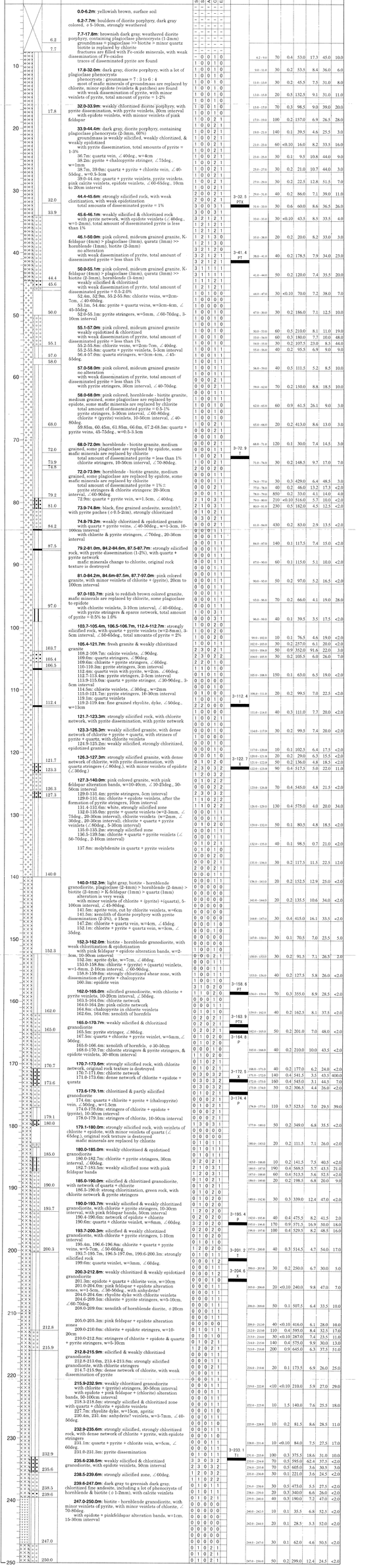
Plate II-1　Geologic column of the MJTA-3

Longitude: 68° 35m 00s
Latitude: 48° 29m 22s
Coordination: 67 94 E, 72.95 N
Elevation: 487m

Final depth: 250m
Azimuth: 90 deg.
Inclination: 70 deg.



0.0-6.2m: yellowish brown, surface soil

6.2-7.7m: boulders of diorite porphyry, dark gray colored, ø 5-10cm, strongly weathered

7.7-17.8m: brownish dark gray, weathered diorite porphyry containing plagioclase phenocrysts (1-2mm) groundmass = plagioclase >> biotite > minor quartz
biotite is replaced by chlorite
fractures are filled with Fe-oxide minerals, with weak concentration of Fe-oxides
traces of disseminated pyrite and fine

17.8-32.0m: dark gray, diorite porphyry, with a lot of plagioclase phenocrysts
phenocrysts : groundmass = 7 : 3 to 6 : 4
most of matic minerals of groundmass are replaced by chlorite, minor epidote (veinlets & patches) are found
with weak dissemination of pyrite, with minor veinlets of pyrite, total amount of pyrite = 1-2%

32.0-33.9m: weakly chloritized diorite porphyry, with pyrite dissemination, with pyrite veinlets, 20cm interval with epidote veinlets, with minoor veinlets of pink feldspar

33.9-44.4m: dark gray, diorite porphyry, containing plagioclase phenocrysts (2-3mm, 60%)
groundmass is weakly silicified, weakly chloritized, & weakly epidotized
with pyrite dissemination, total amounts of pyrite = 1-3%
36.7m: quartz vein, ∠ 40deg., w=4cm
38.2m: pyrite + chalcopyrite stringer, ∠ 75deg., w=1mm
38.7m, 39.0m: quartz + pyrite + chlorite vein, ∠ 40-55deg., w=0.5-3cm
39.0-44.4m: quartz + pyrite veinlets, pyrite veinlets, pink calcite veinlets, epidote veinlets, ∠ 60-65deg., 10cm to 20cm interval

44.4-45.6m: strongly silicified rock, with weak clorittization, with weak epidotization
total amounts of disseminated pyrite = 1%

45.6-46.1m: weakly silicified & chloritized rock
with pyrite network, with epidote veinlets (∠ 40deg., w=1-2mm), total amount of disseminated pyrite is less than 1%

46.1-50.0m: pink colored, midesum grained granite, K-feldspar (4mm) > plagioclase (3mm), quartz (3mm) >> hornblende (3mm), biotite (2-3mm)
weakly silicified & chloritized
with weak dissemination of pyrite, total amount of disseminated pyrite is less than 1%

50.0-55.1m: pink colored, midesum grained granite, K-feldspar (4mm) > plagioclase (3mm), quratz (3mm) >> biotite (2-3mm), hornblende (3-4mm)
weakly silicified & chloritized
with weak dissemination of pyrite, total amount of disseminated pyrite = 0.5-2.0%
52.4m, 52.5m, 55.2-55.8m: chlorite veins, w=2cm-7cm, ∠ 40-60deg.
53.1m, 54.8m: pyrite + quartz veins, w=3cm-4cm, ∠ 45-55deg.
52.6-55.1m: pyrite stringers, w=5mm, ∠ 60-70deg., 3-10cm interval

55.1-57.0m: pink colored, midesum grained granite
weakly silicified & chloritized
with weak dissemination of pyrite, total amount of disseminated pyrite = less than 1%
55.2-55.8m: chlorite veins, w=2cm-7cm, ∠ 40deg.
55.2-55.8m: pyrite + quartz veins, w=0.5-3cm interval
56.4-57.0m: quartz stringers, w=3cm-4cm, ∠ 45-55deg.

57.0-58.0m: pink colored, midesum grained granite
no alteration
with weak dissemination of pyrite, total amount of disseminated pyrite = less than 1%
with pyrite stringers, 30cm interval, ∠ 40-70deg.

58.0-68.0m: pink colored, hornblende - biotite granite, medium grained, some plagioclase are replaced by epidote, some matic minerals are replaced by chlorite
total amount of disseminated pyrite = 0.5-1%
pyrite stringers, 5-30cm interval, ∠ 60-80deg.
chlorite + (pyrite) veinlets, 10-50cm interval, ∠ 40-80deg.
59.85m, 60.45m, 61.85m, 66.0m, 67.2-68.5m: quartz + pyrite veins, 40-75deg., w=0.5-3cm

68.0-72.6m: hornblende - biotite granite, medium grained, some plagioclase are replaced by epidote, some matic minerals are replaced by chlorite
total amount of disseminated pyrite = less than 1%
chlorite stringers, 10-50cm interval, ∠ 70-80deg.

72.6-73.9m: hornblende - biotite granite, medium grained, some plagioclase are replaced by epidote, some matic minerals are replaced by chlorite
total amount of disseminated pyrite = 1% ±
pyrite stringers & chlorite stringers: 20-30cm interval, ∠ 60-90deg.
72.9m: quartz + pyrite vein, w=1.5cm, ∠ 40deg.

73.9-74.8m: black, fine grained andesite, xenolith?, with pyrite patches (ø 0.5-2cm), strongly chloritized

74.8-79.2m: weakly chloritized & epidotized granite with quartz + pyrite veins, ∠ 40-60deg., w=1-3cm, 10-100cm interval
with chlorite & pyrite stringers, ∠ 70deg., 20-30cm interval

79.2-81.0m, 84.2-84.6m, 87.5-87.7m: strongly silicified rock, with pyrite dissemination (1-2%), with quartz + pyrite network
matic minerals change to chlorite, original rock texture is destroyed

81.0-84.2m, 84.6m-87.5m, 87.7-97.0m: pink colored granite, with minor veinlets of chlorite + (pyrite), 20cm to 100cm interval

97.0-103.7m: pink to reddish brown colored granite, matic minerals are replaced by chlorite, some plagioclase to epidote
with chlorite veinlets, 3-10cm interval, ∠ 40-60deg., with pyrite stringers & sparce network, total amount of pyrite = 0.5% to 1.0%

103.7-105.4m, 106.5-106.7m, 112.4-112.7m: strongly silicified rock, with quartz + pyrite veinlets (w=2-8mm), 3-5cm interval, ∠ 40-60deg., total amount of pyrite = 2%

105.4-121.7m: fresh granite & weakly chloritized granite
168.2-168.7m: calcite veinlets, ∠ 90deg.
109.0m: quartz stringers, ∠ 90deg.
109.6m: chlorite + pyrite stringers, ∠ 60deg.
110-110.3m: pyrite stringers, 3cm interval
112.4m: quartz vein with pyrite, w=6cm, ∠ 60deg.
112.7-113.4m: pyrite stringers, 2-5cm interval
113.9-115.0m: quartz + pyrite stringer, ∠ 30-90deg., 3-5cm interval
114.5m: chlorite veinlets, ∠ 30deg., w=2mm
115.0-121.7m: pyrite stringers, 10-30cm interval
119.1m: quartz veinlets
119.2-119.4m: fine grained rhyolite, dyke, ∠ 60deg., w=15cm

121.7-123.3m: strongly silicified rock, with chlorite network, with pyrite dissemination, with pyrite network

123.3-125.2m: weakly silicified granite, with dense network of chlorite + pyrite + quarte, with stringers of pyrite + quartz, with chlorite veinlets
124.9-125.2m: weakly silicified, strongly chloritized, epidotized granite

125.2-127.3m: strongly silicified granite, with dense network of chlorite, with pyrite dissemination, with quartz stringers (∠ 80deg.), with minor veinlets of epidote (∠ 30deg.)

127.3-140.0m: pink colored granite, with pink feldspar alteration bands, w=10-40cm, ∠ 10-25deg., 30-50cm interval
129.0-131.4m: pyrite stringers, 5cm interval
129.0-131.4m: chlorite + epidote veinlets, after the formation of pyrite stringers, 10cm interval
131.4-131.6m: white, strongly silicified zone
132.0-135.0m: pyrite + quartz veinlets (w=2-3mm, ∠ 75deg., 20-30cm interval), chlorite veinlets (w=2mm, ∠ 30deg., 20-30cm interval), chlorite + quartz + pyrite veinlets (∠ 80deg., 5-30cm interval)
135.0-135.2m: strongly silicified zone
136.5-139.5m: chlorite + quartz + pyrite veinlets (∠ 50-70deg., 2-10cm interval)

137.8m: molybdenite in quartz + pyrite veinlets

140.0-152.3m: light gray, biotite - hornblende granodiorite, plagioclase (2-4mm) > hornblende (2-4mm) > biotite (2-4mm) > K-feldspar (1mm) > quartz (1mm)
alteration is very weak
with minor veinlets of chlorite + (pyrite) +(quartz), 5-100cm interval, veinlets are cut by chlorite veinlets, w=6cm
141.5m: xenolith of matic porphyry with pyrite dissemination (2-3%), ø 15cm
147.2m: chlorite + quartz vein, w=4cm, ∠ 45deg.
152.1m: chlorite + quartz + pyrite vein, w=8cm, ∠ 35deg.

152.3-162.0m: biotite - hornblende granodiorite, with weak chloritization & epidotization
with pink feldspar + epidote alteration bands, w=2-3cm, 30-60cm interval
152.3m: mytrite dyke, w=7cm, ∠ 40deg.
153.0-158.8m: chlorite + (pyrite) + (quartz) veinlets, w=1-8mm, 2-10cm interval, ∠ 60-85deg.
158.8-159.0m: strongly chloritized shear zone, with dissemination of pyrite + molybdenite
160.3m: epidote vein

162.0-165.0m: silicified granodiorite, with chlorite + pyrite veinlets, 10-20cm interval, ∠ 50deg.
163.3-164.0m: chlorite network
164.0-164.2m: pink calcite network
164.8m: chalcopyrite in chlorite veinlets
162.6m, 164.0m: xenolith of hornfelz

165.0-170.7m: weakly silicified & chloritized granodiorite
165.5m: pyrite stringer, ∠ 80deg.
167.5m: quartz + chlorite + pyrite veinlet, w=5mm, ∠ 60deg.
165.0-166.4m: xenolith of hornfelz, ø 30-50cm
168.0-170.7m: chlorite stringers & pyrite stringers, & epidote veinlets, 30-40cm interval

170.7-173.6m: strongly silicified rock, with chlorite network, original rock texture is destroyed
170.7-171.0m: chlorite network
171.0-173.6m: dense network of chlorite + epidote + quartz

173.6-179.1m: chloritized & partly silicified granodiorite
174.4m: quartz + chlorite + pyrite + (chalcopyrite) vein, ∠ 50deg., w=1.5cm
174.0-178.0m: stringers of chlorite + epidote + (pyrite), 10-20cm interval
178.0-179.1m: stringers of chlorite, 10-50cm interval

179.1-180.0m: strongly silicified rock, with veinlets of chlorite + epidote, with minor veinlets of quartz (∠ 65deg.), original rock texture is destroyed
matic minerals are replaced by chlorite

180.0-185.0m: weakly chloritized & epidotized granodiorite
180.0-182.7m: chlorite + pyrite stringers, 30cm interval, ∠ 60deg.
182.7-183.5m: weakly silicified zone with pink feldspar bands

185.0-190.0m: silicified & chloritized granodiorite, with network of quarte + chlorite
186.1-190.0: strong chloritization, green rock, with chlorite network & pyrite stringers

190.0-193.7m: weakly silicified & weakly chloritized granodiorite, with chlorite + pyrite stringers, 10-30cm interval, with pink feldspar bands, 50cm interval
190.4-190.6m: network of epidote + chlorite
190.6m: quartz + chlorite veinlet, w=8mm, ∠ 60deg.

193.7-200.3m: silicified & weakly chloritized granodiorite, with chlorite + pyrite stringers, 1-10cm interval
190.4m, 196.6-196.8m: chlorite + quartz + pyrite vein, w=5-7cm, ∠ 50-60deg.
193.7-195.7m, 196.5-197.0m, 199.6-200.3m: strongly silicified rock
199.6m: quartz veinlet, w=3mm, ∠ 60deg.

200.3-212.8m: weakly chloritized & weakly epidotized granodiorite
201.3m: epidote + quartz + chlorite vein, w=10cm
201.0-204.0m: pink feldspar + epidote alteration zones, w=1-5cm, ∠ 30-50deg., with anhydrite?
204.0-204.6m: rhyolite dyke with chlorite veinlets
204.6-209.0m: chlorite + pyrite stringers, w=5-10cm, ∠ 60-70deg.
208.0-209.0m: xenolith of hornblende diorite, ø 20cm

205.0-205.3m: pink feldspar + epidote alteration zones
209.0-210.0m: chlorite + epidote stringers, w=10-20cm
210.0-212.8m: stringers of chlorite + epidote & quartz + pyrite stringers, w=5-10cm

212.8-215.9m: silicified & weakly chloritized granodiorite
212.8-213.0m, 213.4-213.8m: strongly silicified granodiorite with chlorite stringers
214.7-215.9m: dense network of chlorite, with weak dissmination of pyrite

215.9-232.9m: weakly chloritized granodiorite with chlorite + (pyrite) stringers, 30-50cm interval with epidote + pink feldspar + (chlorite) alteration bands, 50-100cm interval
218.3-218.6m: strongly silicified & chloritized zone with quartz + chrlorite + epidote veinlets
227.7m: rhyolite dyke, w=15cm, pyritic
230.4m, 231.4m: anhydrite? veinlets, w=3-7mm, ∠ 40-50deg.

232.9-235.6m: strongly silicified, strongly chloritized rock, with dense network of chlorite + pyrite, with epidote stringers
231.1m: quartz + pyrite + chlorite vein, w=5cm, ∠ 60deg.
231.0-231.3m: pyrite dissemination

235.6-238.5m: strongly silicified & chloritized granodiorite, with epidote veinlets, 30cm interval

238.5-239.6m: strongly silicified zone, ∠ 60deg.

239.6-247.0m: dark gray to greenish dark gray, chloritized fine andesite, including a lot of phenocrysts of hornblende & biotite (ø 1-2mm), with calcite veinlets
247.0-250.0m: biotite - hornblende granodiorite, with minor veinlets of pyrite, with minor veinlets of chlorite, ∠ 70-80deg.
with epidote + pinkfeldspar alteration bands, w=1cm, 15-30cm interval

Examined Sample	Assay Interval	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Mo (ppm)
	6.2 - 9.0	70	0.4	53.0	17.3	45.0	10.0
	9.0 - 11.0	30	0.2	53.5	8.4	36.0	6.0
	11.0 - 13.0	30	0.2	45.5	7.5	31.0	8.0
	13.0 - 15.0	20	0.5	132.5	9.1	31.0	11.0
	15.0 - 17.0	70	0.3	98.5	9.0	39.0	20.0
	17.0 - 19.0	100	0.2	157.0	6.9	26.5	28.0
	19.0 - 21.0	140	0.1	39.5	4.6	25.5	3.0
	21.0 - 23.0	60	<0.10	16.0	8.2	33.5	16.0
	23.0 - 25.0	30	0.1	9.5	10.8	44.0	9.0
	25.0 - 27.0	30	0.2	21.0	10.7	44.0	3.0
	27.0 - 29.0	30	0.2	22.5	12.8	51.5	7.0
3-32. 5 PTZ	29.0 - 31.0	40	0.2	86.0	7.1	39.0	11.0
	31.0 - 33.0	30	0.6	60.0	8.6	36.5	26.0
	33.0 - 35.0	30	<0.10	43.5	8.5	33.5	4.0
	35.0 - 38.0	20	0.2	20.0	8.2	33.0	3.0
3-41. 4 PTZ	38.0 - 41.0	40	0.2	178.5	7.9	34.0	23.0
	41.0 - 44.0	50	0.2	120.0	7.4	35.5	20.0
	44.0 - 47.0	30	<0.10	70.0	7.2	38.0	7.0
	47.0 - 50.0	30	0.2	186.0	7.1	12.5	10.0
	50.0 - 53.0	60	0.5	210.0	8.1	11.0	19.0
	53.0 - 54.0	60	0.3	180.0	7.7	10.0	48.0
	54.0 - 55.0	30	0.2	107.5	23.0	8.5	44.0
	55.0 - 56.0	40	0.2	95.5	6.9	9.0	9.0
	56.0 - 59.0	40	0.5	111.5	5.2	8.5	10.0
	59.0 - 62.0	70	0.2	150.0	8.8	18.5	10.0
	62.0 - 65.0	60	0.9	61.5	26.1	9.0	3.0
	65.0 - 68.0	20	0.2	413.0	8.6	13.0	3.0
3-72. 9 PTZ	68.0 - 71.0	120	0.1	30.0	7.4	14.5	3.0
	71.0 - 74.0	30	0.2	148.5	9.7	17.0	7.0
	74.0 - 77.0	30	0.3	429.0	6.4	48.5	3.0
	77.0 - 78.0	40	0.2	46.0	13.2	17.3	<2.0
	78.0 - 79.0	850	0.2	33.0	4.1	14.0	4.0
	79.0 - 80.0	210	<0.10	516.0	5.7	10.0	<2.0
	80.0 - 81.0	230	0.5	182.0	4.5	12.5	<2.0
	81.0 - 84.0	430	0.2	83.0	2.9	13.5	<2.0
	84.0 - 87.0	140	0.1	117.5	7.4	15.0	<2.0
	87.0 - 90.0	60	0.1	115.0	5.1	10.0	<2.0
	90.0 - 93.0	50	0.2	97.0	5.2	16.5	<2.0
	93.0 - 96.0	70	0.2	66.0	4.1	19.0	28.0
	96.0 - 99.0	40	0.1	39.5	3.5	17.5	<2.0
	99.0 - 102.0	10	0.1	76.5	4.6	19.0	<2.0
	102.0 - 105.0	30	0.2	257.0	6.1	20.0	<2.0
	105.0 - 106.0	50	0.9	352.0	91.6	22.0	3.0
	106.0 - 108.0	30	0.2	105.5	6.0	26.0	7.0
	108.0 - 109.0	150	0.1	63.0	6.5	19.0	<2.0
3-112. 4 PTZ	109.0 - 111.0	20	0.2	99.5	7.0	22.5	<2.0
	111.0 - 114.0	40	0.3	111.0	7.7	20.0	<2.0
	114.0 - 117.0	30	0.2	99.5	7.4	20.0	<2.0
3-122. 7 X	117.0 - 120.0	10	0.1	102.5	6.4	17.5	<2.0
	120.0 - 121.0	20	0.2	29.0	6.3	15.5	<2.0
	121.0 - 122.0	50	0.2	136.0	4.8	18.5	<2.0
	122.0 - 123.0	90	0.4	517.5	5.0	22.0	11.0
	123.0 - 126.0	70	0.4	545.0	4.8	21.5	<2.0
	126.0 - 129.0	130	0.4	575.0	4.0	20.0	34.0
	129.0 - 132.0	50	0.1	80.5	4.8	18.5	<2.0
	132.0 - 135.0	40	0.1	98.5	0.7	21.0	<2.0
	135.0 - 138.0	30	0.2	117.5	11.5	22.5	12.0
	138.0 - 141.0	20	0.2	152.5	12.9	25.0	<2.0
	141.0 - 144.0	20	0.2	135.5	10.6	34.0	<2.0
	144.0 - 147.0	30	0.4	415.0	16.1	33.5	<2.0
3-158. 6 PT	147.0 - 150.0	30	0.1	70.5	7.0	23.5	5.0
	150.0 - 153.0	30	0.2	91.5	7.1	26.5	7.0
	153.0 - 156.0	40	0.2	127.5	5.8	26.0	<2.0
	156.0 - 159.0	70	0.3	355.0	8.9	28.5	<2.0
3-165. 9 PTZ	159.0 - 162.0	40	0.2	162.5	8.1	37.5	<2.0
3-164. 8 P	162.0 - 165.0	50	0.2	201.0	7.0	48.0	<2.0
	165.0 - 168.0	40	0.2	210.0	10.0	43.5	<2.0
3-172. 5 X	168.0 - 171.0	40	0.2	177.0	6.2	24.0	<2.0
	171.0 - 172.0	140	0.4	541.5	3.5	43.5	400.0
	172.0 - 173.0	160	0.4	545.0	3.1	44.5	7.0
	173.0 - 174.0	50	0.2	306.5	4.4	26.0	<2.0
3-174. 4 P	174.0 - 177.0	110	0.7	523.5	7.0	29.5	39.0
	177.0 - 180.0	50	0.2	349.0	6.8	35.5	<2.0
	180.0 - 183.0	20	0.2	111.5	7.1	26.0	<2.0
	183.0 - 186.0	10	0.2	141.5	7.5	40.5	<2.0
	186.0 - 187.0	190	0.4	569.5	5.7	43.5	21.0
	187.0 - 188.0	60	0.4	513.5	5.6	52.5	<2.0
	188.0 - 189.0	20	0.2	198.5	6.8	20.0	9.0
3-195. 4 P	189.0 - 192.0	30	0.3	339.0	12.4	47.0	<2.0
	192.0 - 195.0	40	0.4	475.5	8.2	41.5	2.0
	195.0 - 196.0	170	0.9	571.5	16.9	50.0	18.0
	196.0 - 197.0	100	0.4	529.5	8.2	48.5	16.0
3-201. 2 PT	197.0 - 200.0	40	0.3	514.5	4.7	54.0	17.0
3-204. 6 X	200.0 - 203.0	30	0.2	250.0	6.7	30.0	5.0
	203.0 - 206.0	20	<0.10	240.0	9.8	47.0	7.0
	206.0 - 209.0	50	0.1	507.5	6.4	33.5	10.0
	209.0 - 212.0	40	<0.10	416.0	6.1	28.0	10.0
	212.0 - 213.0	110	0.4	595.0	8.4	32.5	17.0
	213.0 - 214.0	30	<0.10	287.0	7.4	23.5	11.0
	214.0 - 215.0	140	0.4	575.0	9.9	30.0	13.0
	215.0 - 216.0	200	0.9	645.0	6.3	37.5	51.0
	216.0 - 219.0	20	0.1	173.5	6.9	26.0	25.0
	219.0 - 222.0	<10	<0.10	210.0	5.9	27.0	29.0
	222.0 - 225.0	10	1.5	140.0	7.6	25.5	18.0
	225.0 - 228.0	10	0.2	81.5	8.6	28.5	11.0
3-233. 1 PT	228.0 - 231.0	10	<0.10	84.0	7.5	27.5	17.0
	231.0 - 233.0	100	0.3	375.5	18.6	31.0	10.0
	233.0 - 234.0	70	0.3	595.0	62.4	37.5	<2.0
	234.0 - 235.0	70	0.5	605.0	3.6	30.5	3.0
	235.0 - 236.0	30	0.1	221.0	3.6	24.5	<2.0
	236.0 - 238.0	30	0.5	473.0	5.5	27.5	<2.0
	238.0 - 239.0	20	0.3	340.0	6.6	26.0	<2.0
	239.0 - 240.0	40	0.3	190.0	7.2	47.0	<2.0
	240.0 - 242.0	10	0.1	35.5	6.8	52.5	<2.0
	242.0 - 244.0	20	0.1	28.5	5.3	52.0	<2.0
	244.0 - 247.0	30	0.1	62.0	4.6	50.5	<2.0
	247.0 - 250.0	50	0.2	299.0	12.4	24.5	<2.0