-Cp) aggregates
235	233.6 - 242.6m Rhyodacitic tuff breccia	234.5 - 234.9m weak sili, Py strongly spotted dissemi
240		
245	242.6 - 250.0m Rhyodacitic lapilli tuff with black mud patch	244.1 - 245.7m Py-Cp-Qtz veinlets
	242.6 - 250.0m Rhyodacitic lapilli tuff, pale greenish gray	
250		

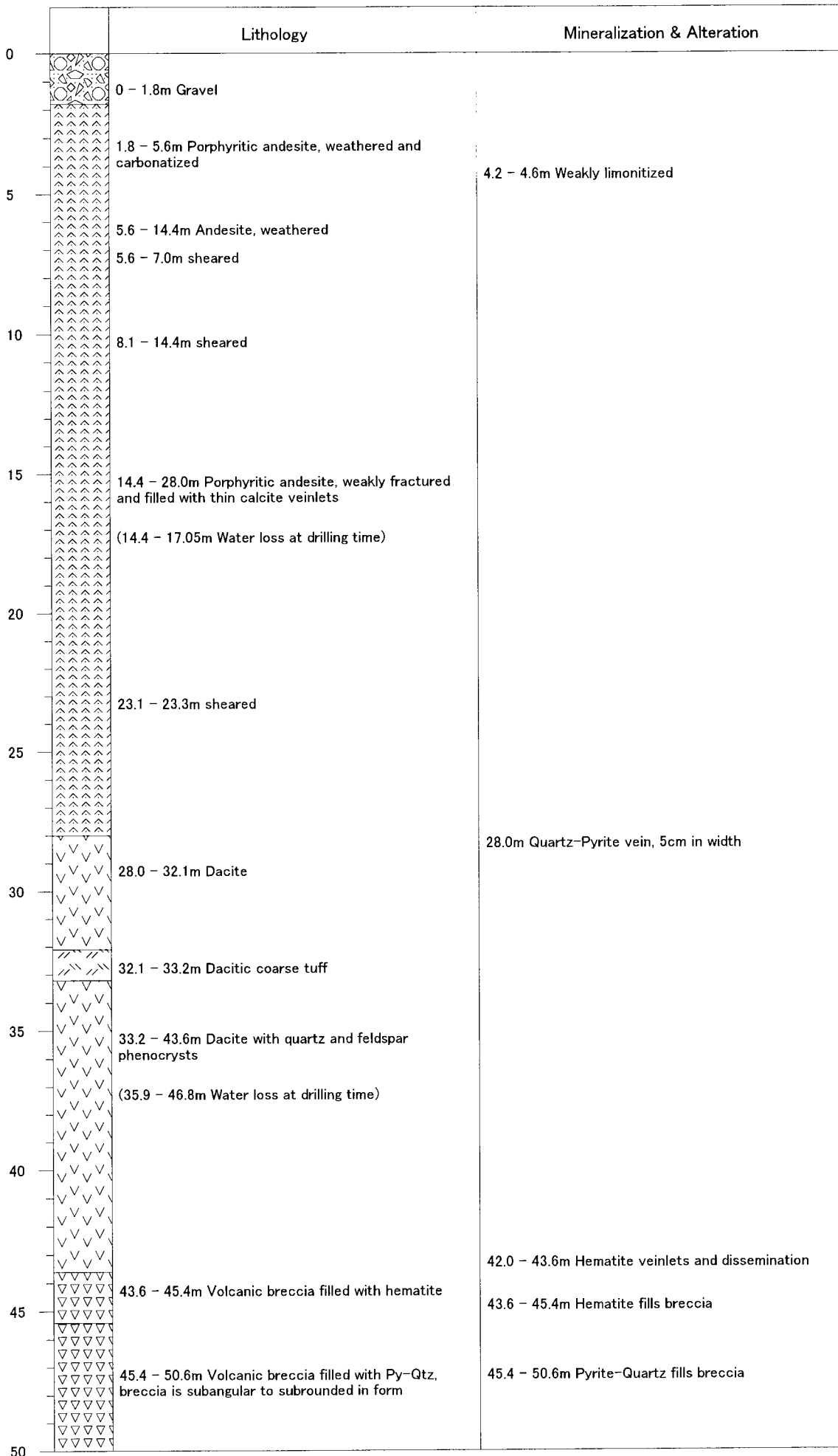
Drill Hole No. : MJSU-14      Date Started Sep. 04, 2000      Date Completed : Sep. 14, 2000

Easting : E 708.595      Northing : N 2,617.720      Elevation (mSL) : 964

Azimuth : 245      Inclination : -55

Drilled by SGS/BRGM

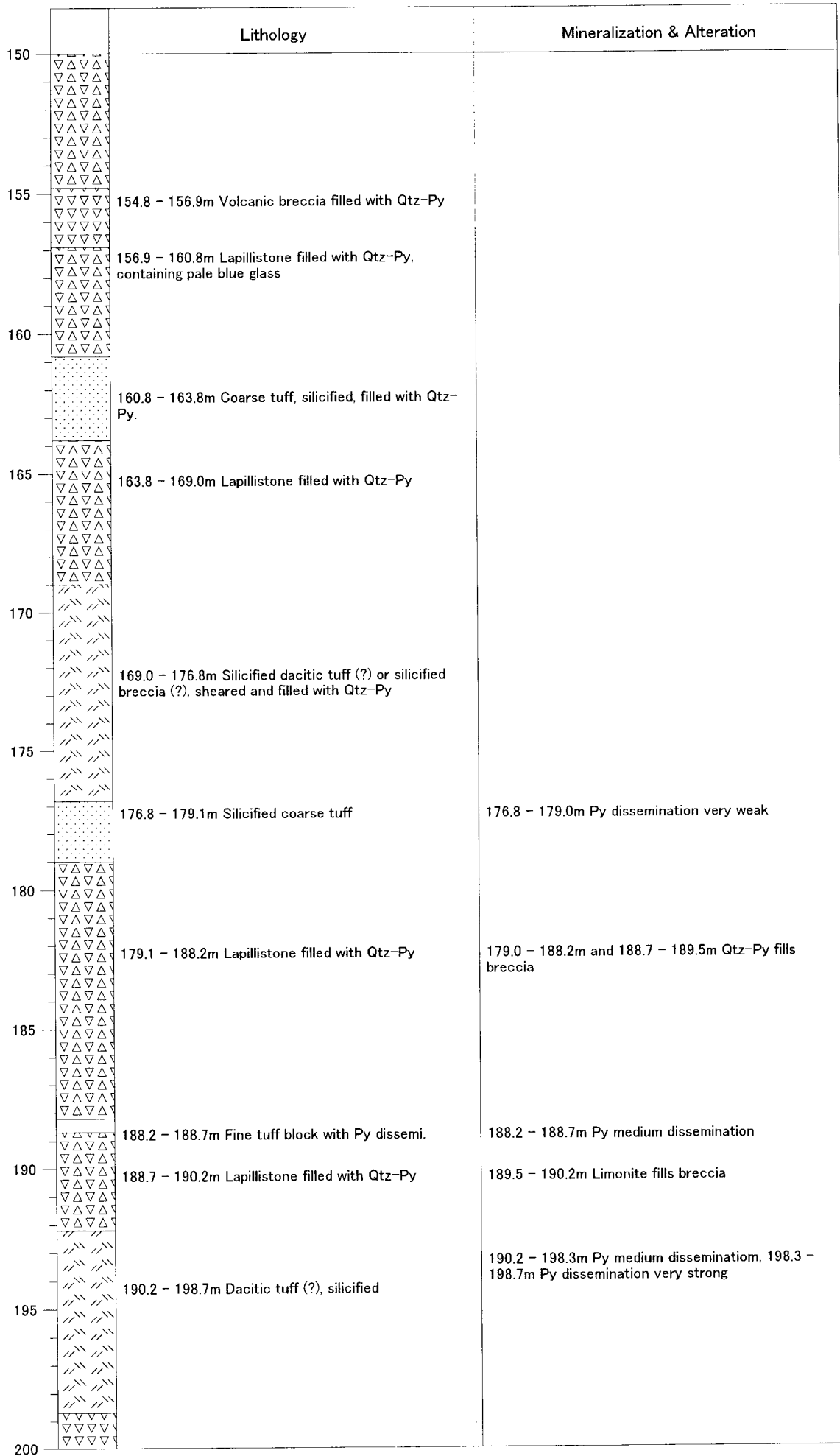
	Lithology	Mineralization & Alteration
250	250.0 - 254.0m Rhyodacitic lapilli tuff, pale greenish gray	253.3m Py veinlet
255	254.0 - 256.4m Rhyodacitic tuff	
	256.4 - 265.2m Rhyodacitic tuff breccia	256.4 - 265.2m Weakly silicified, Py weak dissemi.
260		
265	265.2 - 266.6m Basaltic tuff	
	266.6 - 274.6m Rhyodacitic tuff breccia	265.6 - 274.6m Weakly silicified, Py weak dissemi.
270		



	Lithology	Mineralization & Alteration
50	50.6 - 51.9m sheared - argillized breccia with Qtz-Py	
	51.9 - 60.3m Lapillistone to lapilli tuff with Qtz-Py, with ochre colored silicified glass	50.6 - 60.3m Qtz-Py fills breccia
55	(55.4 - 56.2m Water loss at drilling time)	
60	60.3 - 61.5m Sheared and silicified dacite (?) filled with Py-Qtz	60.3 - 61.5m Py-Qtz fills breccia
	61.5 - 80.0m Lapillistone filled with Qtz-Py, fragments are mainly subrounded silicified rock. Size of fragments is less than 1cm.	61.5 - 80.0m Qtz-Py fills breccia
70		
75		
80	80.0 - 81.0m Dacitic tuff (?)	80.0 - 81.0m Py dissemination very weak
	81.0 - 91.8m Lapillistone with Qtz-Py, containing pale green glass abundantly	81.0 - 121.7m Qtz-Py fills breccia
85	(82.8 - 85.8m and 88.8 - 91.8m Water loss at drilling time)	
90		
95	91.8 - 100.0m Coarse tuff filled or disseminate with Qtz-Py, containing pale blue or green argillized glass, partly with big rock fragments(maximum 3cm in length)	
100		



	Lithology	Mineralization & Alteration
100		
100.0 - 121.7m	Lapillistone filled with Qtz-Py, fragments : conglomerate, chert (?), Py-disseminated rock, pale blue silicified glass	
105		
110		
111.8 - 112.0m	Argillized zone	
115		
120		
121.7 - 128.0m	(Sheared) Volcanic breccia filled with Py	121.7 - 128.0m Py-Qtz fills breccia
125		
130		
128.0 - 137.8m	Volcanic breccia filled with Qtz-Py, partly containing big angular fragments (>5cm) and pale blue glassy clay, fragments : chert, ochre silicified glass, siltstone(?), dacite(?).	128.0 - 142.0m Qtz-Py fills breccia
135		
137.8 - 142.0m	Coarse tuff filled with Qtz-Py and pale blue glass (clay), partly containing argillized breccia (<3cm).	
140		
142.0 - 145.4m	Pale gray dacite (or andesite) intrusive	
145		
145.4 - 154.8m	Lapillistone filled with Qtz-Py, fragments < 1cm.	145.4 - 176.8m Qtz-Py fills breccia
150		

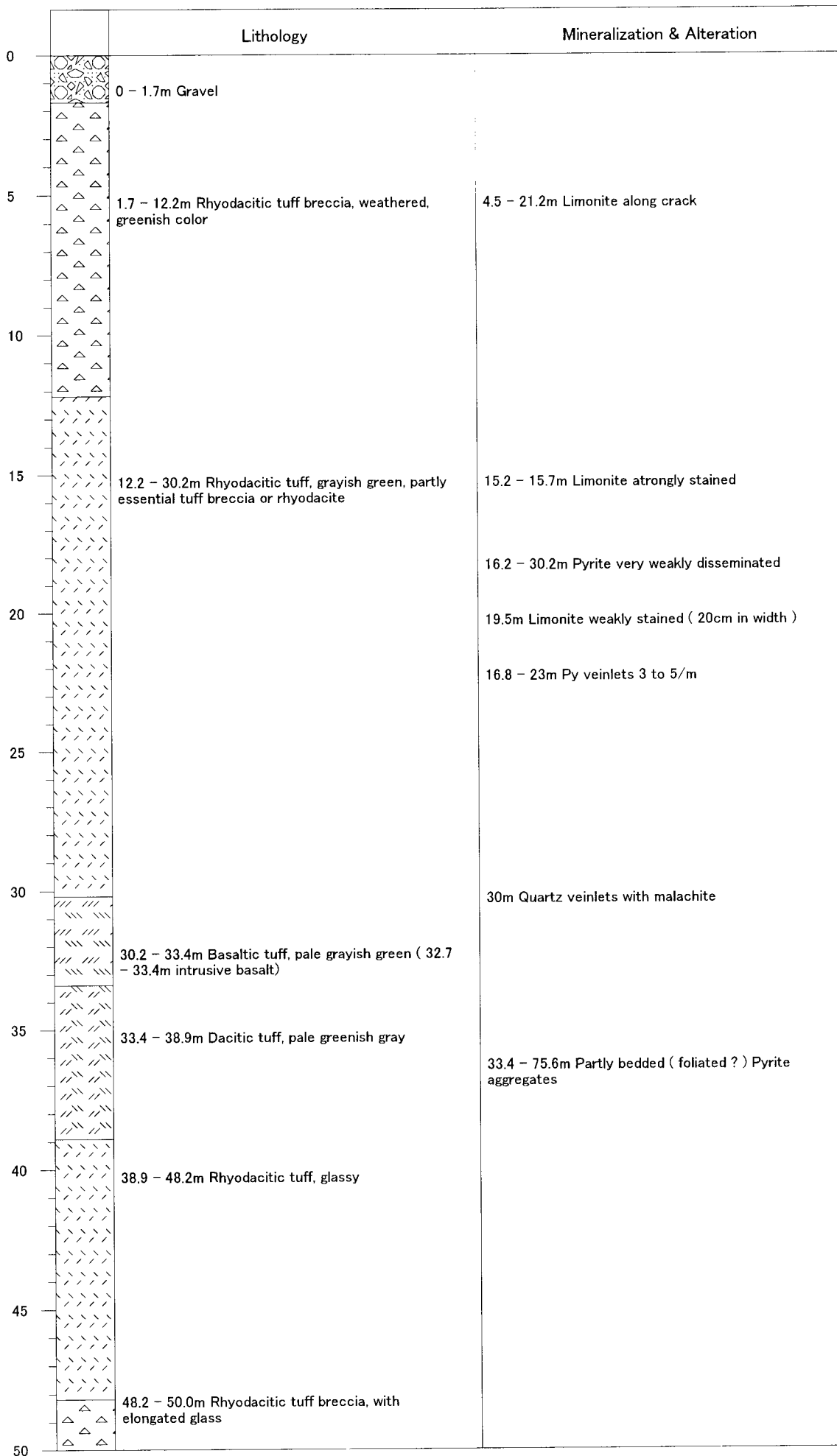


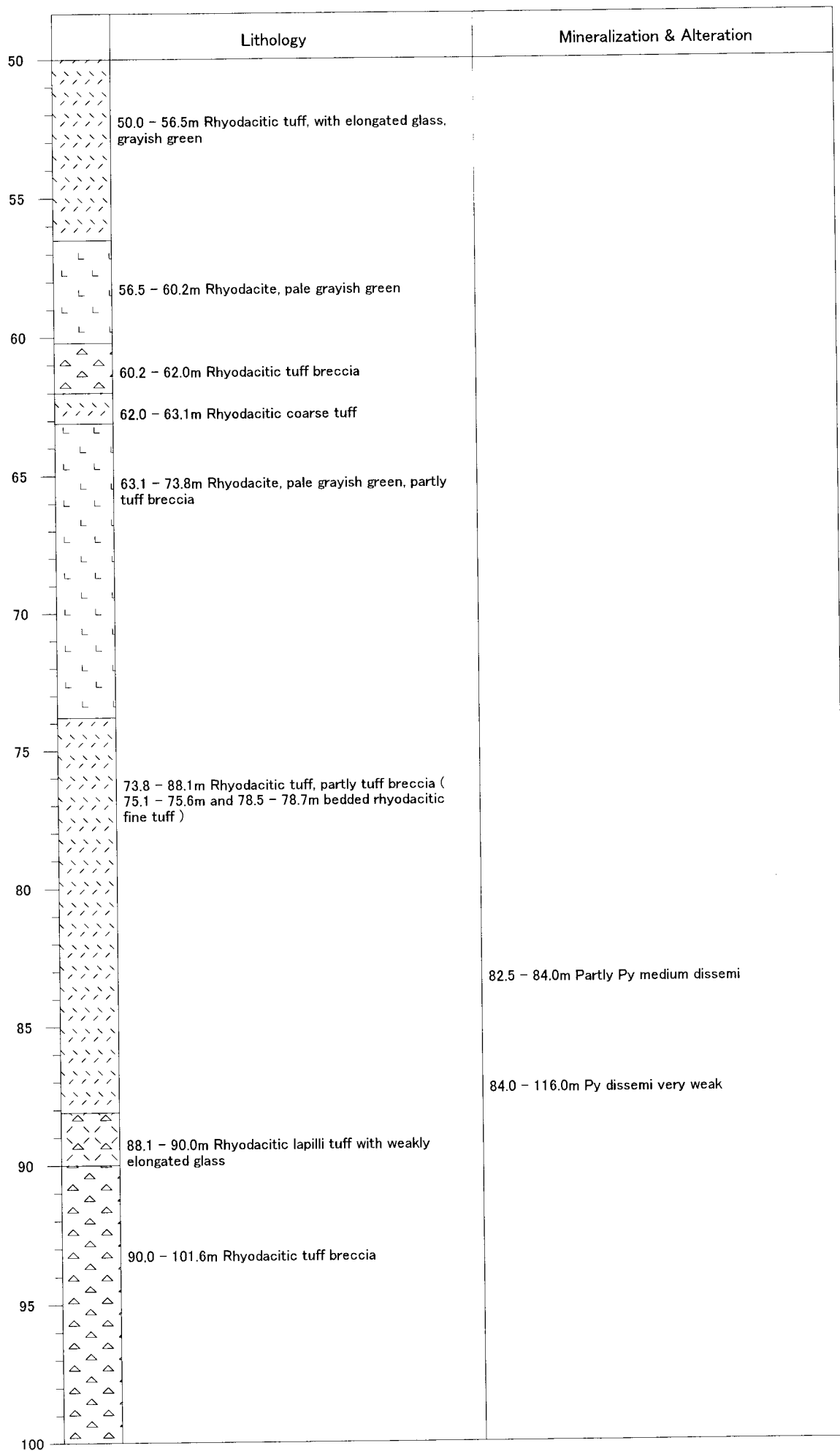
	Lithology	Mineralization & Alteration
200	198.7 - 203.1m Breccia composed of monolithology (dacite ? ) filled with Py-Qtz. Fragments size is variable.	198.7 - 203.1m Py-Qtz fills breccia
205	203.1 - 210.5m Volcanic breccia with pale blue glass, filled with Qtz-Py	203.1 - 210.5m Qtz-Py fills breccia
210	210.5 - 212.9m Silicified breccia , partly massive silicified rock, or filled with ochre-colored quartz	210.5 - 212.9m Py veinlets or Py fills fractures
215	212.9 - 220.8m Rhyodacite or dacite (?), silicified	212.9 - 220.8m Py strong dissemination
220	220.8 - 227.7m Lapillistone filled with Qtz-Py, partly composed of very fine-grained fragments (coarse sand size)	220.8 - 227.7m Qtz-Py fills breccia
225	227.7m Fault clay	227.7 - 227.8m Py strong dissemination
230	227.7 - 227.8m Dacite (?) intrusive	
	227.8 - 232.0m Lapillistone. Abundant fragments filled with Py-Qtz	227.8 - 232.0m Py-Qtz fills breccia
	232.0 - 233.1m Dacite (?) intrusive (?)	232.0 - 233.1m Py dissemination weak to medium
235	233.1 - 235.7m Lapillistone. Abundant fragments filled with Py-Qtz	233.1 - 235.7m Py-Qtz fills breccia
	235.7 - 236.6m Dacitic tuff	235.7 - 236.6m Py dissemination strong
	236.6 - 240.8m Volcanic breccia, partly containing dacitic tuff big fragments	236.6 - 240.8m and 241.7 - 243.7m Qtz-Py fills breccia
240	240.8 - 241.7m Andesite, intrusive	
	241.7 - 243.7m Volcanic breccia, partly containing dacitic tuff big fragments	
245	243.7 - 249.2m Dacitic tuff (?) with pale blue glass patch, rarely arranged in bedding or shear plane.	243.7 - 249.2m Py dissemi medium
250		

	Lithology	Mineralization & Alteration
250	249.2 - 251.2m Lapillistone with pale blue glass fragments	249.2 - 251.2m Qtz-Py fills breccia
	251.2 - 252.8m Silicified Lapillistone cutted by siliceous vein	
255	252.8 - 256.6m Dacitic lapilli tuff, partly containing pale blue glass fragments, rarely this kind of glass fills fractures.	252.8 - 256.6m Qtz-Py fills breccia
		256.6 - 271.5m Very rarely Qtz-Py veinlets
260	256.6 - 271.5m Porphyritic andesite. Feldspar phenocrysts are 8mm in maximum size.	
265		
270		
275	271.5 - 279.7m Silicified andesite or porphyritic andesite	
280		279.7 - 286.4m Py dissemi weak
	279.7 - 286.9m Silicified massive rock, fractures filled with pale blue or ochre or dark green silicified glasses.	
285		
	286.9 - 289.7m Porphyritic andesite ( 289.7 - 290.2m Silicified breccia with pale blue silicified glass )	286.4 - 289.7m Rarely Py dissemi
290		
	290.2 - 296.6m Andesite, dark grayish green	
295		
	296.6 - 306.9m Silicified massive rock, partly fractures filled with Py-Qtz.	296.6 - 299.8m Py dissemi partly
300		

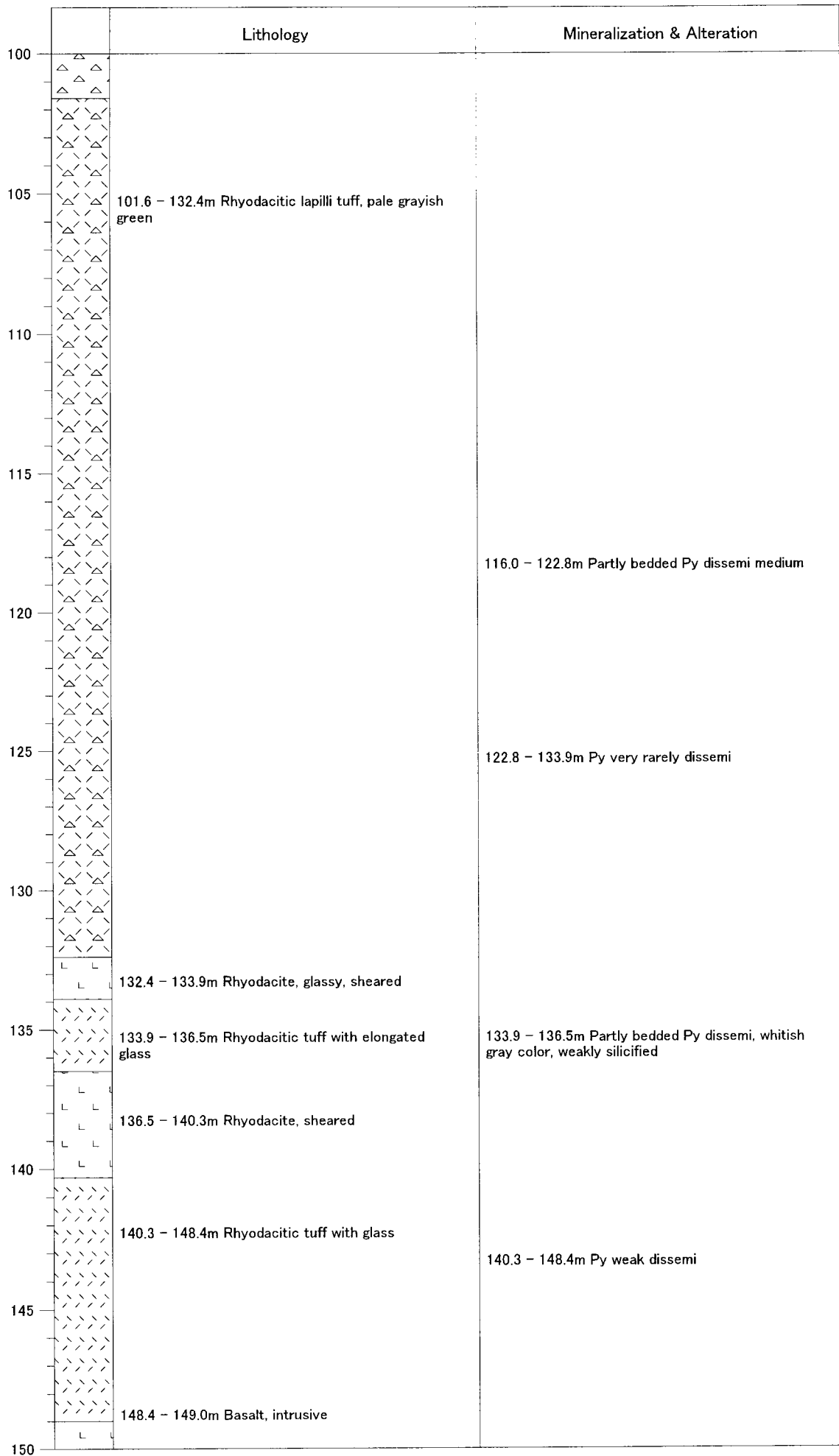
	Lithology	Mineralization & Alteration
300 305	<- 300.2m Thin section : T-31 Meta-rhyodacitic lithic tuff	299.8 - 306.9m Py-Qtz partly fills fractures, or Py-Qtz fragments occur
310 315 320	306.9 - 325.0m Silicified breccia. Fragments are mono-lithology and resemble to above massive rock. Commonly pale blue or ochre colored silicified glass fills fractures as vein-like.	306.9 - 325.0m Qtz-Py partly fills breccia. At massive parts Py dissemi weak
325 330 335	325.0 - 335.5m Conglomerate-like volcanic breccia. Matrix almost quartz, cutted and filled by pale blue or ochre glass (silicified)	332.1 - 335.6m Py dissemi strong
335	335.5 - 337.0m Andesite, intrusive	
340	337.0 - 345.5m Conglomerate-like volcanic breccia with pale blue glass, filled with Qtz-Py. Partly green-colored glass with Py dissemination fills fractures. 341.6 - 341.7m Andesite intrusive.	337.0 - 341.6m ,341.7 - 346.5m and 351.1 - 351.4m Qtz-Py fills breccia
345	345.5 - 348.6m Andesite, intrusive	
350	348.6 - 351.4m Conglomerate-like volcanic breccia with pale blue glass, filled with Qtz-Py. (350.8 - 351.1m Andesite intrusive)	

	Lithology	Mineralization & Alteration
350	<p>350.8 - 351.1m Andesite to porphyritic andesite</p> <p>351.1 - 351.4m Mono-lithologic breccia, filled with Qtz(-Py)</p> <p>351.4 - 355.2m Andesite intrusive</p>	
355	<p>355.2 - 365.1m Porphyritic andesite</p>	
360		
365	<p>365.1 - 367.05m Strongly silicified rock, partly breccia, cutted by green or ochre silicified glass</p> <p>367.05 - 372.1m Siliceous sandstone or tuff, cutted or filled by ochre quartz, partly brecciated</p> <p>372.1 - 373.5m Andesite</p> <p>373.5 - 375.65m Brecciated tuff or silicified rock, filled with ochre quartz, again fractured and filled with green or ochre quartz</p>	<p>365.1 - 365.6m A few Py veinlets</p> <p>365.6 - 366.55m Py fills spottedly some fractures</p> <p>367.15 - 372.1m Partly Py filling fractures or occurring spottedly, almost barren for sulfide</p> <p>373.5 - 375.65m Py fills fractures with green or ochre quartz</p>
370		
375		









	Lithology	Mineralization & Alteration
150	-149.0 - 154.0m Rhyodacite, weak silicified	148.4 - 154.0m Py dissemi weak to medium, partly Py-Qtz veinlets bands
155	154.0 - 162.1m Dacite with quartz phenocrysts, weak silicified (intrusive?)	154.0 - 162.1m Py weak dissemi
160	162.1 - 165.6m Rhyodacite	
165	165.6 - 167.3m Rhyodacitic essential lapilli tuff	
167.3	167.3 - 167.5m Rhyodacitic accidental lapilli tuff with basaltic tuff fragments	
170	167.5 - 170.5m Rhyodacitic tuff to essential lapilli tuff	
175	170.5 - 173.1m Rhyodacitic tuff with elongated glass, rarely lapilli size fragments	
173.1	173.1 - 173.5m Basalt intrusive	
180	173.5 - 180.3m Rhyodacitic tuff with elongated glass, rarely lapilli size fragments	
185	180.3 - 210.0m Rhyodacitic tuff with big elongated glass, partly containing breccia-sized fragments, rarely intercalated by thin fine tuff	180.3 - 210.0m Py dissemi very weak
190		193.8 - 194.3m Py medium to strong dissemi in grayish color part
195		198.2 - 199.2m Py strong dissemi in grayish white color part
200		

Drill Hole No. : MJSU-16      Date Started Oct. 24, 2000      Date Completed : Oct. 31, 2000

Easting : E 708.566      Northing : N 2,617.598      Elevation (mSL) : 960

Azimuth : 245      Inclination : -55

Drilled by SGS/BRGM

	Lithology	Mineralization & Alteration
200		
205		
210		

Appendix 28 Borehole Deviations of MJSU-9 to MJSU-16

Drill Hole No.	Depth (m)	Direction (degree)	Inclination (degree)
MJSU-9	0.0	155	-55
	100.0	157	-53
	200.0	161	-51
	379.5	163	-48
MJSU-10	0.0	300	-55
	100.0	300	-55
	200.0	300	-51
	300.0	300	-51
	350.0	300	-50
MJSU-11	0.0	150	-55
	100.0	154	-54
	250.0	158	-54
MJSU-12	0.0	270	-55
	100.0	278	-54
	200.0	278	-51
	250.0	279	-50
MJSU-13	0.0	330	55
	100.0	336	54
	249.5	337	53
MJSU-14	0.0	245	-55
	100.0	244	-54
	200.0	245	-52
	274.0	248	-50
MJSU-15	0.0	335	-70
	100.0	340	-68
	200.0	337	-67
	375.0	348	-64
MJSU-16	0.0	245	55
	100.0	250	53
	209.5	250	50

Appendix 29 Results of Ore Assay(1)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-9	2.70	4.20	1.50	<0.05	<1.0	192	77	13	<0.05
	5.70	7.20	1.50	<0.05	<1.0	113	14	11	<0.05
	8.70	10.20	1.50	<0.05	<1.0	100	66	17	0.25
	11.70	13.20	1.50	<0.05	<1.0	104	44	16	0.44
	14.70	16.20	1.50	<0.05	<1.0	34	12	7	<0.05
	17.70	19.20	1.50	<0.05	1.0	86	8	20	<0.05
	20.70	22.20	1.50	<0.05	5.5	140	23	67	<0.05
	23.70	25.20	1.50	<0.05	3.0	283	23	25	<0.05
	26.70	28.20	1.50	<0.05	1.7	132	60	18	<0.05
	29.70	31.20	1.50	<0.05	<1.0	92	12	11	<0.05
	32.40	33.90	1.50	0.07	1.4	114	7	27	0.90
	33.90	35.40	1.50	0.06	1.6	73	7	21	0.36
	35.40	36.90	1.50	<0.05	1.4	156	8	22	1.05
	36.90	38.40	1.50	<0.05	1.6	39	7	15	0.44
	38.40	39.90	1.50	<0.05	1.6	19	6	20	0.93
	39.90	41.50	1.60	<0.05	1.7	33	14	21	1.08
	41.50	43.00	1.50	<0.05	1.8	645	10	17	5.11
	43.00	44.50	1.50	<0.05	1.7	76	8	30	2.08
	44.50	46.00	1.50	<0.05	1.7	328	15	29	4.86
	46.00	47.50	1.50	<0.05	1.1	249	20	32	2.93
	47.50	49.00	1.50	<0.05	2.3	1,205	1,050	43	3.17
	49.00	50.50	1.50	<0.05	<1.0	83	44	8	2.94
	50.50	52.00	1.50	<0.05	<1.0	83	44	6	2.73
	52.00	53.50	1.50	<0.05	2.3	394	5,505	24	4.38
	53.50	55.00	1.50	<0.05	<1.0	153	64	12	3.26
	55.00	56.50	1.50	<0.05	<1.0	166	44	11	3.62
	56.50	58.00	1.50	<0.05	<1.0	393	60	16	5.22
	58.00	59.50	1.50	<0.05	<1.0	201	55	16	5.16
	59.50	61.00	1.50	<0.05	<1.0	317	83	13	4.75
	61.00	62.50	1.50	<0.05	1.2	459	42	15	5.26
	62.50	64.00	1.50	<0.05	1.0	194	44	16	4.65
	64.00	65.50	1.50	<0.05	<1.0	214	44	20	5.00
	65.50	67.00	1.50	<0.05	1.0	168	114	13	4.59
	67.00	68.50	1.50	<0.05	<1.0	124	72	12	3.76
	68.50	70.00	1.50	<0.05	<1.0	179	26	14	4.65
	70.00	71.50	1.50	0.06	1.0	456	149	14	3.90
	71.50	73.00	1.50	0.06	1.5	321	29	16	5.83
	73.00	74.50	1.50	0.08	<1.0	259	67	9	3.09
	74.50	76.00	1.50	0.06	1.0	249	29	12	3.53
	76.00	77.50	1.50	0.09	1.0	241	14	13	6.30
	77.50	79.00	1.50	0.07	<1.0	185	36	12	3.86
	79.00	80.50	1.50	0.05	<1.0	199	20	18	6.30
	80.50	82.00	1.50	0.05	1.0	189	26	13	5.38
	82.00	83.50	1.50	<0.05	<1.0	154	15	13	4.91
	83.50	85.00	1.50	<0.05	<1.0	109	22	9	3.55
	85.00	86.50	1.50	<0.05	<1.0	139	12	9	2.85
	86.50	88.00	1.50	<0.05	<1.0	114	14	10	4.28
	88.00	89.50	1.50	<0.05	<1.0	65	14	10	5.02
	89.50	91.00	1.50	0.06	<1.0	66	10	11	5.00
	91.00	92.50	1.50	<0.05	<1.0	62	9	9	4.13
	92.50	94.00	1.50	<0.05	<1.0	64	17	7	2.36
	94.00	95.50	1.50	<0.05	<1.0	72	17	10	2.68
	95.50	97.00	1.50	<0.05	<1.0	51	52	7	0.34
	97.00	98.50	1.50	<0.05	<1.0	55	158	10	1.14
	98.50	100.00	1.50	<0.05	<1.0	53	28	10	2.79
	100.00	101.50	1.50	<0.05	<1.0	62	28	10	4.49
	101.50	103.00	1.50	<0.05	<1.0	52	14	10	2.66
	103.00	103.70	0.70	<0.05	<1.0	72	21	13	4.60
	107.80	109.30	1.50	0.05	1.2	116	61	17	3.69
	109.30	109.90	0.60	<0.05	1.1	128	18	14	1.46
	109.90	111.00	1.10	<0.05	1.2	97	68	13	3.12
	127.40	128.90	1.50	<0.05	<1.0	115	36	7	1.96
	128.90	130.40	1.50	<0.05	<1.0	124	70	8	2.29

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Appendix 29 Results of Ore Assay(2)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-9	130.40	131.30	0.90	<0.05	<1.0	91	49	7	3.04
	133.00	134.50	1.50	<0.05	1.1	73	43	12	5.23
	134.50	136.00	1.50	<0.05	1.6	76	26	10	5.35
	136.00	137.50	1.50	<0.05	1.0	193	44	9	4.44
	137.50	139.00	1.50	<0.05	1.6	233	69	27	7.27
	139.00	140.50	1.50	<0.05	1.3	232	45	16	7.36
	140.50	142.00	1.50	<0.05	<1.0	96	64	9	5.28
	142.00	143.50	1.50	<0.05	<1.0	99	32	13	6.55
	143.50	145.00	1.50	<0.05	<1.0	89	43	17	4.37
	145.00	146.50	1.50	<0.05	1.1	195	90	32	4.51
	146.50	148.00	1.50	<0.05	<1.0	83	20	10	4.06
	148.00	148.70	0.70	<0.05	<1.0	71	44	13	4.17
	166.00	167.50	1.50	<0.05	<1.0	72	42	16	4.71
	167.50	169.00	1.50	<0.05	1.0	128	81	23	6.73
	169.00	170.50	1.50	<0.05	<1.0	79	80	29	4.14
	170.50	172.00	1.50	<0.05	<1.0	57	304	16	2.92
	172.00	173.50	1.50	<0.05	<1.0	92	285	28	5.00
	173.50	175.00	1.50	<0.05	<1.0	81	134	35	5.15
	175.00	176.50	1.50	<0.05	<1.0	68	252	84	4.55
	176.50	178.00	1.50	<0.05	<1.0	62	409	71	4.56
	178.00	179.50	1.50	<0.05	1.6	217	410	85	8.66
	179.50	181.00	1.50	<0.05	1.5	189	511	78	5.56
	181.00	182.50	1.50	<0.05	1.8	377	533	118	9.91
	182.50	184.00	1.50	<0.05	1.8	401	532	128	10.62
	184.00	185.50	1.50	<0.05	1.2	250	297	70	7.65
	185.50	187.00	1.50	<0.05	1.3	395	257	99	13.68
	187.00	188.50	1.50	<0.05	1.0	295	189	62	9.18
	188.50	190.00	1.50	<0.05	1.0	427	98	75	12.43
	190.00	191.50	1.50	<0.05	1.1	468	68	68	14.04
	191.50	193.00	1.50	<0.05	1.4	376	289	81	11.90
	193.00	194.50	1.50	<0.05	<1.0	297	187	58	8.55
	194.50	196.00	1.50	<0.05	1.6	246	125	67	7.70
	196.00	197.50	1.50	<0.05	2.4	479	291	101	8.67
	197.50	199.00	1.50	<0.05	3.9	591	492	115	11.54
	199.00	200.50	1.50	<0.05	4.0	644	390	107	13.96
	200.50	202.00	1.50	<0.05	3.4	648	150	92	12.78
	202.00	203.50	1.50	<0.05	1.5	206	247	54	6.82
	203.50	205.00	1.50	<0.05	<1.0	66	92	31	6.90
	205.00	206.50	1.50	<0.05	<1.0	78	274	35	5.42
	206.50	208.00	1.50	<0.05	<1.0	164	960	49	7.94
	208.00	209.50	1.50	<0.05	1.6	266	616	76	9.59
	209.50	211.00	1.50	<0.05	1.0	425	79	62	13.82
	211.00	212.50	1.50	<0.05	<1.0	459	37	53	13.15
	212.50	214.00	1.50	<0.05	<1.0	451	42	48	12.98
	214.00	215.50	1.50	<0.05	<1.0	410	39	49	13.07
	215.50	217.00	1.50	<0.05	1.4	400	151	56	11.89
	217.00	218.50	1.50	<0.05	1.5	260	333	45	8.07
	218.50	220.00	1.50	<0.05	1.3	176	582	45	5.72
	220.00	221.50	1.50	<0.05	1.3	185	448	36	6.29
	221.50	223.00	1.50	<0.05	2.2	283	353	86	10.29
	223.00	224.50	1.50	<0.05	1.3	219	592	61	11.52
	224.50	226.00	1.50	<0.05	1.3	218	589	59	7.84
	226.00	228.00	2.00	<0.05	1.0	188	145	38	6.07
	228.00	230.00	2.00	<0.05	<1.0	215	78	40	6.23
	230.00	232.00	2.00	<0.05	<1.0	194	145	40	5.58
	232.00	234.00	2.00	<0.05	1.0	243	173	41	2.96
	234.00	236.00	2.00	<0.05	<1.0	100	346	21	6.34
	236.00	238.00	2.00	<0.05	<1.0	131	159	21	5.58
	238.00	240.00	2.00	<0.05	<1.0	111	550	19	3.92
	240.00	242.00	2.00	<0.05	<1.0	107	474	21	5.62
	242.00	244.00	2.00	<0.05	<1.0	77	140	19	4.10
	244.00	246.00	2.00	<0.05	<1.0	90	174	17	3.55
	246.00	248.00	2.00	<0.05	<1.0	103	56	18	3.43

Appendix 29 Results of Ore Assay(3)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-9	248.00	250.00	2.00	<0.05	1.0	148	60	22	4.30
	250.00	252.00	2.00	<0.05	1.4	224	115	31	6.64
	252.00	254.00	2.00	<0.05	<1.0	149	129	20	4.19
	254.00	256.00	2.00	0.06	<1.0	266	136	41	8.71
	256.00	258.00	2.00	0.06	2.0	212	218	39	11.94
	258.00	260.00	2.00	<0.05	2.2	266	197	53	11.69
	260.00	262.00	2.00	<0.05	1.4	338	276	52	12.00
	262.00	264.00	2.00	<0.05	1.5	302	138	48	9.94
	264.00	266.00	2.00	<0.05	2.1	330	343	56	11.07
	266.00	268.00	2.00	<0.05	2.1	305	212	45	8.50
	268.00	270.00	2.00	<0.05	1.9	143	248	38	6.71
	270.00	272.00	2.00	<0.05	2.2	175	278	107	6.07
	272.00	274.00	2.00	0.05	1.9	184	210	47	9.21
	274.00	276.00	2.00	<0.05	1.9	270	183	80	9.13
	276.00	278.00	2.00	<0.05	1.3	114	209	38	3.81
	278.00	280.00	2.00	<0.05	3.3	119	306	119	8.00
	280.00	282.00	2.00	<0.05	3.6	127	432	304	7.35
	282.00	284.00	2.00	<0.05	3.3	149	608	137	5.74
	284.00	286.00	2.00	<0.05	2.1	120	430	110	6.24
	286.00	288.00	2.00	<0.05	2.5	172	542	181	7.22
	288.00	290.00	2.00	<0.05	1.2	158	319	86	3.93
	290.00	292.00	2.00	<0.05	4.7	301	843	626	7.71
	292.00	294.00	2.00	<0.05	2.9	206	608	63	8.34
	294.00	296.00	2.00	<0.05	2.6	215	360	56	9.36
	296.00	297.55	1.55	<0.05	3.8	281	245	54	8.24
	297.55	299.55	2.00	<0.05	2.3	252	113	46	7.56
	299.55	301.55	2.00	<0.05	2.0	342	189	51	9.26
	301.55	303.55	2.00	<0.05	2.9	286	593	42	8.29
	303.55	305.55	2.00	<0.05	2.3	305	269	45	7.94
	305.55	307.55	2.00	0.25	3.8	300	315	46	9.79
	307.55	310.00	2.45	<0.05	2.3	179	184	40	9.10
	310.00	312.00	2.00	<0.05	1.8	144	163	27	8.42
	312.00	314.00	2.00	0.08	5.8	797	451	70	13.44
	314.00	315.70	1.70	0.05	14.5	3,260	582	148	16.93
	315.70	317.70	2.00	0.06	10.1	329	835	82	14.52
	317.70	318.50	0.80	<0.05	9.2	150	1,590	77	26.72
	321.60	323.60	2.00	0.07	8.2	516	724	161	18.16
	323.60	324.90	1.30	0.10	8.2	660	676	108	13.77
	326.90	328.10	1.20	0.22	10.6	347	471	106	16.00
	334.60	336.70	2.10	0.09	4.0	389	690	69	8.48
	336.70	337.40	0.70	<0.05	52.1	295	774	98	28.19
	337.50	339.90	2.40	0.06	42.5	238	649	111	16.02
339.90	341.25	1.35	0.17	22.5	505	1,700	175	13.55	
341.25	343.40	2.15	0.33	86.6	885	4,540	490	23.67	
343.40	343.90	0.50	<0.05	17.5	192	1,280	166	7.70	
343.90	345.00	1.10	0.47	32.9	2,850	1,090	540	9.59	
345.00	347.30	2.30	0.23	34.1	1,630	1,120	218	16.73	
347.30	349.00	1.70	0.33	31.6	574	1,760	386	18.33	
349.50	350.30	0.80	0.07	16.0	354	1,480	125	14.08	
350.80	351.80	1.00	0.24	20.7	562	996	230	14.97	
351.80	352.55	0.75	<0.05	27.7	184	1,530	200	7.60	
352.55	353.40	0.85	0.25	19.6	746	2,200	450	10.02	
353.40	354.60	1.20	0.09	3.6	175	335	92	12.77	
354.60	355.10	0.50	0.12	5.8	239	309	106	14.88	
355.10	355.50	0.40	0.16	8.7	551	708	97	17.99	
355.50	356.90	1.40	0.12	7.5	397	216	95	13.53	
356.90	357.70	0.80	0.16	9.0	805	343	112	21.80	
357.70	359.70	2.00	0.08	3.8	211	437	50	12.33	
359.70	361.70	2.00	0.08	1.2	193	2,380	74	9.30	
361.70	363.70	2.00	0.15	2.9	93	2,910	144	9.73	
363.70	365.70	2.00	0.07	1.6	80	336	45	6.67	
MJSU-10	5.10	6.10	1.00	<0.05	<1.0	35	20	<5	2.27
	8.40	9.40	1.00	<0.05	<1.0	15	15	<5	<0.05

Appendix 29 Results of Ore Assay(4)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-10	9.40	9.80	0.40	<0.05	<1.0	50	50	<5	0.44
	9.80	10.80	1.00	<0.05	<1.0	30	50	<5	0.52
	12.80	13.80	1.00	<0.05	<1.0	30	60	<5	<0.05
	14.80	15.80	1.00	<0.05	<1.0	20	30	<5	0.36
	15.80	16.30	0.50	<0.05	<1.0	35	40	<5	0.52
	16.30	17.30	1.00	<0.05	<1.0	20	60	15	0.34
	18.70	19.70	1.00	<0.05	<1.0	15	40	60	0.54
	19.70	21.10	1.40	<0.05	<1.0	30	110	20	0.39
	21.10	22.10	1.00	<0.05	<1.0	25	140	<5	<0.05
	22.75	23.75	1.00	<0.05	<1.0	30	190	<5	<0.05
	23.75	23.85	0.10	<0.05	<1.0	50	620	20	0.28
	23.85	24.85	1.00	<0.05	<1.0	35	700	<5	<0.05
	67.50	69.50	2.00	<0.05	<1.0	700	300	<5	4.57
	69.50	71.50	2.00	<0.05	<1.0	470	1440	15	3.65
	71.50	73.50	2.00	<0.05	<1.0	175	370	<5	0.76
	73.50	75.50	2.00	<0.05	<1.0	360	440	<5	2.51
	75.50	77.50	2.00	<0.05	<1.0	170	820	<5	2.00
	77.50	79.50	2.00	<0.05	<1.0	65	490	<5	1.72
	79.50	81.50	2.00	0.12	<1.0	70	760	50	2.32
	81.50	82.50	1.00	<0.05	<1.0	65	1600	70	2.45
	83.60	85.10	1.50	<0.05	<1.0	225	4760	420	3.40
	136.60	137.60	1.00	<0.05	<1.0	45	140	<5	6.00
	137.60	138.60	1.00	<0.05	<1.0	20	80	<5	4.22
	138.60	139.60	1.00	<0.05	<1.0	15	40	<5	4.88
	139.60	140.60	1.00	<0.05	<1.0	25	60	<5	10.32
	140.60	141.60	1.00	<0.05	<1.0	10	60	<5	4.76
	141.60	142.60	1.00	<0.05	<1.0	20	70	<5	6.88
	142.60	143.60	1.00	<0.05	<1.0	25	70	<5	5.32
	143.60	144.60	1.00	<0.05	<1.0	15	70	<5	4.36
	144.60	145.60	1.00	<0.05	<1.0	15	60	<5	10.53
	145.60	146.60	1.00	<0.05	<1.0	15	60	<5	13.91
	146.60	147.60	1.00	<0.05	<1.0	10	40	<5	13.61
	147.60	148.60	1.00	<0.05	<1.0	10	40	<5	5.99
	148.60	149.60	1.00	<0.05	<1.0	10	40	<5	6.26
	149.60	150.60	1.00	<0.05	<1.0	15	40	<5	9.37
	150.60	151.60	1.00	<0.05	<1.0	25	20	<5	8.77
	151.60	152.60	1.00	<0.05	<1.0	45	15	<5	14.03
	152.60	153.60	1.00	<0.05	<1.0	20	15	<5	8.75
	153.60	154.60	1.00	<0.05	<1.0	75	60	<5	8.12
	154.60	155.60	1.00	<0.05	<1.0	75	300	<5	10.52
155.60	156.60	1.00	<0.05	<1.0	35	30	<5	7.43	
156.60	157.60	1.00	<0.05	<1.0	25	20	<5	7.44	
157.60	158.60	1.00	<0.05	<1.0	25	20	<5	13.20	
158.60	159.60	1.00	<0.05	<1.0	150	110	<5	18.88	
159.60	160.90	1.30	<0.05	<1.0	40	20	25	15.23	
160.90	161.90	1.00	<0.05	<1.0	35	10	15	16.20	
161.90	162.90	1.00	<0.05	<1.0	70	15	15	18.48	
162.90	164.50	1.60	<0.05	<1.0	26	420	<5	5.15	
164.50	165.40	0.90	<0.05	<1.0	25	15	<5	13.80	
200.00	201.00	1.00	<0.05	<1.0	35	50	<5	4.47	
201.00	202.00	1.00	<0.05	<1.0	65	30	<5	4.97	
202.00	202.70	0.70	<0.05	<1.0	95	20	<5	4.94	
MJSU-11	2.50	4.00	1.50	<0.05	<1.0	32	47	5	0.34
	5.50	7.00	1.50	<0.05	<1.0	26	40	3	0.36
	8.50	10.00	1.50	<0.05	<1.0	26	38	4	0.35
	11.50	13.00	1.50	<0.05	<1.0	6	26	4	0.22
	14.50	16.00	1.50	<0.05	<1.0	10	37	3	<0.05
	17.50	19.00	1.50	<0.05	<1.0	110	80	4	<0.05
	20.50	21.00	0.50	<0.05	<1.0	14	29	5	<0.05
	23.50	25.00	1.50	<0.05	<1.0	12	38	2	<0.05
	26.50	27.00	0.50	<0.05	<1.0	10	48	2	<0.05
	130.90	132.40	1.50	<0.05	<1.0	10	66	3	3.58
132.40	133.90	1.50	<0.05	<1.0	106	20	4	11.77	



Appendix 29 Results of Ore Assay(5)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-12	133.90	135.40	1.50	<0.05	<1.0	48	16	2	8.52
	135.40	136.90	1.50	<0.05	<1.0	172	17	2	10.75
	136.90	138.40	1.50	<0.05	<1.0	20	35	5	8.55
	138.40	140.00	1.60	<0.05	<1.0	14	54	4	8.63
	140.00	141.50	1.50	<0.05	<1.0	12	50	3	4.53
	150.90	152.40	1.50	<0.05	<1.0	6	31	3	2.77
	152.40	155.70	3.30	<0.05	<1.0	8	28	3	4.82
	155.70	157.20	1.50	<0.05	<1.0	6	25	2	5.86
	157.20	158.70	1.50	<0.05	<1.0	10	26	2	3.60
	158.70	160.20	1.50	<0.05	<1.0	8	26	2	2.54
	160.20	161.70	1.50	<0.05	<1.0	8	23	3	7.62
	161.70	162.40	0.70	<0.05	<1.0	8	19	3	8.40
	162.40	163.60	1.20	<0.05	<1.0	8	24	3	7.80
	163.60	165.80	2.20	<0.05	<1.0	10	21	2	10.30
	165.80	167.30	1.50	<0.05	<1.0	10	24	2	4.50
	167.30	168.80	1.50	<0.05	<1.0	10	30	2	5.73
	168.80	169.50	0.70	<0.05	<1.0	16	46	3	8.74
	169.50	171.00	1.50	<0.05	<1.0	12	45	3	9.06
	182.00	182.40	0.40	<0.05	<1.0	14	91	2	4.73
	131.10	133.10	2.00	<0.05	<1.0	394	72	12	4.65
	133.10	135.10	2.00	<0.05	<1.0	125	63	13	3.29
	135.10	137.10	2.00	<0.05	<1.0	38	29	6	2.37
	137.10	139.10	2.00	<0.05	<1.0	197	41	6	2.92
	139.10	140.10	1.00	<0.05	<1.0	139	47	6	1.53
	140.10	142.10	2.00	<0.05	<1.0	931	114	8	6.31
	142.10	143.10	1.00	<0.05	<1.0	1,280	119	8	5.20
	163.30	165.90	2.60	<0.05	<1.0	63	41	8	7.68
	211.00	212.80	1.80	<0.05	<1.0	53	78	8	1.63
227.75	227.95	0.20	<0.05	<1.0	223	39	18	28.34	
231.60	232.00	0.40	<0.05	<1.0	144	58	8	6.16	
MJSU-13	89.50	91.00	1.50	<0.05	<1.0	161	117	7	3.77
	91.00	92.50	1.50	<0.05	<1.0	23	93	8	10.10
	92.50	94.00	1.50	<0.05	<1.0	37	142	8	1.90
	94.00	95.50	1.50	<0.05	<1.0	15	81	6	3.72
	95.50	97.00	1.50	<0.05	<1.0	24	95	10	12.87
	97.00	98.10	1.10	<0.05	<1.0	88	163	6	4.88
	122.10	123.70	1.60	<0.05	<1.0	335	462	8	4.05
	129.00	130.90	1.90	<0.05	<1.0	1112	334	5	4.78
	132.40	133.90	1.50	<0.05	<1.0	906	291	7	3.12
	133.90	135.40	1.50	<0.05	<1.0	540	472	7	4.13
	135.40	137.20	1.80	<0.05	<1.0	1486	244	8	5.27
	142.20	143.70	1.50	<0.05	<1.0	883	199	9	4.36
	143.70	145.20	1.50	<0.05	<1.0	1345	192	6	2.44
	148.70	149.70	1.00	<0.05	<1.0	193	230	8	5.99
	153.70	155.10	1.40	<0.05	<1.0	174	211	9	6.97
	159.30	160.60	1.30	<0.05	<1.0	215	191	5	6.10
	184.60	186.40	1.80	<0.05	<1.0	305	399	7	4.74
	186.40	188.40	2.00	<0.05	<1.0	139	659	10	2.70
MJSU-14	69.00	69.50	0.50	<0.05	<1.0	<5	80	<5	0.87
	97.90	98.30	0.40	0.09	<1.0	<5	30	<5	1.88
	109.40	111.40	2.00	0.10	<1.0	<5	80	<5	0.47
	111.40	113.40	2.00	<0.05	<1.0	<5	110	<5	0.75
	113.40	115.40	2.00	<0.05	<1.0	50	100	<5	0.63
	115.40	117.40	2.00	0.69	<1.0	<5	90	<5	0.56
	117.40	119.40	2.00	0.49	<1.0	110	35	<5	0.97
	119.40	121.40	2.00	<0.05	<1.0	40	30	<5	0.61
	140.20	141.10	0.90	<0.05	<1.0	90	250	<5	8.09
	150.50	152.50	2.00	<0.05	<1.0	50	300	<5	2.12
	152.50	154.50	2.00	<0.05	<1.0	160	190	<5	3.41
	165.70	166.30	0.60	<0.05	<1.0	<5	135	<5	3.95
	166.30	167.30	1.00	<0.05	<1.0	20	250	<5	2.22
	167.30	168.30	1.00	0.08	<1.0	530	250	<5	1.83
170.80	171.70	0.90	<0.05	<1.0	40	300	<5	2.89	

Appendix 29 Results of Ore Assay(6)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-14	171.70	172.30	0.60	<0.05	4.0	40	250	<5	6.66
	194.70	195.70	1.00	<0.05	<1.0	40	350	<5	2.27
	195.70	196.30	0.60	0.08	5.0	5,300	410	<5	3.44
	196.30	197.30	1.00	<0.05	2.0	2,770	335	<5	3.43
	197.30	198.90	1.60	<0.05	<1.0	480	370	<5	1.43
	198.90	199.20	0.30	<0.05	3.5	300	465	<5	1.43
	201.90	202.90	1.00	<0.05	<1.0	260	3,600	<5	2.36
	202.90	203.20	0.30	<0.05	1.5	120	250	<5	17.60
	203.20	204.10	0.90	<0.05	2.5	500	1,300	<5	1.66
	204.10	204.45	0.35	0.19	12.5	31,000	750	<5	20.30
	204.45	205.45	1.00	<0.05	<1.0	80	75	<5	0.36
	219.15	219.80	0.65	0.16	3.0	2,130	475	<5	5.12
	219.80	220.10	0.30	0.27	7.5	890	500	<5	26.60
	220.10	220.20	0.10	<0.05	<1.0	340	205	<5	1.20
	220.20	220.90	0.70	0.24	34.0	11,300	350,000	<5	25.90
	220.90	221.00	0.10	0.25	25.0	5,100	150,000	<5	10.48
	221.00	221.20	0.20	<0.05	<1.0	80	2,760	<5	1.19
	221.20	221.75	0.55	0.17	51.0	22,800	110,000	<5	30.00
	221.75	222.35	0.60	<0.05	1.5	760	3,000	<5	4.78
	222.35	223.35	1.00	<0.05	<1.0	100	165	<5	1.41
234.50	234.90	0.40	<0.05	<1.0	50	750	<5	0.48	
MJSU-15	43.60	45.40	1.80	<0.05	<1.0	172	425	33	0.46
	45.40	47.40	2.00	<0.05	1.9	378	459	57	9.35
	47.40	49.40	2.00	0.06	2.0	431	123	42	11.60
	49.40	51.40	2.00	<0.05	1.5	653	106	63	13.89
	51.40	53.40	2.00	<0.05	1.6	345	105	28	7.43
	53.40	55.40	2.00	<0.05	1.3	156	65	27	5.01
	55.40	57.40	2.00	<0.05	1.3	133	84	28	6.54
	57.40	59.40	2.00	<0.05	<1.0	102	75	24	4.42
	59.40	61.40	2.00	<0.05	1.4	130	113	29	4.52
	61.40	63.40	2.00	<0.05	1.4	116	184	32	5.87
	63.40	65.40	2.00	<0.05	1.1	82	272	22	4.74
	65.40	67.40	2.00	<0.05	1.4	88	329	27	7.07
	67.40	69.40	2.00	<0.05	1.8	72	120	32	5.71
	69.40	71.40	2.00	<0.05	2.4	75	168	39	6.84
	71.40	73.40	2.00	<0.05	1.6	118	71	33	6.48
	73.40	75.40	2.00	<0.05	1.0	94	84	27	6.65
	75.40	77.40	2.00	<0.05	<1.0	213	331	30	6.35
	77.40	79.40	2.00	<0.05	1.5	334	165	32	7.88
	79.40	81.40	2.00	<0.05	<1.0	86	167	24	4.46
	81.40	83.40	2.00	<0.05	1.7	98	181	29	5.67
	83.40	85.40	2.00	<0.05	1.6	117	147	33	6.10
	85.40	87.40	2.00	<0.05	1.1	102	146	28	5.74
	87.40	89.40	2.00	<0.05	1.3	74	90	28	4.74
	89.40	91.40	2.00	<0.05	1.8	134	130	55	6.21
	91.40	93.40	2.00	<0.05	1.3	98	110	26	5.79
	93.40	95.40	2.00	<0.05	1.2	165	146	27	5.02
	95.40	97.40	2.00	<0.05	1.3	162	155	25	4.42
	97.40	99.40	2.00	<0.05	1.2	128	66	30	4.94
	99.40	101.40	2.00	<0.05	1.0	137	106	27	4.63
	101.40	103.40	2.00	<0.05	1.1	114	129	28	5.29
	103.40	105.40	2.00	<0.05	1.0	85	78	27	4.85
	105.40	107.40	2.00	<0.05	<1.0	66	52	26	5.13
107.40	109.40	2.00	<0.05	<1.0	76	58	24	4.75	
109.40	111.40	2.00	<0.05	<1.0	71	283	36	5.30	
111.40	113.40	2.00	<0.05	<1.0	74	163	30	4.69	
113.40	115.40	2.00	<0.05	1.4	68	186	67	4.50	
115.40	117.40	2.00	<0.05	1.3	65	635	54	5.04	
117.40	119.40	2.00	<0.05	1.3	85	113	40	6.30	
119.40	121.40	2.00	<0.05	1.5	128	347	39	6.49	
121.40	123.40	2.00	<0.05	1.4	259	84	58	12.24	
123.40	125.40	2.00	<0.05	2.4	544	68	69	15.83	
125.40	127.40	2.00	<0.05	2.6	612	97	77	17.18	

Appendix 29 Results of Ore Assay(7)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-15	127.40	129.40	2.00	<0.05	1.8	264	92	44	10.44
	129.40	131.40	2.00	<0.05	2.0	181	320	35	7.46
	131.40	133.40	2.00	<0.05	1.8	192	132	40	7.81
	133.40	135.40	2.00	0.08	2.8	141	205	53	9.21
	135.40	137.40	2.00	<0.05	1.8	210	143	57	9.00
	137.40	139.40	2.00	<0.05	2.2	291	292	82	10.22
	139.40	142.00	2.60	<0.05	1.3	146	319	50	8.21
	145.40	147.40	2.00	<0.05	1.4	217	212	55	5.78
	147.40	149.40	2.00	<0.05	1.4	128	1170	52	8.82
	149.40	151.40	2.00	<0.05	1.6	108	327	45	6.42
	151.40	153.40	2.00	<0.05	1.3	111	378	61	6.18
	153.40	155.40	2.00	<0.05	2.0	126	1300	105	9.17
	155.40	157.40	2.00	<0.05	1.5	98	409	30	5.97
	157.40	159.40	2.00	<0.05	1.0	144	407	53	6.79
	159.40	161.40	2.00	<0.05	1.3	80	253	35	6.22
	161.40	163.40	2.00	<0.05	2.3	75	511	40	5.21
	163.40	165.40	2.00	<0.05	1.4	106	484	57	7.83
	165.40	167.40	2.00	<0.05	2.1	144	319	70	8.45
	167.40	169.40	2.00	<0.05	1.5	177	199	43	5.17
	169.40	171.40	2.00	<0.05	1.1	139	199	32	5.18
	171.40	173.40	2.00	<0.05	1.7	261	203	42	7.94
	173.40	175.40	2.00	0.05	2.3	343	392	57	11.56
	175.40	177.40	2.00	0.08	2.3	312	353	45	12.06
	177.40	179.40	2.00	<0.05	1.9	302	238	31	7.11
	179.40	181.40	2.00	<0.05	1.5	210	317	33	5.20
	181.40	183.40	2.00	<0.05	1.2	83	239	40	6.92
	183.40	185.40	2.00	<0.05	1.3	71	419	41	8.04
	185.40	187.40	2.00	<0.05	2.0	98	418	51	9.47
	187.40	189.40	2.00	<0.05	1.1	107	237	32	6.41
	189.40	191.40	2.00	<0.05	2.5	84	592	37	3.74
	191.40	193.40	2.00	<0.05	1.2	61	69	21	3.18
	193.40	195.40	2.00	<0.05	1.2	63	58	19	3.34
	195.40	197.40	2.00	<0.05	1.3	82	140	25	4.08
	197.40	199.40	2.00	0.05	1.7	160	259	50	9.02
	199.40	201.40	2.00	<0.05	1.4	128	201	23	6.96
	201.40	203.40	2.00	<0.05	2.5	174	311	34	8.60
	203.40	205.40	2.00	<0.05	1.2	106	191	34	6.26
	205.40	207.40	2.00	0.06	1.3	124	393	34	5.98
	207.40	209.40	2.00	<0.05	1.6	94	254	35	5.24
	209.40	211.40	2.00	<0.05	1.5	81	251	48	5.21
	211.40	213.40	2.00	<0.05	1.4	68	102	17	2.61
	213.40	215.40	2.00	<0.05	1.4	79	159	39	5.71
	215.40	217.40	2.00	<0.05	2.0	111	253	48	7.18
	217.40	219.40	2.00	<0.05	1.2	68	417	31	3.64
	219.40	221.40	2.00	<0.05	1.4	78	172	33	4.81
	221.40	223.40	2.00	<0.05	1.0	61	48	22	2.65
	223.40	225.40	2.00	<0.05	1.7	70	437	28	5.93
	225.40	227.40	2.00	<0.05	1.5	79	466	29	5.48
	227.40	229.40	2.00	<0.05	2.8	110	273	35	5.54
	229.40	231.40	2.00	<0.05	3.1	176	216	39	6.11
	231.40	233.40	2.00	<0.05	1.2	100	209	20	2.31
	233.40	235.40	2.00	<0.05	1.9	330	92	43	7.53
	235.40	237.40	2.00	<0.05	1.6	230	125	37	4.97
	237.40	239.40	2.00	<0.05	2.1	113	115	22	4.18
	239.40	241.40	2.00	<0.05	<1.0	98	271	18	3.67
	241.40	243.40	2.00	<0.05	1.8	95	187	17	3.53
	243.40	245.40	2.00	<0.05	<1.0	47	49	8	2.70
	245.40	247.40	2.00	<0.05	<1.0	44	34	11	3.73
	247.40	249.40	2.00	<0.05	1.6	61	24	12	3.84
	249.40	251.40	2.00	<0.05	1.3	91	20	10	4.69
	251.40	253.40	2.00	<0.05	1.9	128	24	13	4.37
	253.40	255.40	2.00	<0.05	2.4	55	16	7	3.04
	255.40	256.60	1.20	<0.05	1.1	100	33	11	2.80

Appendix 29 Results of Ore Assay(8)

Drill Hole No.	Depth (m)		Width (m)	Au (g/t)	Ag (g/t)	Cu ppm	Zn ppm	Pb ppm	S (%)
	from	to							
MJSU-15	303.65	305.65	2.00	<0.05	1.9	95	29	13	6.98
	305.65	307.65	2.00	<0.05	1.0	84	107	5	2.36
	307.65	309.65	2.00	<0.05	1.9	137	1220	17	7.28
	309.65	311.65	2.00	<0.05	1.1	182	572	10	3.07
	311.65	313.80	2.15	<0.05	<1.0	87	485	8	3.03
	332.10	334.10	2.00	<0.05	<1.0	82	133	15	3.23
	334.10	336.10	2.00	<0.05	<1.0	76	194	16	4.65
	336.10	338.10	2.00	<0.05	<1.0	106	105	16	2.58
	348.60	350.40	1.80	<0.05	<1.0	191	31	15	4.74
350.40	351.40	1.00	<0.05	<1.0	128	115	20	2.56	
MJSU-16	133.90	135.90	2.00	<0.05	<1.0	<0.01	<0.01	<0.01	0.91
	135.90	137.90	2.00	<0.05	<1.0	<0.01	0.01	<0.01	1.13
	193.80	194.30	0.50	<0.05	3.2	0.02	<0.01	<0.01	9.76
	198.20	199.20	1.00	<0.05	1.1	<0.01	<0.01	<0.01	8.87





### Appendix 31 Results of Microscopic Observation of Polished Section

Sample No.	Drill Hole No.	Depth (m)	Mineralization type	py	cp	co	cc	te	sp	ga	pr	ma	ru
P-1	MJSU-14	203.1	sub-massive and foliated	◎	△		△		△	△	△	△	
P-2	MJSU-14	204.2	sub-massive	◎	○				△				
P-3	MJSU-14	219.9	sub-massive pyritic	◎	△				△				
P-4	MJSU-14	220.3	laminated massive sulfide	○	○	△		△	◎				
P-5	MJSU-14	220.8	laminated massive sulfide	○	○	△			◎				
P-6	MJSU-14	221.5	laminated massive sulfide	◎	○	△			◎				
P-7	MJSU-10	139.8	sub-massive and foliated	◎	△				△				
P-8	MJSU-10	159.5	weakly foliated massive sulfide	◎	△				△				△
P-9	MJSU-11	135.7	sub-massive	◎	△				△				
P-10	MJSU-11	153.4	sub-massive and strongly foliated	◎					△				
P-11	MJSU-9	66.6	disseminated & aggregations	◎	△				△				
P-12	MJSU-9	138.1	deformed & densely aggregated	◎	△				△				
P-13	MJSU-9	197.6	sub-massive	◎	△				△				△
P-14	MJSU-9	342.0	massive to submassive	◎	△				△				△
P-15	MJSU-9	344.0	submassive & foliated	◎	△				△				△
P-16	MJSU-9	348.0	massive	◎	△				△	△			
P-17	MJSU-9	357.1	massive, recrystallized & foliated	◎	△				△				
P-18	MJSU-12	164.7	fracture fillings	◎	△				△				△
P-19	MJSU-13	91.8	submassive and foliated	◎	△								△
P-20	MJSU-13	188.5	submassive & foliated	○	△								△

abbrev. cc:Chalcocite, co:Covellite, cp:chalcopyrite, ga:Galena, ma:Magnetite, pr:Pyrrhotite, py:Pyrite, ru:Rutile, sp:Sphalerite, te:Tetrahedrite-Tennentite  
 ◎abundant, ○common, △small

Appendix 32 Results of X-ray Diffraction Analysis

Sample No.	Drill Hole	Depth (m)	qt	pl	kf	ch	se	mi	cl	py
X-01	MJSU-2	30.40	⊙	△		○	△			
X-02	MJSU-2	51.20	⊙	△		○	△	?	△	
X-03	MJSU-2	83.70	⊙	△		△	△			
X-04	MJSU-2	167.60	⊙	△		△	△			
X-05	MJSU-2	181.50	⊙	△		△	△			
X-06	MJSU-2	200.00	⊙	△		△	○			
X-07	MJSU-2	220.50	⊙	△		△	△			
X-08	MJSU-2	236.40	⊙	△		△	△		△	
X-09	MJSU-2	249.40	⊙	△		△	△			
X-10	MJSU-14	19.80	⊙	△		○	?	△		
X-11	MJSU-14	45.10	⊙	△		○	?	△		
X-12	MJSU-14	64.50	⊙	△		△	△	△	△	
X-13	MJSU-14	85.30	○	○		○	△		?	
X-14	MJSU-14	104.70	⊙	△		○	?	△	△	
X-15	MJSU-14	125.10	○	△		○	△	△	△	
X-16	MJSU-14	136.80	○	△		○	△	△~?	△	
X-17	MJSU-14	151.00				⊙	△		△	
X-18	MJSU-14	170.10	⊙	△		△	△	△	△	△
X-19	MJSU-14	193.10	○	△		○	△		?	?
X-20	MJSU-14	200.10	○~△	△		△			△	
X-21	MJSU-14	203.60	⊙			△	△			?
X-22	MJSU-14	207.00	⊙	△		△	△			
X-23	MJSU-14	210.20	⊙	△		△	△			
X-24	MJSU-14	212.00	⊙			△	△		△	△
X-25	MJSU-14	214.50	⊙	△		△	△			△
X-26	MJSU-14	219.50	⊙	△		△	△			
X-27	MJSU-14	221.10	⊙			○	△			
X-28	MJSU-14	222.10	⊙			⊙	△			
X-29	MJSU-14	230.20	⊙	△		△	△			
X-30	MJSU-14	240.10	⊙	△		△	○			
X-31	MJSU-14	260.10	⊙	△		△	△	?		
X-32	MJSU-14	274.00	⊙	○		△	○			
X-33	MJSU-10	36.00	⊙			△	△			
X-34	MJSU-10	55.00	⊙			△	△			
X-35	MJSU-10	74.00	⊙			△	△			△
X-36	MJSU-10	140.00	⊙			△	△	?		△
X-37	MJSU-10	159.00	○	?	△	△	△			△
X-38	MJSU-10	172.20	⊙			△	△			
X-39	MJSU-11	47.80	⊙	△		△	△			
X-40	MJSU-11	135.70	⊙			△	△			△
X-41	MJSU-11	233.00	⊙	△		△	△			
X-42	MJSU-9	50.90	⊙				△			△
X-43	MJSU-9	70.10	⊙							△
X-44	MJSU-9	85.00	⊙				△			△
X-45	MJSU-9	130.80	⊙			△	△			△
X-46	MJSU-9	174.60	⊙			△	△			△
X-47	MJSU-9	228.00	⊙				△			△
X-48	MJSU-9	295.00	⊙			△	△			△
X-49	MJSU-9	350.50				⊙				△
X-50	MJSU-9	358.20	○			△	△			△
X-51	MJSU-9	366.60	⊙			△	△			△
X-52	MJSU-12	107.60	△			⊙	○		△	△
X-53	MJSU-12	142.00	○	△		⊙	△		△	△
X-54	MJSU-12	164.70	○	○		○			△	△
X-55	MJSU-12	191.70	○	○		○			△	△
X-56	MJSU-13	82.20	⊙	△		△	△	△	△	△
X-57	MJSU-13	92.50	⊙	△		⊙	△		△	△
X-58	MJSU-13	117.80	⊙	△		△	△		△	
X-59	MJSU-13	185.20	○			⊙			△	△
X-60	MJSU-13	200.50	⊙			△	△	△	△	△

Abbrev. ab:Albite, al:Alunite, ch:Chlorite, cl:Calcite, cp:Chalcopyrite, ep:Epidote, kf:Potash feldspar, mi:Minersotaite, py:Pyrite, qt:Quartz, se:Sericitite  
 ⊙:Abundant, ○:Common, △:Small amount, ?:Probable