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Cooperative Research Centre for  
Landscape Evolution & Mineral Exploration



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**AMIRA**

Australian Mineral Industries Research Association Limited ACN 004 448 266

# **GEOCHEMICAL EXPLORATION FOR PLATINUM GROUP ELEMENTS IN WEATHERED TERRAIN**

## **P252 FINAL REPORT**

### **Volume IIB**

*C.R.M. Butt, P.A. Williams, D.J. Gray, I.D.M. Robertson,  
K.H. Schorin, H.M. Churchward, J. McAndrew,  
S.J. Barnes and M.F.J. Tenhaeff*

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**March 2001**

**(CSIRO Division of Exploration Geoscience Report 332R, 1992.  
Second impression 2001)**

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**RESEARCH ARISING FROM CSIRO/AMIRA YILGARN REGOLITH GEOCHEMISTRY PROJECTS 1987-1996**

In 1987, CSIRO commenced a series of multi-client research projects in regolith geology and geochemistry which were sponsored by companies in the Australian mining industry, through the Australian Mineral Industries Research Association Limited (AMIRA). The initial research program, "Exploration for concealed gold deposits, Yilgarn Block, Western Australia" had the aim of developing improved geological, geochemical and geophysical methods for mineral exploration that would facilitate the location of blind, buried or deeply weathered gold deposits. The program commenced with the following projects:

**P240: Laterite geochemistry for detecting concealed mineral deposits (1987-1991).** Leader: Dr R.E. Smith.

Its scope was development of methods for sampling and interpretation of multi-element laterite geochemistry data and application of multi-element techniques to gold and polymetallic mineral exploration in weathered terrain. The project emphasised viewing laterite geochemical dispersion patterns in their regolith-landform context at local and district scales. It was supported by 30 companies.

**P241: Gold and associated elements in the regolith - dispersion processes and implications for exploration (1987-1991).** Leader: Dr C.R.M. Butt.

The project investigated the distribution of ore and indicator elements in the regolith. It included studies of the mineralogical and geochemical characteristics of weathered ore deposits and wall rocks, and the chemical controls on element dispersion and concentration during regolith evolution. This was to increase the effectiveness of geochemical exploration in weathered terrain through improved understanding of weathering processes. It was supported by 26 companies.

These projects represented 'an opportunity for the mineral industry to participate in a multi-disciplinary program of geoscience research aimed at developing new geological, geochemical and geophysical methods for exploration in deeply weathered Archaean terrains'. This initiative recognised the unique opportunities, created by exploration and open-cut mining, to conduct detailed studies of the weathered zone, with particular emphasis on the near-surface expression of gold mineralisation. The skills of existing and specially recruited research staff from the Floreat Park and North Ryde laboratories (of the then Divisions of Minerals and Geochemistry, and Mineral Physics and Mineralogy, subsequently Exploration Geoscience and later Exploration and Mining) were integrated to form a task force with expertise in geology, mineralogy, geochemistry and geophysics. Several staff participated in more than one project. Following completion of the original projects, two continuation projects were developed.

**P240A: Geochemical exploration in complex lateritic environments of the Yilgarn Craton, Western Australia (1991-1993).** Leaders: Drs R.E. Smith and R.R. Anand.

The approach of viewing geochemical dispersion within a well-controlled and well-understood regolith-landform and bedrock framework at detailed and district scales continued. In this extension, focus was particularly on areas of transported cover and on more complex lateritic environments typified by the Kalgoorlie regional study. This was supported by 17 companies.

**P241A: Gold and associated elements in the regolith - dispersion processes and implications for exploration (1991-1993).** Leader: Dr. C.R.M. Butt.

The significance of gold mobilisation under present-day conditions, particularly the important relationship with pedogenic carbonate, was investigated further. In addition, attention was focussed on the recognition of primary lithologies from their weathered equivalents. This project was supported by 14 companies.

Most reports related to the above research projects were published as CRC LEME Open File Reports Series (Nos 1-74), with an index (Report 75), by June 1999. Publication now continues with release of reports from further projects.

**P252: Geochemical exploration for platinum group elements in weathered terrain.** Leader: Dr C.R.M. Butt.

This project was designed to gather information on the geochemical behaviour of the platinum group elements under weathering conditions using both laboratory and field studies, to determine their dispersion in the regolith and to apply this to concepts for use in exploration. The research was commenced in 1988 by CSIRO Exploration Geoscience and the University of Wales (Cardiff). The Final Report was completed in December 1992. It was supported by 9 companies.

**P409: Geochemical exploration in areas of transported overburden, Yilgarn Craton and environs, WA.**

Leaders: Drs C.R.M. Butt and R.E. Smith.

About 50% or more of prospective terrain in the Yilgarn is obscured by substantial thicknesses of transported overburden that varies in age from Permian to Recent. Some of this cover has undergone substantial weathering. Exploration problems in these covered areas were the focus of Project 409. The research was commenced in June 1993 by CSIRO Exploration and Mining but was subsequently incorporated into the activities of CRC LEME in July 1995 and was concluded in July 1996. It was supported by 22 companies.

Although the confidentiality periods of Projects P252 and P409 expired in 1994 and 1998, respectively, the reports have not been released previously. CRC LEME acknowledges the Australian Mineral Industries Research Association and CSIRO Division of Exploration and Mining for authority to publish these reports. It is intended that publication of the reports will be a substantial additional factor in transferring technology to aid the Australian mineral industry.

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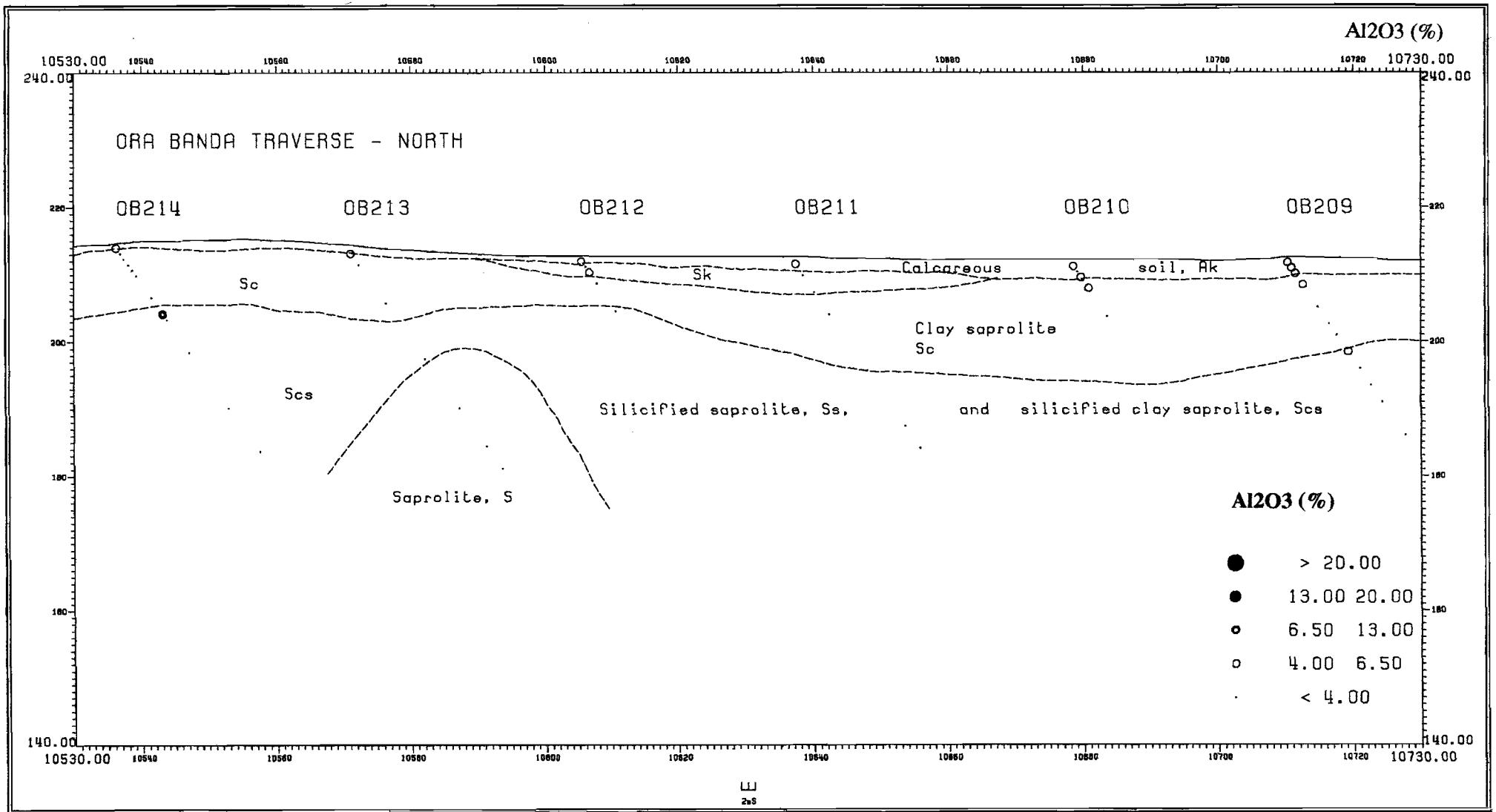
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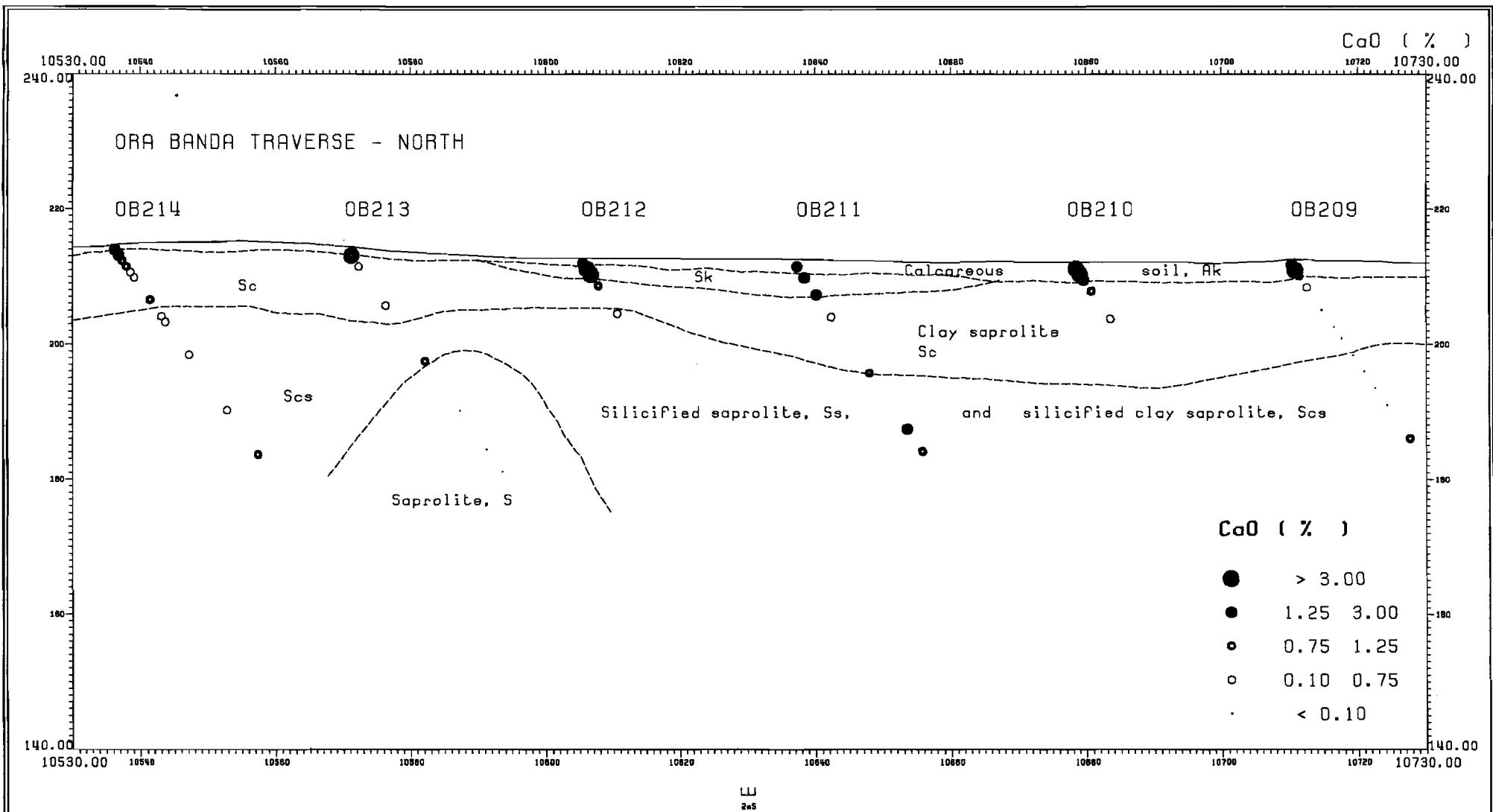
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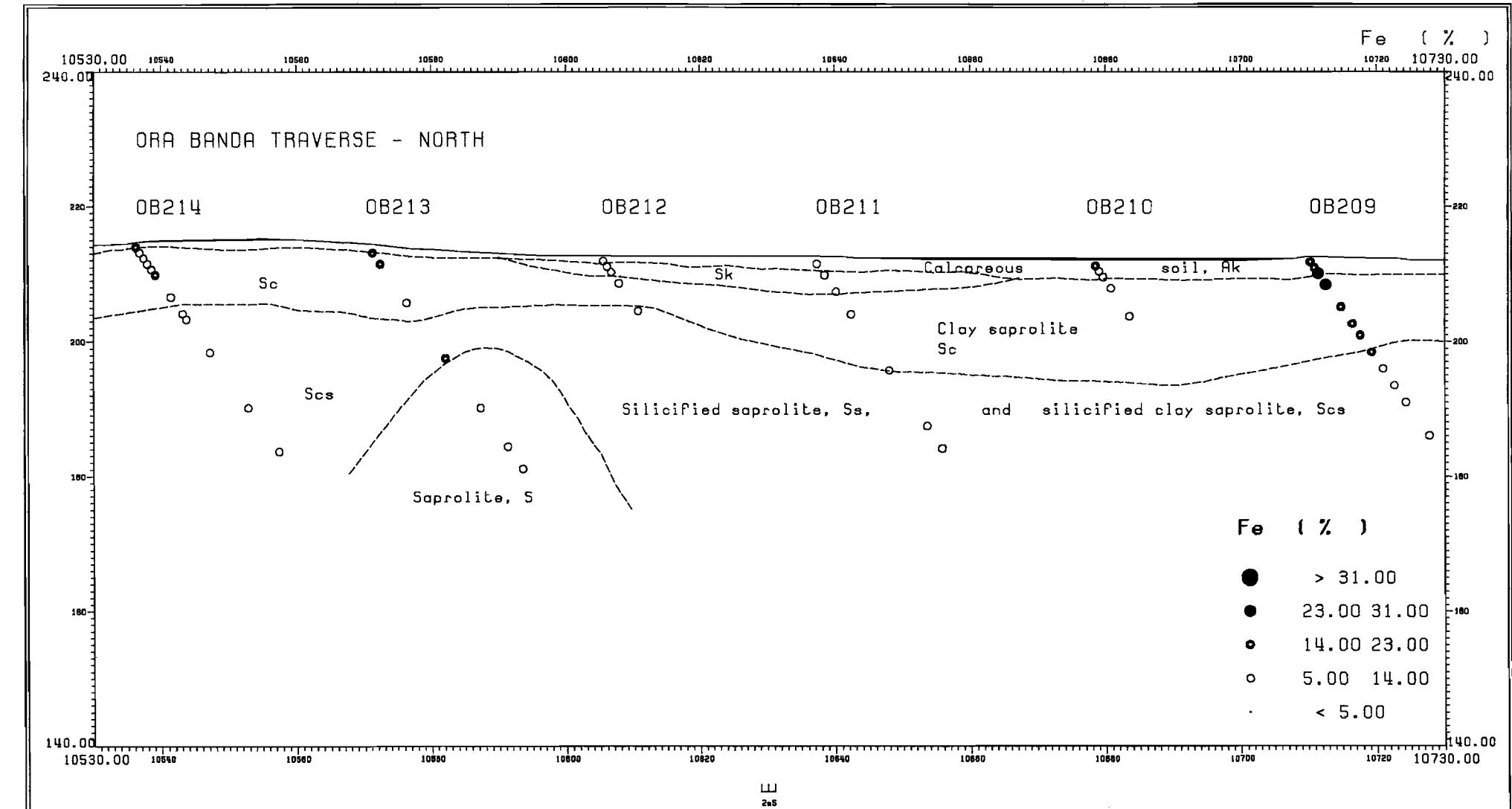
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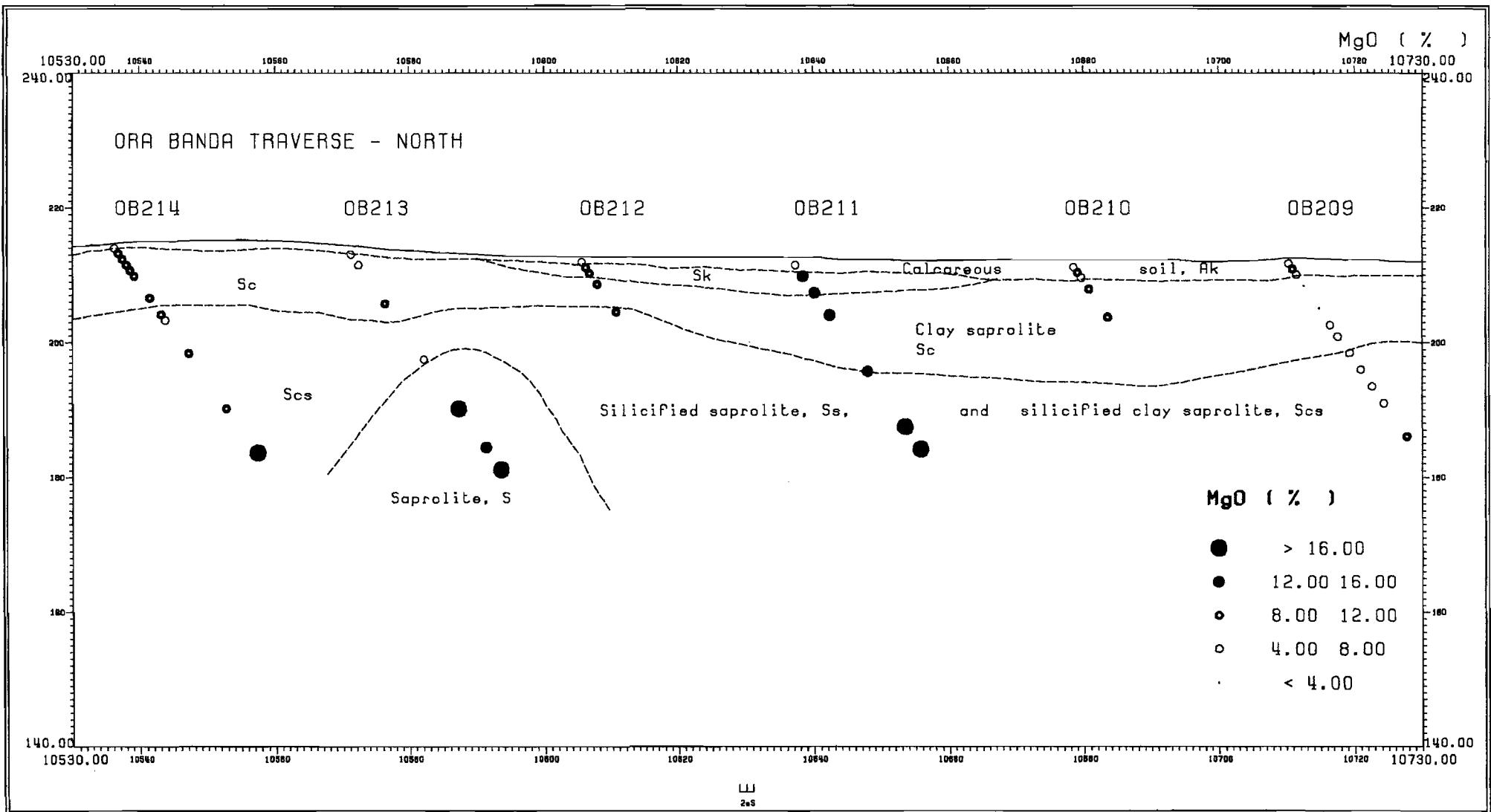
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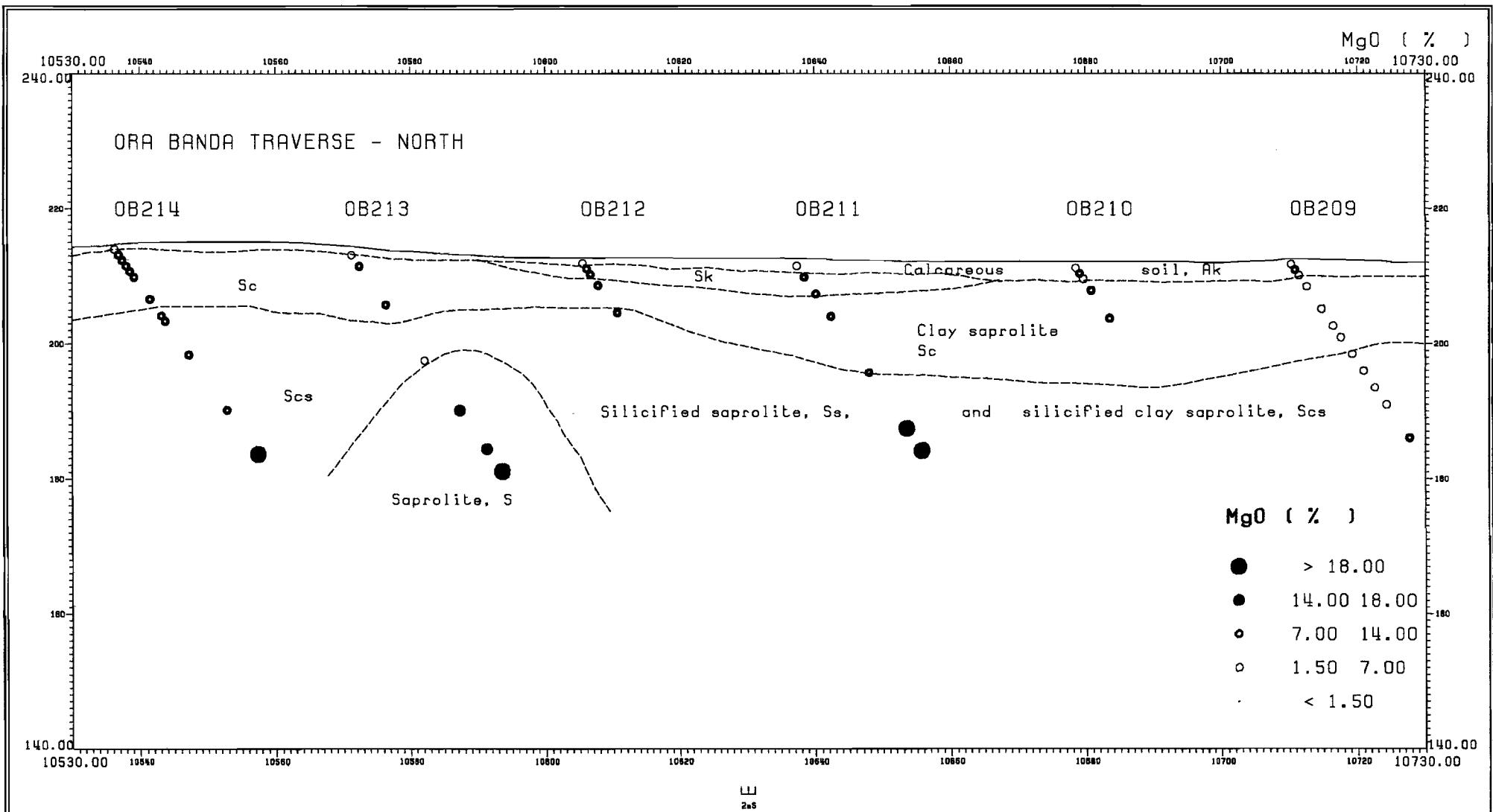
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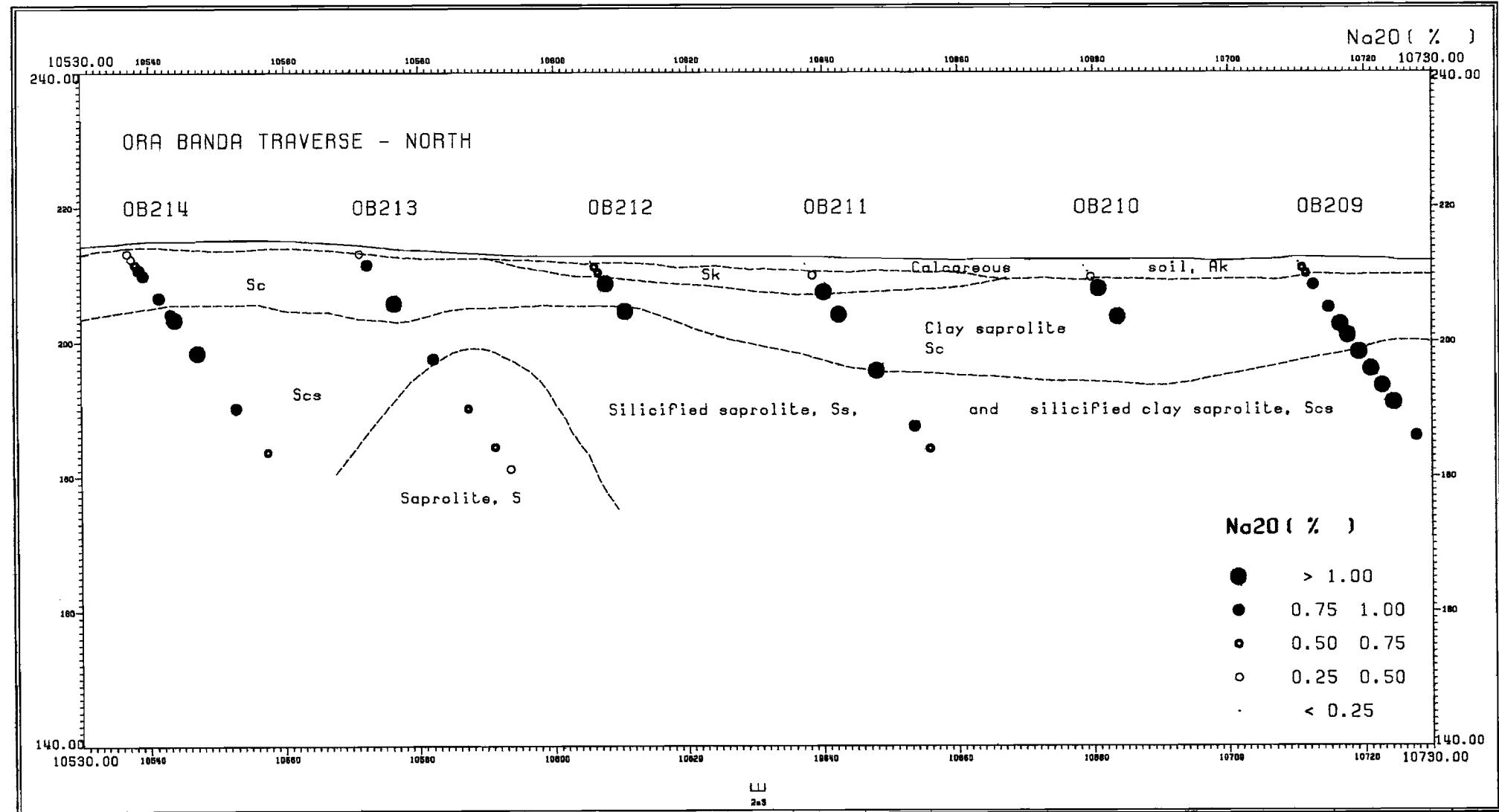


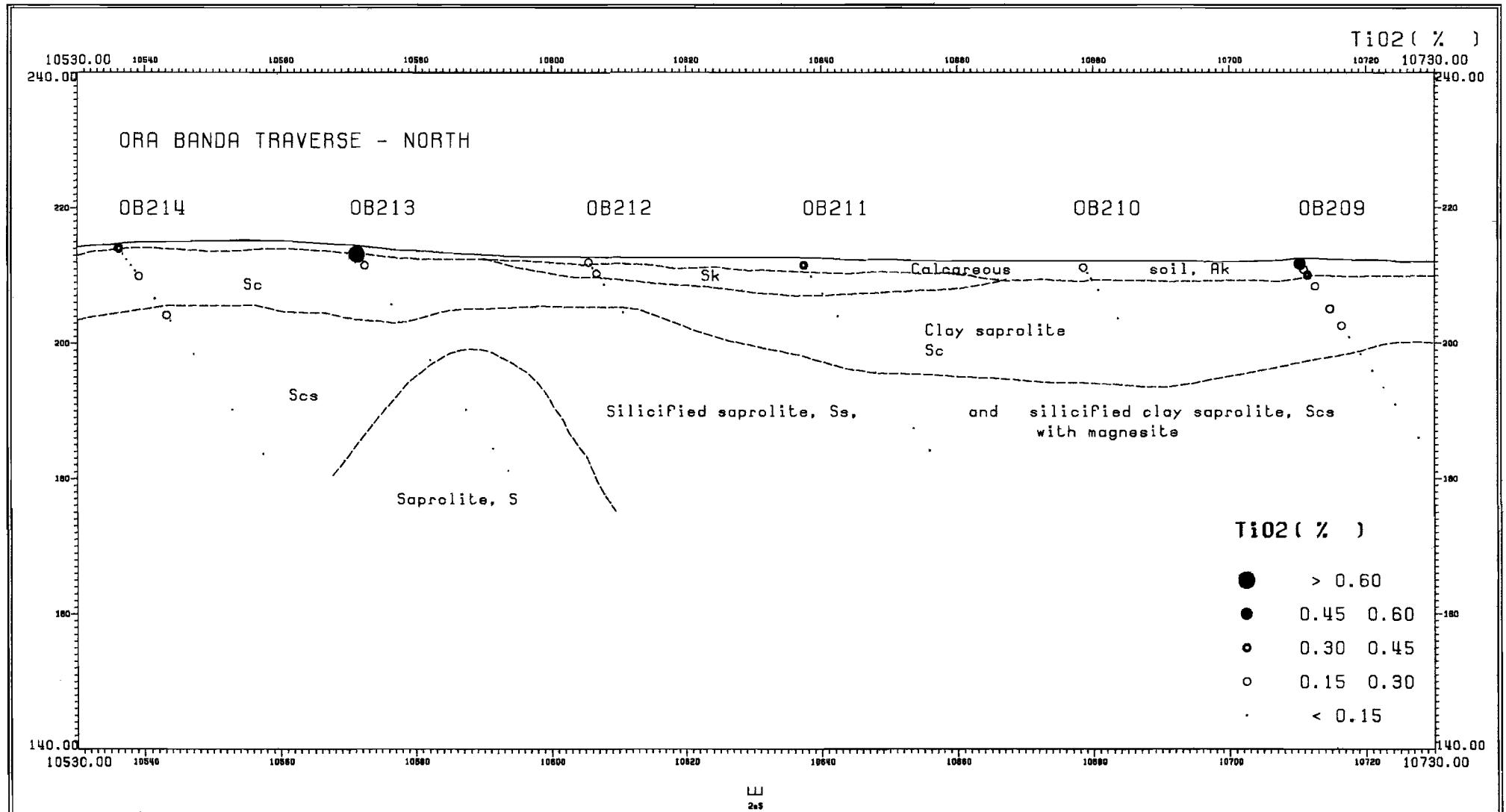


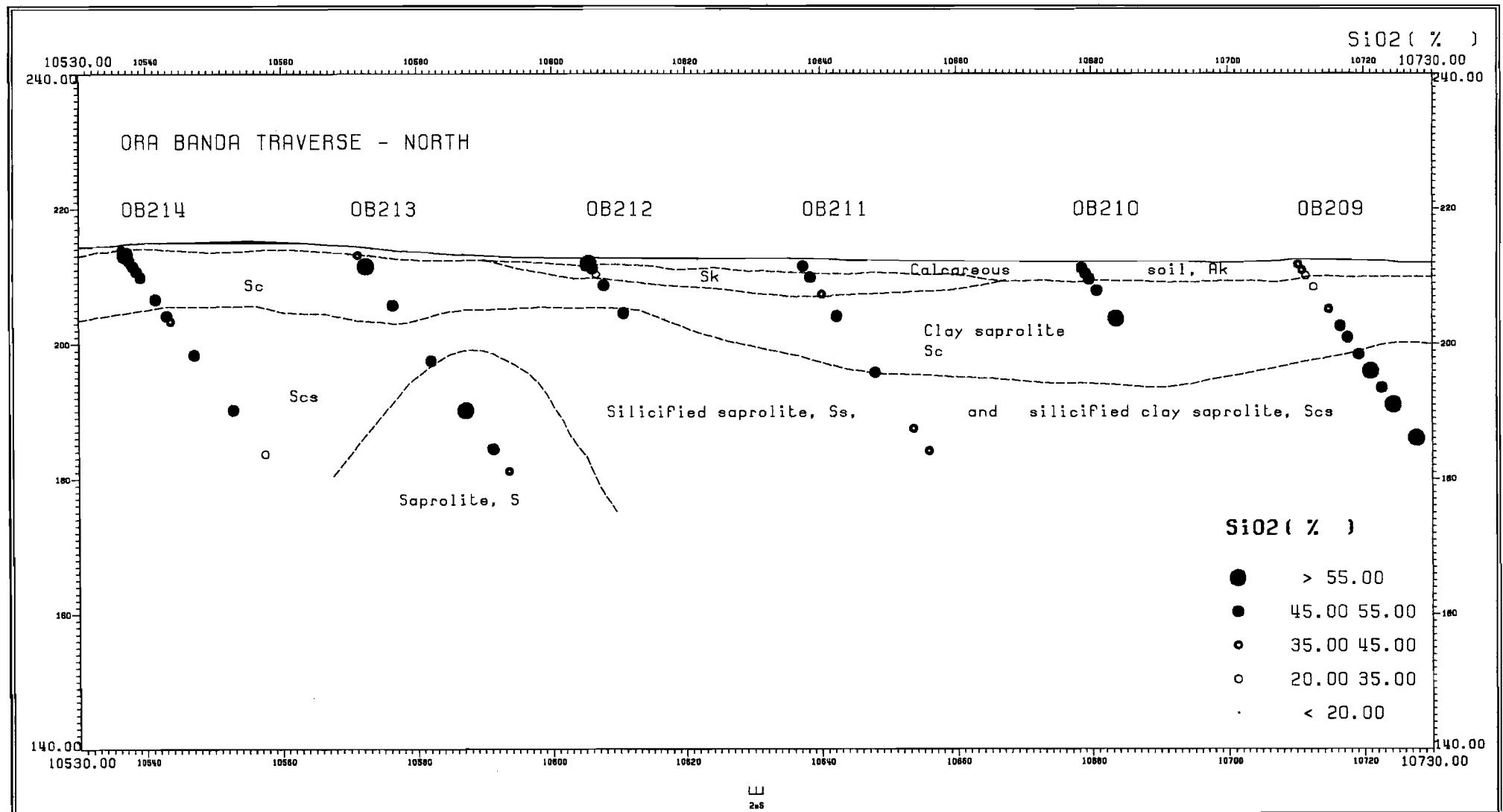


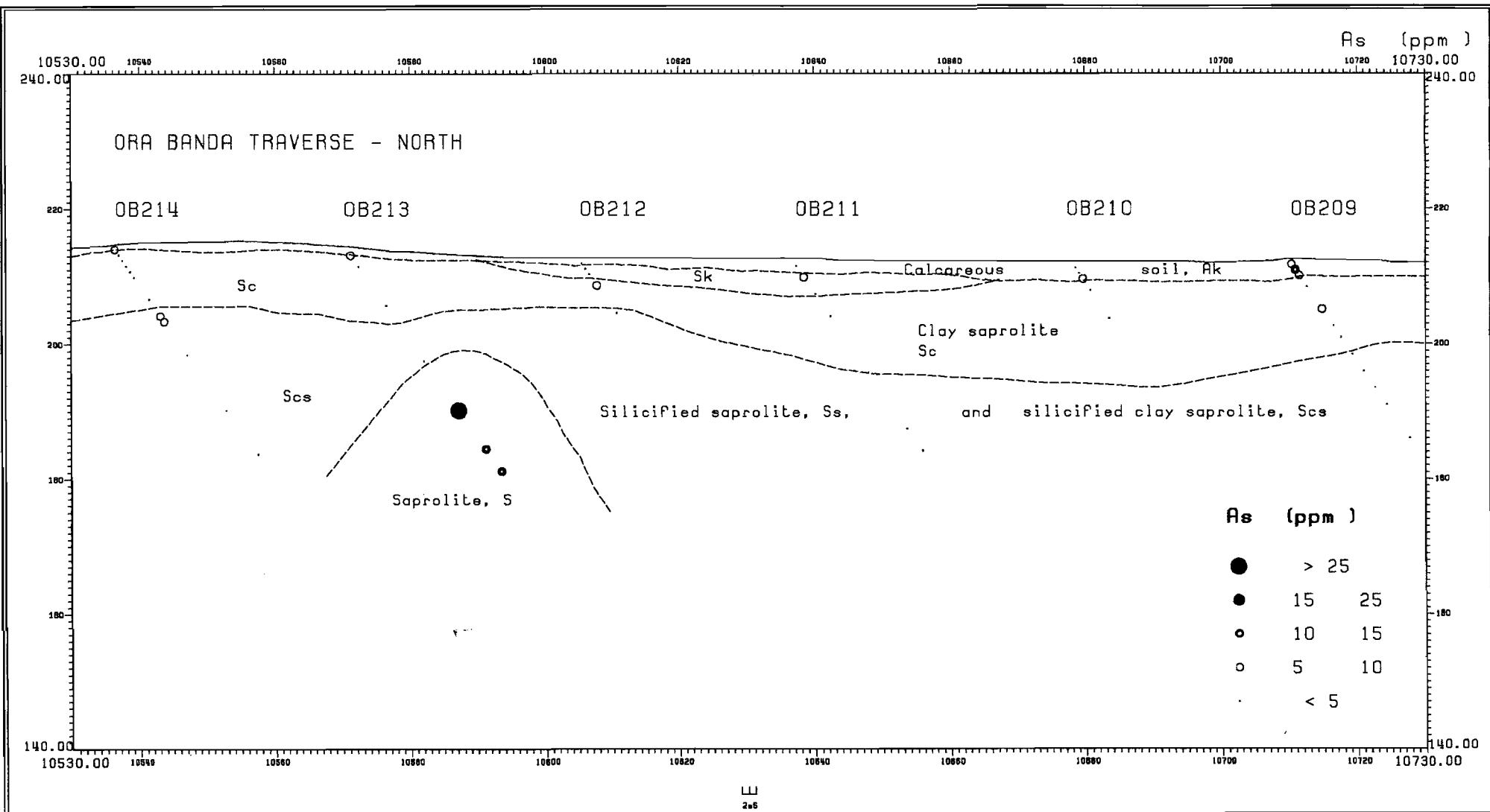


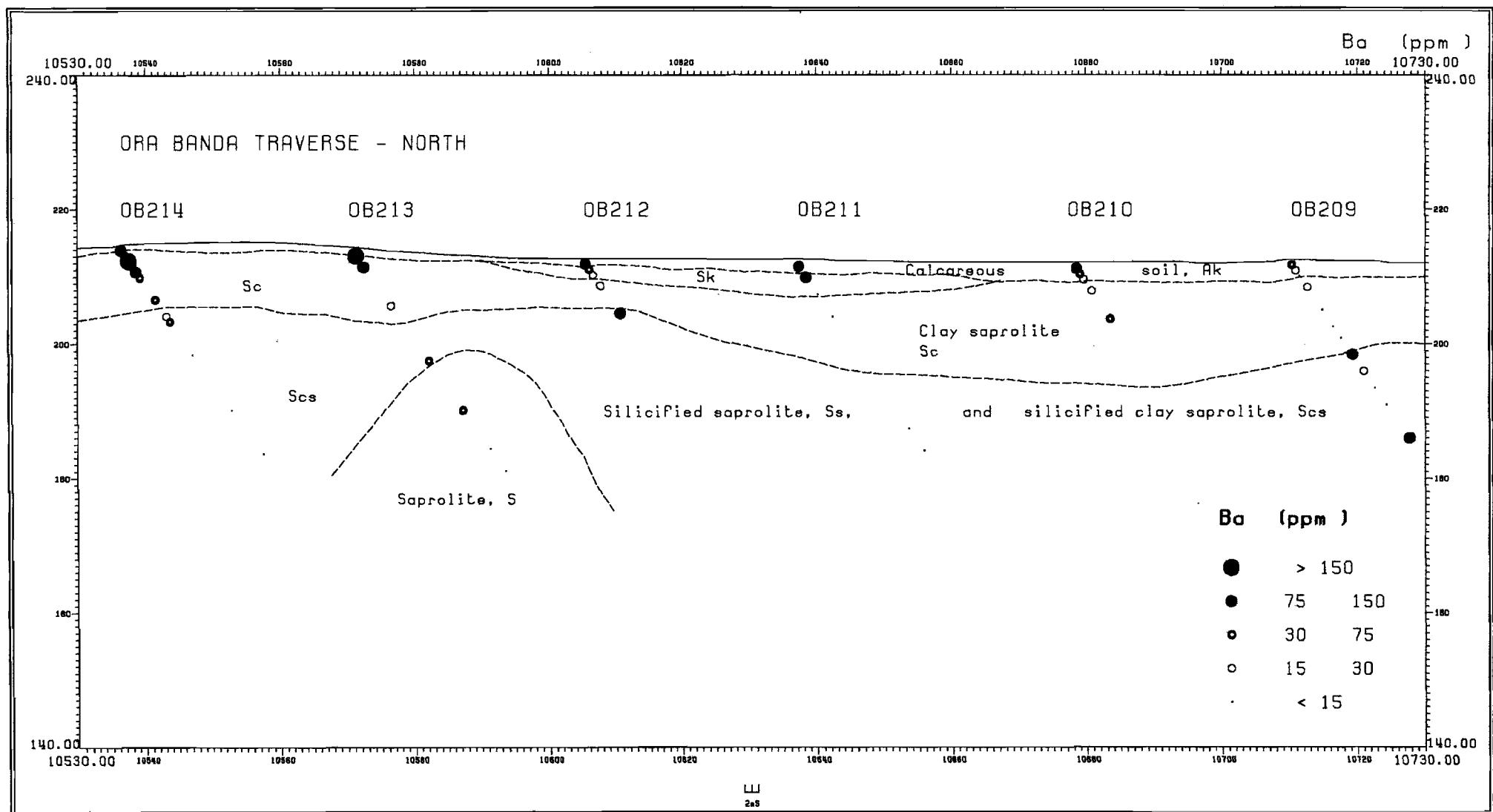


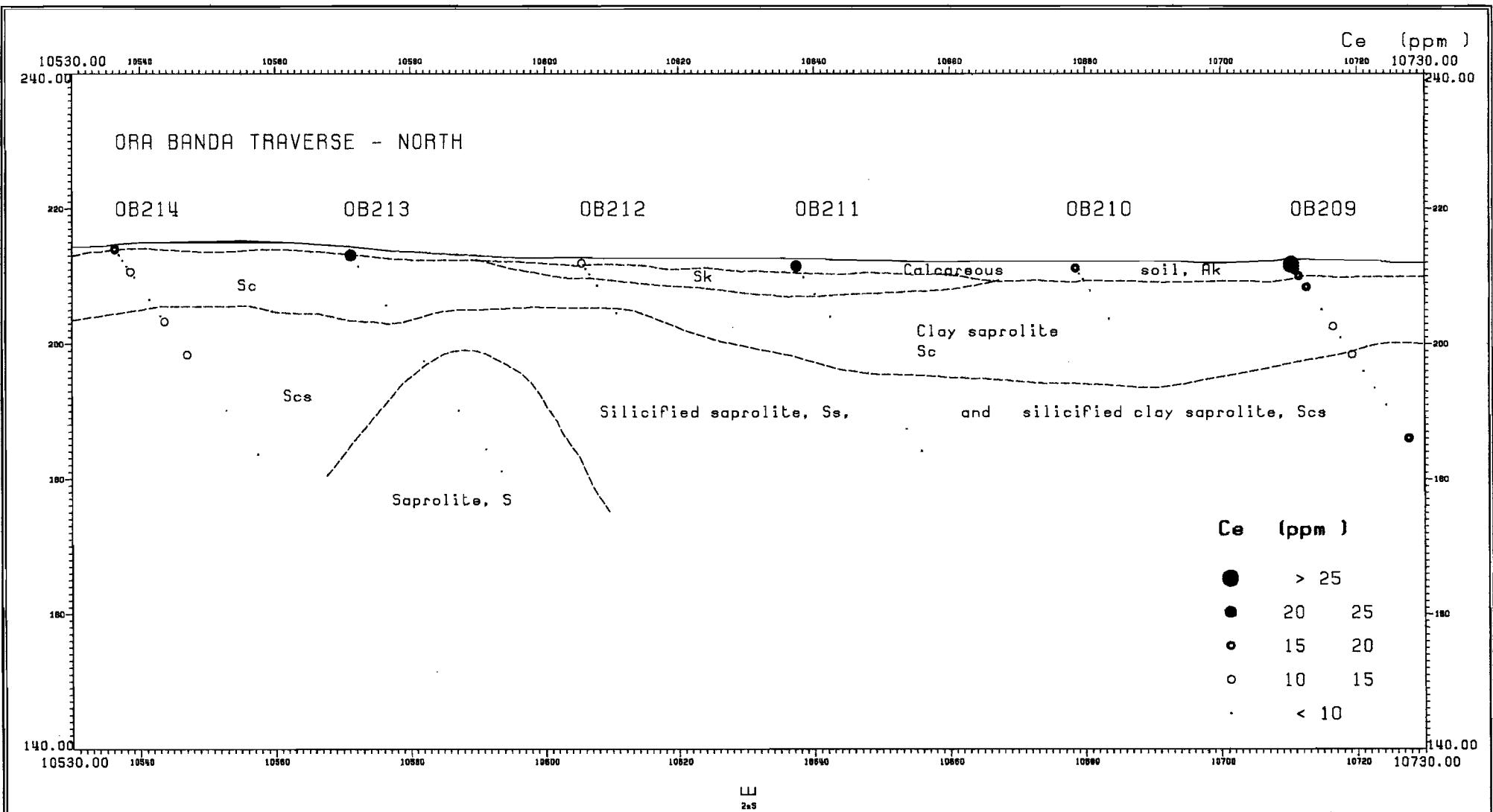


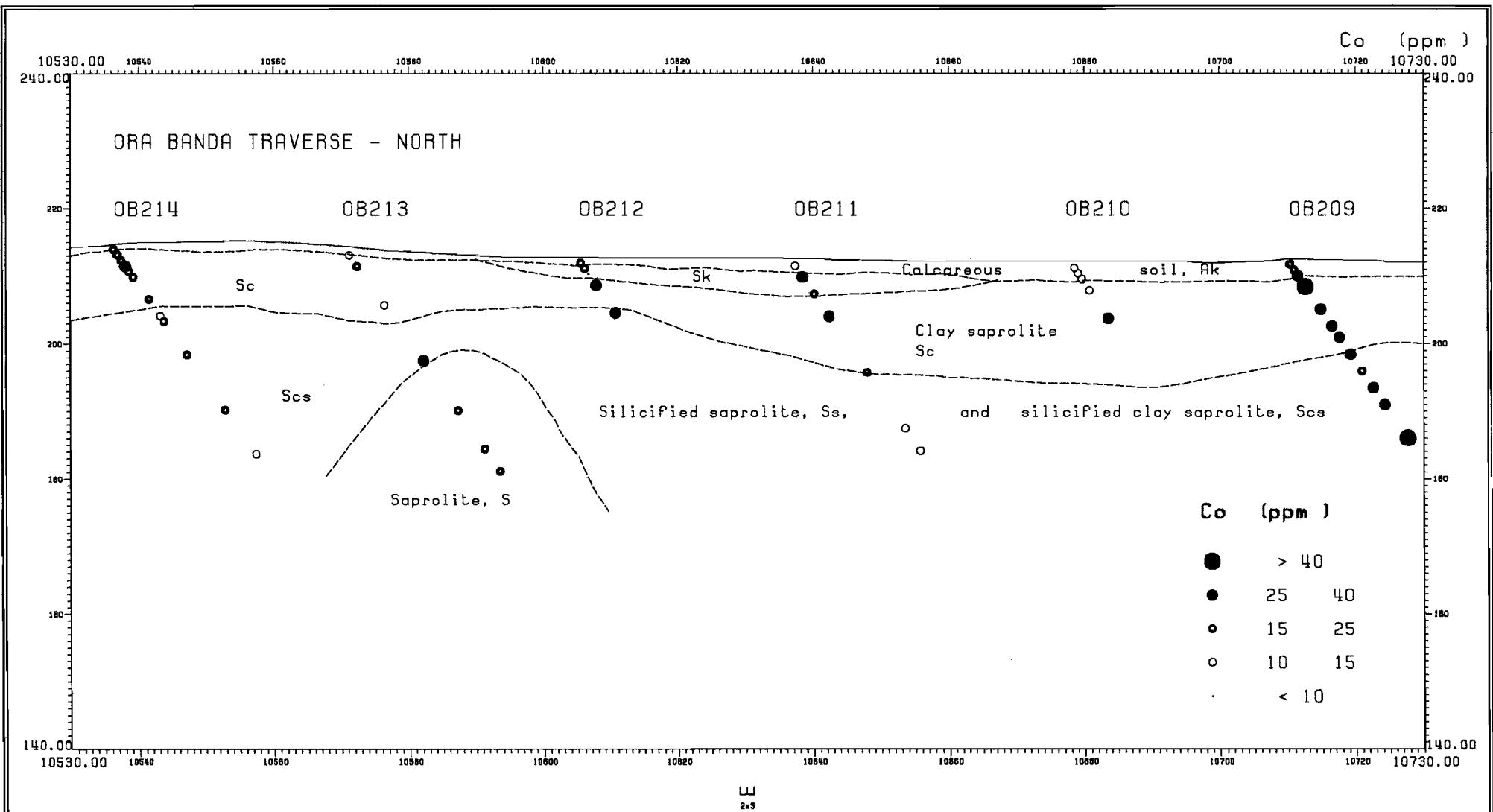


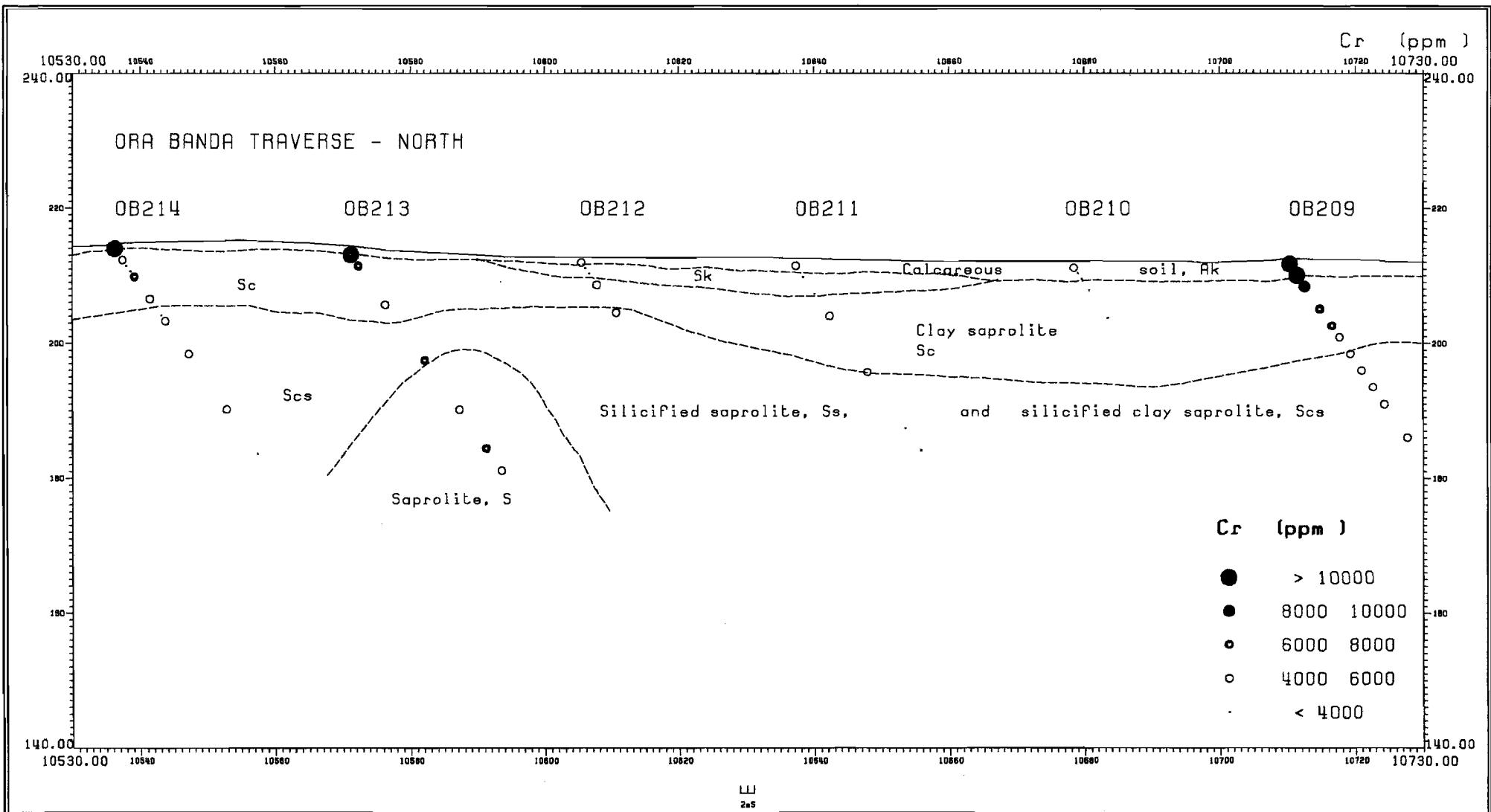


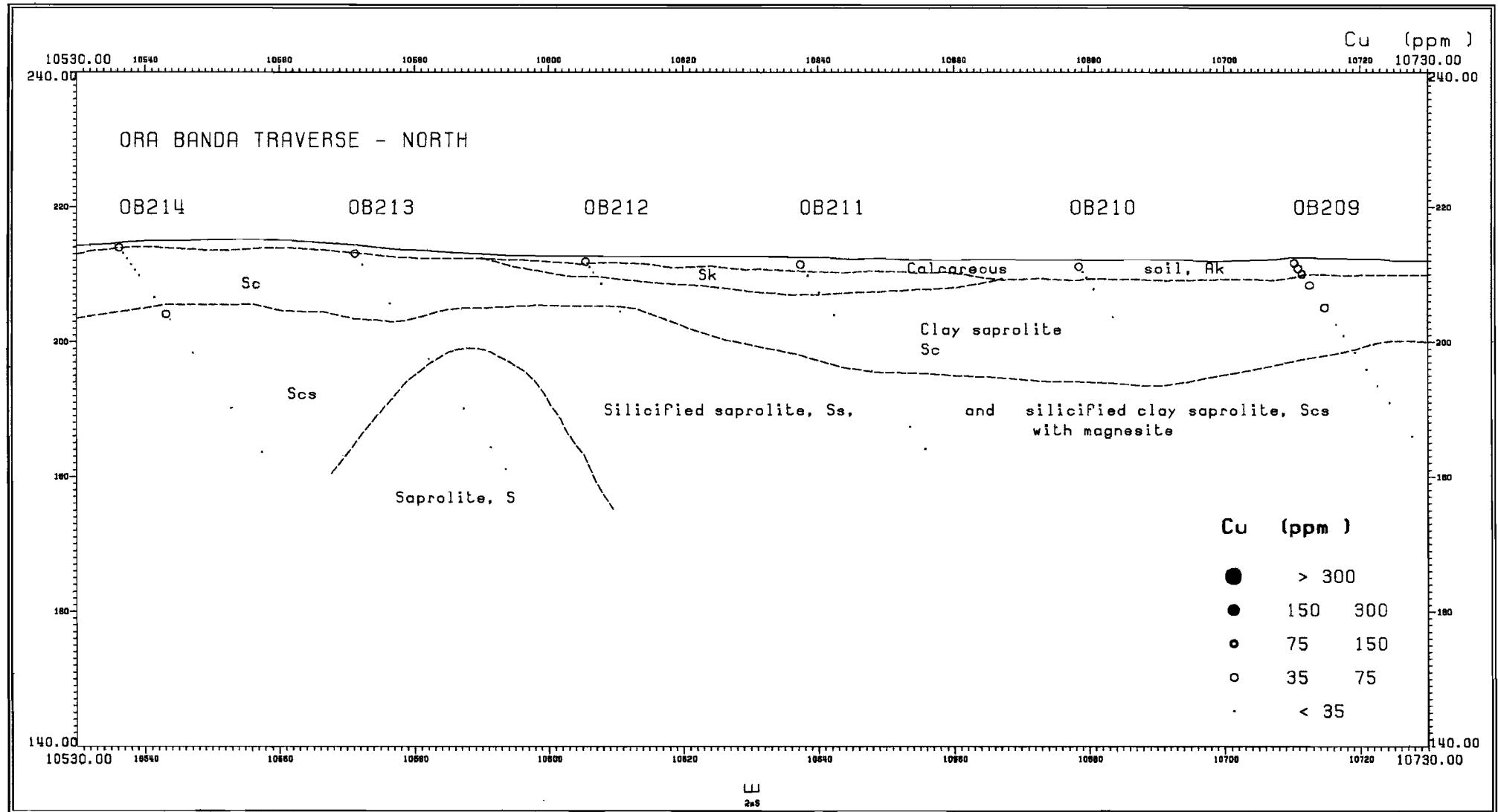


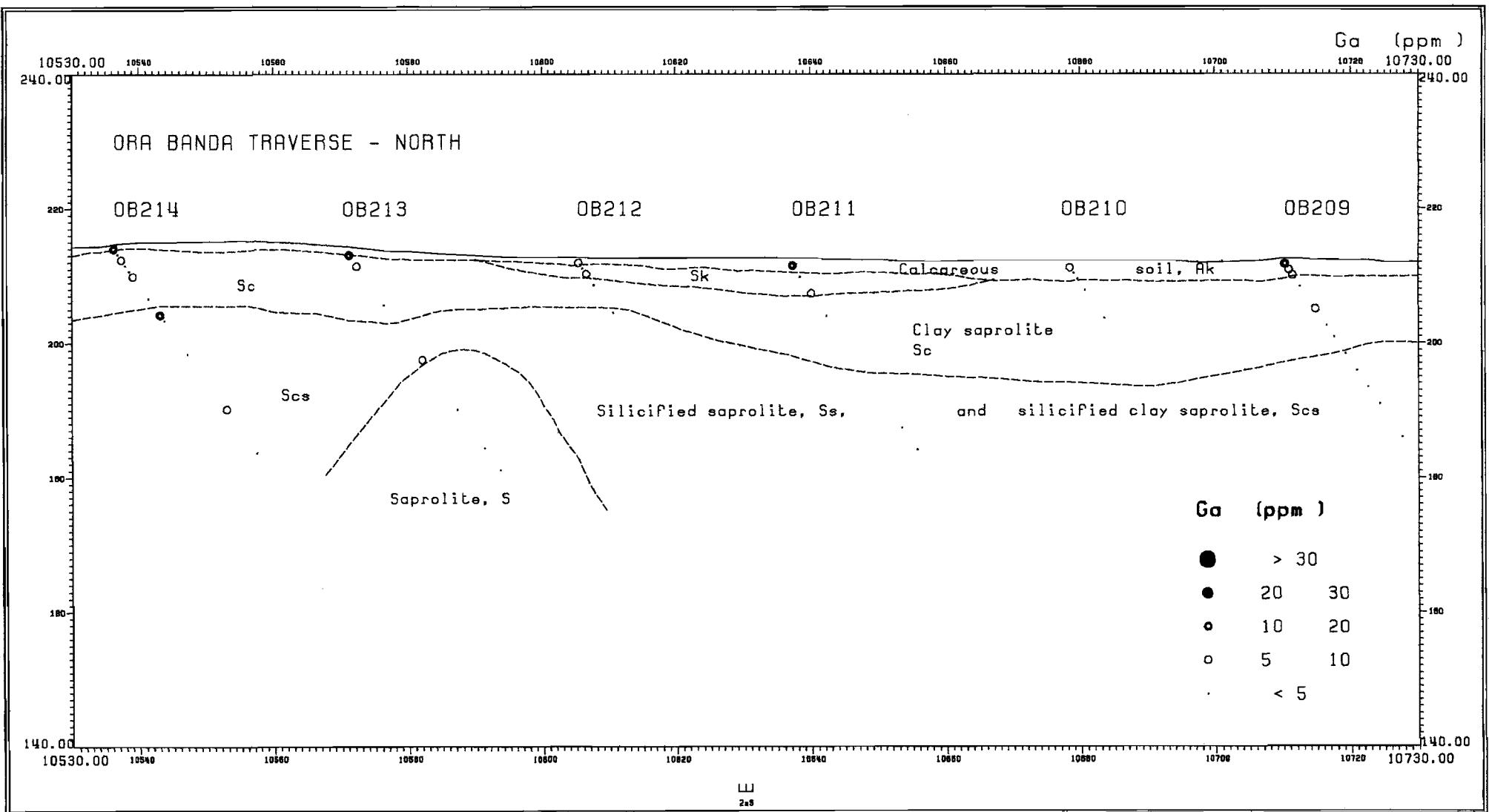


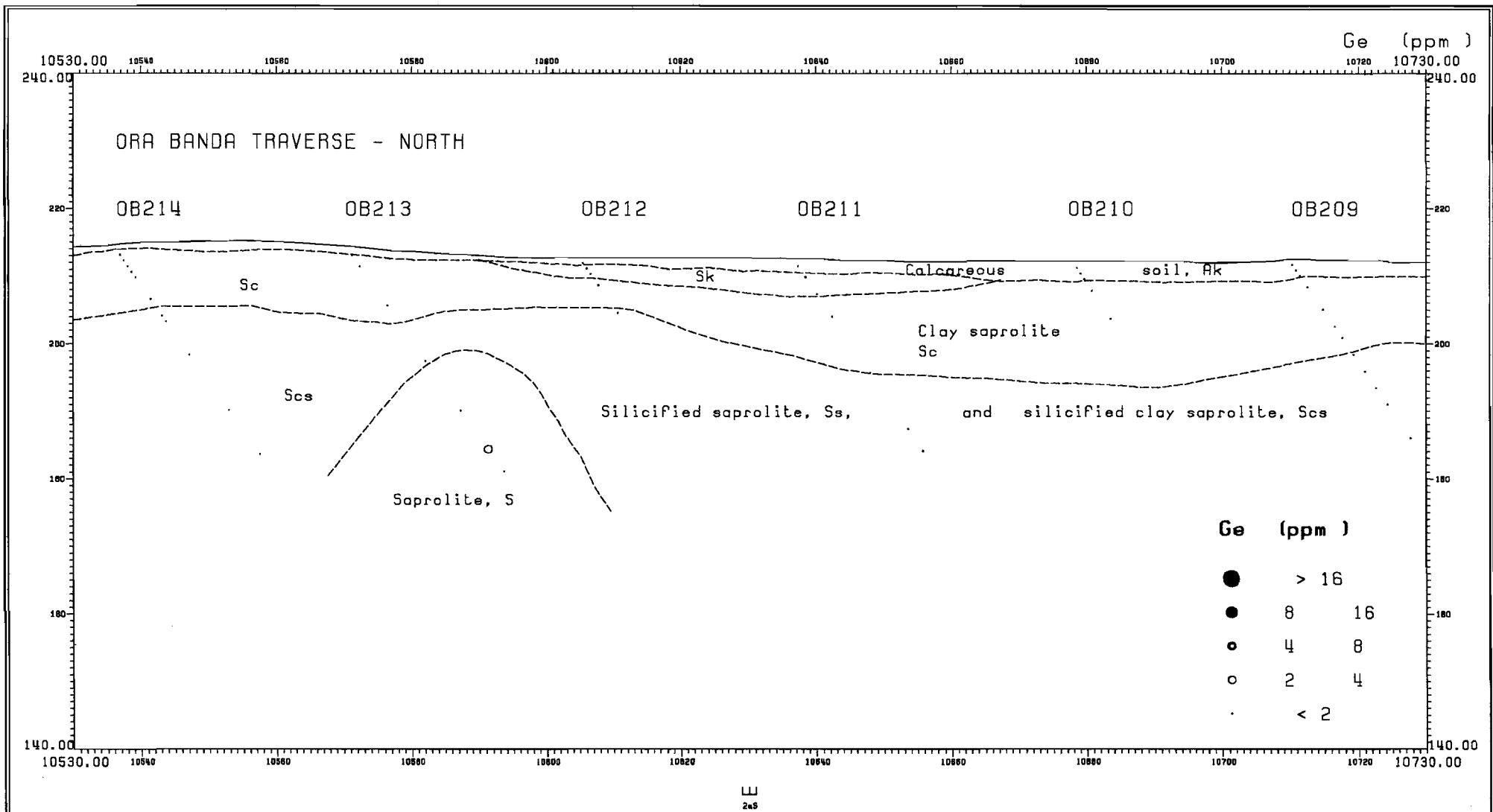


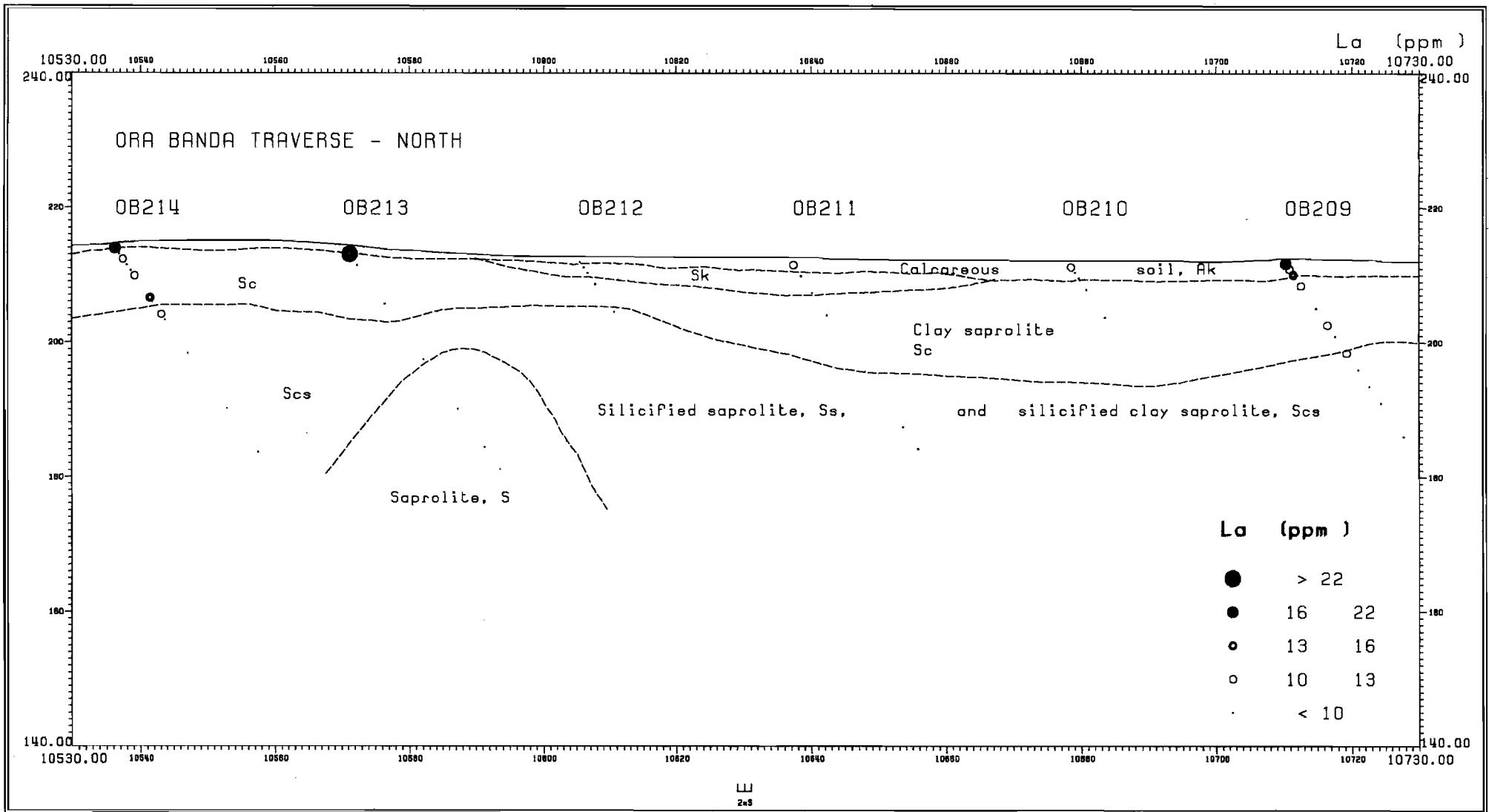


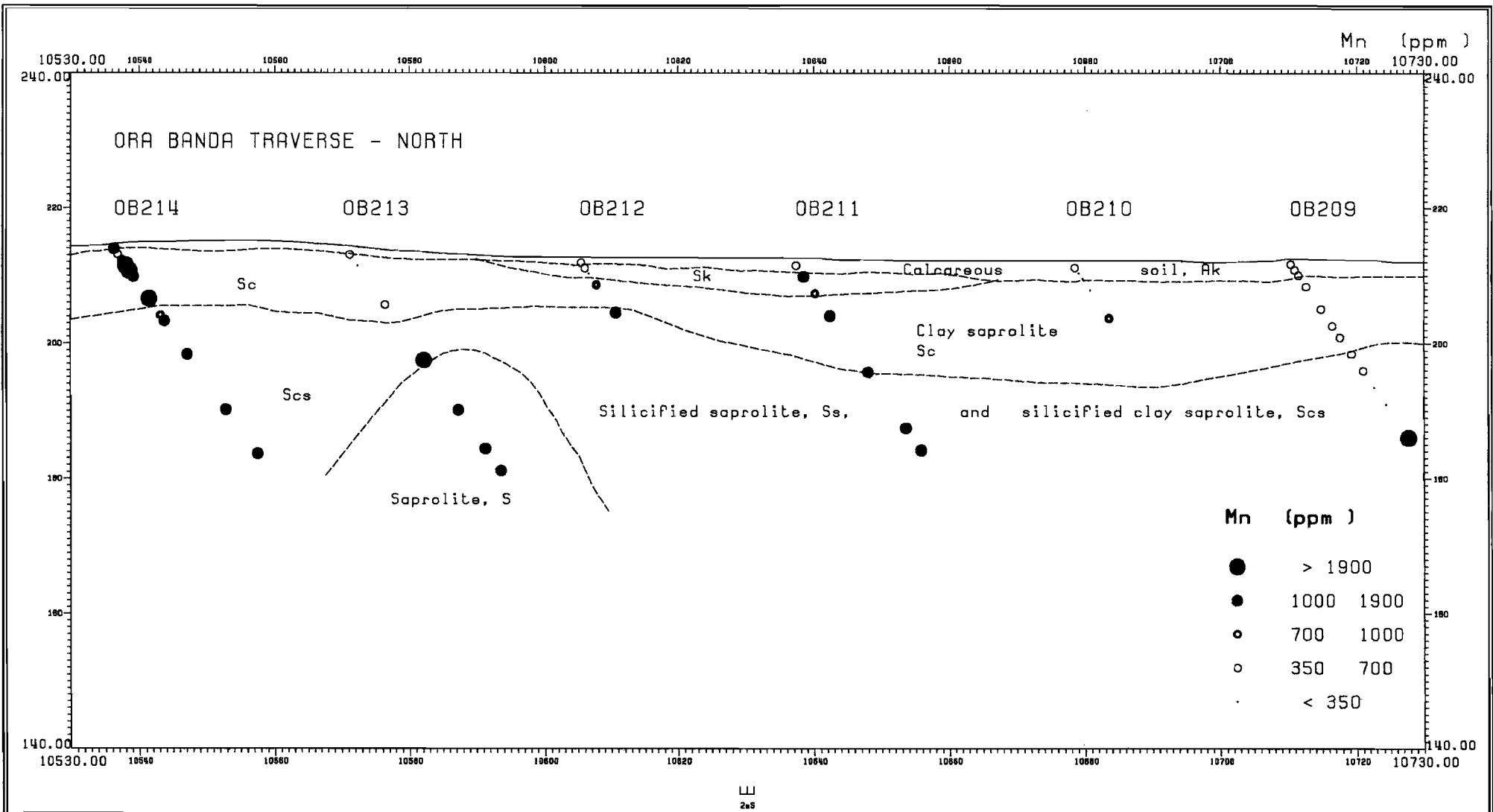


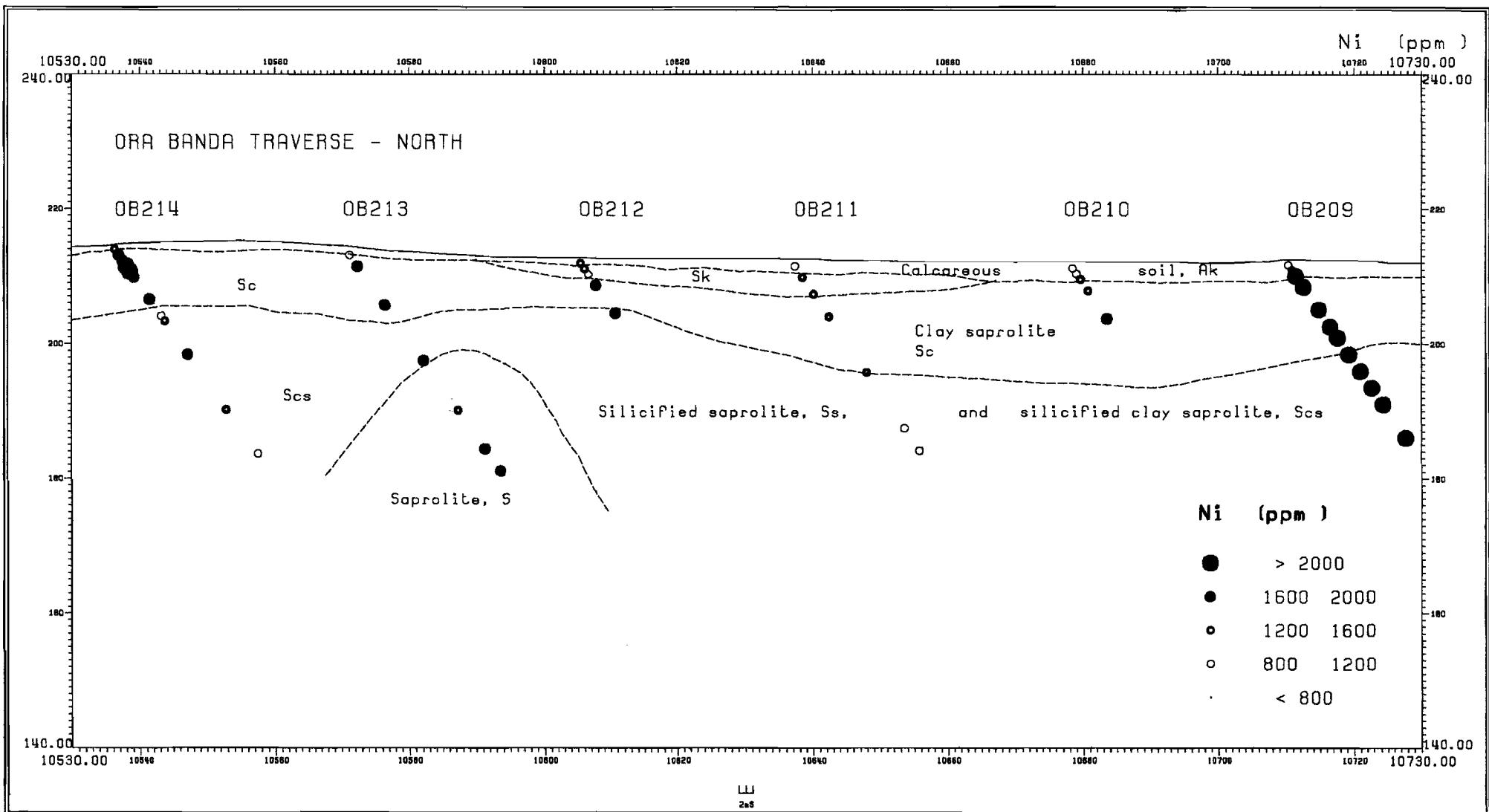


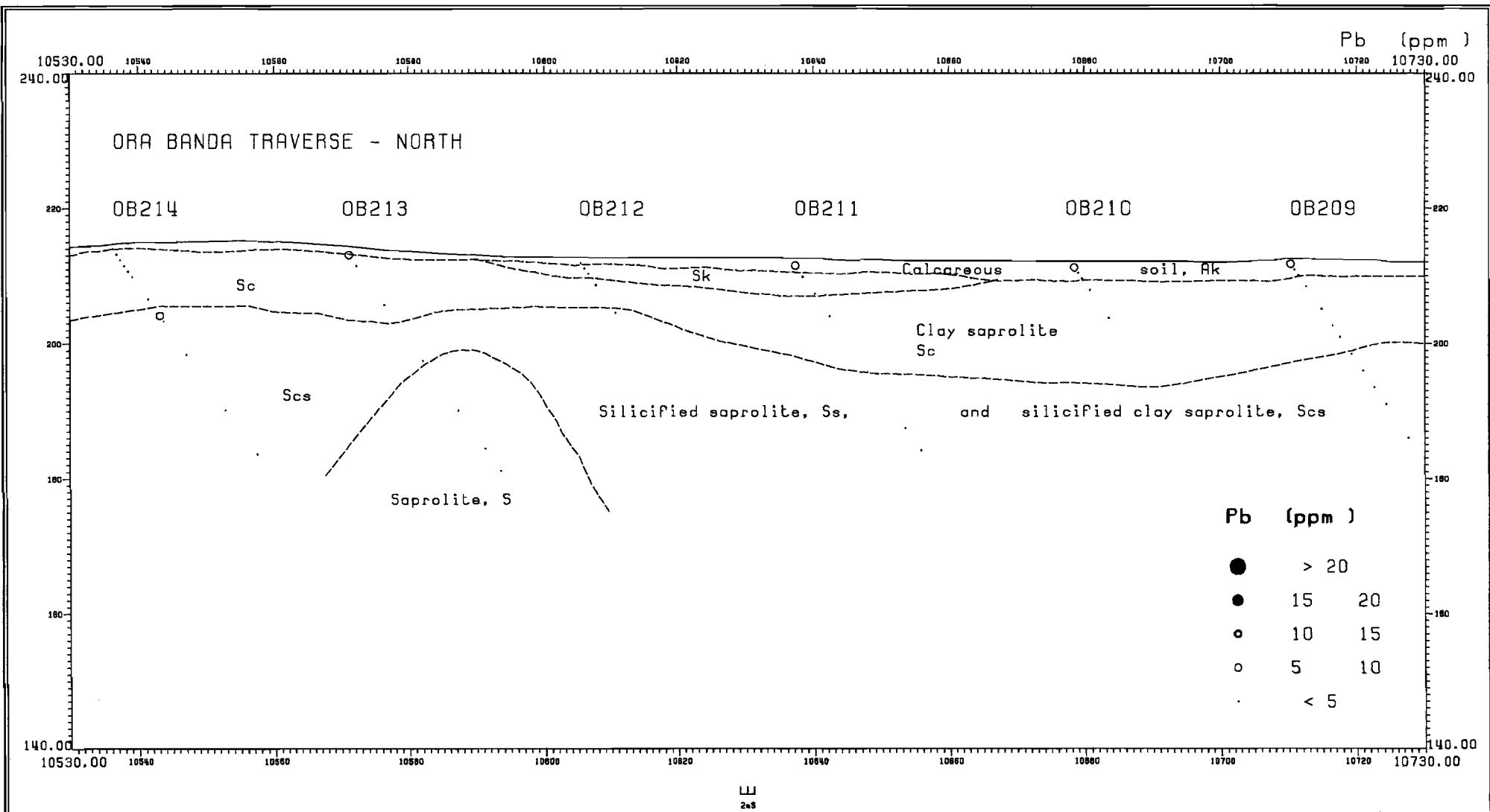


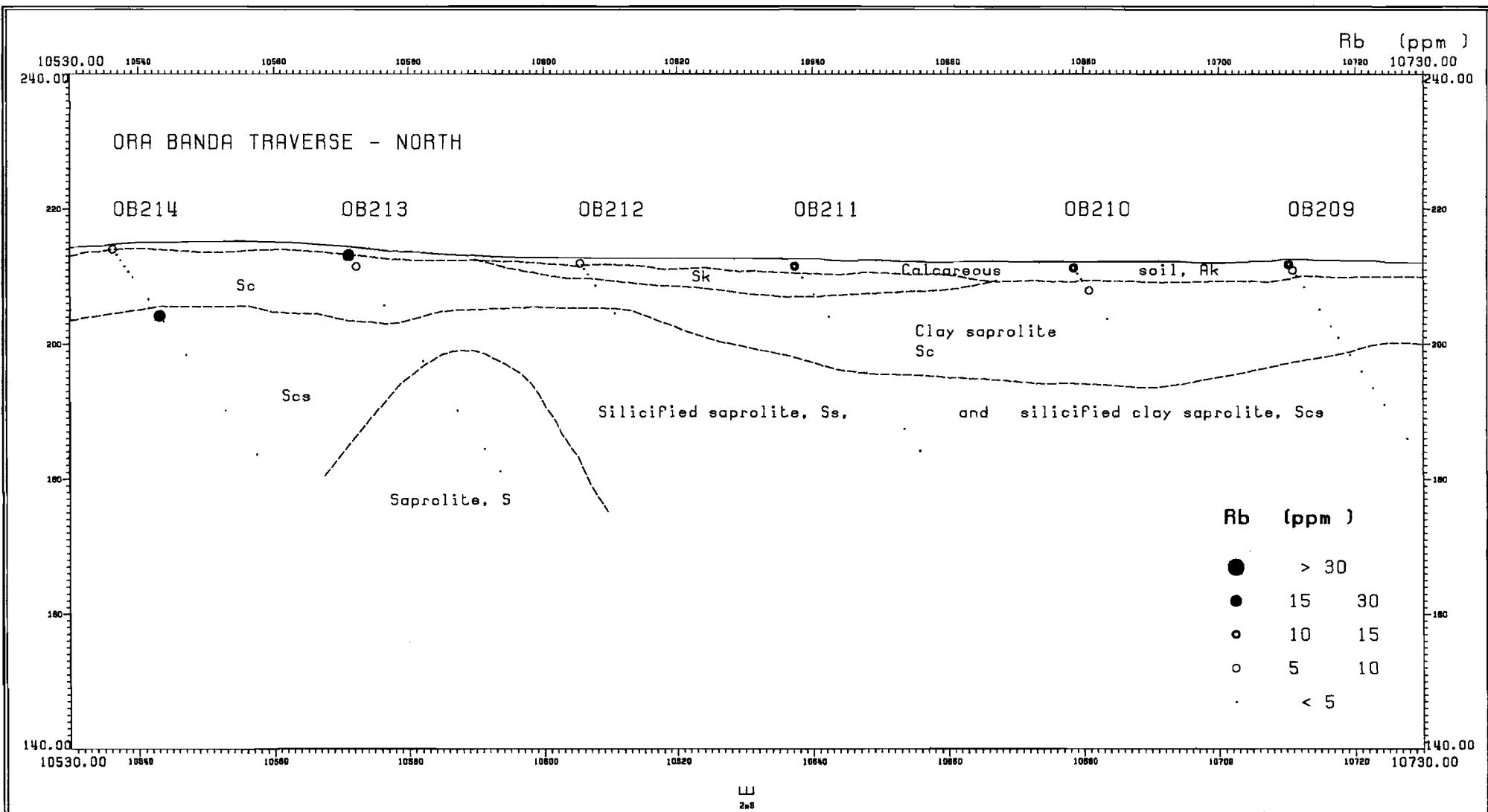


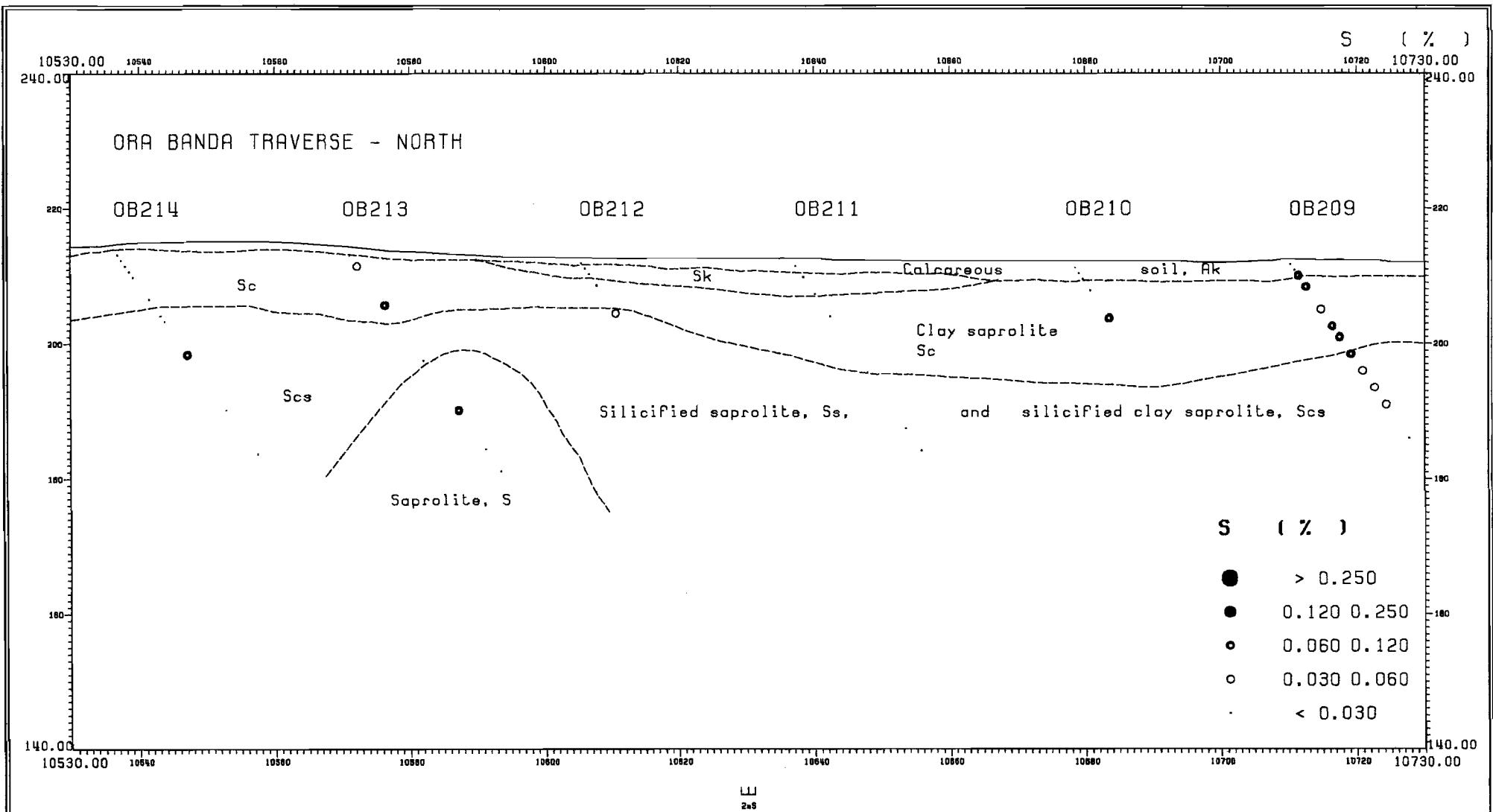


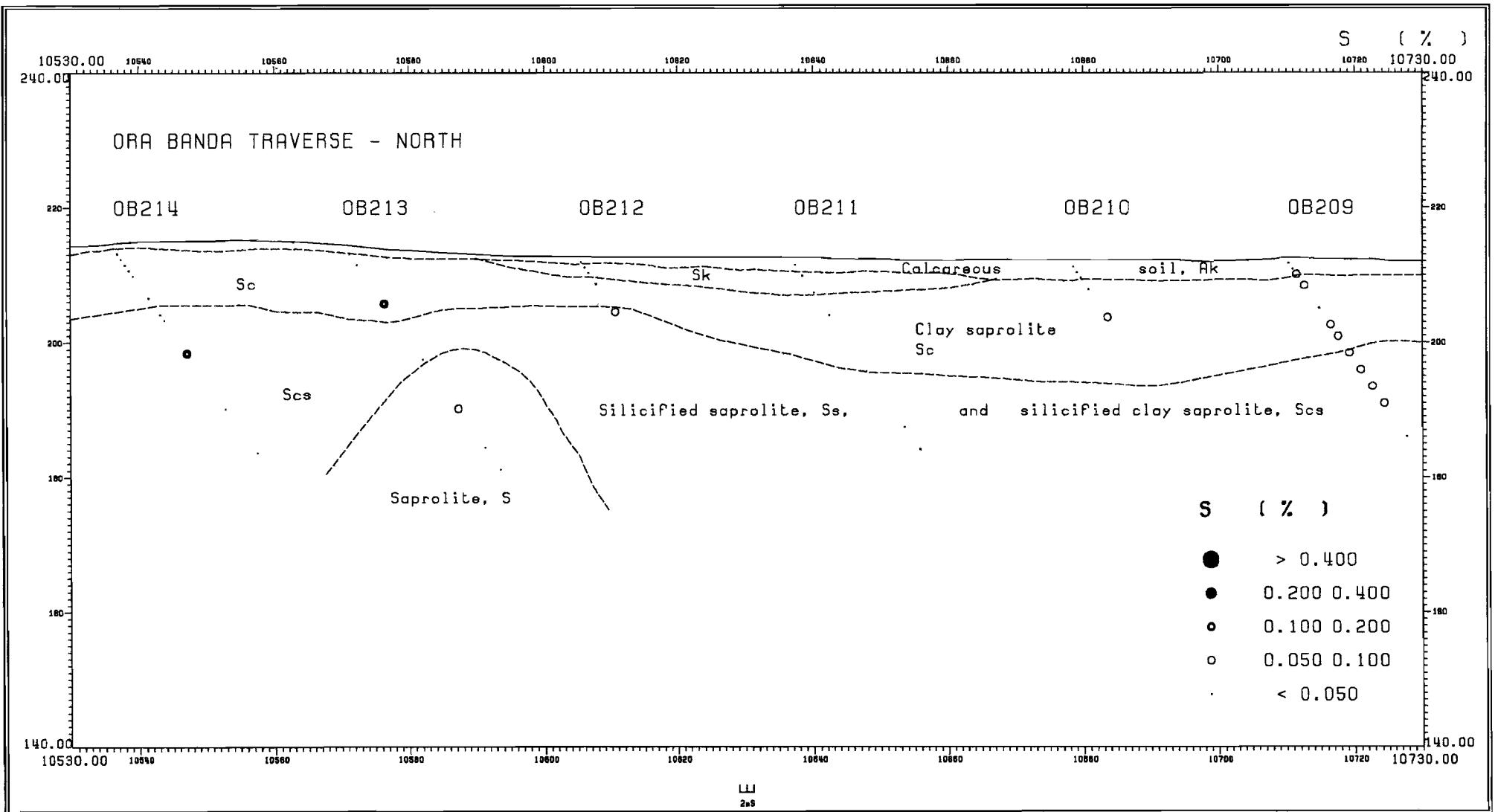


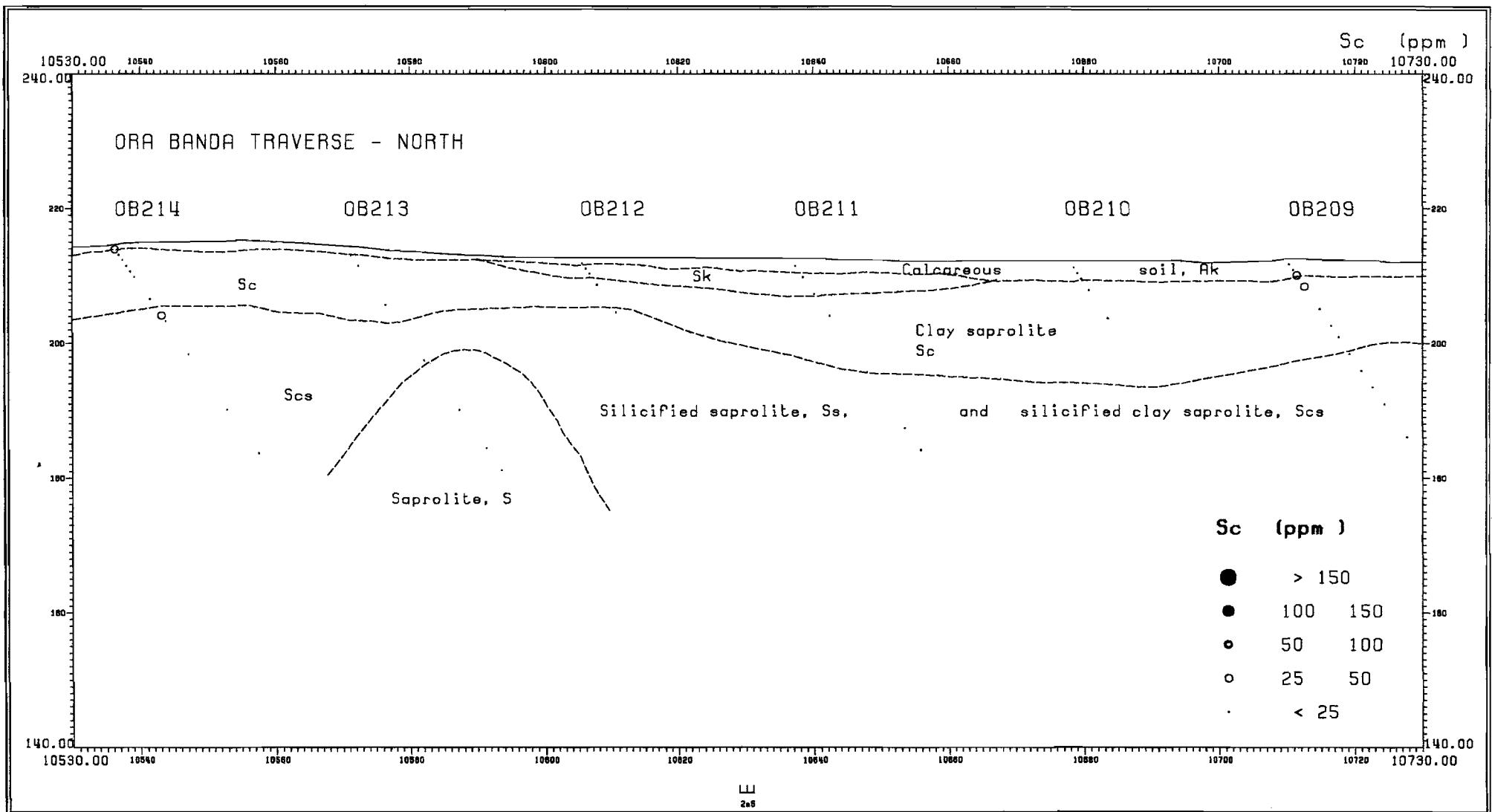




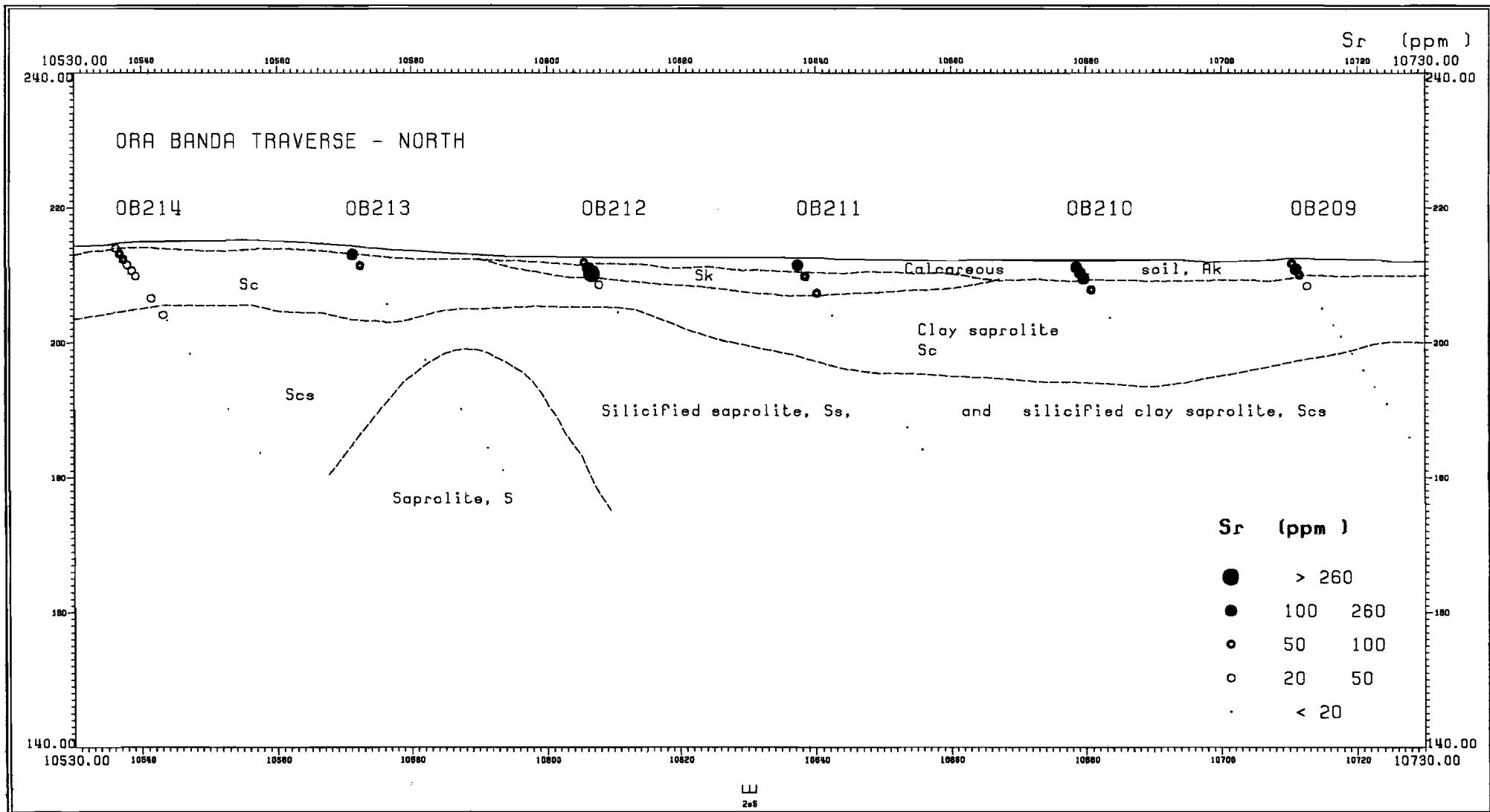




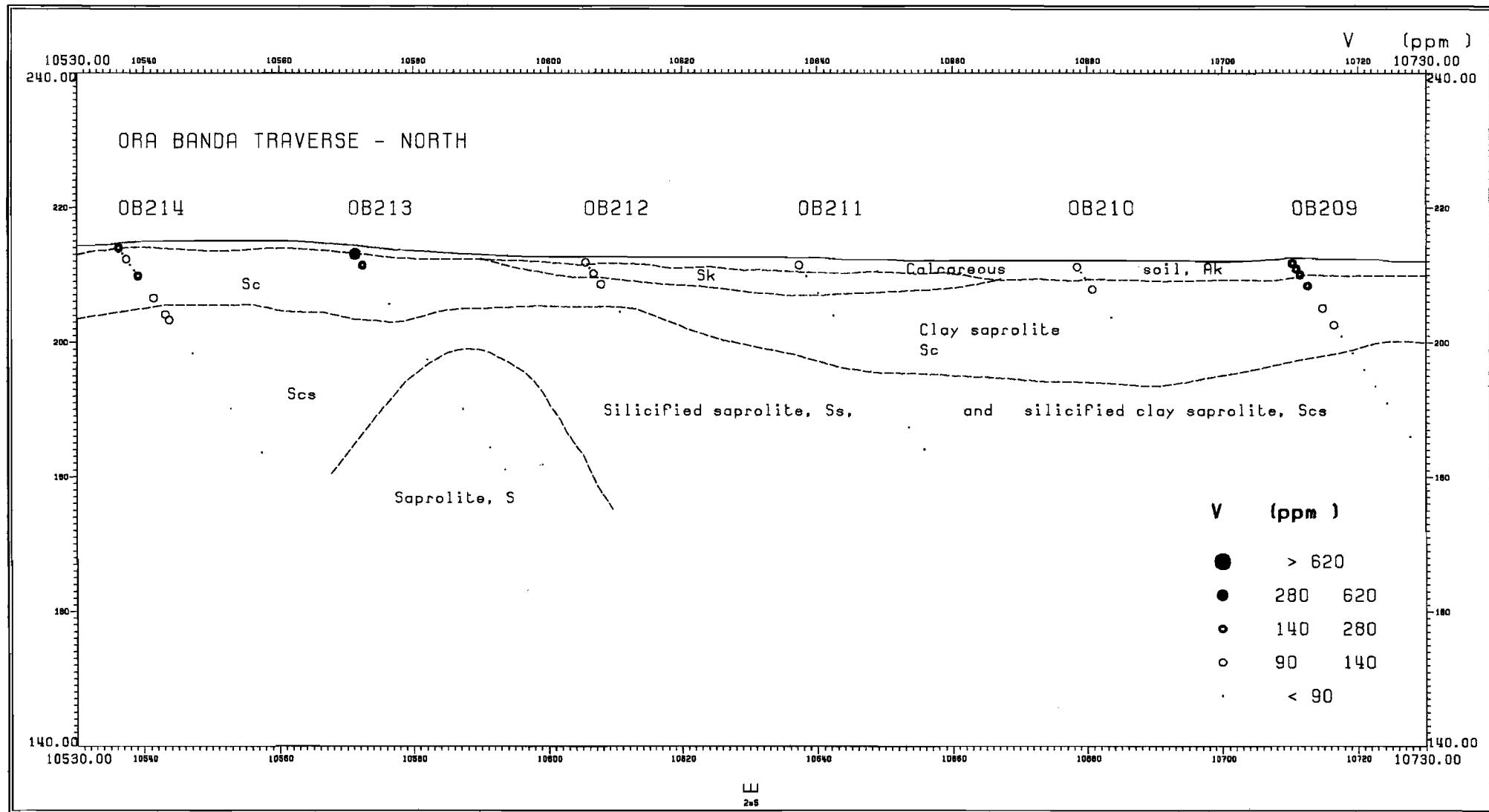


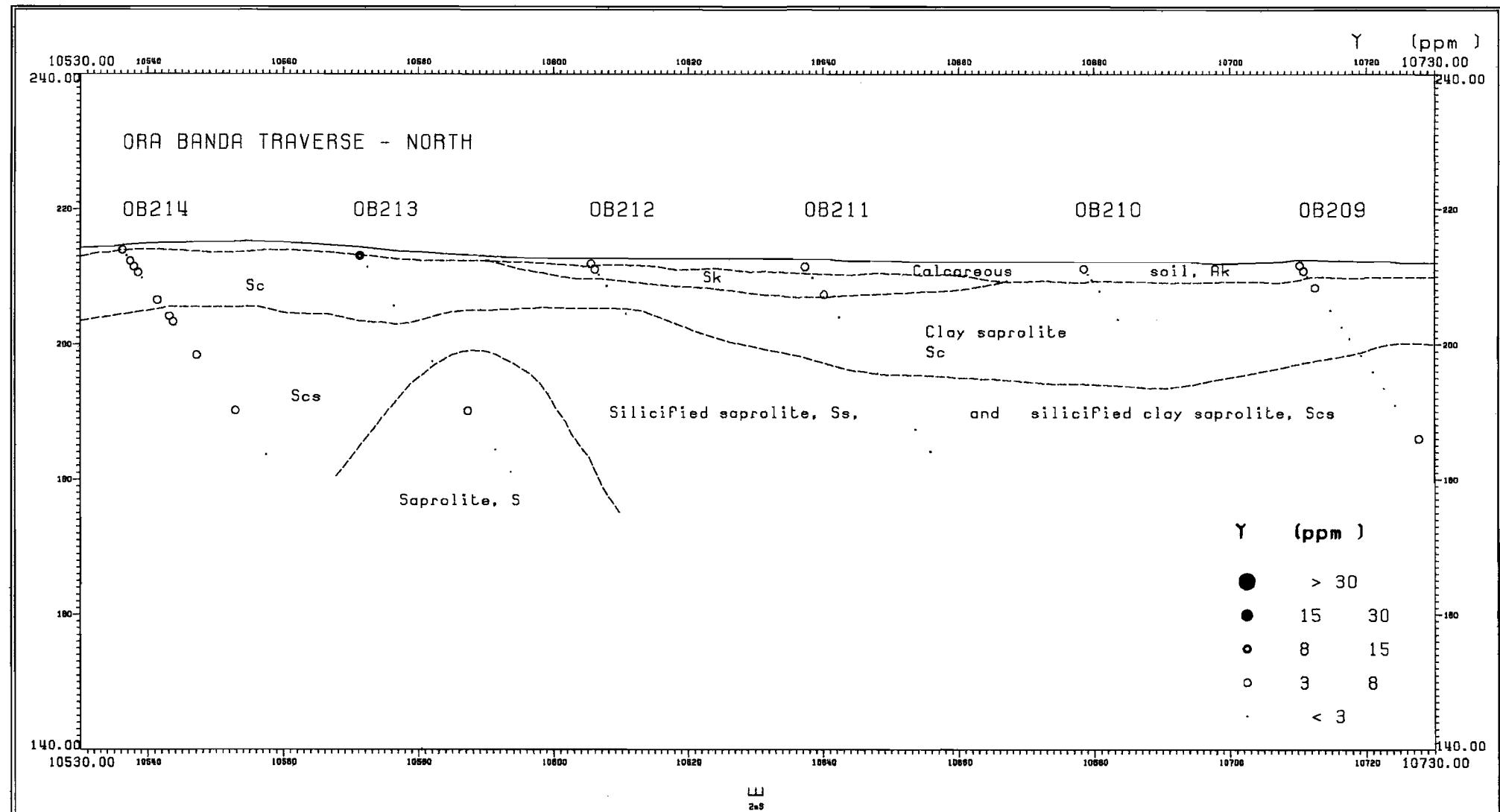


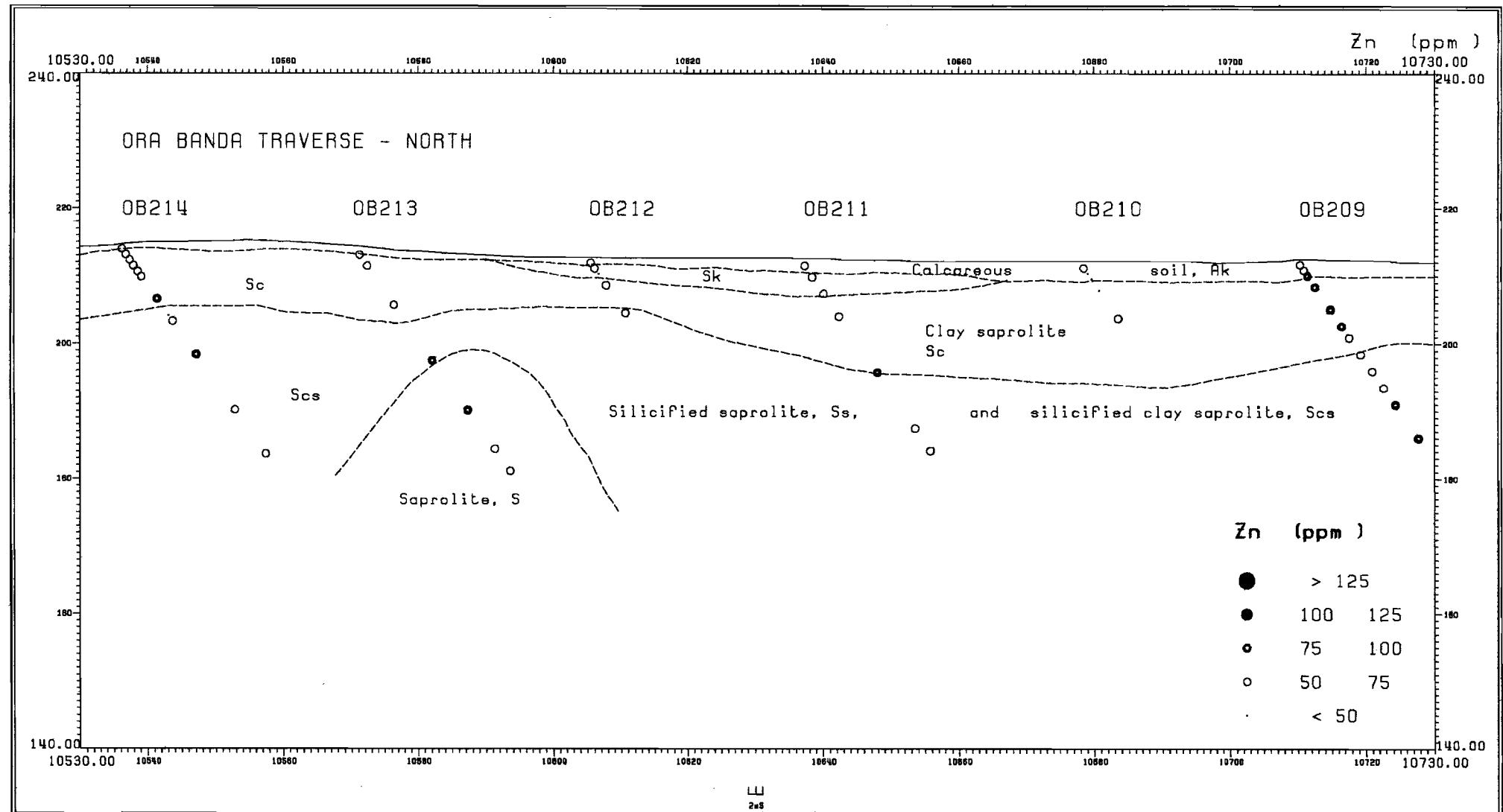
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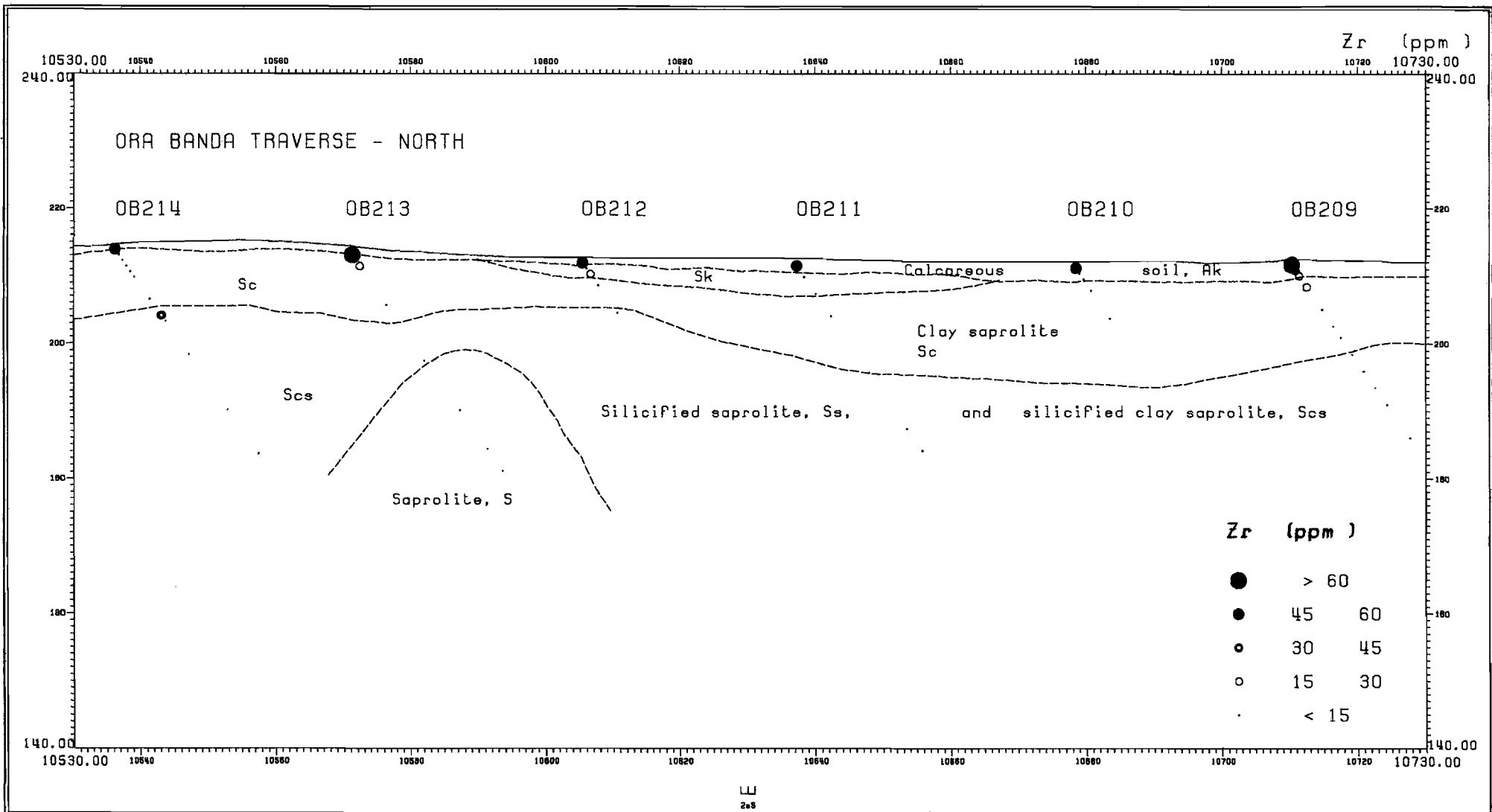


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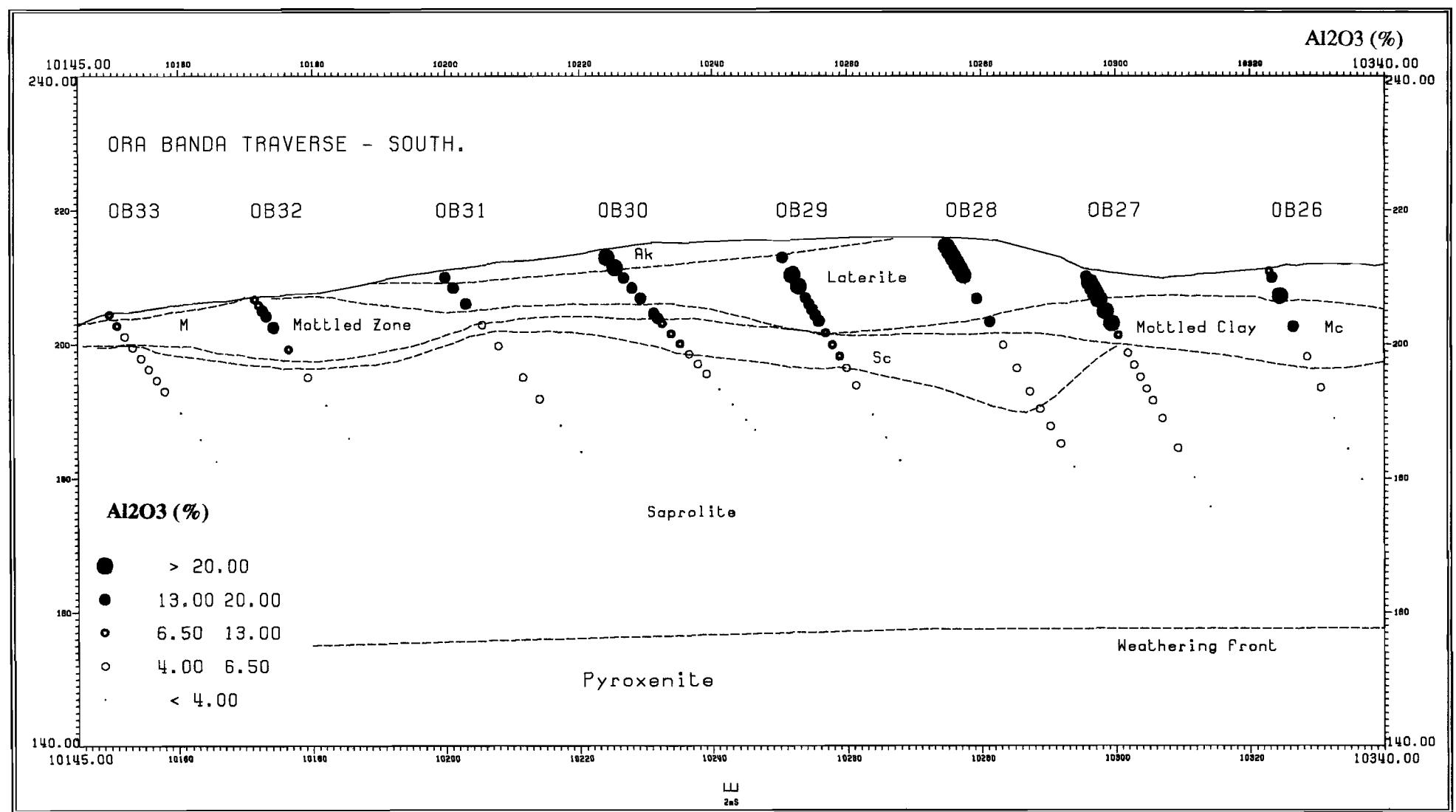


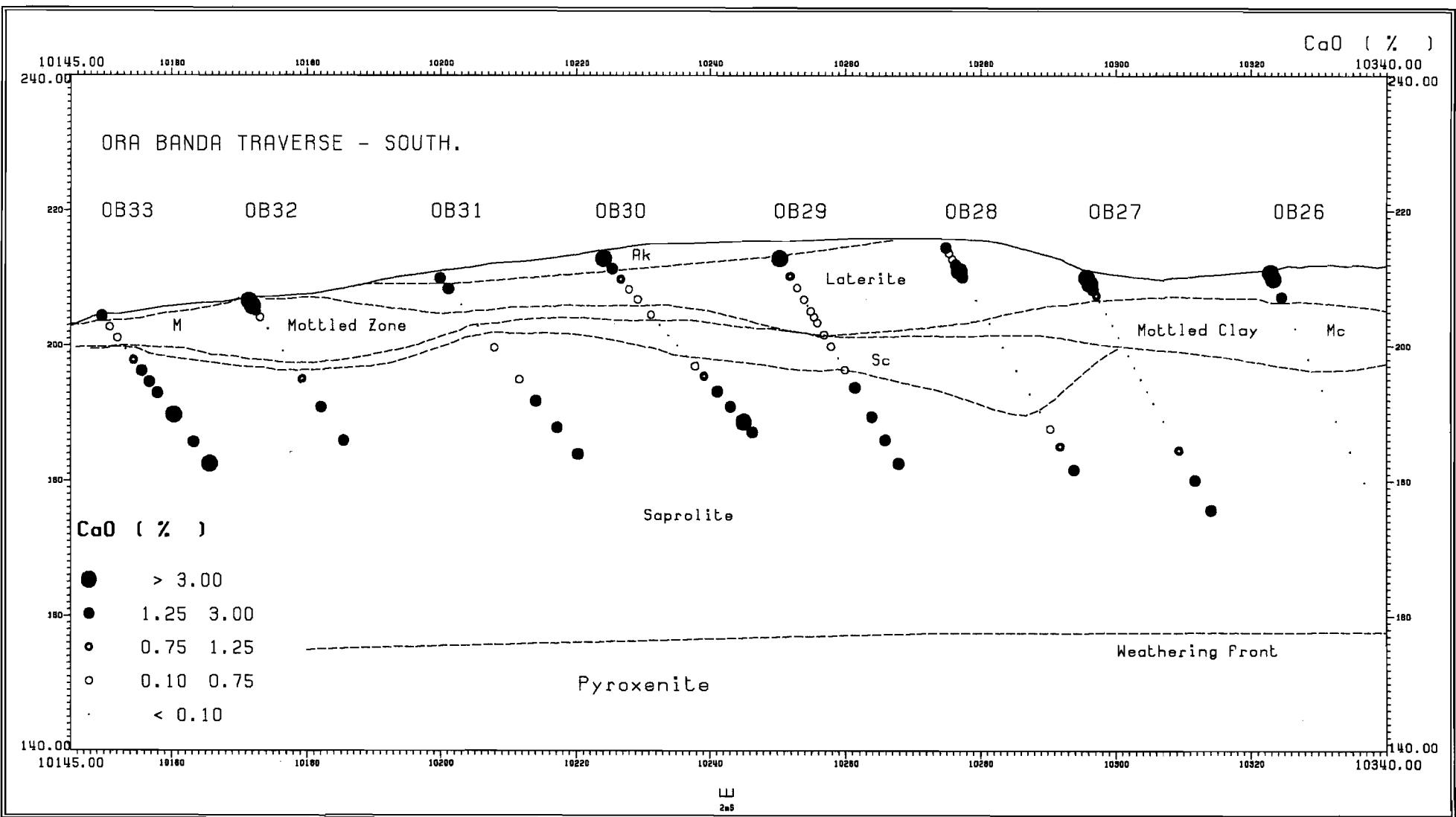


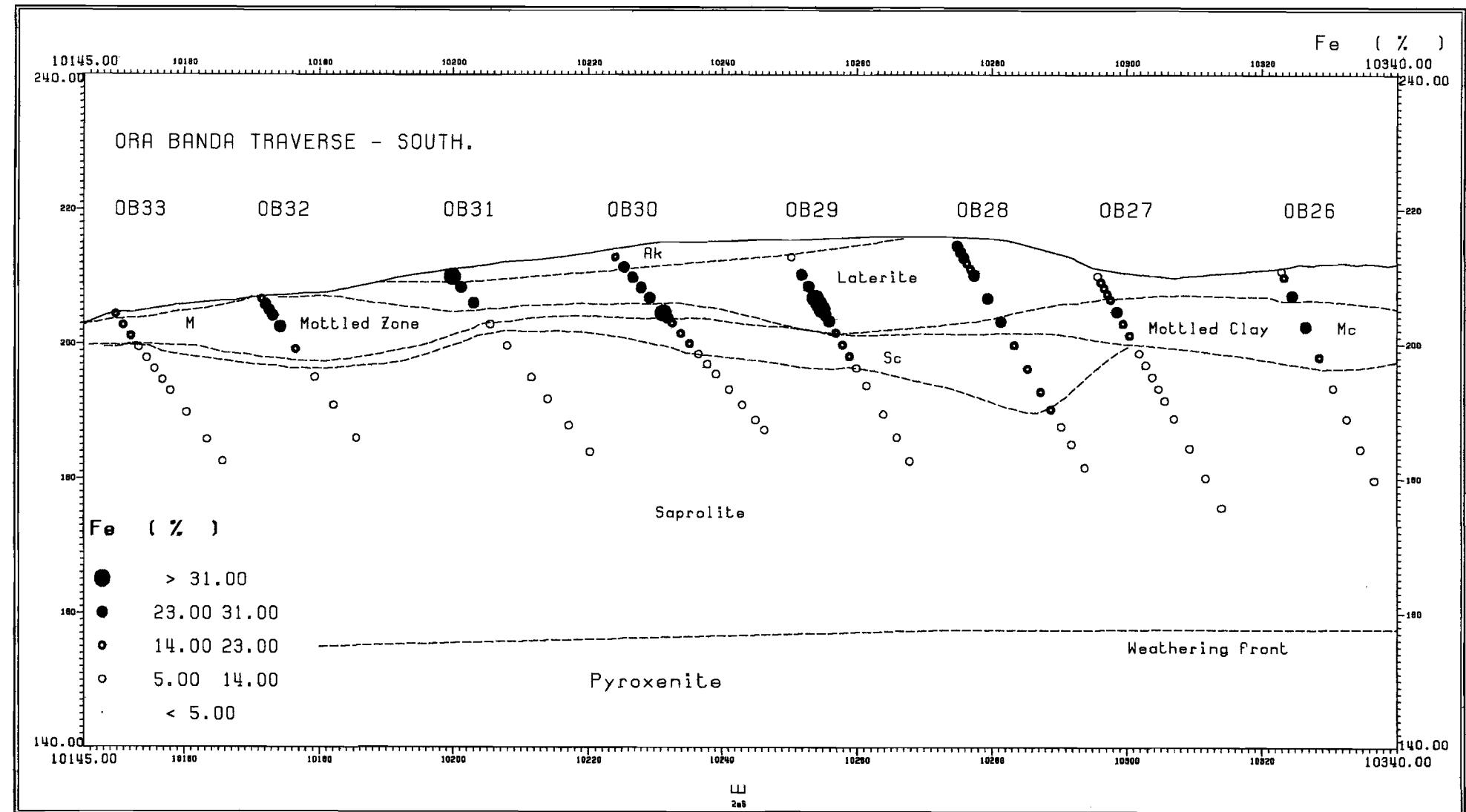


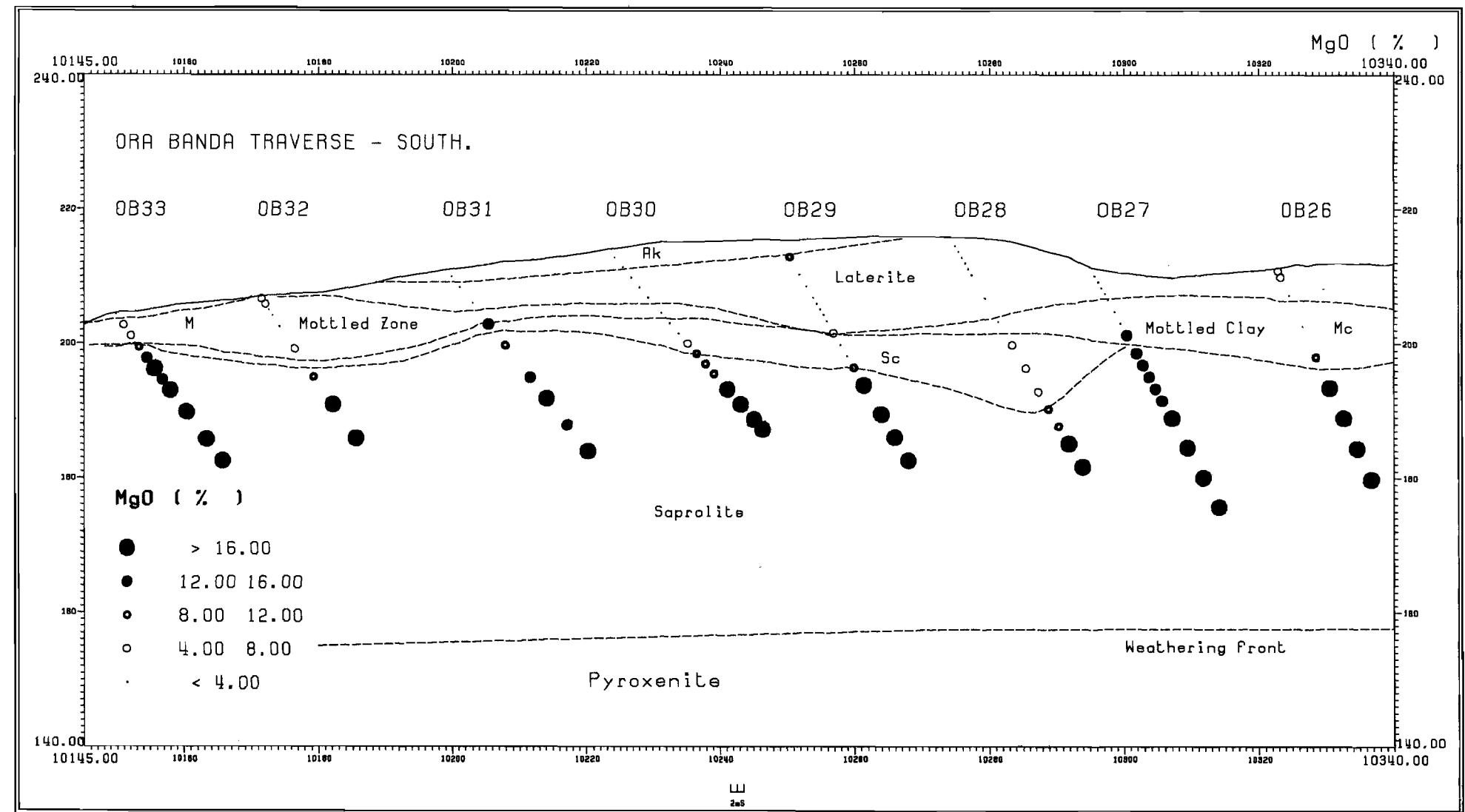
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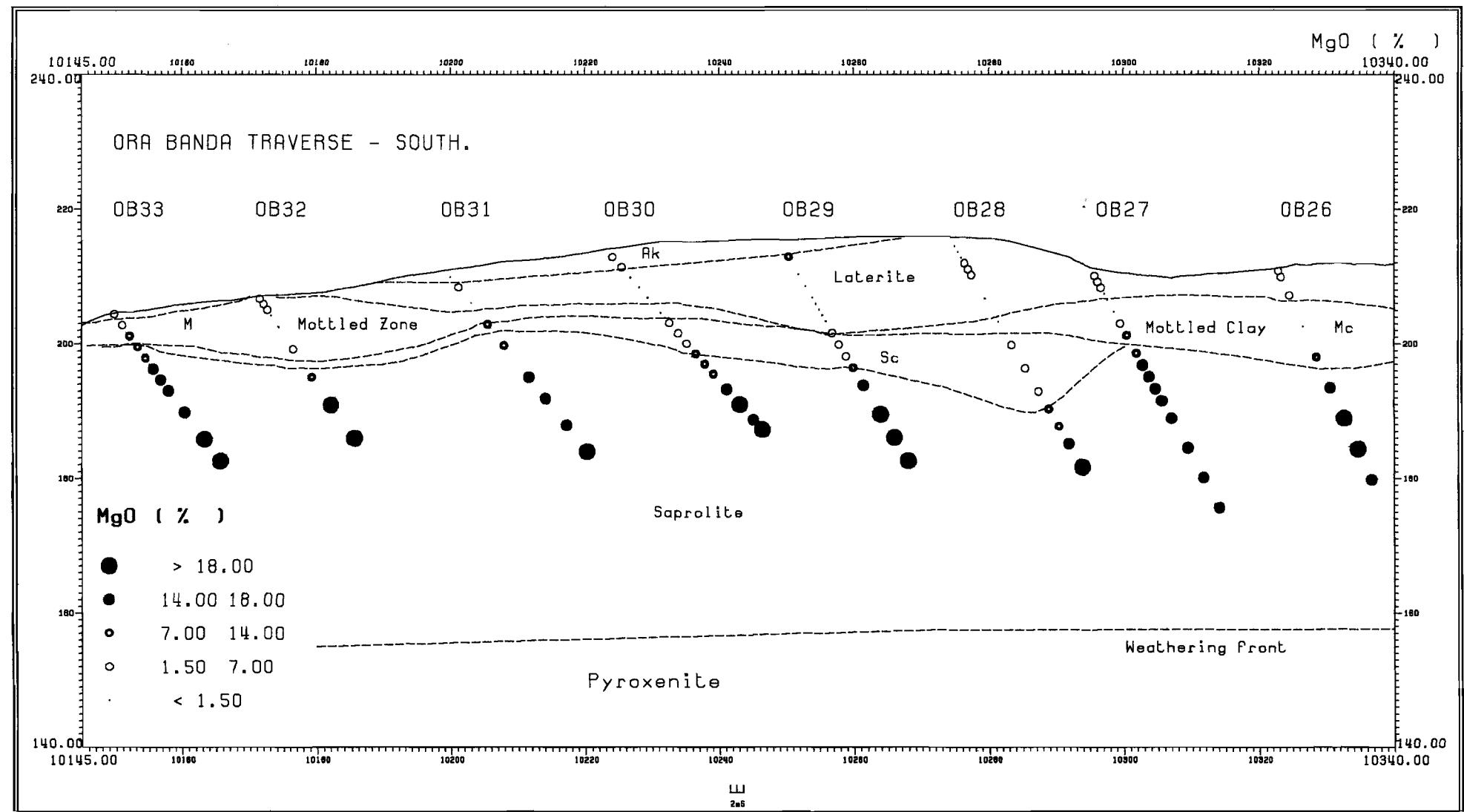
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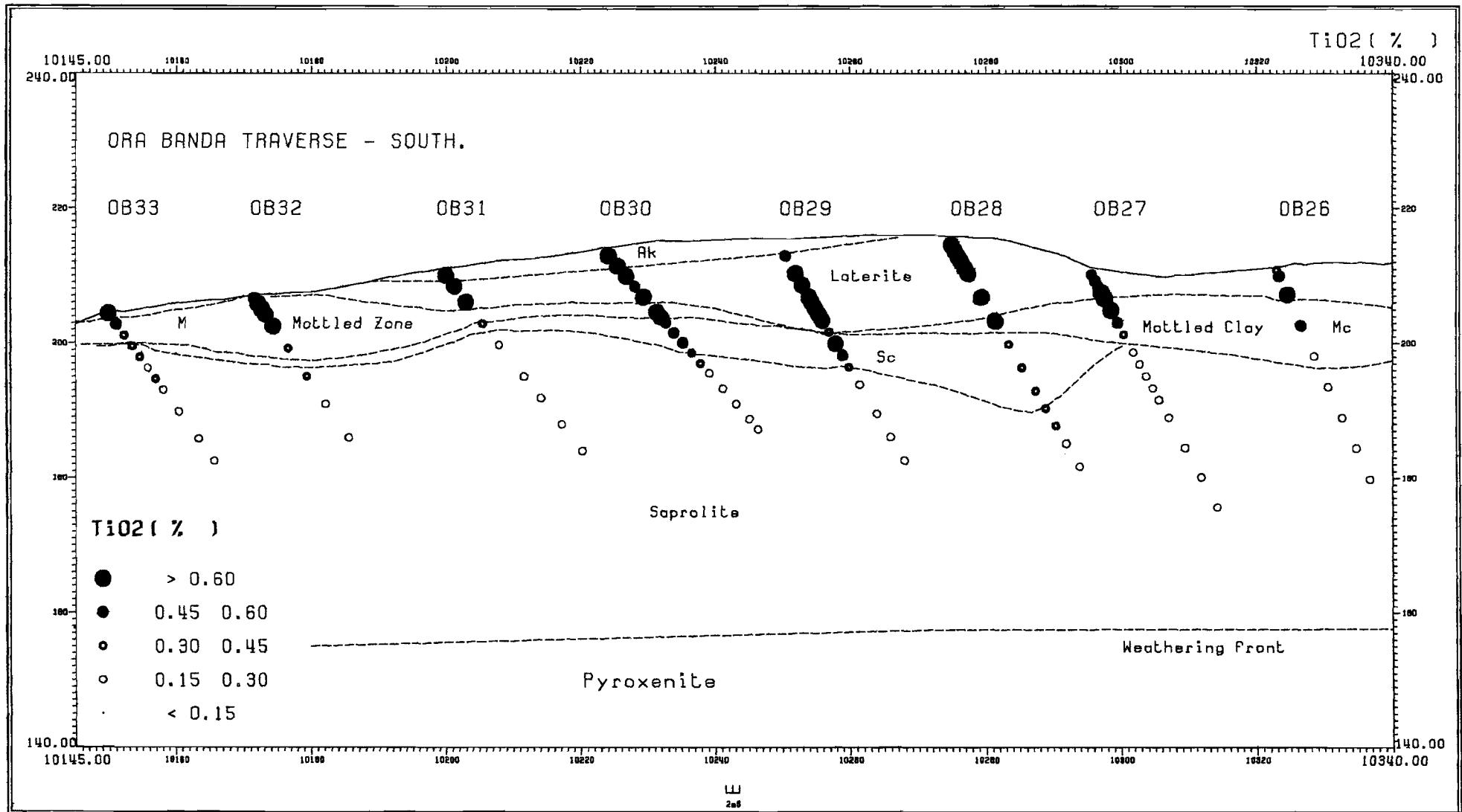


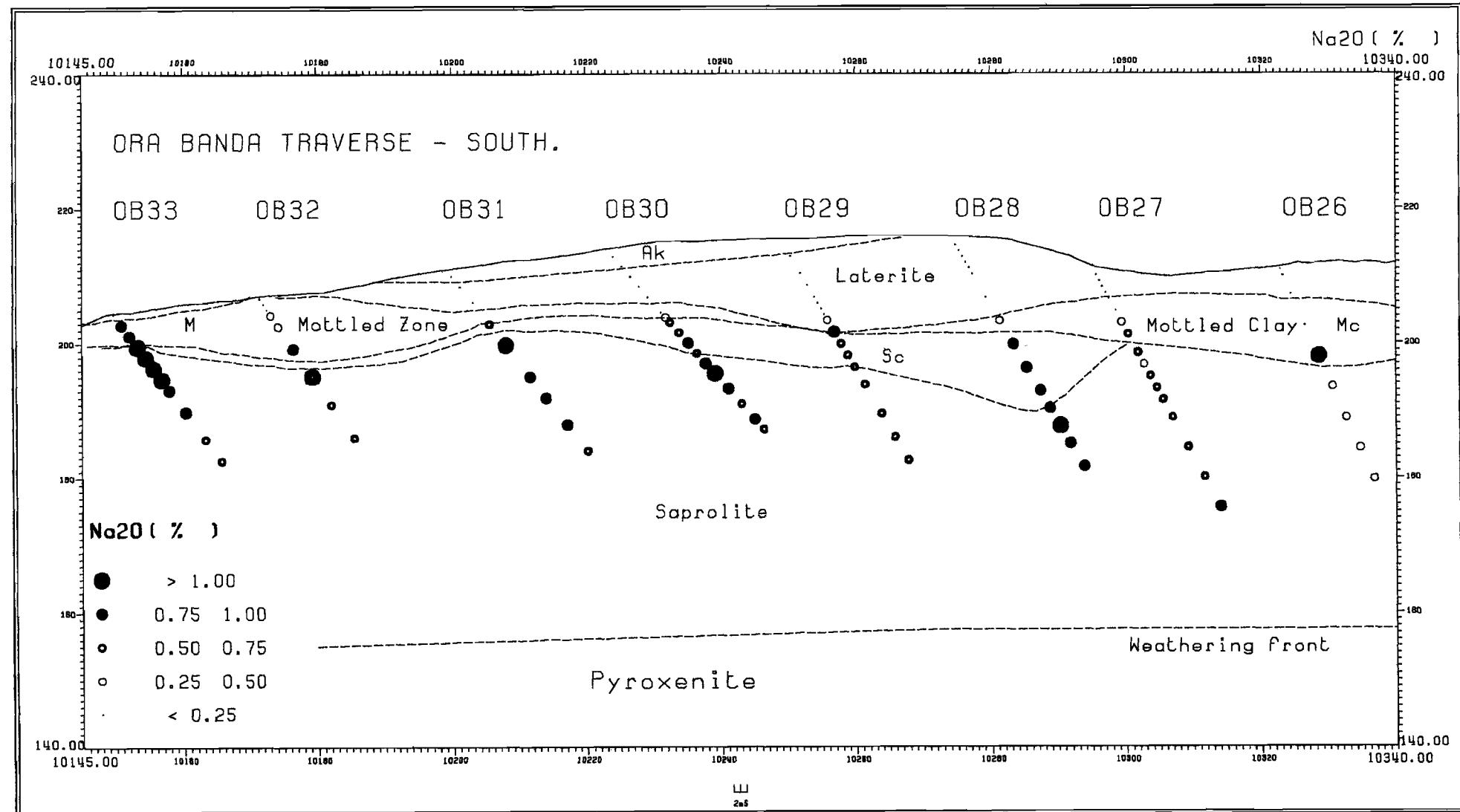


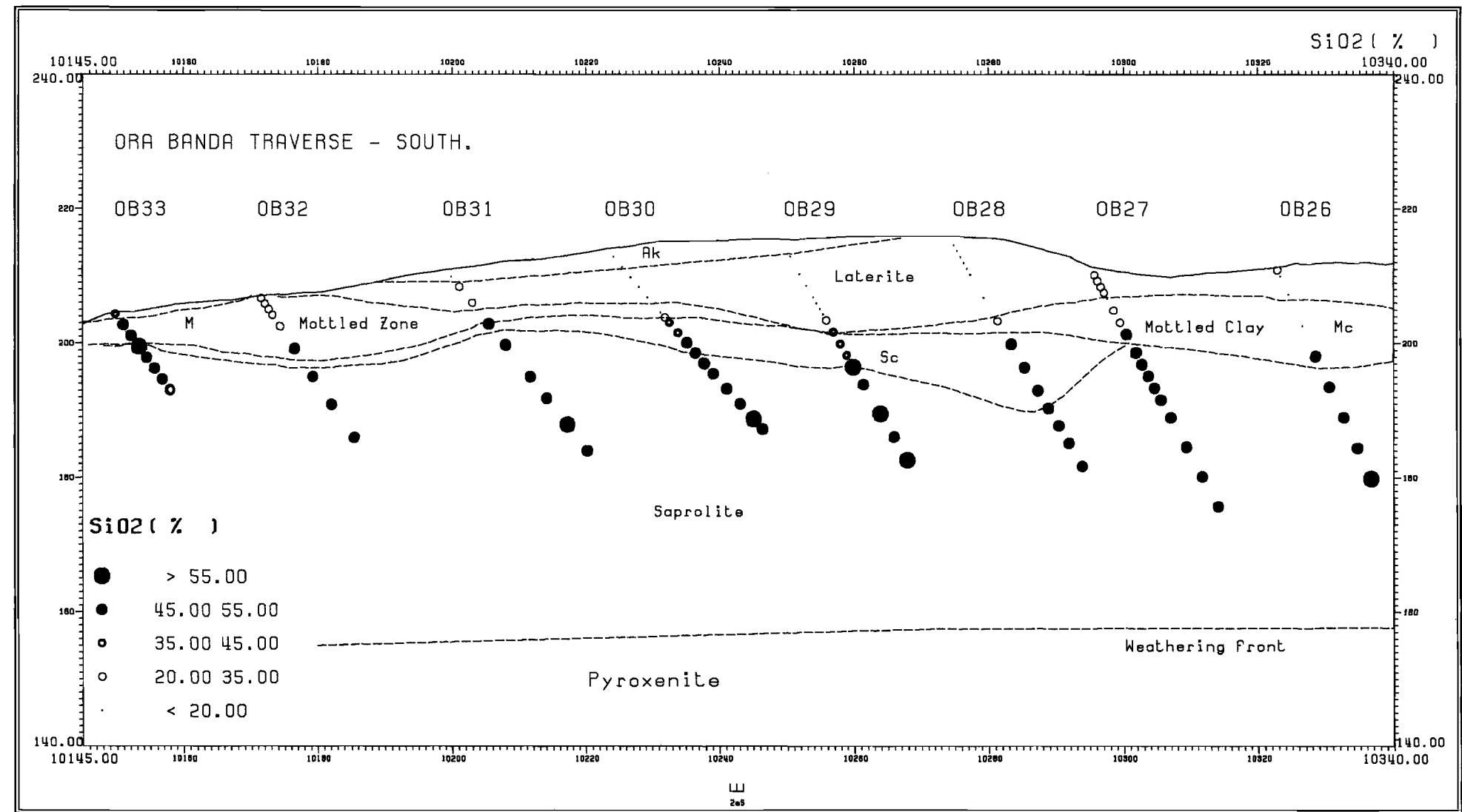


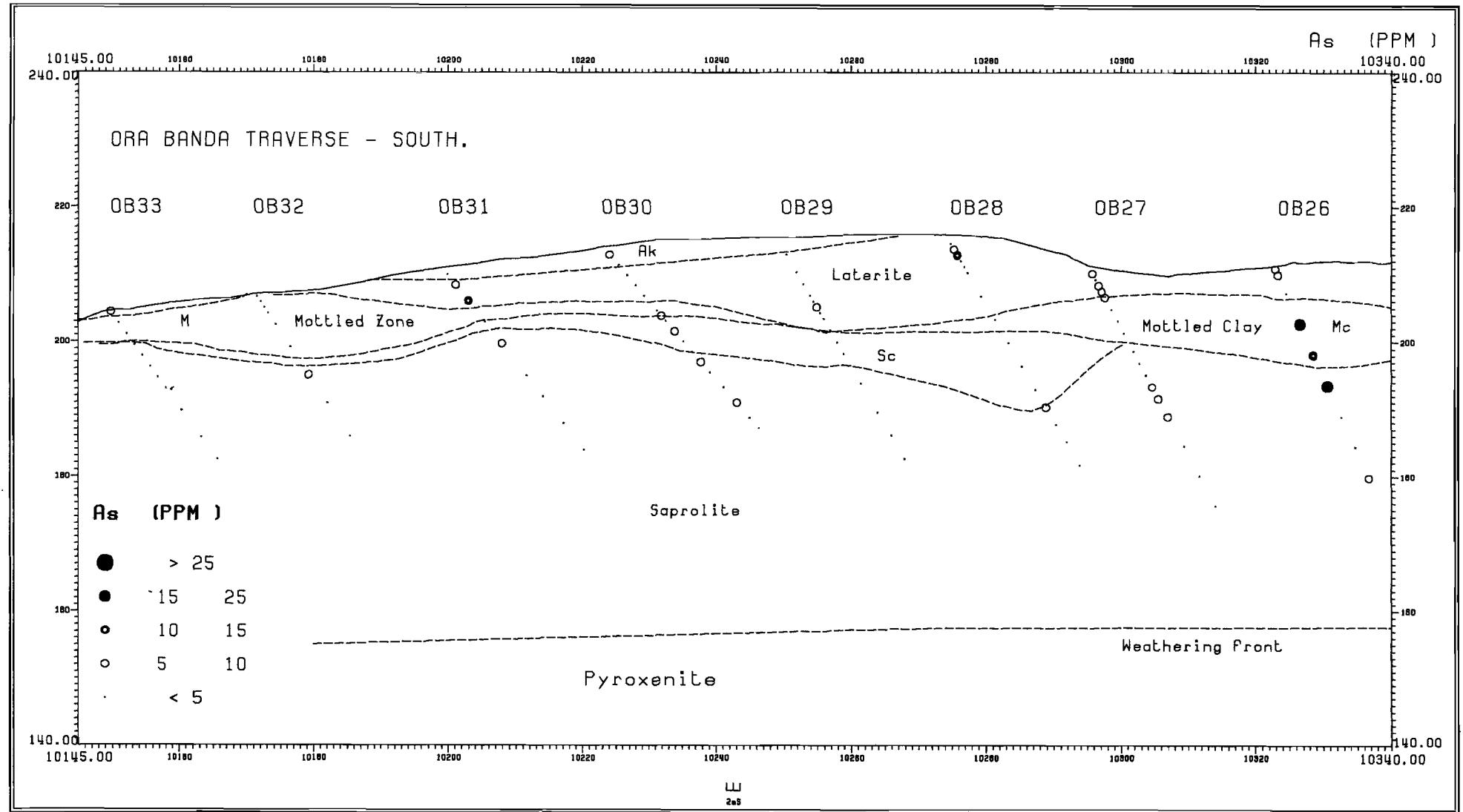


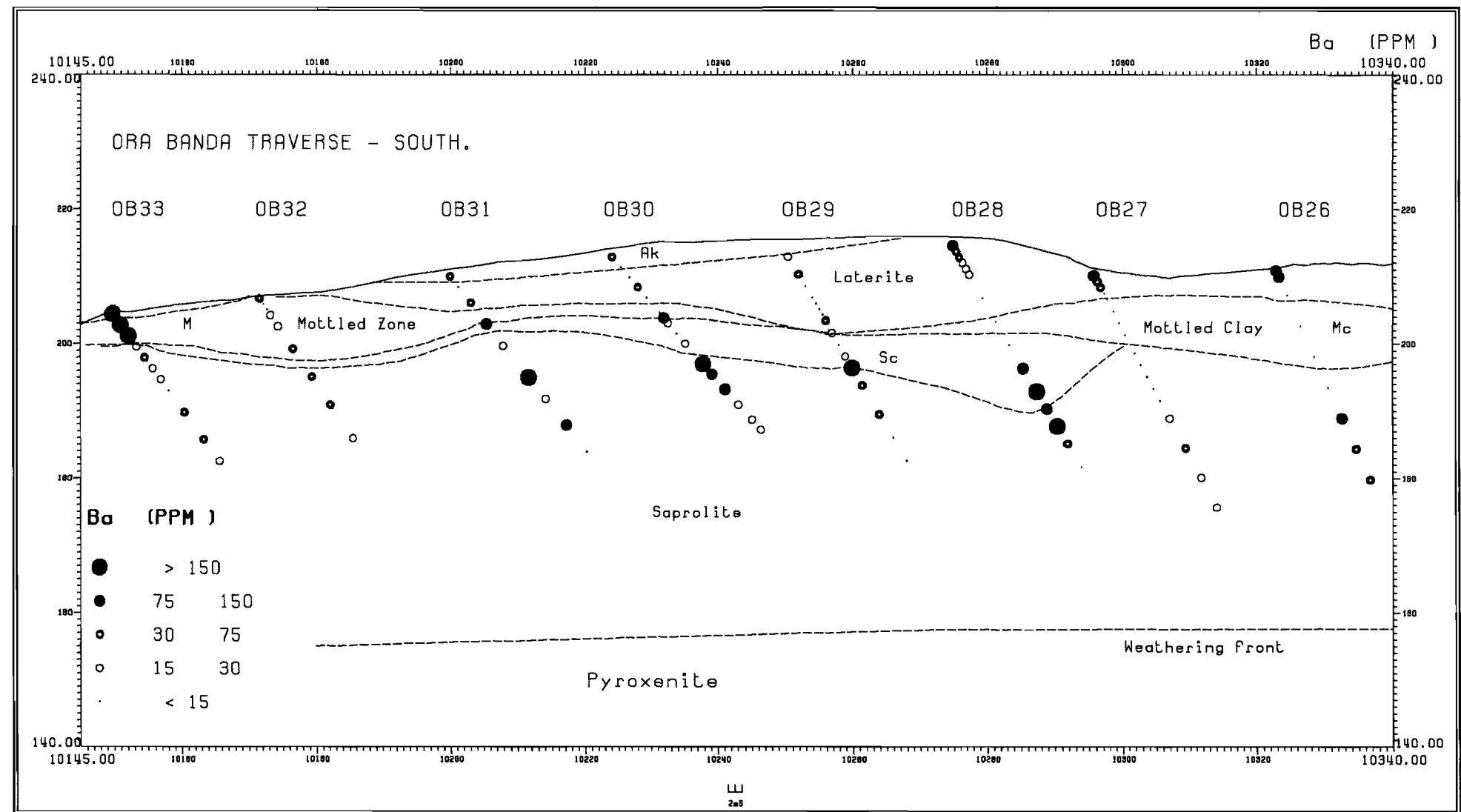


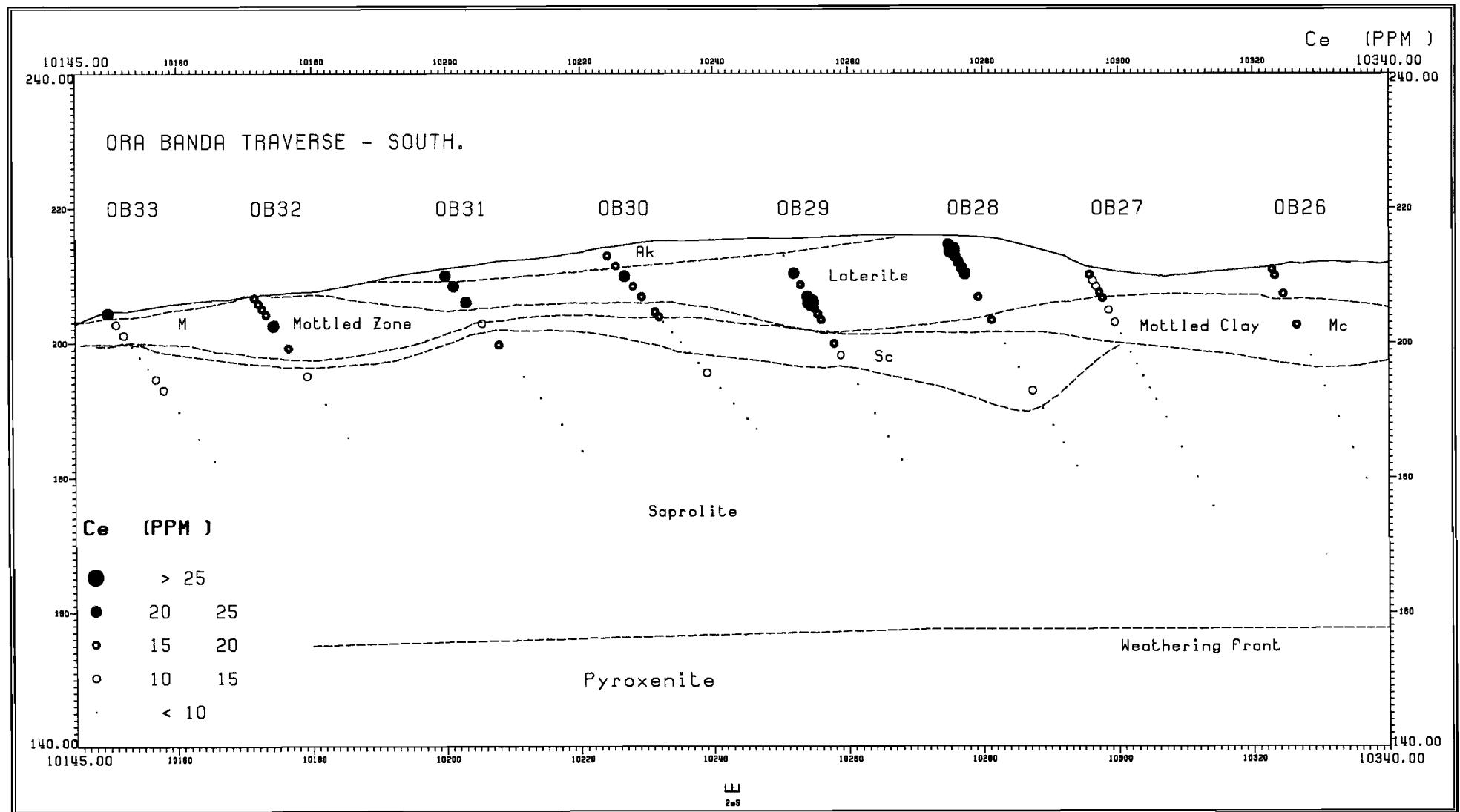


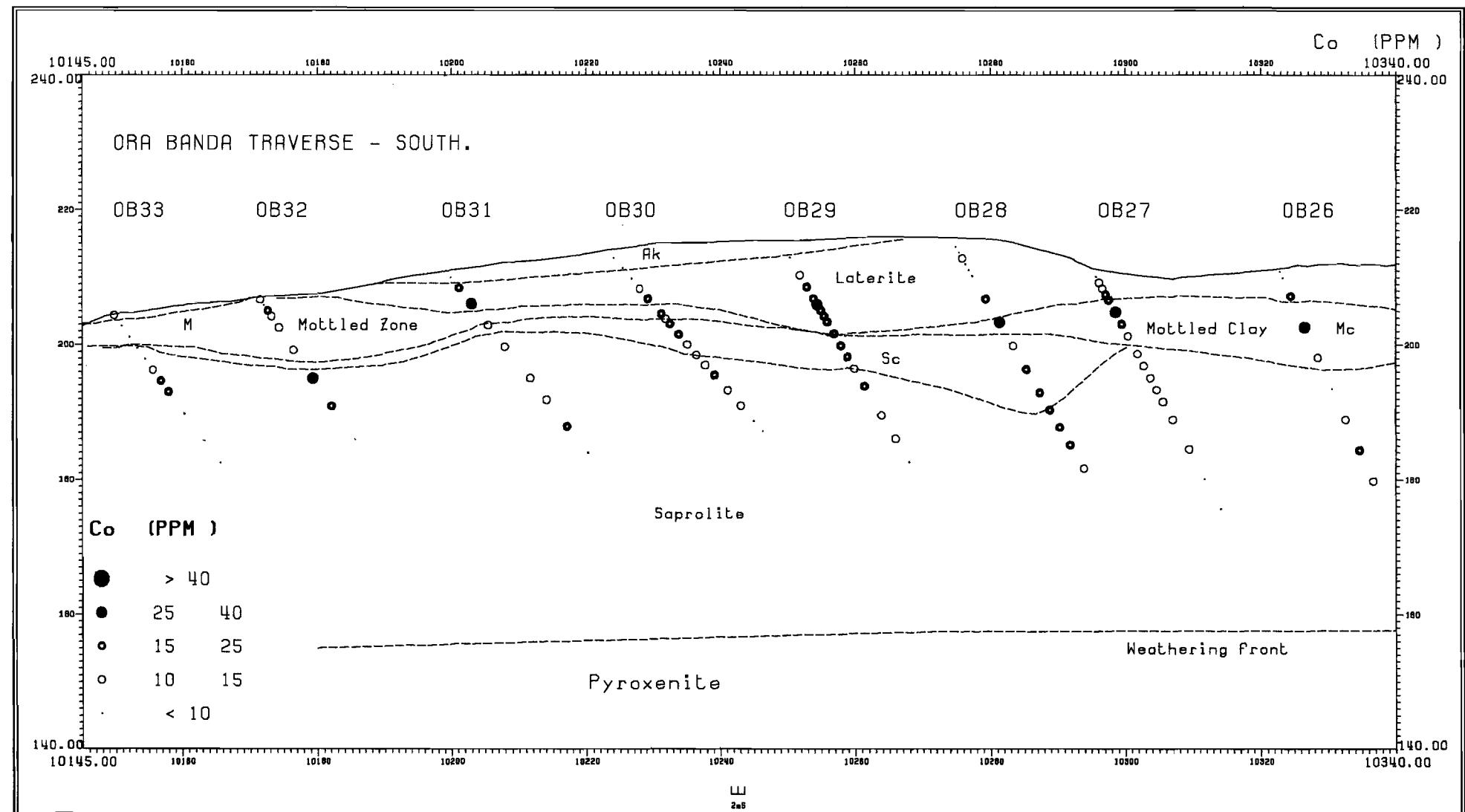


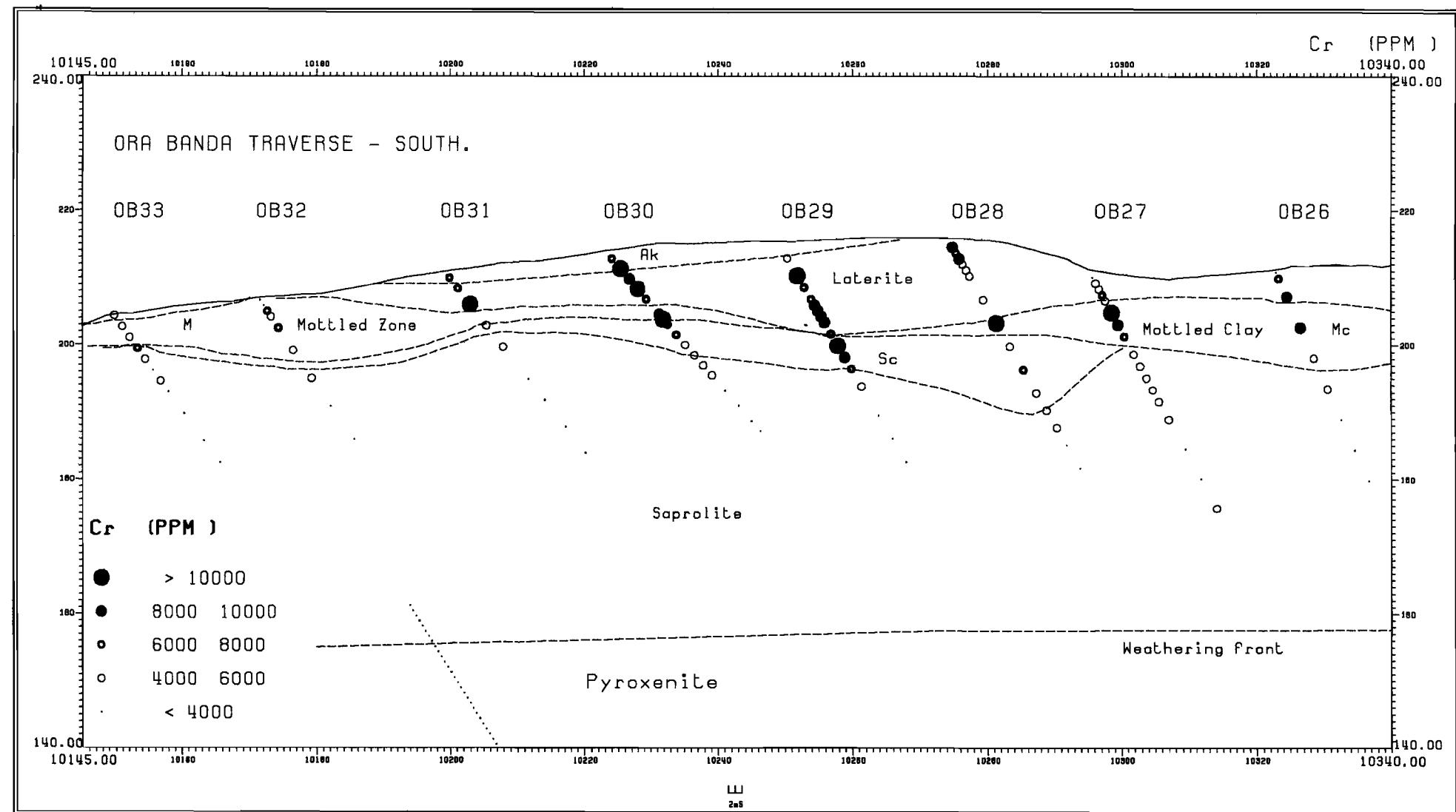


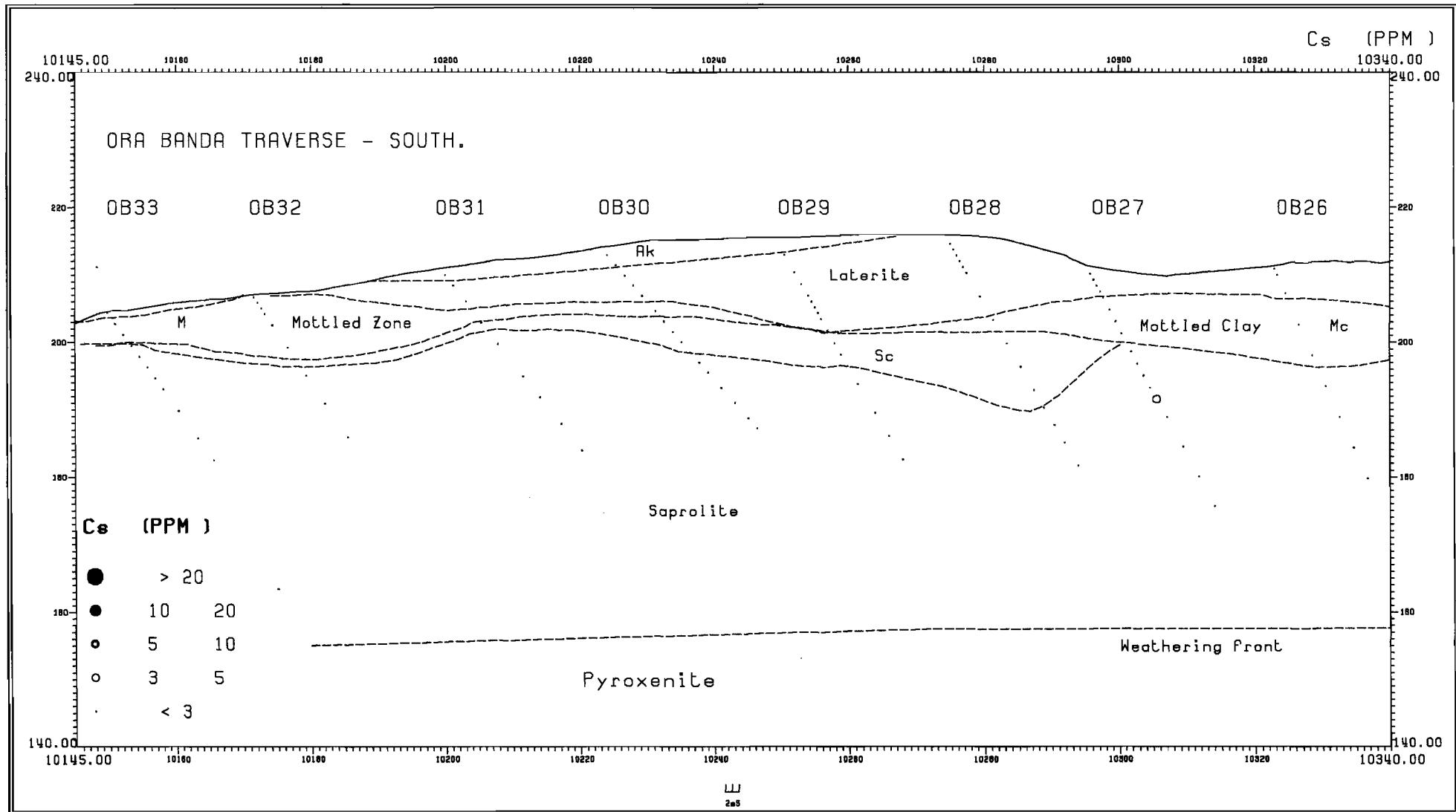


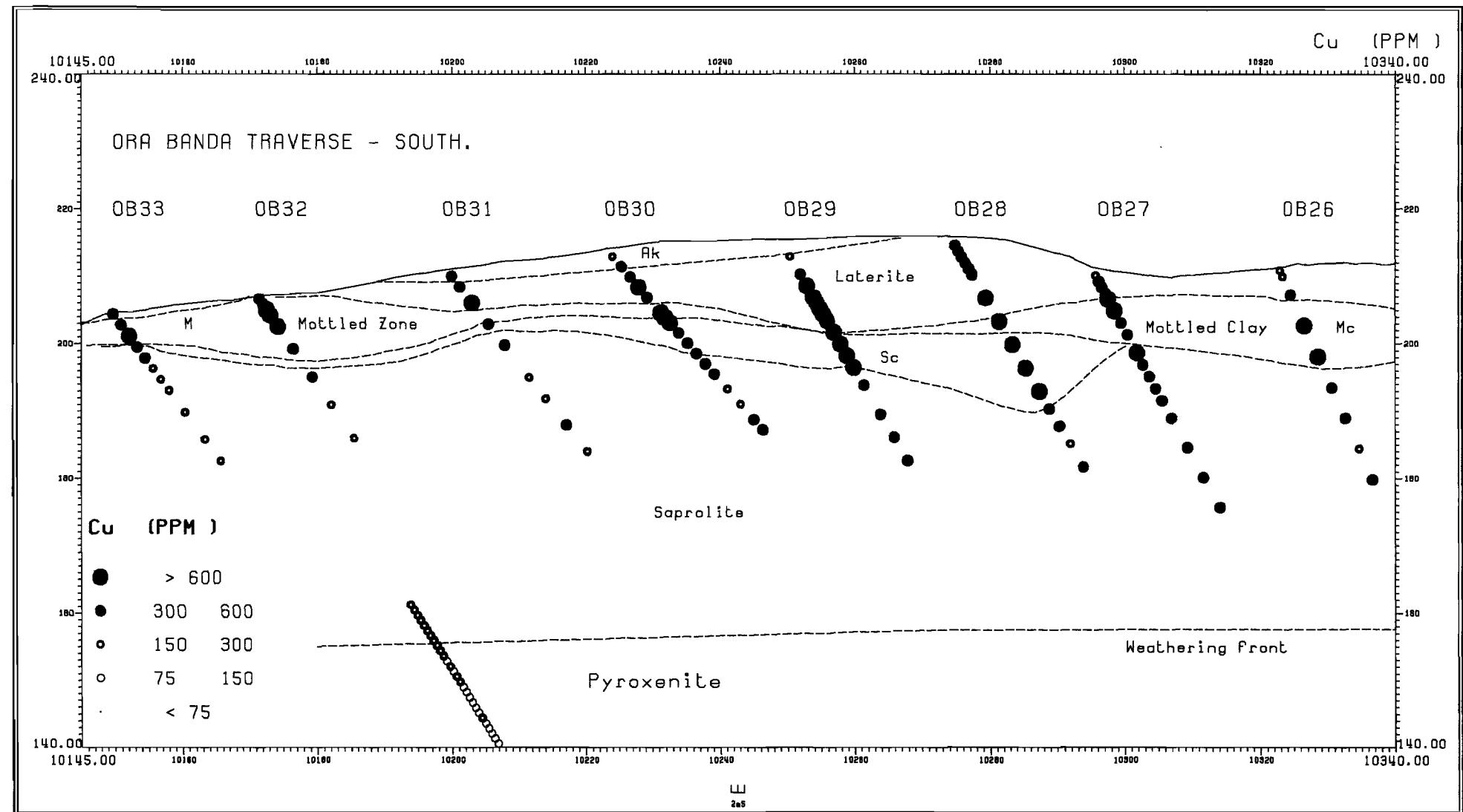


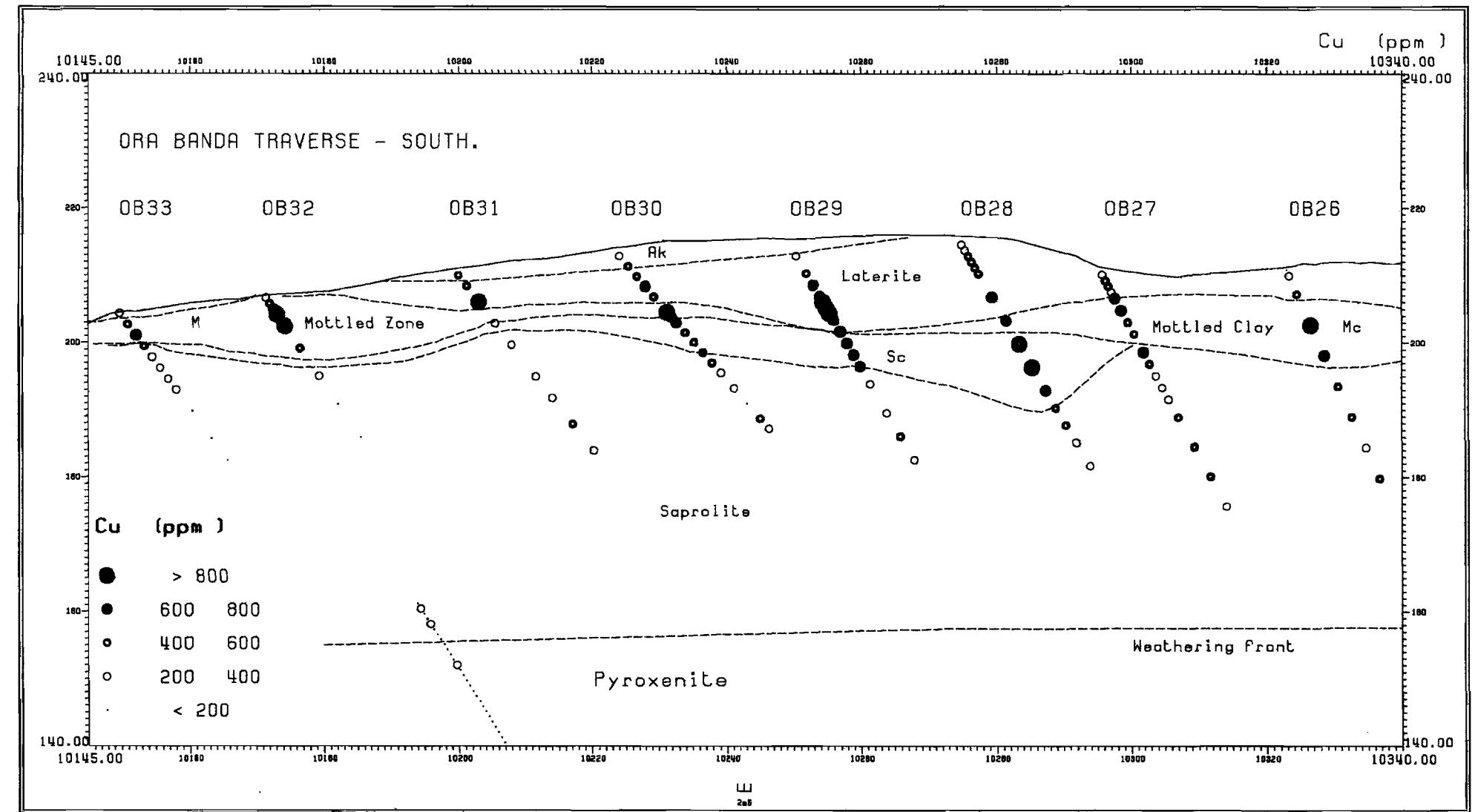


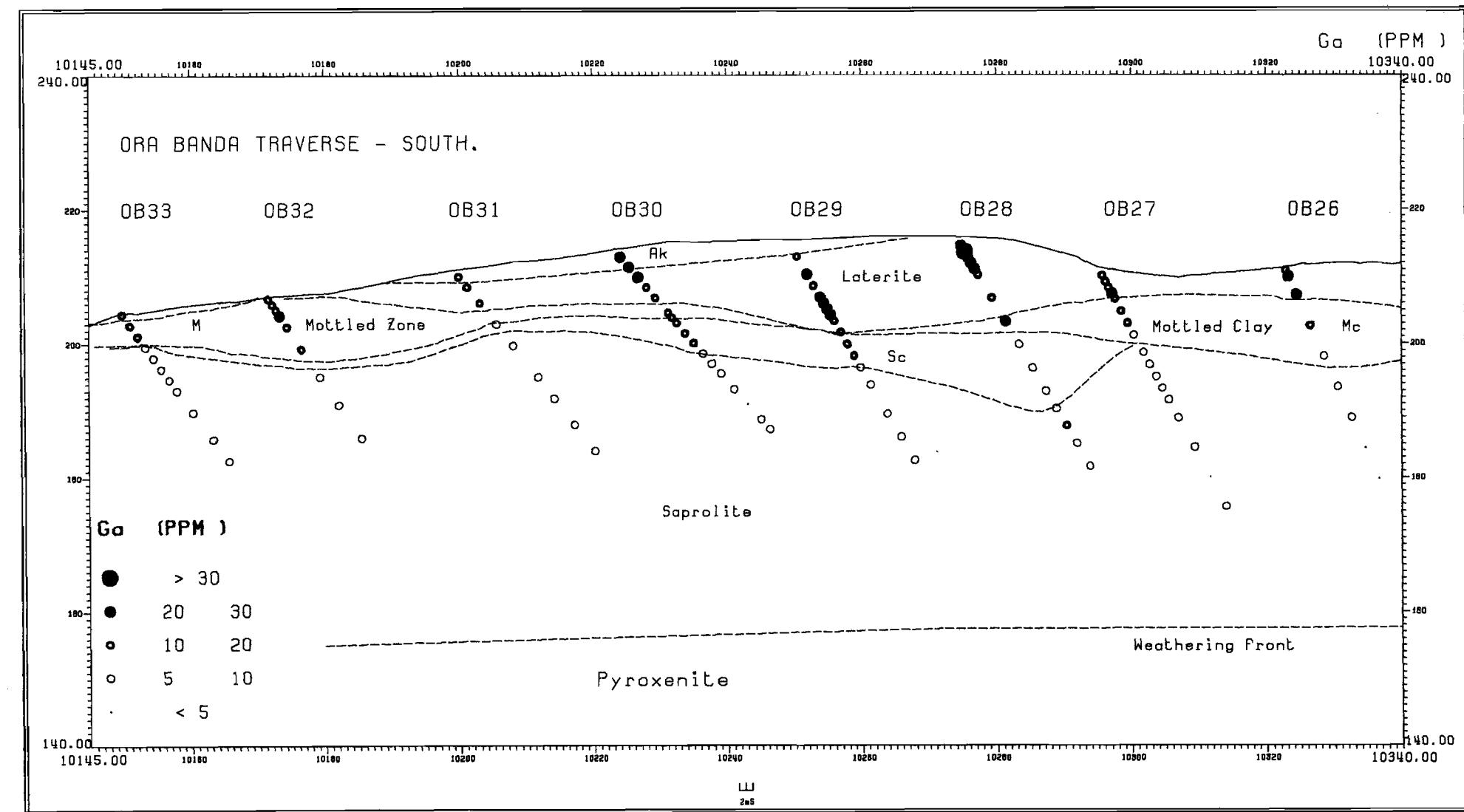


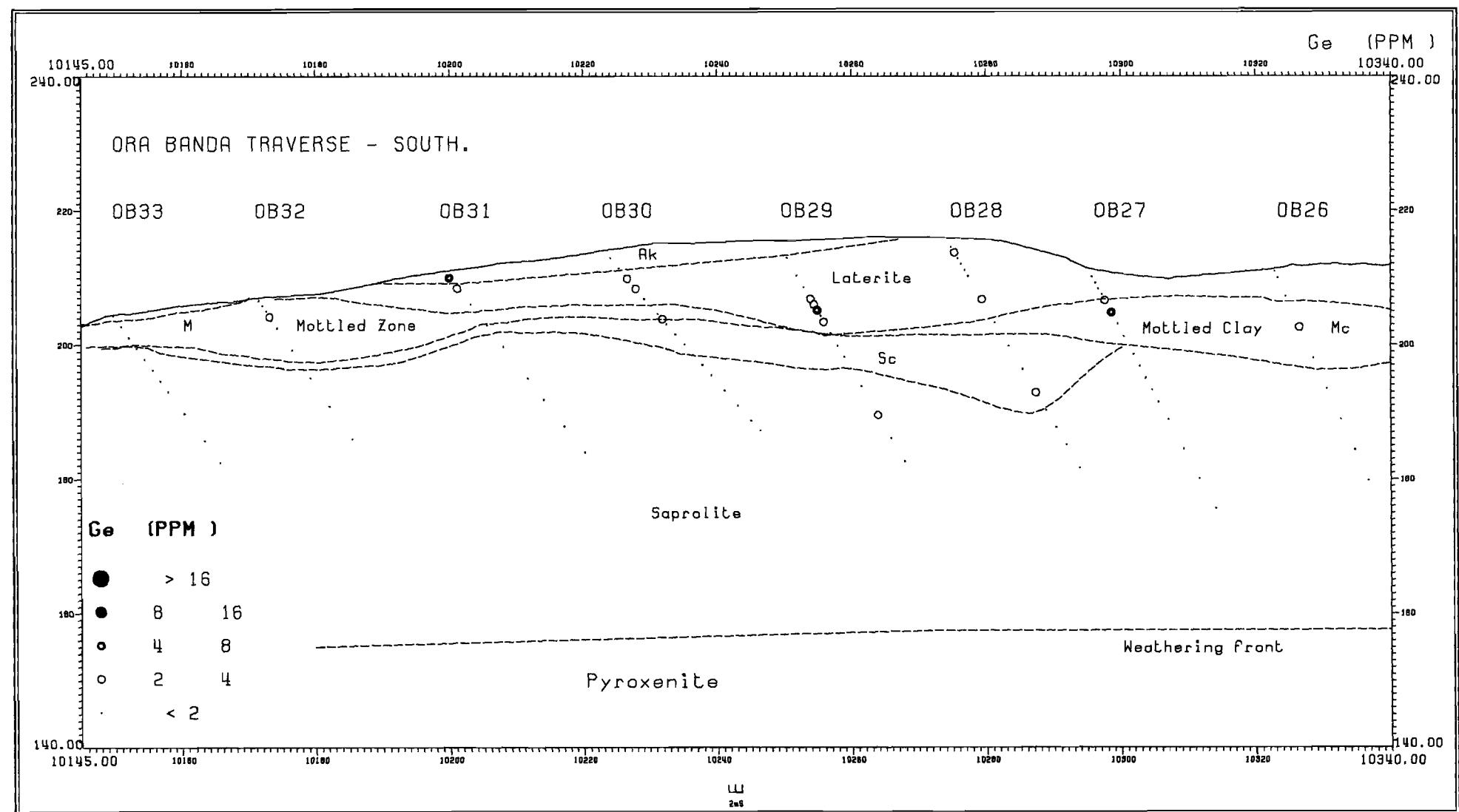


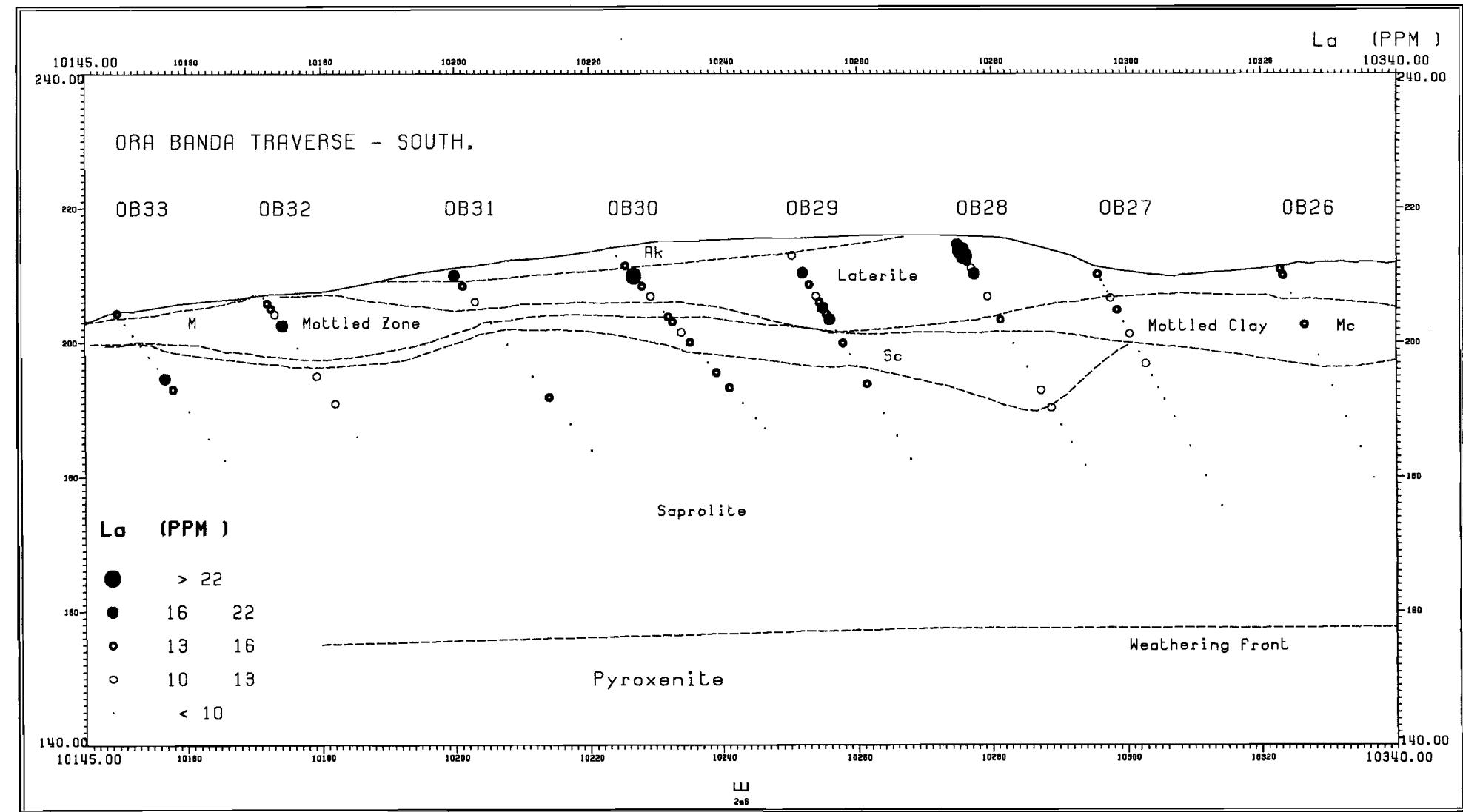


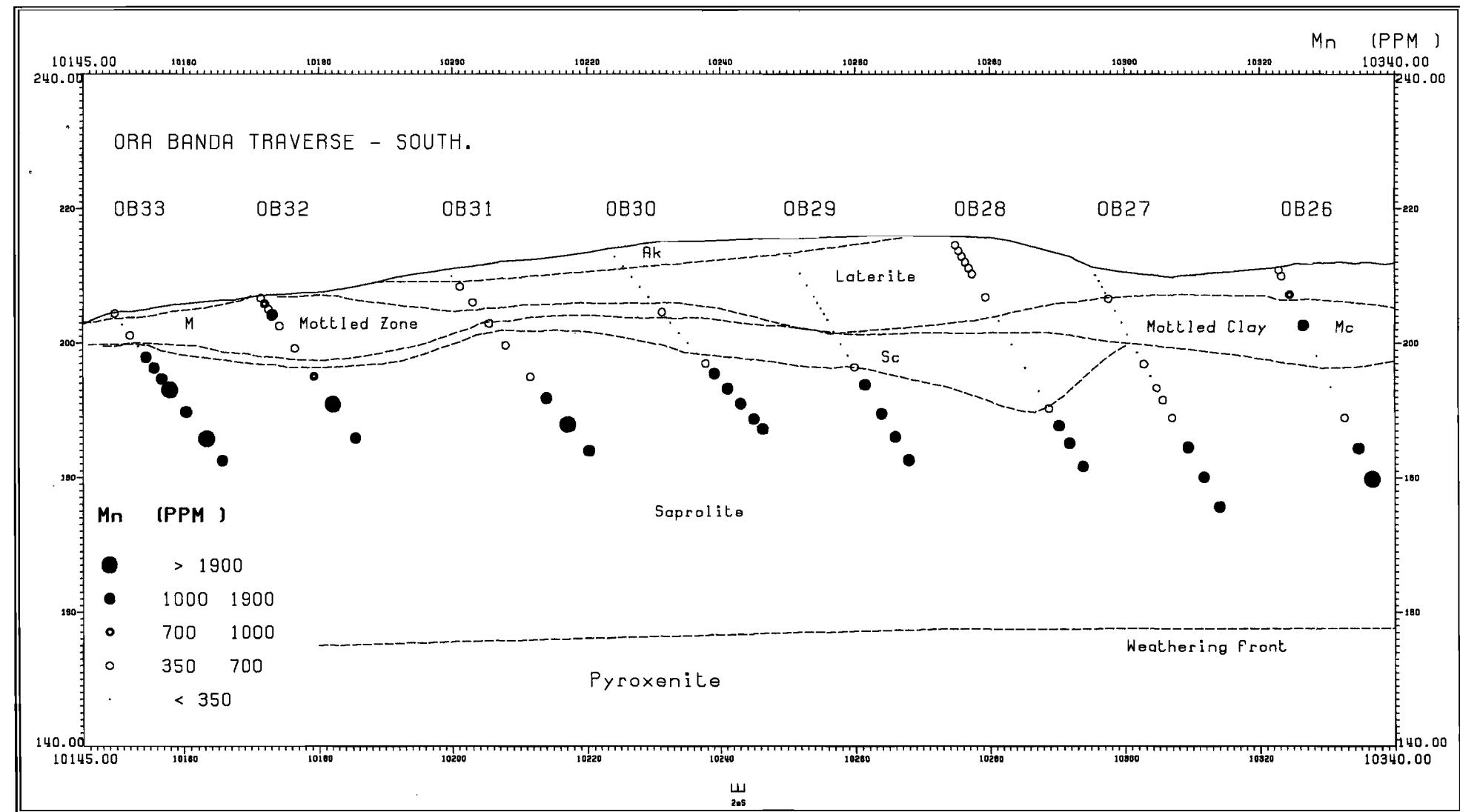


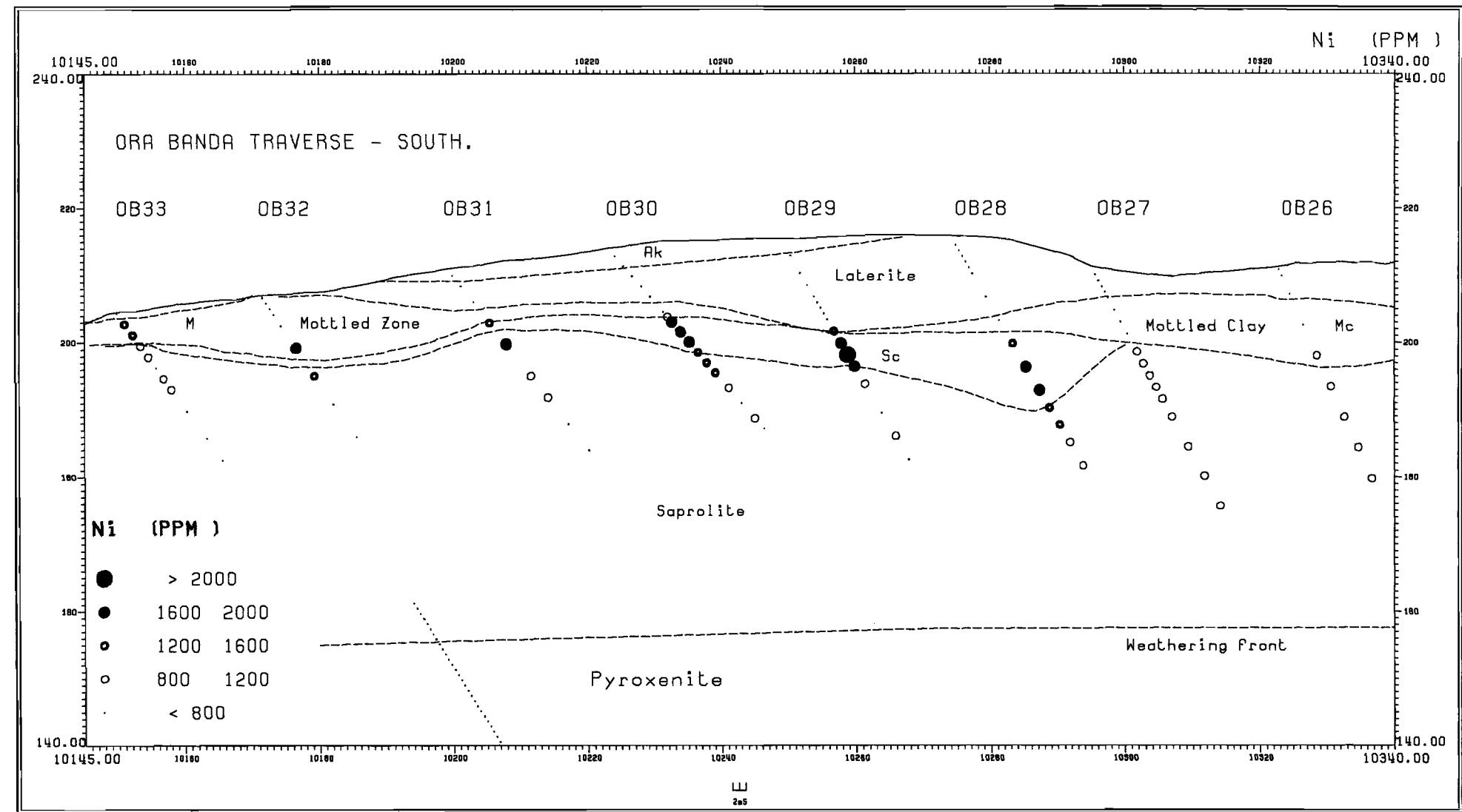


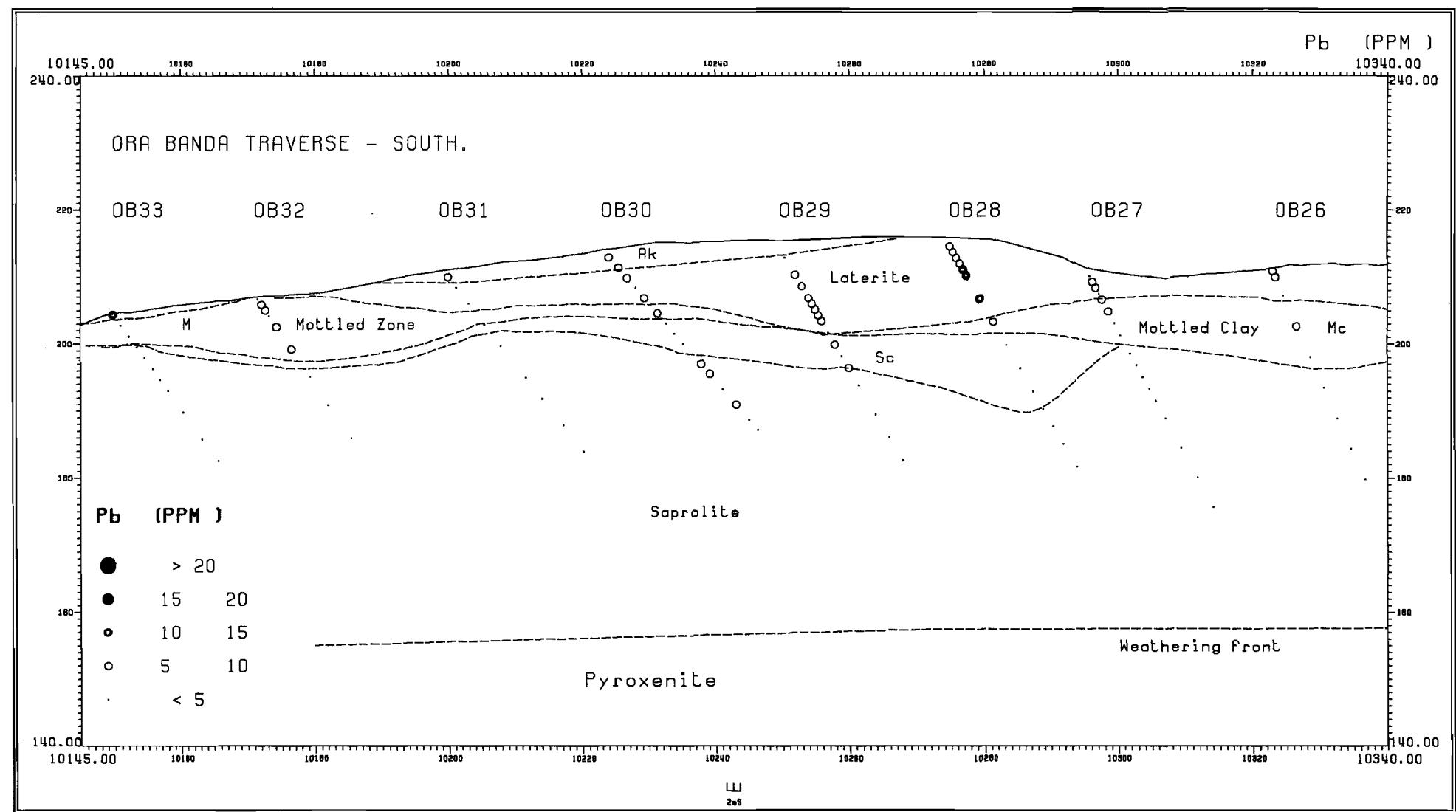


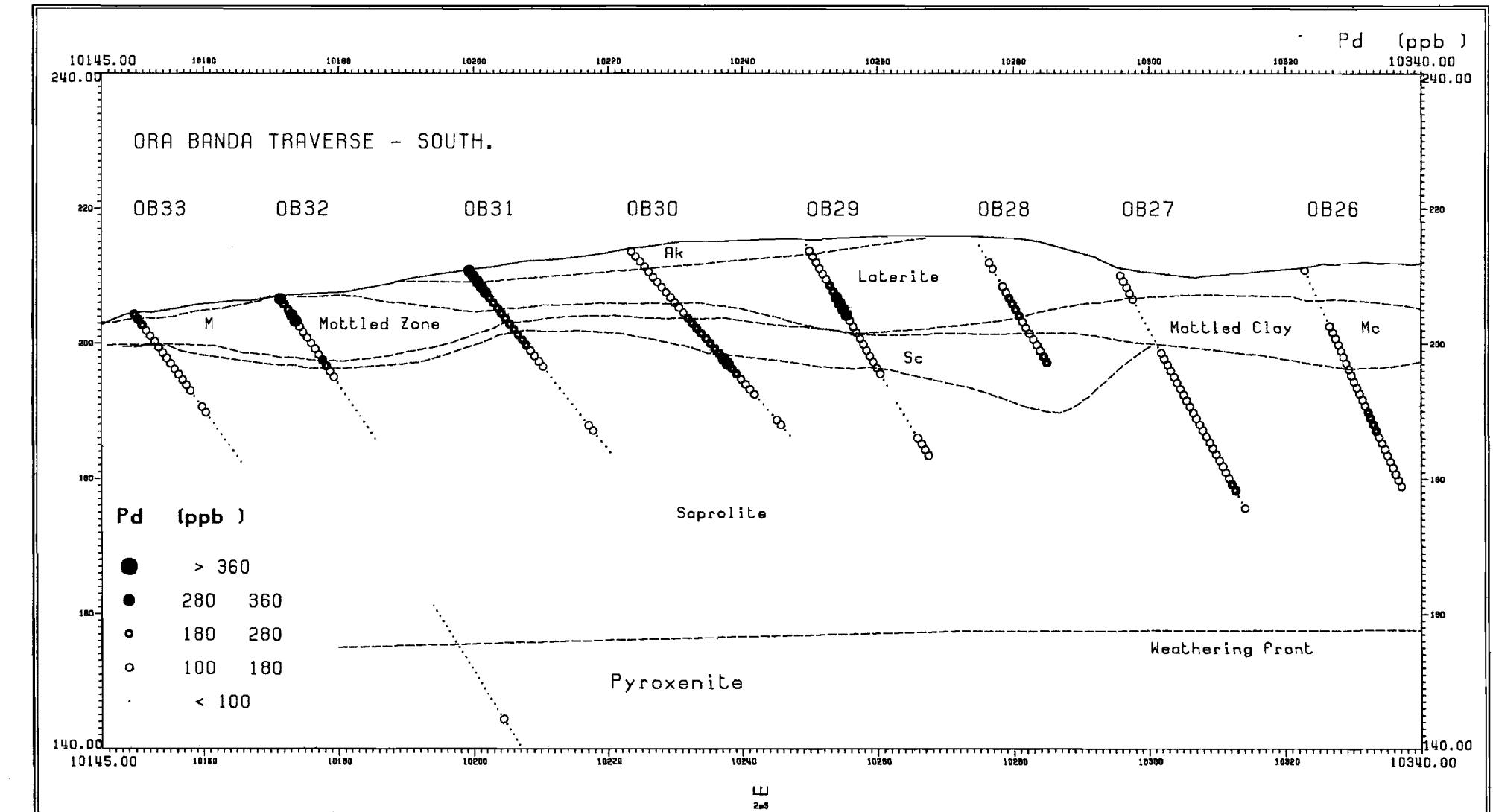


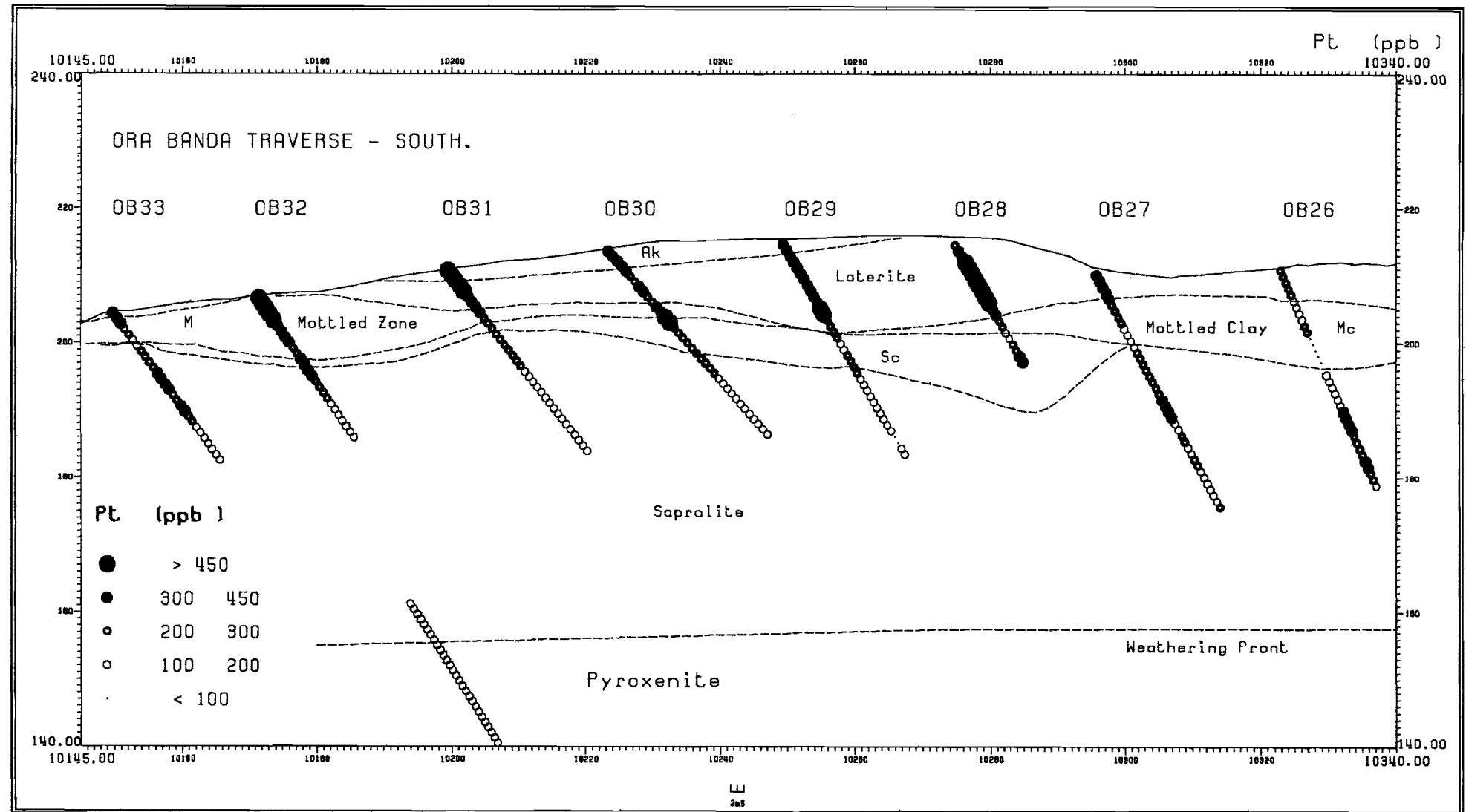


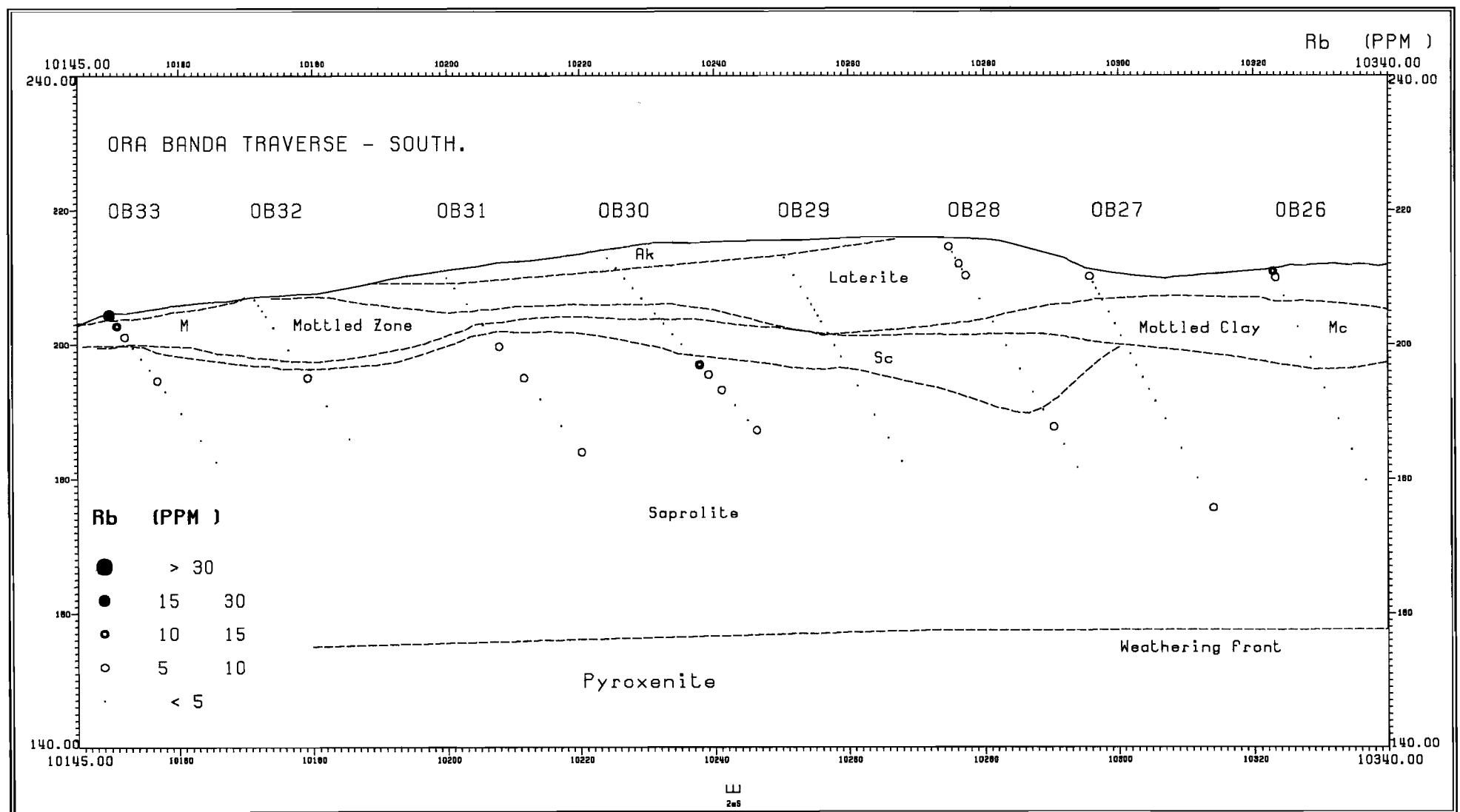


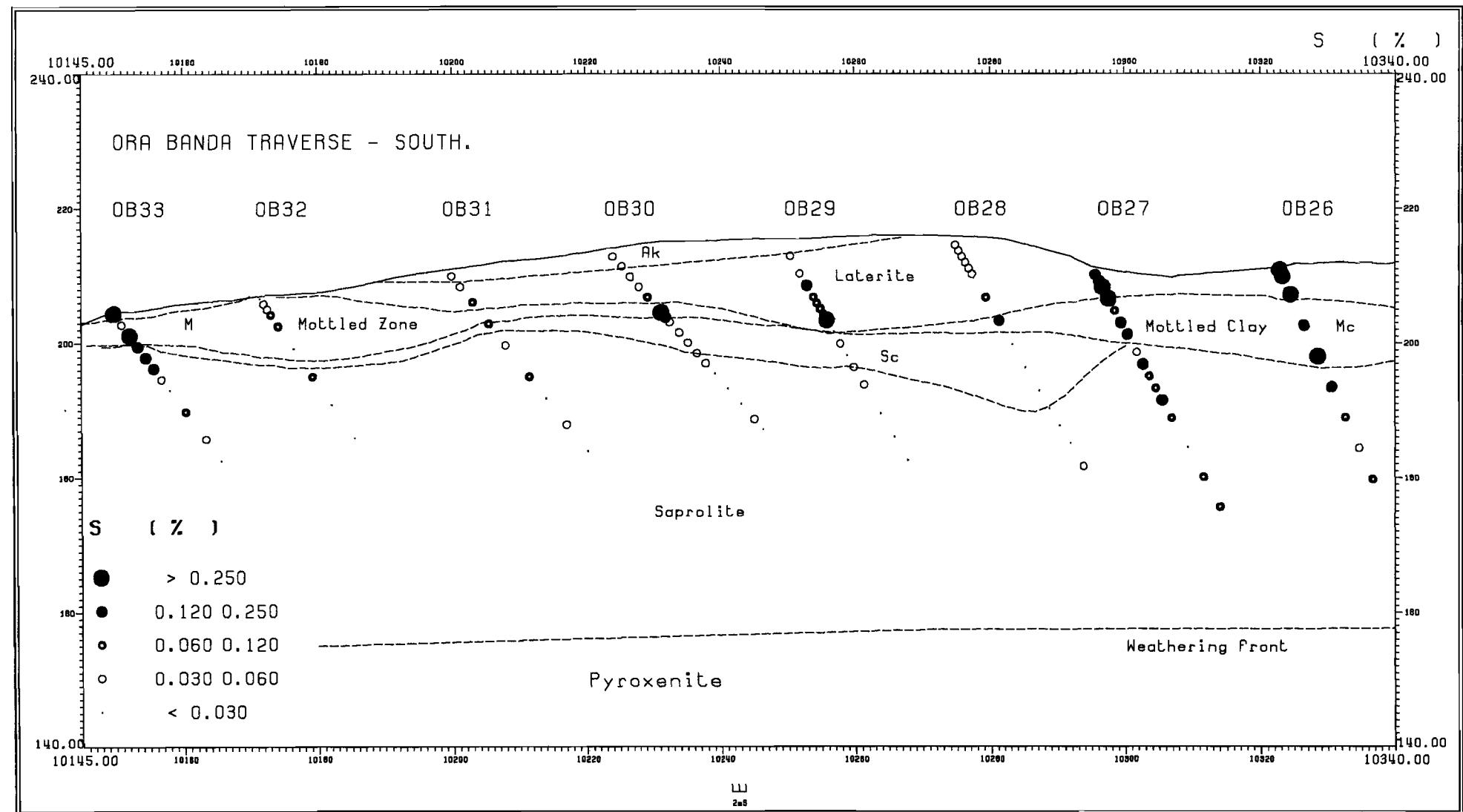


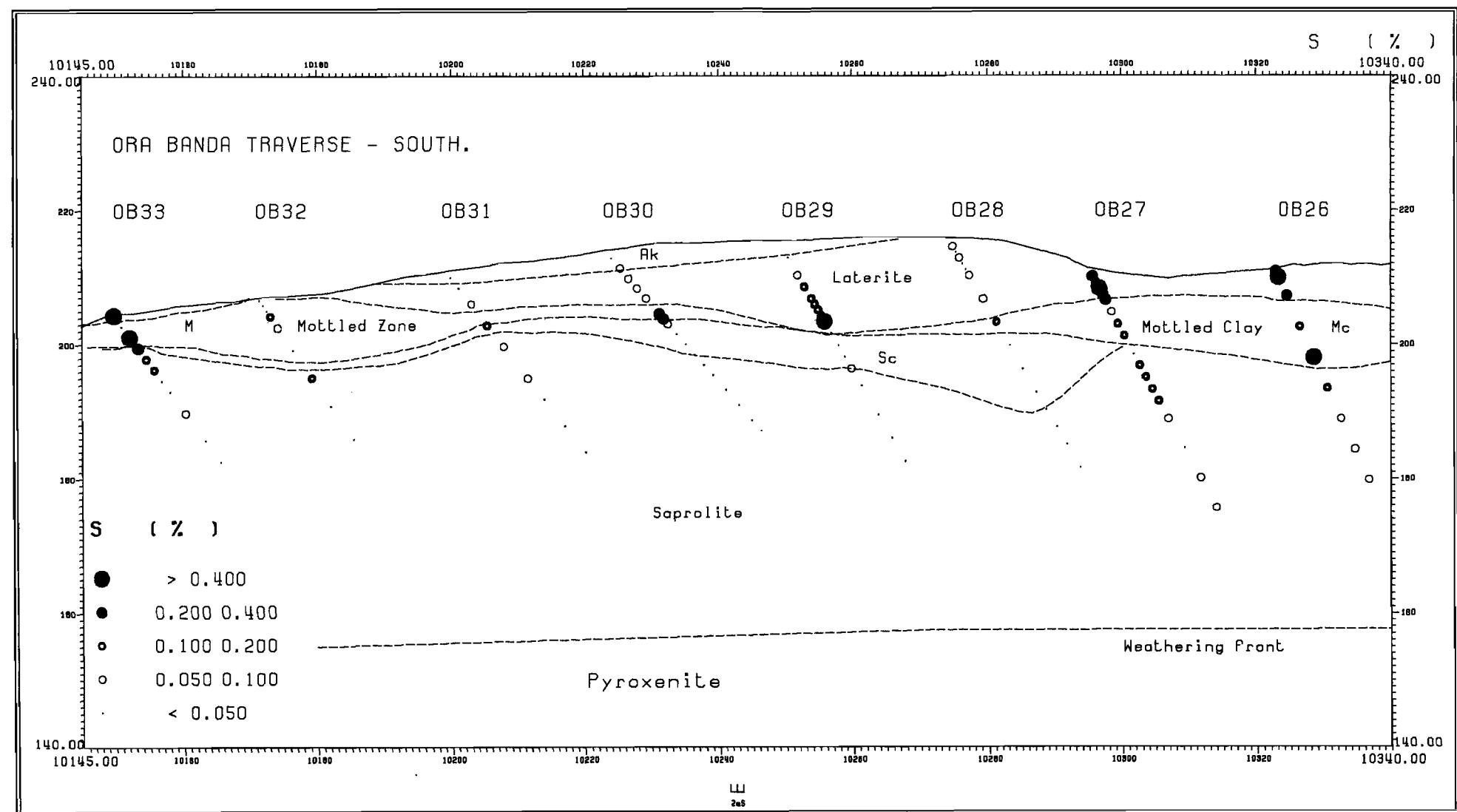


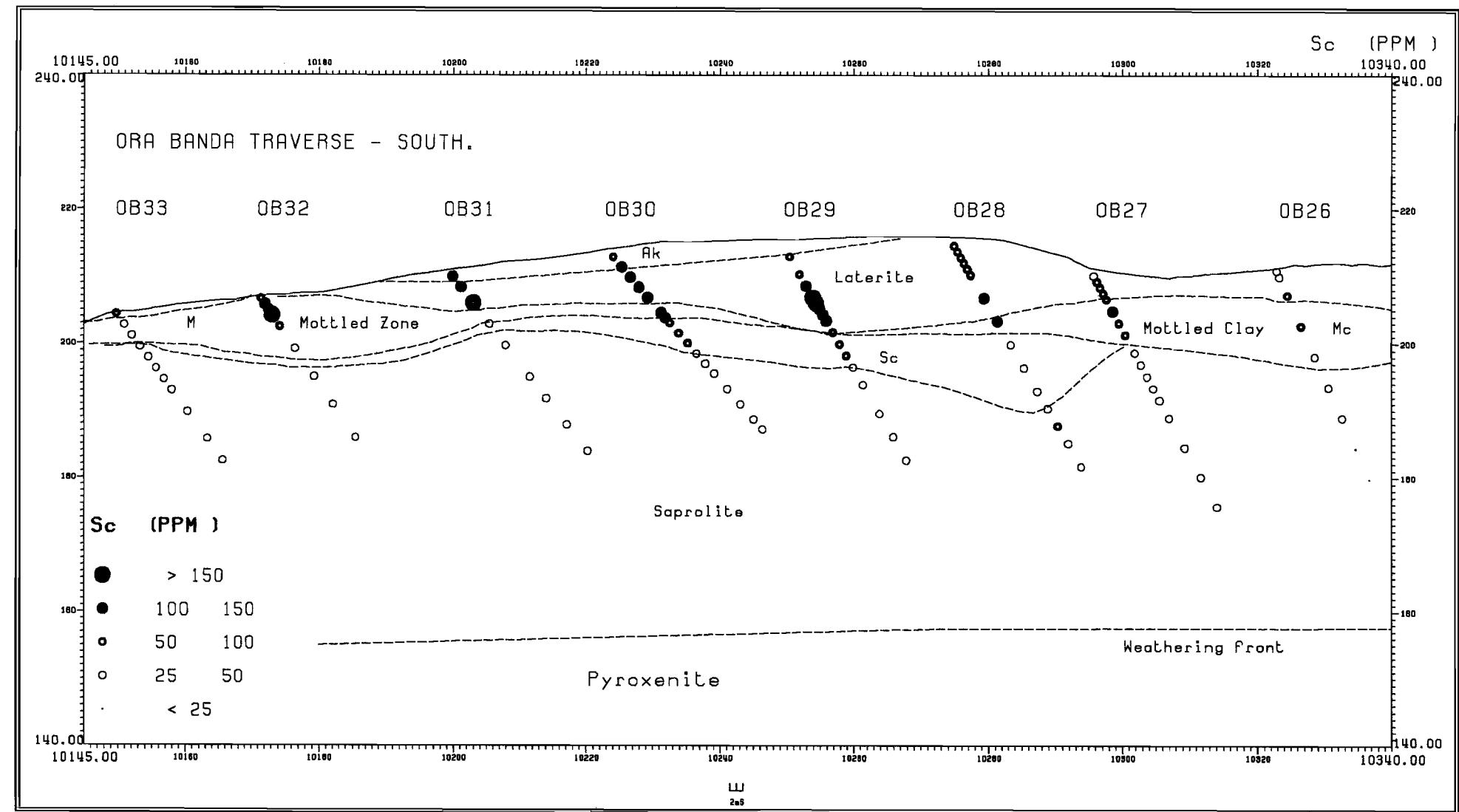


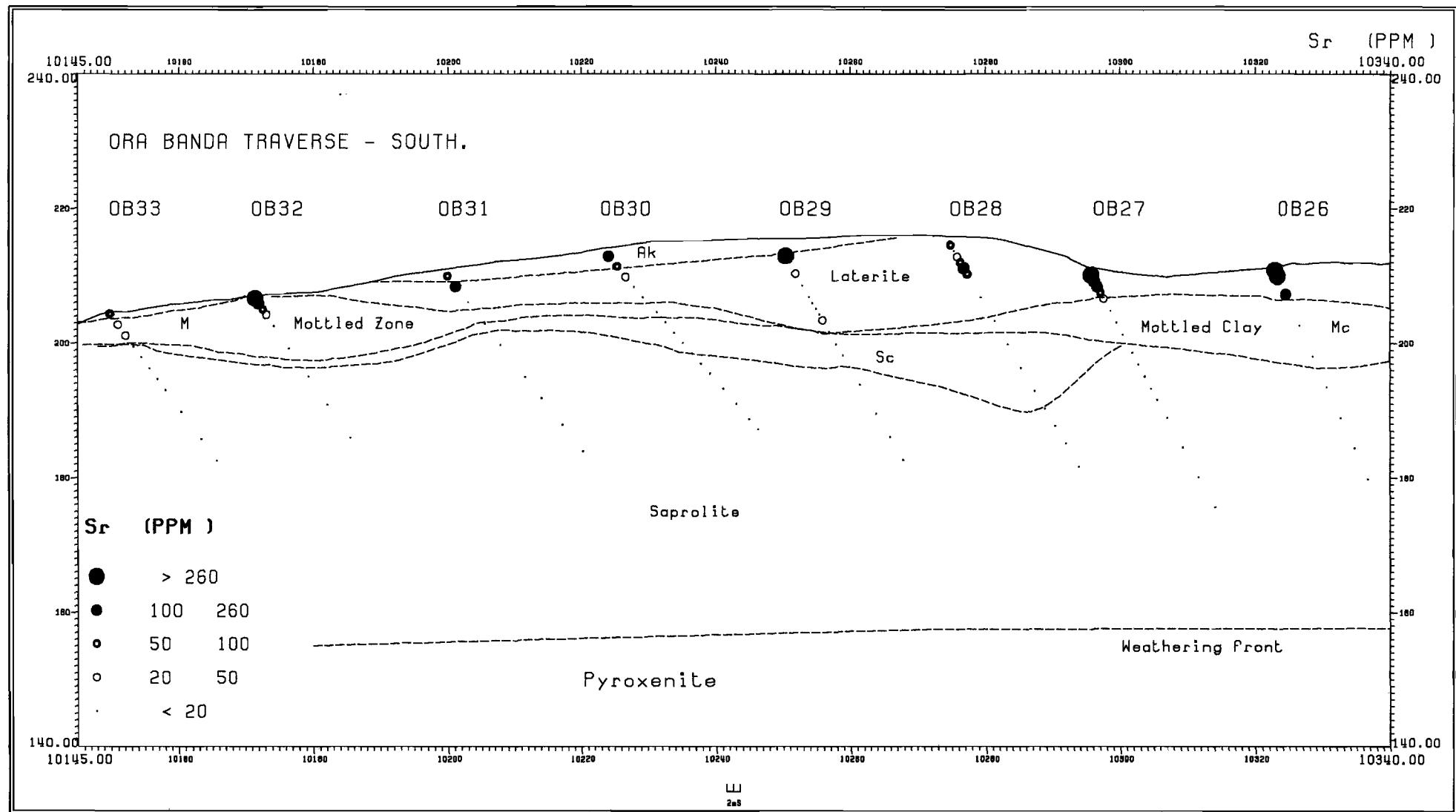


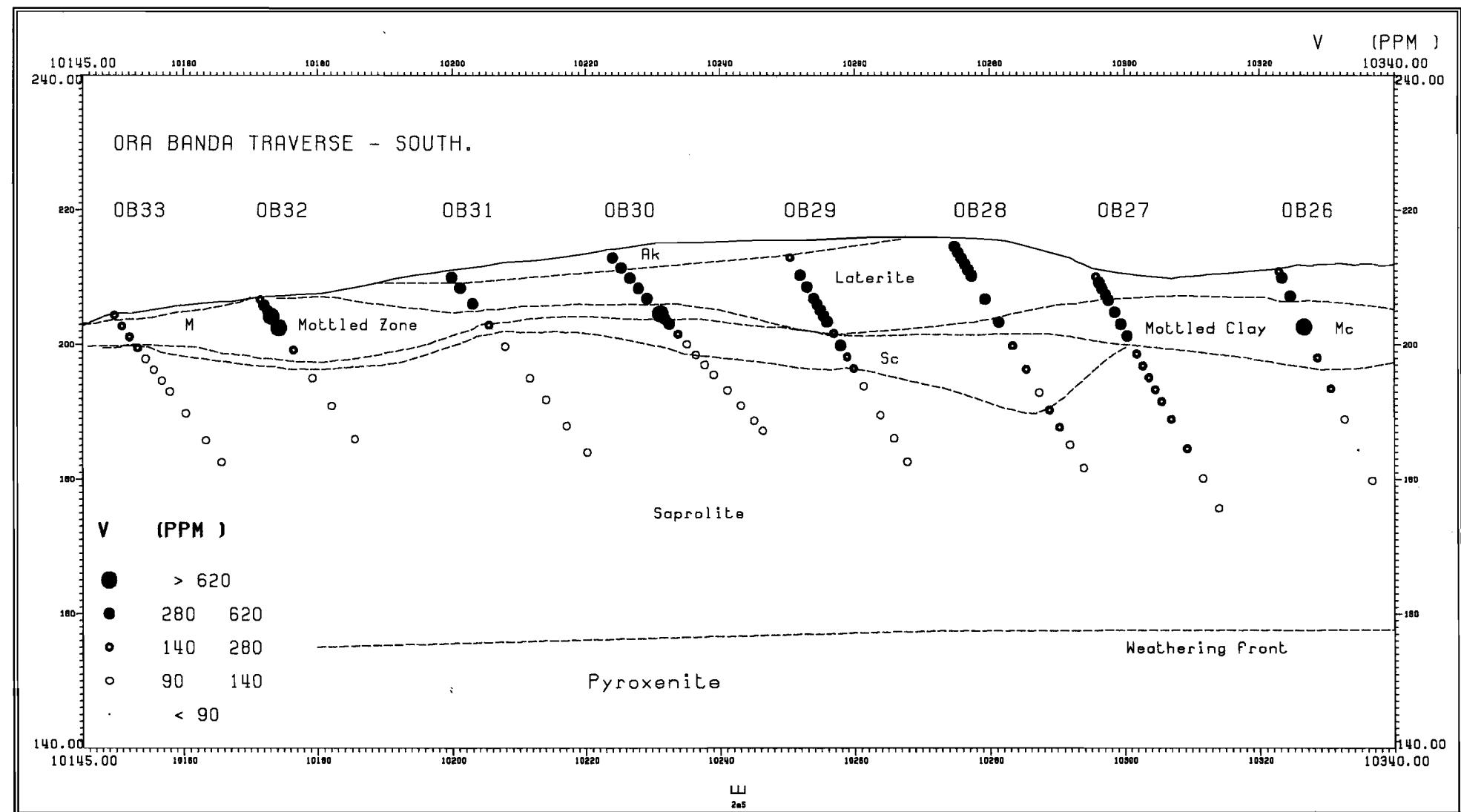


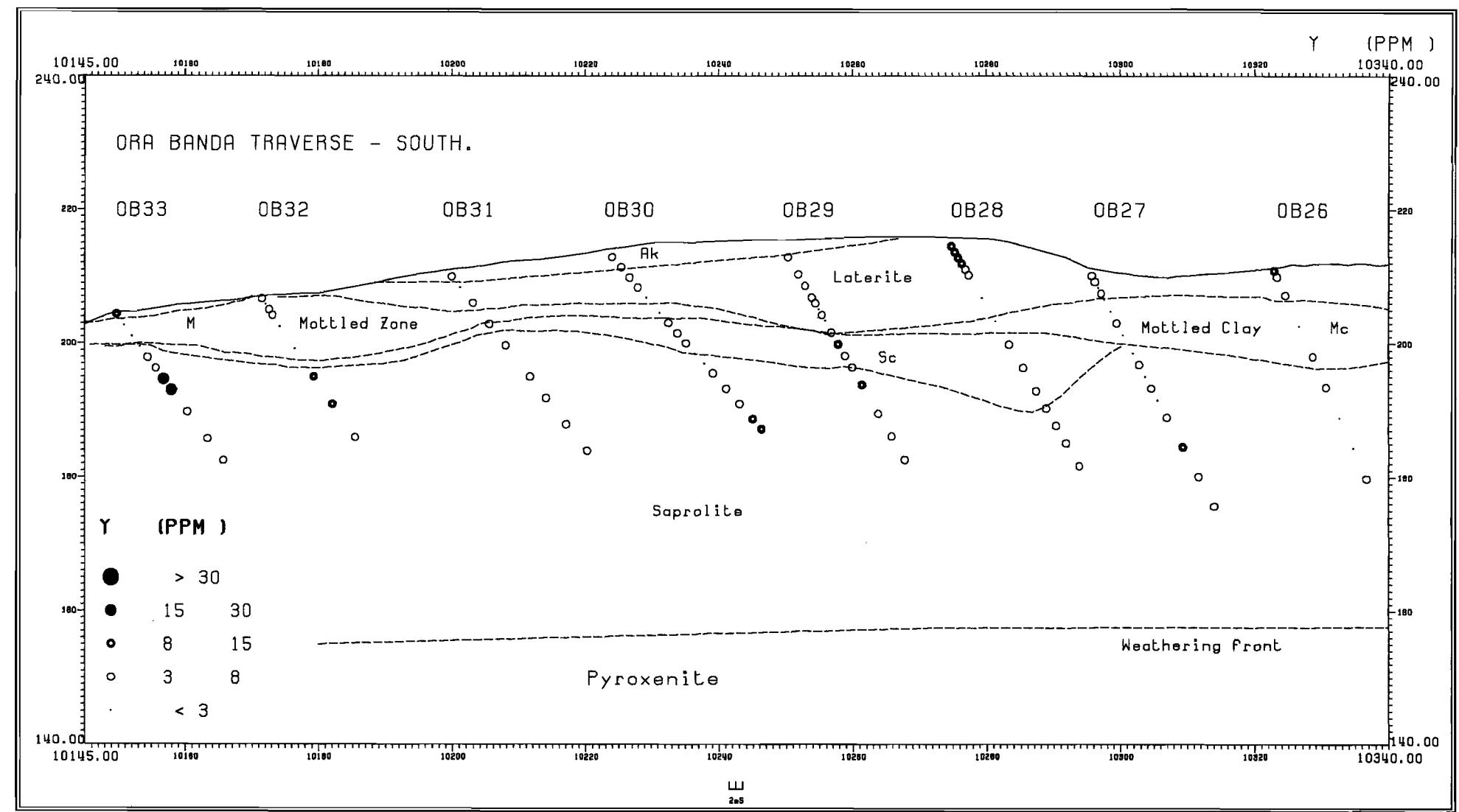


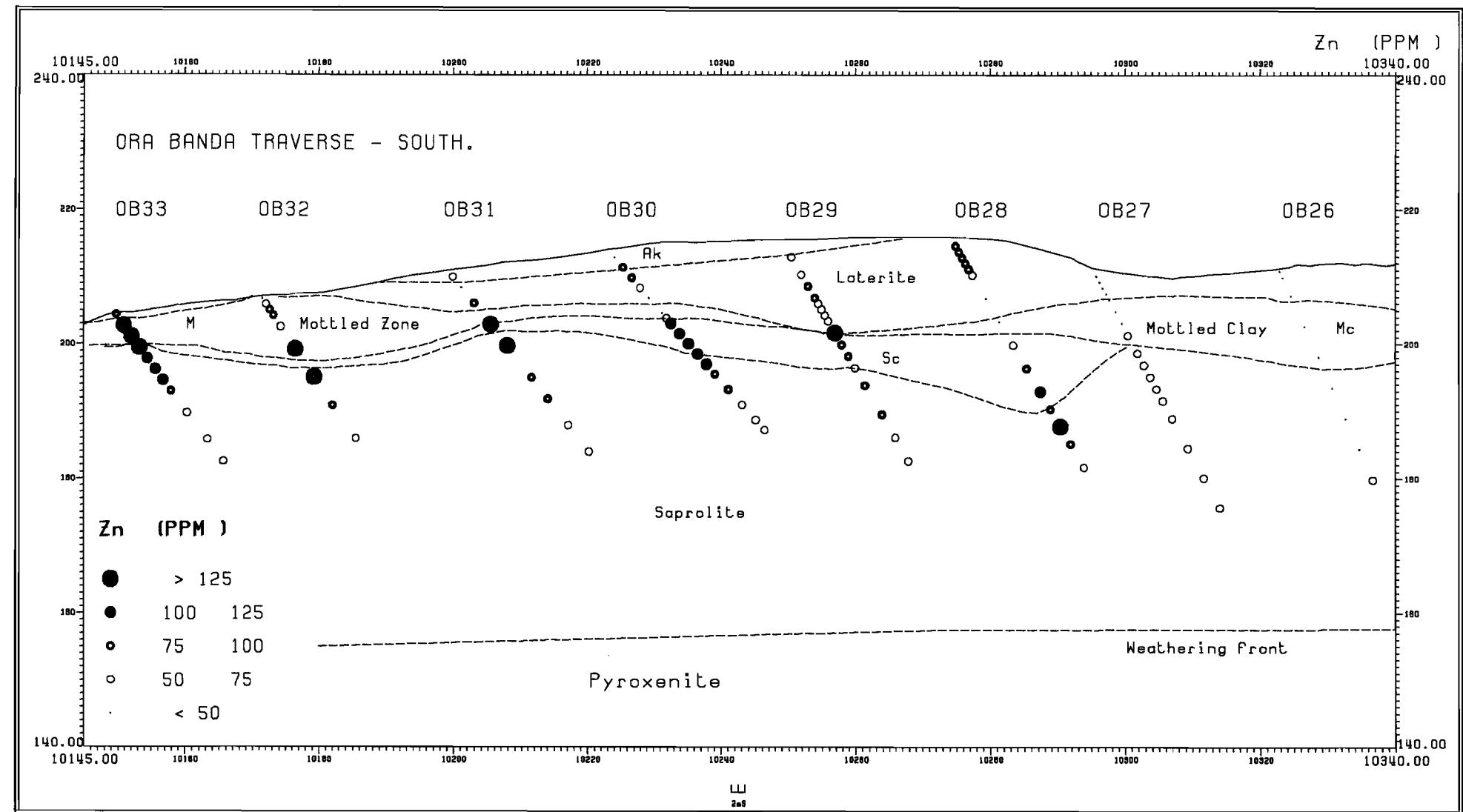


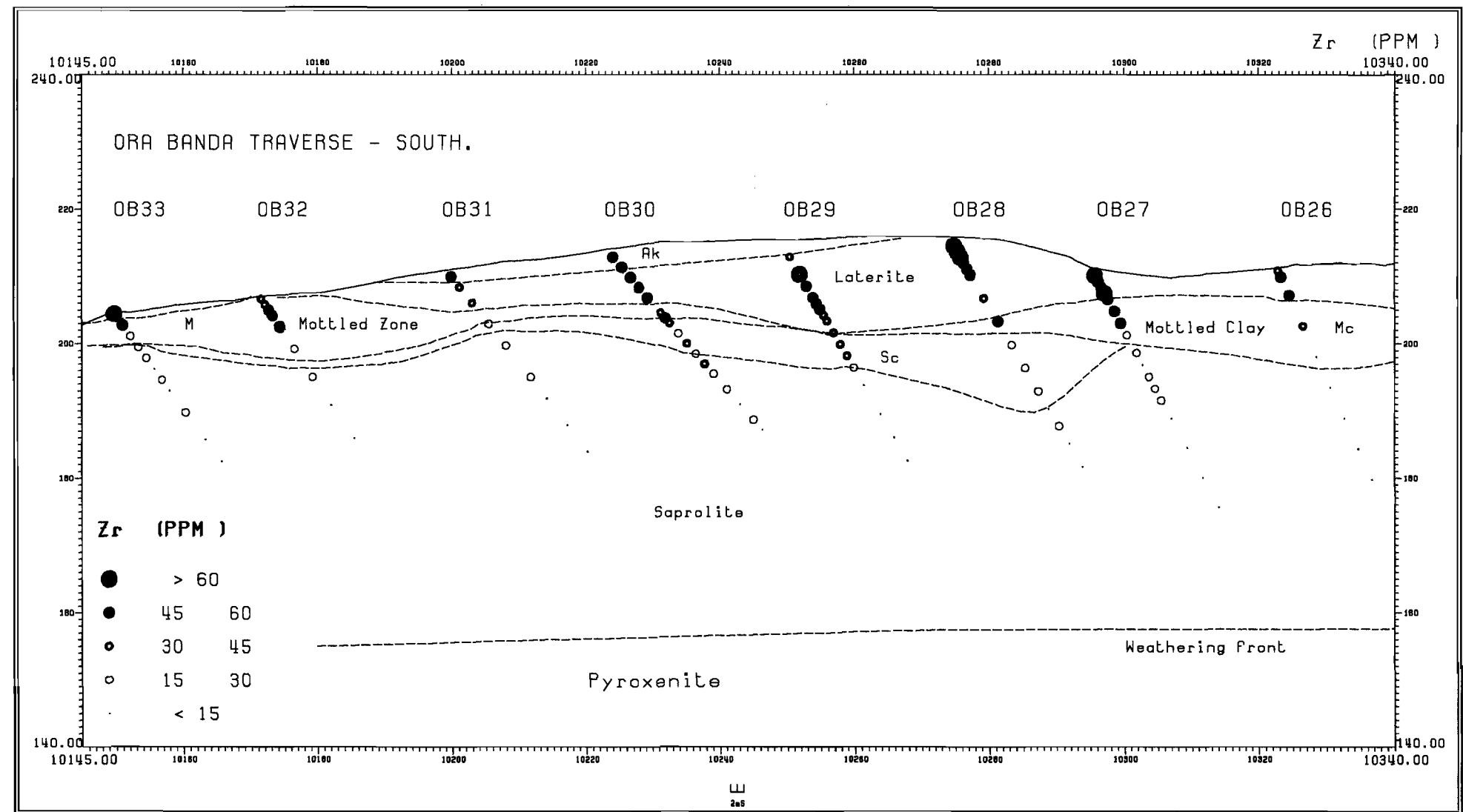






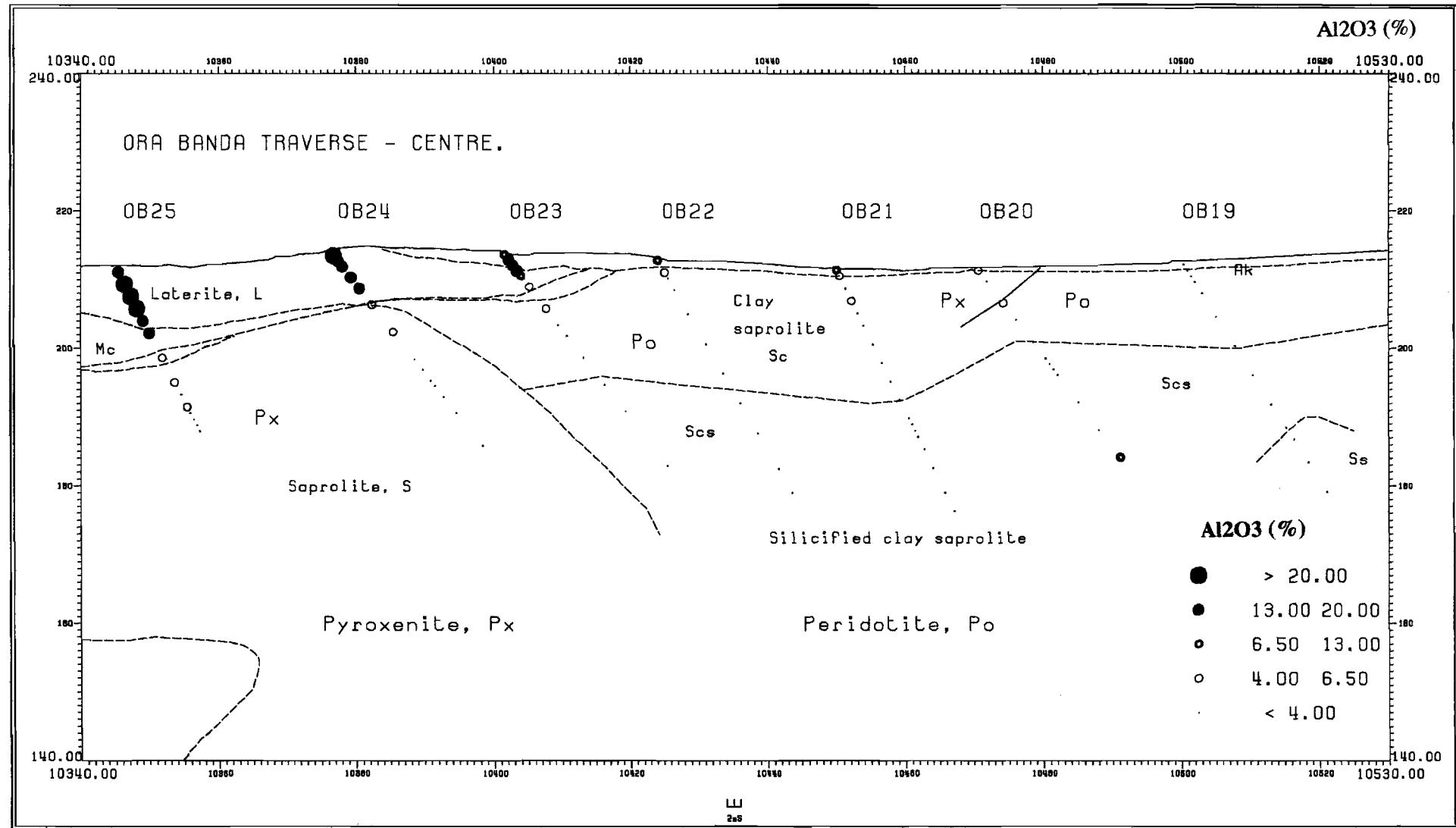


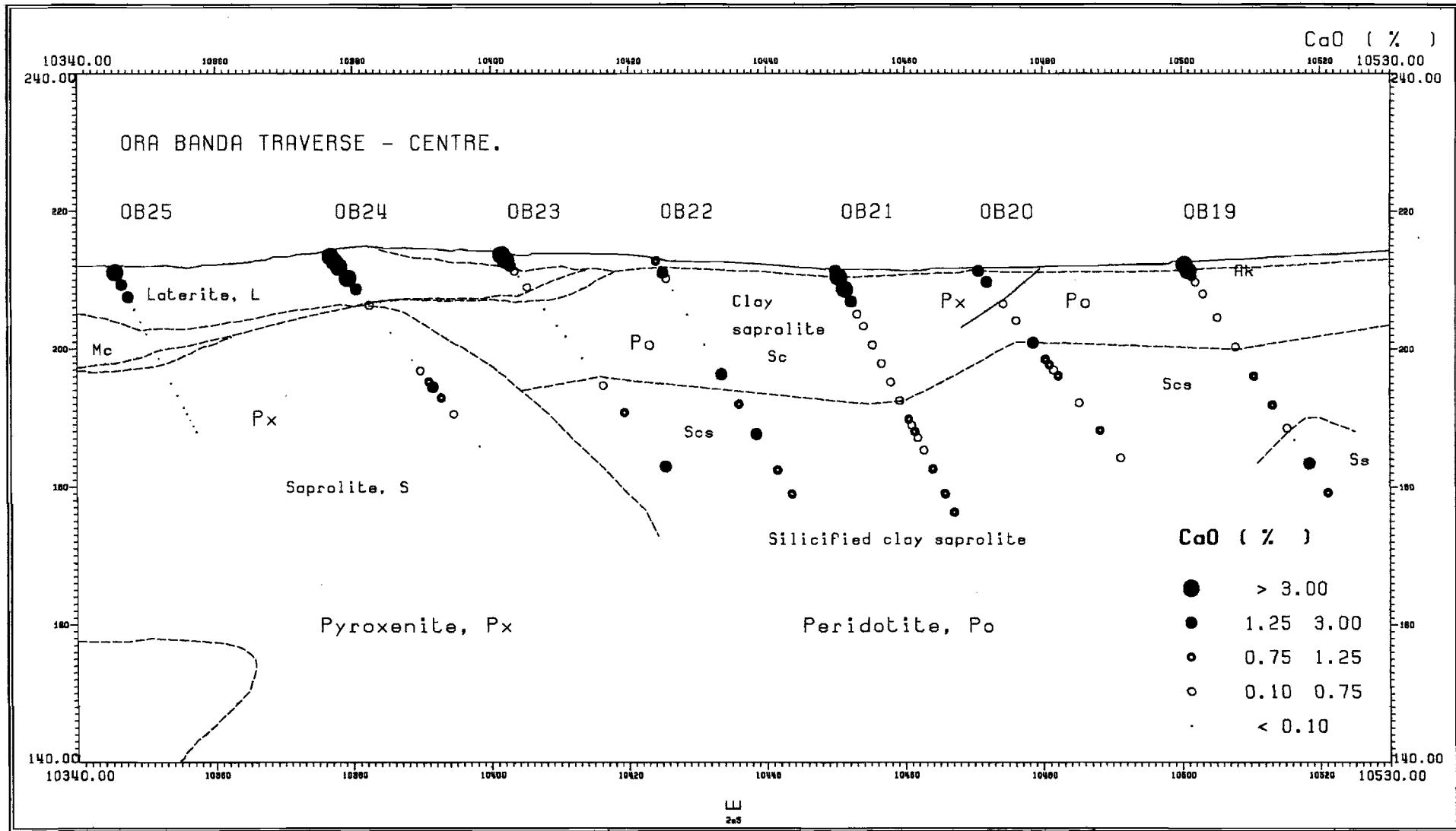


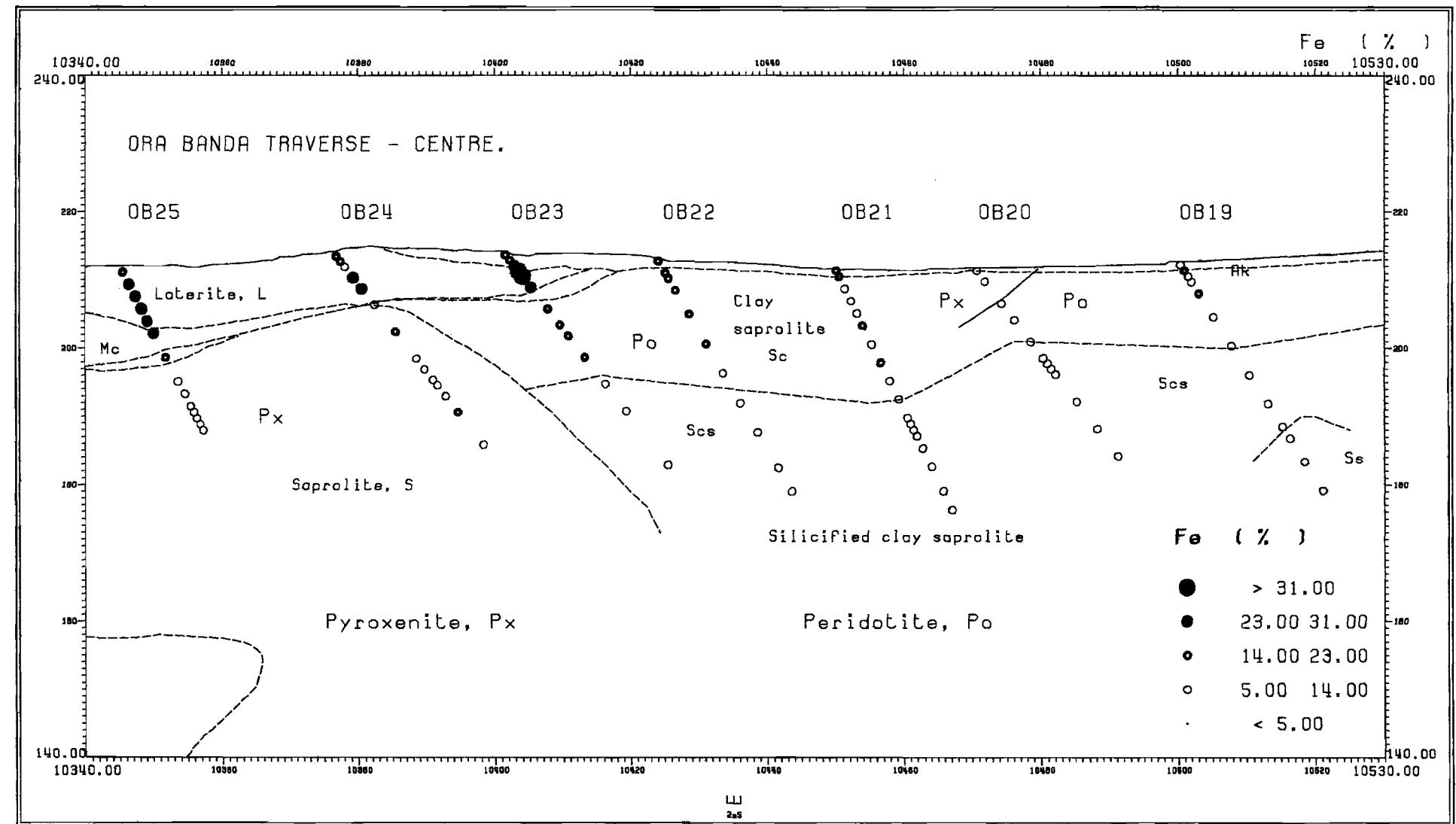


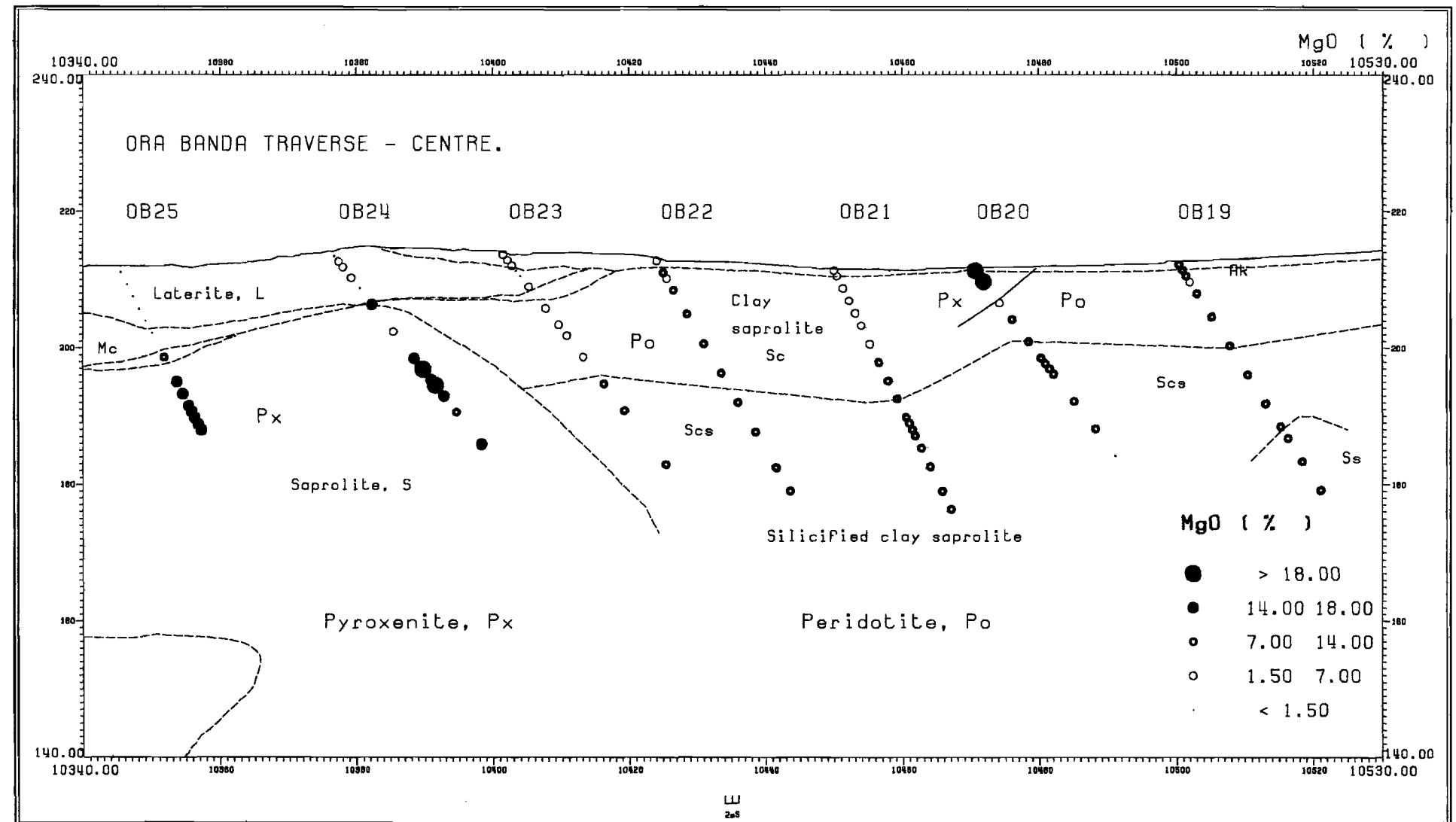
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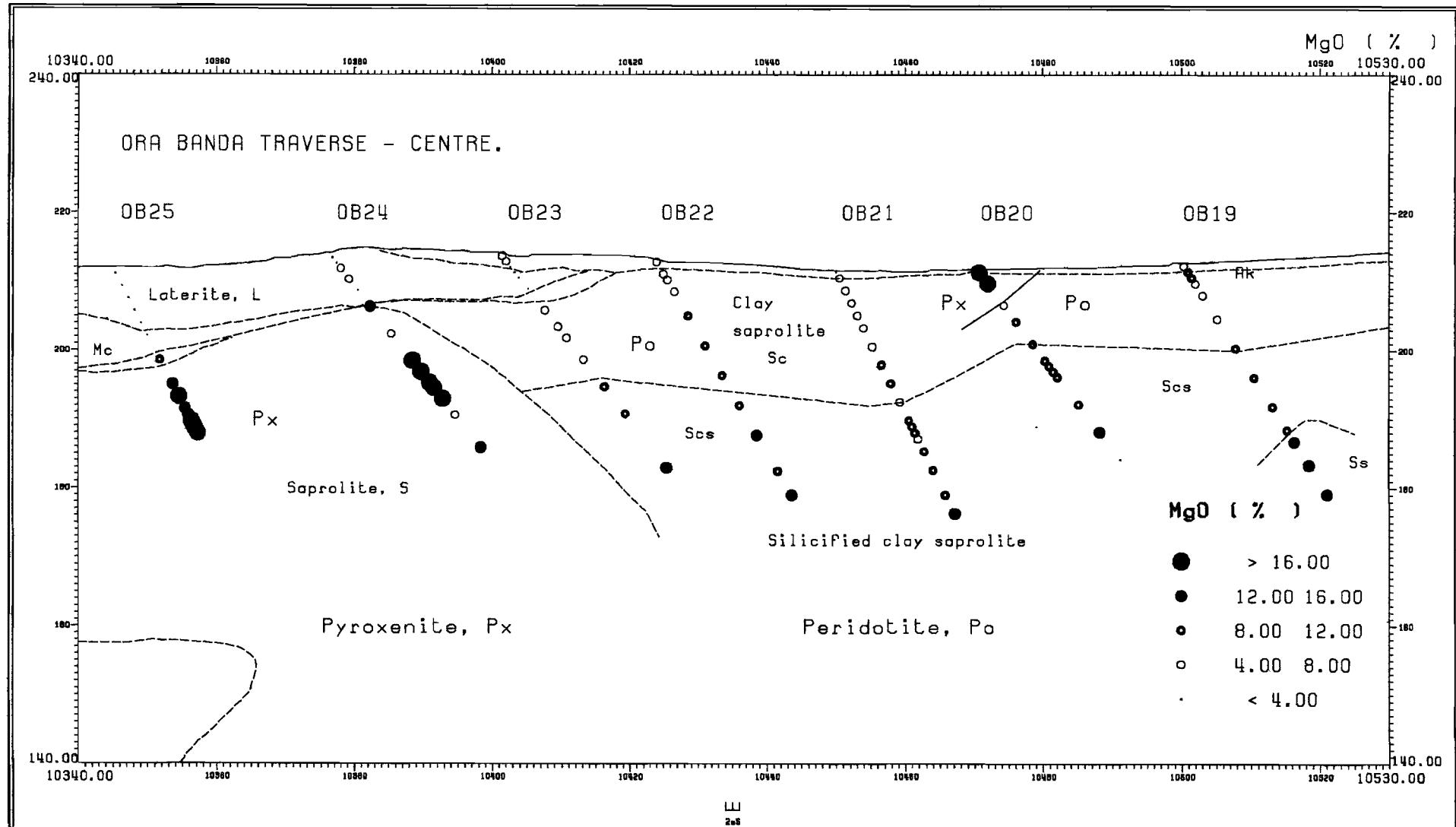
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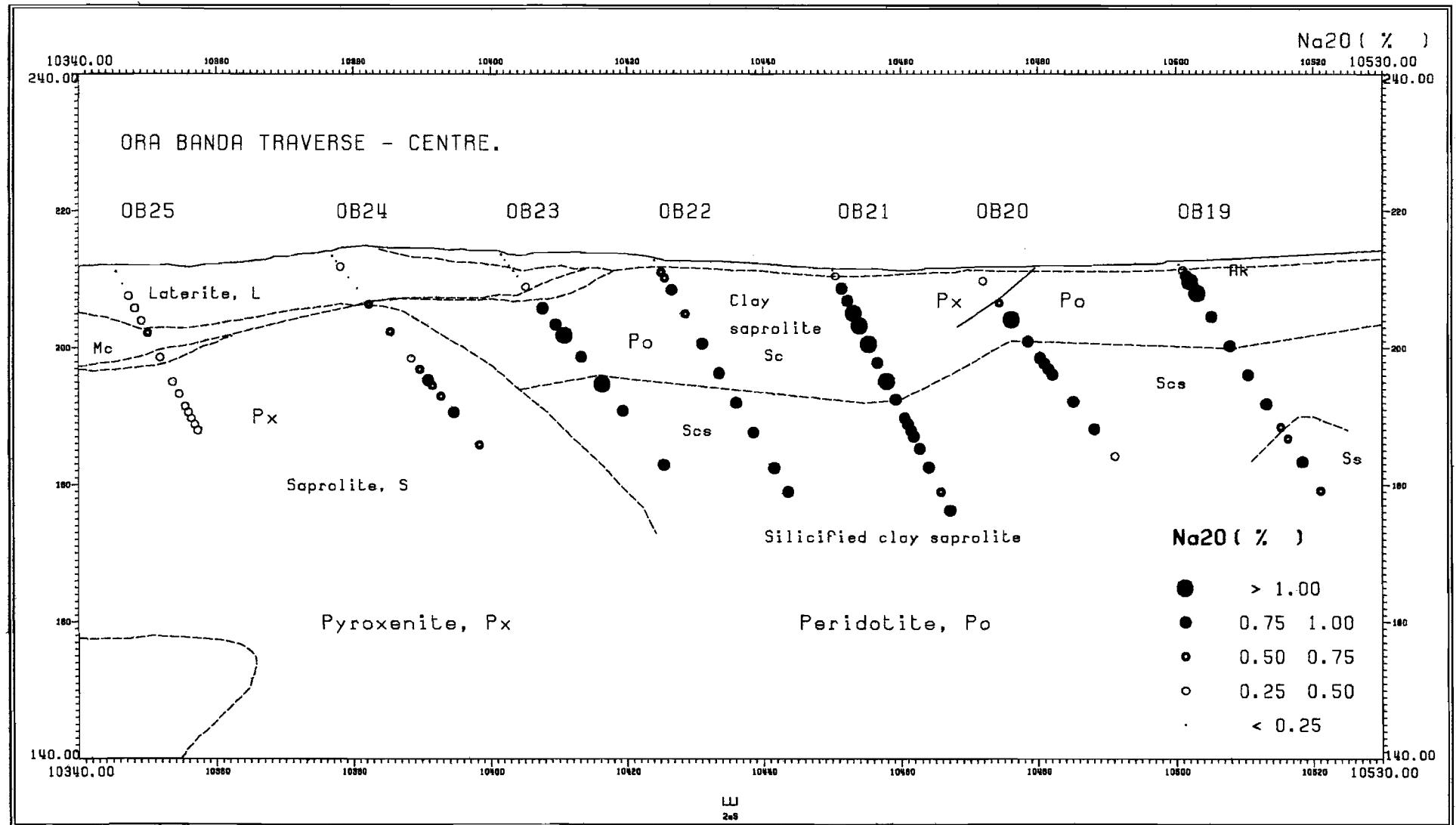


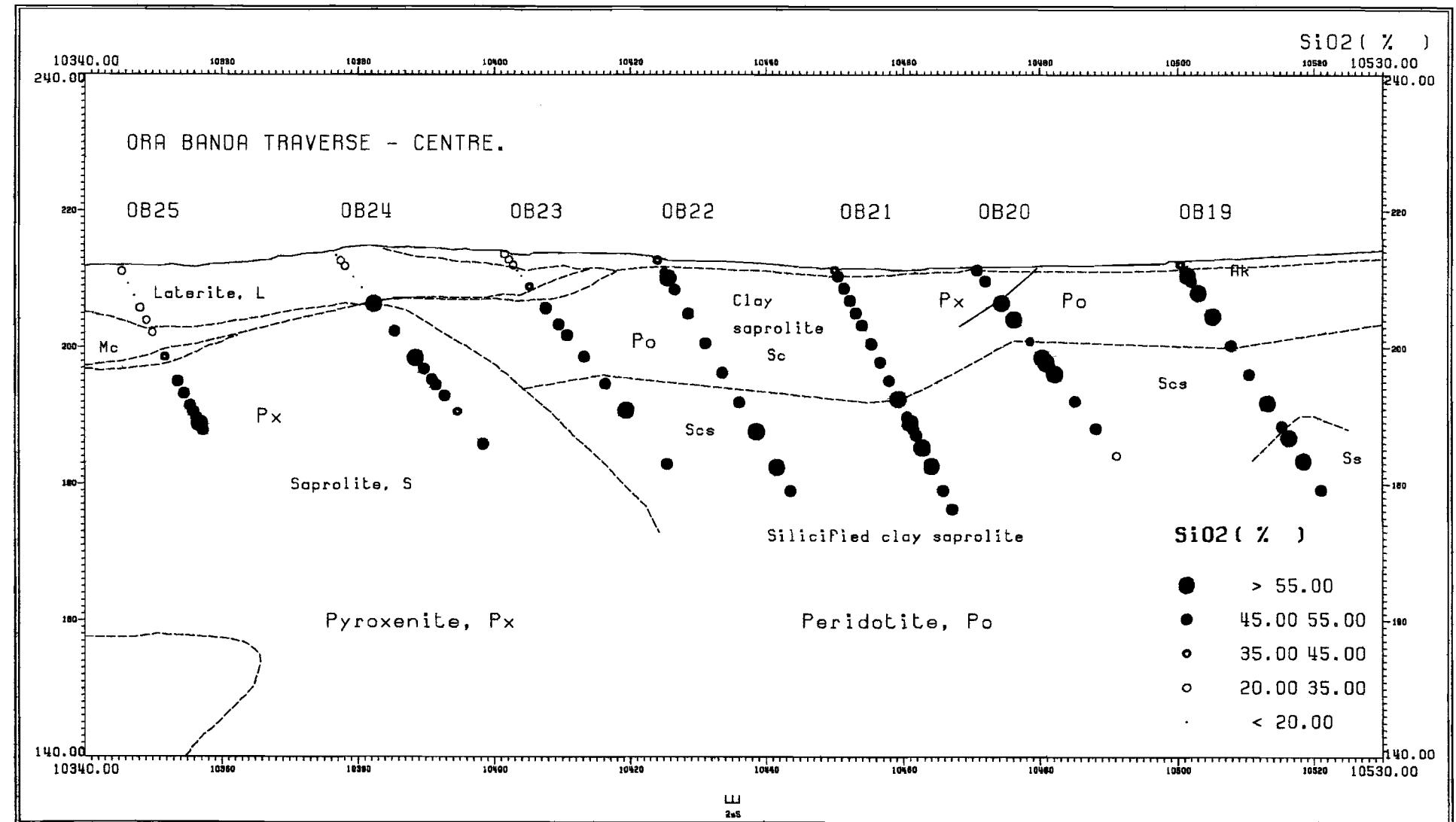


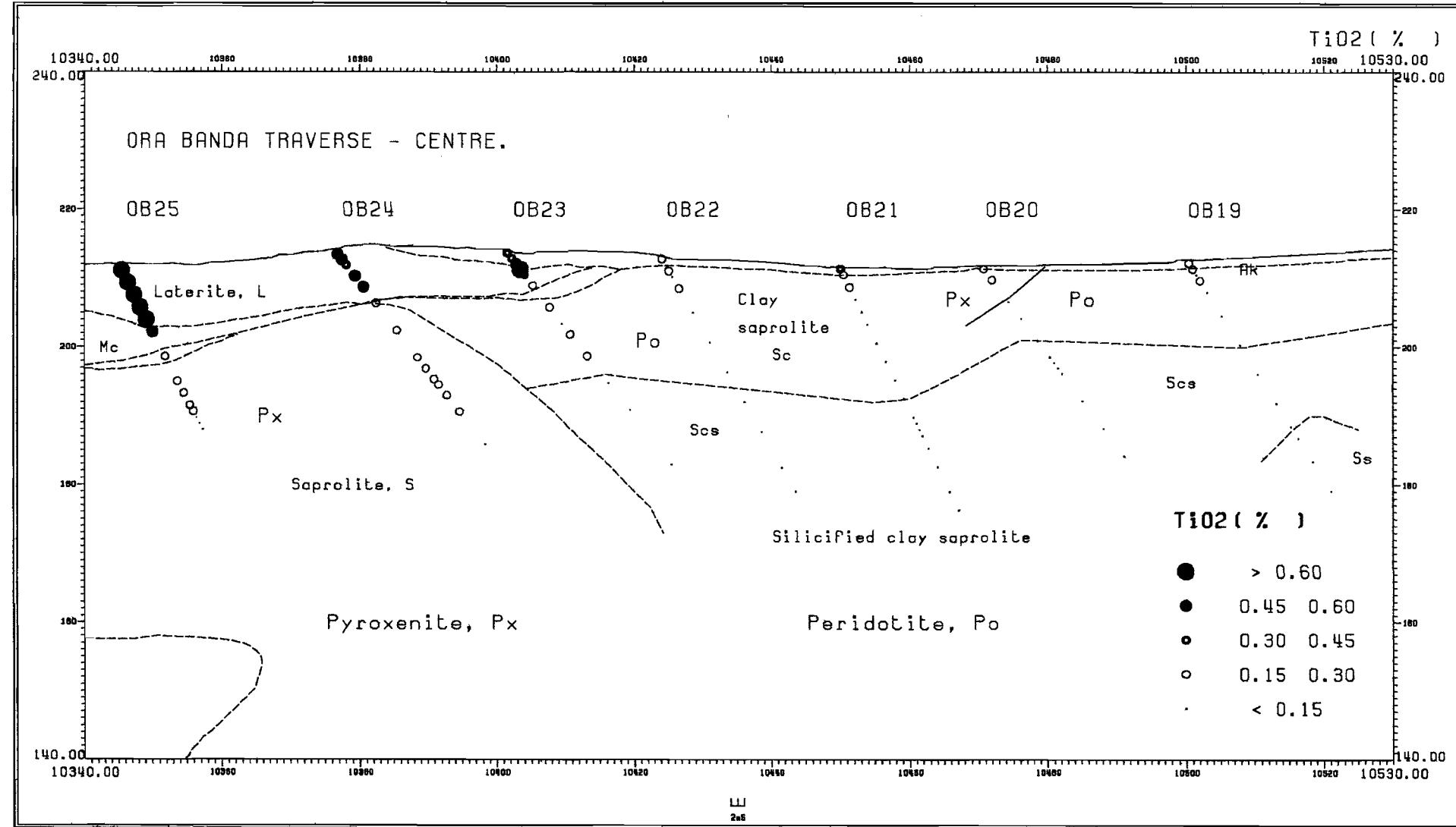


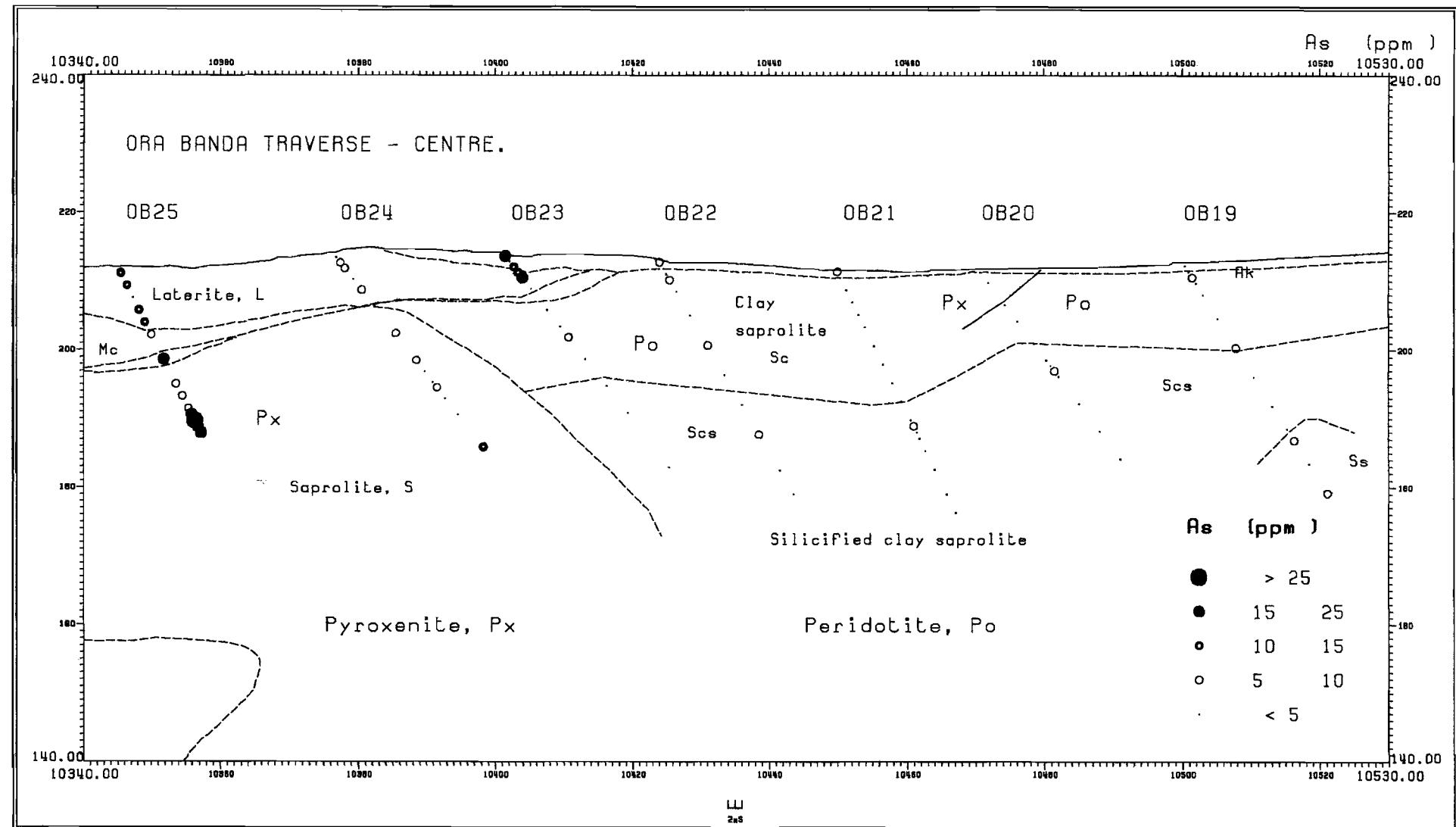


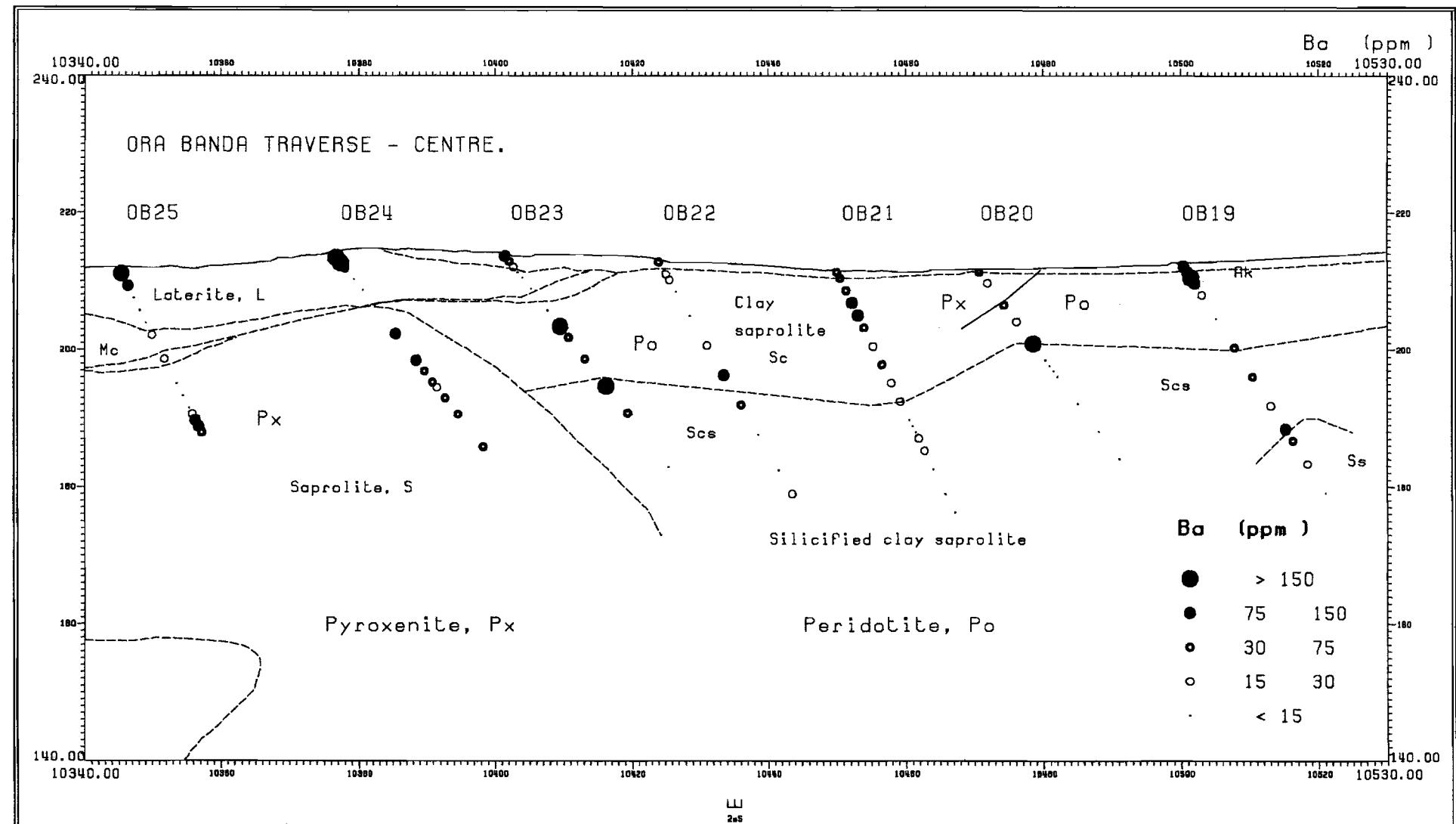


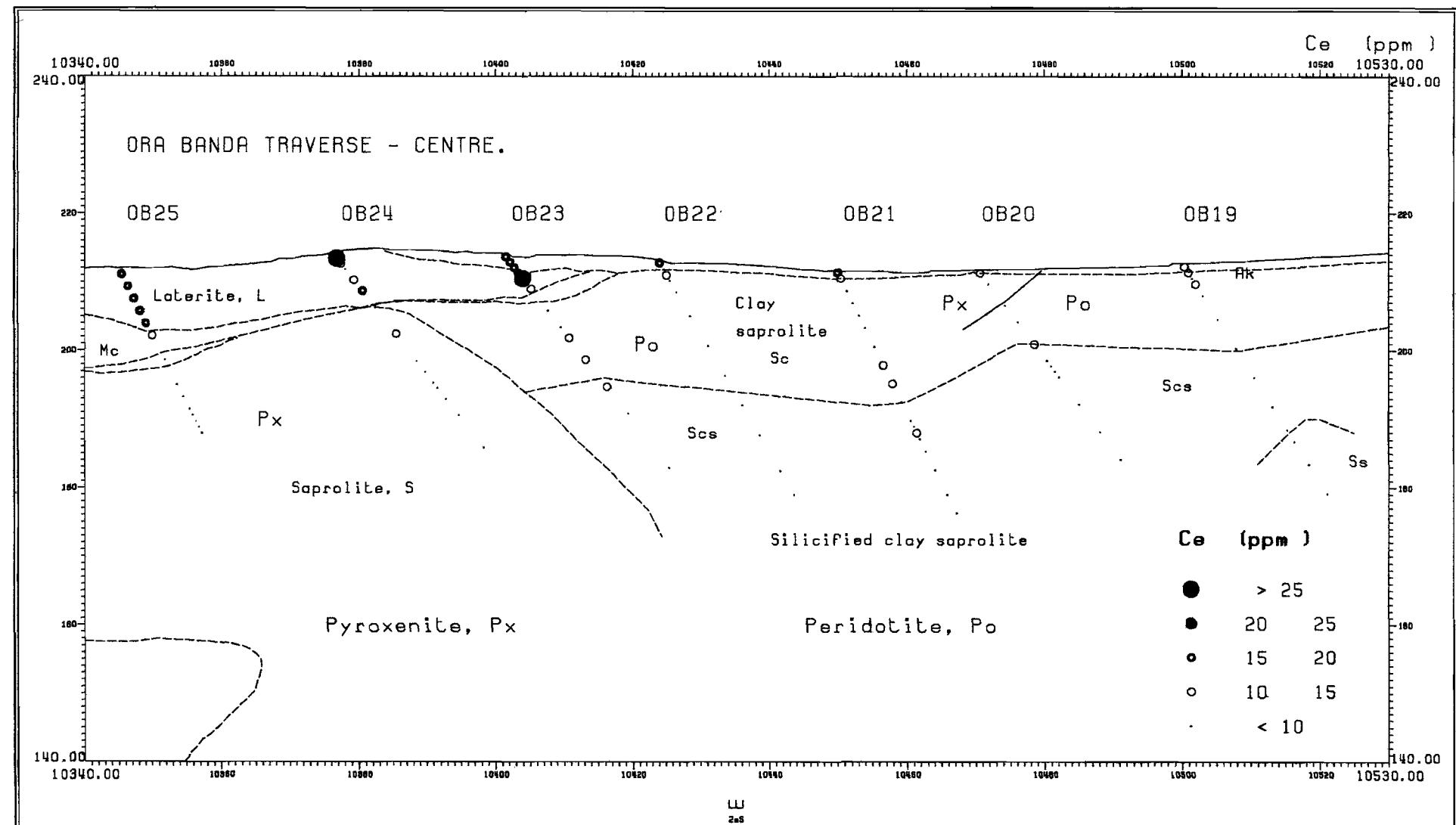


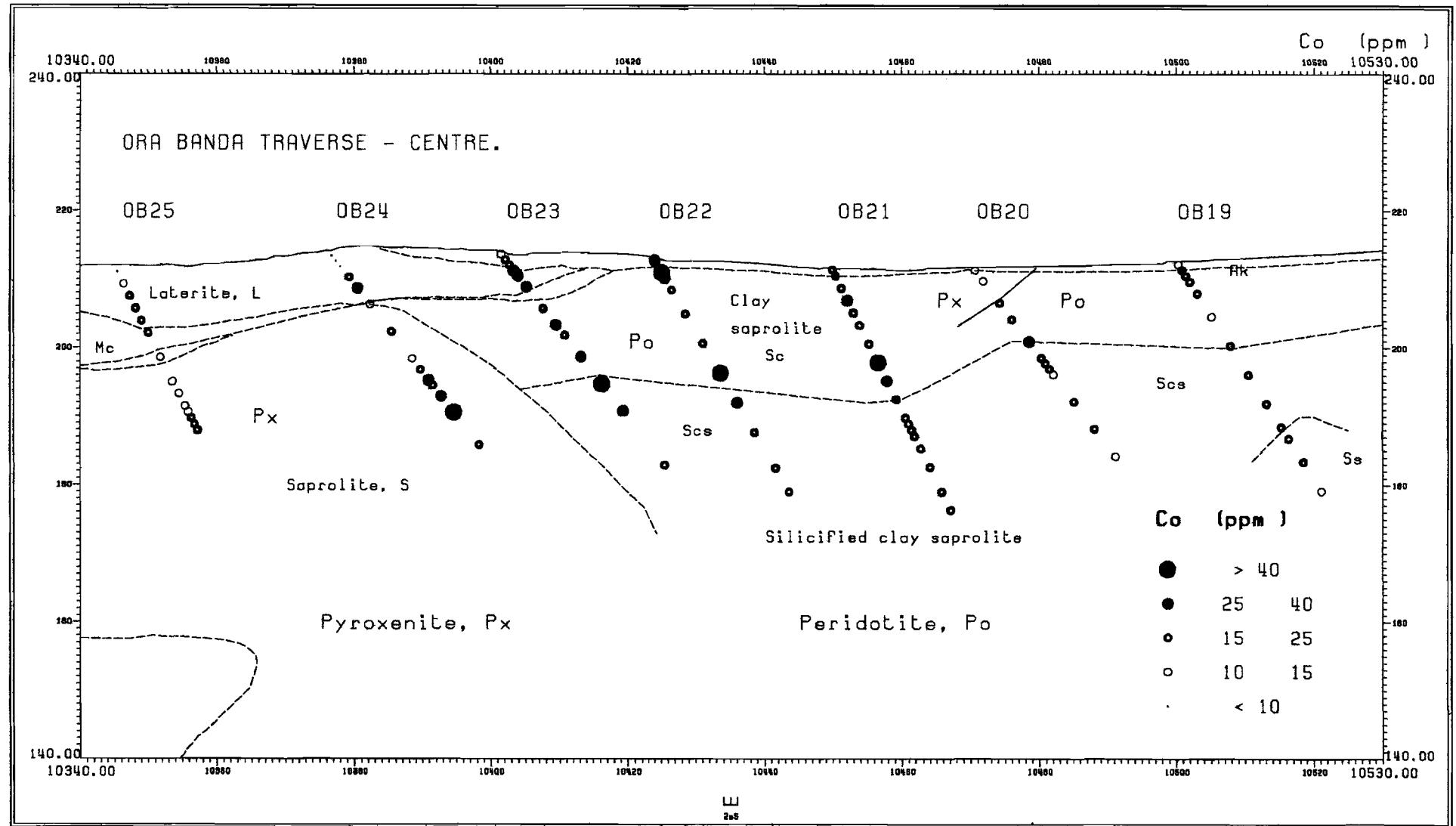


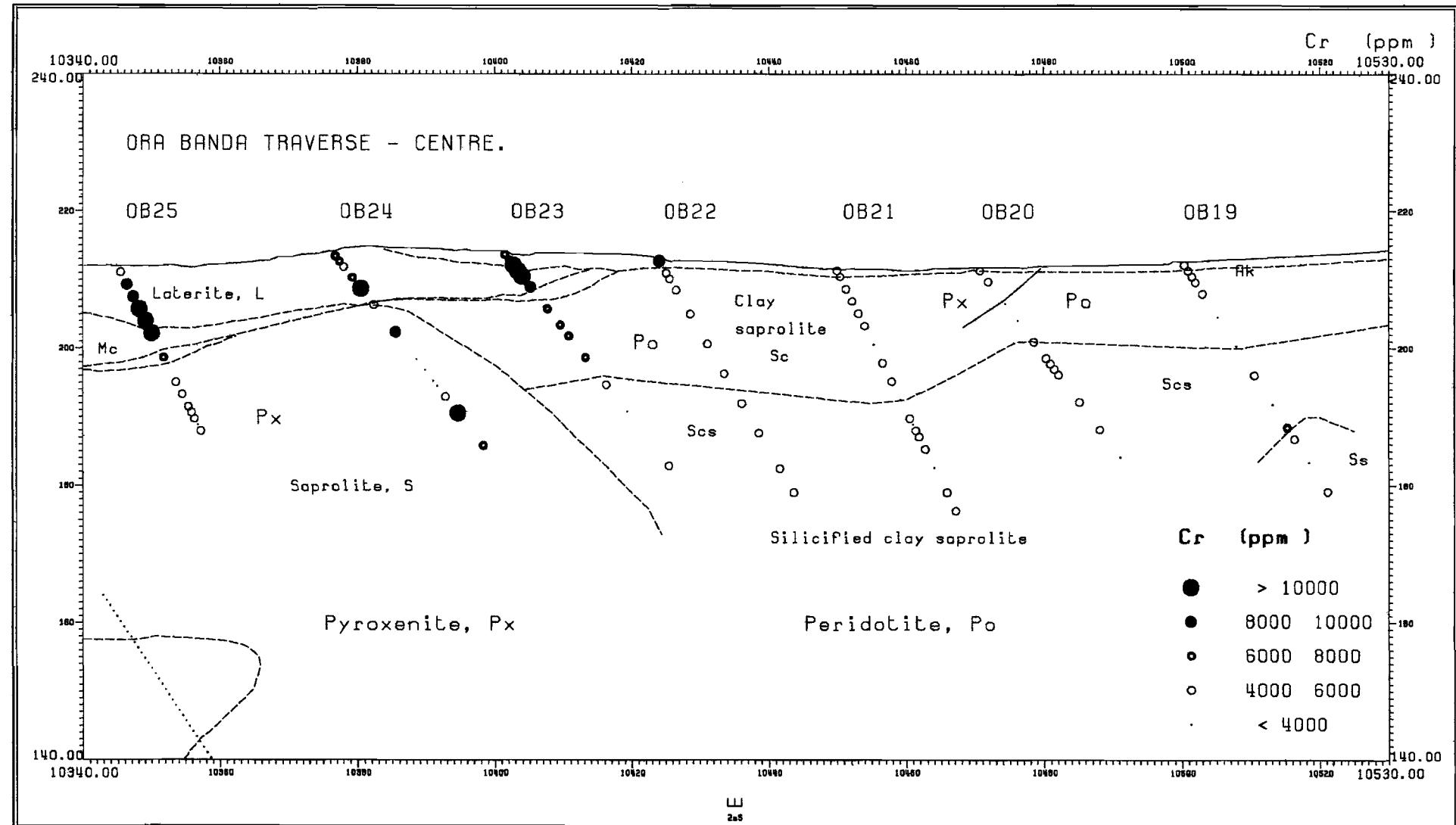


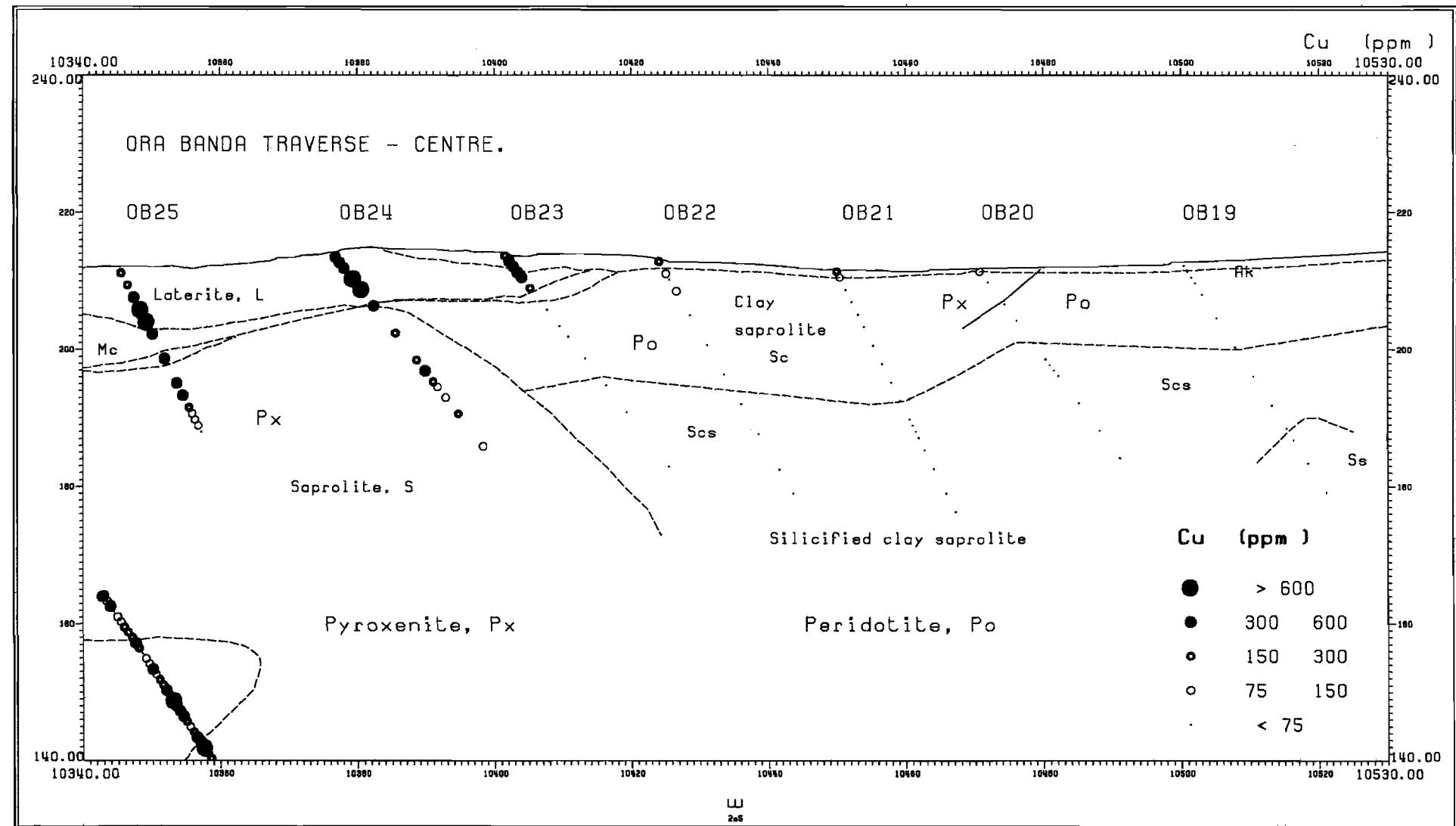


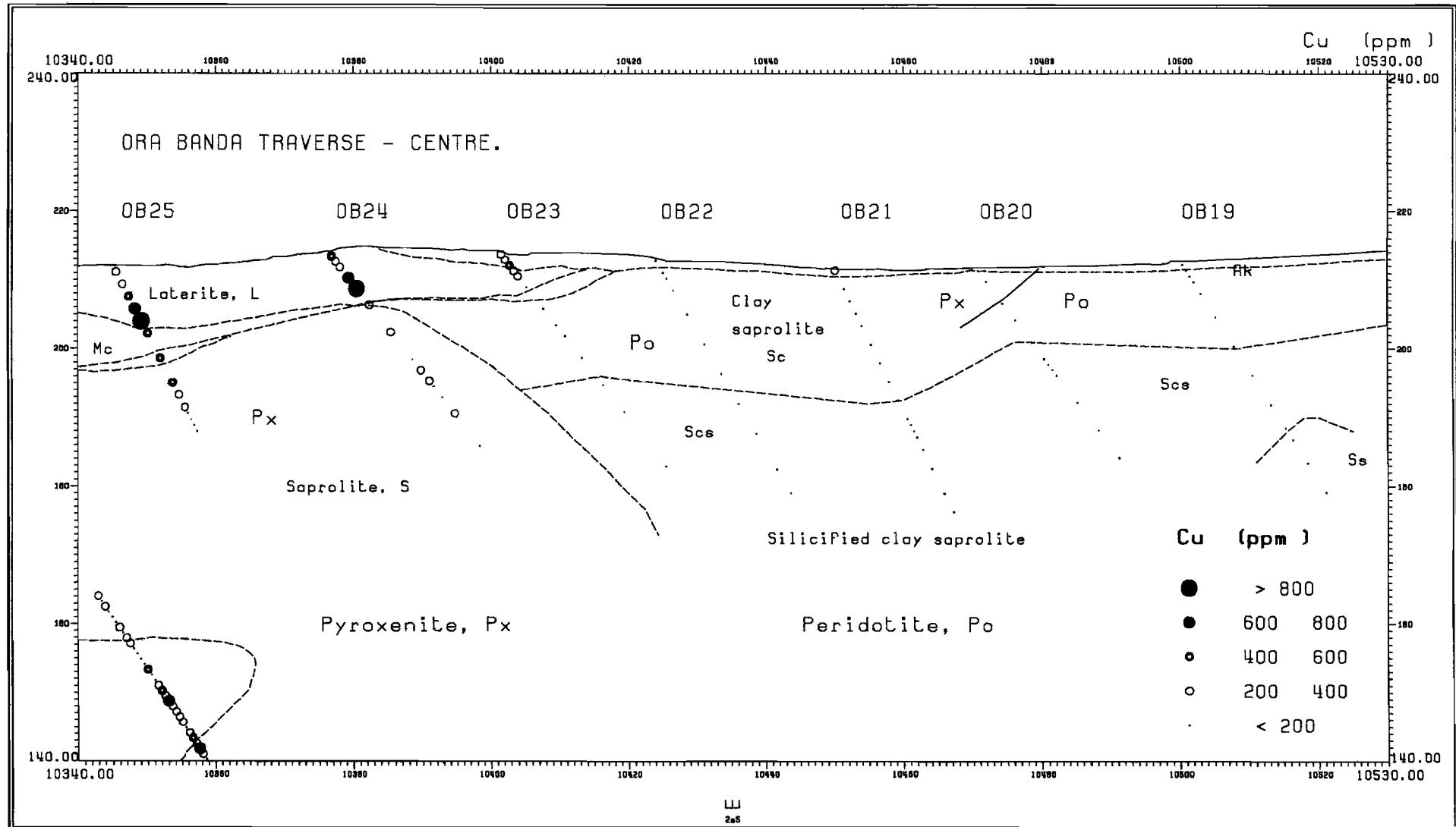


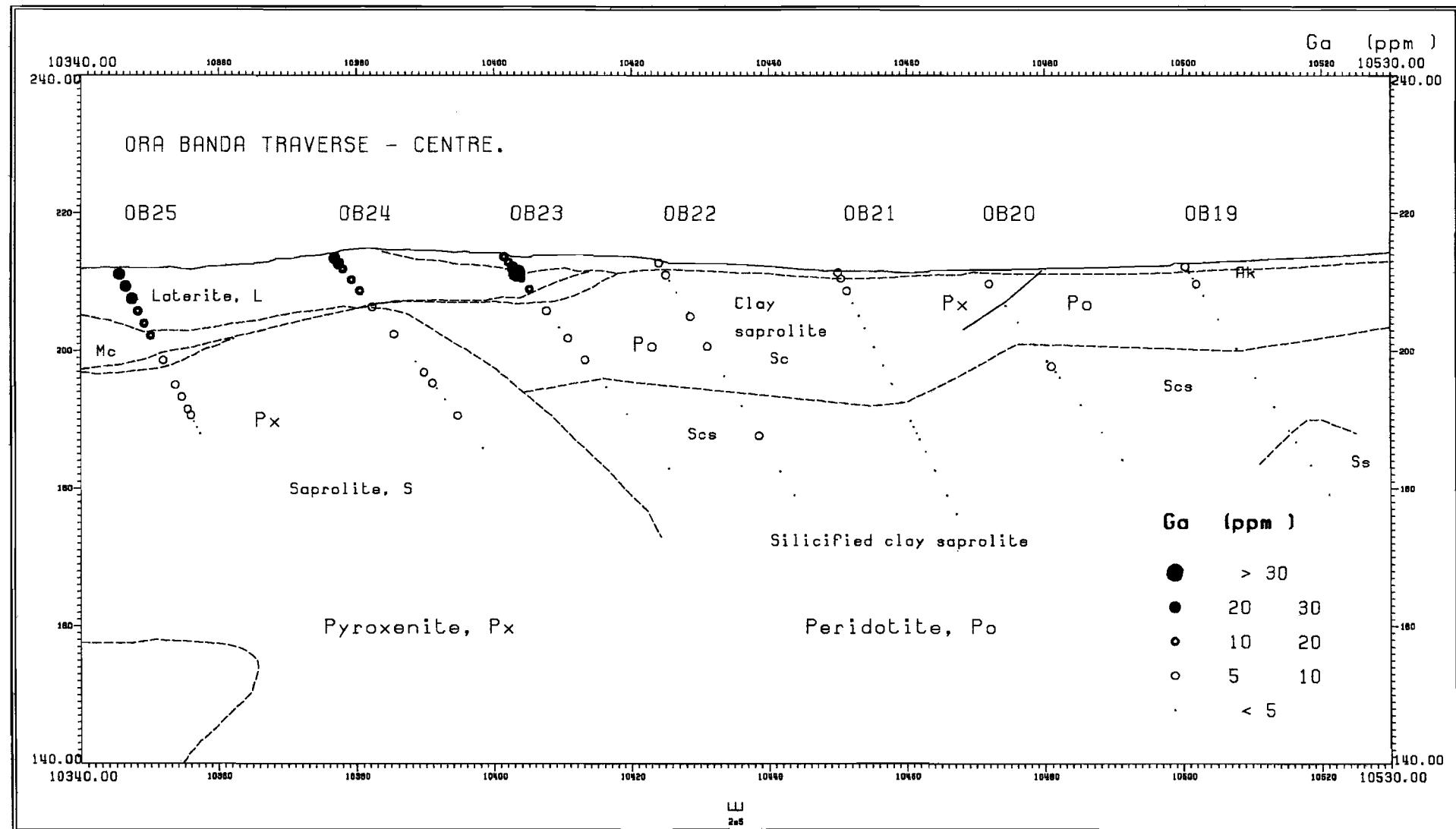


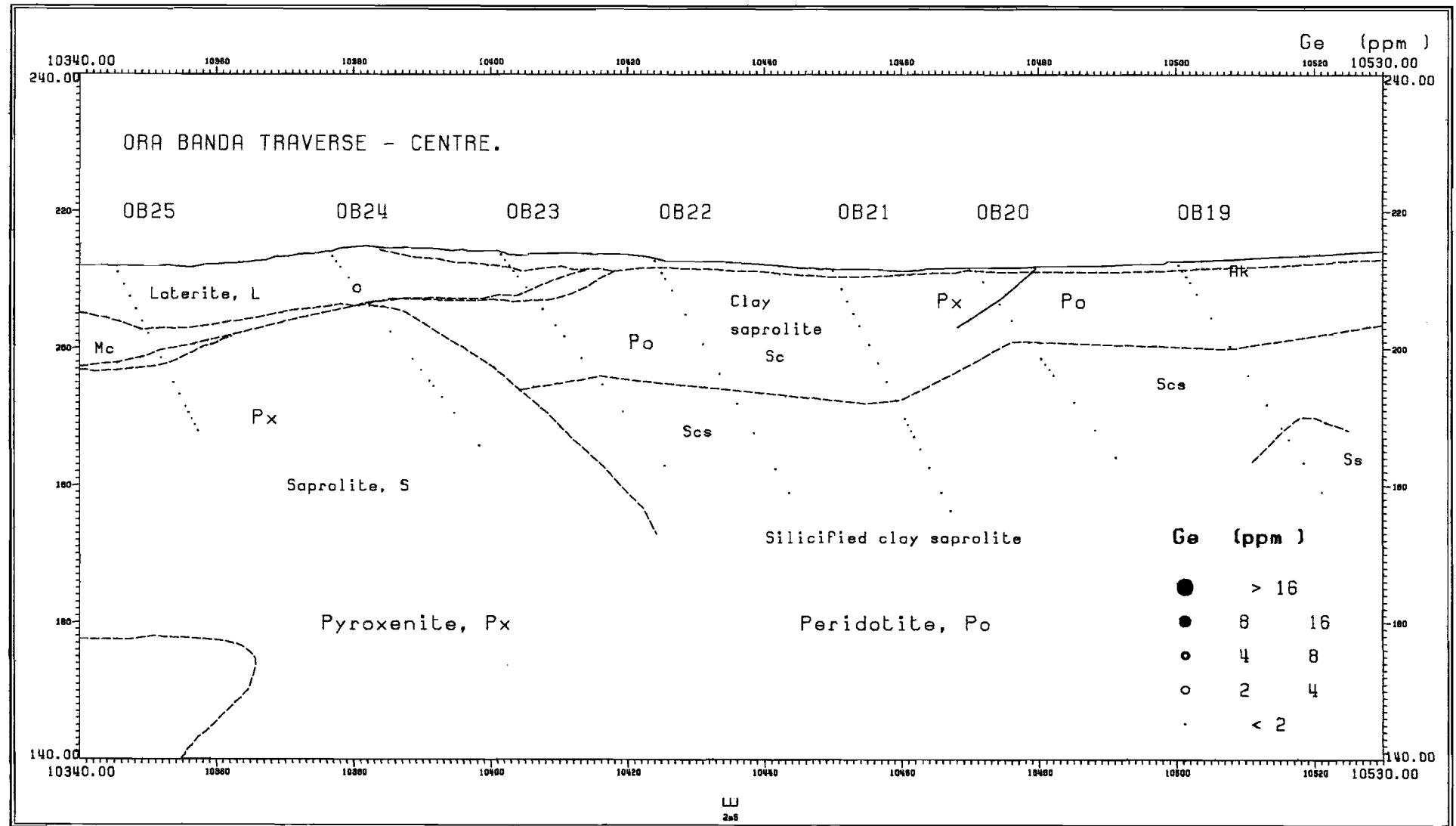


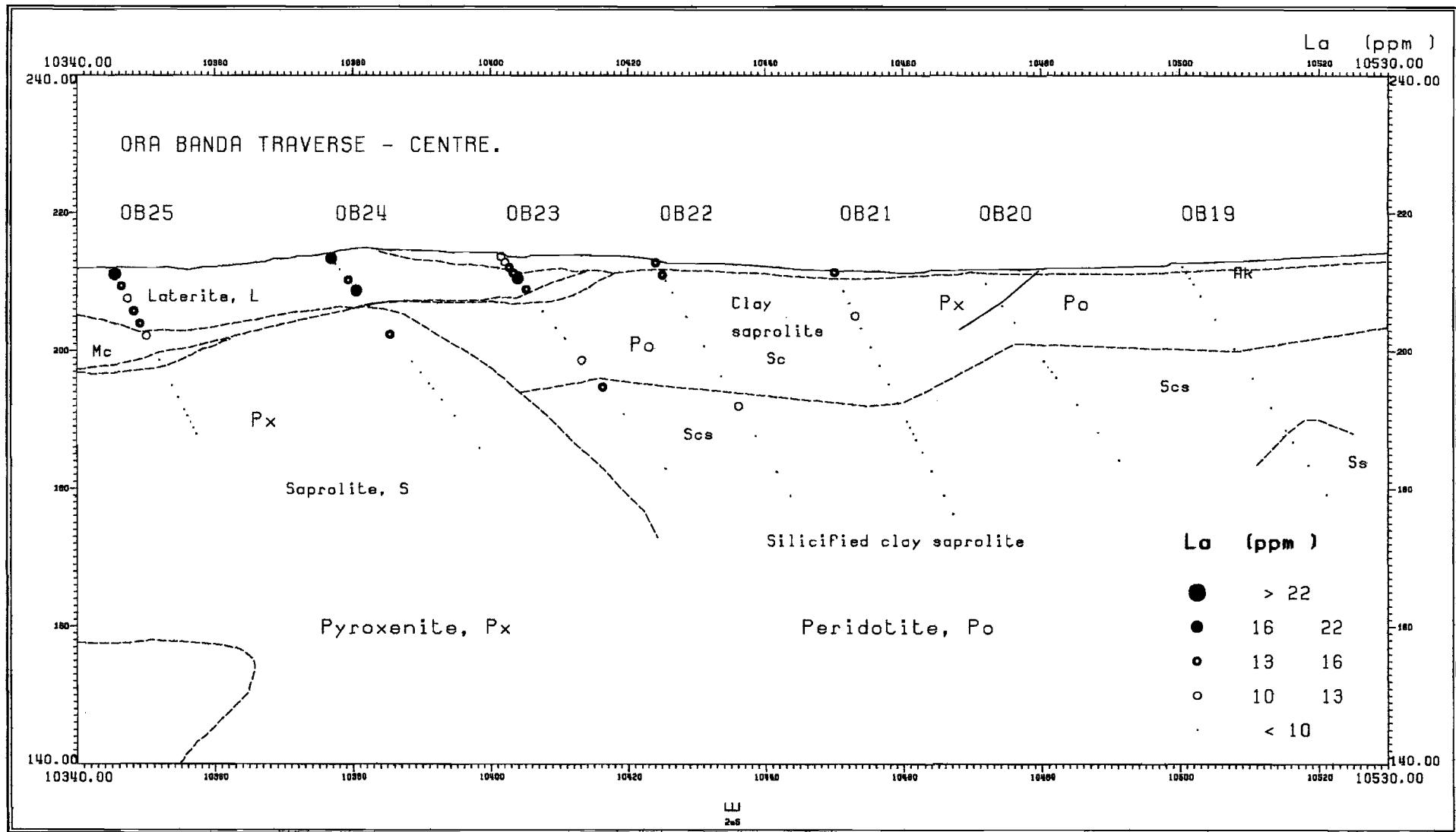


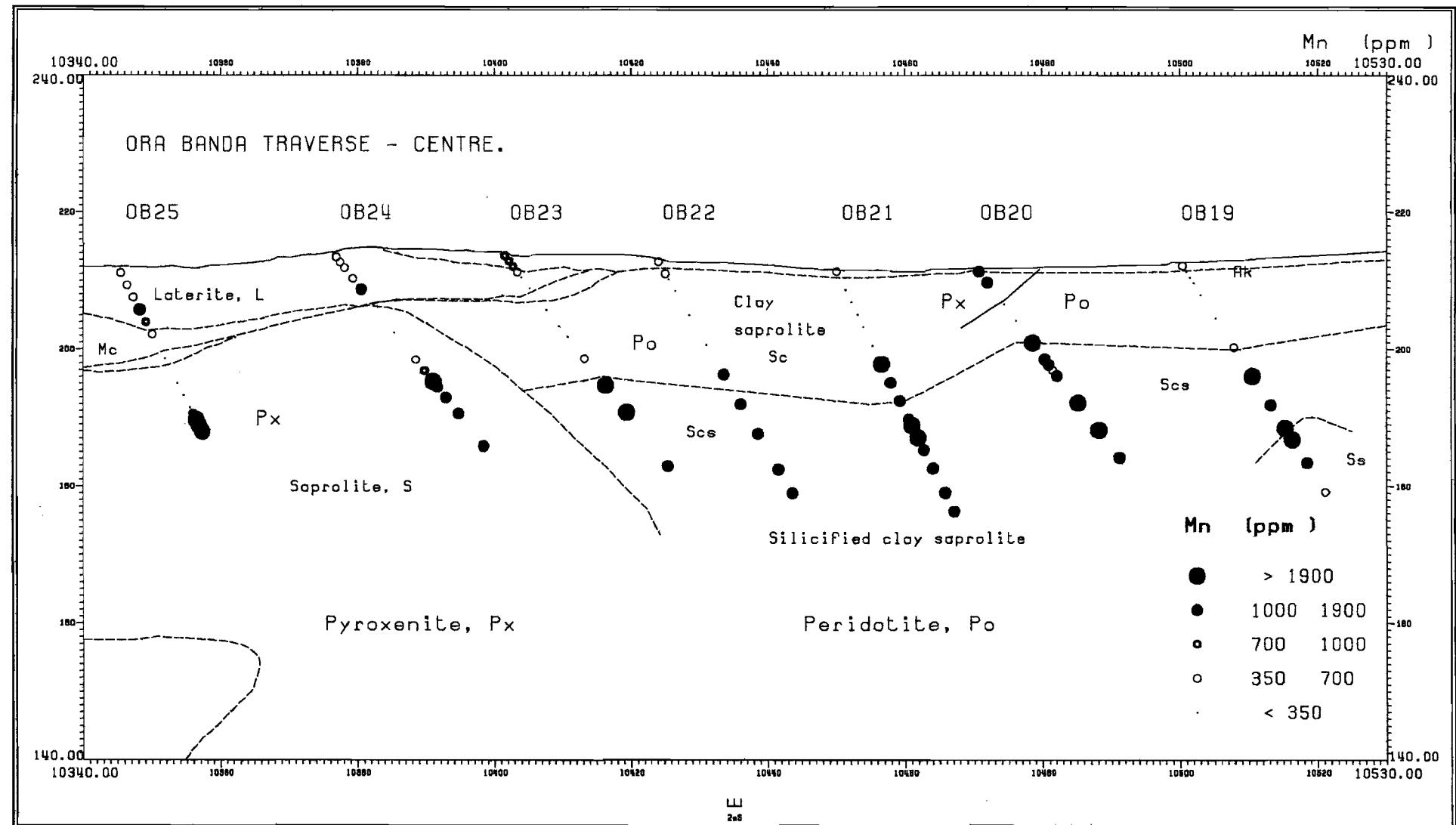


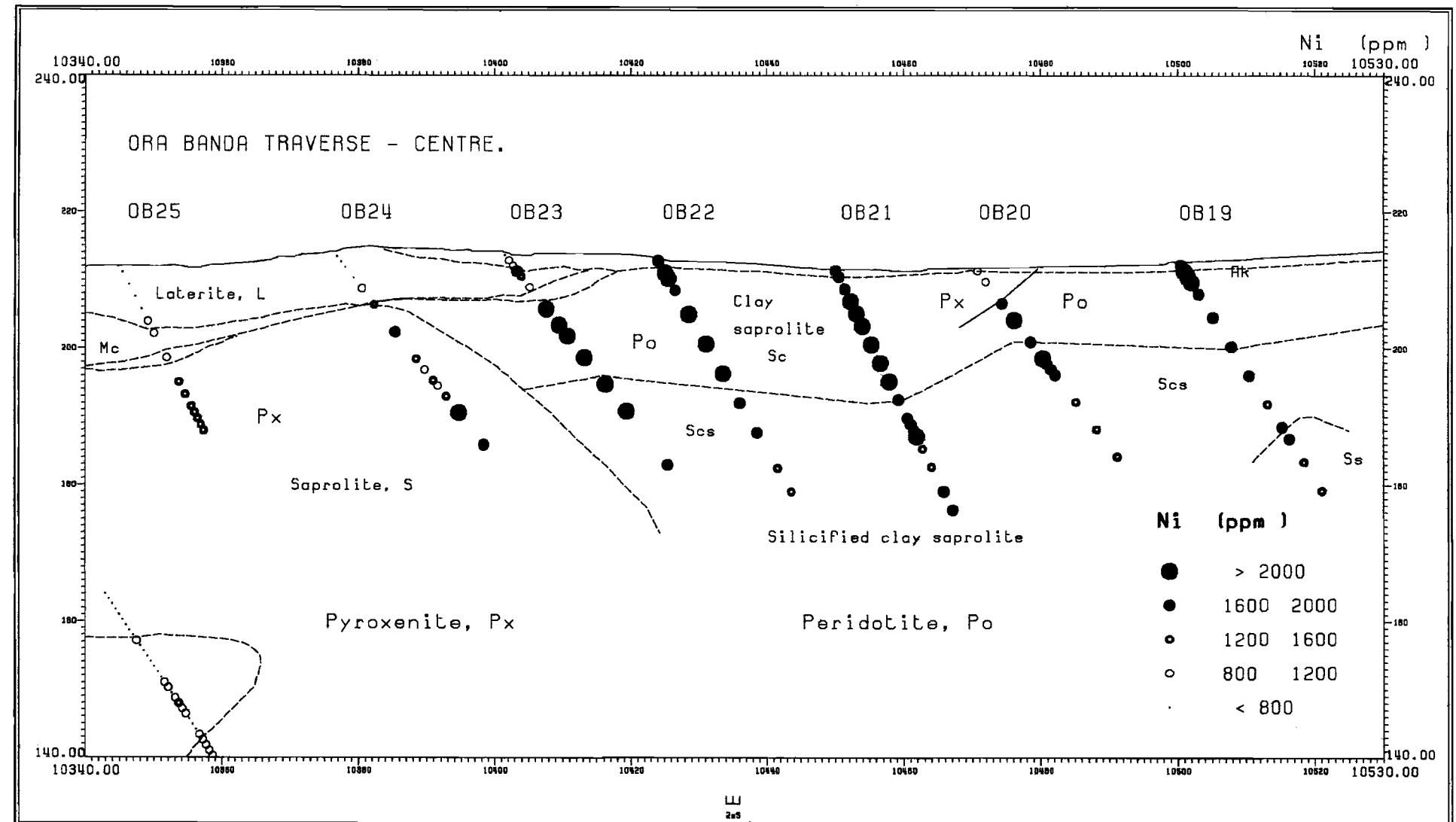


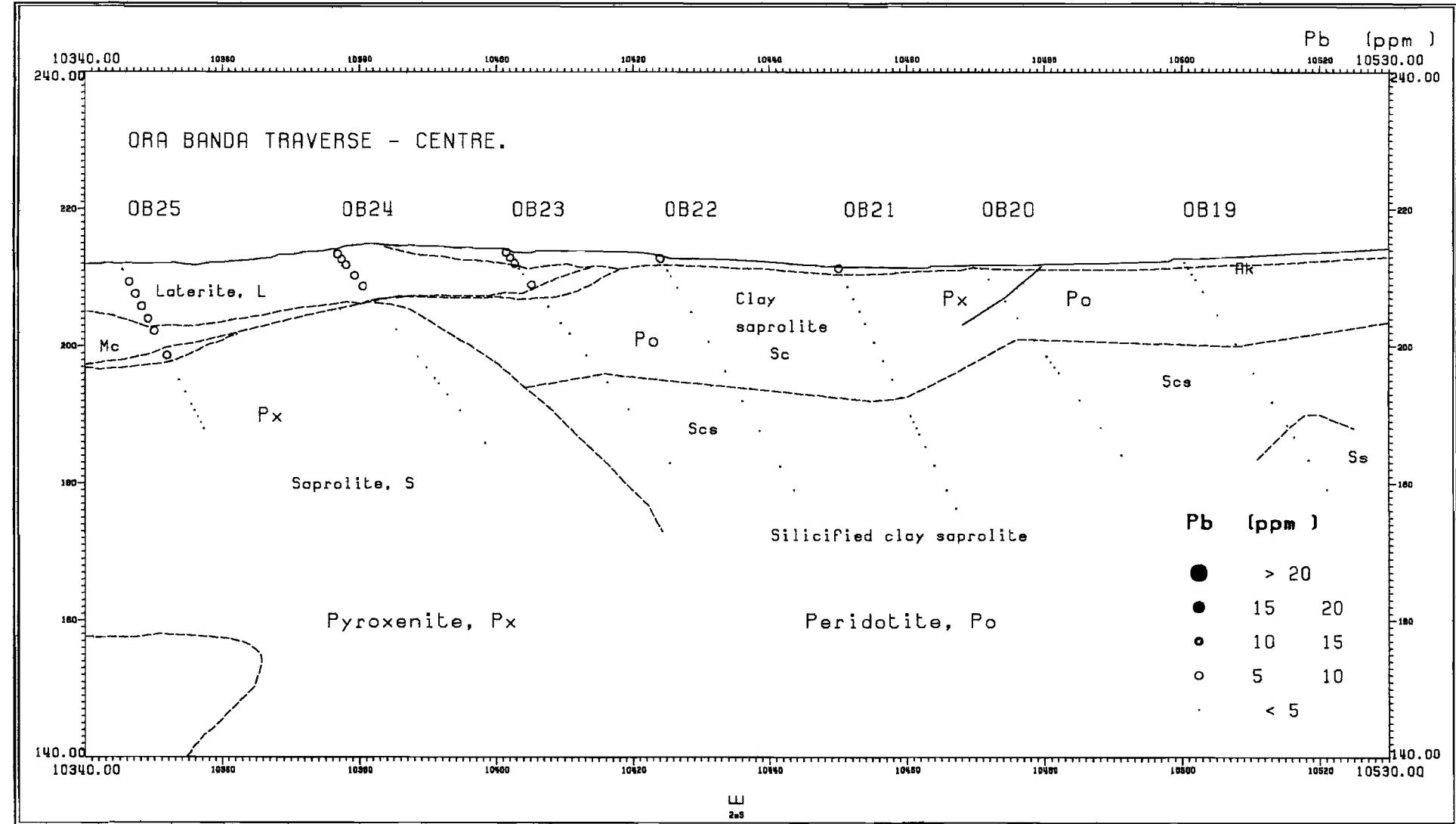


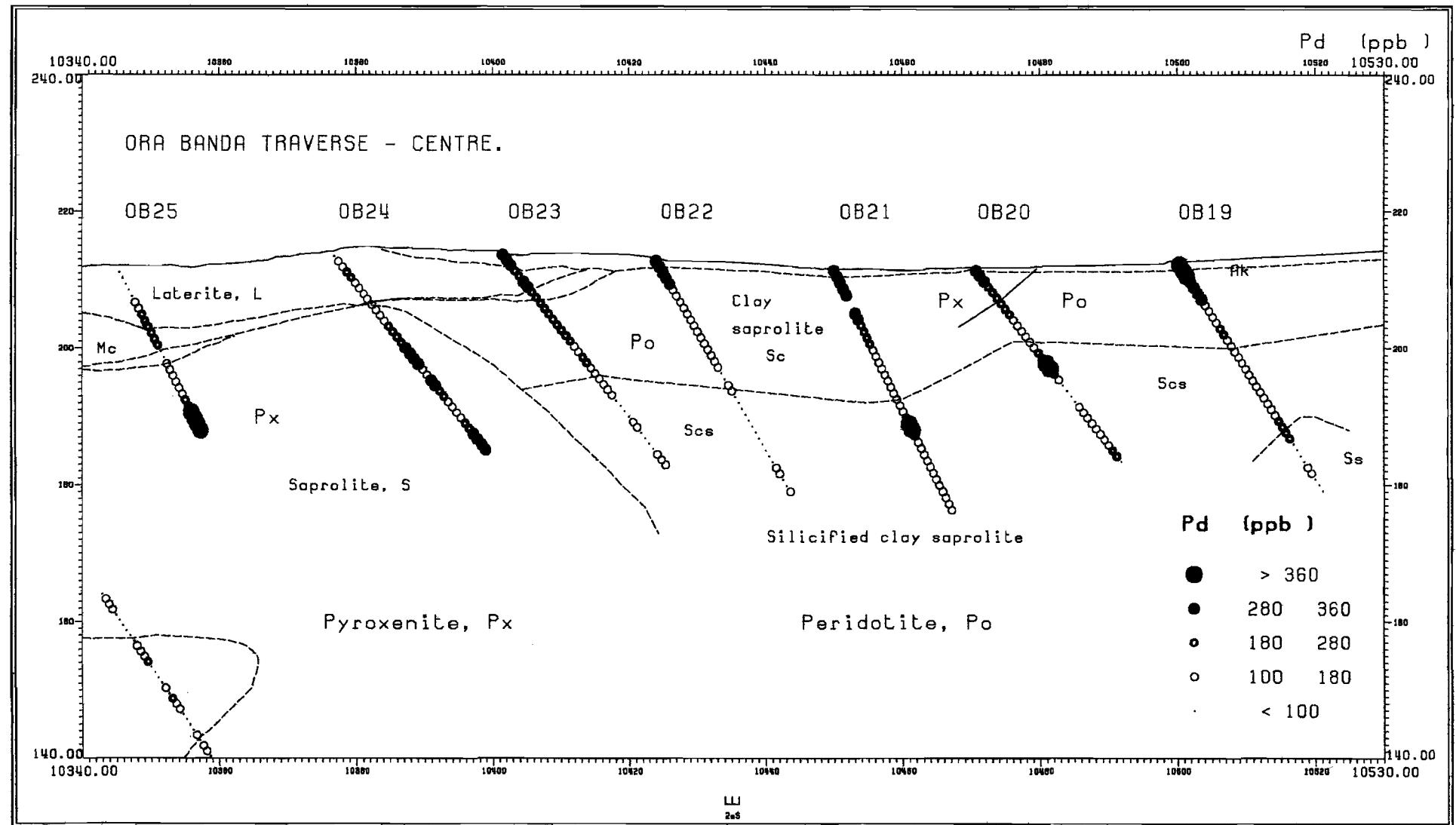


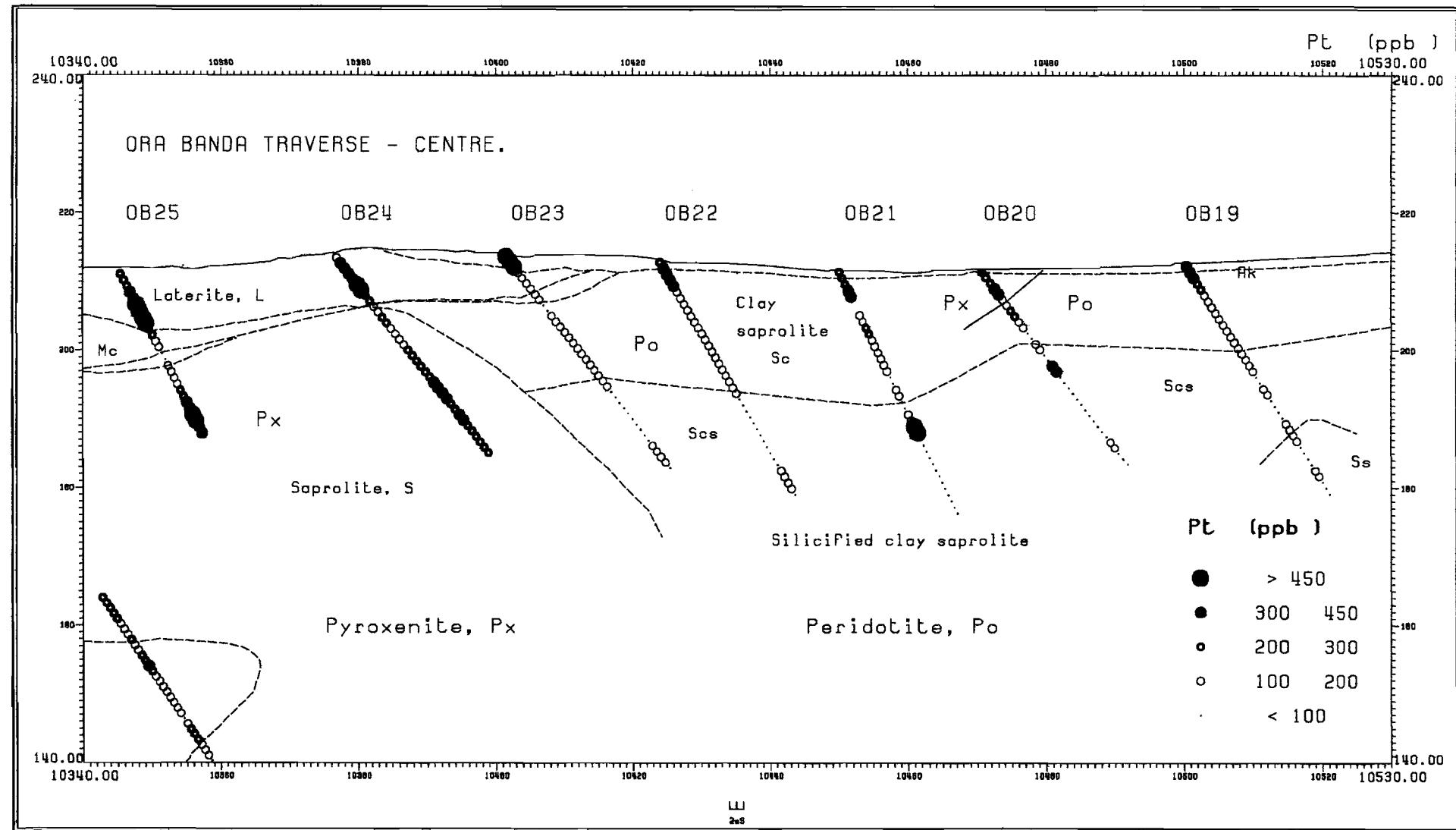


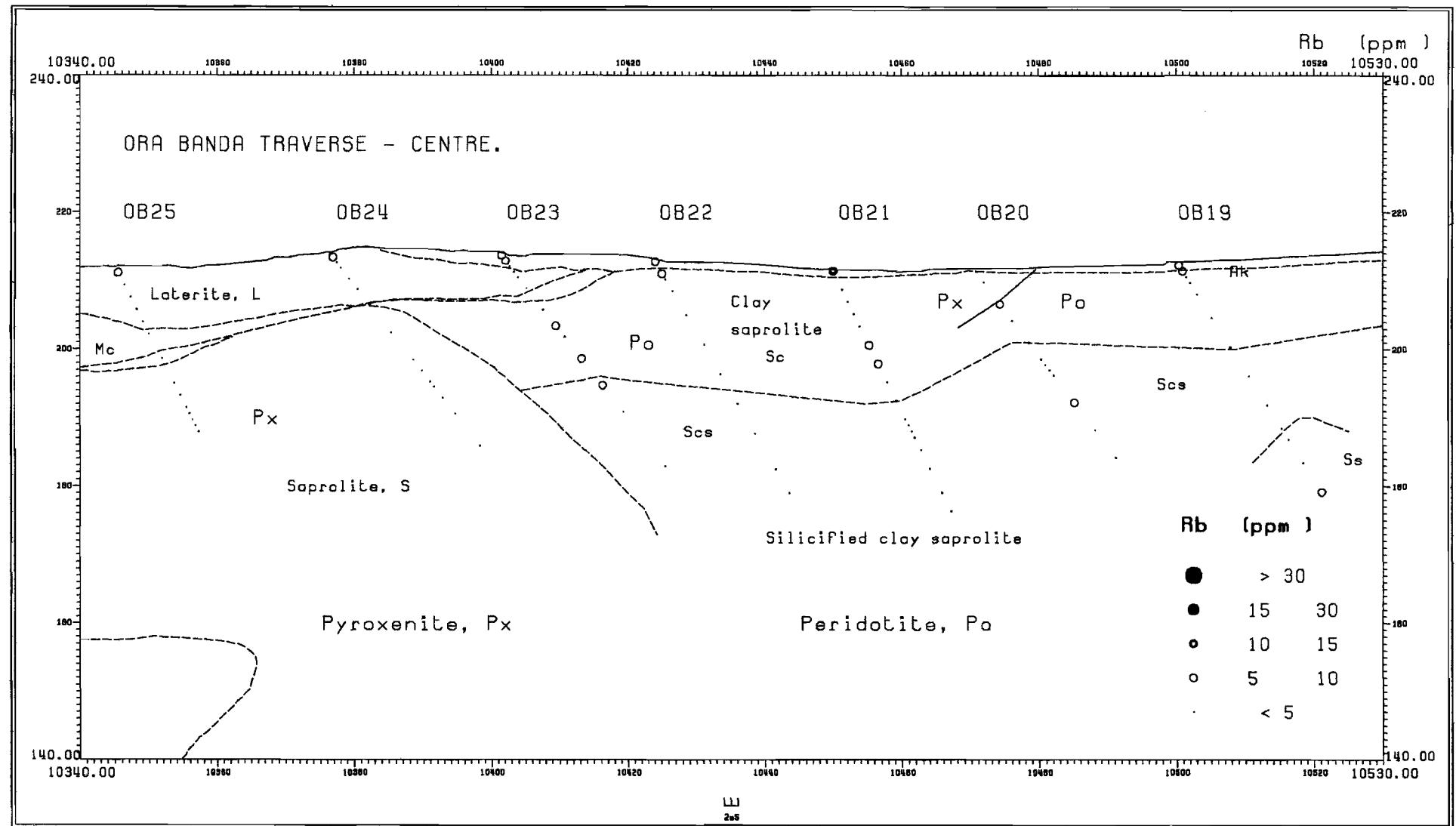


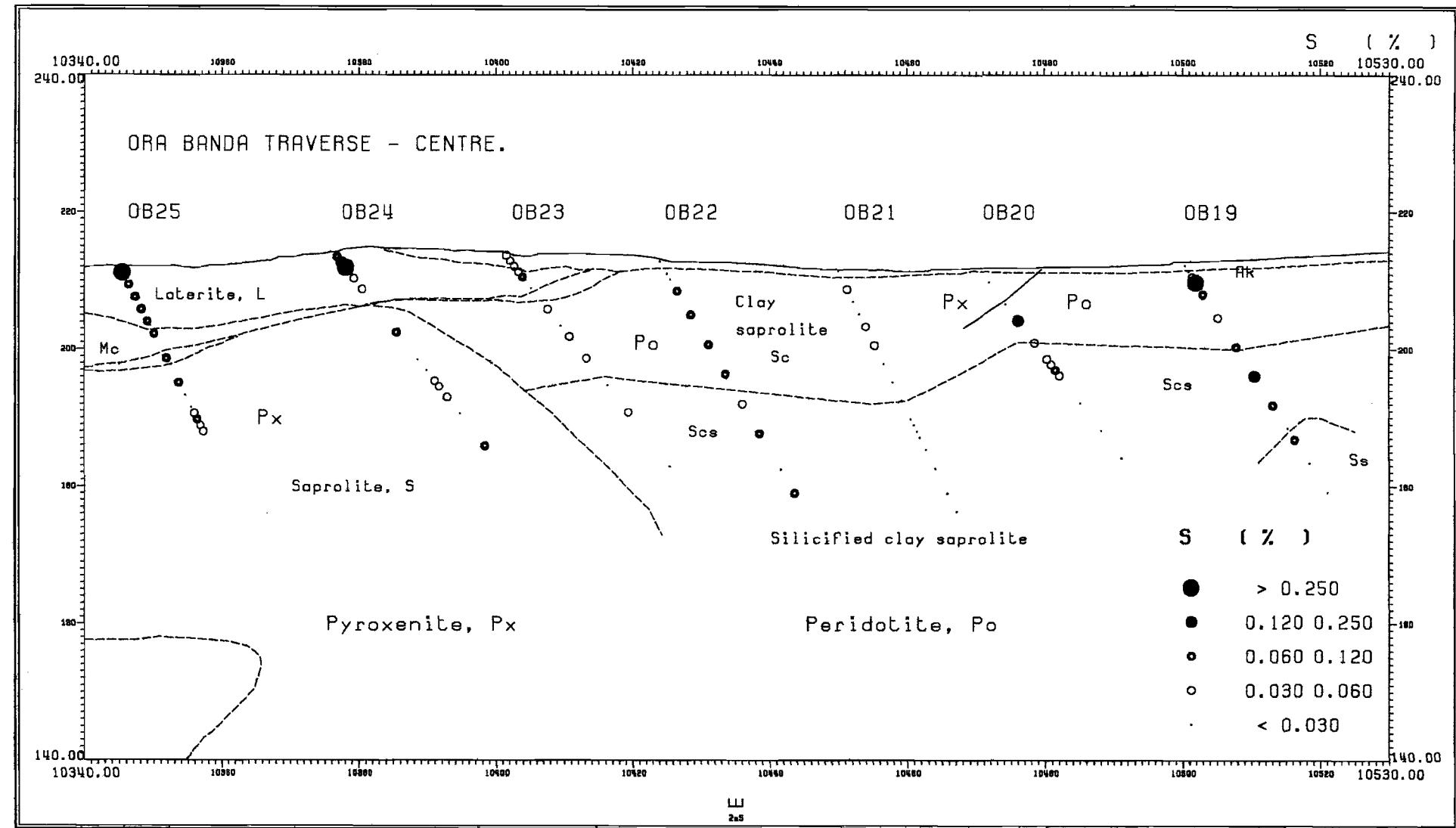


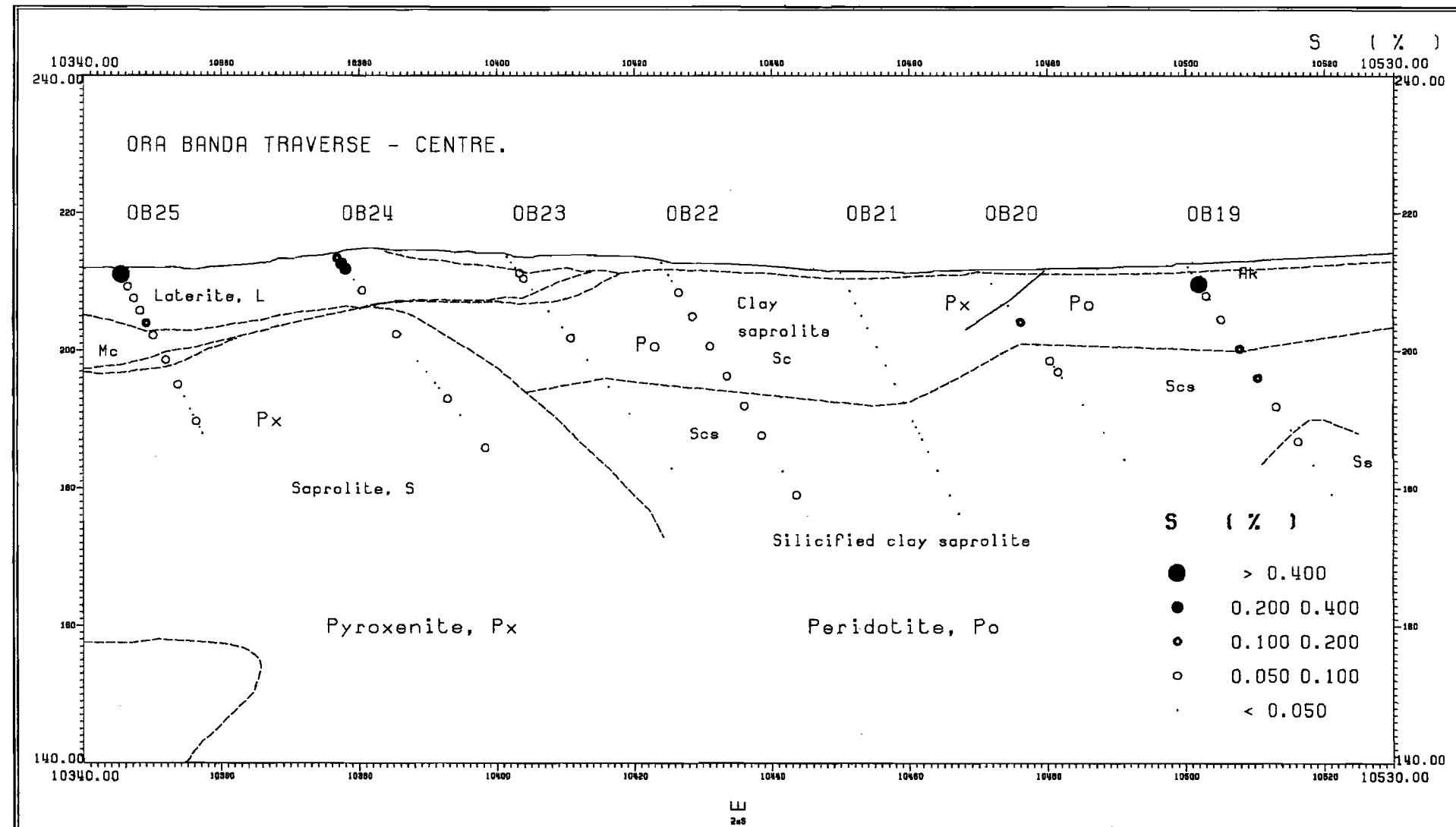


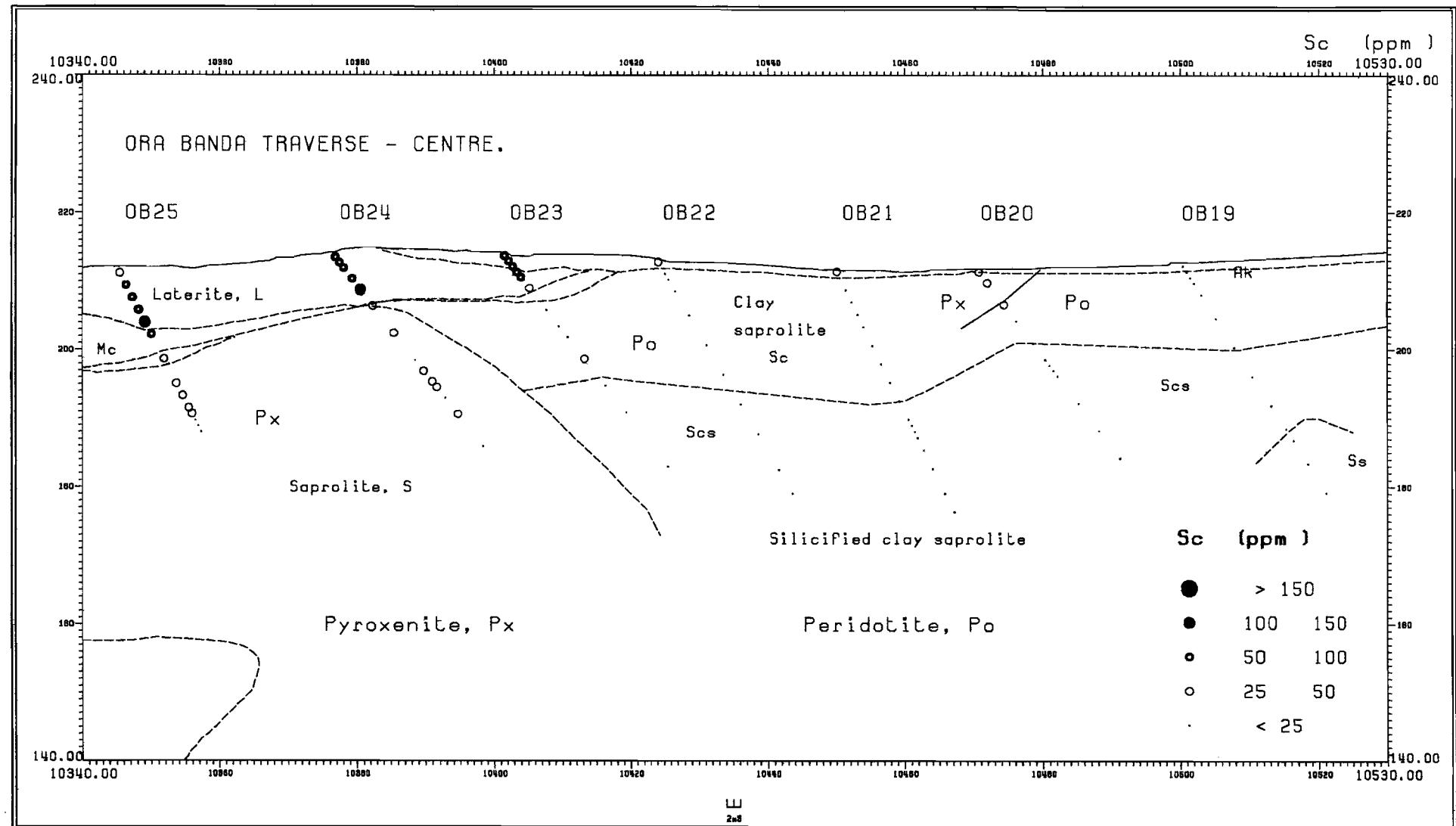


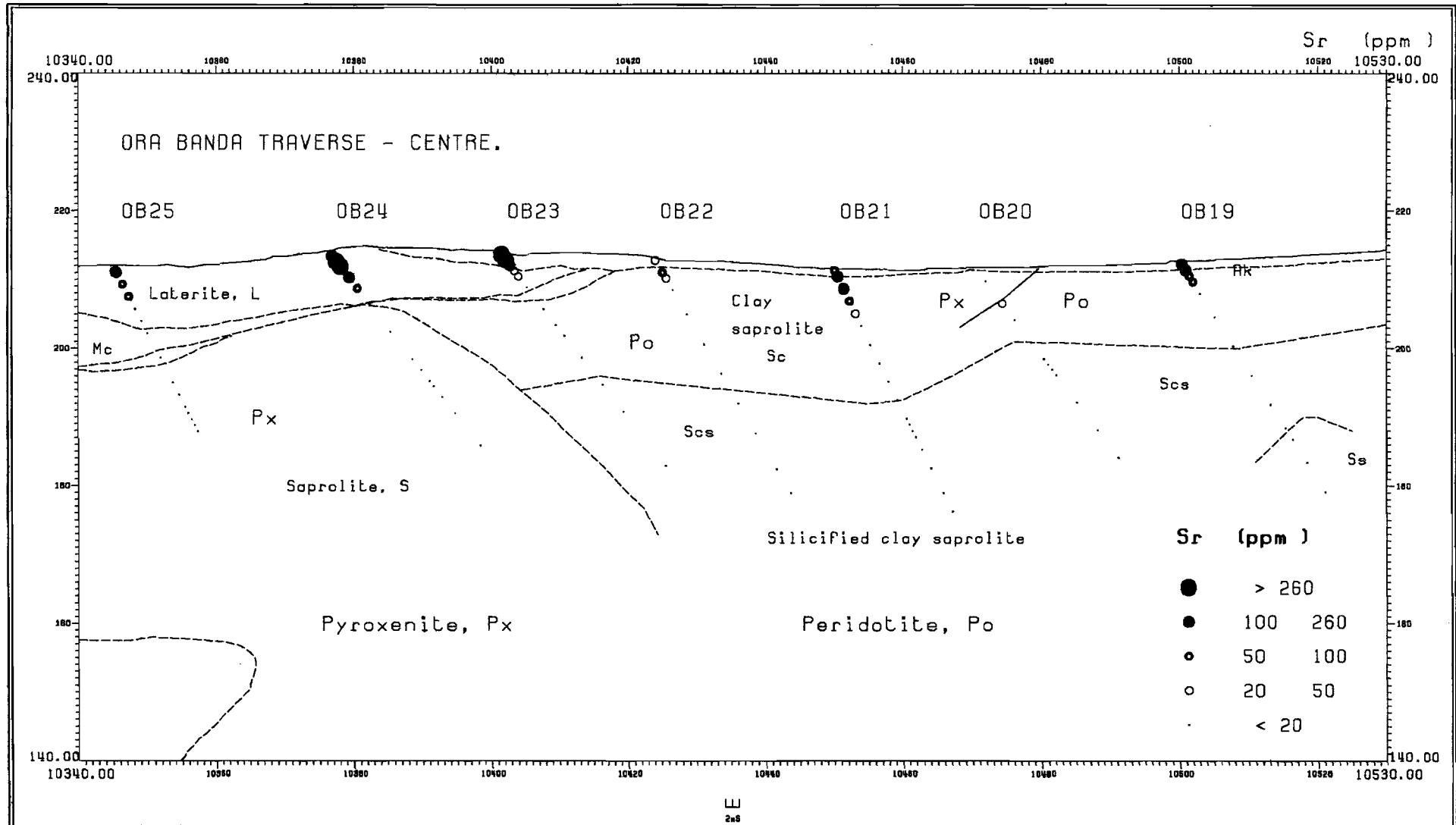


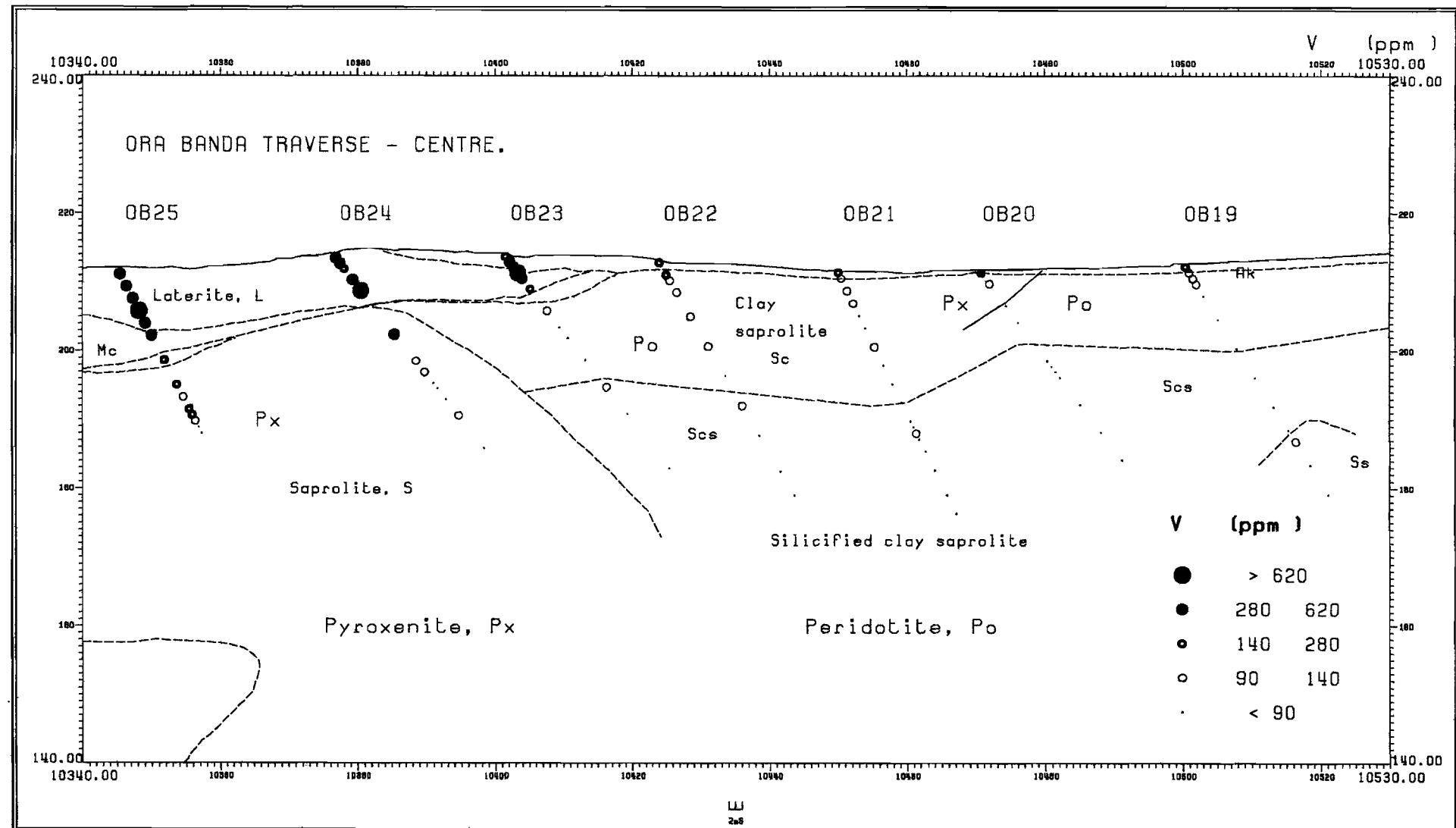


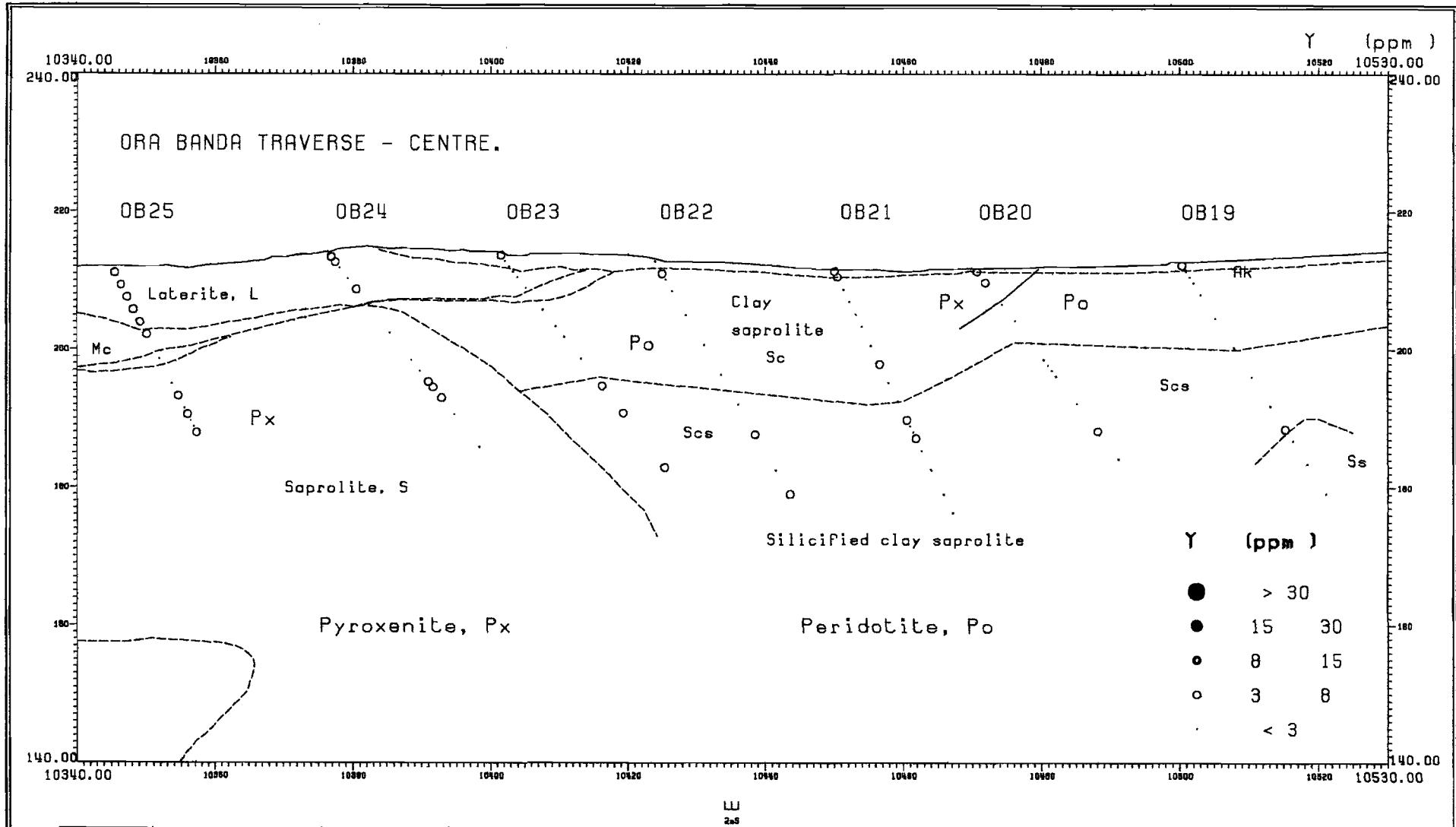


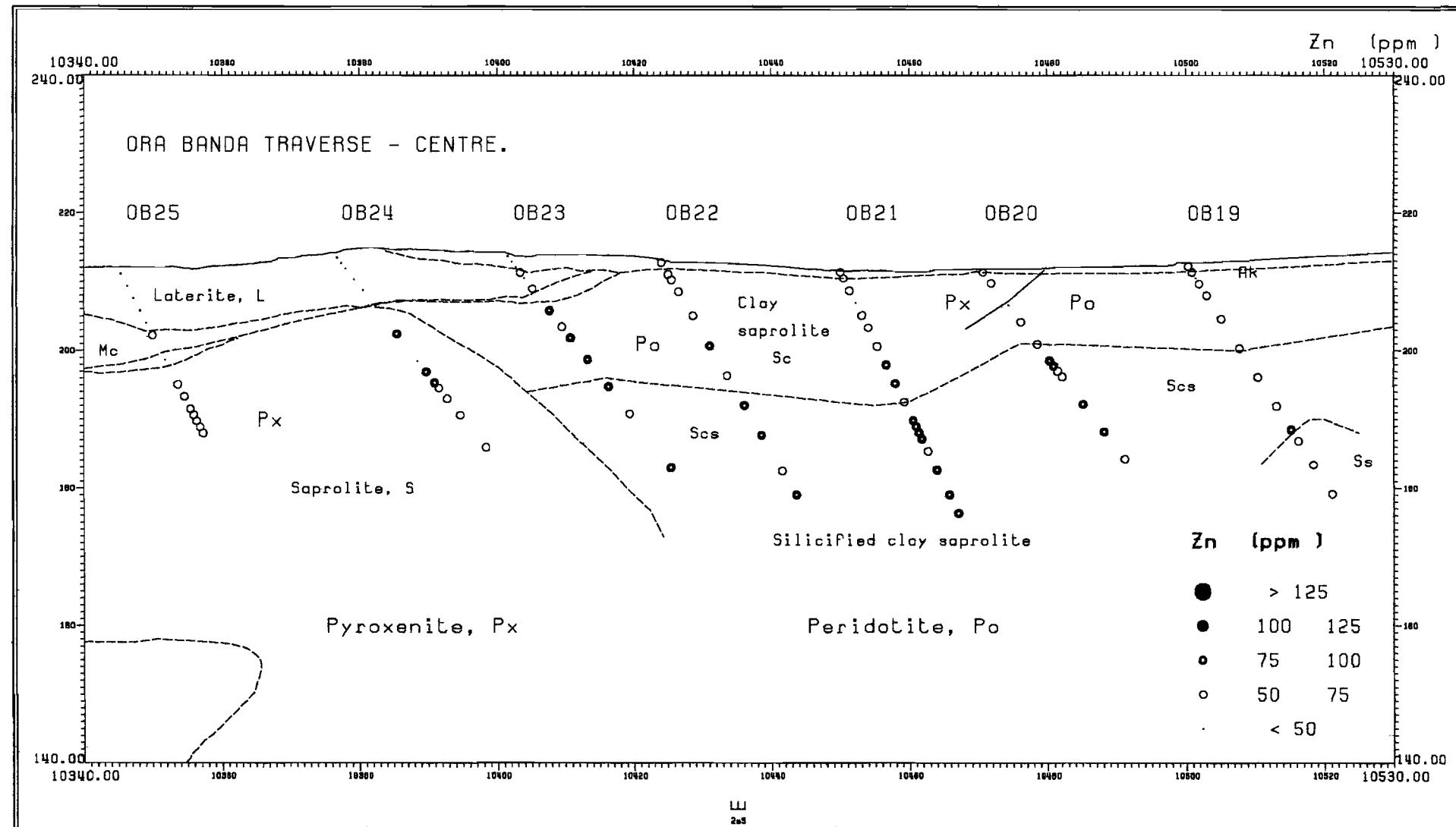


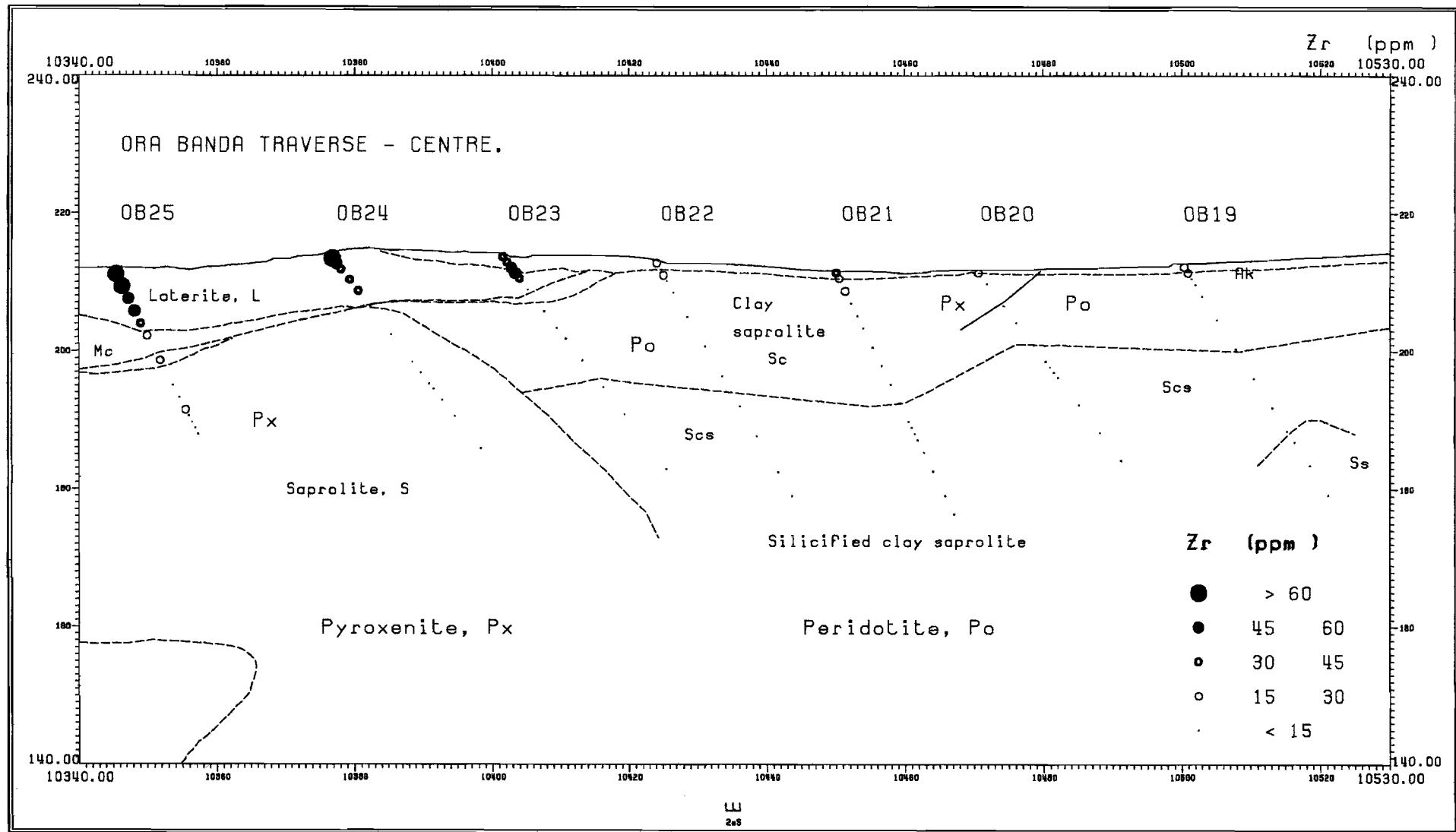












## **APPENDIX II**

**COMPARATIVE STATISTICS FOR MAJOR AND TRACE  
ELEMENTS IN DIFFERENT HORIZONS OF THE REGOLITH  
OVER PERIDOTITE AND PYROXENITE, ORA BANDA**

## Appendix II. Ora Banda Comparative Statistics

**Table 1A. Major and alkaline earth elements.**  
**PERIDOTITE**

### Comparison of arithmetic means

Regolith Units	Obs	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe%	CaO%	MgO%	Sr ppm	Ba ppm
Ak Calc soil	12	44.24	4.67	16.58	2.95	6.46	111	80
Mc Mottled clay	4	50.22	3.63	16.10	1.03	7.84	54	96
Sk Cal saprol	4	44.06	2.92	11.10	4.89	11.51	141	44
Sc Clay saprol	31	51.57	3.01	14.55	0.65	7.57	26.	41
Scs Sil clay sap	22	50.87	2.99	12.39	0.62	9.94	12.	30
Ss Silic saprol	17	53.08	2.19	11.78	1.02	10.70	9.	38
S Saprolite	13	52.35	2.27	12.13	0.63	12.20	5.	32
R Fresh rock	8	42.57	1.83	12.18	2.39	32.40	10	16

### Comparison of standard deviation

Regolith Units	Obs	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe%	CaO%	MgO%	Sr ppm	Ba ppm
Ak Calc soil	12	6.52	1.06	5.50	1.65	1.41	43	55
Mc Mottled clay	4	10.56	1.60	9.55	0.72	3.52	22	73
Sk Cal saprol	4	7.53	0.76	0.79	4.46	1.66	99	32
Sc Clay saprol	31	4.52	0.92	2.78	0.78	2.05	30.	44.
Scs Sil clay sap	22	7.56	1.75	2.33	0.44	4.83	13.	30.
Ss Silic saprol	17	5.20	0.32	1.10	0.59	1.56	4.	55.
S Saprolite	13	5.28	0.46	1.84	0.56	3.34	2.	35.
R Fresh rock	8	2.71	0.45	1.98	1.91	5.22	5	8

### Comparison of geometric means

Regolith Units	Obs	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe%	CaO%	MgO%	Sr ppm	Ba ppm
Ak Calc soil	12	43.75	4.55	15.83	2.49	6.31	102	59
Mc Mottled clay	4	49.19	3.41	14.48	0.70	6.96	49	71
Sk Cal saprol	4	43.50	2.86	11.07	3.64	11.42	118	32
Sc Clay saprol	31	51.32	2.88	14.29	0.31	7.28	17.	25
Scs Sil clay sap	22	50.19	2.68	12.15	0.40	9.13	8.	19
Ss Silic saprol	17	52.76	2.17	11.72	0.84	10.58	8.	19
S Saprolite	13	52.01	2.22	12.01	0.30	11.79	4.	19
R Fresh rock	8	42.45	1.79	12.02	1.91	31.97	3	15

Fresh rocks analysed by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 1B. Major and alkaline earth elements.**

**PYROXENITES**

Comparison of arithmetic means

Regolith Units	Obs	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe%	CaO%	MgO%	Sr ppm	Ba ppm
Ak Calc soil	1	42.44	12.93	15.10	2.87	2.66	77.	220
Ank Cal lat soil	3	16.16	19.86	25.60	3.39	2.24	127.	41
Lk Cal laterite	7	20.97	18.27	15.36	10.05	3.58	349	147
L Laterite	13	14.80	22.49	24.09	3.08	2.05	148.	49
Lpn Nod laterite	12	18.14	19.81	28.78	0.73	0.85	30.	17
Mc Mottled clay	13	25.84	18.71	24.56	0.28	2.00	31.	22
Sk Calc saprol	2	22.22	11.41	25.30	4.73	5.32	258.	28
Sf Fer saprol	5	29.27	13.02	25.52	0.26	3.73	28.	20
Sc Clay saprol	13	44.82	8.36	17.78	0.09	4.80	10.	85
S Saprolite	62	52.84	4.09	10.32	1.16	15.67	7.	57
Sr Surface saprock	2	52.33	4.37	11.70	2.32	18.74	15	43
Sr Saprocks	8	43.17	2.46	9.91	5.78	27.34	17	11
R Fresh rock	12	53.76	3.30	11.11	3.04	26.55	17	36

Comparison of standard deviation

Regolith Units	Obs	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe%	CaO%	MgO%	Sr ppm	Ba ppm
Lk Cal laterite	7	5.08	5.31	4.01	5.16	2.58	202.	11
L Laterite	13	4.21	4.76	5.31	3.12	1.63	167.	40
Lpn Nod laterite	12	3.61	3.43	3.07	0.88	0.70	38.	20
Mc Mottled clay	13	11.03	6.54	5.94	0.52	3.10	42.	44
Sk Calc saprol	2	2.04	2.17	5.37	2.45	1.61	113.	29
Sf Fer saprol	5	10.20	3.17	6.64	0.39	4.85	28.	11
Sc Clay saprol	13	7.41	2.44	4.12	0.10	2.81	12.	112
S Saprolite	62	2.90	1.18	2.56	1.21	3.58	4.	75
Sr Surface saprock	2	1.27	0.89	2.26	0.14	0.48	3	21
Sr Saprocks	8	12.33	0.87	2.05	4.96	4.01	10	7
R Fresh rock	12	1.01	0.65	0.66	0.64	3.01	6	23

Comparison of geometric means

Regolith Units	Obs	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe%	CaO%	MgO%	Sr ppm	Ba ppm
Ak Calc soil	1	42.40	12.92	15.09	2.87	2.66	77.	220
Ank Cal lat soil	3	15.99	19.26	25.16	3.07	1.98	114.	29
Lk Cal laterite	7	20.33	17.38	14.83	9.03	2.85	314.	104
L Laterite	13	14.23	21.96	23.45	1.70	1.42	77.	33
Lpn Nod laterite	12	17.72	19.55	28.61	0.29	0.64	14.	11
Mc Mottled clay	13	24.08	17.27	23.80	0.11	0.97	16.	11
Sk Calc saprol	2	22.15	11.30	24.99	4.40	5.19	245.	19
Sf Fer saprol	5	27.99	12.62	24.61	0.12	2.13	17.	16
Sc Clay saprol	13	44.10	8.05	17.36	0.07	4.10	6.	40
S Saprolite	62	52.71	3.92	10.06	0.39	15.15	6.	31
Sr Surface saprock	2	52.27	4.32	11.58	2.32	18.72	15	40
Sr Saprocks	8	41.39	2.29	9.71	4.23	27.07	14	8
R Fresh rock	12	53.69	3.24	11.08	2.96	26.35	16	29

Saprocks and fresh rocks analysed by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 2A: Elements associated with mineralization  
PERIDOTITES**

### Comparison of arithmetic means

Regolith Units	Obs	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
Ak Calc soil	12(2)	345	530	40.35	45	0.022
Mc Mottled clay	4(1)	370	400	48.05	32	0.026
Sk Cal saprol	4(0)	-	-	-	23	0.005
Sc Clay saprol	31(44)	-	220	44.10	39	0.034
Scs Sil clay sap	22(23)	202	164	36.05	24	0.050
Ss Sil saprol	17(52)	106	122	41.54	27	0.046
S Saprolite	13(47)	92	129	42.17	26	0.052
R Fresh rock	198(198)	42	54	45.21	30	#
R Fresh rock	8	-	-	-	33	0.041*

### Comparison of standard deviation

Regolith Units	Obs	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
Ak Calc soil	12(2)	35	184	10.89	13	0.021
Mc Mottled clay	4(1)	-	-	-	6	0.027
Sk Cal saprol	4(0)	-	-	-	5	0.004
Sc Clay saprol	31(44)	252	136	8.22	24	0.032
Scs Sil clay sap	22(23)	73	67	9.03	15	0.095
Ss Sil saprol	17(52)	64	66	8.09	12	0.033
S Saprolite	13(47)	44	46	8.17	13	0.056
R(2)Fresh rock	198(198)	35	55	9.15	34	- #
R(1)Fresh rock	8	-	-	-	62	0.0636*

### Comparison of geometric means

Regolith Units	Obs	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
Ak Calc soil	12(2)	344	513	39.57	42	0.022
Mc Mottled clay	4(1)	369	399	48.00	31	0.026
Sk Cal saprol	4(0)	-	-	-	23	0.005
Sc Clay saprol	31(44)	152	194	43.27	33	0.017
Scs Sil clay sap	22(23)	84	153	34.93	20	0.022
Ss Sil saprol	17(52)	77	110	40.57	25	0.031
S Saprolite	13(47)	88	122	41.38	24	0.019
R Fresh rock	198(198)	31	38	44.21	20	- #
R Fresh rock	8	-	-	-	11	0.022 *

NB No of observations in parentheses refer to Pt and Pd

# Analysis by mixed acid/AAS for Carbine Gold NL; \* Analysis by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 2B: Elements associated with mineralization  
PYROXENITES**

### Comparison of arithmetic means

Regolith Units	Obs	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
Ak Calc soil	1(1)	430	255	62.77	333	1.238
Ank Cal lat soil	3(9)	493	203	71.99	416	0.045
Lk Cal laterite	7(9)	314	111	74.14	299	0.225
L Laterite	13(21)	360	121	75.42	496	0.221
Lpn Nod laterite	12(24)	433	180	70.95	671	0.117
Mc Mottled clay	13(34)	263	133	64.13	674	0.223
Sk Cal saprol	2(2)	760	305	71.45	417	0.027
Sf Fer saprol	5(10)	420	179	68.77	728	0.087
Sc Clay saprol	13(28)	266	169	59.51	660	0.093
S Saprolite	62(184)	216	143	61.87	325	0.054
Sr Saprocks	69(72)	164	112	63.13	204	- #
R Fresh rock	160(160)	132	79	63.30	217	- #
Sr Saprocks	8	-	-	-	145	0.0084*
R Fresh rock	12	-	-	-	612.	0.1761*

### Comparison of standard deviation

Regolith Units	Obs	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
Ank Cal lat soil	3(9)	152	100	5.11	132	0.004
Lk Cal laterite	7(9)	86	40	4.24	93	0.181
L Laterite	13(21)	109	55	7.54	231	0.399
Lpn Nod laterite	12(24)	117	86	9.78	184	0.207
Mc Mottled clay	13(34)	129	58	15.95	184	0.207
Sk Cal saprol	2(2)	57	49	1.80	104	0.007
Sf Fer saprol	5(10)	283	93	11.22	138	0.039
Sc Clay saprol	13(28)	112	43	8.39	190	0.156
S Saprolite	62(184)	84	86	10.54	150	0.045
Sr Saprocks	69(72)	61	120	10.95	113	- #
R Fresh rock	160(160)	132	79	6.99	131	- #
Sr Saprocks	8	-	-	-	92	0.0114*
R Fresh rock	12	-	-	-	1072	0.3407*

### Comparison of geometric means

Regolith Units	Obs	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
Ak Calc soil	1(1)	429	255	62.71	333	1.238
Ank Cal lat soil	3(9)	474	182	71.75	400	0.045
Lk Cal laterite	7(9)	302	104	73.96	286	0.169
L Laterite	13(21)	344	108	74.97	455	0.098
Lpn Nod laterite	12(24)	415	161	70.23	648	0.088
Mc Mottled clay	13(34)	222	120	61.32	648	0.164
Sk Cal saprol	2(2)	758	303	71.36	409	0.027
Sf Fer saprol	5(10)	344	151	67.75	716	0.080
Sc Clay saprol	13(28)	243	164	58.82	633	0.047
S Saprolite	62(184)	201	121	60.83	286	0.038
Sr Saprocks	69(72)	153	88	61.64	171	- #
R Fresh rock	160(72)	124	71	62.82	190	- #
Sr Saprocks	8	-	-	-	85	0.0022*
R Fresh rock	12	-	-	-	314	0.0600*

NB No. of observations in parentheses refer to Pt and Pd

# Analysis by mixed acid/AAS for Carbine Gold NL; \* Analysis by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 3A: Lithophile elements.**  
**PERIDOTITES**

### Comparison of arithmetic means

Regolith Units	Obs	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
Ak Calc soil	12	0.30	6949	20.	8.	40.	170
Mc Mottled clay	4	0.16	5406	20.	3.	10.	108
Sk Calc saprol	4	0.12	3759	18.	4.	13.	73
Sc Clay saprol	31	0.14	4904	17.	3.	8.	89
Scs Sil clay sap	22	0.12	4309	17.	3.	8.	66
Ss Sil saprol	17	0.11	4447	17.	3.	5.	73
S Saprolite	13	0.10	4817	16.	3.	5.	70
R Fresh rock	(198)	-	4398	-	-	-	- #
R Fresh rock	8	0.09	4568	-	3	6	69 *

### Comparison of standard deviation

Regolith Units	Obs	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
Ak Calc soil	12	0.16	3047.	5.	4.	25.	92.
Mc Mottled clay	4	0.07	2854.	5.	1.	4.	48.
Sk Calc saprol	4	0.02	32.	3.	1.	6.	25.
Sc Clay saprol	31	0.03	1265.	3.	1.	5.	33.
Scs Sil clay sap	22	0.04	1127.	5.	3.	7.	26.
Ss Sil saprol	17	0.01	567.	2.	1.	2.	23.
S Saprolite	13	0.02	1069.	3.	1.	2.	19.
R Fresh rock	(198)	-	752	-	-	-	- #
R Fresh rock	8	0.03	973	-	1	3	23 *

### Comparison of geometric means

Regolith Units	Obs	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
Ak Calc soil	12	0.26	6356.	19.	6.	29.	148.
Mc Mottled clay	4	0.15	4943.	19.	3.	9.	100.
Sk Calc saprol	4	0.12	3751.	17.	4.	12.	70.
Sc Clay saprol	31	0.13	4745.	17.	3.	7.	84.
Scs Sil clay sap	22	0.11	4170.	16.	3.	6.	63.
Ss Sil saprol	17	0.11	4402.	17.	3.	5.	70.
S Saprolite	13	0.10	4706.	16.	2.	5.	68.
R Fresh rock	(198)	-	4342	-	-	-	- #
R Fresh rock	8	0.09	4466	-	2	5	69 *

# Analysis by mixed acid/AAS for Carbine Gold NL; \* Analysis by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 3B: Lithophile elements  
PYROXENITES**

### Comparison of arithmetic means

Regolith Units	Obs	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
Ak Calc soil	1	0.70	4041.	66.	18.	101.	254.
Ank Cal lat soil	3	0.68	8290.	103.	22.	54.	500.
Lk Cal laterite	7	0.50	5100.	49.	17.	54.	299.
L Laterite	13	0.69	7562.	81.	20.	53.	433.
Lpn Nod laterite	12	0.78	8380.	121.	20.	47.	474.
Mc Mottled clay	13	0.66	9083.	100.	17.	46.	456.
Sk Calc saprol	2	0.64	3030.	100.	17.	42.	270.
Sf Fer saprol	5	0.70	8078.	108.	16.	41.	553.
Sc Clay saprol	13	0.49	7111.	60.	12.	30.	233.
S Saprolite	62	0.23	4522.	32.	6.	13.	130.
Sr Surface saprock	2(69)	0.24	3010	32	4	15	161
R Fresh rock	(160)	-	2692	-	-	-	#
Sr Saprock	8	0.12	4342	-	2	7	83 *
R Fresh rock	12	0.19	2965	-	3	12	103 *

### Comparison of standard deviation

Regolith Units	Obs	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
Ank Cal lat soil	3	0.03	1549.	30.	3.	8.	32.
Lk Cal laterite	7	0.09	1947.	12.	5.	11.	89.
L Laterite	13	0.19	2015.	25.	6.	15.	107.
Lpn Nod laterite	12	0.14	2047.	27.	2.	7.	119.
Mc Mottled clay	13	0.19	3031.	38.	4.	13.	162.
Sk Calc saprol	2	0.08	157.	26.	1.	1.	22.
Sf Fer saprol	5	0.30	2915.	42.	5.	17.	225.
Sc Clay saprol	13	0.13	2285.	21.	3.	8.	125.
S Saprolite	62	0.06	2111.	8.	2.	6.	45.
Sr Surface saprock	2(69)	0.03	622	3	2	3	43
R Fresh rock	(160)	-	376	-	-	-	#
Sr Saprock	8	0.04	3654	-	2	2	22 *
R Fresh rock	12	0.04	316	-	1	8	15 *

### Comparison of geometric means

Regolith Units	Obs	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
Ak Calc soil	1	0.70	4032.	66.	18.	101.	254.
Ank Cal lat soil	3	0.68	8179.	100.	22.	53.	498.
Lk Cal laterite	7	0.49	4727.	47.	16.	53.	285.
L Laterite	13	0.67	7294.	77.	19.	51.	420.
Lpn Nod laterite	12	0.77	8121.	118.	20.	46.	459.
Mc Mottled clay	13	0.63	8565.	93.	16.	43.	422.
Sk Calc saprol	2	0.64	3022.	98.	17.	41.	269.
Sf Fer saprol	5	0.64	7721.	101.	15.	38.	515.
Sc Clay saprol	13	0.47	6811.	57.	11.	29.	213.
S Saprolite	62	0.22	4234.	31.	5.	12.	124.
Sr Surface saprock	2(69)	0.24	2919	32	4	15	157
R Fresh rock	(160)	-	2662	-	-	-	#
Sr Saprock	8	0.11	3603	-	2	6	79 *
R Fresh rock	12	0.18	2944	-	3	10	101 *

Observations in parentheses refer to data for Cr determined by mixed acid/AAS, Carbine Gold NL

# Analysis by mixed acid/AAS for Carbine Gold NL; \* Analysis by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 4A: Base and transition metals  
PERIDOTITES**

### Comparison of arithmetic means

Regolith Units	Obs	As ppm	Pb ppm	Zn ppm	Mn ppm	Co ppm	Ni ppm
Ak Calc soil	12	5.	4.	60.	502.	17.	1421.
Mc Mottled clay	4	4.	3.	60.	570.	24.	2158.
Sk Calc saprol	4	4.	3.	56.	875.	20.	1335.
Sc Clay saprol	31	3.	3.	72.	916.	26.	2175.
Scs Sil clay sap	22	3.	3.	71.	1198.	22.	1956.
Ss Sil saprol	17	4.	3.	74.	1852.	23.	1840.
S Saprolite	13	10.	3.	71.	1421.	21.	1761.
R Fresh rock	198	-	-	-	-	-	1191 #
R Fresh rock	8	-	-	74	1351	132	1172 *

### Comparison of standard deviation

Regolith Units	Obs	As ppm	Pb ppm	Zn ppm	Mn ppm	Co ppm	Ni ppm
Ak Calc soil	12	3.	2.	16.	251 .	8.	460.
Mc Mottled clay	4	2.	0.	15.	289.	11.	313.
Sk Calc saprol	4	2.	0 .	16.	702.	9.	275.
Sc Clay saprol	31	1.	0.	15.	865.	11.	495.
Scs Sil clay sap	22	1.	1.	16.	1113.	9.	652.
Ss Sil saprol	17	2.	0.	9.	1029.	13.	518.
S Saprolite	13	21.	0.	10.	718.	8.	304.
R Fresh rock	198	-	-	-	-	-	152 #
R Fresh rock	8	-	-	10	224	19	199 *

### Comparison of geometric means

Regolith Units	Obs	As ppm	Pb ppm	Zn ppm	Mn ppm	Co ppm	Ni ppm
Ak Calc soil	12	4.	3.	58.	450.	16.	1356.
Mc Mottled clay	4	3.	2.	58.	513.	22.	2137.
Sk Calc saprol	4	3.	2.	54.	672.	18.	1309.
Sc Clay saprol	31	3.	2.	70.	588.	24.	2119.
Scs Sil clay sap	22	3.	3.	69.	860.	20.	1851.
Ss Sil saprol	17	3.	2.	74.	1605.	20.	1784.
S Saprolite	13	5.	2.	70.	1174.	19.	1735.
R Fresh rock	198	-	-	-	-	-	1073 #
R Fresh rock	8	-	-	73	1330	131	1172 *

# Analysis by mixed acid/AAS for Carbine Gold NL; \* Analysis by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 4B: Base and transition metals  
PYROXENITES**

### Comparison of arithmetic means

Regolith Units	Obs	As ppm	Pb ppm	Zn ppm	Mn ppm	Co ppm	Ni ppm
Ak Calc soil	1	6.	10.	85.	512.	13.	525.
Ank Cal lat soil	3	5.	5.	67.	196.	5.	385.
Lk Cal laterite	7	6.	4.	28.	412.	7.	405.
L Laterite	13	6.	7.	54.	482.	12.	534.
Lpn Nod laterite	12	4.	7.	53.	428.	18.	501.
Mc Mottled clay	13	7.	5.	46.	490.	20.	655.
Sk Calc saprol	2	3.	4.	47.	679.	11.	229.
Sf Fer saprol	5	4.	5.	68.	640.	15.	575.
Sc Clay saprol	13	3.	3.	125.	254.	16.	1740.
S Saprolite	62	6.	3.	75.	1223.	16.	1087.
Sr Surface saprock	2	3	3	74	1462	12	943
R Fresh rock	160	-	-	-	-	-	545 #
Sr Saprocks	8	-	-	61	1474	87	787*
R Fresh rock	12	-	-	69	1586	102	1112*

### Comparison of standard deviation

Regolith Units	Obs	As ppm	Pb ppm	Zn ppm	Mn ppm	Co ppm	Ni ppm
Ank Cal lat soil	3	4.	1.	29.	35.	1.	156.
Lk Cal laterite	7	4.	2.	12.	138.	3.	187.
L Laterite	13	4.	2.	30.	241.	6.	179.
Lpn Nod laterite	12	3.	3.	20.	281.	6.	112.
Mc Mottled clay	13	6.	3.	67.	446.	7.	303.
Sk Calc saprol	2	0.	2.	6.	149.	1.	1.
Sf Fer saprol	5	2.	2.	13.	417.	3.	237.
Sc Clay saprol	13	1.	1.	55.	98.	4.	468.
S Saprolite	62	6.	1.	25.	789.	8.	416.
Sr Surface saprock	2	0	0	1	89	2	11
R Fresh rock	160	-	-	-	-	-	195 #
Sr Saprocks	8	-	-	9	205	23	229 *
R Fresh rock	12	-	-	4	27	33	938 *

### Comparison of geometric means

Regolith Units	Obs	As ppm	Pb ppm	Zn ppm	Mn ppm	Co ppm	Ni ppm
Ak Calc soil	1	6.	10.	85.	511.	13.	524.
Ank Cal lat soil	3	4.	5.	63.	194.	5.	365.
Lk Cal laterite	7	5.	4.	27.	392.	7.	370.
L Laterite	13	5.	7.	45.	443.	11.	509.
Lpn Nod laterite	12	3.	6.	49.	373.	17.	489.
Mc Mottled clay	13	5.	4.	28.	381.	19.	608.
Sk Calc saprol	2	2.	4.	47.	669.	11.	229.
Sf Fer saprol	5	3.	4.	67.	555.	15.	540.
Sc Clay saprol	13	3.	3.	115.	237.	15.	1677.
S Saprolite	62	4.	3.	72.	947.	14.	1014.
Sr Surface saprock	2	2	2	73	1458	12	943
R Fresh rock	160	-	-	-	-	-	513 #
Sr Saprocks	8	-	-	60	1456	85	761 *
R Fresh rock	12	-	-	69	1583	98	905 *

# Analysis by mixed acid/AAS for Carbine Gold N.L.\* Analysis by XRF fusion

## Appendix II. Ora Banda Comparative Statistics

**Table 5A: Alkali and rare earth elements  
PERIDOTITES**

Comparison of arithmetic means

Regolith Units	Obs	Na <sub>2</sub> O%	Rb ppm	Ce ppm	La ppm	Y ppm
Ak Calc soil	12	0.26	8.	15.	11.	4.
Mc Mottled clay	4	0.62	3.	8.	8.	2.
Sk Calc saprol	4	0.68	3.	5.	5.	2.
Sc Clay saprol	31	0.94	3.	7.	6.	2.
Scs Sil clay sap	22	0.93	3.	6.	6.	2.
Ss Sil saprol	17	0.89	3.	6.	6.	2.
S Saprolite	13	0.78	3.	5.	5.	2.
R Fresh rock	8	0.15	3	7	-	2

Comparison of standard deviation

Regolith Units	Obs	Na <sub>2</sub> O%	Rb ppm	Ce ppm	La ppm	Y ppm
Ak Calc soil	12	0.20	6.	6.	7.	2.
Mc Mottled clay	4	0.28	0.	7.	4.	1.
Sk Calc saprol	4	0.33	0.	0.	0.	1.
Sc Clay saprol	31	0.19	1.	3.	3.	1.
Scs Sil clay sap	22	0.21	4.	3.	2.	1.
Ss Sil saprol	17	0.13	1.	3.	2.	1.
S Saprolite	13	0.17	1.	0.	0.	1.
R Fresh rock	8	0.10	2	4	-	2

Comparison of geometric means

Regolith Units	Obs	Na <sub>2</sub> O%	Rb ppm	Ce ppm	La ppm	Y ppm
Ak Calc soil	12	0.20	7.	13.	9.	3.
Mc Mottled clay	4	0.57	2.	7.	7.	2.
Sk Calc saprol	4	0.61	2.	5.	5.	2.
Sc Clay saprol	31	0.92	3.	6.	6.	2.
Scs Sil clay sap	22	0.90	3.	6.	6.	2.
Ss Sil saprol	17	0.89	3.	6.	6.	2.
S Saprolite	13	0.76	3.	5.	5.	2.
R Fresh rock	8	0.13	3	6	-	2

Fresh rocks analysed by XRF fusion.

## Appendix II. Ora Banda Comparative Statistics

**Table 5B: Alkali and rare earth elements  
PYROXENITES**

Comparison of arithmetic means

Regolith Units	Obs	Na <sub>2</sub> O%	Rb ppm	Ce ppm	La ppm	Y ppm
Ak Calc soil	1	0.10	22.	24.	15.	12.
Ank Cal lat soil	3	0.05	3.	18.	13.	4.
Lk Cal laterite	7	0.11	6.	16.	12.	6.
L Laterite	13	0.13	3.	19.	15.	6.
Lpn Nod laterite	12	0.14	3.	19.	15.	4.
Mc Mottled clay	13	0.32	3.	16.	9.	3.
Sk Calc saprol	2	0.13	3.	17.	10.	2.
Sf Fer saprol	5	0.41	3.	15.	13.	2.
Sc Clay saprol	13	0.74	3.	9.	9.	3.
S Saprolite	62	0.69	3.	6.	6.	4.
Sr Surface saprock	2	0.25	3	10	5	5
Sr Saprocks	8	0.20	3	7	-	4*
R Fresh rock	12	0.36	3	9	-	5*

Comparison of standard deviation

Regolith Units	Obs	Na <sub>2</sub> O%	Rb ppm	Ce ppm	La ppm	Y ppm
Ank Cal lat soil	3	0.00	0.	5.	7.	2.
Lk Cal laterite	7	0.03	4.	7.	5.	2.
L Laterite	13	0.09	1.	6.	6.	3.
Lpn Nod laterite	12	0.12	1.	3.	4.	2.
Mc Mottled clay	13	0.39	2.	4.	4.	1.
Sk Calc saprol	2	0.05	0.	2.	7.	1.
Sf Fer saprol	5	0.18	0.	6.	2.	1.
Sc Clay saprol	13	0.14	2.	5.	4.	2.
S Saprolite	62	0.22	2.	2.	3.	3.
Sr Surface saprock	2	0.09	0	6	0	1
Sr Saprocks	8	0.09	2	4	-	2*
R Fresh rock	12	0.19	2	5	-	2*

Comparison of geometric means

Regolith Units	Obs	Na <sub>2</sub> O%	Rb ppm	Ce ppm	La ppm	Y ppm
Ak Calc soil	1	0.10	22.	24.	15.	12.
Ank Cal lat soil	3	0.05	2.	18.	11.	4.
Lk Cal laterite	7	0.11	5.	14.	11.	6.
L Laterite	13	0.09	3.	17.	13.	5.
Lpn Nod laterite	12	0.09	3.	19.	14.	3.
Mc Mottled clay	13	0.18	3.	15.	8.	2.
Sk Calc saprol	2	0.12	2.	16.	9.	2.
Sf Fer saprol	5	0.37	2.	13.	13.	2.
Sc Clay saprol	13	0.73	3.	8.	8.	3.
S Saprolite	62	0.66	3.	5.	6.	3.
Sr Surface saprock	2	0.24	1	2	8	5
Sr Saprocks	8	0.17	2	6	-	3*
R Fresh rock	12	0.32	2	8	-	5*

\* Analysis by XRF fusion.

## **APPENDIX III**

### **ORA BANDA DIAMOND DRILL CORE: DATA LISTINGS**

### Appendix III. Ora Banda Diamond Drill Core: Data Listings

**Table 1: Ora Banda diamond drill core: trace element data**  
Analysed on behalf of Carbine Gold NL.

OBDDH1

EASTING = 12403.43      AZIMUTH = 38.0  
NORTHING = 10317.09      INCLINATION = 50.0  
RL = 203.13

Sample Number	Easting m	Northing m	RL m	GEO	UDep m	LDep m	Au ppb	Pt ppb	Pd ppb	Pt % Pt+Pd	Cr ppm	Ni ppm	Cu ppm	Cu % Cu+Ni
0000	12423.22	10342.42	164.83		0.00	50.00								
6520	12423.61	10342.92	164.06	Px	50.00	51.00	19	215	94	69.58	2900	525	375	41.67
6521	12424.01	10343.43	163.30	Px	51.00	52.00	9	225	114	66.37	2900	475	75	13.64
6522	12424.40	10343.94	162.53	Px	52.00	53.00	7	235	118	66.57	2850	525	300	36.36
6523	12424.80	10344.44	161.76	Px	53.00	54.00	7	235	120	66.20	3100	450	50	10.00
6524	12425.19	10344.95	161.00	Px	54.00	55.00	8	220	96	69.62	3200	525	75	12.50
6525	12425.59	10345.46	160.23	Px	55.00	56.00	10	185	88	67.77	3200	575	100	14.81
6526	12425.99	10345.96	159.47	Px	56.00	57.00	17	185	86	68.27	3400	775	275	26.19
6527	12426.38	10346.47	158.70	Px	57.00	58.00	11	190	76	71.43	3400	675	175	20.59
6528	12426.78	10346.98	157.93	Px	58.00	59.00	28	205	84	70.93	3500	700	200	22.22
6529	12427.17	10347.48	157.17	Px	59.00	60.00	37	140	96	59.32	3500	1075	350	24.56
6530	12427.57	10347.99	156.40	Px	60.00	61.00	39	175	112	60.98	3300	750	175	18.92
6531	12427.96	10348.50	155.64	Px	61.00	62.00	10	245	145	62.82	3100	425	50	10.53
6532	12428.36	10349.00	154.87	Px	62.00	63.00	12	245	140	63.64	3100	575	125	17.86
6533	12428.75	10349.51	154.10	Px	63.00	64.00	11	300	195	60.61	3100	475	75	13.64
6534	12429.15	10350.02	153.34	Px	64.00	65.00	23	230	78	74.68	3300	600	425	41.46
6535	12429.54	10350.53	152.57	Px	65.00	66.00	21	120	66	64.52	3100	575	100	14.81
6536	12429.94	10351.03	151.81	Px	66.00	67.00	23	130	66	66.33	3200	700	150	17.65
6537	12430.34	10351.54	151.04	Px	67.00	68.00	8	102	78	56.67	3400	800	275	25.58
6538	12430.73	10352.05	150.27	Px	68.00	69.00	27	108	150	41.86	3500	825	450	35.29
6539	12431.13	10352.55	149.51	Px	69.00	70.00	15	102	86	54.26	3200	675	225	25.00
6540	12431.52	10353.06	148.74	Px	70.00	71.00	7	102	215	32.18	3000	1125	675	37.50
6541	12431.92	10353.57	147.97	Px	71.00	72.00	18	150	140	51.72	3950	1500	350	18.92
6542	12432.31	10354.07	147.21	Px	72.00	73.00	42	165	125	56.90	3600	850	300	26.09
6543	12432.71	10354.58	146.44	Px	73.00	74.00	19	94	64	59.49	3200	850	325	27.66
6544	12433.10	10355.09	145.68	Px	74.00	75.00	29	160	94	62.99	3000	775	250	24.39
6545	12433.50	10355.59	144.91	Px	75.00	76.00	15	215	78	73.38	2950	525	75	12.50
6546	12433.90	10356.10	144.14	Px	76.00	77.00	16	240	86	73.62	500	575	225	28.13
6547	12434.29	10356.61	143.38	Px	77.00	78.00	78	250	116	68.31	2900	850	450	34.62
6548	12434.69	10357.11	142.61	Px	78.00	79.00	31	170	94	64.39	3200	850	350	29.17
6549	12435.08	10357.62	141.85	Px	79.00	80.00	33	114	110	50.89	3200	1000	600	37.50
6550	12435.48	10358.13	141.08	Px	80.00	81.00	44	140	108	56.45	3600	975	275	22.00
6551	12435.87	10358.63	140.31	Px	81.00	82.00	10	62	43	59.05	3500	800	175	17.95
6552	12436.27	10359.14	139.55	Px	82.00	83.00	28	130	106	55.08	3600	900	350	28.00
6553	12436.66	10359.65	138.78	Px	83.00	84.00	17	96	64	60.00	3400	875	300	25.53
6554	12437.06	10360.16	138.02	Px	84.00	85.00	16	195	108	64.36	3400	850	350	29.17
6555	12437.46	10360.66	137.25	Px	85.00	86.00	13	160	90	64.00	3400	650	175	21.21
6556	12437.85	10361.17	136.48	Px	86.00	87.00	24	265	135	66.25	3300	675	200	22.86
6557	12438.25	10361.68	135.72	Px	87.00	88.00	38	230	140	62.16	3200	1050	325	23.64
6558	12438.64	10362.18	134.95	Px	88.00	89.00	29	170	125	57.63	3200	750	200	21.05
6559	12439.04	10362.69	134.19	Px	89.00	90.00	18	104	86	54.74	3200	650	175	21.21
6560	12439.43	10363.20	133.42	Px	90.00	91.00	18	120	92	56.60	3200	700	300	30.00
6561	12439.83	10363.70	132.65	Px	91.00	92.00	20	100	88	53.19	3200	625	225	26.47
6562	12440.22	10364.21	131.89	Px	92.00	93.00	25	116	104	52.73	3100	650	250	27.78
6563	12440.62	10364.72	131.12	Px	93.00	94.00	35	130	118	52.42	3200	825	400	32.65
6564	12441.01	10365.22	130.36	Px	94.00	95.00	33	125	125	50.00	3100	800	275	25.58
6565	12441.41	10365.73	129.59	Px	95.00	96.00	35	125	104	54.59	3300	675	225	25.00
6566	12441.81	10366.24	128.82	Px	96.00	97.00	49	125	110	53.19	3300	675	300	30.77
6567	12442.20	10366.74	128.06	Px	97.00	98.00	54	140	100	58.33	3300	700	375	34.88
6568	12442.60	10367.25	127.29	Px	98.00	99.00	49	135	86	61.09	3200	650	250	27.78
6569	12442.99	10367.76	126.53	Px	99.00	100.00	24	74	64	53.62	3600	975	75	7.14
6570	12443.39	10368.26	125.76	Px	100.00	101.00	6	23	6	79.31	3100	925	50	5.13
6571	12443.78	10368.77	124.99	Po	101.00	102.00	76	114	76	60.00	2450	925	275	22.92
6572	12444.18	10369.28	124.23	Po	102.00	103.00	74	110	60	64.71	3100	850	225	20.93
6573	12444.57	10369.79	123.46	Po	103.00	104.00	78	135	102	56.96	4100	1175	75	6.00
6574	12444.97	10370.29	122.70	Po	104.00	105.00	225	205	116	63.86	2850	925	300	24.49
6575	12445.37	10370.80	121.93	Po	105.00	106.00	295	235	145	61.84	2700	700	125	15.15
6576	12445.76	10371.31	121.16	Po	106.00	107.00	66	125	980	11.31	3300	925	50	5.13
6577	12446.16	10371.81	120.40	Po	107.00	108.00	18	40	35	53.33	4300	1175	50	4.08
6578	12446.55	10372.32	119.63	Po	108.00	109.00	56	88	100	46.81	4400	1150	50	4.17
6579	12446.95	10372.83	118.87	Po	109.00	110.00	32	74	90	45.12	4700	1175	50	4.08
6580	12447.34	10373.33	118.10	Po	110.00	111.00	11	18	20	47.37	4200	1125	50	4.26
6581	12447.74	10373.84	117.33	Po	111.00	112.00	11	42	31	57.53	4400	1150	50	4.17
6582	12448.13	10374.35	116.57	Po	112.00	113.00	15	23	28	45.10	4600	1200	50	4.00
6583	12448.53	10374.85	115.80	Po	113.00	114.00	27	44	48	47.83	4300	1050	50	4.55
6584	12448.92	10375.36	115.04	Po	114.00	115.00	10	15	12	55.56	4000	1025	50	4.65
6585	12449.32	10375.87	114.27	Po	115.00	116.00	19	102	58	63.75	4500	1050	50	4.55
6586	12449.72	10376.37	113.50	Po	116.00	117.00	12	11	13	45.83	3100	700	50	6.67

**Appendix III. Ora Banda Diamond Drill Core: Data Listings**

Sample Number	Easting m	Northing m	RL m	GEO	UDep m	LDep m	Au ppb	Pt ppb	Pd ppb	Pt % Pt+Pd	Cr ppm	Ni ppm	Cu ppm	Cu % Cu+Ni
6587	12450.11	10376.88	112.74	Po	117.00	118.00	46	68	76	47.22	4400	1100	50	4.35
6588	12450.51	10377.39	111.97	Po	118.00	119.00	37	78	76	50.65	4300	1000	50	4.76
6589	12450.90	10377.89	111.21	Po	119.00	120.00	49	100	114	46.73	5000	1175	50	4.08
6590	12451.30	10378.40	110.44	Po	120.00	121.00	33	52	68	43.33	4700	1150	50	4.17
6591	12451.69	10378.91	109.67	Po	121.00	122.00	19	43	41	51.19	5000	1250	50	3.85
6592	12452.09	10379.42	108.91	Po	122.00	123.00	10	27	27	50.00	4500	1125	50	4.26
6593	12452.48	10379.92	108.14	Po	123.00	124.00	16	23	28	45.10	3300	825	50	5.71
6594	12452.88	10380.43	107.37	Po	124.00	125.00	9	15	11	57.69	4500	1150	75	6.12
6595	12453.28	10380.94	106.61	Po	125.00	126.00	108	130	125	50.98	4200	1175	50	4.08
6596	12453.67	10381.44	105.84	Po	126.00	127.00	41	98	96	50.52	4000	1025	50	4.65
6597	12454.07	10381.95	105.08	Po	127.00	128.00	66	200	320	38.46	3600	950	50	5.00
6598	12454.46	10382.46	104.31	Po	128.00	129.00	15	49	46	51.58	4400	1125	50	4.26
6599	12454.86	10382.96	103.54	Po	129.00	130.00	21	66	80	45.21	4300	1075	50	4.44
6600	12455.25	10383.47	102.78	Po	130.00	131.00	86	118	125	48.56	4500	1200	50	4.00
6601	12455.65	10383.98	102.01	Po	131.00	132.00	64	76	88	46.34	4200	1100	50	4.35
6602	12456.04	10384.48	101.25	Po	132.00	133.00	12	17	16	51.52	2700	725	50	6.45
6603	12456.44	10384.99	100.48	Po	133.00	134.00	2	10	8	55.56	4000	1075	125	10.42
6604	12456.83	10385.50	99.71	Po	134.00	135.00	9	29	15	65.91	4400	1100	100	8.33
6605	12457.23	10386.00	98.95	Po	135.00	136.00	5	11	8	57.89	3200	775	100	11.43
6606	12457.63	10386.51	98.18	Po	136.00	137.00	7	23	17	57.50	2600	750	100	11.76
6607	12458.02	10387.02	97.42	Po	137.00	138.00	32	52	56	48.15	4400	1175	100	7.84
6608	12458.42	10387.52	96.65	Po	138.00	139.00	29	62	60	50.82	4100	1100	100	8.33
6609	12458.81	10388.03	95.88	Po	139.00	140.00	7	44	40	52.38	3100	800	100	11.11
6610	12459.21	10388.54	95.12	Po	140.00	141.00	29	86	76	53.09	4200	1150	100	8.00
6611	12459.60	10389.04	94.35	Po	141.00	142.00	52	78	66	54.17	4100	1125	350	23.73
6612	12460.00	10389.55	93.59	Po	142.00	143.00	6	25	19	56.82	4500	1000	125	11.11
6613	12460.39	10390.06	92.82	Po	143.00	144.00	2	20	7	74.07	4600	525	50	8.70
6614	12460.79	10390.57	92.05	Po	144.00	145.00	10	72	108	40.00	4400	925	50	5.13
6615	12461.19	10391.07	91.29	Po	145.00	146.00	4	16	10	61.54	5400	825	50	5.71
6616	12461.58	10391.58	90.52	Po	146.00	147.00	1	7	4	63.64	5600	225	50	18.18
6617	12461.98	10392.09	89.76	Po	147.00	148.00	1	6	1	85.71	12500	250	50	16.67
6618	12462.37	10392.59	88.99	Po	148.00	149.00	2	18	18	50.00	5200	950	50	5.00
6619	12462.77	10393.10	88.22	Po	149.00	150.00	5	110	135	44.90	4200	1075	50	4.44
6620	12463.16	10393.61	87.46	Po	150.00	151.00	3	62	54	53.45	4400	1150	50	4.17
6621	12463.56	10394.11	86.69	Po	151.00	152.00	3	37	37	50.00	4400	1150	50	4.17
6622	12463.95	10394.62	85.93	Po	152.00	153.00	1	62	62	50.00	4400	1100	50	4.35
6623	12464.35	10395.13	85.16	Po	153.00	154.00	2	60	48	55.56	4400	1100	75	6.38
6624	12464.75	10395.63	84.39	Po	154.00	155.00	2	80	92	46.51	4000	1025	50	4.65
6625	12465.14	10396.14	83.63	Po	155.00	156.00	1	34	64	34.69	4000	1050	50	4.55
6626	12465.54	10396.65	82.86	Po	156.00	157.00	1	62	62	50.00	3600	1000	50	4.76
6627	12465.93	10397.15	82.10	Po	157.00	158.00	2	52	62	45.61	3800	975	50	4.88
6628	12466.33	10397.66	81.33	Po	158.00	159.00	1	54	52	50.94	4000	1025	50	4.65
6629	12466.72	10398.17	80.56	Po	159.00	160.00	11	16	23	41.03	4000	1050	50	4.55
6630	12467.12	10398.67	79.80	Po	160.00	161.00	1	44	38	53.66	4000	1050	50	4.55
6631	12467.51	10399.18	79.03	Po	161.00	162.00	2	46	48	48.94	4300	1100	50	4.35
6632	12467.91	10399.69	78.27	Po	162.00	163.00	1	33	27	55.00	4600	1150	50	4.17
6633	12468.30	10400.20	77.50	Po	163.00	164.00	3	54	34	61.36	4200	1075	50	4.44
6634	12468.70	10400.70	76.73	Po	164.00	165.00	1	58	52	52.73	4500	1125	50	4.26
6635	12469.10	10401.21	75.97	Po	165.00	166.00	1	21	21	50.00	4300	1150	50	4.17
6636	12469.49	10401.72	75.20	Po	166.00	167.00	1	39	25	60.94	4500	1100	25	2.22
6637	12469.89	10402.22	74.43	Po	167.00	168.00	2	37	39	48.68	4500	1100	10	0.90
6638	12470.28	10402.73	73.67	Po	168.00	169.00	1	64	56	53.33	4200	1100	10	0.90
6639	12470.68	10403.24	72.90	Po	169.00	170.00	1	14	18	43.75	4500	1150	10	0.86
6640	12471.07	10403.74	72.14	Po	170.00	171.00	4	27	30	47.37	4500	1150	10	0.86
6641	12471.47	10404.25	71.37	Po	171.00	172.00	1	22	25	46.81	4700	1175	25	2.08
6642	12471.86	10404.76	70.60	Po	172.00	173.00	3	36	43	45.57	4400	1075	10	0.92
6643	12472.26	10405.26	69.84	Po	173.00	174.00	2	72	135	34.78	4900	1300	10	0.76
6644	12472.66	10405.77	69.07	Po	174.00	175.00	2	43	54	44.33	4500	1200	10	0.83
6645	12473.05	10406.28	68.31	Po	175.00	176.00	5	52	56	48.15	4600	1250	10	0.79
6646	12473.45	10406.78	67.54	Po	176.00	177.00	6	68	70	49.28	4300	975	10	1.02
6647	12473.84	10407.29	66.77	Po	177.00	178.00	5	33	45	42.31	3900	1025	10	0.97
6648	12474.24	10407.80	66.01	Po	178.00	179.00	7	24	50	32.43	3700	950	10	1.04
6649	12474.63	10408.30	65.24	Po	179.00	180.00	19	205	420	32.80	3800	1025	10	0.97
6650	12475.03	10408.81	64.48	Po	180.00	181.00	3	54	47	53.47	3800	1025	10	0.97
6651	12475.42	10409.32	63.71	Po	181.00	182.00	3	27	43	38.57	4100	1200	10	0.83
6652	12475.82	10409.83	62.94	Po	182.00	183.00	4	112	170	39.72	3500	1025	10	0.97
6653	12476.21	10410.33	62.18	Po	183.00	184.00	1	31	38	44.93	3600	1050	10	0.94
6654	12476.61	10410.84	61.41	Po	184.00	185.00	9	80	78	50.63	2950	800	10	1.23
6655	12477.01	10411.35	60.65	Po	185.00	186.00	4	118	102	53.64	4100	1125	10	0.88
6656	12477.40	10411.85	59.88	Po	186.00	187.00	2	16	22	42.11	4200	1175	10	0.84
6657	12477.80	10412.36	59.11	Po	187.00	188.00	2	49	49	50.00	3900	1125	10	0.88
6658	12478.19	10412.87	58.35	Po	188.00	189.00	8	27	35	43.55	4500	1250	10	0.79
6659	12478.59	10413.37	57.58	Po	189.00	190.00	1	18	19	48.65	4400	1175	10	0.84
6660	12478.98	10413.88	56.82	Po	190.00	191.00	2	21	32	39.62	4300	1175	10	0.84
6661	12479.38	10414.39	56.05	Po	191.00	192.00	2	13	17	43.33	4600	1250	10	0.79
6662	12479.77	10												

### Appendix III. Ora Banda Diamond Drill Core: Data Listings

Sample Number	Easting m	Northing m	RL m	GEO	UDep m	LDep m	Au ppb	Pt ppb	Pd ppb	Pt % Pt+Pd	Cr ppm	Ni ppm	Cu ppm	Cu % Cu+Ni
6665	12480.96	10416.41	52.99	Po	195.00	196.00	2	40	47	45.98	4500	1075	25	2.27
6666	12481.36	10416.92	52.22	Po	196.00	197.00	3	84	118	41.58	5200	1300	10	0.76
6667	12481.75	10417.43	51.45	Po	197.00	198.00	2	38	66	36.54	5200	1200	10	0.83
6668	12482.15	10417.93	50.69	Po	198.00	199.00	1	10	12	45.45	5400	575	10	1.71
6669	12482.54	10418.44	49.92	Po	199.00	200.00	1	38	52	42.22	4200	1025	10	0.97
6670	12482.94	10418.95	49.16	Po	200.00	201.00	5	108	150	41.86	4400	1150	100	8.00
6671	12483.33	10419.46	48.39	Po	201.00	202.00	5	160	235	40.51	4500	1175	10	0.84
6672	12483.73	10419.96	47.62	Po	202.00	203.00	3	94	135	41.05	4200	1175	10	0.84
6673	12484.13	10420.47	46.86	Po	203.00	204.00	1	27	41	39.71	4300	1125	10	0.88
6674	12484.52	10420.98	46.09	Po	204.00	205.00	1	19	35	35.19	4200	1150	10	0.86
6675	12484.92	10421.48	45.33	Po	205.00	206.00	1	18	28	39.13	4300	1125	10	0.88
6676	12485.31	10421.99	44.56	Po	206.00	207.00	1	39	52	42.86	4200	1125	75	6.25
6677	12485.71	10422.50	43.79	Po	207.00	208.00	2	104	155	40.15	4600	1125	50	4.26
6678	12486.10	10423.00	43.03	Po	208.00	209.00	1	64	68	48.48	4100	1175	10	0.84
6679	12486.50	10423.51	42.26	Po	209.00	210.00	1	70	125	35.90	4300	1075	10	0.92
6680	12486.89	10424.02	41.49	Po	210.00	211.00	1	14	35	28.57	4600	1125	10	0.88
6681	12487.29	10424.52	40.73	Po	211.00	212.00	1	48	44	52.17	4500	1175	50	4.08
6682	12487.68	10425.03	39.96	Po	212.00	213.00	1	54	108	33.33	4100	1200	10	0.83
6683	12488.08	10425.54	39.20	Po	213.00	214.00	1	22	52	29.73	4300	1200	10	0.83
6684	12488.48	10426.04	38.43	Po	214.00	215.00	1	160	120	57.14	4200	1200	10	0.83
6685	12488.87	10426.55	37.66	Po	215.00	216.00	1	29	54	34.94	4500	1175	50	4.08
6686	12489.27	10427.06	36.90	Po	216.00	217.00	6	72	150	32.43	4000	1175	10	0.84
6687	12489.66	10427.56	36.13	Po	217.00	218.00	1	58	106	35.37	4400	1125	10	0.88
6688	12490.06	10428.07	35.37	Po	218.00	219.00	1	46	54	46.00	4500	1175	10	0.84
6689	12490.45	10428.58	34.60	Po	219.00	220.00	1	62	84	42.47	4100	1175	25	2.08
6690	12490.85	10429.08	33.83	Po	220.00	221.00	1	30	72	29.41	4200	1050	10	0.94
6691	12491.24	10429.59	33.07	Po	221.00	222.00	1	84	220	27.63	4400	1150	10	0.86
6692	12491.64	10430.10	32.30	Po	222.00	223.00	1	20	40	33.33	4200	1100	10	0.90
6693	12492.04	10430.61	31.54	Po	223.00	224.00	1	56	106	34.57	4300	1125	10	0.88
6694	12492.43	10431.11	30.77	Po	224.00	225.00	1	12	40	23.08	4200	1075	10	0.92
6695	12492.83	10431.62	30.00	Po	225.00	226.00	1	86	185	31.73	4000	1150	10	0.86
6696	12493.22	10432.13	29.24	Po	226.00	227.00	1	52	98	34.67	4500	1125	10	0.88
6697	12493.62	10432.63	28.47	Po	227.00	228.00	1	42	80	34.43	4500	1125	10	0.88
6698	12494.01	10433.14	27.71	Po	228.00	229.00	1	88	165	34.78	4400	1125	10	0.88
6699	12494.41	10433.65	26.94	Po	229.00	230.00	1	52	47	52.53	4400	1125	10	0.88
6700	12494.80	10434.15	26.17	Po	230.00	231.00	1	17	30	36.17	4700	1200	10	0.83
6701	12495.20	10434.66	25.41	Po	231.00	232.00	1	7	35	16.67	4500	1200	10	0.83
6702	12495.59	10435.17	24.64	Po	232.00	233.00	1	56	92	37.84	4500	1125	10	0.88
6703	12495.99	10435.67	23.88	Po	233.00	234.00	1	34	47	41.98	4600	1150	10	0.86
6704	12496.39	10436.18	23.11	Po	234.00	235.00	1	24	48	33.33	4500	1100	10	0.90
6705	12496.78	10436.69	22.34	Po	235.00	236.00	1	27	40	40.30	4500	1150	10	0.86
6706	12497.18	10437.19	21.58	Po	236.00	237.00	1	12	26	31.58	4600	1150	10	0.86
6707	12497.57	10437.70	20.81	Po	237.00	238.00	1	130	104	55.56	5000	1200	10	0.83
6708	12497.97	10438.21	20.05	Po	238.00	239.00	1	42	40	51.22	4700	1125	10	0.88
6709	12498.36	10438.71	19.28	Po	239.00	240.00	1	23	33	41.07	4900	1150	10	0.86
6710	12498.76	10439.22	18.51	Po	240.00	241.00	1	26	58	30.95	5200	1200	10	0.83
6711	12499.15	10439.73	17.75	Po	241.00	242.00	1	19	30	38.78	5000	1200	10	0.83
6712	12499.55	10440.24	16.98	Po	242.00	243.00	1	16	30	34.78	4800	1200	10	0.83
6713	12499.95	10440.74	16.22	Po	243.00	244.00	1	25	26	49.02	4800	1225	25	2.00
6714	12500.34	10441.25	15.45	Po	244.00	245.00	6	14	25	35.90	3800	950	75	7.32
6715	12500.74	10441.76	14.68	Po	245.00	246.00	1	14	22	38.89	3900	1075	10	0.92
6716	12501.13	10442.26	13.92	Po	246.00	247.00	1	13	20	39.39	3900	975	10	1.02
6717	12501.53	10442.77	13.15	Po	247.00	248.00	2	12	18	40.00	3900	975	10	1.02
6718	12501.92	10443.28	12.39	Po	248.00	249.00	1	56	35	61.54	3800	1000	10	0.99
6719	12502.32	10443.78	11.62	Po	249.00	250.00	1	17	22	43.59	4100	1000	50	4.76
6720	12502.71	10444.29	10.85	Po	250.00	251.00	1	23	22	51.11	3800	950	10	1.04
6721	12503.11	10444.80	10.09	Po	251.00	252.00	3	19	46	29.23	4300	1250	10	0.79
6722	12503.50	10445.30	9.32	Po	252.00	253.00	2	11	18	37.93	4800	1200	25	2.04
6723	12503.90	10445.81	8.56	Po	253.00	254.00	1	27	31	46.55	4800	1200	10	0.83
6724	12504.30	10446.32	7.79	Po	254.00	255.00	1	17	22	43.59	4600	1025	10	0.97
6725	12504.69	10446.82	7.02	Po	255.00	256.00	1	25	28	47.17	4800	1175	10	0.84
6726	12505.09	10447.33	6.26	Po	256.00	257.00	1	14	21	40.00	4900	1200	10	0.83
6727	12505.48	10447.84	5.49	Po	257.00	258.00	1	14	20	41.18	4600	1150	10	0.86
6728	12505.88	10448.34	4.72	Po	258.00	259.00	1	15	21	41.67	4700	1175	10	0.84
6729	12506.27	10448.85	3.96	Po	259.00	260.00	1	17	20	45.95	5000	1175	10	0.84
6730	12506.67	10449.36	3.19	Po	260.00	261.00	1	17	54	23.94	4600	1250	10	0.79
6731	12507.06	10449.87	2.43	Po	261.00	262.00	1	24	34	41.38	4900	1250	10	0.79
6732	12507.46	10450.37	1.66	Po	262.00	263.00	1	23	30	43.40	4800	1250	10	0.79
6733	12507.86	10450.88	0.89	Po	263.00	264.00	1	13	17	43.33	4500	1200	10	0.83
6734	12508.25	10451.39	0.13	Po	264.00	265.00	1	12	17	41.38	4400	1075	10	0.92
6735	12508.65	10451.89	-0.64	Po	265.00	266.00	1	12	15	44.44	4300	1000	10	0.99
6736	12509.04	10452.40	-1.40	Po	266.00	267.00	1	12	15	44.44	4200	1000	10	0.99
6737	12509.44	10452.91	-2.17	Po	267.00	268.00	1	78	245	24.15	3800	1000	10	0.99
6738	12509.83	10453.41	-2.94	Po	268.00	269.00	1	14	16	46.67	3800	1025	10	0.97
6739	12510.23	10453.92	-3.70	Po	269.00	270.00	1	14	21	40.00	4000	1025	10	0.97
6740	12510.62	10454.43	-4.47	Po	270.00	271.00	1	3						

**Appendix III. Ora Banda Diamond Drill Core: Data Listings**

Sample Number	Easting m	Northing m	RL m	GEO	UDep m	LDep m	Au ppb	Pt ppb	Pd ppb	$\frac{\text{Pt}}{\text{Pt+Pd}}\ %$	Cr ppm	Ni ppm	Cu ppm	$\frac{\text{Cu}}{\text{Cu+Ni}}\ %$
6743	12511.81	10455.95	-6.77	Po	273.00	274.00	19	23	29	44.23	4300	1150	25	2.13
6744	12512.21	10456.45	-7.53	Po	274.00	275.00	3	12	16	42.86	4800	1175	25	2.08
6745	12512.60	10456.96	-8.30	Po	275.00	276.00	1	15	17	46.88	4900	1200	25	2.04
6746	12513.00	10457.47	-9.06	Po	276.00	277.00	1	15	15	50.00	4900	1250	25	1.96
6747	12513.39	10457.97	-9.83	Po	277.00	278.00	2	15	17	46.88	4700	1350	10	0.74
6748	12513.79	10458.48	-10.60	Po	278.00	279.00	1	9	11	45.00	4400	1100	10	0.90
6749	12514.18	10458.99	-11.36	Po	279.00	280.00	1	12	13	48.00	4800	1100	10	0.90
6750	12514.58	10459.50	-12.13	Po	280.00	281.00	1	9	12	42.86	4700	1125	25	2.17
6751	12514.97	10460.00	-12.89	Po	281.00	282.00	1	18	20	47.37	4200	975	10	1.02
6752	12515.37	10460.51	-13.66	Po	282.00	283.00	1	19	19	50.00	4100	1000	10	0.99
6753	12515.77	10461.02	-14.43	Po	283.00	284.00	1	23	34	40.35	4600	1300	10	0.76
6754	12516.16	10461.52	-15.19	Po	284.00	285.00	1	24	22	52.17	3700	900	25	2.70
6755	12516.56	10462.03	-15.96	Po	285.00	286.00	2	41	68	37.61	3500	900	10	1.10
6756	12516.95	10462.54	-16.72	Po	286.00	287.00	1	16	21	43.24	3700	875	10	1.13
6757	12517.35	10463.04	-17.49	Po	287.00	288.00	1	28	22	56.00	3300	825	10	1.20
6758	12517.74	10463.55	-18.26	Po	288.00	289.00	2	14	18	43.75	4200	1075	25	2.27
6759	12518.14	10464.06	-19.02	Po	289.00	290.00	9	104	210	33.12	4100	1050	25	2.33
6760	12518.53	10464.56	-19.79	Po	290.00	291.00	2	24	26	48.00	4100	1025	25	2.38
6761	12518.93	10465.07	-20.55	Po	291.00	292.00	1	29	26	52.73	4600	1250	25	1.96
6762	12519.33	10465.58	-21.32	Po	292.00	293.00	1	30	52	36.59	4500	1125	25	2.17
6763	12519.72	10466.08	-22.09	Po	293.00	294.00	1	22	20	52.38	4600	1175	25	2.08
6764	12520.12	10466.59	-22.85	Po	294.00	295.00	3	33	38	46.48	5000	1100	25	2.22
6765	12520.51	10467.10	-23.62	Po	295.00	296.00	1	19	16	54.29	5200	1250	25	1.96
6766	12520.91	10467.60	-24.38	Po	296.00	297.00	2	21	21	50.00	4500	1100	10	0.90
6767	12521.30	10468.11	-25.15	Po	297.00	298.00	1	11	13	45.83	4300	1150	10	0.86
6768	12521.70	10468.62	-25.92	Po	298.00	299.00	1	19	30	38.78	4500	1075	10	0.92
6769	12522.09	10469.13	-26.68	Po	299.00	300.00	1	22	18	55.00	4900	1200	10	0.83
6770	12522.49	10469.63	-27.45	Po	300.00	301.00	2	37	52	41.57	5200	1200	10	0.83
6771	12522.88	10470.14	-28.22	Po	301.00	302.00	1	22	20	52.38	4700	1125	10	0.88
6772	12523.28	10470.65	-28.98	Po	302.00	303.00	1	16	21	43.24	5400	1200	10	0.83
6773	12523.68	10471.15	-29.75	Po	303.00	304.00	1	16	16	50.00	4700	1100	10	0.90
6774	12524.07	10471.66	-30.51	Po	304.00	305.00	1	38	17	69.09	5800	1300	10	0.76

### Appendix III. Ora Banda Diamond Drill Core: Data Listings

OBDDH2

EASTING = 12296.06 AZIMUTH = 42.0  
 NORTHING = 10169.61 INCLINATION = 50.0  
 RL = 200.31

Sample Number	Easting m	Northing m	RL m	GEO	UDep m	LDep m	Au ppb	Pt ppb	Pd ppb	Pt %	Pt + Pd	Cr ppm	Ni ppm	Cu ppm	Cu % Cu+Ni
0001	12317.57	10193.49	162.01		0.00	50.00									
6775	12318.00	10193.97	161.24	Px	50.00	51.00	47	130	43	75.14	2800	325	150	31.58	
6776	12318.42	10194.45	160.48	Px	51.00	52.00	34	145	52	73.60	2650	450	225	33.33	
6777	12318.85	10194.93	159.71	Px	52.00	53.00	17	155	56	73.46	2250	325	175	35.00	
6778	12319.28	10195.40	158.94	Px	53.00	54.00	22	155	50	75.61	2350	400	175	30.43	
6779	12319.71	10195.88	158.18	Px	54.00	55.00	26	150	54	73.53	2350	400	200	33.33	
6780	12320.14	10196.36	157.41	Px	55.00	56.00	16	150	70	68.18	2300	400	150	27.27	
6781	12320.57	10196.84	156.65	Px	56.00	57.00	19	150	58	72.12	2200	275	175	38.89	
6782	12321.00	10197.31	155.88	Px	57.00	58.00	21	130	43	75.14	2550	400	175	30.43	
6783	12321.43	10197.79	155.11	Px	58.00	59.00	14	110	46	70.51	2500	375	150	28.57	
6784	12321.86	10198.27	154.35	Px	59.00	60.00	19	116	45	72.05	2400	350	175	33.33	
6785	12322.29	10198.75	153.58	Px	60.00	61.00	17	110	21	83.97	2450	325	150	31.58	
6786	12322.72	10199.22	152.82	Px	61.00	62.00	17	140	37	79.10	2800	375	125	25.00	
6787	12323.15	10199.70	152.05	Px	62.00	63.00	12	140	54	72.16	2550	275	200	42.11	
6788	12323.58	10200.18	151.28	Px	63.00	64.00	13	150	30	83.33	2450	275	125	31.25	
6789	12324.01	10200.66	150.52	Px	64.00	65.00	9	135	21	86.54	2550	325	150	31.58	
6790	12324.44	10201.13	149.75	Px	65.00	66.00	8	110	52	67.90	2400	325	150	31.58	
6791	12324.87	10201.61	148.99	Px	66.00	67.00	10	140	31	81.87	2600	300	125	29.41	
6792	12325.30	10202.09	148.22	Px	67.00	68.00	11	155	58	72.77	2600	350	125	26.32	
6793	12325.73	10202.57	147.45	Px	68.00	69.00	9	125	60	67.57	2550	325	125	27.78	
6794	12326.16	10203.04	146.69	Px	69.00	70.00	7	112	52	68.29	2450	300	125	29.41	
6795	12326.59	10203.52	145.92	Px	70.00	71.00	6	106	54	66.25	2650	300	100	25.00	
6796	12327.02	10204.00	145.15	Px	71.00	72.00	9	150	74	66.96	2100	250	100	28.57	
6797	12327.45	10204.48	144.39	Px	72.00	73.00	18	165	106	60.89	2050	350	150	30.00	
6798	12327.88	10204.96	143.62	Px	73.00	74.00	12	145	70	67.44	1900	325	75	18.75	
6799	12328.31	10205.43	142.86	Px	74.00	75.00	12	145	72	66.82	1900	325	75	18.75	
6800	12328.74	10205.91	142.09	Px	75.00	76.00	13	145	72	66.82	2200	275	75	21.43	
6801	12329.17	10206.39	141.32	Px	76.00	77.00	12	125	60	67.57	2350	300	100	25.00	
6802	12329.60	10206.87	140.56	Px	77.00	78.00	12	130	60	68.42	2350	300	75	20.00	
6803	12330.03	10207.34	139.79	Px	78.00	79.00	14	140	64	68.63	2250	275	50	15.38	
6804	12330.46	10207.82	139.03	Px	79.00	80.00	10	160	82	66.12	2350	325	75	18.75	
6805	12330.89	10208.30	138.26	Px	80.00	81.00	10	160	78	67.23	2450	300	100	25.00	
6806	12331.32	10208.78	137.49	Px	81.00	82.00	8	140	66	67.96	2350	300	75	20.00	
6807	12331.75	10209.25	136.73	Px	82.00	83.00	8	130	68	65.66	2300	300	50	14.29	
6808	12332.17	10209.73	135.96	Px	83.00	84.00	8	135	64	67.84	2300	275	50	15.38	
6809	12332.60	10210.21	135.20	Px	84.00	85.00	10	170	90	65.38	2200	250	75	23.08	
6810	12333.03	10210.69	134.43	Px	85.00	86.00	11	155	82	65.40	2350	325	75	18.75	
6811	12333.46	10211.16	133.66	Px	86.00	87.00	13	160	92	63.49	2500	300	100	25.00	
6812	12333.89	10211.64	132.90	Px	87.00	88.00	10	145	70	67.44	2350	275	75	21.43	
6813	12334.32	10212.12	132.13	Px	88.00	89.00	12	135	68	66.50	2350	300	75	20.00	
6814	12334.75	10212.60	131.37	Px	89.00	90.00	11	150	82	64.66	2350	375	100	21.05	
6815	12335.18	10213.07	130.60	Px	90.00	91.00	12	145	74	66.21	2350	400	100	20.00	
6816	12335.61	10213.55	129.83	Px	91.00	92.00	15	155	74	67.69	2550	475	125	20.83	
6817	12336.04	10214.03	129.07	Px	92.00	93.00	13	145	72	66.82	2600	425	125	22.73	
6818	12336.47	10214.51	128.30	Px	93.00	94.00	13	145	68	68.08	2350	375	100	21.05	
6819	12336.90	10214.98	127.54	Px	94.00	95.00	14	155	76	67.10	2250	350	100	22.22	
6820	12337.33	10215.46	126.77	Px	95.00	96.00	14	160	76	67.80	2250	450	125	21.74	
6821	12337.76	10215.94	126.00	Px	96.00	97.00	14	155	76	67.10	2300	450	100	18.18	
6822	12338.19	10216.42	125.24	Px	97.00	98.00	12	180	92	66.18	2200	400	125	23.81	
6823	12338.62	10216.89	124.47	Px	98.00	99.00	10	165	78	67.90	2750	450	150	25.00	
6824	12339.05	10217.37	123.71	Px	99.00	100.00	12	165	84	66.27	2750	475	175	26.92	
6825	12339.48	10217.85	122.94	Px	100.00	101.00	11	150	68	68.81	2600	450	150	25.00	
6826	12339.91	10218.33	122.17	Px	101.00	102.00	10	160	76	67.80	2450	425	150	26.09	
6827	12340.34	10218.80	121.41	Px	102.00	103.00	11	135	70	65.85	2700	450	150	25.00	
6828	12340.77	10219.28	120.64	Px	103.00	104.00	12	150	70	68.18	2500	450	175	28.00	
6829	12341.20	10219.76	119.88	Px	104.00	105.00	11	150	70	68.18	2600	450	250	35.71	
6830	12341.63	10220.24	119.11	Px	105.00	106.00	10	135	62	68.53	2450	425	150	26.09	
6831	12342.06	10220.71	118.34	Px	106.00	107.00	12	155	76	67.10	2700	450	225	33.33	
6832	12342.49	10221.19	117.58	Px	107.00	108.00	13	145	70	67.44	2150	375	100	21.05	
6833	12342.92	10221.67	116.81	Px	108.00	109.00	13	135	66	67.16	2300	350	75	17.65	
6834	12343.35	10222.15	116.05	Px	109.00	110.00	12	140	62	69.31	2350	400	125	23.81	
6835	12343.78	10222.62	115.28	Px	110.00	111.00	19	125	60	67.57	2300	450	125	21.74	
6836	12344.21	10223.10	114.51	Px	111.00	112.00	10	125	58	68.31	2450	450	100	18.18	
6837	12344.64	10223.58	113.75	Px	112.00	113.00	8	125	58	68.31	2400	400	200	33.33	
6838	12345.07	10224.06	112.98	Px	113.00	114.00	11	114	54	67.86	2350	450	125	21.74	
6839	12345.50	10224.53	112.22	Px	114.00	115.00	11	120	54	68.97	2700	475	150	24.00	
6840	12345.92	10225.01	111.45	Px	115.00	116.00	12	118	56	67.82	2700	525	125	19.23	
6841	12346.35	10225.49	110.68	Px	116.00	117.00	10	110	58	65.48	2850	525	200	27.59	
6842	12346.78	10225.97	109.92	Px	117.00	118.00	11	104	54	65.82	2550	475	225	32.14	
6843	12347.21	10226.44	109.15	Px	118.00	119.00	11	92	45	67.15	2200	400	200	33.33	
6844	12347.64	10226.92	108.38	Px	119.00	120.00	10	92	44	67.65	2350	425	150	26.09	
6845	12348.07	10227.40	107.62	Px	120.00	121.00	8	98	46	68.06	2300	375	175	31.82	

### Appendix III. Ora Banda Diamond Drill Core: Data Listings

Sample Number	Easting m	Northing m	RL m	GEO	UDep m	LDep m	Au ppb	Pt ppb	Pd ppb	Pt % Pt+Pd	Cr ppm	Ni ppm	Cu ppm	Cu % Cu+Ni
6846	12348.50	10227.88	106.85	Px	121.00	122.00	14	96	45	68.09	2400	425	275	39.29
6847	12348.93	10228.35	106.09	Px	122.00	123.00	14	78	40	66.10	2350	400	325	44.83
6848	12349.36	10228.83	105.32	Px	123.00	124.00	12	86	43	66.67	2400	400	250	38.46
6849	12349.79	10229.31	104.55	Px	124.00	125.00	16	84	42	66.67	2350	400	225	36.00
6850	12350.22	10229.79	103.79	Px	125.00	126.00	18	86	42	67.19	2500	475	225	32.14
6851	12350.65	10230.26	103.02	Px	126.00	127.00	16	82	39	67.77	2200	350	200	36.36
6852	12351.08	10230.74	102.26	Px	127.00	128.00	12	84	37	69.42	2500	400	225	36.00
6853	12351.51	10231.22	101.49	Px	128.00	129.00	16	70	35	66.67	2300	425	225	34.62
6854	12351.94	10231.70	100.72	Px	129.00	130.00	15	74	34	68.52	2250	375	225	37.50
6855	12352.37	10232.17	99.96	Px	130.00	131.00	24	78	36	68.42	2400	425	225	34.62
6856	12352.80	10232.65	99.19	Px	131.00	132.00	16	68	32	68.00	2250	325	225	40.91
6857	12353.23	10233.13	98.43	Px	132.00	133.00	16	68	33	67.33	2250	375	250	40.00
6858	12353.66	10233.61	97.66	Px	133.00	134.00	14	64	33	65.98	2350	425	275	39.29
6859	12354.09	10234.08	96.89	Px	134.00	135.00	30	66	35	65.35	2200	350	225	39.13
6860	12354.52	10234.56	96.13	Px	135.00	136.00	10	82	39	67.77	2450	400	225	36.00
6861	12354.95	10235.04	95.36	Px	136.00	137.00	11	78	34	69.64	2250	350	200	36.36
6862	12355.38	10235.52	94.60	Px	137.00	138.00	10	88	41	68.22	2300	375	225	37.50
6863	12355.81	10236.00	93.83	Px	138.00	139.00	13	116	64	64.44	2300	475	300	38.71
6864	12356.24	10236.47	93.06	Px	139.00	140.00	10	102	40	71.83	2300	400	250	38.46
6865	12356.67	10236.95	92.30	Px	140.00	141.00	14	64	24	72.73	2750	500	250	33.33
6866	12357.10	10237.43	91.53	Px	141.00	142.00	11	92	35	72.44	2550	475	225	32.14
6867	12357.53	10237.91	90.77	Px	142.00	143.00	8	72	24	75.00	2550	425	200	32.00
6868	12357.96	10238.38	90.00	Px	143.00	144.00	8	68	20	77.27	2350	350	150	30.00
6869	12358.39	10238.86	89.23	Px	144.00	145.00	9	84	25	77.06	2500	425	125	22.73
6870	12358.82	10239.34	88.47	Px	145.00	146.00	18	130	44	74.71	2750	700	325	31.71
6871	12359.25	10239.82	87.70	Px	146.00	147.00	34	98	33	74.81	2600	1000	1025	50.62
6872	12359.67	10240.29	86.94	Px	147.00	148.00	18	125	60	67.57	2650	675	475	41.30
6873	12360.10	10240.77	86.17	Px	148.00	149.00	58	130	84	60.75	2800	1075	1000	48.19
6874	12360.53	10241.25	85.40	Px	149.00	150.00	24	120	78	60.61	2750	550	375	40.54
6875	12360.96	10241.73	84.64	Px	150.00	151.00	28	135	74	64.59	2800	500	275	35.48
6876	12361.39	10242.20	83.87	Px	151.00	152.00	17	175	72	70.85	2650	600	200	25.00
6877	12361.82	10242.68	83.11	Px	152.00	153.00	13	130	72	64.36	2800	550	225	29.03
6878	12362.25	10243.16	82.34	Px	153.00	154.00	2	190	112	62.91	2800	600	375	38.46
6879	12362.68	10243.64	81.57	Px	154.00	155.00	23	155	94	62.25	2800	650	375	36.59
6880	12363.11	10244.11	80.81	Px	155.00	156.00	24	145	94	60.67	2700	600	275	31.43
6881	12363.54	10244.59	80.04	Px	156.00	157.00	14	116	78	59.79	2750	600	250	29.41
6882	12363.97	10245.07	79.28	Px	157.00	158.00	16	155	104	59.85	2600	575	225	28.13
6883	12364.40	10245.55	78.51	Px	158.00	159.00	17	120	76	61.22	2800	625	300	32.43
6884	12364.83	10246.02	77.74	Px	159.00	160.00	20	130	88	59.63	2850	700	300	30.00
6885	12365.26	10246.50	76.98	Px	160.00	161.00	19	125	80	60.98	2850	625	250	28.57
6886	12365.69	10246.98	76.21	Px	161.00	162.00	14	102	66	60.71	3000	625	250	28.57
6887	12366.12	10247.46	75.45	Px	162.00	163.00	56	106	76	58.24	2850	625	275	30.56
6888	12366.55	10247.93	74.68	Px	163.00	164.00	27	130	112	53.72	2850	750	425	36.17
6889	12366.98	10248.41	73.91	Px	164.00	165.00	15	86	56	60.56	2900	550	200	26.67
6890	12367.41	10248.89	73.15	Px	165.00	166.00	20	120	98	55.05	2950	725	275	27.50
6891	12367.84	10249.37	72.38	Px	166.00	167.00	18	108	84	56.25	3000	675	250	27.03
6892	12368.27	10249.84	71.61	Px	167.00	168.00	25	120	86	58.25	2850	625	300	32.43
6893	12368.70	10250.32	70.85	Px	168.00	169.00	31	135	110	55.10	2800	700	275	28.21
6894	12369.13	10250.80	70.08	Px	169.00	170.00	22	88	68	56.41	2750	600	175	22.58
6895	12369.56	10251.28	69.32	Px	170.00	171.00	49	195	195	50.00	2600	825	450	35.29
6896	12369.99	10251.75	68.55	Px	171.00	172.00	23	125	76	62.19	2850	600	250	29.41
6897	12370.42	10252.23	67.78	Px	172.00	173.00	22	86	68	55.84	2650	600	200	25.00
6898	12370.85	10252.71	67.02	Px	173.00	174.00	27	170	150	53.13	2800	700	300	30.00
6899	12371.28	10253.19	66.25	Px	174.00	175.00	9	215	120	64.18	2850	500	150	23.08
6900	12371.71	10253.66	65.49	Px	175.00	176.00	20	215	140	60.56	2800	575	250	30.30
6901	12372.14	10254.14	64.72	Px	176.00	177.00	10	235	150	61.04	2850	475	150	24.00
6902	12372.57	10254.62	63.95	Px	177.00	178.00	11	215	135	61.43	3000	525	150	22.22
6903	12373.00	10255.10	63.19	Px	178.00	179.00	16	220	155	58.67	2900	575	225	28.13
6904	12373.42	10255.57	62.42	Px	179.00	180.00	10	225	145	60.81	2800	475	125	20.83
6905	12373.85	10256.05	61.66	Px	180.00	181.00	12	195	108	64.36	2850	525	175	25.00
6906	12374.28	10256.53	60.89	Px	181.00	182.00	17	210	135	60.87	2850	625	275	30.56
6907	12374.71	10257.01	60.12	Px	182.00	183.00	15	150	84	64.10	3100	700	200	22.22
6908	12375.14	10257.48	59.36	Px	183.00	184.00	10	72	56	56.25	3100	700	175	20.00
6909	12375.57	10257.96	58.59	Px	184.00	185.00	18	120	104	53.57	2950	650	225	25.71
6910	12376.00	10258.44	57.83	Px	185.00	186.00	14	250	155	61.73	2850	600	200	25.00
6911	12376.43	10258.92	57.06	Px	186.00	187.00	14	175	102	63.18	3000	650	200	23.53
6912	12376.86	10259.39	56.29	Px	187.00	188.00	22	195	110	63.93	3000	650	225	25.71
6913	12377.29	10259.87	55.53	Px	188.00	189.00	26	145	130	52.73	3100	825	350	29.79
6914	12377.72	10260.35	54.76	Px	189.00	190.00	21	118	104	53.15	3300	825	250	23.26
6915	12378.15	10260.83	54.00	Px	190.00	191.00	26	114	88	56.44	3000	775	225	22.50
6916	12378.58	10261.30	53.23	Px	191.00	192.00	18	120	94	56.07	3100	750	250	25.00
6917	12379.01	10261.78	52.46	Px	192.00	193.00	23	140	104	57.38	2950	750	250	25.00
6918	12379.44	10262.26	51.70	Px	193.00	194.00	14	100	86	53.76	3300	775	200	20.51
6919	12379.87	10262.74	50.93	Px	194.00	195.00	10	74	58	56.06	3100	675	125</td	

**Appendix III. Ora Banda Diamond Drill Core: Data Listings**

Sample Number	Easting m	Northing m	RL m	GEO	UDep m	LDep m	Au ppb	Pt ppb	Pd ppb	Pt % Pt+Pd	Cr ppm	Ni ppm	Cu ppm	Cu % Cu+Ni
6924	12382.02	10265.13	47.10	Px	199.00	200.00	16	120	98	55.05	2700	700	225	24.32
6925	12382.45	10265.60	46.34	Px	200.00	201.00	16	220	150	59.46	2550	650	225	25.71
6926	12382.88	10266.08	45.57	Px	201.00	202.00	16	230	145	61.33	2450	575	175	23.33
6927	12383.31	10266.56	44.80	Px	202.00	203.00	13	225	130	63.38	2750	525	150	22.22
6928	12383.74	10267.04	44.04	Px	203.00	204.00	11	230	130	63.89	3000	525	150	22.22
6929	12384.17	10267.51	43.27	Px	204.00	205.00	14	215	135	61.43	2900	550	175	24.14
6930	12384.60	10267.99	42.51	Px	205.00	206.00	17	150	102	59.52	2800	625	200	24.24
6931	12385.03	10268.47	41.74	Px	206.00	207.00	9	255	120	68.00	2700	450	100	18.18
6932	12385.46	10268.95	40.97	Px	207.00	208.00	9	78	56	58.21	3000	575	125	17.86
6933	12385.89	10269.42	40.21	Px	208.00	209.00	20	118	112	51.30	2950	750	275	26.83
6934	12386.32	10269.90	39.44	Px	209.00	210.00	17	86	70	55.13	2900	600	200	25.00
6935	12386.75	10270.38	38.67	Px	210.00	211.00	11	86	66	56.58	3000	625	225	26.47
6936	12387.17	10270.86	37.91	Px	211.00	212.00	29	120	108	52.63	2750	725	300	29.27
6937	12387.60	10271.33	37.14	Px	212.00	213.00	12	86	72	54.43	3400	575	175	23.33
6938	12388.03	10271.81	36.38	Px	213.00	214.00	14	102	82	55.43	3200	775	225	22.50
6939	12388.46	10272.29	35.61	Px	214.00	215.00	26	120	106	53.10	3000	875	375	30.00
6940	12388.89	10272.77	34.84	Px	215.00	216.00	24	112	80	58.33	3500	850	375	30.61
6941	12389.32	10273.24	34.08	Px	216.00	217.00	22	135	104	56.49	3600	900	350	28.00
6942	12389.75	10273.72	33.31	Px	217.00	218.00	8	45	29	60.81	4400	1050	100	8.70
6943	12390.18	10274.20	32.55	Px	218.00	219.00	16	54	45	54.55	3500	950	175	15.56
6944	12390.61	10274.68	31.78	Px	219.00	220.00	18	84	74	53.16	2900	625	175	21.88

### Appendix III. Ora Banda Diamond Drill Core: Data Listings

**Table 2: Selected diamond drill core samples.**  
Analysed by XRF fusion

OBDDH1  
 EASTING = 12403.43                    AZIMUTH = 38.00  
 NORTHING = 10317.09                INCLINATION = 50.00  
 RL                                    = 203.13

Sample Number	EASTING m	NORTHING m	RL m	UDep m	LDep m	GEO	REG	Pt ppb	Pd ppb	Pt ppb	Pd ppb		
00-5480	12428.36	10349.00	154.87	62.90	63.00	Px	Sr	245	140				
00-5442	12428.76	10349.51	154.10	64.00	64.00	Px	R	300	195	160	20		
00-5443	12431.92	10353.56	147.97	71.00	72.00	Px	R	150	140	58	140		
00-5481	12437.78	10361.06	136.64	86.70	86.80	Px	Sr	230	140				
00-5444	12440.71	10364.80	130.97	94.10	94.20	Px	Sr	125	125	10	8		
00-5482	12442.25	10366.78	127.98	98.00	98.10	Px	Sr	135	86				
00-5483	12443.79	10368.75	124.99	101.90	102.00	Px	Sr	114	76				
00-5445	12445.38	10370.78	121.93	105.50	106.00	Px	Sr	235	145	130	78		
00-5446	12445.46	10370.88	121.78	106.00	106.20	Px	Sr	125	980	8	8		
00-5447	12445.58	10371.03	121.55	106.20	106.50	Px	Sr			420	360		
00-5448	12445.66	10371.14	121.39	106.50	106.70	Po	R			170	118		
00-5449	12445.77	10371.29	121.16	106.70	107.00	Po	R			22	22		
00-5484	12450.68	10377.57	111.66	119.20	119.40	Po	R	78	76				
00-5485	12461.41	10391.30	90.90	146.40	146.50	Po	R	16	10				
00-5486	12478.74	10413.48	57.35	190.20	190.30	Po	R	18	19				
00-5487	12497.02	10436.88	21.96	236.40	236.50	Po	R	12	26				
00-5488	12508.22	10451.22	0.28	264.70	264.80	Po	R	13	17				
00-5489	12523.34	10470.57	-28.98	302.80	303.00	Po	R	16	21				
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	P <sub>2</sub> O <sub>5</sub> %	Ba ppm	Ce ppm	Cl ppm	Cr ppm
00-5480	54.61	3.33	10.66	0.16	3.23	27.38	0.29	0.05	0.0040	23	3	10	13208
00-5442	54.17	3.03	10.97	0.18	2.93	27.21	0.26	0.08	0.0020	23	9	70	3130
00-5443	53.71	3.29	9.86	0.19	1.42	18.37	0.88	0.11	0.0010	74	16	2590	3594
00-5481	53.15	2.94	11.12	0.13	2.18	28.41	0.18	0.04	0.0010	16	3	90	3111
00-5444	42.27	1.59	13.32	0.08	1.36	35.23	0.07	0.03	0.0030	8	11	1110	4620
00-5482	53.64	3.39	10.28	0.16	3.28	27.01	0.30	0.05	0.0060	10	8	60	3174
00-5483	53.00	2.99	10.66	0.13	2.70	28.00	0.25	0.06	0.0020	5	7	40	3261
00-5445	36.31	2.44	8.44	0.13	10.87	23.20	0.25	0.03	0.0010	17	3	400	2619
00-5446	24.96	0.96	7.74	0.05	7.40	27.79	0.05	0.01	0.0005	3	12	10	2448
00-5447	27.44	2.05	7.04	0.12	15.20	21.73	0.21	0.03	0.0030	3	8	190	2294
00-5448	44.97	2.82	9.33	0.16	5.97	24.59	0.32	0.07	0.0005	13	12	420	3192
00-5449	38.77	1.56	10.71	0.09	2.26	25.22	0.14	0.02	0.0010	12	10	100	3365
00-5484	42.29	1.82	13.19	0.08	1.07	35.36	0.09	0.03	0.0050	16	6	160	4708
00-5485	43.16	1.60	13.79	0.08	1.28	36.29	0.11	0.04	0.0040	34	3	130	4635
00-5486	42.58	1.70	13.47	0.08	1.42	35.70	0.09	0.03	0.0010	11	5	210	4631
00-5487	47.17	2.12	9.51	0.10	4.79	29.14	0.29	0.03	0.0020	18	5	330	6303
00-5488	39.51	1.43	14.00	0.06	1.08	36.90	0.07	0.02	0.0020	15	3	920	5058
00-5489	42.11	1.58	13.41	0.08	1.29	35.96	0.08	0.03	0.0050	10	11	750	4652
Sample Number	Co ppm	Cu ppm	Ga ppm	Mn ppm	Ni ppm	Rb ppm	S %	Sr ppm	V ppm	Y ppm	Zn ppm	Zr Oxides % *	Trace ppm
00-5480	84	109	5	1557	528	5	0.0003	18	93	7	65	9	99.90
00-5442	85	130	4	1542	602	5	0.0010	12	92	5	67	11	99.00
00-5443	180	788	3	1619	1395	3	0.0420	10	73	3	78	10	88.00
00-5481	85	162	2	1418	737	1	0.0003	6	90	4	66	7	98.30
00-5444	140	3	2	1503	1311	1	0.0190	5	60	1	76	5	94.10
00-5482	76	252	1	1511	669	6	0.0003	17	101	5	62	7	98.30
00-5483	91	228	4	1487	777	3	0.0120	10	87	3	65	3	98.00
00-5445	75	214	1	1665	778	2	0.0030	23	96	5	56	7	81.90
00-5446	86	26	1	1007	805	1	0.0310	26	39	1	46	6	69.10
00-5447	60	165	1	1642	688	3	0.0010	32	95	4	53	8	74.00
00-5448	90	182	3	1224	821	1	0.0050	16	121	5	60	12	88.40
00-5449	132	40	3	1247	937	6	0.0300	8	57	1	66	5	78.90
00-5484	138	9	2	1379	1328	2	0.0190	4	59	3	82	3	94.10
00-5485	143	6	3	1534	1242	4	0.0070	17	65	1	78	5	96.50
00-5486	144	3	4	1534	1268	3	0.0170	8	64	1	80	5	95.30
00-5487	121	16	1	891	1336	2	0.1970	12	80	2	61	6	93.30
00-5488	147	3	3	1518	1350	2	0.0320	5	55	1	85	3	93.30
00-5489	142	3	1	1480	1243	4	0.0240	6	53	5	77	6	94.70

\*Total oxides include Mn as MnO

**Appendix III. Ora Banda Diamond Drill Core: Data Listings**

OBDDH2  
 EASTING = 12296.06  
 NORTHING = 10169.61  
 RL = 200.310

AZIMUTH = 42.00  
 INCLINATION = 50.00

Sample Number	EASTING m	NORTHING m	RL m	UDep m	LDep m	GEO	REG	Pt ppb	Pd ppb	Pt NIS ppb	Pd NIS ppb			
00-5490	12327.76	10204.82	143.85	73.60	73.70	Px	R	145	70					
00-5450	12337.89	10216.07	125.81	97.15	97.25	Px	R	165	78	175	88			
00-5491	12347.46	10226.69	108.77	119.30	119.50	Px	R	92	44					
00-5492	12354.55	10234.58	96.13	135.90	136.00	Px	R	82	39					
00-5493	12356.96	10237.25	91.84	141.50	141.60	Px	R	92	35					
00-5451	12359.29	10239.83	87.70	146.85	147.00	Px	R	125	60	112	80			
00-5494	12368.62	10250.20	71.08	168.60	168.70	Px	R	135	110					
00-5495	12379.07	10261.80	52.46	192.90	193.00	Px	R	100	86					
00-5452	12383.14	10266.32	45.22	202.40	202.46	Px	R	225	130	195	116			
00-5496	12387.76	10271.45	36.99	213.00	213.20	Px	R	102	82					
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	K <sub>2</sub> O %	P <sub>2</sub> O <sub>5</sub> %	Ba ppm	Ce ppm	Cl ppm	Cr ppm	
00-5490	54.22	4.15	10.76	0.20	3.93	25.65	0.33	0.11	0.0080	26	14	180	2591	
00-5450	54.15	4.59	10.92	0.14	3.57	26.20	0.33	0.07	0.0020	37	3	140	2472	
00-5491	55.50	3.09	11.05	0.26	3.25	26.04	0.50	0.13	0.0180	66	3	270	2655	
00-5492	54.57	3.36	11.13	0.22	3.21	26.63	0.39	0.11	0.0110	41	9	150	2869	
00-5493	54.21	4.16	10.62	0.17	3.67	26.42	0.36	0.08	0.0060	8	6	110	2848	
00-5451	52.66	2.81	12.39	0.22	3.16	25.39	0.34	0.09	0.0160	36	3	200	2861	
00-5494	53.03	2.63	11.40	0.23	3.07	28.63	0.27	0.20	0.0190	69	12	170	3037	
00-5495	51.84	2.72	12.11	0.14	2.66	29.97	0.19	0.04	0.0050	14	12	120	3301	
00-5452	54.27	3.02	10.83	0.16	2.98	28.17	0.25	0.06	0.0040	20	15	10	3104	
00-5496	52.75	2.72	11.26	0.13	2.64	29.93	0.18	0.03	0.0010	15	6	40	3117	
Sample Number	Co ppm	Cu ppm	Ga ppm	Mn ppm	Ni ppm	Rb ppm	S %	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm	Oxides % *	Trace ppm
00-5490	83	147	4	1580	1352	3	0.0290	23	118	8	65	9	99.60	4440
00-5450	82	104	4	1619	462	1	0.0270	26	103	8	69	5	100.20	3369
00-5491	84	163	4	1635	544	5	0.0670	20	131	8	71	28	100.00	3772
00-5492	86	288	4	1604	662	2	0.0770	19	107	5	70	13	99.80	4177
00-5493	83	242	4	1565	605	2	0.0700	26	106	6	67	7	99.90	4007
00-5451	156	3940	3	1573	3854	4	1.2250	13	115	7	72	16	97.30	11084
00-5494	92	235	2	1573	782	8	0.0970	12	104	6	71	27	99.70	4450
00-5495	119	766	2	1588	1544	1	0.3260	13	92	2	70	6	99.90	5932
00-5452	84	266	4	1573	633	2	0.0430	17	94	4	67	10	99.90	4321
00-5496	92	280	3	1565	914	1	0.1090	14	96	2	66	5	99.80	4612

\*Total oxides include Mn as MnO

**Appendix III. Ora Banda Diamond Drill Core: Data Listings**

**Table 3: Selected diamond drill core samples: statistical summary**  
Analysis by XRF fusion

PERIDOTITES

**Fresh rock**

Variable	Number of obs	Min. value	Max. value	Arith. mean	Std dev.	Coeff. Variat.	Geom. mean	Geom. dev.
SiO <sub>2</sub> %	8	38.77	47.17	42.57	2.71	0.06	42.45	1.07
Al <sub>2</sub> O <sub>3</sub> %	8	1.43	2.82	1.83	0.45	0.25	1.79	1.24
Fe <sub>2</sub> O <sub>3</sub> %	8	9.33	14.00	12.18	1.98	0.16	12.02	1.19
MgO%	8	24.59	36.90	32.40	5.22	0.16	31.97	1.19
CaO%	8	1.07	5.97	2.39	1.91	0.80	1.91	1.97
Na <sub>2</sub> O%	8	0.07	0.32	0.15	0.10	0.67	0.13	1.79
K <sub>2</sub> O%	8	0.02	0.07	0.03	0.02	0.47	0.03	1.49
TiO <sub>2</sub> %	8	0.06	0.16	0.09	0.03	0.33	0.09	1.33
P <sub>2</sub> O <sub>5</sub> %	8	0.0005	0.0050	0.0026	0.0018	0.72	0.0019	2.33
Ba ppm	8	10.	34.	16.	8.	0.48	15.	1.47
Ce ppm	8	3.	12.	7.	4.	0.52	6.	1.74
Cl ppm	8	100.	920.	378.	305.	0.81	283.	2.25
Cr ppm	8	3192.	6303.	4568.	973.	0.21	4466.	1.24
Co ppm	8	90.	147.	132.	19.	0.14	131.	1.18
Cu ppm	8	3.	182.	33.	62.	1.88	11.	4.35
Ga ppm	8	1.	4.	3.	1.	0.43	2.	1.70
Mn ppm	8	891.	1534.	1351.	224.	0.17	1330.	1.20
Ni ppm	8	821.	1350.	1191.	199.	0.17	1172.	1.20
Rb ppm	8	1.	6.	3.	2.	0.53	3.	1.75
S%	8	0.0050	0.1970	0.0414	0.0636	1.54	0.0218	3.04
Sr ppm	8	4.	17.	10.	5.	0.52	8.	1.70
V ppm	8	53.	121.	69.	23.	0.33	67.	1.31
Y ppm	8	1.	5.	2.	2.	0.74	2.	2.07
Zn ppm	8	60.	85.	74.	10.	0.13	73.	1.15
Zr ppm	8	3.	12.	6.	3.	0.50	5.	1.55

### Appendix III. Ora Banda Diamond Drill Core: Data Listings

#### PYROXENITES

##### **Saprock**

Variable	Number of obs	Min. value	Max. value	Arith. mean	Std dev.	Coeff. Variat.	Geom. mean	Geom. dev.
SiO <sub>2</sub> %	8	24.96	54.61	43.17	12.33	0.29	41.39	1.37
Al <sub>2</sub> O <sub>3</sub> %	8	0.96	3.39	2.46	0.87	0.35	2.29	1.55
Fe <sub>2</sub> O <sub>3</sub> %	8	7.04	13.32	9.91	2.05	0.21	9.71	1.24
MgO%	8	21.73	35.23	27.34	4.01	0.15	27.07	1.16
CaO%	8	1.36	15.20	5.78	4.96	0.86	4.23	2.31
Na <sub>2</sub> O%	8	0.05	0.30	0.20	0.09	0.47	0.17	1.97
K <sub>2</sub> O%	8	0.01	0.06	0.04	0.02	0.42	0.03	1.75
TiO <sub>2</sub> %	8	0.05	0.16	0.12	0.04	0.31	0.11	1.48
P <sub>2</sub> O <sub>5</sub> %	8	0.0005	0.0060	0.0026	0.0018	0.72	0.0020	2.31
Ba ppm	8	3.	23.	11.	7.	0.69	8.	2.20
Ce ppm	8	3.	12.	7.	4.	0.52	6.	1.81
Cl ppm	8	10.	1110.	239.	375.	1.57	81.	5.30
Cr ppm	8	2294.	13208.	4342.	3654.	0.84	3603.	1.76
Co ppm	8	60.	140.	87.	23.	0.27	85.	1.27
Cu ppm	8	3.	252.	145.	92.	0.64	85.	4.64
Ga ppm	8	1.	5.	2.	2.	0.73	2.	1.94
Mn ppm	8	1007.	1665.	1474.	205.	0.14	1456.	1.17
Ni ppm	8	528.	1311.	787.	229.	0.29	761.	1.29
Rb ppm	8	1.	6.	3.	2.	0.69	2.	2.08
S%	8	0.0003	0.0310	0.0084	0.0114	1.37	0.0022	7.16
Sr ppm	8	5.	32.	17.	10.	0.57	14.	1.99
V ppm	8	39.	101.	83.	22.	0.26	79.	1.39
Y ppm	8	1.	7.	4.	2.	0.55	3.	2.09
Zn ppm	8	46.	76.	61.	9.	0.15	60.	1.17
Zr ppm	8	3.	9.	7.	2.	0.28	6.	1.41

##### **Fresh rock**

Variable	Number of obs	Min. value	Max. value	Arith. mean	Std dev.	Coeff. Variat.	Geom. mean	Geom. dev.
SiO <sub>2</sub> %	12	51.84	55.50	53.76	1.01	0.02	53.69	1.02
Al <sub>2</sub> O <sub>3</sub> %	12	2.63	4.59	3.30	0.65	0.20	3.24	1.21
Fe <sub>2</sub> O <sub>3</sub> %	12	9.86	12.39	11.11	0.66	0.06	11.08	1.06
MgO%	12	18.37	29.97	26.55	3.01	0.11	26.35	1.14
CaO%	12	1.42	3.93	3.04	0.64	0.21	2.96	1.30
Na <sub>2</sub> O%	12	0.18	0.88	0.36	0.19	0.52	0.32	1.53
K <sub>2</sub> O%	12	0.03	0.20	0.09	0.05	0.49	0.08	1.67
TiO <sub>2</sub> %	12	0.13	0.26	0.19	0.04	0.22	0.18	1.25
P <sub>2</sub> O <sub>5</sub> %	12	0.0010	0.0190	0.0077	0.0067	0.86	0.0050	2.91
Ba ppm	12	8.	74.	36.	23.	0.64	29.	2.01
Ce ppm	12	3.	16.	9.	5.	0.53	8.	1.90
Cl ppm	12	10.	2590.	338.	713.	2.11	134.	3.62
Cr ppm	12	2472.	3594.	2965.	316.	0.11	2944.	1.11
Co ppm	12	82.	180.	102.	33.	0.32	98.	1.31
Cu ppm	12	104.	3940.	612.	1072.	1.75	314.	2.75
Ga ppm	12	2.	4.	3.	1.	0.23	3.	1.31
Mn ppm	12	1542.	1635.	1586.	27.	0.02	1583.	1.02
Ni ppm	12	462.	3854.	1112.	938.	0.84	905.	1.83
Rb ppm	12	1.	8.	3.	2.	0.68	2.	2.00
S%	12	0.0010	1.2250	0.1761	0.3407	1.93	0.0600	5.33
Sr ppm	12	10.	26.	17.	6.	0.33	16.	1.39
V ppm	12	73.	131.	103.	15.	0.15	101.	1.16
Y ppm	12	2.	8.	5.	2.	0.42	5.	1.66
Zn ppm	12	65.	78.	69.	4.	0.05	69.	1.05
Zr %	12	5.	28.	12.	8.	0.64	10.	1.78

## **APPENDIX IV**

### **ORA BANDA RAB DRILLING: DATA LISTINGS.**

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

##### **Analytical detection limits and methods**

Element	Detection limit ppm/%	Method
Al	0.02%	XRF(f)
Al <sub>2</sub> O <sub>3</sub>	0.01%	ICP
Ba	15	XRF(p)
Ca	50	XRF(f)
CaO	0.01	ICP%
Ce	10	XRF(p)
Co	5	XRF(p)
Cr	5, 10	XRF(p), XRF(f)
Cu	5, 10	XRF(p), XRF(f)
Fe	100, 1000	XRF(f), XRF(p)
Ga	3, 5	XRF(p), XRF(f)
Ge	3	XRF(p)
La	50	XRF(f)
K	50	XRF(f)
Mg	0.02%	XRF(f)
MgO	0.01%	ICP
Mn	20	XRF(p)
Na	200	XRF(f)
Nb	5	XRF(p)
Ni	10, 10	XRF(p), XRF(f)
P	50	XRF(f)
Pb	5	XRF(p)
Pd	0.001	FA-ICP/MS
Pt	0.001	FA-ICP/MS
Rb	5	XRF(p)
S	50	XRF(p)
Se	5	XRF(p)
Si	100	XRF(f)
SiO <sub>2</sub>	0.01%	ICP
Sr	3, 10	XRF(p), XRF(f)
Ti	100, 100	XRF(p), XRF(f)
V	10, 15	XRF(p), XRF(f)
Y	3, 5	XRF(p), XRF(f)
Zn	5, 5	XRF(p), XRF(f)
Zr	4, 10	XRF(p), XRF(f)

ICP - Inductively-coupled plasma emission spectroscopy - CSIRO, Floreat Park

XRF - X-ray fluorescence analysis by pressed powder - CSIRO, Floreat Park

XRF - X-ray fluorescence analysis by fused disc - CSIRO, Floreat Park

FA-ICP/MS - Fire assay with ICP/MS finish - Genalysis, Perth

## Appendix IV. Ora Banda RAB Drilling: Data Listings

### Logging Codes

#### **Archaean Bedrock**

Po Peridotite  
Px Pyroxenite

#### **Regolith**

Ak Calcareous soil  
Ank Calcareous lateritic soil  
L Lateritic duricrust  
Lk Lateritic gravels or duricrust with pedogenic carbonate  
Lpn Nodular and pisolithic lateritic gravels and duricrust  
M Mottled zone  
Mc Mottled clay  
Sk Saprolite with pedogenic carbonate  
Sf Ferruginous saprolite  
Sc Clay saprolite  
Scs Silicified clay saprolite  
Ss Silicified saprolite  
S Saprolite  
Sr Saprocks  
R Unweathered rock

## Appendix IV. Ora Banda RAB Drilling: Data Listings

### ORA BANDA PROSPECT

OB 19

EASTING = 12504.06      AZIMUTH = 0.0  
 NORTHING = 10499.91      INCLINATION = 58.0  
 RL = 213.06

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
1901	12504.06	10500.44	212.21	1.00	Po	Ak	320	660	32.65
1902	12504.06	10500.97	211.37	2.00	Po	Ak	370	400	48.05
1903	12504.06	10501.50	210.52	3.00	Po	Mc	370	400	48.05
1904	12504.06	10502.03	209.67	4.00	Po	Scs	225	295	43.27
1905	12504.06	10502.56	208.82	5.00	Po	Scs	225	295	43.27
1906	12504.06	10503.09	207.97	6.00	Po	Scs	190	300	38.78
1907	12504.06	10503.62	207.13	7.00	Po	S	190	300	38.78
1908	12504.06	10504.15	206.28	8.00	Po	S	130	170	43.33
1909	12504.06	10504.68	205.43	9.00	Po	S	130	170	43.33
1910	12504.06	10505.21	204.58	10.00	Po	S	102	145	41.30
1911	12504.06	10505.74	203.73	11.00	Po	S	102	145	41.30
1912	12504.06	10506.27	202.89	12.00	Po	S	155	185	45.59
1913	12504.06	10506.80	202.04	13.00	Po	S	155	185	45.59
1914	12504.06	10507.33	201.19	14.00	Po	S	114	160	41.61
1915	12504.06	10507.86	200.34	15.00	Po	S	114	160	41.61
1916	12504.06	10508.39	199.49	16.00	Po	S	135	145	48.21
1917	12504.06	10508.92	198.65	17.00	Po	S	135	145	48.21
1918	12504.06	10509.46	197.80	18.00	Po	S	102	160	38.93
1919	12504.06	10509.99	196.95	19.00	Po	S	102	160	38.93
1920	12504.06	10510.52	196.10	20.00	Po	S	52	112	31.71
1921	12504.06	10511.05	195.25	21.00	Po	S	52	112	31.71
1922	12504.06	10511.58	194.40	22.00	Po	S	108	150	41.86
1923	12504.06	10512.11	193.56	23.00	Po	S	108	150	41.86
1924	12504.06	10512.64	192.71	24.00	Po	S	78	140	35.78
1925	12504.06	10513.17	191.86	25.00	Po	Ss	78	140	35.78
1926	12504.06	10513.70	191.01	26.00	Po	Ss	62	130	32.29
1927	12504.06	10514.23	190.16	27.00	Po	Ss	62	130	32.29
1928	12504.06	10514.76	189.32	28.00	Po	S	140	210	40.00
1929	12504.06	10515.29	188.47	29.00	Po	S	140	210	40.00
1930	12504.06	10515.82	187.62	30.00	Po	Ss	125	240	34.25
1931	12504.06	10516.35	186.77	31.00	Po	Ss	125	240	34.25
1932	12504.06	10516.88	185.92	32.00	Po	S	60	96	38.46
1933	12504.06	10517.41	185.08	33.00	Po	S	60	96	38.46
1934	12504.06	10517.94	184.23	34.00	Po	S	30	62	32.61
1935	12504.06	10518.47	183.38	35.00	Po	S	30	62	32.61
1936	12504.06	10519.00	182.53	36.00	Po	Ss	110	130	45.83
1937	12504.06	10519.53	181.68	37.00	Po	Ss	110	130	45.83
1938	12504.06	10520.06	180.84	38.00	Po	Ss	12	54	18.18
1939	12504.06	10520.59	179.99	39.00	Po	Ss	12	54	18.18
1940	12504.06	10521.12	179.14	40.00	Po	Ss	31	66	31.96

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
1901	41.32	3.65	13.40	0.24	7.15	7.85	0.13	3	103	12	15	5466	1
1902	44.91	3.40	14.50	0.17	3.42	8.12	0.39	3	123	11	18	5626	1
1903	56.17	2.47	12.00	0.12	1.10	8.75	0.81	7	153	5	21	4446	1
1904	47.66	3.34	13.40	0.16	0.22	6.23	1.06	3	97	10	22	4001	1
1906	56.60	2.52	14.00	0.13	0.17	7.20	1.00	3	17	5	18	4015	1
1910	57.71	2.50	12.10	0.11	0.39	7.86	0.86	3	8	5	14	3536	2
1915	51.24	2.23	11.30	0.10	0.49	10.03	0.86	5	56	5	17	3673	1
1920	54.35	2.19	10.80	0.10	1.02	11.07	0.95	3	30	5	23	4071	1
1925	58.06	2.10	9.80	0.10	0.85	9.43	0.85	3	26	5	16	3073	1
1929	53.30	2.55	13.80	0.13	0.46	8.25	0.69	3	118	5	20	6829	1
1931	55.44	2.16	11.30	0.10	0.05	12.93	0.63	9	70	5	19	5095	1
1935	55.05	2.24	10.80	0.10	1.37	12.32	0.78	3	17	5	16	3941	1
1940	54.09	2.36	11.30	0.12	1.20	12.47	0.74	5	8	5	11	4332	1

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1901	52	7	5	360	1832	3	6	0.024	23	185	151	4	51	27
1902	40	3	5	265	2240	3	5	0.014	20	124	106	2	57	19
1903	27	3	5	274	2498	3	3	0.036	14	77	106	2	49	6
1904	24	8	5	255	2359	3	3	0.441	14	60	92	2	52	12
1906	24	3	5	310	1971	3	3	0.083	13	18	67	2	57	8
1910	23	3	5	280	1949	3	3	0.059	16	8	47	2	52	5
1915	27	3	5	497	1631	3	3	0.119	17	8	52	2	61	5
1920	22	3	5	2246	1866	3	3	0.191	16	9	56	2	65	2
1925	19	3	5	1800	1346	3	3	0.077	14	7	51	2	53	4
1929	22	3	5	2516	1824	3	3	0.006	22	7	82	4	85	6
1931	33	3	5	2760	1755	3	3	0.068	15	5	91	2	74	5
1935	18	3	5	1519	1403	3	3	0.029	15	5	52	2	65	6
1940	25	3	5	470	1232	3	5	0.007	17	5	53	2	67	7

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 20

EASTING = 12504.81 AZIMUTH = 0.0  
 NORTHING = 10470.17 INCLINATION = 53.0  
 RL = 212.13

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
2001	12504.81	10470.77	211.33	1.00	Px	Sr	245	330	42.61
2002	12504.81	10471.37	210.53	2.00	Px	Sr	210	295	41.58
2003	12504.81	10471.97	209.73	3.00	Px	Sr	210	295	41.58
2004	12504.81	10472.58	208.93	4.00	Px	Sr	370	260	58.73
2005	12504.81	10473.18	208.13	5.00	Px	Sr	370	260	58.73
2006	12504.81	10473.78	207.34	6.00	PxPo	SrSc	190	270	41.30
2007	12504.81	10474.38	206.54	7.00	Po	Scs	190	270	41.30
2008	12504.81	10474.98	205.74	8.00	Po	Scs	235	205	53.41
2009	12504.81	10475.58	204.94	9.00	Po	Scs	235	205	53.41
2010	12504.81	10476.19	204.14	10.00	Po	Scs	116	175	39.86
2011	12504.81	10476.79	203.34	11.00	Po	Scs	116	175	39.86
2012	12504.81	10477.39	202.54	12.00	Po	Scs	88	160	35.48
2013	12504.81	10477.99	201.74	13.00	Po	Scs	88	160	35.48
2014	12504.81	10478.59	200.95	14.00	Po	Ss	150	165	47.62
2015	12504.81	10479.19	200.15	15.00	Po	Ss	150	165	47.62
2016	12504.81	10479.79	199.35	16.00	Po	Ss	86	205	29.55
2017	12504.81	10480.40	198.55	17.00	Po	Ss	86	205	29.55
2018	12504.81	10481.00	197.75	18.00	Po	Ss	360	370	49.32
2019	12504.81	10481.60	196.95	19.00	Po	Ss	360	370	49.32
2020	12504.81	10482.20	196.15	20.00	Po	Ss	52	104	33.33
2021	12504.81	10482.80	195.36	21.00	Po	S	52	104	33.33
2022	12504.81	10483.40	194.56	22.00	Po	S	38	68	35.85
2023	12504.81	10484.01	193.76	23.00	Po	S	38	68	35.85
2024	12504.81	10484.61	192.96	24.00	Po	S	29	76	27.62
2025	12504.81	10485.21	192.16	25.00	Po	S	29	76	27.62
2026	12504.81	10485.81	191.36	26.00	Po	S	60	102	37.04
2027	12504.81	10486.41	190.56	27.00	Po	S	60	102	37.04
2028	12504.81	10487.01	189.77	28.00	Po	S	72	120	37.50
2029	12504.81	10487.62	188.97	29.00	Po	S	72	120	37.50
2030	12504.81	10488.22	188.17	30.00	Po	S	66	100	39.76
2031	12504.81	10488.82	187.37	31.00	Po	S	66	100	39.76
2032	12504.81	10489.42	186.57	32.00	Po	S	102	155	39.69
2033	12504.81	10490.02	185.77	33.00	P?	S	102	155	39.69
2034	12504.81	10490.62	184.97	34.00	P?	Ss	70	215	24.56
2035	12504.81	10491.22	184.17	35.00	P?	Ss	70	215	24.56
2036	12504.81	10491.83	183.38	36.00	P?	Ss	43	92	31.85

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
2001	51.43	5.00	13.30	0.26	2.22	18.40	0.18	3	58	14	14	5395	1
2003	53.23	3.74	10.10	0.22	2.42	19.08	0.31	3	28	5	11	4309	1
2007	60.37	4.80	11.10	0.14	0.68	5.60	0.74	3	34	5	21	3569	1
2010	55.35	2.55	13.70	0.11	0.65	8.40	1.07	3	29	5	18	3633	1
2014	44.63	1.79	10.30	0.11	2.84	10.72	0.91	3	167	10	33	4566	1
2017	59.52	2.35	11.00	0.10	0.80	10.36	0.99	3	8	5	20	4047	1
2018	57.34	2.67	12.20	0.11	0.82	10.04	0.91	3	8	5	16	4216	1
2019	54.79	2.47	12.60	0.12	0.70	9.55	0.99	7	8	5	16	4446	1
2020	57.63	2.11	11.60	0.11	0.99	10.30	0.85	3	8	5	15	4200	1
2025	54.43	2.68	12.30	0.11	0.64	10.49	0.81	3	8	5	20	4320	1
2030	54.99	2.42	12.40	0.11	1.11	13.97	0.77	3	8	5	20	4739	1
2035	32.16	10.20	7.80	0.07	0.50	0.84	0.49	3	8	5	11	3105	1

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2001	84	3	5	1399	964	3	3	0.012	34	17	191	5	73	17
2003	55	5	5	1525	922	3	3	0.011	30	13	130	4	74	13
2007	60	3	5	257	1919	3	5	0.027	26	24	63	2	48	11
2010	29	1	5	278	2226	3	3	0.154	18	18	57	2	68	6
2014	19	3	5	4413	1855	3	3	0.042	19	17	71	2	66	7
2017	26	3	5	1848	2081	3	3	0.050	16	7	65	2	75	7
2018	33	5	5	1001	1940	3	3	0.038	17	8	65	2	81	5
2019	28	3	5	698	1909	3	3	0.078	17	6	68	2	70	7
2020	21	3	5	1113	1720	3	3	0.038	16	6	65	2	69	5
2025	32	3	5	1914	1569	3	5	0.003	17	5	65	2	76	10
2030	23	3	5	2034	1482	3	3	0.006	16	5	84	3	87	4
2035	12	1	5	1384	1202	3	3	0.004	9	4	49	2	60	2

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 21

EASTING = 12503.69 AZIMUTH = 0.0  
 NORTHING = 10449.64 INCLINATION = 64.0  
 RL = 212.27

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % Pt+Pd
2101	12503.69	10450.08	211.37	1.00	P?	Ak	225	330	40.54
2102	12503.69	10450.52	210.47	2.00	P?	Sk	295	340	46.46
2103	12503.69	10450.96	209.57	3.00	P?	Sk	295	340	46.46
2104	12503.69	10451.39	208.67	4.00	Po	Sc	340	350	49.28
2105	12503.69	10451.83	207.78	5.00	Po	Sc	340	350	49.28
2106	12503.69	10452.27	206.88	6.00	Po	Sc			
2107	12503.69	10452.71	205.98	7.00	Po	Sc			
2108	12503.69	10453.15	205.08	8.00	P?	Sc	190	330	36.54
2109	12503.69	10453.59	204.18	9.00	Po	Sc	190	330	36.54
2110	12503.69	10454.02	203.28	10.00	Po	Sc	200	205	49.38
2111	12503.69	10454.46	202.38	11.00	Po	Sc	200	205	49.38
2112	12503.69	10454.90	201.48	12.00	Po	Sc	155	230	40.26
2113	12503.69	10455.34	200.58	13.00	Po	Sc	155	230	40.26
2114	12503.69	10455.78	199.69	14.00	Po	Sc	170	155	52.31
2115	12503.69	10456.22	198.79	15.00	Po	Sc	170	155	52.31
2116	12503.69	10456.66	197.89	16.00	Po	Sc	112	118	48.70
2117	12503.69	10457.09	196.99	17.00	Po	Sc	112	118	48.70
2118	12503.69	10457.53	196.09	18.00	Po	Sc	76	114	40.00
2119	12503.69	10457.97	195.19	19.00	Po	Sc	76	114	40.00
2120	12503.69	10458.41	194.29	20.00	Po	Sc	135	135	50.00
2121	12503.69	10458.85	193.39	21.00	Po	Sc	135	135	50.00
2122	12503.69	10459.29	192.50	22.00	Po	Sc	86	120	41.75
2123	12503.69	10459.72	191.60	23.00	Po	Sc	86	120	41.75
2124	12503.69	10460.16	190.70	24.00	Po	Sc	106	125	45.89
2125	12503.69	10460.60	189.80	25.00	Po	Sc	106	125	45.89
2126	12503.69	10461.04	188.90	26.00	Po	Sc	1300	740	63.73
2127	12503.69	10461.48	188.00	27.00	Po	Sc	1300	740	63.73
2128	12503.69	10461.92	187.10	28.00	Po	Sc	58	145	28.57
2129	12503.69	10462.36	186.20	29.00	Po	Scs	58	145	28.57
2130	12503.69	10462.79	185.31	30.00	Po	Scs	32	108	22.86
2131	12503.69	10463.23	184.41	31.00	Po	Scs	32	108	22.86
2132	12503.69	10463.67	183.51	32.00	Po	Scs	37	104	26.24
2133	12503.69	10464.11	182.61	33.00	Po	Scs	37	104	26.24
2134	12503.69	10464.55	181.71	34.00	Po	Scs	36	104	25.71
2135	12503.69	10464.99	180.81	35.00	Po	Scs	36	104	25.71
2136	12503.69	10465.42	179.91	36.00	Po	Scs	82	140	36.94
2137	12503.69	10465.86	179.01	37.00	Po	Scs	82	140	36.94
2138	12503.69	10466.30	178.12	38.00	Po	Scs	56	118	32.18
2139	12503.69	10466.74	177.22	39.00	Po	Scs	56	118	32.18
2140	12503.69	10467.18	176.32	40.00	Po	Scs	68	104	39.53

**Appendix IV. Ora Banda RAB Drilling: Data Listings**

**OB 21**

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
2101	44.90	8.14	18.30	0.34	1.48	3.57	0.09	7	71	19	19	5633	1
2102	48.64	4.49	15.30	0.18	3.29	6.34	0.27	3	37	13	18	4734	1
2104	46.48	3.24	13.90	0.15	3.95	6.75	0.75	3	66	5	18	4303	1
2106	54.70	4.08	13.20	0.13	1.68	5.03	0.92	3	129	5	36	4007	1
2108	54.78	3.66	13.00	0.12	0.41	5.37	1.02	3	92	5	22	4045	1
2110	54.07	3.87	15.10	0.14	0.12	5.94	1.08	3	64	5	20	4739	1
2113	49.35	2.85	13.90	0.13	0.51	6.96	1.06	3	27	5	21	3660	2
2116	53.50	2.44	14.30	0.12	0.56	8.37	0.93	3	64	13	75	4134	1
2119	54.44	2.07	12.10	0.12	0.71	9.56	1.02	3	24	10	25	4131	2
2122	59.94	1.93	11.40	0.10	0.36	7.94	0.87	3	21	5	23	3227	1
2125	54.53	2.31	12.70	0.11	0.81	8.77	0.80	3	8	5	17	4503	1
2126	55.47	2.44	12.90	0.12	0.59	8.51	0.91	6	8	5	22	3865	1
2127	52.98	2.51	13.50	0.13	0.96	9.79	0.76	3	8	10	18	5125	1
2128	48.95	2.16	13.90	0.13	0.58	7.50	0.82	3	16	5	24	5024	2
2130	57.32	2.70	12.60	0.13	0.60	8.09	0.75	3	22	5	17	4124	1
2133	55.86	2.18	11.50	0.10	0.84	10.88	0.78	3	8	5	17	3658	1
2137	50.24	2.60	13.10	0.11	0.91	11.34	0.67	3	8	5	19	4166	1
2140	47.24	2.34	12.70	0.11	1.01	12.27	0.80	3	8	5	19	4174	1

**OB 21**

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2101	205	8	14	548	1744	6	12	0.011	33	75	193	4	60	44
2102	112	5	5	317	1999	3	3	0.004	23	113	118	4	65	18
2104	61	5	5	245	1905	3	3	0.038	18	139	109	2	65	16
2106	55	3	5	178	2454	3	3	0.024	16	63	114	2	49	12
2108	30	3	10	284	2074	3	3	0.018	16	25	57	2	54	6
2110	34	3	5	249	2020	3	3	0.036	19	19	71	2	66	8
2113	28	3	5	324	2030	3	5	0.030	19	12	91	2	69	5
2116	27	3	5	2999	2808	3	5	0.002	19	11	58	3	84	5
2119	22	3	5	1146	2121	3	3	0.027	16	11	55	2	77	4
2122	17	3	5	1894	1906	3	3	0.015	15	7	52	2	58	5
2125	24	3	5	1272	1886	3	3	0.005	18	8	76	4	91	4
2126	28	3	5	2323	1863	3	3	0.027	17	7	84	2	85	9
2127	52	3	5	1712	1920	3	3	0.003	21	8	96	2	97	9
2128	24	3	5	2273	2054	3	3	0.006	19	8	72	3	99	7
2130	58	3	5	1627	1516	3	3	0.003	20	11	77	2	71	10
2133	19	3	5	1441	1452	3	3	0.002	15	4	53	2	76	4
2137	22	3	5	1676	1659	3	3	0.002	17	9	65	2	85	6
2140	25	3	5	1543	1708	3	3	0.005	16	7	64	2	86	8

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 22

EASTING = 12502.40 AZIMUTH = 0.0  
 NORTHING = 10423.65 INCLINATION = 60.0  
 RL = 213.65

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
2201	12502.40	10424.15	212.78	1.00	P?	Ak	280	300	48.28
2202	12502.40	10424.65	211.91	2.00	P?	Sc	330	340	49.25
2203	12502.40	10425.15	211.05	3.00	Po	Sc	330	340	49.25
2204	12502.40	10425.65	210.18	4.00	Po	Sc	300	330	47.62
2205	12502.40	10426.15	209.32	5.00	Po	Sc	300	330	47.62
2206	12502.40	10426.65	208.45	6.00	Po	Sc	140	155	47.46
2207	12502.40	10427.15	207.58	7.00	Po	Sc	140	155	47.46
2208	12502.40	10427.65	206.72	8.00	Po	Sc	116	135	46.22
2209	12502.40	10428.15	205.85	9.00	Po	Sc	116	135	46.22
2210	12502.40	10428.65	204.99	10.00	Po	Sc	170	150	53.13
2211	12502.40	10429.15	204.12	11.00	Po	Ss	170	150	53.13
2212	12502.40	10429.65	203.25	12.00	Po	Ss	106	160	39.85
2213	12502.40	10430.15	202.39	13.00	Po	S	106	160	39.85
2214	12502.40	10430.65	201.52	14.00	Po	S	190	155	55.07
2215	12502.40	10431.15	200.66	15.00	Po	S	190	155	55.07
2216	12502.40	10431.65	199.79	16.00	Po	S	155	106	59.39
2217	12502.40	10432.15	198.92	17.00	Po	S	155	106	59.39
2218	12502.40	10432.65	198.06	18.00	Po	S	110	102	51.89
2219	12502.40	10433.15	197.19	19.00	Po	S	110	102	51.89
2220	12502.40	10433.65	196.33	20.00	Po	S	108	88	55.10
2221	12502.40	10434.15	195.46	21.00	Po	S	108	88	55.10
2222	12502.40	10434.65	194.59	22.00	Po	S	120	100	54.55
2223	12502.40	10435.15	193.73	23.00	Po	S	120	100	54.55
2224	12502.40	10435.65	192.86	24.00	Po	Ss	49	68	41.88
2225	12502.40	10436.15	192.00	25.00	Po	Ss	49	68	41.88
2226	12502.40	10436.65	191.13	26.00	Po	Ss	50	80	38.46
2227	12502.40	10437.15	190.26	27.00	Po	Ss	50	80	38.46
2228	12502.40	10437.65	189.40	28.00	Po	Ss	64	90	41.56
2229	12502.40	10438.15	188.53	29.00	Po	Ss	64	90	41.56
2230	12502.40	10438.65	187.67	30.00	Po	Ss	49	74	39.84
2231	12502.40	10439.15	186.80	31.00	Po	Ss	49	74	39.84
2232	12502.40	10439.65	185.93	32.00	Po	Ss	46	86	34.85
2233	12502.40	10440.15	185.07	33.00	Po	Ss	46	86	34.85
2234	12502.40	10440.65	184.20	34.00	Po	Ss	68	84	44.74
2235	12502.40	10441.15	183.34	35.00	Po	Ss	68	84	44.74
2236	12502.40	10441.65	182.47	36.00	Po	Ss	102	102	50.00
2237	12502.40	10442.15	181.60	37.00	Po	Ss	102	102	50.00
2238	12502.40	10442.65	180.74	38.00	Po	Ss	106	98	51.96
2239	12502.40	10443.15	179.87	39.00	Po	Ss	106	98	51.96
2240	12502.40	10443.65	179.01	40.00	Po	Ss	86	118	42.16

Sample Number SiO<sub>2</sub> % Al<sub>2</sub>O<sub>3</sub> % Fe % TiO<sub>2</sub> % CaO % MgO % Na<sub>2</sub>O % As ppm Ba ppm Ce ppm Co ppm Cr ppm Cs ppm

2201	39.81	6.90	22.60	0.24	1.17	4.61	0.12	5	50	19	27	8024	1
2203	42.43	5.18	17.90	0.18	1.93	7.71	0.65	3	21	14	44	5451	1
2204	55.49	3.80	14.50	0.12	0.22	6.56	0.72	5	25	5	26	4354	2
2206	49.97	2.41	18.10	0.15	0.05	7.87	0.76	3	8	5	20	5448	1
2210	51.26	2.76	16.20	0.14	0.05	8.58	0.72	3	8	5	20	5267	1
2215	47.38	3.34	17.50	0.14	0.05	8.73	0.78	7	27	5	24	5807	1
2220	53.69	2.14	11.50	0.11	1.76	11.75	0.86	3	84	5	46	5175	1
2225	51.44	2.91	13.70	0.13	1.20	10.64	0.79	3	38	5	35	5664	1
2230	55.48	2.06	10.80	0.10	1.44	12.27	0.87	6	8	5	15	4612	1
2236	55.27	2.25	11.60	0.10	1.10	11.25	0.78	3	8	5	18	4412	2
2240	50.97	2.02	12.00	0.10	1.18	12.00	0.92	3	18	5	19	4221	1

Sample Number Cu ppm Ga ppm La ppm Mn ppm Ni ppm Pb ppm Rb ppm S % Sc ppm Sr ppm V ppm Y ppm Zn ppm Zr ppm

2201	180	7	15	437	1663	5	5	0.015	34	47	228	2	69	23
2203	120	5	13	378	3020	3	5	0.020	22	80	178	3	62	16
2204	67	3	5	209	2033	3	3	0.014	15	32	111	2	53	9
2206	92	3	5	203	1923	3	3	0.097	14	15	90	2	68	8
2210	55	5	5	237	2197	3	3	0.090	16	9	95	2	71	7
2215	66	6	5	319	2291	3	3	0.084	20	5	117	2	79	8
2220	26	3	5	1313	2393	3	3	0.073	17	5	68	2	63	6
2225	70	3	10	1406	1939	3	3	0.054	21	10	111	2	77	5
2230	20	5	5	1136	1654	3	3	0.070	16	6	58	3	78	2
2236	29	3	5	1437	1418	3	3	0.002	16	6	67	2	72	4
2240	21	3	5	1878	1545	3	3	0.095	15	6	61	3	79	4

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 23

EASTING = 12501.75 AZIMUTH = 0.0  
 NORTHING = 10400.94 INCLINATION = 52.0  
 RL = 214.44

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
2301	12501.75	10401.56	213.65	1.00	P?	Ak	640	350	64.65
2302	12501.75	10402.17	212.86	2.00	P?	Ak	500	340	59.52
2303	12501.75	10402.79	212.07	3.00	P?	Ank	500	340	59.52
2304	12501.75	10403.40	211.29	4.00	P?	Lpn	195	220	46.99
2305	12501.75	10404.02	210.50	5.00	P?	Ln	195	220	46.99
2306	12501.75	10404.63	209.71	6.00	P?	Ln	160	310	34.04
2307	12501.75	10405.25	208.92	7.00	P?	Sf	160	310	34.04
2308	12501.75	10405.86	208.13	8.00	Po	Sf	114	240	32.20
2309	12501.75	10406.48	207.35	9.00	Po	Sf	114	240	32.20
2310	12501.75	10407.09	206.56	10.00	Po	Sc	98	190	34.03
2311	12501.75	10407.71	205.77	11.00	Po	Sc	98	190	34.03
2312	12501.75	10408.32	204.98	12.00	Po	Sc	104	200	34.21
2313	12501.75	10408.94	204.19	13.00	Po	Sc	104	200	34.21
2314	12501.75	10409.55	203.41	14.00	Po	Sc	116	275	29.67
2315	12501.75	10410.17	202.62	15.00	Po	Sc	116	275	29.67
2316	12501.75	10410.78	201.83	16.00	Po	Sc	118	270	30.41
2317	12501.75	10411.40	201.04	17.00	Po	Sc	118	270	30.41
2318	12501.75	10412.01	200.25	18.00	Po	Sc	130	165	44.07
2319	12501.75	10412.63	199.47	19.00	Po	Sc	130	165	44.07
2320	12501.75	10413.25	198.68	20.00	Po	Sc	150	200	42.86
2321	12501.75	10413.86	197.89	21.00	Po	Sc	150	200	42.86
2322	12501.75	10414.48	197.10	22.00	Po	Scs	125	130	49.02
2323	12501.75	10415.09	196.31	23.00	Po	Sc	125	130	49.02
2324	12501.75	10415.71	195.53	24.00	Po	Sc	130	140	48.15
2325	12501.75	10416.32	194.74	25.00	Po	Ss	130	140	48.15
2326	12501.75	10416.94	193.95	26.00	Po	Ss	78	120	39.39
2327	12501.75	10417.55	193.16	27.00	Po	Ss	78	120	39.39
2328	12501.75	10418.17	192.37	28.00	Po	Ss	76	87	46.63
2329	12501.75	10418.78	191.59	29.00	Po	Ss	76	87	46.63
2330	12501.75	10419.40	190.80	30.00	Po	Ss	58	90	39.19
2331	12501.75	10420.01	190.01	31.00	Po	Ss	58	90	39.19
2332	12501.75	10420.63	189.22	32.00	Po	Ss	92	100	47.92
2333	12501.75	10421.24	188.43	33.00	Po	Ss	92	100	47.92
2334	12501.75	10421.86	187.65	34.00	Po	Ss	58	78	42.65
2335	12501.75	10422.47	186.86	35.00	Po	Ss	58	78	42.65
2336	12501.75	10423.09	186.07	36.00	Po	Ss	108	86	55.67
2337	12501.75	10423.70	185.28	37.00	Po	Ss	108	86	55.67
2338	12501.75	10424.32	184.49	38.00	Po	Ss	112	135	45.34
2339	12501.75	10424.93	183.71	39.00	Po	Ss	112	135	45.34
2340	12501.75	10425.55	182.92	40.00	Po	Ss	76	108	41.30

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2301	22.39	11.72	15.80	0.39	11.13	5.45	0.06	15	89	19	12	6064	1	
2302	25.90	13.78	18.70	0.39	6.58	4.58	0.13	3	49	15	18	6582	1	
2303	23.80	14.84	23.80	0.58	2.89	2.90	0.21	10	18	18	25	10170	1	
2304	16.19	14.82	33.80	0.72	0.21	0.82	0.15	14	8	19	38	20476	1	
2305	15.09	12.62	36.50	0.36	0.05	0.80	0.22	16	8	25	36	17580	1	
2307	39.81	5.92	25.90	0.29	0.14	1.87	0.28	3	8	14	28	9467	1	
2311	47.75	4.14	18.30	0.19	0.05	6.36	0.88	3	8	5	22	7517	1	
2314	54.50	3.10	15.50	0.13	0.05	4.61	0.87	3	192	5	25	6089	1	
2316	45.51	3.64	19.90	0.19	0.05	5.10	1.04	6	57	11	23	6542	1	
2320	45.23	3.26	18.60	0.18	0.05	5.30	0.96	3	34	11	32	6838	1	
2325	52.64	2.53	13.70	0.13	0.65	8.86	1.00	3	187	12	68	5175	1	
2330	55.35	1.77	11.10	0.09	0.82	9.55	0.96	3	35	5	29	3949	1	
2340	52.29	2.01	11.50	0.10	1.52	13.66	0.79	3	8	5	17	4526	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2301	281	15	12	781	630	6	6	0.039	50	425	247	5	26	40
2302	390	14	12	901	812	5	5	0.040	57	302	297	2	32	42
2303	436	20	14	814	1189	8	3	0.035	68	155	485	2	38	51
2304	367	32	13	496	1873	3	3	0.051	84	26	751	2	58	50
2305	340	12	17	165	1579	3	3	0.072	73	32	475	2	39	36
2307	183	10	13	213	1152	5	3	0.024	37	16	175	2	50	14
2311	67	6	5	225	2486	3	3	0.037	21	9	95	2	81	8
2314	44	3	5	148	2764	3	5	0.028	16	13	53	2	66	4
2316	46	5	5	255	2808	3	3	0.050	20	10	75	2	85	9
2320	46	5	10	483	3529	3	5	0.033	25	8	82	2	93	10
2325	28	3	13	3769	3582	3	5	0.011	19	17	94	3	97	8
2330	20	3	5	2512	2137	3	3	0.039	14	12	58	3	71	4
2340	19	3	5	1792	1683	3	3	0.005	15	7	67	4	82	4

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 24

EASTING = 12505.42 AZIMUTH = 0.0  
 NORTHING = 10376.24 INCLINATION = 52.0  
 RL = 214.23

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
2401	12505.42	10376.86	213.44	1.00	Px	Lk	190	68	73.64
2402	12505.42	10377.47	212.66	2.00	Px	Lk	320	160	66.67
2403	12505.42	10378.09	211.87	3.00	Px	L	320	160	66.67
2404	12505.42	10378.70	211.08	4.00	Px	L	420	185	69.42
2405	12505.42	10379.32	210.29	5.00	Px	L	420	185	69.42
2406	12505.42	10379.93	209.50	6.00	Px	L	540	160	77.14
2407	12505.42	10380.55	208.72	7.00	Px	L	540	160	77.14
2408	12505.42	10381.16	207.93	8.00	Px	L	270	108	71.43
2409	12505.42	10381.78	207.14	9.00	Px	Sf	270	108	71.43
2410	12505.42	10382.39	206.35	10.00	Px	S	190	112	62.91
2411	12505.42	10383.01	205.56	11.00	Px	S	190	112	62.91
2412	12505.42	10383.62	204.78	12.00	Px	S	225	125	64.29
2413	12505.42	10384.24	203.99	13.00	Px	S	225	125	64.29
2414	12505.42	10384.85	203.20	14.00	Px	S	165	200	45.21
2415	12505.42	10385.47	202.41	15.00	Px	S	165	200	45.21
2416	12505.42	10386.08	201.62	16.00	Px	S	155	190	44.93
2417	12505.42	10386.70	200.84	17.00	Px	S	155	190	44.93
2418	12505.42	10387.31	200.05	18.00	Px	S	265	285	48.18
2419	12505.42	10387.93	199.26	19.00	Px	S	265	285	48.18
2420	12505.42	10388.54	198.47	20.00	Px	S	230	330	41.07
2421	12505.42	10389.16	197.68	21.00	Px	S	230	330	41.07
2422	12505.42	10389.78	196.90	22.00	Px	S	220	170	56.41
2423	12505.42	10390.39	196.11	23.00	Px	S	220	170	56.41
2424	12505.42	10391.01	195.32	24.00	Px	S	420	320	56.76
2425	12505.42	10391.62	194.53	25.00	Px	S	420	320	56.76
2426	12505.42	10392.24	193.74	26.00	Px	S	440	250	63.77
2427	12505.42	10392.85	192.96	27.00	Px	S	440	250	63.77
2428	12505.42	10393.47	192.17	28.00	Px	S	295	175	62.77
2429	12505.42	10394.08	191.38	29.00	Px	S	295	175	62.77
2430	12505.42	10394.70	190.59	30.00	Px	S	300	175	63.16
2431	12505.42	10395.31	189.80	31.00	Px	S	300	175	63.16
2432	12505.42	10395.93	189.02	32.00	Px	S	215	255	45.74
2433	12505.42	10396.54	188.23	33.00	Px	S	215	255	45.74
2434	12505.42	10397.16	187.44	34.00	Px	S	255	350	42.15
2435	12505.42	10397.77	186.65	35.00	Px	S	255	350	42.15
2436	12505.42	10398.39	185.86	36.00	Px	S	200	310	39.22
2437	12505.42	10399.00	185.08	37.00	Px	S	200	310	39.22

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2401	19.53	21.31	19.70	0.57	6.68	1.13	0.08	3	344	28	9	7605	1	
2402	20.78	19.54	17.60	0.53	8.67	2.47	0.13	8	162	14	7	7223	1	
2403	22.65	19.65	13.20	0.43	9.21	4.73	0.33	7	53	5	7	5756	1	
2405	17.26	15.60	24.50	0.45	5.29	4.21	0.22	3	8	14	15	7381	1	
2407	17.21	16.16	30.20	0.57	1.32	1.33	0.16	9	8	19	29	10907	1	
2410	55.80	4.56	9.50	0.19	0.21	14.98	0.53	3	8	5	14	4055	1	
2415	48.60	4.55	19.10	0.22	0.05	5.60	0.59	7	82	14	18	9328	1	
2420	55.62	2.25	8.70	0.15	0.05	17.23	0.28	6	122	5	13	2488	1	
2422	54.64	3.08	8.60	0.18	0.42	18.69	0.62	3	65	5	18	3382	1	
2424	54.84	3.22	8.00	0.17	0.91	17.77	0.78	3	49	5	36	3060	1	
2425	54.17	3.15	7.60	0.17	1.83	18.46	0.63	6	18	5	23	3215	1	
2427	53.86	3.28	9.30	0.16	1.16	16.18	0.70	3	38	5	40	5448	1	
2430	44.82	3.35	17.40	0.19	0.13	7.58	0.85	3	39	5	53	17482	1	
2436	52.53	1.98	10.60	0.09	0.05	15.47	0.67	14	74	5	21	6608	1	
2401	412	20	18	621	711	5	7	0.113	61	199	346	7	31	66
2402	343	23	5	462	597	6	3	0.202	56	369	348	7	23	56
2403	313	14	5	450	610	6	3	0.365	53	409	271	2	33	38
2405	708	10	15	589	665	5	3	0.042	78	259	309	2	21	30
2407	1094	12	16	1206	1010	8	3	0.055	125	66	650	4	33	35
2410	364	5	5	336	1465	3	3	0.013	33	5	74	2	49	9
2415	293	6	13	245	1922	3	3	0.062	36	5	287	2	78	12
2420	161	3	5	354	1237	3	3	0.016	18	1	94	2	41	9
2422	360	5	5	946	1152	3	3	0.015	27	3	91	2	79	10
2424	215	5	5	2098	1329	3	3	0.045	25	4	81	3	82	8
2425	89	3	5	1544	1090	3	3	0.031	26	6	81	3	67	8
2427	129	3	5	1732	1530	3	3	0.051	23	3	81	3	59	8
2430	225	5	5	1678	2678	3	3	0.024	33	3	111	2	71	7
2436	113	3	5	1802	1891	3	3	0.091	15	6	80	2	72	2

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 25

EASTING = 12538.45 AZIMUTH = 0.0  
 NORTHING = 10345.02 INCLINATION = 63.0  
 RL = 211.99

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
2501	12538.45	10345.47	211.10	1.00	Px	Lk	210	70	75.00
2502	12538.45	10345.93	210.21	2.00	Px	Lk	240	54	81.63
2503	12538.45	10346.38	209.32	3.00	Px	L	240	54	81.63
2504	12538.45	10346.84	208.43	4.00	Px	L	320	70	82.05
2505	12538.45	10347.29	207.54	5.00	Px	Lp	320	70	82.05
2506	12538.45	10347.74	206.65	6.00	Px	Lp	450	130	77.59
2507	12538.45	10348.20	205.75	7.00	Px	Lp	450	130	77.59
2508	12538.45	10348.65	204.86	8.00	Px	Lp	560	180	75.68
2509	12538.45	10349.11	203.97	9.00	Px	Mc	560	180	75.68
2510	12538.45	10349.56	203.08	10.00	Px	Sf	285	205	58.16
2511	12538.45	10350.01	202.19	11.00	Px	Sf	285	205	58.16
2512	12538.45	10350.47	201.30	12.00	Px	Sf	155	190	44.93
2513	12538.45	10350.92	200.41	13.00	Px	Sc	155	190	44.93
2514	12538.45	10351.38	199.52	14.00	Px	Sc	54	94	36.49
2515	12538.45	10351.83	198.63	15.00	Px	S	54	94	36.49
2516	12538.45	10352.29	197.74	16.00	Px	S	114	106	51.82
2517	12538.45	10352.74	196.84	17.00	Px	S	114	106	51.82
2518	12538.45	10353.19	195.95	18.00	Px	S	145	130	52.73
2519	12538.45	10353.65	195.06	19.00	Px	S	145	130	52.73
2520	12538.45	10354.10	194.17	20.00	Px	S	270	165	62.07
2521	12538.45	10354.56	193.28	21.00	Px	S	270	165	62.07
2522	12538.45	10355.01	192.39	22.00	Px	S	310	210	59.62
2523	12538.45	10355.46	191.50	23.00	Px	S	310	210	59.62
2524	12538.45	10355.92	190.61	24.00	Px	S	500	500	50.00
2525	12538.45	10356.37	189.72	25.00	Px	S	500	500	50.00
2526	12538.45	10356.83	188.83	26.00	Px	S	310	420	42.47
2527	12538.45	10357.28	187.93	27.00	Px	S	310	420	42.47
2529	12538.45	10358.18	186.15	29.00	Px	S			
2533	12538.45	10359.97	182.58	33.00	Px	S			

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
2501	20.55	19.45	19.30	0.62	7.16	1.09	0.12	14	219	19	7	5782	1
2503	11.18	24.14	27.60	0.92	1.31	0.85	0.10	14	109	17	12	8874	1
2505	17.81	22.89	25.20	0.69	2.25	0.68	0.25	3	8	19	16	8876	1
2507	21.63	21.73	26.80	0.67	0.05	0.51	0.27	13	8	16	18	10878	1
2509	24.87	18.60	27.10	0.60	0.05	0.55	0.32	11	8	16	18	12850	1
2511	31.04	13.54	25.40	0.47	0.05	0.97	0.54	8	26	14	19	13169	1
2515	44.70	5.52	19.70	0.27	0.05	9.05	0.48	19	24	5	13	7280	1
2519	49.86	4.88	12.40	0.24	0.05	15.52	0.47	5	8	5	11	5686	1
2521	52.16	3.96	9.80	0.22	0.05	16.18	0.47	8	8	5	11	4607	1
2523	50.47	4.49	10.70	0.26	0.05	15.04	0.46	5	8	5	11	5870	1
2524	50.90	3.04	11.80	0.16	0.05	15.44	0.48	20	22	5	14	5745	1
2525	53.63	2.40	10.50	0.13	0.05	17.19	0.32	37	147	5	23	4481	1
2526	62.18	1.63	8.40	0.08	0.05	17.14	0.35	18	119	5	24	3554	1
2527	53.63	1.85	10.20	0.10	0.05	16.86	0.34	22	69	5	18	4044	1
2529	49.52	2.58	14.40	0.14	0.05	10.00	0.92	35	26	5	26	6665	1
2533	44.16	2.80	15.60	0.16	0.55	11.30	0.89	3	8	5	26	8201	1

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2501	202	22	17	405	329	3	5	0.597	39	230	348	7	21	60
2503	249	24	14	394	404	8	3	0.097	57	80	464	3	16	64
2505	464	20	12	676	630	7	3	0.070	79	51	338	6	20	50
2507	621	19	15	1215	755	6	3	0.067	96	11	704	3	23	48
2509	883	13	15	810	833	9	3	0.115	128	6	585	4	15	40
2511	593	13	11	407	940	6	3	0.068	92	5	412	3	62	25
2515	554	6	5	238	1171	5	3	0.068	42	3	239	2	49	16
2519	544	7	5	311	1255	3	3	0.078	34	1	187	2	61	13
2521	362	5	5	273	1290	3	3	0.023	33	1	131	3	57	12
2523	207	8	5	341	1241	3	3	0.023	47	1	163	2	66	15
2524	124	5	5	787	1504	3	3	0.049	27	1	153	3	67	9
2525	95	3	5	3761	1431	3	3	0.066	20	13	125	2	64	5
2526	94	3	5	3617	1307	3	3	0.039	12	10	77	2	53	4
2527	64	3	5	2049	1515	3	3	0.037	13	8	75	3	65	4
2529	45	6	5	1891	2130	3	3	0.101	22	9	96	4	90	7
2533	24	5	5	2405	2285	3	3	0.005	25	5	95	4	82	8

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 26

EASTING = 12538.70 AZIMUTH = 0.0  
 NORTHING = 10322.48 INCLINATION = 66.0  
 RL = 211.76

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
2601	12538.70	10322.89	210.84	1.00	Px	Lk	295	125	70.24
2602	12538.70	10323.29	209.93	2.00	Px	L	245	84	74.47
2603	12538.70	10323.70	209.02	3.00	Px	L	245	84	74.47
2604	12538.70	10324.11	208.10	4.00	Px	L	220	66	76.92
2605	12538.70	10324.51	207.19	5.00	Px	Mc	220	66	76.92
2606	12538.70	10324.92	206.28	6.00	Px	Mc	185	46	80.09
2607	12538.70	10325.32	205.36	7.00	Px	Mc	185	46	80.09
2608	12538.70	10325.73	204.45	8.00	Px	Mc	120	60	66.67
2609	12538.70	10326.14	203.54	9.00	Px	Mc	120	60	66.67
2610	12538.70	10326.54	202.62	10.00	Px	Mc	200	114	63.69
2611	12538.70	10326.95	201.71	11.00	Px	Mc	200	114	63.69
2612	12538.70	10327.36	200.79	12.00	Px	Mc	64	130	32.99
2613	12538.70	10327.76	199.88	13.00	Px	Mc	64	130	32.99
2614	12538.70	10328.17	198.97	14.00	Px	Mc	46	155	22.89
2615	12538.70	10328.57	198.05	15.00	Px	Mc	46	155	22.89
2616	12538.70	10328.98	197.14	16.00	Px	Mc	96	135	41.56
2617	12538.70	10329.39	196.23	17.00	Px	S	96	135	41.56
2618	12538.70	10329.79	195.31	18.00	Px	S	130	145	47.27
2619	12538.70	10330.20	194.40	19.00	Px	S	130	145	47.27
2620	12538.70	10330.61	193.49	20.00	Px	S	165	130	55.93
2621	12538.70	10331.01	192.57	21.00	Px	S	165	130	55.93
2622	12538.70	10331.42	191.66	22.00	Px	S	190	140	57.58
2623	12538.70	10331.82	190.75	23.00	Px	S	190	140	57.58
2624	12538.70	10332.23	189.83	24.00	Px	S	370	215	63.25
2625	12538.70	10332.64	188.92	25.00	Px	S	370	215	63.25
2626	12538.70	10333.04	188.00	26.00	Px	S	370	200	64.91
2627	12538.70	10333.45	187.09	27.00	Px	S	370	200	64.91
2628	12538.70	10333.86	186.18	28.00	Px	S	295	175	62.77
2629	12538.70	10334.26	185.26	29.00	Px	S	295	175	62.77
2630	12538.70	10334.67	184.35	30.00	Px	S	205	125	62.12
2631	12538.70	10335.07	183.44	31.00	Px	S	205	125	62.12
2632	12538.70	10335.48	182.52	32.00	Px	S	300	140	68.18
2633	12538.70	10335.89	181.61	33.00	Px	S	300	140	68.18
2634	12538.70	10336.29	180.70	34.00	Px	S	245	135	64.47
2635	12538.70	10336.70	179.78	35.00	Px	S	245	135	64.47
2636	12538.70	10337.11	178.87	36.00	Px	S	160	116	57.97

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
2601	26.55	7.98	8.50	0.33	19.88	4.73	0.12	9	103	15	3	2193	1	
2602	16.98	14.17	20.40	0.58	9.23	4.20	0.16	9	80	19	7	6271	1	
2605	12.62	25.19	24.30	0.82	1.85	1.69	0.05	3	8	16	20	9750	1	
2610	19.85	19.57	30.00	0.53	0.05	0.23	0.07	19	8	17	29	9222	1	
2615	49.17	6.29	14.50	0.27	0.05	11.09	1.39	14	8	5	13	5344	1	
2620	54.43	4.01	10.30	0.20	0.05	17.08	0.46	21	8	5	10	4438	1	
2625	54.15	3.11	8.60	0.17	0.05	18.17	0.48	3	82	5	15	3903	1	
2630	54.42	2.78	7.80	0.16	0.05	18.97	0.39	3	71	5	20	3368	1	
2635	57.18	3.12	7.80	0.16	0.05	16.69	0.49	5	54	5	13	3160	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2601	176	13	13	540	181	6	12	0.260	30	783	143	8	26	41
2602	250	22	14	596	285	7	6	1.482	47	555	371	6	32	50
2605	422	23	5	774	613	3	3	0.389	68	136	402	4	21	53
2610	914	15	14	1806	558	7	3	0.173	98	10	648	2	14	37
2615	602	9	5	280	816	3	3	0.823	49	4	196	4	23	13
2620	488	7	5	251	1060	3	3	0.150	28	1	165	3	46	9
2625	443	5	5	622	1063	3	3	0.086	25	4	118	2	47	7
2630	248	3	5	1386	1076	3	3	0.051	23	3	81	2	37	10
2635	476	3	5	2356	978	3	3	0.074	24	10	94	3	52	7

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 27

EASTING = 12501.79 AZIMUTH = 0.0  
 NORTHING = 10295.30 INCLINATION = 62.0  
 RL = 210.98

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd				
2701	12501.79	10295.77	210.10	1.00	Px	Lk	370	106	77.73				
2702	12501.79	10296.24	209.22	2.00	Px	Lk	390	130	75.00				
2703	12501.79	10296.71	208.33	3.00	Px	L	390	130	75.00				
2704	12501.79	10297.18	207.45	4.00	Px	Mc	370	130	74.00				
2705	12501.79	10297.65	206.57	5.00	Px	Mc	370	130	74.00				
2706	12501.79	10298.12	205.69	6.00	Px	Mc	270	86	75.84				
2707	12501.79	10298.59	204.80	7.00	Px	Mc	270	86	75.84				
2708	12501.79	10299.06	203.92	8.00	Px	Mc	215	60	78.18				
2709	12501.79	10299.53	203.04	9.00	Px	Mc	215	60	78.18				
2710	12501.79	10300.00	202.15	10.00	Px	Sf	180	48	78.95				
2711	12501.79	10300.47	201.27	11.00	Px	Sf	180	48	78.95				
2712	12501.79	10300.94	200.39	12.00	Px	S	160	60	72.73				
2713	12501.79	10301.41	199.50	13.00	Px	S	160	60	72.73				
2714	12501.79	10301.88	198.62	14.00	Px	S	230	108	68.05				
2715	12501.79	10302.35	197.74	15.00	Px	S	230	108	68.05				
2716	12501.79	10302.82	196.86	16.00	Px	S	265	155	63.10				
2717	12501.79	10303.29	195.97	17.00	Px	S	265	155	63.10				
2718	12501.79	10303.75	195.09	18.00	Px	S	270	110	71.05				
2719	12501.79	10304.22	194.21	19.00	Px	S	270	110	71.05				
2720	12501.79	10304.69	193.32	20.00	Px	S	255	120	68.00				
2721	12501.79	10305.16	192.44	21.00	Px	S	255	120	68.00				
2722	12501.79	10305.63	191.56	22.00	Px	S	320	120	72.73				
2723	12501.79	10306.10	190.68	23.00	Px	S	320	120	72.73				
2724	12501.79	10306.57	189.79	24.00	Px	S	320	135	70.33				
2725	12501.79	10307.04	188.91	25.00	Px	S	320	135	70.33				
2726	12501.79	10307.51	188.03	26.00	Px	S	195	116	62.70				
2727	12501.79	10307.98	187.14	27.00	Px	S	195	116	62.70				
2728	12501.79	10308.45	186.26	28.00	Px	S	220	104	67.90				
2729	12501.79	10308.92	185.38	29.00	Px	S	220	104	67.90				
2730	12501.79	10309.39	184.49	30.00	Px	S	170	160	51.52				
2731	12501.79	10309.86	183.61	31.00	Px	S	170	160	51.52				
2732	12501.79	10310.33	182.73	32.00	Px	S	220	150	59.46				
2733	12501.79	10310.80	181.85	33.00	Px	S	220	150	59.46				
2734	12501.79	10311.27	180.96	34.00	Px	S	175	114	60.55				
2735	12501.79	10311.74	180.08	35.00	Px	S	175	114	60.55				
2736	12501.79	10312.21	179.20	36.00	Px	S	140	235	37.33				
2737	12501.79	10312.68	178.31	37.00	Px	S	140	235	37.33				
2738	12501.79	10313.15	177.43	38.00	Px	S	195	58	77.08				
2739	12501.79	10313.62	176.55	39.00	Px	S	195	58	77.08				
2740	12501.79	10314.09	175.67	40.00	Px	S	200	130	60.61				
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
2701	26.71	16.98	12.70	0.51	10.75	3.64	0.08	6	145	15	8	3437	1
2702	21.12	25.25	16.00	0.47	4.30	3.41	0.08	3	42	13	12	4761	1
2703	20.54	28.35	16.60	0.49	2.26	2.35	0.09	5	37	13	15	4503	1
2704	24.16	25.31	20.20	0.64	0.82	1.32	0.14	8	8	18	17	6327	1
2705	19.85	27.99	21.40	0.68	0.05	0.58	0.07	5	8	19	23	5577	1
2707	21.17	22.45	26.20	0.61	0.05	0.51	0.10	3	8	14	31	12710	1
2709	31.14	23.34	20.00	0.52	0.05	2.18	0.44	3	8	14	16	9224	1
2711	45.81	7.50	14.10	0.31	0.05	12.22	0.59	3	8	5	13	6840	1
2714	51.22	5.43	11.50	0.28	0.05	13.61	0.53	3	8	5	12	4887	1
2716	48.19	5.41	13.00	0.26	0.05	14.44	0.48	3	8	5	13	4936	1
2718	51.63	5.26	10.30	0.28	0.05	15.97	0.55	3	8	5	13	4963	1
2720	51.89	4.71	11.20	0.26	0.05	15.55	0.64	5	8	5	11	4565	1
2722	51.64	4.93	10.60	0.26	0.05	15.80	0.55	7	8	5	11	5110	4
2725	51.20	4.47	9.90	0.23	0.05	16.22	0.70	5	25	5	12	4549	1
2730	52.49	5.06	9.20	0.22	0.90	16.69	0.65	3	36	5	15	3997	1
2735	52.46	2.84	8.10	0.19	2.17	17.81	0.68	3	26	5	9	3131	1
2740	53.03	3.46	9.00	0.20	2.82	17.94	0.91	3	21	5	10	4163	2

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2701	292	12	13	298	301	3	9	0.225	41	310	251	6	27	68
2702	406	14	5	315	425	5	3	0.139	54	218	406	4	17	47
2703	476	17	5	244	487	6	3	0.408	63	180	390	2	13	45
2704	395	25	5	254	506	3	3	0.221	58	99	433	4	11	62
2705	668	17	10	360	533	7	3	0.321	92	48	347	2	17	56
2707	793	18	13	210	647	6	3	0.079	137	11	578	2	15	51
2709	522	16	5	218	617	3	3	0.174	89	8	367	3	19	54
2711	572	9	12	310	686	3	3	0.139	56	6	295	2	50	21
2714	718	7	5	201	978	3	3	0.047	37	4	190	2	54	23
2716	447	7	10	434	879	3	3	0.184	45	4	251	4	63	13
2718	388	7	5	347	876	3	3	0.100	38	4	234	2	62	16
2720	371	8	5	435	918	3	3	0.101	35	5	184	3	64	15
2722	345	9	5	410	866	3	3	0.134	37	4	182	2	53	17
2725	431	6	5	542	883	3	3	0.094	35	5	153	3	57	11
2730	504	5	5	1311	887	3	3	0.005	32	9	143	13	54	13
2735	422	3	5	1492	892	3	3	0.068	28	8	91	6	54	12
2740	329	5	5	1665	871	3	5	0.060	29	13	101	6	68	10

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 28

EASTING = 12501.58 AZIMUTH = 0.0  
 NORTHING = 10274.41 INCLINATION = 60.0  
 RL = 215.42

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
2801	12501.58	10274.91	214.55	1.00	Px	L	220	41	84.29
2802	12501.58	10275.41	213.68	2.00	Px	L	330	52	86.39
2803	12501.58	10275.91	212.82	3.00	Px	L	330	52	86.39
2804	12501.58	10276.41	211.95	4.00	Px	L	540	110	83.08
2805	12501.58	10276.91	211.09	5.00	Px	L	540	110	83.08
2806	12501.58	10277.41	210.22	6.00	Px	Lpn	540	68	88.82
2807	12501.58	10277.91	209.35	7.00	Px	Lpn	540	68	88.82
2808	12501.58	10278.41	208.49	8.00	Px	Lpn	580	120	82.86
2809	12501.58	10278.91	207.62	9.00	Px	Lpn	580	120	82.86
2810	12501.58	10279.41	206.76	10.00	Px	Lpn	480	185	72.18
2811	12501.58	10279.91	205.89	11.00	Px	Lpn	480	185	72.18
2812	12501.58	10280.41	205.02	12.00	Px	Mc	420	225	65.12
2813	12501.58	10280.91	204.16	13.00	Px	Mc	420	225	65.12
2814	12501.58	10281.41	203.29	14.00	Px	Mc	235	135	63.51
2815	12501.58	10281.91	202.43	15.00	Px	Sc	235	135	63.51
2816	12501.58	10282.41	201.56	16.00	Px	Sc	145	140	50.88
2817	12501.58	10282.91	200.69	17.00	Px	Sc	145	140	50.88
2818	12501.58	10283.41	199.83	18.00	Px	Sc	205	175	53.95
2819	12501.58	10283.91	198.96	19.00	Px	Sc	205	175	53.95
2820	12501.58	10284.41	198.10	20.00	Px	Sc	430	260	62.32
2821	12501.58	10284.91	197.23	21.00	Px	Sc	430	260	62.32
2822	12501.58	10285.41	196.36	22.00	Px	Sc			
2823	12501.58	10285.91	195.50	23.00	Px	Sc			
2824	12501.58	10286.41	194.63	24.00	Px	Sc			
2825	12501.58	10286.91	193.77	25.00	Px	Sc			
2826	12501.58	10287.41	192.90	26.00	Px	Sc			
2827	12501.58	10287.91	192.03	27.00	Px	Sc			
2828	12501.58	10288.41	191.17	28.00	Px	S			
2829	12501.58	10288.91	190.30	29.00	Px	S			
2830	12501.58	10289.41	189.44	30.00	Px	S			
2831	12501.58	10289.91	188.57	31.00	Px	S			
2832	12501.58	10290.41	187.70	32.00	Px	S			
2833	12501.58	10290.91	186.84	33.00	Px	S			
2834	12501.58	10291.41	185.97	34.00	Px	S			
2835	12501.58	10291.91	185.11	35.00	Px	S			
2836	12501.58	10292.41	184.24	36.00	Px	S			
2837	12501.58	10292.91	183.37	37.00	Px	S			
2838	12501.58	10293.41	182.51	38.00	Px	S			
2839	12501.58	10293.91	181.64	39.00	Px	S			
2840	12501.58	10294.41	180.77	40.00	Px	S			

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
2801	16.21	22.51	24.90	0.94	2.75	1.06	0.06	3	133	24	6	9312	1
2802	8.43	25.88	30.90	0.96	0.32	0.23	0.01	9	69	26	8	7449	1
2803	10.78	27.60	26.50	0.90	0.69	0.65	0.04	10	48	21	11	8319	1
2804	12.57	27.85	21.90	0.63	2.08	1.70	0.10	3	21	24	7	5796	1
2805	9.94	24.24	20.70	0.62	4.54	3.86	0.21	3	19	22	8	5225	1
2806	9.08	28.60	24.00	0.79	1.75	1.76	0.21	3	24	21	9	5333	1
2810	18.00	19.72	30.70	0.69	0.05	0.25	0.13	3	8	18	17	5745	1
2814	22.48	16.06	29.60	0.78	0.05	0.66	0.43	3	8	15	26	11940	1
2818	52.08	6.05	14.70	0.39	0.05	5.00	0.83	3	8	5	14	5928	1
2822	51.65	5.77	16.10	0.39	0.05	4.08	0.81	3	123	5	17	7260	1
2826	50.29	5.99	15.90	0.36	0.05	6.02	0.76	3	210	11	18	5972	1
2829	49.22	5.35	15.50	0.33	0.05	8.15	0.91	7	144	5	16	5548	1
2832	49.14	6.21	13.30	0.36	0.42	10.65	1.04	3	279	5	21	5214	1
2835	52.50	4.17	9.20	0.23	1.18	17.40	0.76	3	30	5	15	3602	2
2839	52.22	3.55	8.20	0.20	2.28	18.47	0.78	3	8	5	12	3012	1

**Appendix IV. Ora Banda RAB Drilling: Data Listings**

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2801	360	24	18	442	407	6	6	0.051	92	66	413	10	79	80
2802	382	32	23	501	392	5	3	0.048	77	15	505	8	84	69
2803	477	23	24	408	550	7	3	0.059	83	29	483	11	82	67
2804	471	20	10	430	582	8	5	0.042	70	79	363	10	83	50
2805	464	20	10	394	437	11	3	0.039	85	133	342	7	75	47
2806	440	19	19	500	434	11	5	0.054	88	63	370	7	69	51
2810	779	19	11	458	377	13	3	0.097	146	5	468	2	34	42
2814	775	20	14	193	493	5	3	0.151	119	5	429	2	35	49
2818	967	9	5	260	1586	3	3	0.027	41	1	175	4	68	29
2822	1019	9	5	247	1995	3	3	0.027	47	3	191	3	84	20
2826	714	8	11	318	1985	3	3	0.013	46	5	129	3	108	17
2829	544	8	10	351	1435	3	3	0.026	48	4	187	3	83	13
2832	519	10	5	1183	1392	3	8	0.020	51	11	160	4	126	19
2835	277	6	5	1393	833	3	3	0.021	33	6	138	5	87	12
2839	301	5	5	1781	833	3	3	0.042	27	5	108	6	64	11

## Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 29

EASTING = 12499.51 AZIMUTH = 0.0  
 NORTHING = 10248.93 INCLINATION = 60.0  
 RL = 215.50

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % Pt+Pd				
2901	12499.51	10249.43	214.63	1.00	Px	Ank	360	82	81.45				
2902	12499.51	10249.93	213.77	2.00	Px	Ank	380	130	74.51				
2903	12499.51	10250.43	212.90	3.00	Px	Lk	380	130	74.51				
2904	12499.51	10250.93	212.04	4.00	Px	Lk	430	160	72.88				
2905	12499.51	10251.43	211.17	5.00	Px	L	430	160	72.88				
2906	12499.51	10251.93	210.30	6.00	Px	L	330	165	66.67				
2907	12499.51	10252.43	209.44	7.00	Px	L	330	165	66.67				
2908	12499.51	10252.93	208.57	8.00	Px	L	340	240	58.62				
2909	12499.51	10253.43	207.71	9.00	Px	Lpn	340	240	58.62				
2910	12499.51	10253.93	206.84	10.00	Px	Lpn	440	330	57.14				
2911	12499.51	10254.43	205.97	11.00	Px	Lpn	440	330	57.14				
2912	12499.51	10254.93	205.11	12.00	Px	Lpn	490	300	62.03				
2913	12499.51	10255.43	204.24	13.00	Px	Lpn	490	300	62.03				
2914	12499.51	10255.93	203.38	14.00	Px	Lpn	215	140	60.56				
2915	12499.51	10256.43	202.51	15.00	Px	Sc	215	140	60.56				
2916	12499.51	10256.93	201.64	16.00	Px	Sc	250	150	62.50				
2917	12499.51	10257.43	200.78	17.00	Px	Sc	250	150	62.50				
2918	12499.51	10257.93	199.91	18.00	Px	Sc	185	170	52.11				
2919	12499.51	10258.43	199.05	19.00	Px	Sc	185	170	52.11				
2920	12499.51	10258.93	198.18	20.00	Px	Sc	255	145	63.75				
2921	12499.51	10259.43	197.31	21.00	Px	S	255	145	63.75				
2922	12499.51	10259.93	196.45	22.00	Px	S	240	100	70.59				
2923	12499.51	10260.43	195.58	23.00	Px	S	240	100	70.59				
2924	12499.51	10260.93	194.72	24.00	Px	S	190	46	80.51				
2925	12499.51	10261.43	193.85	25.00	Px	S	190	46	80.51				
2926	12499.51	10261.93	192.98	26.00	Px	S	155						
2927	12499.51	10262.43	192.12	27.00	Px	S	155						
2928	12499.51	10262.93	191.25	28.00	Px	S	106	29	78.52				
2929	12499.51	10263.43	190.39	29.00	Px	S	106	29	78.52				
2930	12499.51	10263.93	189.52	30.00	Px	S	116	56	67.44				
2931	12499.51	10264.43	188.65	31.00	Px	S	116	56	67.44				
2932	12499.51	10264.93	187.79	32.00	Px	S	135	86	61.09				
2933	12499.51	10265.43	186.92	33.00	Px	S	135	86	61.09				
2934	12499.51	10265.93	186.06	34.00	Px	S	80	100	44.44				
2935	12499.51	10266.43	185.19	35.00	Px	S	80	100	44.44				
2936	12499.51	10266.93	184.32	36.00	Px	S	140	145	49.12				
2937	12499.51	10267.43	183.46	37.00	Px	S	140	145	49.12				
2938	12499.51	10267.93	182.59	38.00	Px	S							
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
2903	11.56	17.36	13.70	0.46	12.90	8.59	0.15	3	17	5	5	4696	1
2906	13.61	23.25	26.90	0.80	0.99	1.19	0.09	3	49	21	13	10588	1
2908	15.06	22.98	28.90	0.70	0.10	0.34	0.06	3	8	17	16	7925	1
2910	16.57	18.69	32.10	0.86	0.11	0.31	0.03	3	8	21	22	6721	1
2911	15.78	16.13	34.30	1.09	0.05	0.29	0.03	3	8	25	28	8117	1
2912	18.65	18.49	31.20	0.95	0.11	0.28	0.02	6	8	17	24	8769	1
2913	19.63	18.35	28.70	0.82	0.35	0.62	0.04	3	8	17	19	9991	1
2914	22.18	15.58	28.60	0.74	0.55	1.24	0.42	3	72	16	18	9634	1
2916	42.28	10.13	16.80	0.42	0.41	5.24	0.78	3	29	5	16	6562	1
2918	39.66	8.75	21.60	0.72	0.12	3.00	0.60	3	8	15	22	12212	1
2920	44.71	7.82	18.30	0.54	0.05	3.86	0.72	3	19	10	23	9771	1
2922	55.34	5.61	11.20	0.34	0.62	9.07	0.68	3	365	5	14	7508	1
2925	51.88	4.02	9.80	0.23	2.34	17.34	0.72	3	43	5	21	4008	1
2930	55.76	3.21	8.90	0.23	2.82	20.75	0.63	3	57	5	14	3426	2
2934	53.81	2.89	9.30	0.19	2.33	19.60	0.74	3	8	5	12	3294	1
2938	55.81	2.89	8.60	0.18	2.68	20.74	0.56	3	8	5	9	3202	1

**Appendix IV. Ora Banda RAB Drilling: Data Listings**

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2903	263	15	12	243	294	3	3	0.036	59	337	251	4	53	41
2906	489	24	21	345	500	5	3	0.053	95	42	548	4	60	65
2908	721	19	14	264	609	6	3	0.128	127	5	521	6	96	50
2910	764	22	11	289	537	9	3	0.118	156	4	488	6	78	46
2911	874	22	13	321	541	6	3	0.104	158	1	571	3	66	59
2912	900	22	17	229	491	7	3	0.117	146	4	561	2	58	52
2913	844	20	13	214	495	6	3	0.111	123	12	528	3	57	40
2914	750	17	18	250	528	5	3	0.520	102	24	553	2	61	37
2916	639	12	5	186	1599	3	3	0.029	55	16	193	3	131	33
2918	715	15	13	122	1766	5	3	0.039	84	4	290	8	86	41
2920	745	11	5	139	2920	3	3	0.028	63	5	219	5	96	32
2922	708	7	5	540	1736	7	3	0.054	30	9	193	4	74	24
2925	364	6	13	1523	973	3	3	0.030	35	6	122	9	77	11
2930	333	6	5	1829	646	3	3	0.010	31	12	128	6	75	12
2934	462	6	5	1559	889	3	3	0.011	27	4	106	6	70	9
2938	318	5	5	1699	698	3	3	0.008	28	7	110	4	72	10

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 30

EASTING = 12503.39 AZIMUTH = 0.0  
 NORTHING = 10222.80 INCLINATION = 49.0  
 RL = 214.37

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	<u>Pt %</u> <u>Pt+Pd</u>
3001	12503.39	10223.46	213.62	1.00	Px	Ank	430	175	71.07
3002	12503.39	10224.11	212.86	2.00	Px	Ank	410	155	72.57
3003	12503.39	10224.77	212.11	3.00	Px	Ank	410	155	72.57
3004	12503.39	10225.42	211.35	4.00	Px	Ank	390	140	73.58
3005	12503.39	10226.08	210.60	5.00	Px	Lpn	390	140	73.58
3006	12503.39	10226.74	209.84	6.00	Px	Lpn	260	100	72.22
3007	12503.39	10227.39	209.09	7.00	Px	Lpn	260	100	72.22
3008	12503.39	10228.05	208.33	8.00	Px	Lpn	310	150	67.39
3009	12503.39	10228.71	207.58	9.00	Px	Lpn	310	150	67.39
3010	12503.39	10229.36	206.82	10.00	Px	Mc	255	165	60.71
3011	12503.39	10230.02	206.07	11.00	Px	Mc	255	165	60.71
3012	12503.39	10230.67	205.32	12.00	Px	Mc	400	100	80.00
3013	12503.39	10231.33	204.56	13.00	Px	Mc	400	100	80.00
3014	12503.39	10231.99	203.81	14.00	Px	Sc	540	235	69.68
3015	12503.39	10232.64	203.05	15.00	Px	Sc	540	235	69.68
3016	12503.39	10233.30	202.30	16.00	Px	Sc	280	190	59.57
3017	12503.39	10233.96	201.54	17.00	Px	Sc	280	190	59.57
3018	12503.39	10234.61	200.79	18.00	Px	Sc	260	185	58.43
3019	12503.39	10235.27	200.03	19.00	Px	Sc	260	185	58.43
3020	12503.39	10235.92	199.28	20.00	Px	S	255	270	48.57
3021	12503.39	10236.58	198.52	21.00	Px	S	255	270	48.57
3022	12503.39	10237.24	197.77	22.00	Px	S	215	310	40.95
3023	12503.39	10237.89	197.01	23.00	Px	S	215	310	40.95
3024	12503.39	10238.55	196.26	24.00	Px	S	280	230	54.90
3025	12503.39	10239.21	195.50	25.00	Px	S	280	230	54.90
3026	12503.39	10239.86	194.75	26.00	Px	S	185	100	64.91
3027	12503.39	10240.52	193.99	27.00	Px	S	185	100	64.91
3028	12503.39	10241.17	193.24	28.00	Px	S	145	100	59.18
3029	12503.39	10241.83	192.49	29.00	Px	S	145	100	59.18
3030	12503.39	10242.49	191.73	30.00	Px	S	118	58	67.05
3031	12503.39	10243.14	190.98	31.00	Px	S	118	58	67.05
3032	12503.39	10243.80	190.22	32.00	Px	S	135	56	70.68
3033	12503.39	10244.46	189.47	33.00	Px	S	135	56	70.68
3034	12503.39	10245.11	188.71	34.00	Px	S	160	155	50.79
3035	12503.39	10245.77	187.96	35.00	Px	S	160	155	50.79
3036	12503.39	10246.42	187.20	36.00	Px	S	108	52	67.50
3037	12503.39	10247.08	186.45	37.00	Px	S	108	52	67.50

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
3002	14.70	21.59	20.30	0.67	5.61	3.78	0.05	9	61	15	4	7081	1
3004	14.35	24.42	24.80	0.71	2.04	1.80	0.05	3	8	15	5	10036	1
3006	16.64	19.53	29.70	0.71	1.00	1.27	0.07	3	8	20	6	8674	1
3008	19.28	19.79	28.80	0.57	0.15	0.48	0.13	3	40	16	13	11705	1
3010	19.13	18.45	30.20	0.98	0.12	0.23	0.06	3	8	15	19	7631	1
3013	19.08	15.58	32.80	0.91	0.18	0.42	0.05	3	8	19	21	9383	1
3014	25.69	13.65	27.80	0.74	0.05	1.04	0.42	6	79	17	14	10599	1
3015	38.98	10.98	21.20	0.58	0.05	2.10	0.64	3	27	5	19	6639	1
3017	42.53	10.81	19.60	0.51	0.05	2.86	0.73	5	8	5	17	6270	1
3019	46.70	7.80	17.20	0.48	0.05	4.55	0.78	3	18	5	11	5261	1
3021	51.61	6.37	12.90	0.32	0.05	10.41	0.67	3	8	5	13	5458	1
3023	50.85	5.94	13.10	0.39	0.13	9.68	0.85	5	312	5	14	4866	2
3025	49.05	6.08	12.30	0.29	1.06	10.92	1.03	3	91	11	18	4226	2
3028	50.35	3.94	10.10	0.26	2.50	17.15	0.87	3	130	5	15	3972	1
3031	54.31	3.52	9.00	0.22	2.62	20.19	0.54	7	19	5	11	3474	1
3034	55.95	3.77	7.40	0.21	3.85	16.63	0.86	3	19	5	10	3698	1
3036	53.21	3.16	8.70	0.21	2.71	19.41	0.61	3	25	5	10	3481	2

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3002	265	21	5	166	277	5	3	0.044	71	209	470	3	37	57
3004	476	25	15	188	563	5	3	0.050	108	96	533	4	95	59
3006	556	22	23	279	450	8	3	0.052	129	42	457	6	78	51
3008	639	19	13	319	424	3	3	0.059	113	12	366	3	54	45
3010	534	17	11	196	340	9	3	0.097	133	8	545	2	47	53
3013	863	18	5	503	382	9	3	0.252	115	14	705	2	41	40
3014	666	18	14	189	809	3	3	0.223	107	9	615	2	74	47
3015	628	15	14	204	1714	3	3	0.053	84	6	290	3	104	34
3017	545	13	12	226	1852	3	3	0.030	70	5	214	3	117	28
3019	489	11	15	213	1690	3	3	0.030	52	5	135	3	113	32
3021	464	8	5	335	1529	3	3	0.046	41	4	120	2	116	17
3023	439	9	5	460	1470	5	10	0.041	42	10	93	2	103	36
3025	390	7	13	1148	1296	5	8	0.017	46	6	100	4	94	15
3028	267	7	15	1485	831	3	8	0.027	37	10	117	5	78	16
3031	164	3	5	1599	606	5	3	0.009	32	7	115	6	73	11
3034	452	5	5	1249	836	3	3	0.034	33	5	106	12	58	15
3036	310	5	5	1713	651	3	6	0.024	32	11	124	8	73	10

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 31

EASTING = 12502.41 AZIMUTH = 0.0  
 NORTHING = 10198.73 INCLINATION = 52.0  
 RL = 211.55

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd
3101	12502.41	10199.35	210.76	1.00	Px	Ank	780	290	72.90
3102	12502.41	10199.96	209.97	2.00	Px	Ank	640	350	64.65
3103	12502.41	10200.58	209.18	3.00	Px	Ank	640	350	64.65
3104	12502.41	10201.19	208.40	4.00	Px	Lpn	580	285	67.05
3105	12502.41	10201.81	207.61	5.00	Px	Lpn	580	285	67.05
3106	12502.41	10202.42	206.82	6.00	Px	Lpn	300	220	57.69
3107	12502.41	10203.04	206.03	7.00	Px	Mc	300	220	57.69
3108	12502.41	10203.65	205.24	8.00	Px	Mc	310	185	62.63
3109	12502.41	10204.27	204.46	9.00	Px	Mc	310	185	62.63
3110	12502.41	10204.88	203.67	10.00	Px	Sc	245	185	56.98
3111	12502.41	10205.50	202.88	11.00	Px	Sc	245	185	56.98
3112	12502.41	10206.11	202.09	12.00	Px	S	205	190	51.90
3113	12502.41	10206.73	201.30	13.00	Px	S	205	190	51.90
3114	12502.41	10207.34	200.52	14.00	Px	S	295	195	60.20
3115	12502.41	10207.96	199.73	15.00	Px	S	295	195	60.20
3116	12502.41	10208.57	198.94	16.00	Px	S	270	155	63.53
3117	12502.41	10209.19	198.15	17.00	Px	S	270	155	63.53
3118	12502.41	10209.80	197.36	18.00	Px	S	230	175	56.79
3119	12502.41	10210.42	196.58	19.00	Px	S	230	175	56.79
3120	12502.41	10211.04	195.79	20.00	Px	S	140	70	66.67
3121	12502.41	10211.65	195.00	21.00	Px	S	140	70	66.67
3122	12502.41	10212.27	194.21	22.00	Px	S	140	96	59.32
3123	12502.41	10212.88	193.42	23.00	Px	S	140	96	59.32
3124	12502.41	10213.50	192.64	24.00	Px	S	145	86	62.77
3125	12502.41	10214.11	191.85	25.00	Px	S	145	86	62.77
3126	12502.41	10214.73	191.06	26.00	Px	S	145	60	70.73
3127	12502.41	10215.34	190.27	27.00	Px	S	145	60	70.73
3128	12502.41	10215.96	189.48	28.00	Px	S	140	84	62.50
3129	12502.41	10216.57	188.70	29.00	Px	S	140	84	62.50
3130	12502.41	10217.19	187.91	30.00	Px	S	165	100	62.26
3131	12502.41	10217.80	187.12	31.00	Px	S	165	100	62.26
3132	12502.41	10218.42	186.33	32.00	Px	S	125	36	77.64
3133	12502.41	10219.03	185.54	33.00	Px	S	125	36	77.64
3134	12502.41	10219.65	184.76	34.00	Px	S	120	44	73.17
3135	12502.41	10220.26	183.97	35.00	Px	S	120	44	73.17

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3102	19.44	13.58	31.70	0.66	2.52	1.14	0.05	3	55	24	5	7753	1	
3104	22.48	18.20	25.30	0.76	2.28	2.48	0.09	8	8	20	24	6119	1	
3107	23.99	17.08	28.20	0.63	0.05	0.86	0.23	12	42	21	28	13429	1	
3111	52.43	6.27	11.30	0.33	0.05	12.12	0.70	3	122	13	13	5610	1	
3115	51.82	5.90	12.00	0.29	0.63	11.36	1.05	8	23	15	15	4848	1	
3121	53.37	4.56	9.80	0.24	0.63	14.94	0.83	3	225	5	13	3901	1	
3125	53.48	4.48	9.50	0.23	2.51	16.31	0.79	3	28	5	14	3723	1	
3130	59.42	3.54	7.70	0.19	1.64	15.17	0.88	3	145	5	21	3696	1	
3135	53.43	3.55	8.40	0.20	2.77	20.25	0.65	3	8	5	9	3115	1	
3102	508	19	19	235	314	6	3	0.042	131	75	496	6	70	45
3104	419	17	13	382	347	3	3	0.035	116	132	286	2	43	38
3107	861	16	11	413	635	3	3	0.068	170	10	520	3	77	35
3111	331	7	5	372	1341	3	3	0.103	38	9	227	3	182	24
3115	332	7	5	524	1839	3	5	0.051	42	8	107	3	172	20
3121	218	7	5	630	942	3	5	0.074	34	7	107	3	85	15
3125	271	5	13	1370	836	3	3	0.024	36	5	103	6	79	12
3130	411	7	5	2016	779	3	3	0.048	29	6	139	5	68	12
3135	209	5	5	1637	559	3	5	0.013	30	14	121	4	70	8

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 32

EASTING = 12500.72 AZIMUTH = 0.0  
 NORTHING = 10170.96 INCLINATION = 56.0  
 RL = 207.49

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd					
3201	12500.72	10171.52	206.66	1.00	Px	Sk	800	340	70.18					
3202	12500.72	10172.08	205.83	2.00	Px	Sk	720	270	72.73					
3203	12500.72	10172.64	205.00	3.00	Px	Sf	720	270	72.73					
3204	12500.72	10173.20	204.17	4.00	Px	Sf	860	295	74.46					
3205	12500.72	10173.76	203.35	5.00	Px	Sf	860	295	74.46					
3206	12500.72	10174.32	202.52	6.00	Px	Sf	400	130	75.47					
3207	12500.72	10174.88	201.69	7.00	Px	Mc	400	130	75.47					
3208	12500.72	10175.44	200.86	8.00	Px	Mc	320	100	76.19					
3209	12500.72	10176.00	200.03	9.00	Px	Sc	320	100	76.19					
3210	12500.72	10176.56	199.20	10.00	Px	Sc	245	108	69.41					
3211	12500.72	10177.12	198.37	11.00	Px	Sc	245	108	69.41					
3212	12500.72	10177.67	197.54	12.00	Px	Sc	390	185	67.83					
3213	12500.72	10178.23	196.71	13.00	Px	S	390	185	67.83					
3214	12500.72	10178.79	195.88	14.00	Px	S	390	155	71.56					
3215	12500.72	10179.35	195.06	15.00	Px	S	390	155	71.56					
3216	12500.72	10179.91	194.23	16.00	Px	S	245	78	75.85					
3217	12500.72	10180.47	193.40	17.00	Px	S	245	78	75.85					
3218	12500.72	10181.03	192.57	18.00	Px	S	215	82	72.39					
3219	12500.72	10181.59	191.74	19.00	Px	S	215	82	72.39					
3220	12500.72	10182.15	190.91	20.00	Px	S	160	50	76.19					
3221	12500.72	10182.71	190.08	21.00	Px	S	160	50	76.19					
3222	12500.72	10183.27	189.25	22.00	Px	S	135	43	75.84					
3223	12500.72	10183.83	188.42	23.00	Px	S	135	43	75.84					
3224	12500.72	10184.39	187.59	24.00	Px	S	150	48	75.76					
3225	12500.72	10184.95	186.76	25.00	Px	S	150	48	75.76					
3226	12500.72	10185.51	185.94	26.00	Px	S	155	44	77.89					
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
3201	23.66	9.88	21.50	0.58	6.47	6.46	0.09	3	49	18	12	3141	1	
3202	20.77	12.95	29.10	0.70	3.00	4.18	0.16	3	8	15	10	2919	1	
3203	20.44	14.82	29.50	0.95	0.95	3.33	0.19	3	8	16	16	6855	1	
3204	21.62	15.40	30.10	0.96	0.20	0.92	0.25	3	29	18	15	5873	1	
3206	27.45	13.84	28.50	0.82	0.05	1.20	0.46	3	28	20	11	7653	1	
3210	45.48	8.52	16.40	0.43	0.05	4.65	0.92	3	55	15	13	5568	1	
3215	49.69	5.93	12.30	0.34	1.10	10.34	1.29	6	67	11	26	4860	1	
3220	53.69	3.80	8.80	0.21	2.76	19.37	0.58	3	33	5	16	3146	1	
3226	53.50	3.64	8.80	0.24	2.96	19.82	0.67	3	22	5	9	3050	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3201	343	16	5	573	228	3	3	0.022	81	338	254	3	43	41
3202	490	18	15	784	230	6	3	0.032	118	178	285	2	51	42
3203	771	19	15	673	374	7	3	0.044	149	73	488	3	78	53
3204	871	21	12	1347	436	3	3	0.117	154	38	736	3	81	57
3206	833	18	16	464	439	7	3	0.067	91	19	834	2	69	47
3210	450	10	5	434	1788	6	3	0.027	49	9	185	2	217	26
3215	365	7	11	926	1497	3	8	0.108	45	11	93	8	138	22
3220	162	6	12	1922	558	3	3	0.006	33	11	127	9	76	8
3226	163	6	5	1710	495	3	3	0.003	32	17	131	5	73	12

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 33

EASTING = 12498.86 AZIMUTH = 0.0  
 NORTHING = 10149.21 INCLINATION = 54.0  
 RL = 205.17

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt ppb	Pd ppb	Pt % / Pt+Pd					
3301	12498.86	10149.80	204.36	1.00	Px	Ak	430	255	62.77					
3302	12498.86	10150.39	203.55	2.00	Px	Mc	430	250	63.24					
3303	12498.86	10150.97	202.74	3.00	Px	Mc	430	250	63.24					
3304	12498.86	10151.56	201.93	4.00	Px	Mc	245	155	61.25					
3305	12498.86	10152.15	201.12	5.00	Px	Sc	245	155	61.25					
3306	12498.86	10152.74	200.31	6.00	Px	S	175	108	61.84					
3307	12498.86	10153.33	199.50	7.00	Px	S	175	108	61.84					
3308	12498.86	10153.91	198.69	8.00	Px	S	220	120	64.71					
3309	12498.86	10154.50	197.89	9.00	Px	S	220	120	64.71					
3310	12498.86	10155.09	197.08	10.00	Px	S	255	125	67.11					
3311	12498.86	10155.68	196.27	11.00	Px	S	255	125	67.11					
3312	12498.86	10156.26	195.46	12.00	Px	S	320	116	73.39					
3313	12498.86	10156.85	194.65	13.00	Px	S	320	116	73.39					
3314	12498.86	10157.44	193.84	14.00	Px	S	320	100	76.19					
3315	12498.86	10158.03	193.03	15.00	Px	S	320	100	76.19					
3316	12498.86	10158.62	192.22	16.00	Px	S	240	94	71.86					
3317	12498.86	10159.20	191.41	17.00	Px	S	240	94	71.86					
3318	12498.86	10159.79	190.60	18.00	Px	S	330	112	74.66					
3319	12498.86	10160.38	189.80	19.00	Px	S	330	112	74.66					
3320	12498.86	10160.97	188.99	20.00	Px	S	220	92	70.51					
3321	12498.86	10161.56	188.18	21.00	Px	S	220	92	70.51					
3322	12498.86	10162.14	187.37	22.00	Px	S	145	70	67.44					
3323	12498.86	10162.73	186.56	23.00	Px	S	145	70	67.44					
3324	12498.86	10163.32	185.75	24.00	Px	S	170	94	64.39					
3325	12498.86	10163.91	184.94	25.00	Px	S	170	94	64.39					
3326	12498.86	10164.50	184.13	26.00	Px	S	140	78	64.22					
3327	12498.86	10165.08	183.32	27.00	Px	S	140	78	64.22					
3328	12498.86	10165.67	182.51	28.00	Px	S	130	46	73.86					
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
3301	42.44	12.93	15.10	0.70	2.87	2.66	0.10	6	220	24	13	4041	1	
3303	48.43	7.27	14.80	0.55	0.21	5.70	0.78	3	164	13	7	4693	1	
3305	50.23	6.17	14.30	0.43	0.11	7.90	0.99	3	396	11	8	4787	1	
3307	56.84	5.94	10.30	0.31	0.05	9.99	1.00	3	16	5	10	6496	1	
3309	52.36	5.08	10.60	0.30	0.83	13.14	1.04	3	43	5	10	4640	1	
3311	52.64	4.75	9.20	0.24	1.51	16.44	1.10	3	22	5	10	3504	2	
3313	51.88	5.21	10.70	0.32	2.85	15.17	1.12	3	25	10	17	4072	1	
3315	53.86	4.57	10.10	0.27	2.91	16.81	0.97	3	8	10	24	3583	1	
3319	53.09	3.98	7.70	0.21	3.39	17.55	0.96	3	33	5	9	2717	1	
3324	55.12	3.34	8.30	0.22	2.89	19.62	0.71	3	40	5	9	2843	1	
3328	54.64	3.16	8.30	0.21	3.13	19.38	0.67	3	16	5	8	2687	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
3301	333	18	15	512	525	10	22	1.238	66	77	254	12	85	101
3303	531	14	5	349	1548	3	11	0.041	47	44	170	2	259	49
3305	670	12	5	393	1576	3	8	0.577	41	47	161	2	241	27
3307	500	9	5	291	1179	3	3	0.210	41	18	146	2	133	22
3309	330	9	5	1027	872	3	3	0.153	31	18	136	3	112	22
3311	231	6	5	1199	673	3	3	0.127	31	15	122	3	124	13
3313	269	7	20	1608	945	3	6	0.030	44	12	108	16	105	22
3315	228	7	13	2322	842	3	3	0.027	38	9	121	18	96	14
3319	184	6	5	1333	504	3	3	0.079	29	11	116	5	71	21
3324	175	7	5	2183	504	3	3	0.043	31	12	131	5	73	13
3328	164	5	5	1727	482	3	3	0.024	31	9	127	5	70	12

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 209

EASTING = 12505.31 AZIMUTH = 0.0  
 NORTHING = 10709.81 INCLINATION = 56.0  
 RL = 212.55

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt+Pd ppb							
0901	12505.31	10710.37	211.72	1.00	Po	Ak	210							
0902	12505.31	10710.93	210.89	2.00	Po	Ak	210							
0903	12505.31	10711.49	210.06	3.00	Po	Ak	250							
0904	12505.31	10712.05	209.23	4.00	Po	Mc	250							
0905	12505.31	10712.61	208.40	5.00	Po	Mc	210							
0906	12505.31	10713.17	207.57	6.00	Po	Sc	210							
0907	12505.31	10713.72	206.74	7.00	Po	Sc	140							
0908	12505.31	10714.28	205.91	8.00	Po	Sc	140							
0909	12505.31	10714.84	205.08	9.00	Po	Sc	110							
0910	12505.31	10715.40	204.26	10.00	Po	Sc	110							
0911	12505.31	10715.96	203.43	11.00	Po	Sc	120							
0912	12505.31	10716.52	202.60	12.00	Po	Sc	120							
0913	12505.31	10717.08	201.77	13.00	Po	Scs	90							
0914	12505.31	10717.64	200.94	14.00	Po	Sc	90							
0915	12505.31	10718.20	200.11	15.00	Po	Sc	120							
0916	12505.31	10718.76	199.28	16.00	Po	Sc	120							
0917	12505.31	10719.32	198.45	17.00	Po	Scs	110							
0918	12505.31	10719.88	197.62	18.00	Po	Scs	110							
0919	12505.31	10720.43	196.79	19.00	Po	Scs	90							
0920	12505.31	10720.99	195.97	20.00	Po	Scs	90							
0921	12505.31	10721.55	195.14	21.00	Po	Scs	90							
0922	12505.31	10722.11	194.31	22.00	Po	Scs	90							
0923	12505.31	10722.67	193.48	23.00	Po	Scs	100							
0924	12505.31	10723.23	192.65	24.00	Po	Scs	100							
0925	12505.31	10723.79	191.82	25.00	Po	Scs	80							
0926	12505.31	10724.35	190.99	26.00	Po	Scs	80							
0927	12505.31	10724.91	190.16	27.00	Po	Scs	90							
0928	12505.31	10725.47	189.33	28.00	Po	Scs	90							
0929	12505.31	10726.03	188.50	29.00	Po	Scs	80							
0930	12505.31	10726.58	187.67	30.00	Po	Scs	80							
0931	12505.31	10727.14	186.85	31.00	Po	Scs	70							
0932	12505.31	10727.70	186.02	32.00	Po	Scs	70							
0933	12505.31	10728.26	185.19	33.00	Po	Scs	70							
0934	12505.31	10728.82	184.36	34.00	Po	Scs	70							
0935	12505.31	10729.38	183.53	35.00	Po	Scs	70							
0936	12505.31	10729.94	182.70	36.00	Po	Scs	70							
0937	12505.31	10730.50	181.87	37.00	Po	Scs	60							
0938	12505.31	10731.06	181.04	38.00	Po	Scs	60							
0939	12505.31	10731.62	180.21	39.00	Po	Scs	90							
0940	12505.31	10732.18	179.38	40.00	Po	Scs	90							
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
0901	40.83	6.05	22.90	0.50	1.73	4.28	0.16	9	73	26	16	10703	1	
0902	36.04	4.27	21.80	0.27	3.59	8.66	0.52	10	28	16	21	6760	1	
0903	33.09	4.75	28.50	0.34	0.44	5.09	0.71	5	8	17	37	10669	1	
0905	34.40	5.99	30.40	0.26	0.11	2.73	0.90	3	26	18	40	9627	1	
0909	43.54	3.46	20.00	0.19	0.05	3.40	0.92	5	8	5	26	7366	1	
0912	45.64	3.92	18.80	0.18	0.05	4.29	1.16	3	8	10	28	7183	1	
0914	51.29	3.48	16.10	0.13	0.02	5.32	1.10	3	8	5	30	5686	1	
0917	52.89	4.14	15.50	0.12	0.04	6.71	1.17	3	88	12	27	5069	1	
0920	57.11	3.43	13.10	0.10	0.05	6.23	1.12	3	15	5	24	4149	1	
0923	51.02	3.06	13.10	0.10	0.05	6.62	1.15	3	8	5	25	4444	1	
0926	58.02	2.92	12.70	0.10	0.05	6.25	1.15	3	8	5	26	4254	1	
0932	56.77	2.55	10.60	0.13	1.05	9.37	0.87	3	82	19	55	5996	1	
0940	52.90	2.59	15.30	0.13	0.41	8.64	1.16	3	8	10	34	4853	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
0901	62	10	20	655	1104	8	14	0.026	22	80	249	5	73	72
0902	53	7	11	398	1562	3	7	0.025	21	148	223	3	68	39
0903	52	9	14	434	2189	3	3	0.082	25	54	211	2	96	28
0905	40	3	12	409	2349	3	3	0.060	27	24	173	3	82	15
0909	39	6	5	367	2549	3	3	0.049	15	8	138	2	88	14
0912	30	3	12	436	2643	3	3	0.068	15	6	94	2	86	5
0914	21	3	5	518	2720	3	3	0.096	15	8	64	2	72	5
0917	18	3	12	505	2634	3	3	0.080	14	5	57	2	68	8
0920	14	3	5	484	2456	3	3	0.057	14	3	50	2	68	2
0923	13	3	5	264	2597	3	3	0.054	15	1	46	2	70	5
0926	16	3	5	335	2745	3	3	0.058	17	4	47	2	84	5
0932	12	3	5	5463	3272	3	3	0.026	20	8	72	3	93	7
0940	20	3	5	1895	3186	3	3	0.017	20	4	57	3	115	7

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 210  
 EASTING = 12506.42 AZIMUTH = 0.0  
 NORTHING = 10678.02 INCLINATION = 56.0  
 RL = 212.02

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt+Pd ppb
1001	12506.42	10678.58	211.19	1.00	Po	Ak	270
1002	12506.42	10679.14	210.36	2.00	Po	Ak	270
1003	12506.42	10679.70	209.53	3.00	Po	Ak	210
1004	12506.42	10680.26	208.70	4.00	Po	Sc	210
1005	12506.42	10680.82	207.87	5.00	Po	Sc	130
1006	12506.42	10681.38	207.05	6.00	Po	Sc	130
1007	12506.42	10681.93	206.22	7.00	Po	Sc	100
1008	12506.42	10682.49	205.39	8.00	Po	Sc	100
1009	12506.42	10683.05	204.56	9.00	Po	Sc	80
1010	12506.42	10683.61	203.73	10.00	Po	Sc	80
1011	12506.42	10684.17	202.90	11.00	Po	Sc	50
1012	12506.42	10684.73	202.07	12.00	Po	Sc	50
1013	12506.42	10685.29	201.24	13.00	Po	Sc	50
1014	12506.42	10685.85	200.41	14.00	Po	Sc	50
1015	12506.42	10686.41	199.58	15.00	Po	Sc	70
1016	12506.42	10686.97	198.76	16.00	Po	Sc	70
1017	12506.42	10687.53	197.93	17.00	Po	Sc	60
1018	12506.42	10688.08	197.10	18.00	Po	Sc	60
1019	12506.42	10688.64	196.27	19.00	Po	Sc	50
1020	12506.42	10689.20	195.44	20.00	Po	Sc	50
1021	12506.42	10689.76	194.61	21.00	Po	Sc	50
1022	12506.42	10690.32	193.78	22.00	Po	Sc	50
1023	12506.42	10690.88	192.95	23.00	Po	Scs	50
1024	12506.42	10691.44	192.12	24.00	Po	Scs	50
1025	12506.42	10692.00	191.29	25.00	Po	Scs	60
1026	12506.42	10692.56	190.47	26.00	Po	Scs	60
1027	12506.42	10693.12	189.64	27.00	Po	Scs	70
1028	12506.42	10693.68	188.81	28.00	Po	Scs	70
1029	12506.42	10694.24	187.98	29.00	Po	Scs	70
1030	12506.42	10694.79	187.15	30.00	Po	Scs	70
1031	12506.42	10695.35	186.32	31.00	Po	Scs	70
1032	12506.42	10695.91	185.49	32.00	Po	Scs	70
1033	12506.42	10696.47	184.66	33.00	Po	Scs	60
1034	12506.42	10697.03	183.83	34.00	Po	Scs	60
1035	12506.42	10697.59	183.00	35.00	Po	Scs	70
1036	12506.42	10698.15	182.17	36.00	Po	Scs	70
1037	12506.42	10698.71	181.35	37.00	Po	Scs	50
1038	12506.42	10699.27	180.52	38.00	Po	Scs	50
1039	12506.42	10699.83	179.69	39.00	Po	Scs	80
1040	12506.42	10700.39	178.86	40.00	Po	Scs	80

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
1001	51.00	4.77	15.10	0.26	3.01	5.19	0.10	3	85	15	11	5163	1
1002	46.10	2.80	11.20	0.10	3.91	8.00	0.19	3	40	5	13	3281	1
1003	48.83	4.74	12.50	0.11	2.20	6.85	0.35	5	18	5	11	3998	1
1005	54.80	5.34	11.50	0.11	1.21	8.14	1.23	3	25	5	12	3562	1
1010	61.08	1.68	9.50	0.09	0.52	9.38	1.36	3	38	5	27	3282	1

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1001	47	5	12	508	1051	6	11	0.008	17	104	125	6	55	57
1002	24	3	5	249	1184	3	3	0.005	11	165	55	2	38	4
1003	16	3	5	207	1209	3	3	0.002	10	131	69	2	36	5
1005	17	3	5	246	1272	3	5	0.011	10	81	90	2	38	6
1010	15	3	5	814	1627	3	3	0.062	13	15	45	2	60	5

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 211  
 EASTING = 12505.62 AZIMUTH = 0.0  
 NORTHING = 10636.83 INCLINATION = 56.0  
 RL = 212.33

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt+Pd ppb
1101	12505.62	10637.39	211.50	1.00	Po	Ak	140
1102	12505.62	10637.95	210.67	2.00	Po	Ak	140
1103	12505.62	10638.51	209.84	3.00	Po	Sk	110
1104	12505.62	10639.07	209.01	4.00	Po	Sk	110
1105	12505.62	10639.63	208.18	5.00	Po	Sk	150
1106	12505.62	10640.19	207.36	6.00	Po	Sk	150
1107	12505.62	10640.74	206.53	7.00	Po	Sc	60
1108	12505.62	10641.30	205.70	8.00	Po	Sc	60
1109	12505.62	10641.86	204.87	9.00	Po	Sc	90
1110	12505.62	10642.42	204.04	10.00	Po	Sc	90
1111	12505.62	10642.98	203.21	11.00	Po	Sc	60
1112	12505.62	10643.54	202.38	12.00	Po	Sc	60
1113	12505.62	10644.10	201.55	13.00	Po	Sc	80
1114	12505.62	10644.66	200.72	14.00	Po	Sc	80
1115	12505.62	10645.22	199.89	15.00	Po	Sc	60
1116	12505.62	10645.78	199.07	16.00	Po	Sc	60
1117	12505.62	10646.34	198.24	17.00	Po	S	90
1118	12505.62	10646.90	197.41	18.00	Po	S	90
1119	12505.62	10647.46	196.58	19.00	Po	S	50
1120	12505.62	10648.01	195.75	20.00	Po	S	50
1121	12505.62	10648.57	194.92	21.00	Po	Scs	40
1122	12505.62	10649.13	194.09	22.00	Po	Scs	40
1123	12505.62	10649.69	193.26	23.00	Po	Scs	30
1124	12505.62	10650.25	192.43	24.00	Po	Scs	30
1125	12505.62	10650.81	191.60	25.00	Po	Scs	30
1126	12505.62	10651.37	190.78	26.00	Po	Scs	30
1127	12505.62	10651.93	189.95	27.00	Po	Scs	30
1128	12505.62	10652.49	189.12	28.00	Po	Scs	30
1129	12505.62	10653.05	188.29	29.00	Po	Scs	40
1130	12505.62	10653.61	187.46	30.00	Po	Scs	40
1131	12505.62	10654.17	186.63	31.00	Po	Scs	30
1132	12505.62	10654.72	185.80	32.00	Po	Scs	30
1133	12505.62	10655.28	184.97	33.00	Po	Scs	30
1134	12505.62	10655.84	184.14	34.00	Po	Scs	30

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm
1101	48.76	5.85	11.90	0.30	2.70	6.08	0.09	3	87	20	12	4660	1
1103	51.55	2.51	11.80	0.11	1.92	12.03	0.27	7	75	5	30	3780	1
1106	44.35	2.46	11.10	0.11	1.76	13.50	1.09	3	8	5	23	3759	1
1110	52.90	2.37	12.30	0.11	0.46	12.00	1.21	3	8	5	34	4530	1
1120	53.36	2.12	11.80	0.10	0.77	13.61	1.14	3	8	5	20	4425	1
1130	37.22	1.28	8.80	0.07	1.78	19.17	0.81	3	8	5	13	3347	1
1134	35.51	1.35	8.70	0.06	0.97	20.70	0.71	3	8	5	14	3252	1

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1101	50	10	11	561	1058	5	14	0.021	21	104	117	6	60	51
1103	19	3	5	1822	1574	3	3	0.002	16	78	52	2	71	8
1106	19	5	5	986	1393	3	3	0.002	15	63	64	3	65	9
1110	17	3	5	1175	1484	3	3	0.001	17	13	65	2	73	6
1120	26	3	5	1729	1508	3	3	0.002	15	6	60	2	76	4
1130	6	1	5	1260	1152	3	3	0.002	10	7	48	2	60	2
1134	8	1	5	1409	1164	3	3	0.002	9	6	45	2	64	2

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 212  
 EASTING = 12505.08 AZIMUTH = 0.0  
 NORTHING = 10604.93 INCLINATION = 55.0  
 RL = 212.73

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt+Pd ppb
1201	12505.08	10605.50	211.91	1.00	Po	Ak	320
1202	12505.08	10606.08	211.10	2.00	Po	Sk	320
1203	12505.08	10606.65	210.28	3.00	Po	Sk	280
1204	12505.08	10607.22	209.46	4.00	Po	Sc	280
1205	12505.08	10607.80	208.64	5.00	Po	Sc	140
1206	12505.08	10608.37	207.82	6.00	Po	Sc	140
1207	12505.08	10608.94	207.00	7.00	Po	Sc	140
1208	12505.08	10609.52	206.18	8.00	Po	Sc	140
1209	12505.08	10610.09	205.36	9.00	Po	Sc	90
1210	12505.08	10610.67	204.54	10.00	Po	Scs	90
1211	12505.08	10611.24	203.72	11.00	Po	Scs	80
1212	12505.08	10611.81	202.90	12.00	Po	Scs	80
1213	12505.08	10612.39	202.09	13.00	Po	Scs	90
1214	12505.08	10612.96	201.27	14.00	Po	Scs	90
1215	12505.08	10613.53	200.45	15.00	Po	Scs	50
1216	12505.08	10614.11	199.63	16.00	Po	Scs	50
1217	12505.08	10614.68	198.81	17.00	Po	Scs	70
1218	12505.08	10615.25	197.99	18.00	Po	Scs	70
1219	12505.08	10615.83	197.17	19.00	Po	Scs	60
1220	12505.08	10616.40	196.35	20.00	Po	Scs	60
1221	12505.08	10616.97	195.53	21.00	Po	Scs	70
1222	12505.08	10617.55	194.71	22.00	Po	Scs	70
1223	12505.08	10618.12	193.89	23.00	Po	Scs	50
1224	12505.08	10618.70	193.07	24.00	Po	Scs	50
1225	12505.08	10619.27	192.26	25.00	Po	Scs	70
1226	12505.08	10619.84	191.44	26.00	Po	Scs	70
1227	12505.08	10620.42	190.62	27.00	Po	Scs	60
1228	12505.08	10620.99	189.80	28.00	Po	Scs	60
1229	12505.08	10621.56	188.98	29.00	Po	Scs	30
1230	12505.08	10622.14	188.16	30.00	Po	Scs	30
1231	12505.08	10622.71	187.34	31.00	Po	Scs	30
1232	12505.08	10623.28	186.52	32.00	Po	Scs	30
1233	12505.08	10623.86	185.70	33.00	Po	Scs	30
1234	12505.08	10624.43	184.88	34.00	Po	Scs	30
1235	12505.08	10625.00	184.06	35.00	Po	Scs	30
1236	12505.08	10625.58	183.24	36.00	Po	Scs	30
1237	12505.08	10626.15	182.43	37.00	Po	Scs	30

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
1201	56.59	4.43	11.30	0.26	2.07	5.53	0.14	3	86	14	17	4847	1	
1202	46.66	2.66	11.50	0.11	4.59	9.60	0.68	3	65	5	18	3784	1	
1203	33.70	4.06	10.00	0.15	11.29	10.92	0.67	3	28	5	10	3714	1	
1205	52.27	2.81	13.40	0.11	0.89	8.75	1.19	5	28	5	26	4038	1	
1210	53.36	2.77	13.80	0.12	0.56	9.20	1.34	3	79	5	26	4688	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1201	37	7	5	622	1221	3	9	0.007	17	80	114	4	51	45
1202	26	3	5	421	1435	3	3	0.007	17	142	66	3	54	13
1203	29	5	5	271	939	3	3	0.011	22	280	110	2	34	22
1205	26	3	5	703	1846	3	3	0.009	18	25	99	2	70	9
1210	21	3	5	1140	1794	3	3	0.050	16	16	57	2	73	9

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 213

EASTING = 12504.61 AZIMUTH = 0.0  
 NORTHING = 10570.70 INCLINATION = 55.0  
 RL = 213.91

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt+Pd ppb							
1301	12504.61	10571.27	213.09	1.00	Po	Ak	250							
1302	12504.61	10571.85	212.27	2.00	Po	Sc	250							
1303	12504.61	10572.42	211.45	3.00	Po	Sc	170							
1304	12504.61	10572.99	210.63	4.00	Po	Sc	170							
1305	12504.61	10573.57	209.81	5.00	Po	Sc	140							
1306	12504.61	10574.14	208.99	6.00	Po	Sc	140							
1307	12504.61	10574.71	208.17	7.00	Po	Sc	120							
1308	12504.61	10575.29	207.35	8.00	Po	Sc	120							
1309	12504.61	10575.86	206.54	9.00	Po	Sc	130							
1310	12504.61	10576.44	205.72	10.00	Po	Sc	130							
1311	12504.61	10577.01	204.90	11.00	Po	Sc	100							
1312	12504.61	10577.58	204.08	12.00	Po	Sc	100							
1313	12504.61	10578.16	203.26	13.00	Po	Sc	90							
1314	12504.61	10578.73	202.44	14.00	Po	Scs	90							
1315	12504.61	10579.30	201.62	15.00	Po	Scs	110							
1316	12504.61	10579.88	200.80	16.00	Po	Scs	110							
1317	12504.61	10580.45	199.98	17.00	Po	Scs	170							
1318	12504.61	10581.02	199.16	18.00	Po	Scs	170							
1319	12504.61	10581.60	198.34	19.00	Po	Scs	180							
1320	12504.61	10582.17	197.52	20.00	Po	Scs	180							
1321	12504.61	10582.75	196.71	21.00	Po	S	120							
1322	12504.61	10583.32	195.89	22.00	Po	S	120							
1323	12504.61	10583.89	195.07	23.00	Po	S	140							
1324	12504.61	10584.47	194.25	24.00	Po	S	140							
1325	12504.61	10585.04	193.43	25.00	Po	S	110							
1326	12504.61	10585.61	192.61	26.00	Po	S	110							
1327	12504.61	10586.19	191.79	27.00	Po	S	120							
1328	12504.61	10586.76	190.97	28.00	Po	S	120							
1329	12504.61	10587.33	190.15	29.00	Po	S	90							
1330	12504.61	10587.91	189.33	30.00	Po	S	90							
1331	12504.61	10588.48	188.51	31.00	Po	S	90							
1332	12504.61	10589.05	187.70	32.00	Po	S	90							
1333	12504.61	10589.63	186.88	33.00	Po	S	80							
1334	12504.61	10590.20	186.06	34.00	Po	S	80							
1335	12504.61	10590.78	185.24	35.00	Po	S	80							
1336	12504.61	10591.35	184.42	36.00	Po	S	80							
1337	12504.61	10591.92	183.60	37.00	Po	S	110							
1338	12504.61	10592.50	182.78	38.00	Po	S	110							
1339	12504.61	10593.07	181.96	39.00	Po	S	120							
1340	12504.61	10593.64	181.14	40.00	Po	S	120							
Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
1301	41.59	6.22	16.00	0.64	3.36	5.97	0.27	6	213	20	10	11666	1	
1303	55.89	3.38	14.10	0.23	0.49	7.21	0.98	3	140	5	15	6350	1	
1310	51.27	2.20	13.80	0.09	0.60	8.91	1.18	3	25	5	15	4315	1	
1320	52.10	3.09	16.20	0.13	1.10	6.97	0.85	3	36	5	27	6461	1	
1329	55.92	1.59	10.80	0.07	0.02	17.20	0.50	78	38	5	16	4301	1	
1336	52.29	1.83	12.00	0.09	0.03	14.63	0.67	11	8	5	16	6691	1	
1340	36.83	1.62	10.60	0.09	0.05	18.71	0.48	10	8	5	15	5119	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1301	47	17	24	634	832	5	20	0.023	22	109	368	8	65	86
1303	22	5	5	317	1617	3	5	0.034	16	57	193	2	59	27
1310	11	3	5	383	1700	3	3	0.117	15	11	83	2	67	4
1320	20	5	5	1905	1733	3	3	0.011	23	5	88	2	87	6
1329	28	1	5	1734	1578	3	3	0.068	12	4	89	3	79	2
1336	16	3	5	1185	1778	3	3	0.008	16	1	77	2	65	2
1340	10	3	5	1191	1618	3	3	0.023	14	1	62	2	65	6

#### Appendix IV. Ora Banda RAB Drilling: Data Listings

OB 214  
 EASTING = 12503.80 AZIMUTH = 0.0  
 NORTHING = 10535.70 INCLINATION = 55.0  
 RL = 214.79

Sample Number	EASTING m	NORTHING m	RL m	Dept m	GEO	REG	Pt+Pd ppb
1401	12503.80	10536.27	213.97	1.00	Po	Ak	500
1402	12503.80	10536.85	213.15	2.00	Po	Mc	500
1403	12503.80	10537.42	212.33	3.00	Po	Mc	360
1404	12503.80	10537.99	211.51	4.00	Po	Sc	360
1405	12503.80	10538.57	210.69	5.00	Po	Sc	725
1406	12503.80	10539.14	209.87	6.00	Po	Scs	725
1407	12503.80	10539.71	209.05	7.00	Po	Sc	210
1408	12503.80	10540.29	208.23	8.00	Po	Sc	210
1409	12503.80	10540.86	207.42	9.00	Po	Sc	170
1410	12503.80	10541.44	206.60	10.00	Po	Sc	170
1411	12503.80	10542.01	205.78	11.00	Po	Sc	180
1412	12503.80	10542.58	204.96	12.00	Po	Sc	180
1413	12503.80	10543.16	204.14	13.00	Po	Scs	250
1414	12503.80	10543.73	203.32	14.00	Po	Ss	250
1415	12503.80	10544.30	202.50	15.00	Po	Ss	160
1416	12503.80	10544.88	201.68	16.00	Po	Ss	160
1417	12503.80	10545.45	200.86	17.00	Po	Ss	110
1418	12503.80	10546.02	200.04	18.00	Po	Ss	110
1419	12503.80	10546.60	199.22	19.00	Po	Ss	150
1420	12503.80	10547.17	198.40	20.00	Po	Ss	150
1421	12503.80	10547.75	197.59	21.00	Po	Ss	100
1422	12503.80	10548.32	196.77	22.00	Po	Ss	100
1423	12503.80	10548.89	195.95	23.00	Po	Ss	90
1424	12503.80	10549.47	195.13	24.00	Po	Sc	90
1425	12503.80	10550.04	194.31	25.00	Po	Sc	80
1426	12503.80	10550.61	193.49	26.00	Po	Sc	80
1427	12503.80	10551.19	192.67	27.00	Po	Sc	70
1428	12503.80	10551.76	191.85	28.00	Po	Scs	70
1429	12503.80	10552.33	191.03	29.00	Po	Scs	70
1430	12503.80	10552.91	190.21	30.00	Po	Scs	70
1431	12503.80	10553.48	189.39	31.00	Po	Scs	60
1432	12503.80	10554.05	188.58	32.00	Po	Scs	60
1433	12503.80	10554.63	187.76	33.00	Po	Scs	60
1434	12503.80	10555.20	186.94	34.00	Po	Scs	60
1435	12503.80	10555.78	186.12	35.00	Po	Scs	40
1436	12503.80	10556.35	185.30	36.00	Po	Scs	40
1437	12503.80	10556.92	184.48	37.00	Po	Scs	60
1438	12503.80	10557.50	183.66	38.00	Po	Scs	60

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe %	TiO <sub>2</sub> %	CaO %	MgO %	Na <sub>2</sub> O %	As ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	
1401	41.83	5.13	19.90	0.44	1.77	5.87	0.07	6	91	17	23	10544	1	
1402	55.44	2.96	10.60	0.11	1.88	10.75	0.34	3	39	5	16	3337	1	
1403	54.87	3.08	11.40	0.14	1.03	9.14	0.42	3	164	5	18	4215	1	
1404	53.82	2.14	11.60	0.10	1.10	11.00	0.59	3	53	5	26	3526	1	
1405	46.92	1.93	10.50	0.10	0.74	9.12	0.80	3	89	12	25	3269	1	
1406	52.16	2.93	14.10	0.19	0.61	8.01	0.80	3	59	5	18	7282	1	
1410	52.64	2.39	13.50	0.11	0.85	10.05	0.93	3	60	5	21	4683	1	
1413	48.11	9.82	8.80	0.23	0.34	9.28	0.99	9	25	5	10	2329	4	
1414	38.84	1.78	12.90	0.12	0.61	7.76	1.02	5	42	11	20	4826	1	
1420	48.58	1.91	12.80	0.10	0.64	10.03	1.21	3	8	10	19	4234	1	
1430	50.35	1.75	12.20	0.08	0.65	8.69	0.84	3	8	5	18	4307	1	
1438	31.00	1.10	7.50	0.05	0.88	22.93	0.53	3	8	5	10	3019	1	
Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	Pb ppm	Rb ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
1401	55	11	17	1128	1571	3	5	0.021	28	44	251	5	66	48
1402	30	3	5	669	1922	3	3	0.002	18	61	58	2	54	7
1403	30	5	10	927	1863	3	3	0.006	20	53	96	3	53	11
1404	31	3	5	1929	2187	3	3	0.002	18	44	72	5	63	5
1405	34	3	5	2500	2089	3	3	0.007	16	33	70	4	56	2
1410	29	1	15	2267	1957	3	3	0.005	19	22	100	4	76	4
1413	51	12	12	811	1079	7	20	0.003	28	23	103	4	47	34
1414	30	3	5	1646	1506	3	3	0.006	20	14	136	5	70	6
1420	17	3	5	1802	1981	3	3	0.109	16	7	52	3	81	4
1430	18	5	5	1301	1542	3	3	0.004	14	4	54	3	66	6
1438	6	1	5	1162	1067	3	3	0.002	9	3	40	2	53	2

## **APPENDIX V**

### **SYSTEMATIC PETROGRAPHY**

## Fresh Rocks

### Specimen OBD1-86.8 *Pyroxenite*.

Bronzite cumulate - relatively fresh with minor alteration to talc.

### Specimen OBD1-98.0 *Pyroxenite*.

An olivine-bronzite cumulate with drop-like chromite. There has been very slight serpentinisation of the olivine but the pyroxene has been extensively altered to matted amphibole. In places the pyroxene has largely changed to talc or amphibole (Figure 9A).

### Specimen OBD1-146.5 *Peridotite*.

Olivine-bronzite cumulate with zones where the olivine has been extensively altered to serpentine and the pyroxene to talc. In places the pyroxene shows considerable strain.

### Specimen OBD1-190.3 *Peridotite*.

Fresh olivine-bronzite cumulate with slight serpentinisation of the olivine and alteration of the pyroxene to talc.

### Specimen OBD1-236.5 *Peridotite*.

A very fresh olivine-bronzite cumulate showing polygonal crystals of fresh olivine, later bronzite and drop-like crystals of chromite (Figure 8A).

### Specimen OBD1-264.0 *Peridotite*.

This is an olivine cumulate with interstitial orthopyroxene. The olivine shows numerous narrow serpentinisation cracks. Chromite is largely in drop-like 100-150 micron grains which are interstitial to the olivine but are partly enclosed in the intercumulus pyroxene.

## Lag

### Specimen 08-1494 *Co-ordinates 12505E 10571N..*

*Located over peridotite, near outcrop of Fe-rich Duricrust*

Most of one of the large fragments of this specimen consists of dehydration-fractured hematite with only minor silicate relicts which appear to be after olivine. Parts of the other fragments contain hematite- and goethite-rich lithorelics, partly replaced by Fe oxides, and these form a breccia with pisoliths in a goethitic cement.

### Specimen 08-1498 *Co-ordinates 12504E, 10450N.*

*Located over peridotites, near upper contact.*

This specimen contains almost perfectly-preserved olivine pseudomorphs in which serpentinised cracks in the olivine and its outline have been replaced by goethite, the remainder of the olivine has been dissolved (Figure 8E, H). In places, the complete rock fabric is preserved by goethite, including the outline and cleavage of pre-existing pyroxene (Figures 8B, F). Other parts show a disaggregated mass of fragments of olivine pseudomorphs, weathered, pitted chromite grains and pieces of secondary hematite, set in a breccia of goethite, cut by solution channels. Here collapse of the saprolitic fabric appears to have partly occurred, prior to ferruginisation.

### Specimen 08-1499 *Co-ordinates 12502E 10424N.*

*Located over pyroxenites, near lower contact.*

This shows both pyroxene (Figure 9B) and some probable olivine pseudomorphs in spongy goethite and a few drop-like, weathered chromite grains. Parts of the goethite matrix has altered to hematite and shows dehydration cracks. The chromite grains are weathered and a rim of bright hematite is interposed between the chromite and the goethite. Some remnants of hematite in the goethite matrix may be the last vestiges of pre-existing chromite. Some lead-grey goethite has pseudomorphed accordion-structures kaolinite (Figure 8G). One lag fragment is a mass of yellow, goethite-stained clay, set with fragments of goethitic lithorelics, shards of secondary goethite and chromite crystals.

### Specimen 08-1504 *Co-ordinates 12502E 10295N.*

*Located over pyroxenites, abundant calcrete.*

Most of this specimen consists of spongy secondary goethite but careful examination under high power shows a few sheet-silicate pseudomorphs, probably after kaolinite and talc. It is suspected that, in this specimen, alteration of the primary fabric to clay and probable recrystallisation of this clay was complete

## Appendix V. Systematic Petrography.

before ferruginisation took place, thus all primary fabric has been lost. A later generation of iron oxide is shown by colloform or cuspatate goethite void infillings.

### **Specimen 08-1509 Co-ordinates 12501E 10171N.**

*Located over pyroxenite on steep scarp slope.*

The fabric of this specimen shows goethite pseudomorphs after pyroxenite which has partly altered to smectite and talc prior to ferruginisation. Some of the pyroxene cleavage and talcose veining is pseudomorphed but most is rather wavy, suggesting extensive alteration to smectite. Later partial dissolution of the ferruginised fabric has formed a network of vermiform vesicles which have been partly infilled with goethite and goethite-stained clay.

### **Specimen 08-1511 Co-ordinates 12606E 10997N.**

*Located over peridotite at north end of line.*

The lag fragments consist largely of hematite, goethite and mixtures of the two, set with a few irregularly shaped silicate pseudomorphs ( $\text{Fe} \gg \text{Cr}, \text{Si}, \text{Al}$ ) after presumed serpentine veinlets - the silicate that was being veined is now leached away. These silicate remnants make up about 25% of the rock. Detailed study of the iron oxides between the more obvious silicate pseudomorphs revealed smaller and less obvious silicate pseudomorphs. The hematite contains significant Cr, Al and Si ( $\text{Fe} \gg \text{Cr} > \text{Al}, \text{Si}$ ) compared to secondary hematite ( $\text{Fe} \gg \gg \text{Cr}, \text{Al}, \text{Si}$ ). Some of the silicate structures are after sheet silicates, possibly kaolinite or smectite and others may be after olivine.

Numerous globular crystals of chromite ( $\text{Cr} > \text{Fe} > \text{Ti} > \text{Al}$ ) have been severely corroded by the hematite and are invaded along small rectangular cracks, possibly related to the crystallography of the chromite. In some chromites this alteration is so intense that the outline of the chromite grain is unclear (Figure 8C). The cracks become narrower towards the interior of the grains where they form a rectangular web.

Some parts of the section contain circular, pisolithic structures (0.5 mm in dia.), some containing silicate pseudomorph cores (after olivine), covered with a thin goethite cutan, and others contain agglomerates of smaller goethite pisoliths. These are surrounded by bluish maghemite mixed with hematite. In other parts, cavities and vesicles have formed, which have been infilled with a breccia of fragments of hematite, chromite, quartz and hematitic silicate pseudomorphs.

### **Specimen 08-1516 Co-ordinates 12604E 10696N.**

*Located over peridotite, central part of line.*

Here the lag fragments are composite, consisting of a breccia of complete and fragmented hematitic pisoliths, cemented by goethite. Later vesicles in the cement are infilled with clays and silica. Most of the hematite is secondary, with only a little evidence of silicate pseudomorphs after olivine.

Many of the pisoliths have narrow goethite cortices but some pisoliths are rimmed by cyclic hematite and goethite. Their interiors are generally relatively massive but some contain drop-like crystals of chromite (Figure 8D). Massive hematite is mixed on a very fine-scale with variable amounts of goethite, from which it appears to be formed by dehydration. The interstices between the pisoliths contain smaller pisoliths, fragments of hematite and goethite, pieces of chromite and chips of quartz, cemented by banded goethite. Vesicles in the cement are lined by a thin layer of hematite or bright goethite.

### **Specimen 08-1522 Co-ordinates 12602E 10397N.**

*Located over pyroxenite, near lower contact.*

Much of this consists of silicate pseudomorphs ( $\text{Fe} > \text{Al}, \text{Si}, \text{Ca}$ ), probably after partly serpentinised olivine and smectites after pyroxene (Figure 9C). Detailed study of this shows sheet-silicate structures very clearly. The intervening goethite and hematite also contains less distinct silicate remnants ( $\text{Fe} \gg \text{Al}, \text{Si} > \text{Ca}, \text{Ti}, \text{Cr}$ ). Scattered among the silicate remnants are a few drop-like, pitted crystals of chromite.

### **Specimen 08-1525 Co-ordinates 12601E 10250N.**

*Located over pyroxenite, near hill top on Unit 5.*

Much of this specimen is mixed secondary goethite and hematite. Concretionary fragments are enclosed in massive iron oxides which in turn are cut by vesicles and solution channels. Other parts of the section consist of rather granular hematite, in which are set patches of pseudomorphed silicate remnants, some showing sheet silicate pseudomorphs and others showing remnant veining and possible pseudomorphed pyroxene and talc structures. Part of a cavity contains granules, pisoliths and angular hematite fragments set in goethite-stained clay, which has been partly dissolved to form a network of vermiform vesicles.

**Specimen 08-1527** *Co-ordinates 12601E 10150N.*

*Located over pyroxenite on steep scarp slope.*

This consists largely of lithorelics, very rich in silicate structures, largely after pyroxene (Figure 9D). This is pockmarked with vesicles which have been partly filled with goethitic clay. Other parts have less distinct lithorelics, which have been largely replaced by bright, secondary goethite. Cavities have been infilled with colloform and cuspatate goethite.

## Unit 6 Fe-rich Duricrust

**Specimen 08-1552** *Co-ordinates 12400E 10950N.*

The overall fabric is a matrix-supported polymictic clastic assemblage of subround goethitic and in part hematitic fragments, set in a goethite cement. A few vesicles are lined with brown clay. Internally, the goethite granules vary considerably in fabric. Most are massive, with hematite penetrating the goethite along cracks or occurring as blobs and patches within the grains. There are also numerous small, blob-like chromite grains. Some fragments contain earlier goethitic granules and matrix, indicating an earlier clastic phase. The matrix consists of similar but smaller, round to subround goethite granules, together with globules of chromite, set in porous goethite. Silicate pseudomorphs are not common though there is some slight evidence of saprolitic clay structures. Many of the goethitic granules have a thin cutan of goethite. The presence of much chromite in the clasts and matrix suggests a peridotitic provenance.

**Specimen 08-1553** *Co-ordinates 12600E 10700N.*

This consists largely of pisoliths, with hematitic cores, and layered goethitic cutans (Figure 6B, D, F) set in a goethite cement. Some granules contain saprolitic structures and drop-like chromite grains, though others do not contain chromite. Intervening voids are partly filled with clay. A large, complex fragment consists of older, hematitic (high reflectance) goethite granules, some with thin cutans, set in spongy goethite and smaller, similar granules. Rare, silicate pseudomorphs, after weathered olivine (Figure 6G), occur in the larger granules but in many granules the silicate pseudomorphs are indistinct and are probably saprolitic. The matrix consists of a mass of clast-supported pisoliths, some hematitic and others with mixed hematite and goethite cores, surrounded by banded, lead-grey goethite. The insides of the pisoliths are similar in fabric and mineralogy to the larger fragments and vary from massive to multi-component to saprolitic. Two show banded, cellular structures, one possibly comprising the tip of a stem (Figure 7A) with lines and whorls of cells suggesting overlapping bud scales, and the other possibly comprising a section of a leaf vein (Figure 7E) with some of the surrounding supportive tissue.

**Specimen 08-1554** *Co-ordinates 12491E 10535N.*

In oblique reflected light, the specimen consists of complex, grey, hematitic lithorelic granules with attached hematitic pisoliths and fragments, set in brown goethite. The hematitic lithorelics consist of previously olivine-rich material with minor pyroxene. The lithorelics are thinly coated in a lead-grey goethite and the intervening spaces and vesicles infilled with colloform and cuspatate goethite (Figure 6E).

**Specimen 08-1555** *Co-ordinates 12600E 10750N.*

It consists of pisolithic granules of massive to porous hematite, set in lead-grey goethite which forms a skin on some granules. Internally the granules show little original rock fabric though there are some fabrics after possible saprolitic clay and some weathered chromite grains. There is one small fragment of plant fossil which could represent part of a leaf, with preserved stomata, but the cell pattern is indistinct and possibly distorted (Figure 7C). Some hematitic fragments are complex and are internally clastic.

**Specimen 08-1556** *Co-ordinates 12400E 10850N.*

This material consists of polymictic, largely hematitic pisoliths, coated and set in lead-grey goethite. Most pisoliths are internally massive, others show internal clastic structures. Many are internally banded, contain weakly-preserved saprolitic clay fabrics and most contain weathered chromite (Figure 6H). There are numerous small wood fragments pseudomorphed in bright and in dull goethite.

**Specimen HMC-OB1A** *Co-ordinates 12491N 10535N.*

The hematitic goethite clasts are subrounded and are set in a brown goethite cement in which lie a few vesicles. Many of the large, bright fragments contain peridotitic saprolite relics. Most have inner bright rims and lead-grey goethite cutans. The smaller fragments have bright cores of secondary hematitic goethite and thin grey goethite cutans. A few are ooliths.

**Specimen HMC-OB1B** *Co-ordinates 12491N 10535N.*

The specimen consists of round to subangular hematitic fragments, coated and set in a lead-grey goethite cement. Some vesicles in this cement are filled with yellow-brown ferruginous clay. Though many of the

## Appendix V. Systematic Petrography.

larger clasts are of secondary goethite, many have preserved saprolitic fabrics and some show relics of olivine and relict chromite. Many are complex, consisting of saprolitic fabrics with attached, ferruginised clastic material. The small clasts of the matrix are shards of quartz and ooliths of grey secondary goethite, set with numerous quartz inclusions and are cemented by grey goethite. A few ooliths have chromite cores.

### **Specimen HMC-OB1C** *Co-ordinates 12491N 10535N.*

A variety of sizes of round to subangular polymictic hematitic fragments are set in a brown goethite cement with scattered, small, goethitic ooliths and shards of quartz. A few vesicles in the cement are lined and partly filled with a red-brown, ferruginous clay. Many of the larger, bright, hematitic fragments contain recognisable relics of olivine, pyroxene and talc as well as relict chromite. A few clasts are complex and consist of mixed saprolite relics and smaller ferruginous clasts set in a goethite cement. Most have inner, bright rims, some of which have been partly broken, and an outer, lead-grey coating of goethite which merges with the cement.

### **Specimen HMC-OB1D** *Co-ordinates 12491E 10535N.*

This specimen contains a wide size range of subrounded, hematitic goethite fragments coated with, and set in, a brown, goethitic cement. Many of the larger fragments are generally of secondary goethite with variable amounts of saprolite relics and some chromite. Some of these saprolitic fabrics are recognisably after peridotite, though a few are complex, clastic fabrics. Many of the smaller fragments are ooliths (Figure 6C).

### **Specimen HMC-OB2A** *Co-ordinates 12400E 10700N.*

A closely-packed mass of round to subangular hematitic fragments are set in a goethite cement. Most of the clasts have cutans of lead-grey goethite and have been partly cemented by this material. Some of the smaller fragments are pisolithic or oolitic. Though spongy, secondary goethite structures dominate the interiors of many of the larger fragments, many contain drop-like to subangular chromite grains. Some clasts contain olivine relics and possible pseudomorphs after saprolitic clay (smectite) fabrics. There is a small amount of fossil wood.

### **Specimen HMC-OB2B** *Co-ordinates 12400E 10700N.*

The specimen contains round to subangular hematite fragments coated with and set in lead-grey goethite, which has been partly dissolved and the resultant vesicles filled with brown clay (Figure 6A). The larger and brighter fragments show pseudomorphs after peridotitic fabrics and some chromite grains, though the internal fabrics of many fragments are largely obliterated by secondary goethite. Some of the smaller, lead-grey, goethitic pisoliths contain cores of fossil plant tissue. One appears to contain a seed, with a clear linear arrangement of cells in two directions (Figure 7D) which make up the inner part of the seed and there is a suggestion of the remnants of some of the enveloping cells. The shape of the pisolith could have been partly dictated by the enclosed plant organ. Another contains square and rectangular cells suggestive of a moss leaf (Figure 7B).

### **Specimen HMC-OB3A** *Co-ordinates 12400E 10700N.*

A mass of round to subangular hematitic clasts are coated with and set in a banded, lead-grey goethite cement, which has been partly dissolved. The resultant vesicles are now filled with a small proportion of goethitic clay. The majority of the clasts are of secondary goethite, though many contain chromite grains. A few clasts contain distinctive olivine pseudomorphs. There are some pieces of fossil plant material in which the cell walls are preserved in lead-grey goethite and the cells are void. One small fragment contains thin-walled cells (Figure 7F) suggestive of corky bark tissue. Another shows cells of two different sizes and shapes (Figure 7G), suggesting part of a midrib of a leaf (elongate cells) with attached internal tissue (equant cells). Another has a triangular section which, together with the cell organisation, suggests the rachis of a filmy fern (Figure 7H).

### **Specimen HMC-OB3B** *Co-ordinates 12400E 10700N.*

One large clast (>20 mm) and several smaller ones are coated with lead-grey goethite and are set in a skeletal goethite cement which has been extensively dissolved and the resultant vesicles filled with brown clay. Many of the larger, bright fragments are of secondary goethite and fractured and dehydrated goethitic hematite but a few contain relics of olivine fabrics, some saprolitic clay fabrics and crystals of chromite.

### **Specimen HMC-OB3C** *Co-ordinates 12400E 10700N.*

The specimen consists of complex, round hematitic goethite fragments, coated and set in a lead-grey banded goethite cement which is cut by a few open and some clay-filled vesicles. This cement contains fragments of goethite and weathered chromite. Many of the fragments contain drop-like chromite grains as the only evidence for their ultramafic origin but others contain pseudomorphed peridotitic fabrics (olivine) as well as

## Appendix V. Systematic Petrography.

chromite. A few are internally clastic, containing hematite shards and ferruginised olivine pseudomorphs, set in a bright goethite matrix, with small silicate inclusions.

### **Specimen HMC-OB4A** *Co-ordinates 12500E 10275N.*

This specimen consists of subrounded to subangular clasts of largely secondary hematite and goethite, set in a yellow-brown goethitic and locally hematitic clay. This clay has been partly dissolved to form vesicles, some of which are filled with agate. The fragments are complex, containing a few vestiges of former lithofabrics such as microbreccias and possible saprolitic fabrics. Goethite cutans are not developed on the bright hematitic grains and are only thinly developed on small goethite grains. Both the clasts and the matrix lack chromite and there are no olivine or pyroxene pseudomorphs in the clasts, suggesting a provenance outside the Ora Banda Sill.

### **Specimen HMC-OB4B** *Co-ordinates 12500E 10275N.*

The specimen consists of subrounded to subangular goethitic fragments set in brown goethite and clay. Some vesicles in the clay have been filled or partly filled with agate. Many of the larger fragments have a cutan of bright, massive goethite about 200 µm wide. Some of the smaller, round fragments have thin (40 µm) lead-grey goethite cutans and are pisolithic. Though many of the larger fragments contain various forms of secondary goethite (massive to spongy), others are internally complex; some contain clast-supported assemblages of large and small pisoliths, others are polymictic microbreccias containing pieces of saprolite, pseudomorphed by goethite, showing fabrics after layer silicates.

### **Specimen HMC-OB4C** *Co-ordinates 12500E 10275N.*

Various sizes of round to subangular, bright goethite fragments are set in a brown goethite cement. This has been partly dissolved to form vesicles, some of which are empty but others are filled with brown clay or agate. The majority of the larger, bright fragments are of secondary, hematitic goethite with a few patches of ill-defined, saprolitic fabric relicts. Many fragments have lead-grey cutans. The smaller fragments are ooliths and some have possible fossil wood cores.

### **Specimen HMC-OB9A** *Co-ordinates 12400E 10725N.*

This specimen consists of subrounded hematite lithorelics set in a goethitic clay. Many of the lithorelics are of ultramafic rocks as evidenced by drop-like chromite grains, but most have had their fabrics largely obliterated by secondary goethite and hematite. It is suspected, from the shapes of the chromite grains, that most of these were peridotitic. The matrix also contains an unusually high proportion of chromite grains, suggesting some concentration of chromite in the sedimentary environment.

### **Specimen HMC-OB11A** *Co-ordinates 12400E 10725N.*

This is a breccia of dark brown, complex, angular, bright goethite fragments, consisting of lithorelics and small goethite granules, set in a yellow, goethite-stained clay. The lithorelics consist largely of slightly laminated, spongy to massive, secondary goethite with sparse silicate relicts. Some contain large bladed crystals of hematite which display a relict magnetite cross cleavage (martite). The clay contains goethite fragments and vesicles, filled or lined with colloform goethite.

## Unit 5 Duricrust

### **Specimen HMC-OB5A** *Co-ordinates 12500E 10275N.*

The nodules show a pyroxenitic fabric and small voids are filled with cuspatc cement.

### **Specimen HMC-OB5C** *Co-ordinates 12500E 10275N.*

The nodules show a moderately distinct pyroxenitic fabric (Figure 9G) as well as a few crystals of chromite.

### **Specimen HMC-OB6A** *Co-ordinates 12500E 10375N.*

A very complex mixture of cemented and recemented clastic materials containing a few lithorelics of indeterminate fabric (Figure 9H).

### **Specimen HMC-OB6B** *Co-ordinates 12500E 10375N.*

The nodules show largely secondary goethite fabrics with only a trace of indeterminate saprolitic fabrics. The interstices between the nodules show several oolitic phases (Figure 9F).

### **Specimen HMC-OB6C** *Co-ordinates 12500E 10375N.*

The nodules show no fabric at all. Oolitic clasts fill the interstices between the nodules.

## Appendix V. Systematic Petrography.

### **Specimen HMC-OB6D** *Co-ordinates 12500E 10375N.*

The nodules contain no recognisable lithofabrics. There are some magnificent ooliths between the nodules. Some vesicles are filled with a laminated, cuspatc cement of goethite and clay.

### **Specimen HMC-OB7A** *Co-ordinates 12500E 10275N.*

A very poorly preserved saprolitic fabric - presumably pyroxenitic. Oolitic material in cavities with lithorelic cores and thin cutans.

### **Specimen HMC-OB8A** *Co-ordinates 12600E 10200N.*

A rather poorly preserved pyroxenitic fabric with minor laminated cuspatc cement.

### **Specimen HMC-OB10A** *Co-ordinates 12400E 10425N.*

Similar to below and large chromites. Fabric could be harzburgitic.

### **Specimen HMC-OB10B** *Co-ordinates 12400E 10725N.*

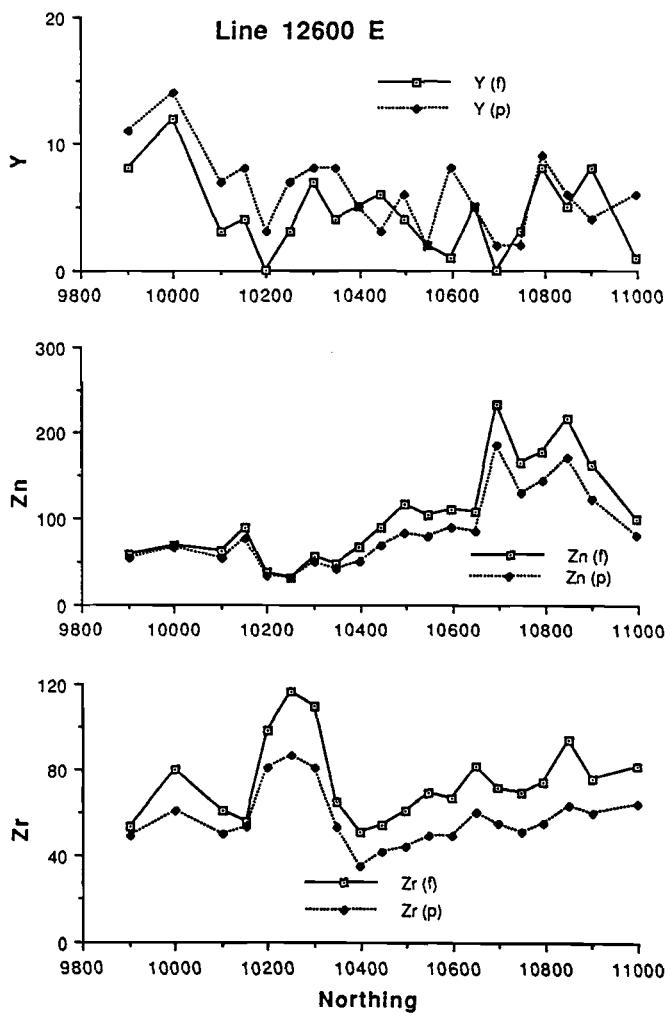
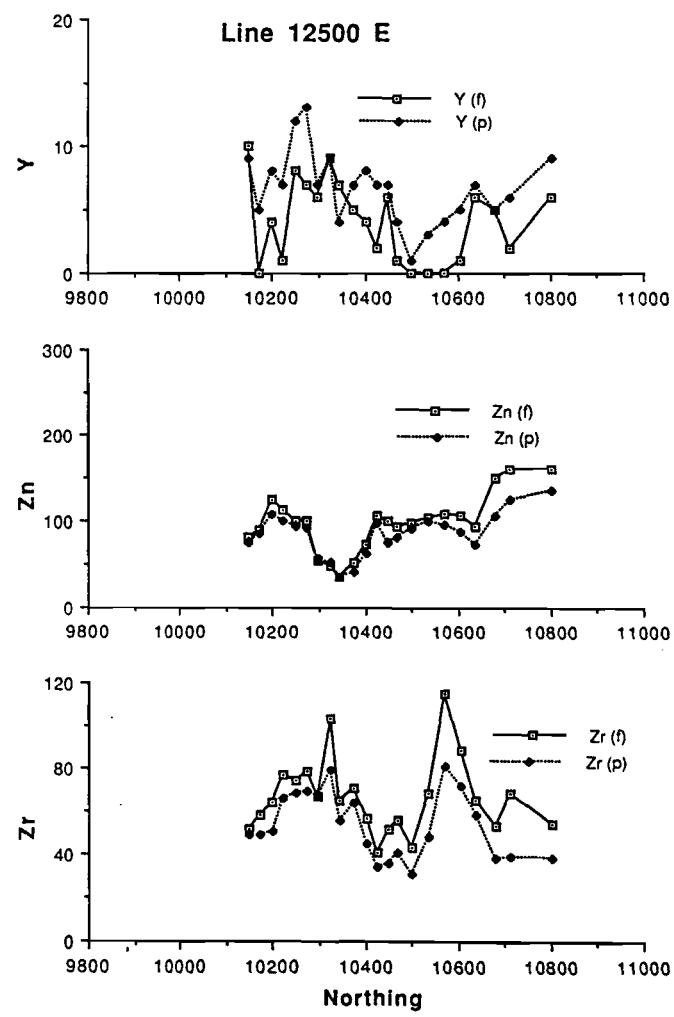
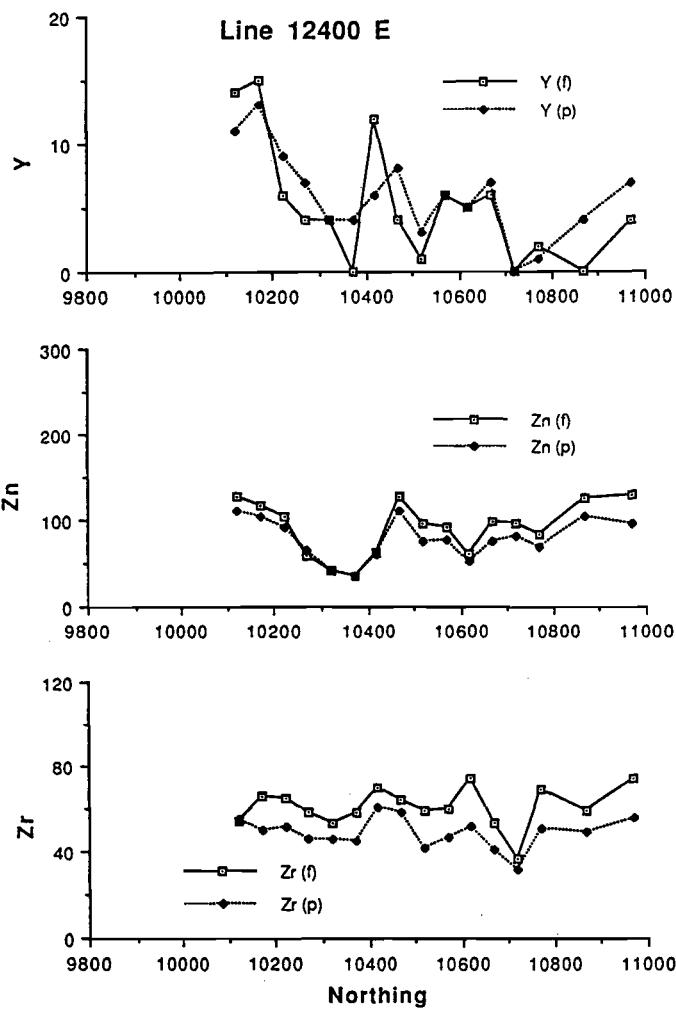
A complex material consisting of lithorelics with probable peridotitic fabrics set in a matrix of smaller fragments partly cemented by laminated cuspatc goethite cement. There are a few large grains of chromite.

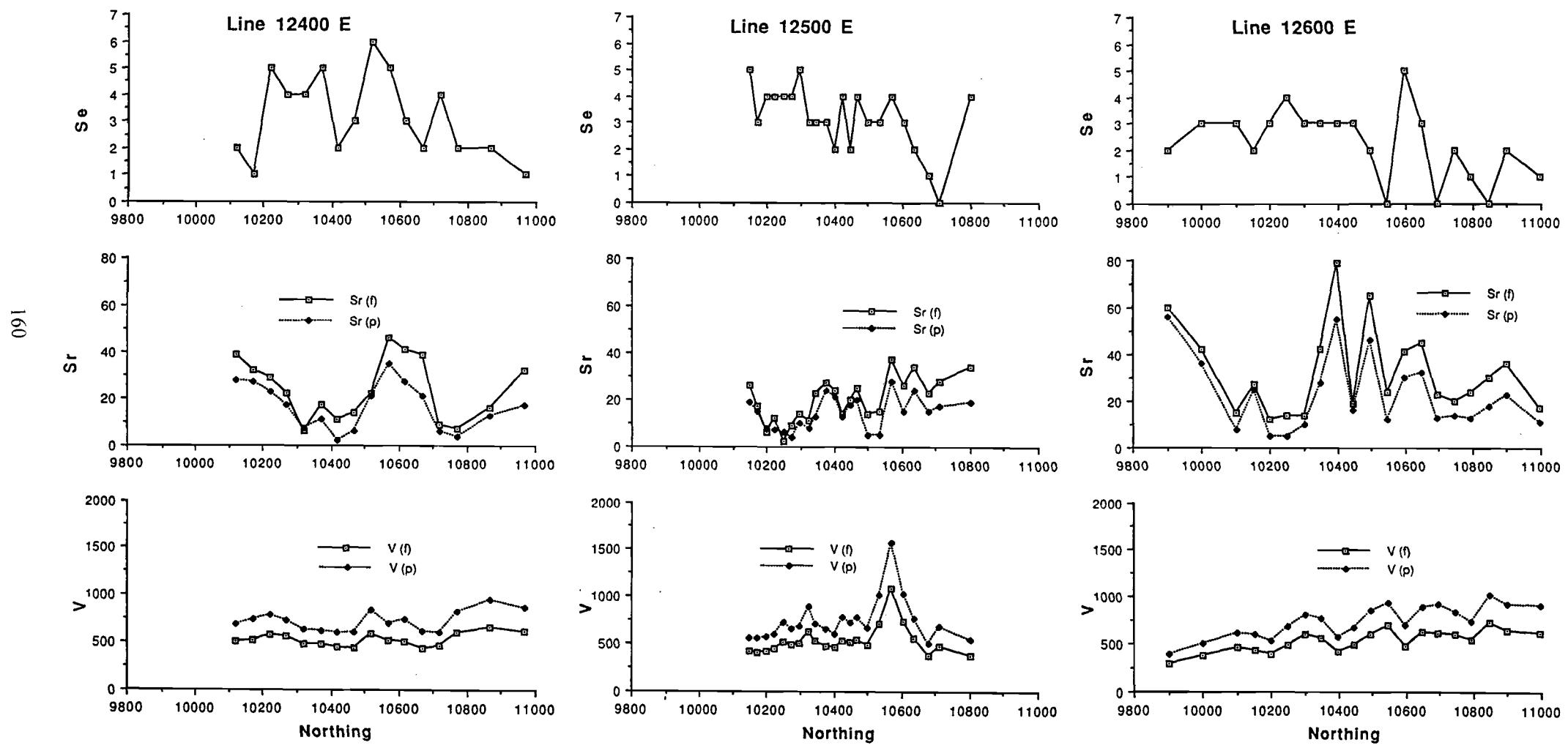
### **Specimen HMC-OB12A** *Co-ordinates 12600E 10250N.*

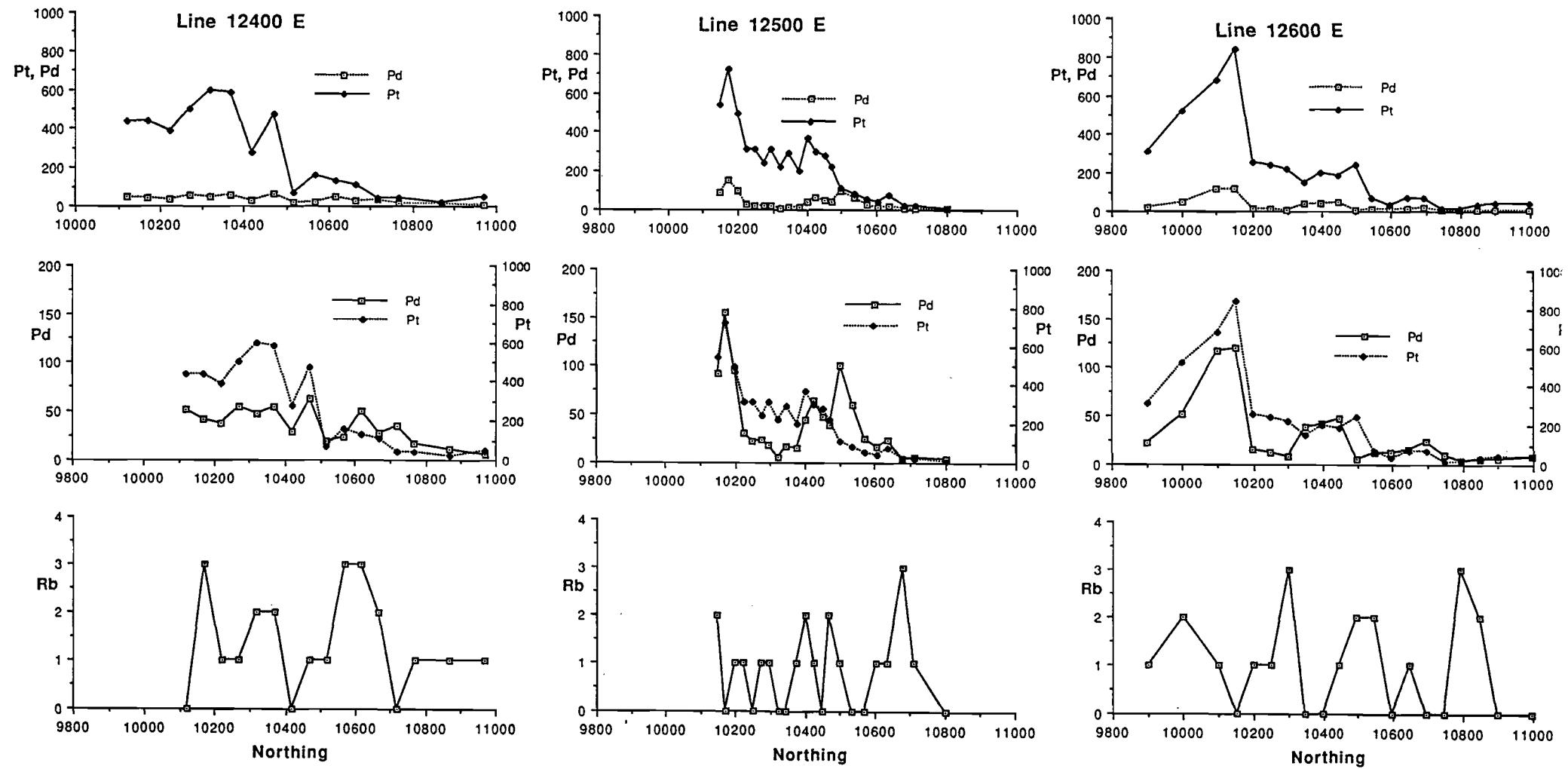
A very clear pyroxenitic fabric with the cleavage depicted by goethite. The saprolite has been dissolved and between the relics of pyroxenite are ooliths (Figure 9E), many with cores of goethite, some with pyroxenitic fabric and others showing only secondary goethite.

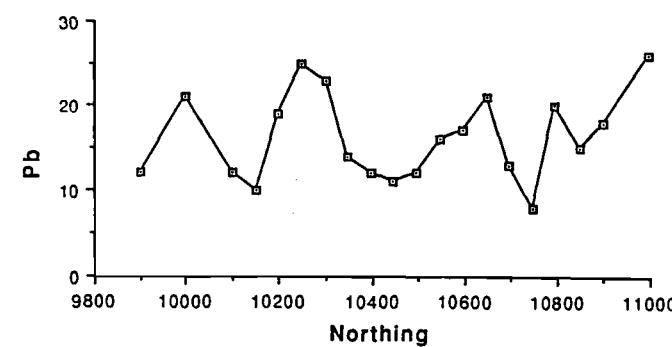
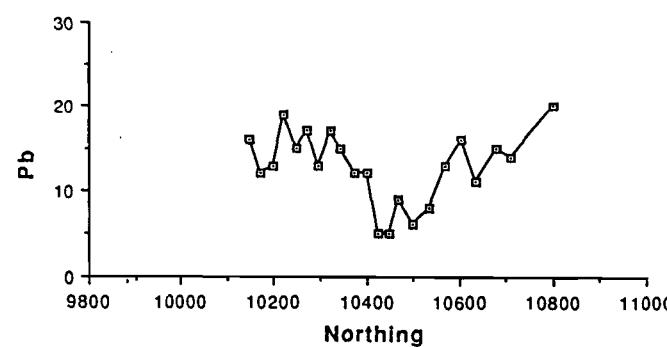
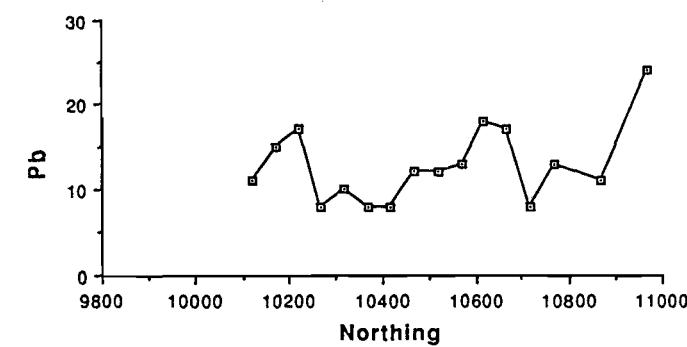
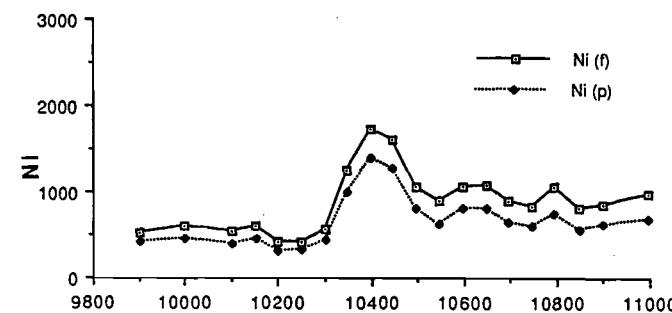
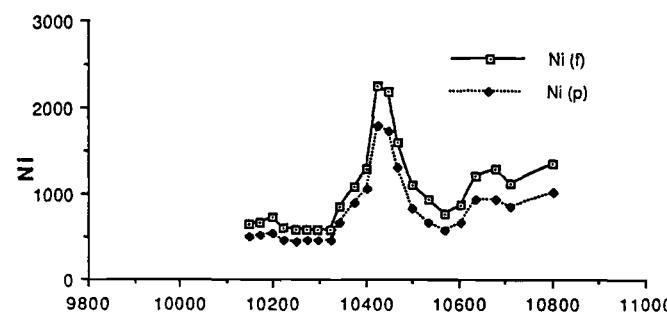
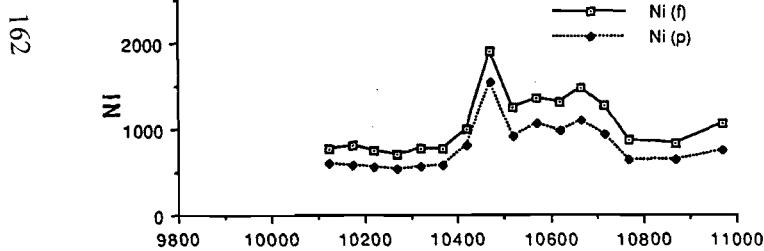
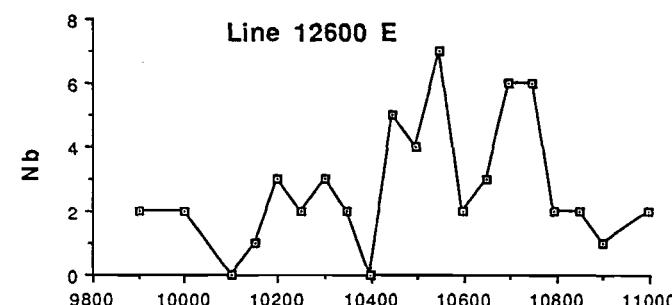
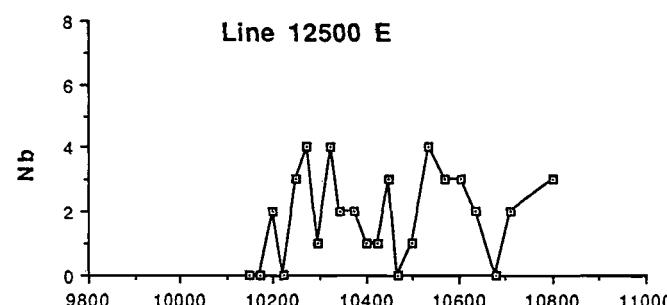
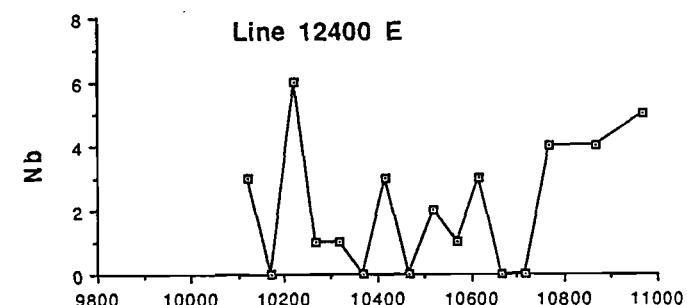
## **APPENDIX VI**

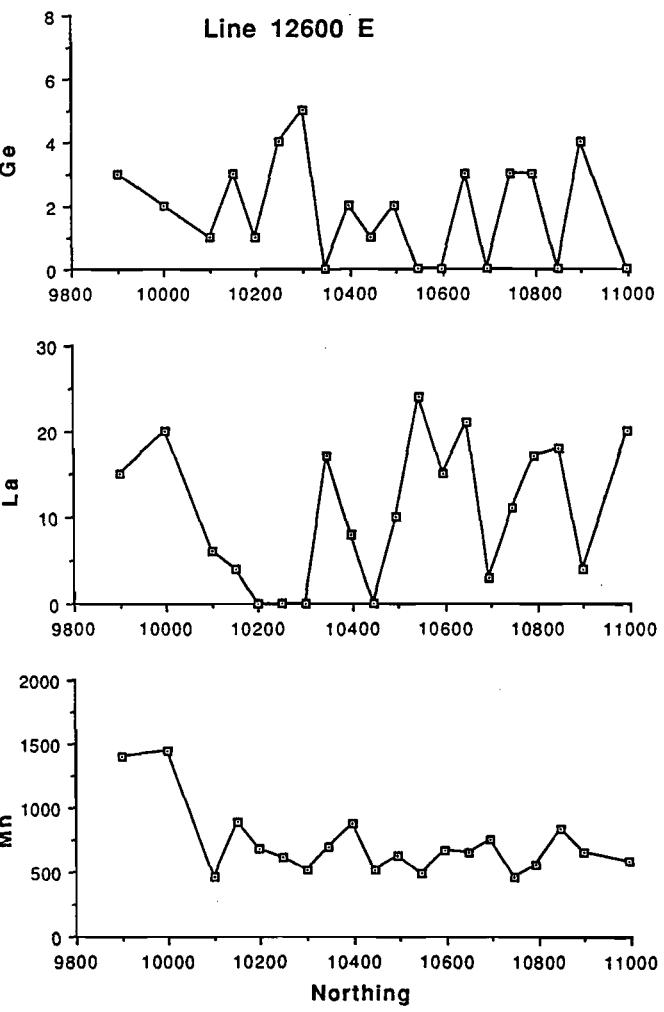
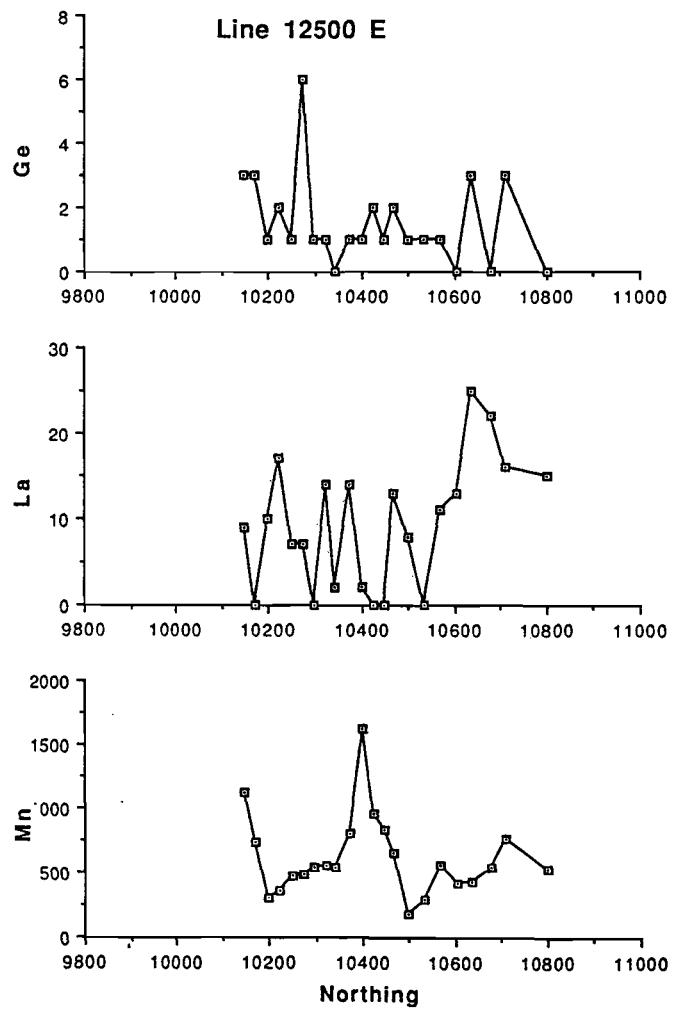
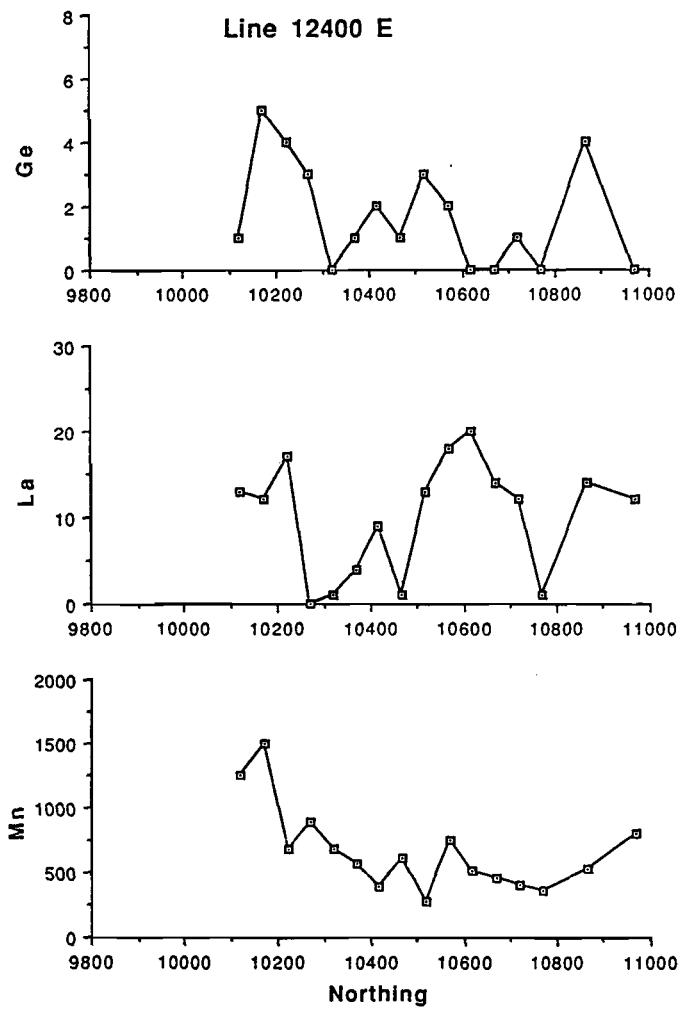
### **LAG GEOCHEMISTRY: TRAVERSES**

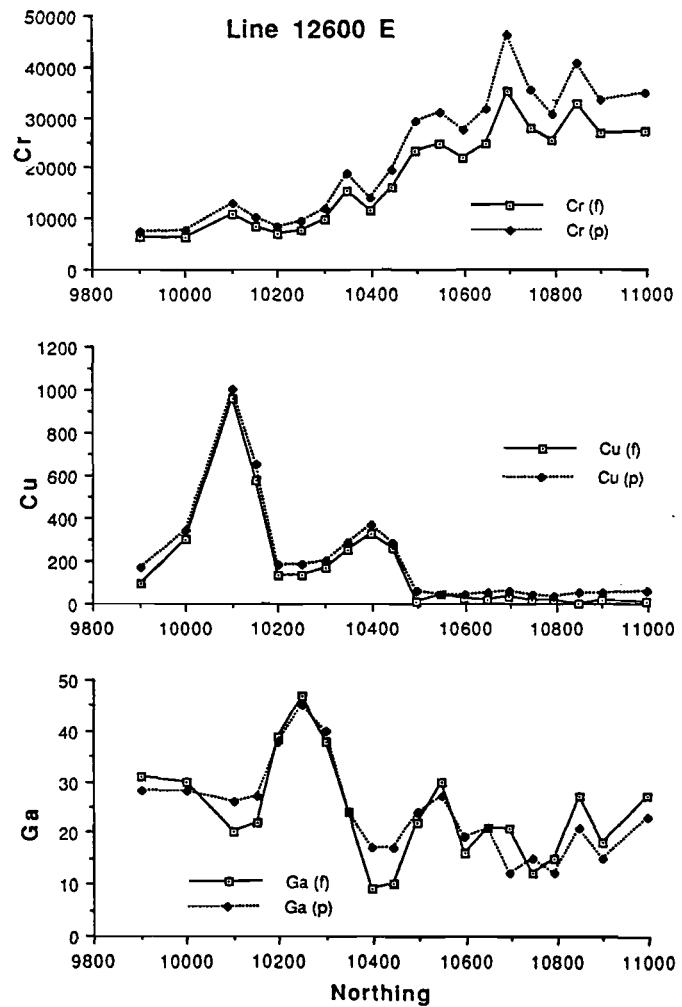
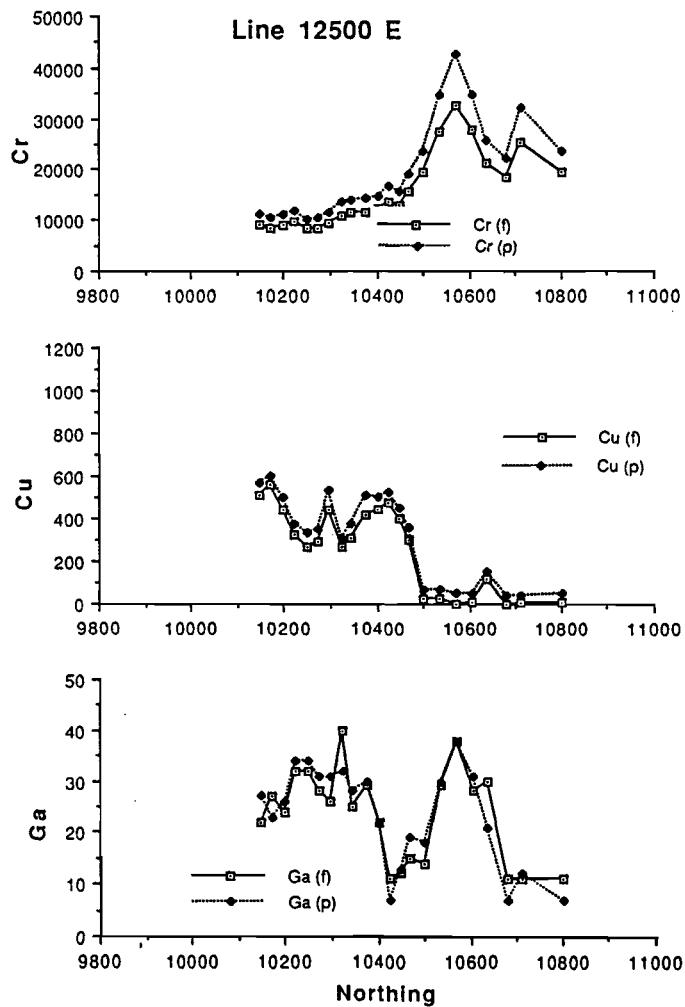
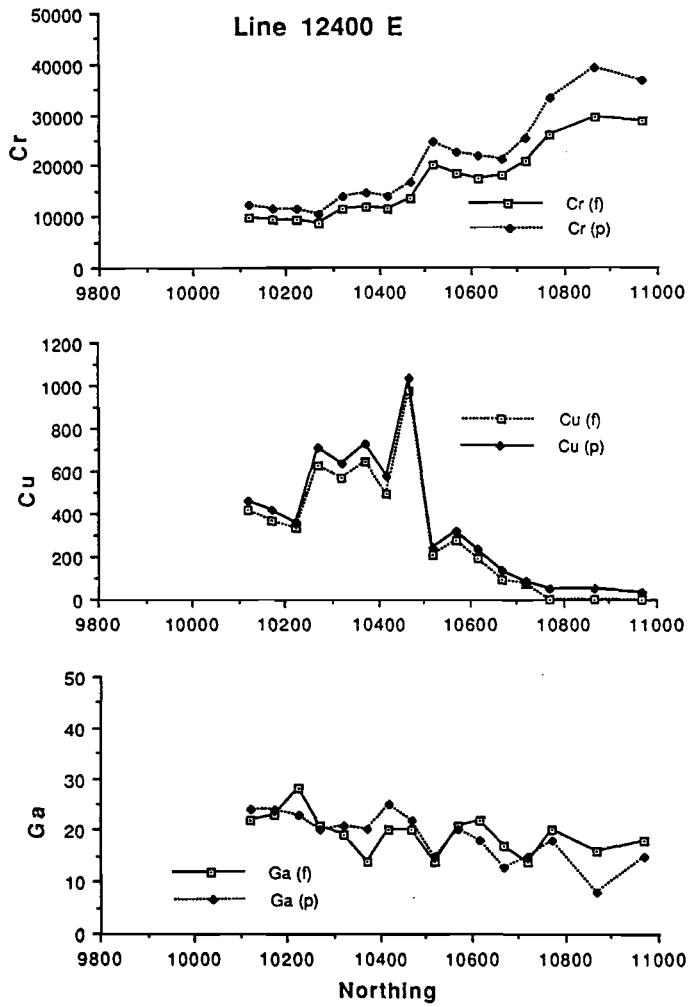


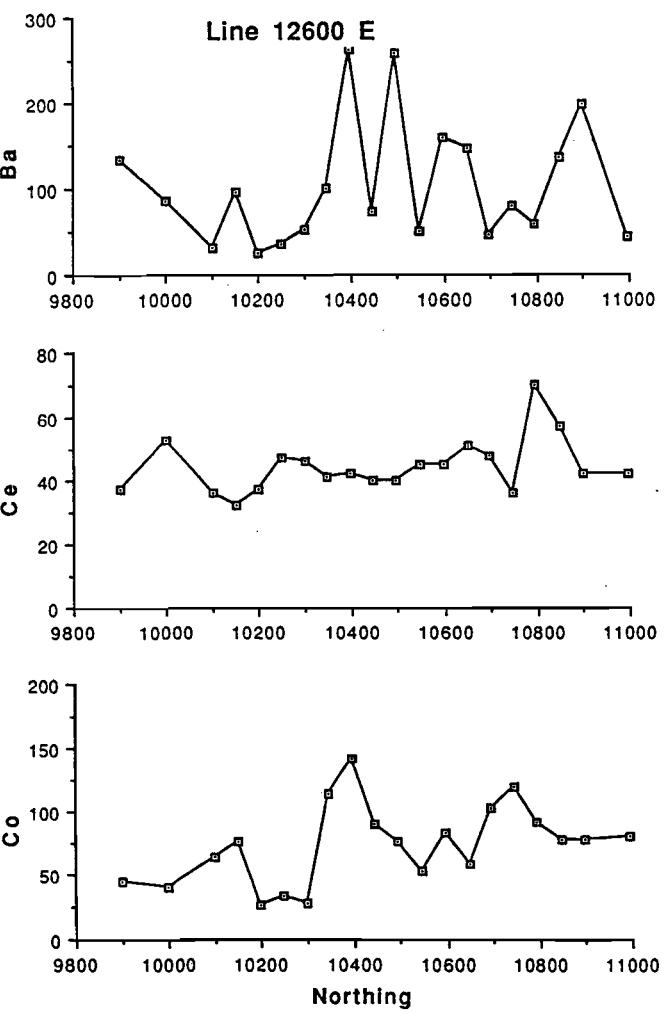
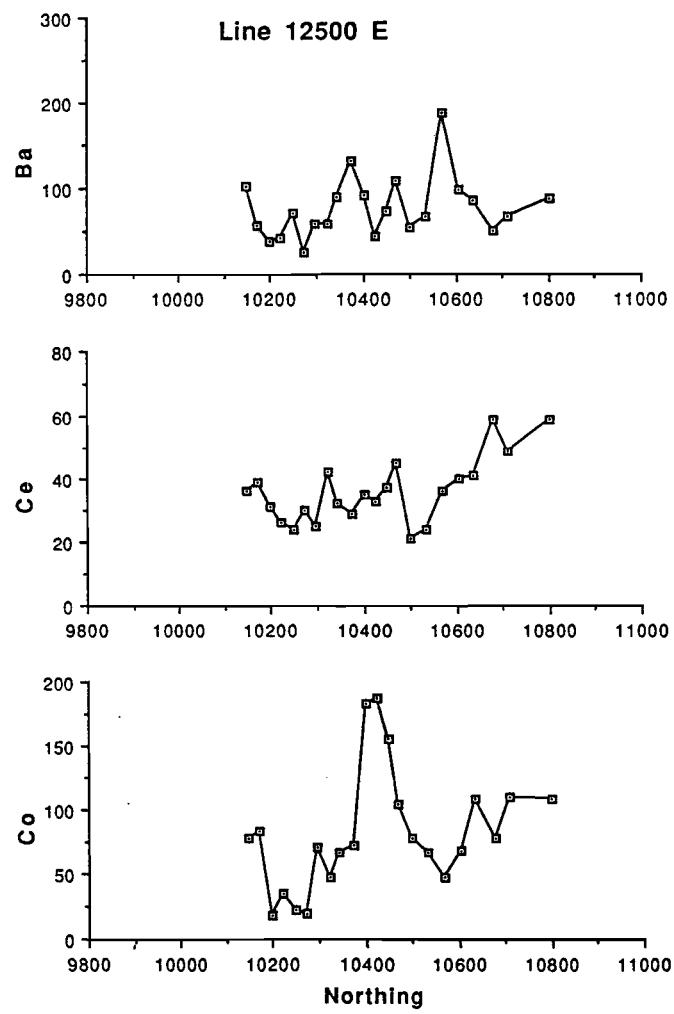
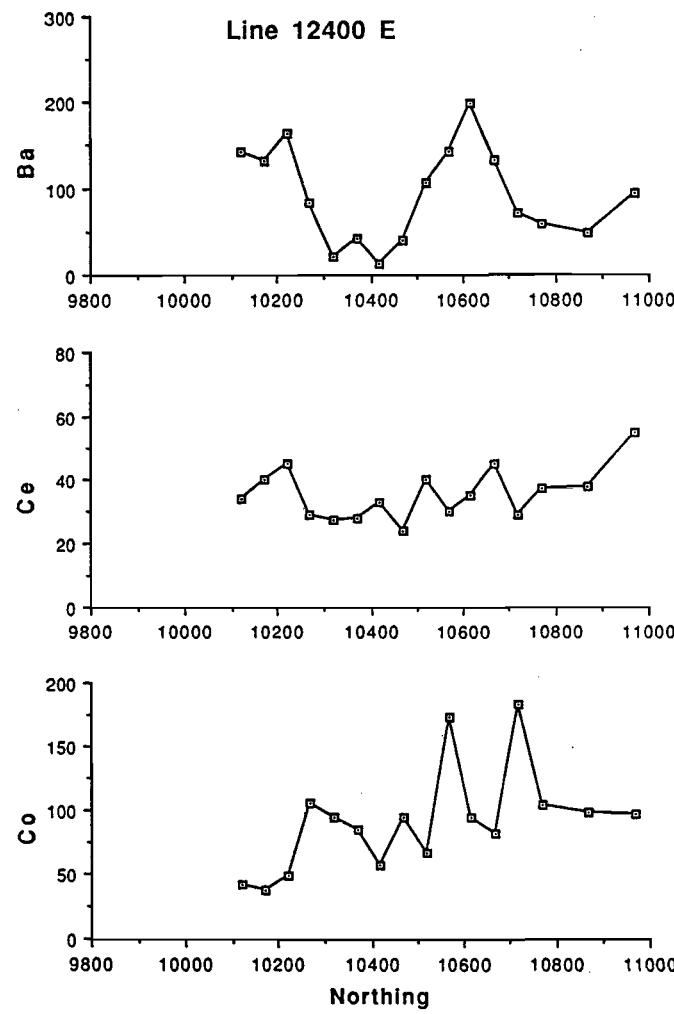


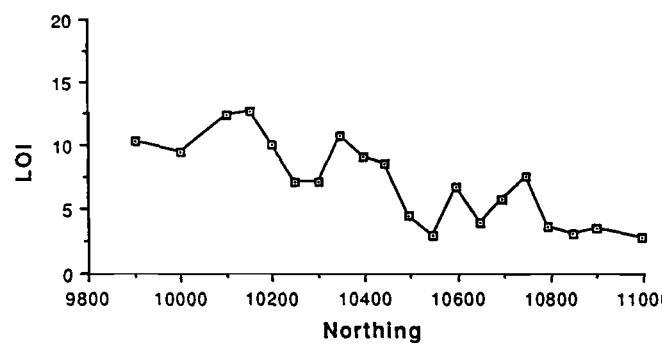
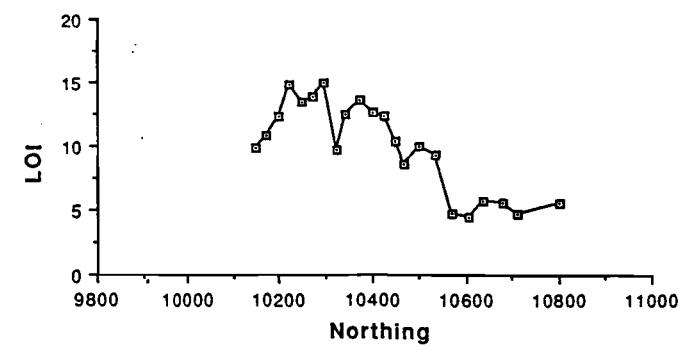
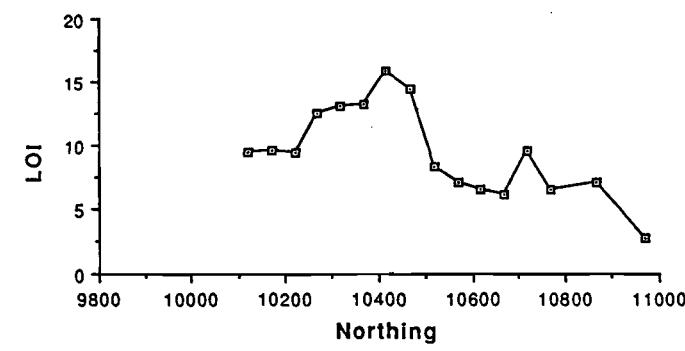
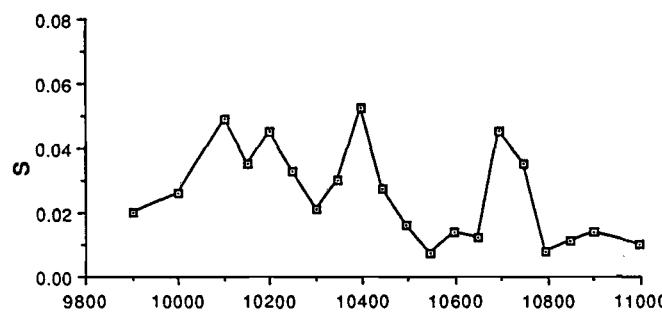
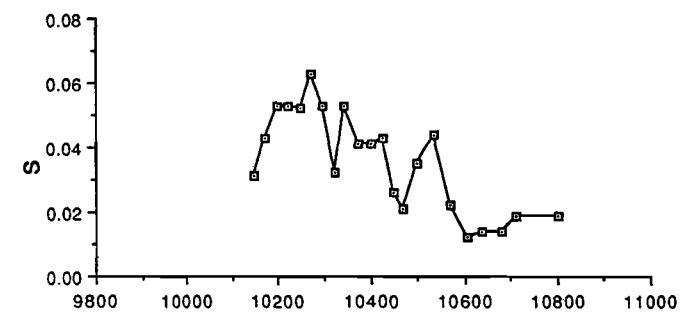
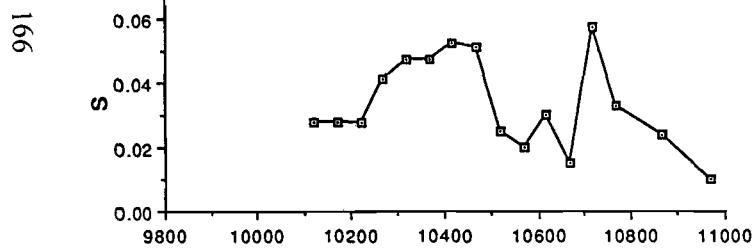
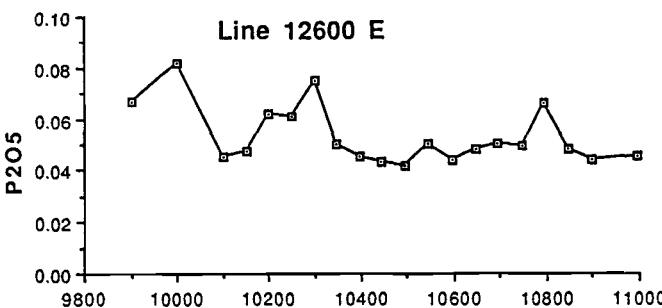
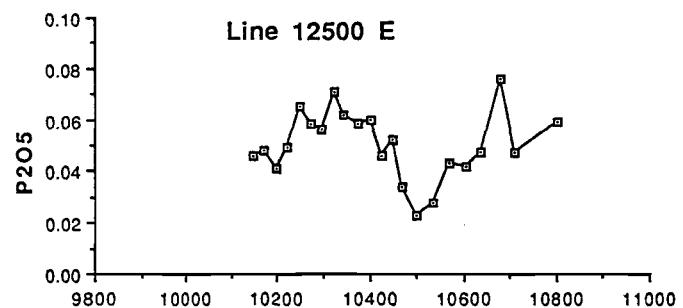
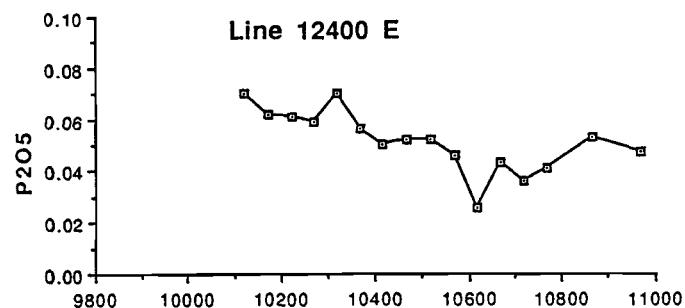


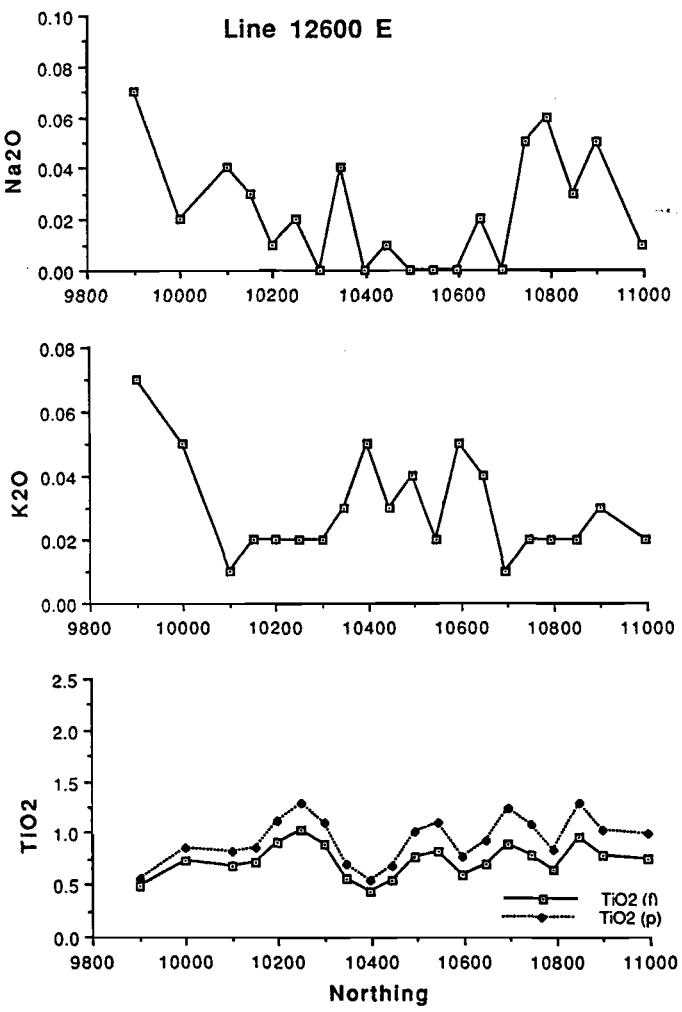
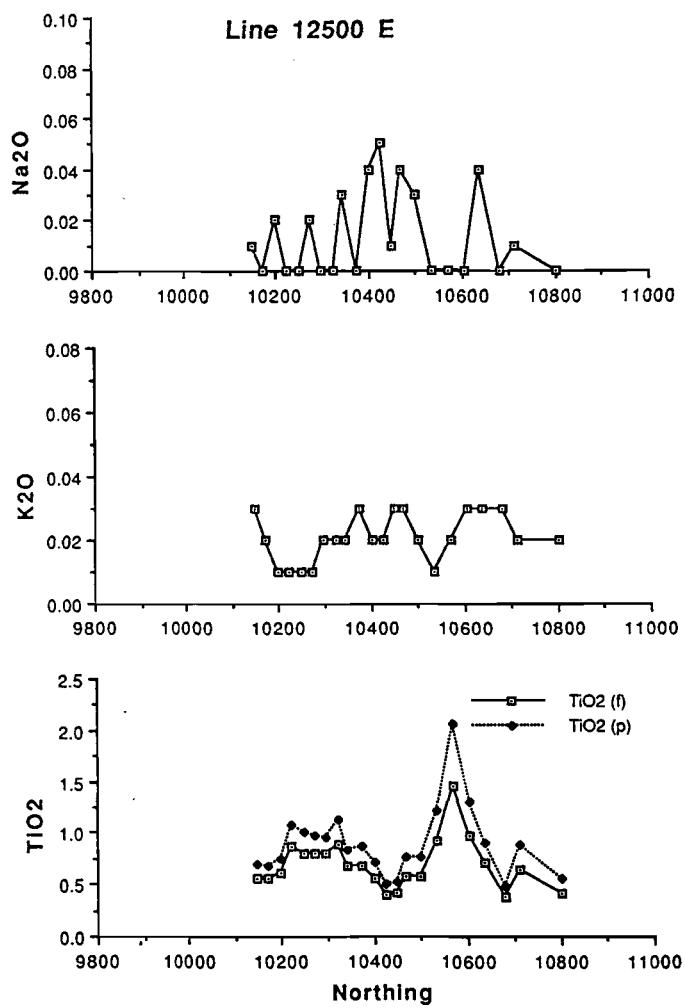
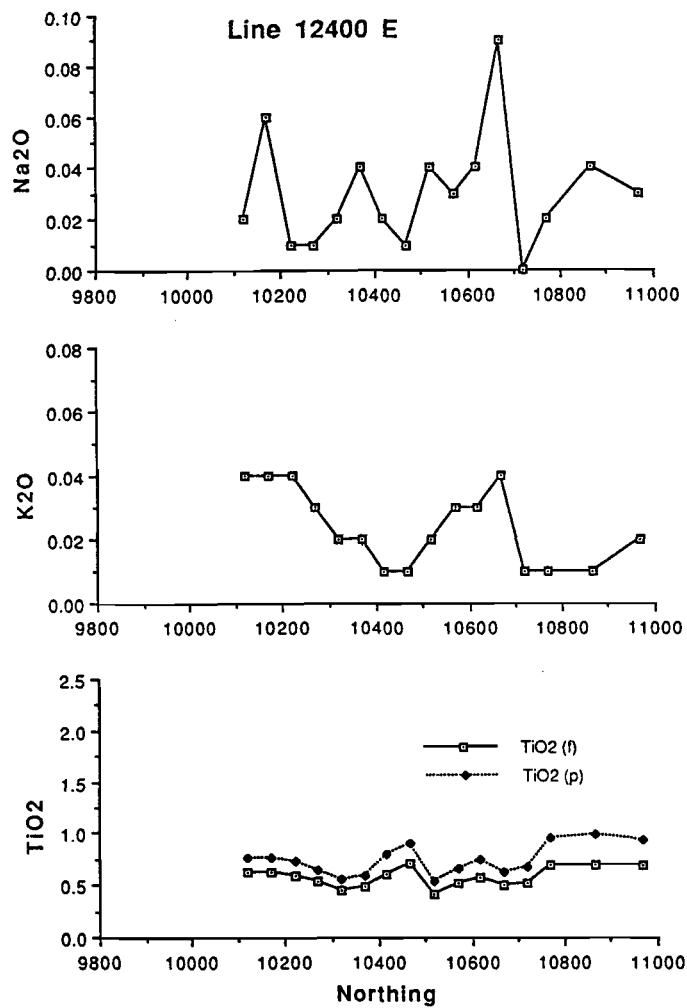


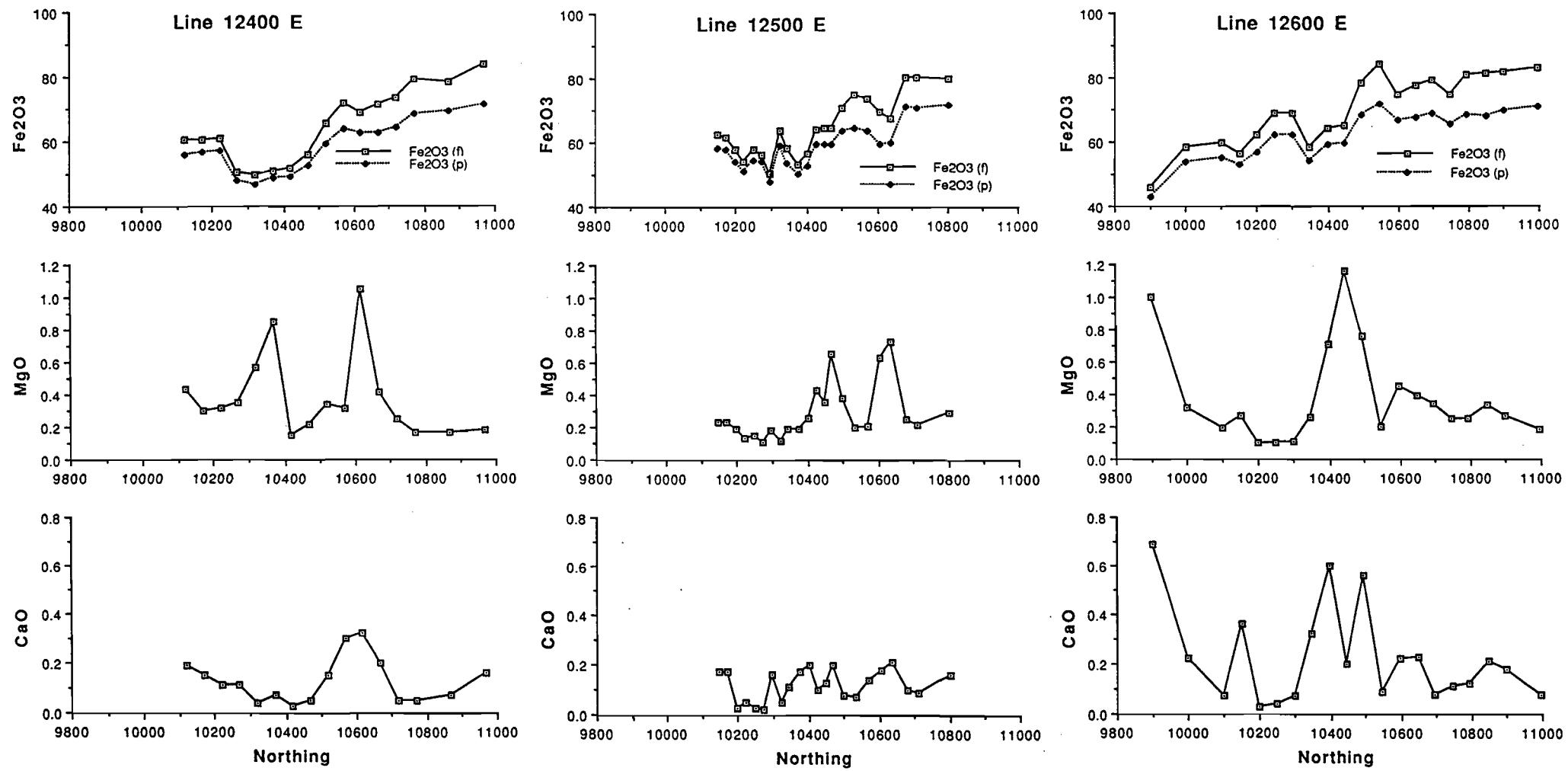


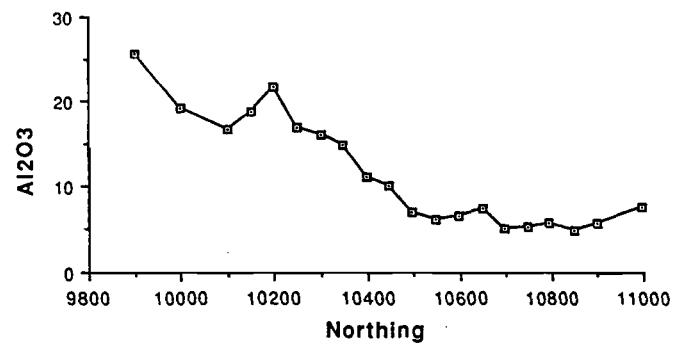
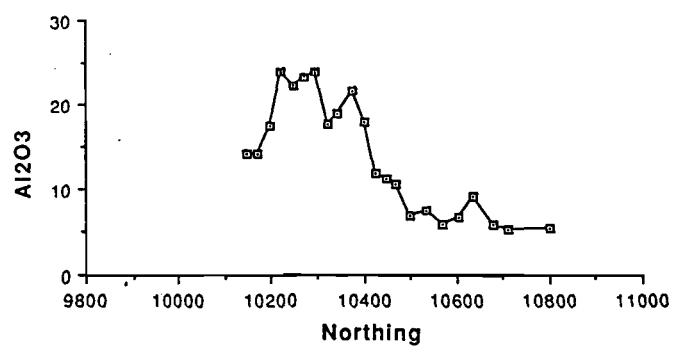
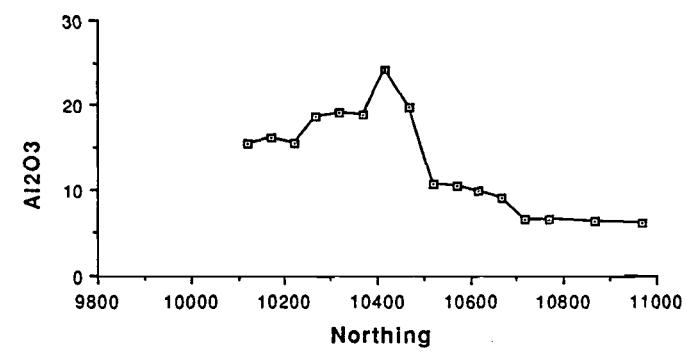
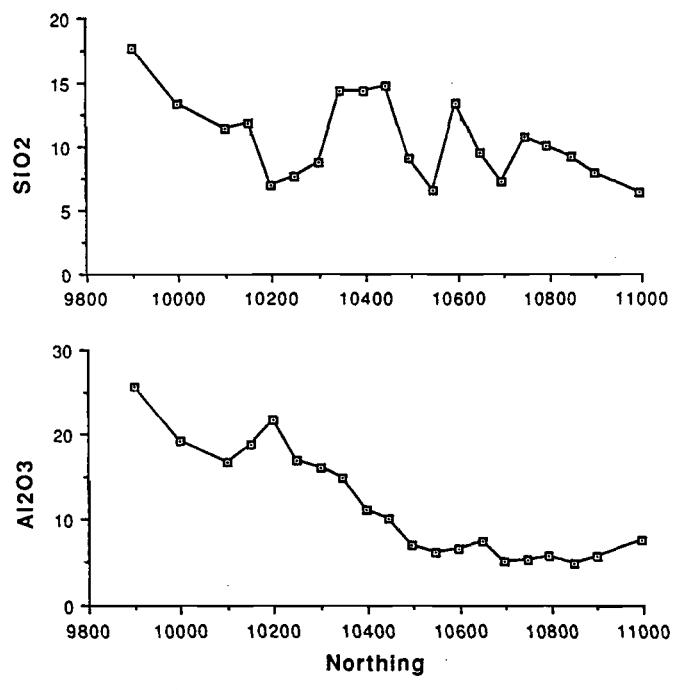
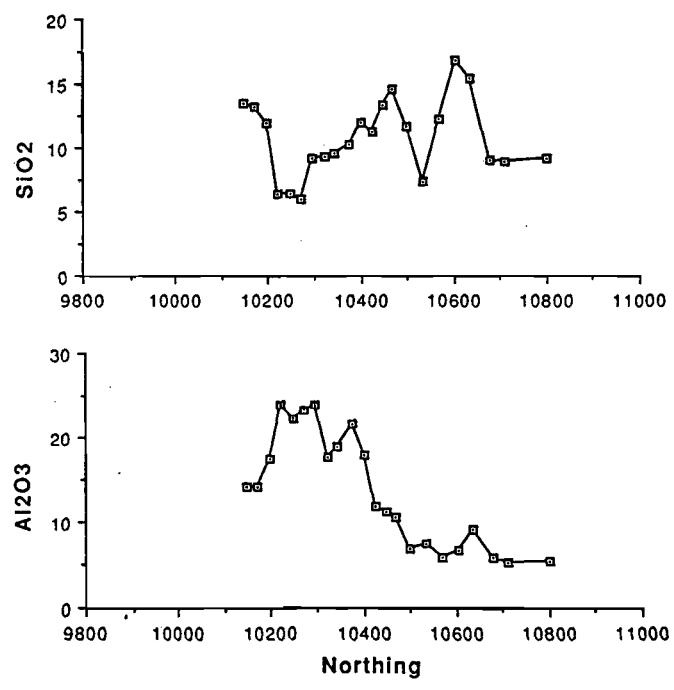
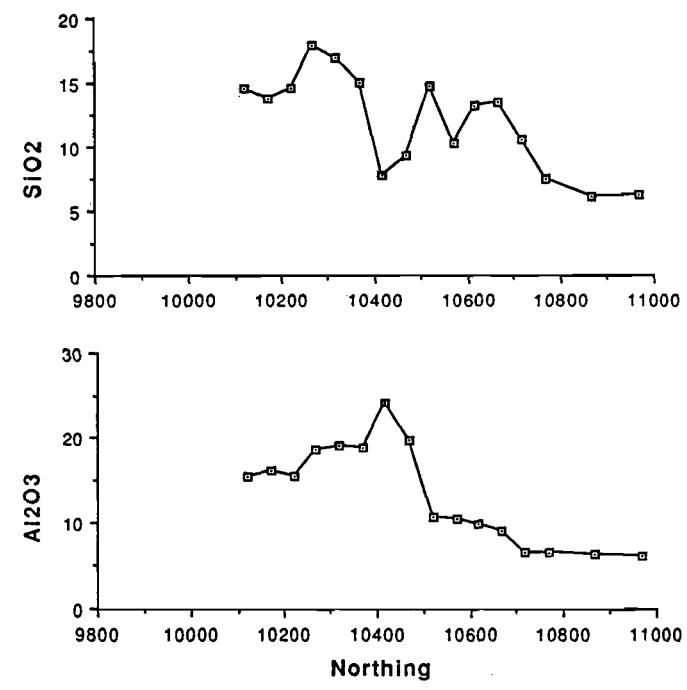
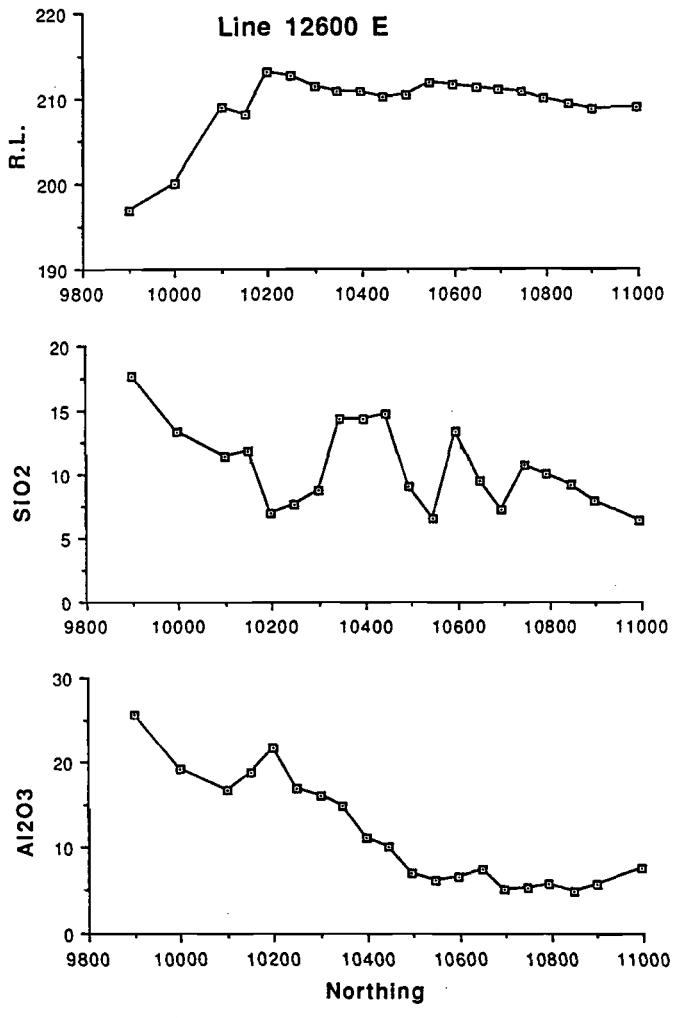
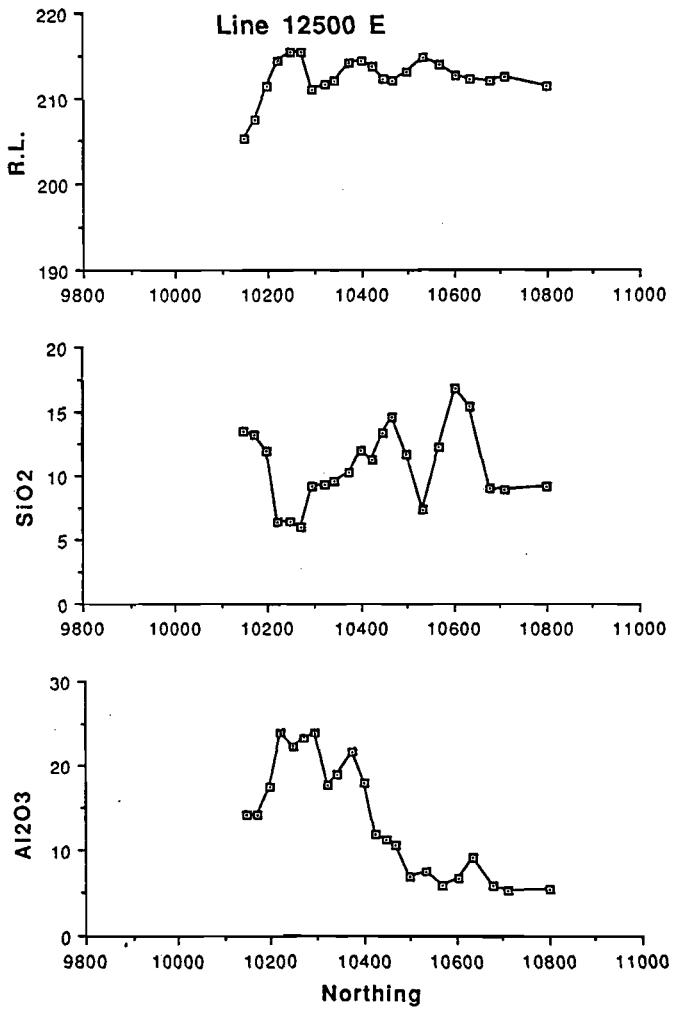
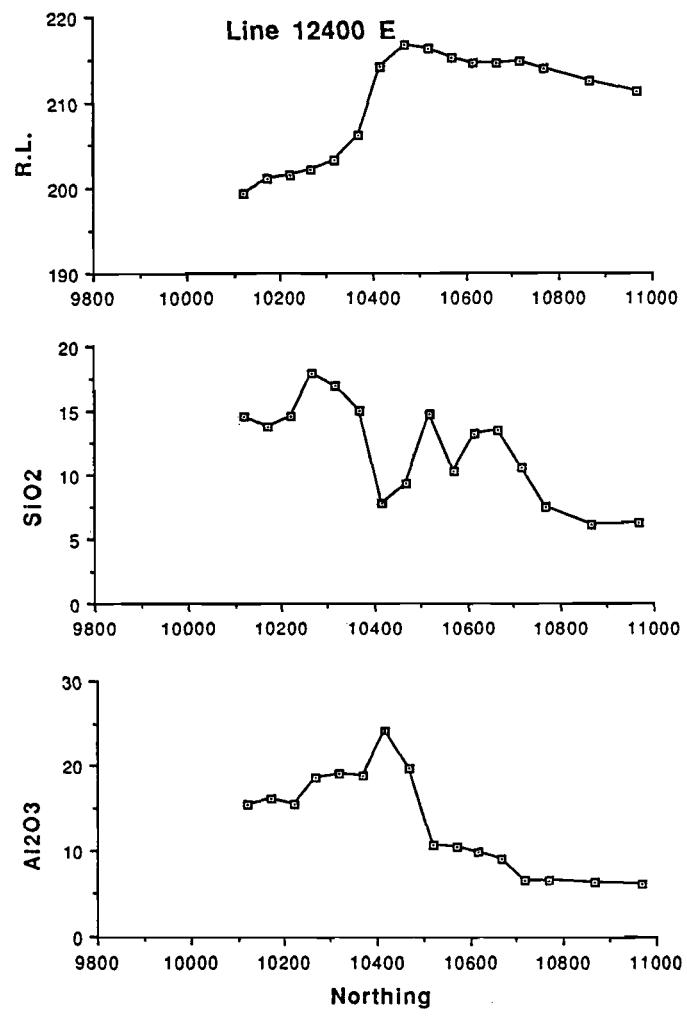






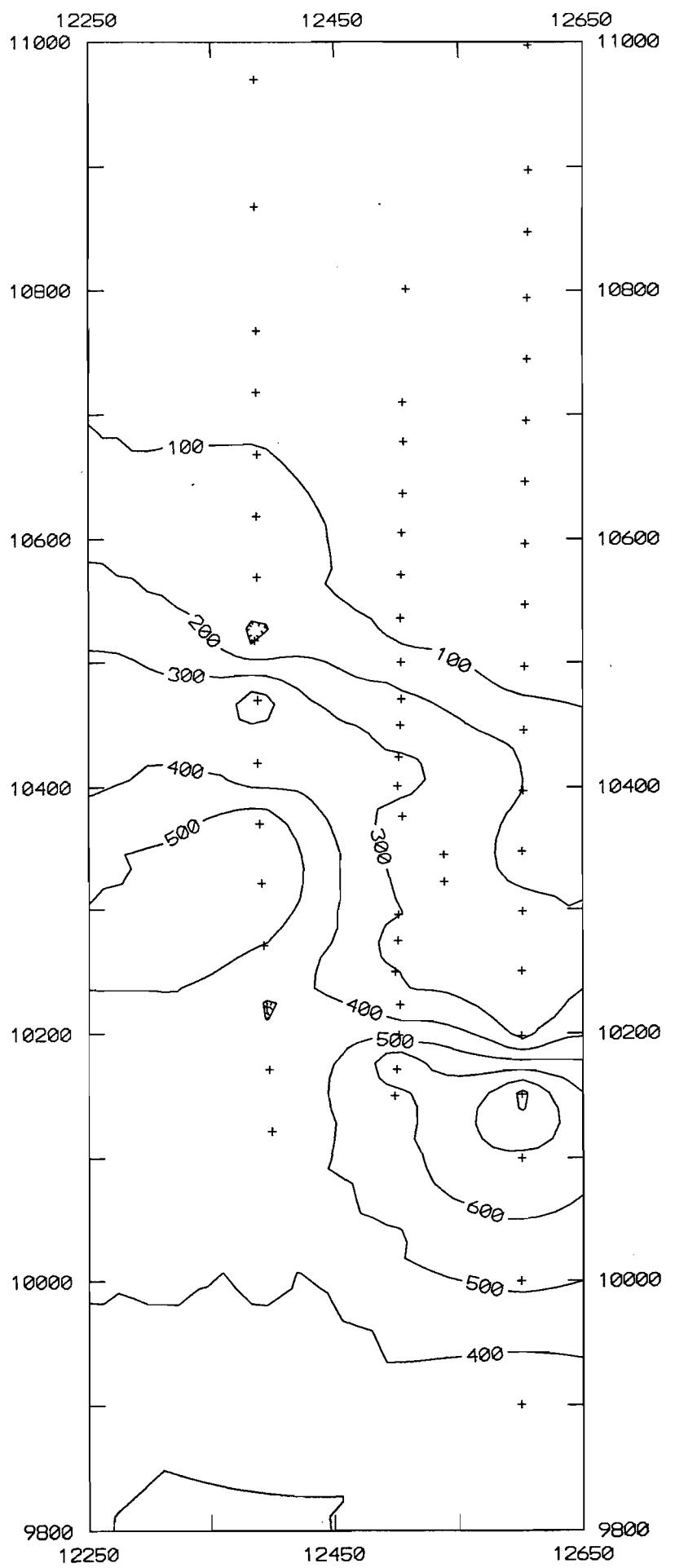




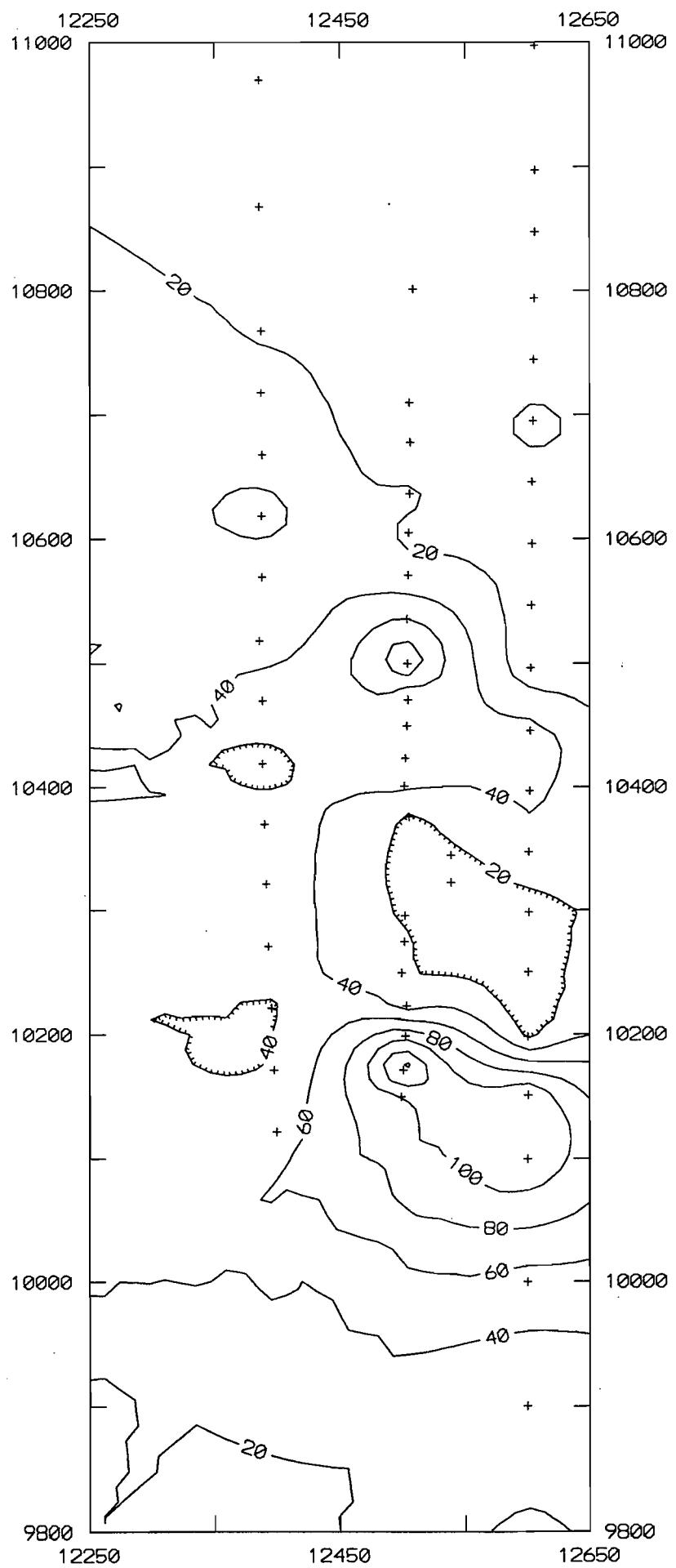


**APPENDIX VII**

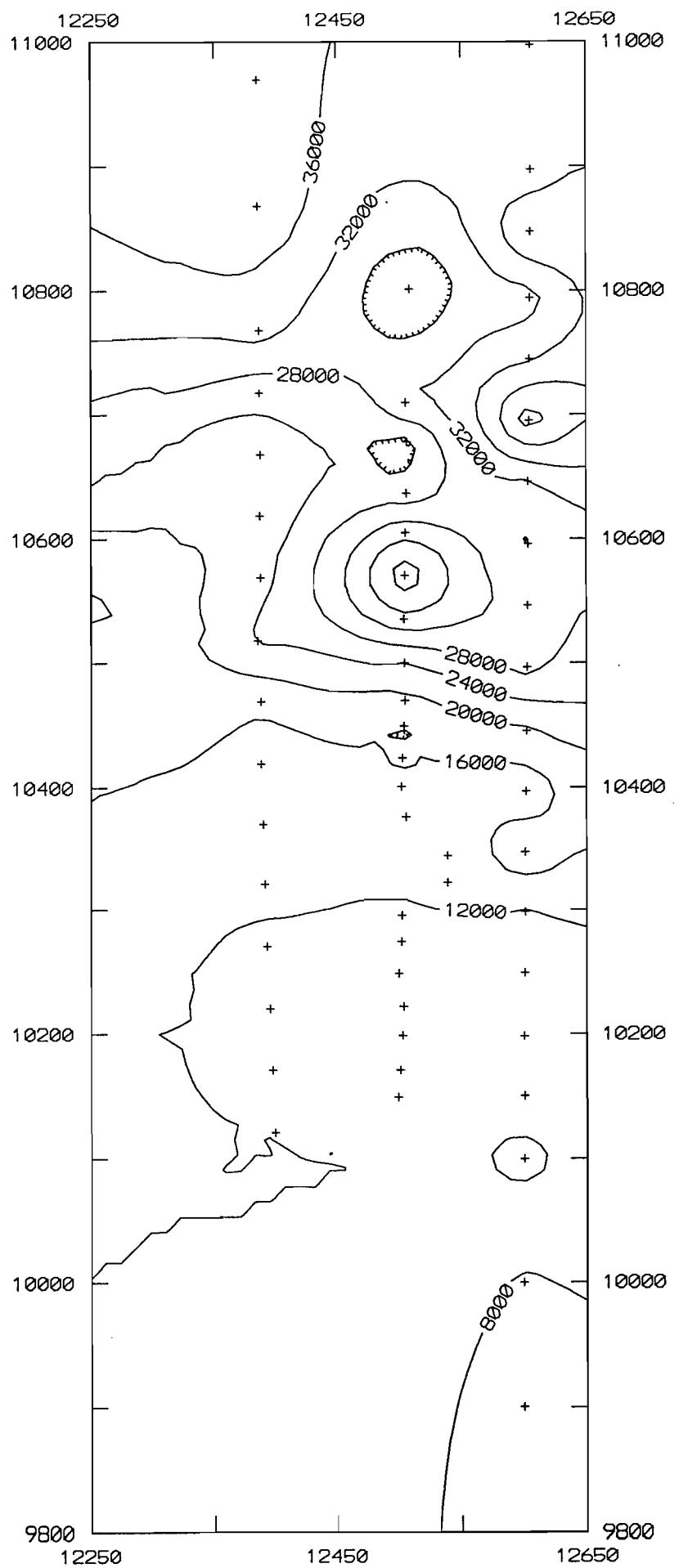
**LAG GEOCHEMISTRY: CONTOURED**



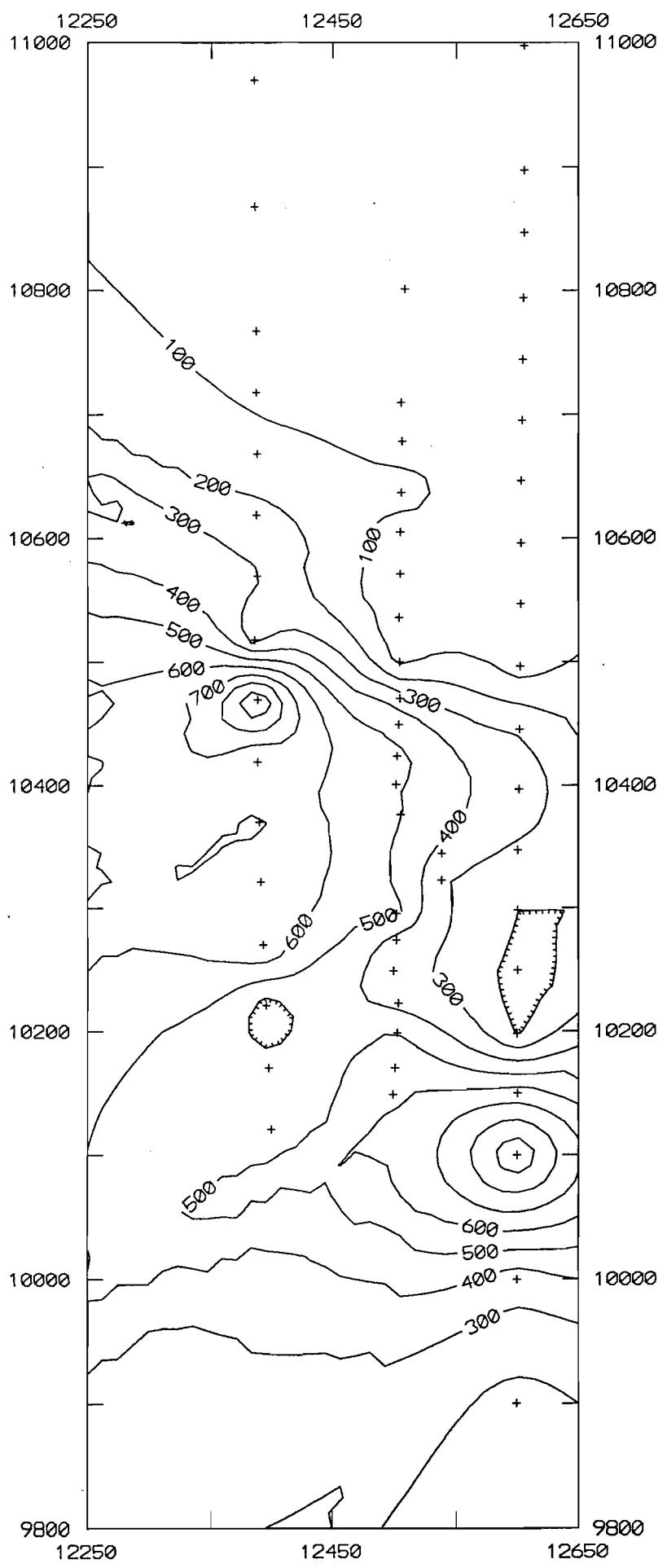
**Platinum ppb**



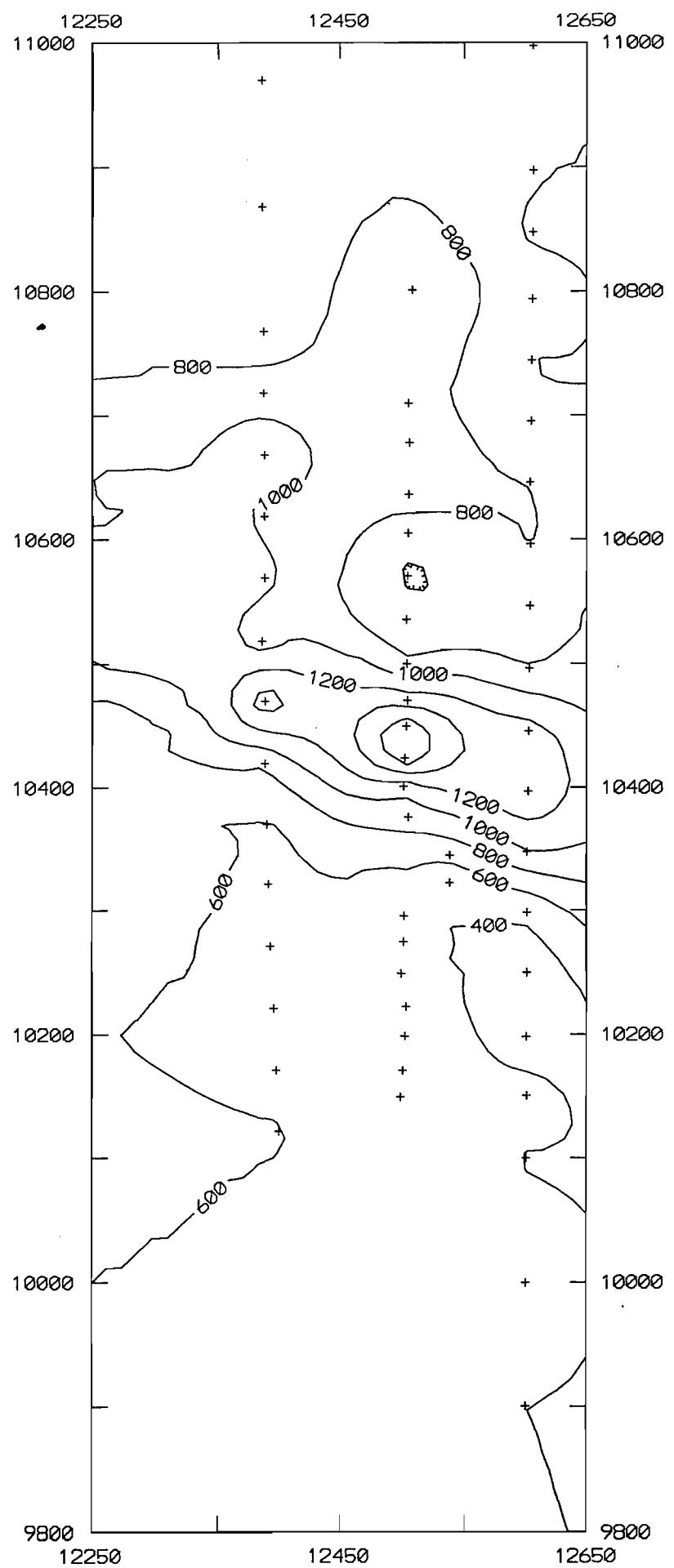
**Palladium ppb**



**Chromium ppm**



Copper ppm



Nickel ppm

## **APPENDIX VIII**

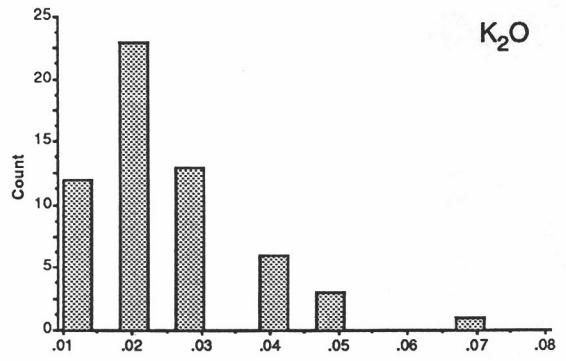
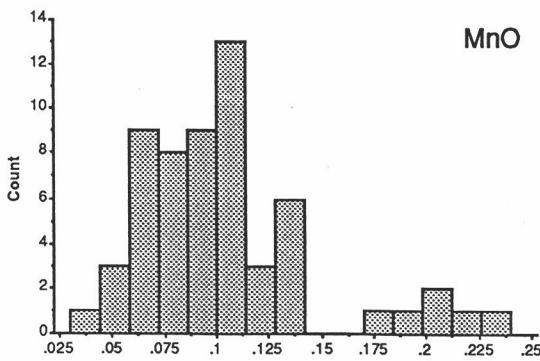
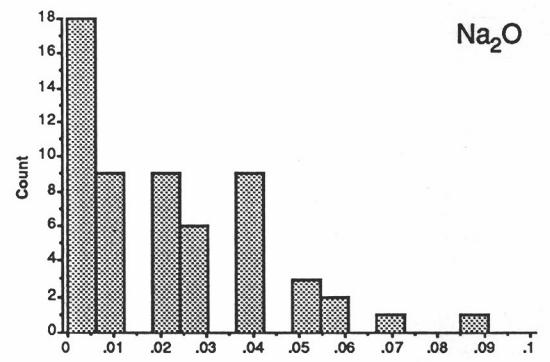
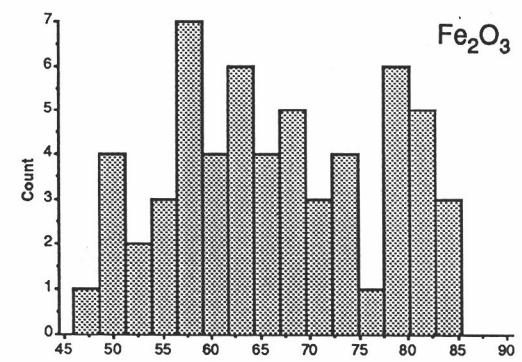
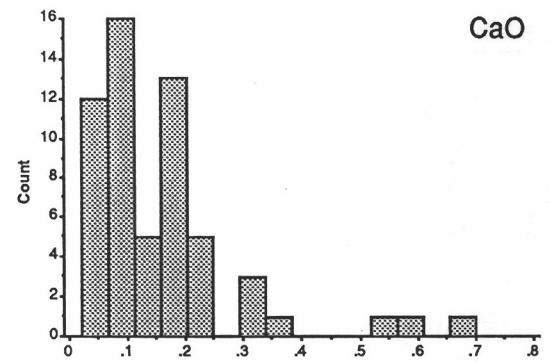
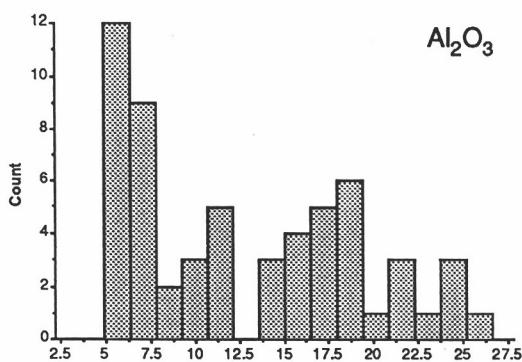
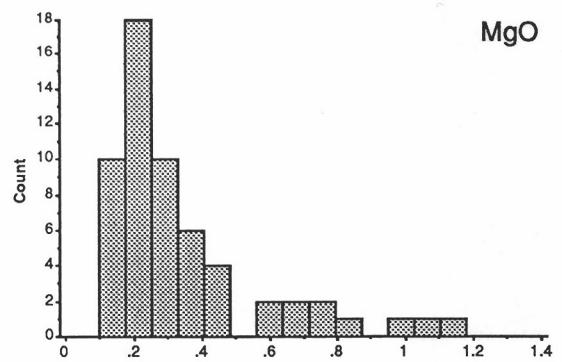
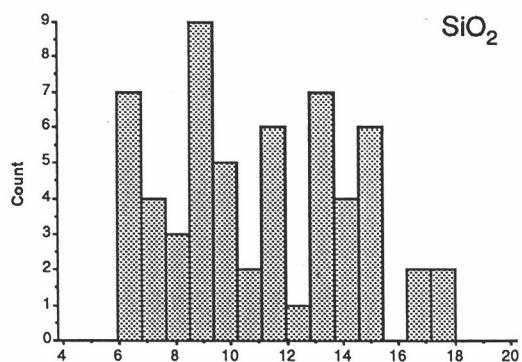
### **LAG GEOCHEMISTRY: CORRELATION MATRIX**

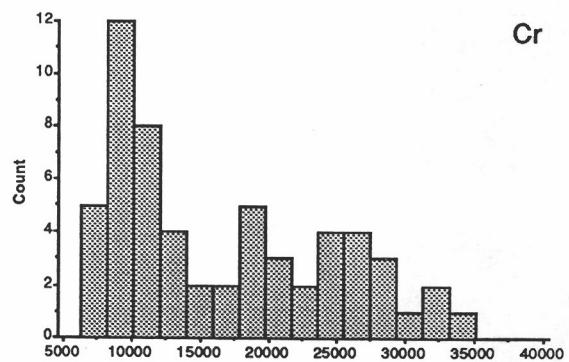
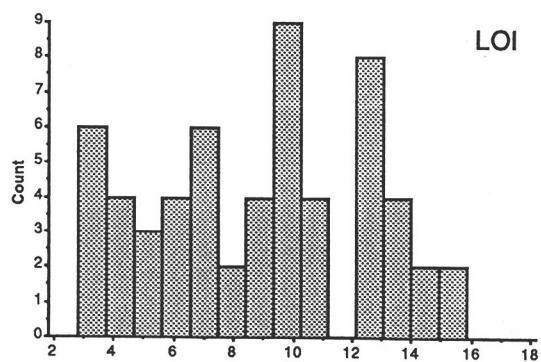
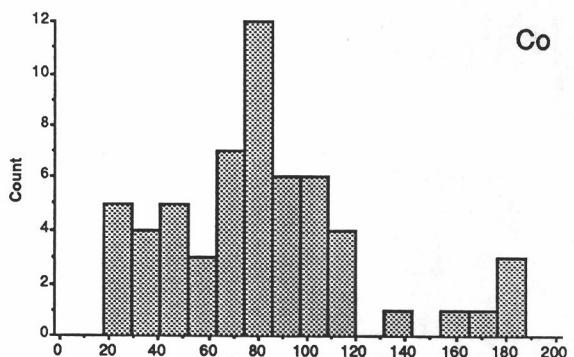
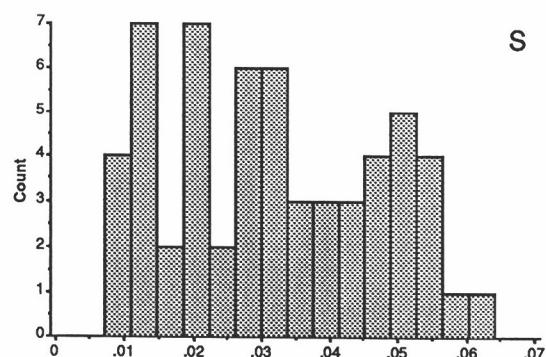
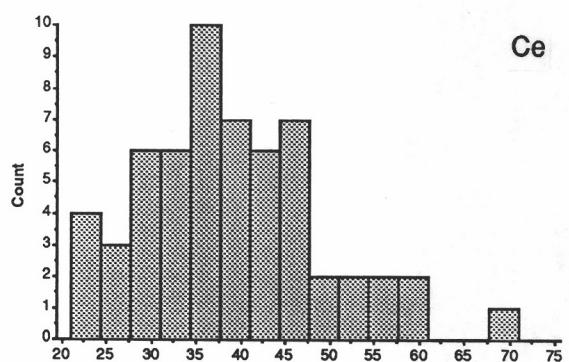
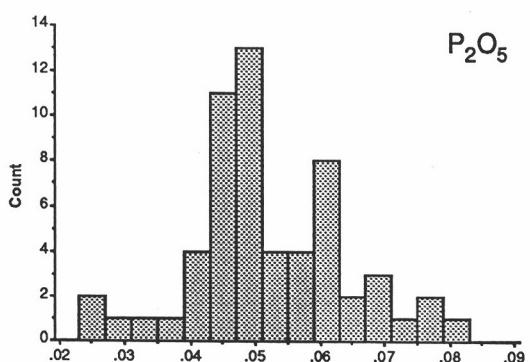
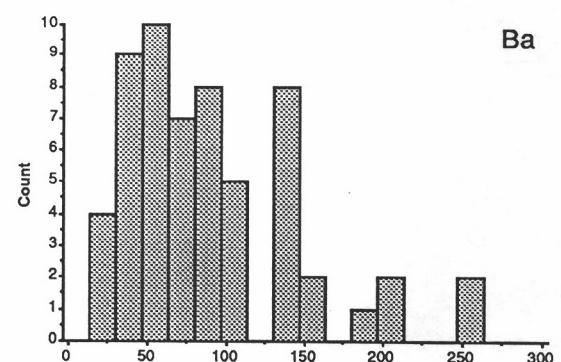
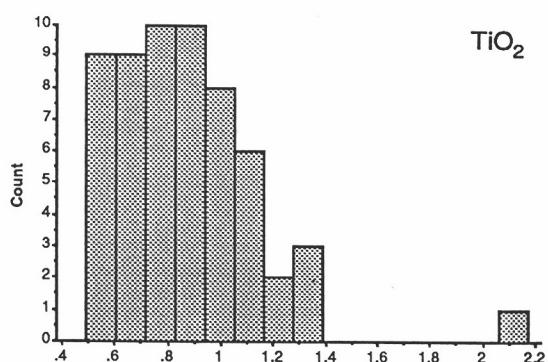
### APPENDIX VIII CORRELATION MATRIX - LAG GEOCHEMISTRY

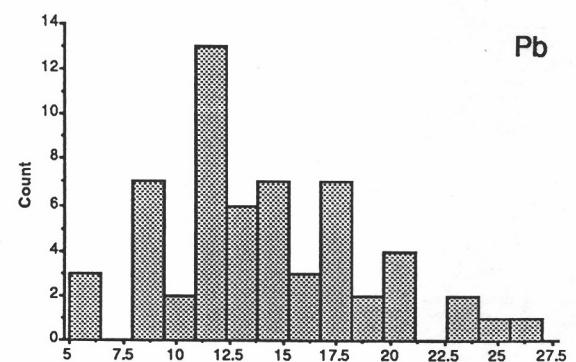
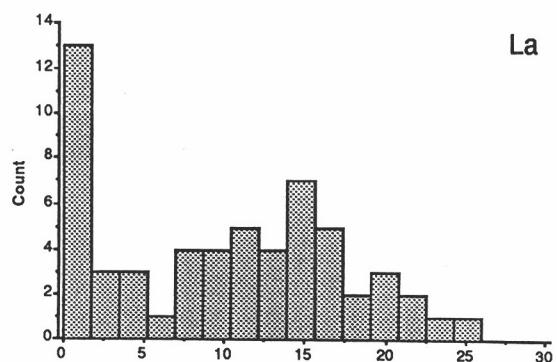
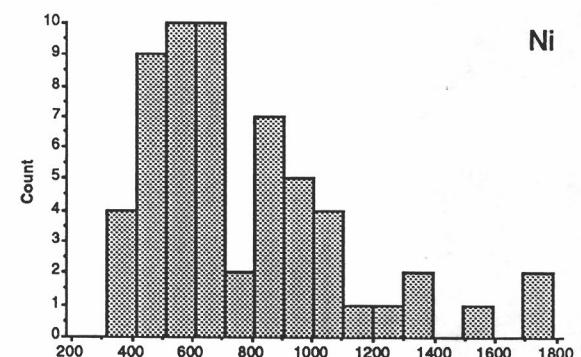
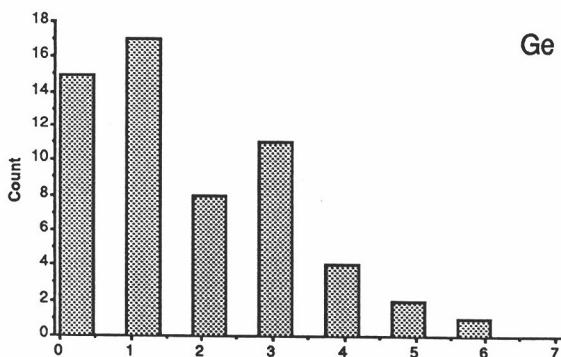
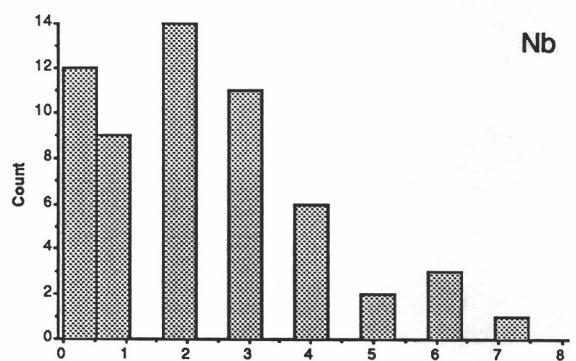
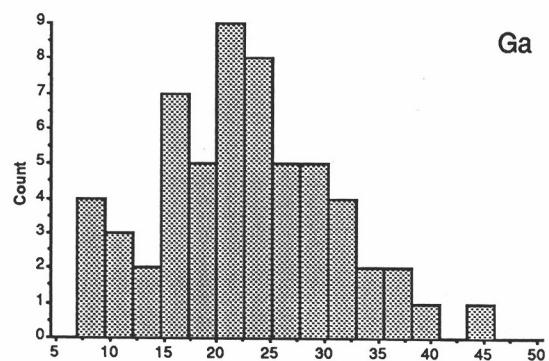
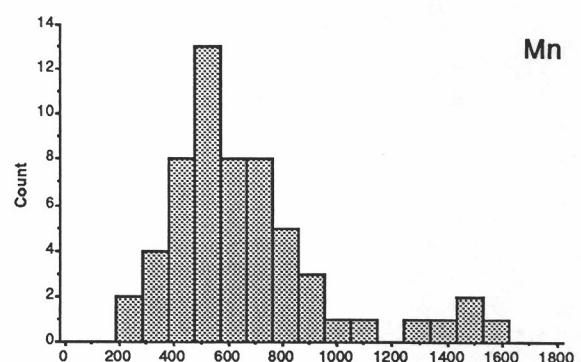
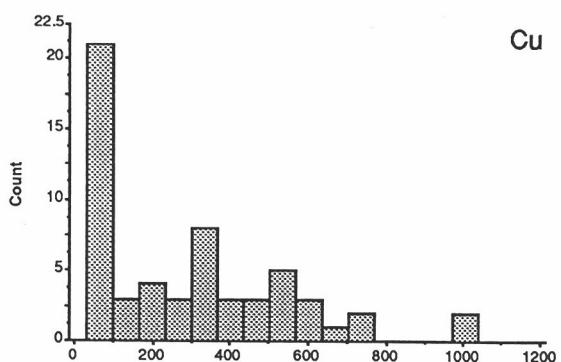
Name	Si	Al	Fe	Mg	Ca	Na	K	Ti	P	S	LOI	Ba	Ce	Co	Cr	Cu	Ga	Ge	La	Mn	Nb	Ni	Pb	Pd	Pt	Rb	Se	Sr	V	Y	Zn	Zr
Si		0.11	-0.45	0.63	0.41	0.27	0.58	-0.43	0.02	-0.08	0.16	0.30	-0.09	0.17	-0.30	0.31	-0.11	0.01	0.02	0.33	-0.32	0.19	-0.38	0.36	0.36	0.11	0.31	0.45	-0.19	0.12	-0.28	-0.34
Al	0.11		-0.91	-0.11	-0.04	-0.01	0.00	-0.17	0.18	0.63	0.34	-0.29	-0.50	-0.39	-0.86	0.69	0.58	0.21	-0.32	0.25	-0.26	-0.29	-0.05	0.26	0.68	-0.02	0.37	-0.10	-0.52	0.50	-0.54	0.34
Fe	-0.45	-0.91		-0.12	-0.06	-0.07	-0.11	0.32	-0.32	-0.65	-0.89	0.18	0.59	0.19	0.81	-0.78	-0.40	-0.16	0.35	-0.28	0.37	0.11	0.33	-0.43	-0.74	0.05	-0.47	-0.01	0.50	-0.40	0.54	-0.10
Mg	0.63	-0.11	-0.12		0.60	0.24	0.55	-0.33	-0.23	-0.20	-0.12	0.43	0.00	0.20	0.01	-0.02	-0.26	-0.12	0.11	0.13	-0.03	0.33	-0.27	0.06	0.01	0.21	0.06	0.52	-0.12	-0.10	-0.16	-0.38
Ca	0.41	-0.04	-0.06	0.60		0.21	0.15	-0.23	-0.10	-0.29	-0.18	0.74	0.14	0.18	-0.04	-0.11	-0.08	0.04	0.23	0.41	-0.11	0.19	-0.06	0.00	0.02	0.07	-0.08	0.92	-0.14	0.16	-0.14	-0.25
Na	0.27	-0.01	-0.07	0.24	0.21		0.23	-0.29	-0.05	-0.20	-0.05	0.08	0.11	0.14	0.00	0.01	-0.31	0.20	0.13	0.22	-0.22	0.11	-0.09	0.04	0.02	0.30	-0.16	0.19	-0.13	0.13	0.00	-0.23
K	0.58	0.00	-0.11	0.55	0.75	0.23		-0.31	0.19	-0.44	-0.21	0.66	0.27	-0.02	-0.18	-0.13	-0.06	0.11	0.34	0.54	-0.10	0.12	0.10	-0.10	0.02	0.17	0.01	0.85	-0.20	0.34	-0.19	-0.18
Ti	-0.43	-0.17	0.32	-0.33	-0.23	-0.29	-0.31		-0.10	-0.12	-0.32	0.02	0.04	-0.40	0.45	-0.36	0.54	0.00	0.00	-0.23	0.40	-0.44	0.29	-0.29	-0.30	-0.18	-0.19	-0.20	0.75	-0.15	0.22	0.72
P	0.02	0.46	-0.32	-0.23	-0.10	-0.05	0.19	-0.10		0.01	0.19	-0.22	0.26	-0.32	-0.45	0.18	0.22	0.21	0.00	0.13	0.03	-0.32	0.30	-0.27	0.26	0.18	-0.04	0.04	-0.29	0.56	-0.15	0.34
S	-0.08	0.63	-0.65	-0.20	-0.29	-0.20	-0.44	-0.12	0.01		0.85	-0.36	-0.70	-0.02	-0.52	0.61	0.26	0.03	-0.57	-0.10	-0.22	-0.08	-0.39	0.41	0.49	-0.31	0.39	-0.39	-0.36	-0.01	-0.27	0.02
LOI	0.16	0.84	-0.89	-0.12	-0.18	-0.05	-0.21	-0.32	0.19	0.85		-0.36	-0.71	-0.07	-0.76	0.79	0.29	0.10	-0.48	0.09	-0.35	-0.01	-0.45	0.48	0.68	-0.17	0.47	-0.26	-0.51	0.26	-0.42	-0.01
Ba	0.30	-0.29	0.18	0.43	0.74	0.08	0.66	0.02	-0.22	-0.36	-0.36		0.16	0.11	0.18	-0.25	-0.09	0.04	0.28	0.26	-0.02	0.18	0.05	-0.16	-0.18	0.04	0.03	0.82	0.24	0.07	0.04	-0.14
Ce	-0.09	-0.50	0.59	0.00	0.14	0.11	0.27	0.04	0.26	-0.70	-0.71	0.16		-0.01	0.36	-0.51	-0.32	0.02	0.45	0.14	0.20	0.02	0.55	-0.41	-0.41	0.25	-0.44	0.24	0.11	0.13	0.37	0.03
Co	0.17	-0.39	0.19	0.20	0.18	0.14	-0.02	-0.40	-0.32	-0.02	-0.07	0.11	-0.01		0.26	0.01	-0.65	-0.21	-0.08	0.15	-0.20	0.70	-0.44	0.04	-0.18	-0.02	-0.04	0.14	-0.05	-0.34	0.08	-0.62
Cr	-0.30	-0.86	0.83	0.01	-0.04	0.00	-0.18	0.45	-0.45	-0.52	-0.76	0.18	0.36	0.26		-0.69	-0.42	-0.27	0.30	-0.32	0.39	0.13	0.06	-0.42	-0.75	-0.08	-0.44	-0.01	0.70	-0.54	0.60	-0.09
Cu	0.31	0.59	-0.78	-0.02	-0.11	0.01	-0.13	-0.36	0.18	0.61	0.79	-0.25	-0.51	0.01	-0.69	0.18	0.08	-0.44	0.23	-0.46	0.08	-0.36	0.64	0.86	0.01	0.36	-0.14	-0.43	0.30	-0.36	-0.06	
Ga	-0.11	0.56	-0.40	-0.26	-0.08	-0.31	-0.06	0.54	0.22	0.26	0.29	-0.09	-0.32	-0.65	-0.42	0.18		0.16	-0.19	0.00	0.05	-0.58	0.31	0.04	0.31	-0.05	0.25	-0.12	0.10	0.26	-0.46	0.78
Ge	0.01	0.21	-0.16	-0.12	0.04	0.20	0.11	0.00	0.21	0.03	0.10	0.04	0.02	-0.21	-0.27	0.08	0.16		-0.08	0.18	-0.05	-0.23	0.07	0.05	0.19	0.14	0.13	0.11	-0.07	0.33	0.02	0.16
La	0.02	-0.32	0.35	0.11	0.23	0.13	0.34	0.00	0.00	-0.57	-0.48	0.28	0.45	-0.08	0.30	-0.44	-0.19	-0.08		-0.01	0.11	-0.01	0.33	-0.35	-0.41	0.24	-0.23	0.36	0.10	0.16	0.22	-0.05
Mn	0.33	0.25	-0.28	0.13	0.41	0.22	0.54	-0.23	0.13	-0.10	0.09	0.26	0.14	0.15	-0.32	0.23	0.00	0.18	-0.01		-0.20	0.02	0.02	0.12	0.38	0.19	-0.19	0.53	-0.25	0.54	-0.03	-0.08
Nb	-0.32	-0.26	0.37	-0.03	-0.11	-0.22	-0.10	0.40	0.03	-0.22	-0.35	-0.02	0.20	-0.20	0.39	-0.46	0.05	-0.05	0.11	-0.20		-0.17	0.15	-0.39	-0.40	-0.20	-0.28	-0.08	0.44	-0.14	0.22	0.23
Ni	0.19	-0.29	0.11	0.33	0.19	0.11	0.12	-0.44	-0.32	-0.08	-0.01	0.18	0.02	0.70	0.13	0.08	-0.58	-0.23	-0.01	0.02	-0.17		-0.39	0.01	-0.22	0.01	-0.01	0.19	-0.06	-0.17	0.06	-0.58
Pb	-0.38	-0.05	0.33	-0.27	-0.06	-0.09	0.10	0.29	0.30	-0.39	-0.45	0.05	0.58	-0.44	0.06	-0.36	0.31	0.07	0.33	0.02	0.15	-0.39		-0.42	-0.23	0.20	-0.11	0.02	0.06	0.31	0.01	0.56
Pd	0.36	0.26	-0.43	0.06	0.00	0.04	-0.10	-0.29	-0.27	0.41	0.48	-0.16	-0.41	0.04	-0.42	0.64	0.04	0.05	-0.35	0.12	-0.39	0.01	-0.42	0.78	-0.10	0.23	-0.08	-0.32	0.05	-0.14	-0.30	
Pt	0.36	0.68	-0.74	0.01	0.02	0.02	0.02	-0.30	0.26	0.49	0.68	-0.18	-0.41	-0.18	-0.75	0.86	0.31	0.19	-0.41	0.38	-0.40	-0.22	-0.23	0.75	0.04	0.28	-0.01	-0.47	0.39	-0.35	-0.01	
Rb	0.11	-0.02	0.05	0.21	0.07	0.30	0.17	-0.18	0.18	-0.31	-0.17	0.04	0.25	-0.02	-0.08	0.01	-0.05	0.14	0.24	0.19	-0.20	0.01	0.20	-0.10	0.04		-0.07	0.10	-0.15	0.14	-0.06	-0.08
Se	0.31	0.37	-0.47	0.06	-0.08	-0.16	0.01	-0.19	-0.04	0.39	0.47	0.03	-0.44	-0.04	-0.44	0.36	0.25	0.13	-0.23	-0.19	-0.28	-0.01	-0.11	0.23	0.28	-0.07		-0.04	-0.15	0.07	-0.42	0.03
Sr	0.43	-0.10	-0.01	0.52	0.82	0.19	0.85	-0.20	0.04	-0.39	-0.26	0.12	0.24	0.14	-0.01	-0.14	-0.12	0.11	0.36	0.53	-0.08	0.19	0.02	-0.08	-0.01	0.10	-0.04		-0.05	0.26	-0.07	-0.23
V	-0.19	-0.52	0.50	-0.12	-0.14	-0.13	-0.20	0.75	-0.29	-0.36	-0.51	0.24	0.11	-0.05	0.70	-0.43	0.10	-0.07	0.10	-0.25	0.44	-0.06	0.06	-0.32	-0.47	-0.15	-0.15	-0.05		-0.31	0.31	0.32
Y	0.12	0.50	-0.40	-0.10	0.16	0.13	0.34	-0.15	0.15	-0.01	0.26	0.07	0.13	-0.34	-0.54	0.30	0.26	0.33	0.16	0.54	-0.14	-0.17	0.31	0.05	0.39	0.14	0.07	0.26	-0.31	-0.02	0.25	
Zn	-0.28	-0.54	0.54	-0.16	-0.14	0.00	-0.19	0.22	-0.15	-0.27	-0.42	0.04	0.37	0.08	0.60	-0.36	-0.46	0.02	0.22	-0.03	0.22	0.06	0.01	-0.14	-0.35	-0.06	-0.42	-0.07	0.31	-0.02		-0.16
Zr	-0.34	0.34	-0.10	-0.38	-0.25	-0.23	-0.18	0.72	0.34	0.02	-0.01	-0.14	0.03	-0.62	-0.09	-0.06	0.78	0.16	-0.05	-0.08	0.23	-0.58	0.56	-0.30	-0.01	-0.08	0.03	-0.23	0.32	0.25	-0.16	

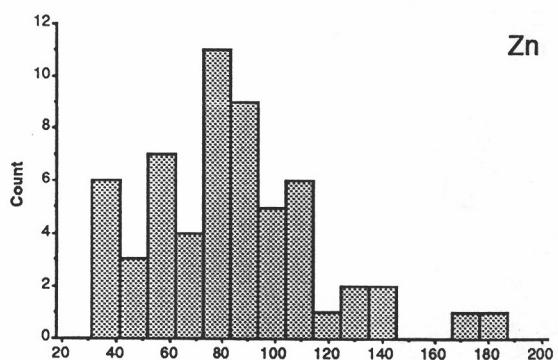
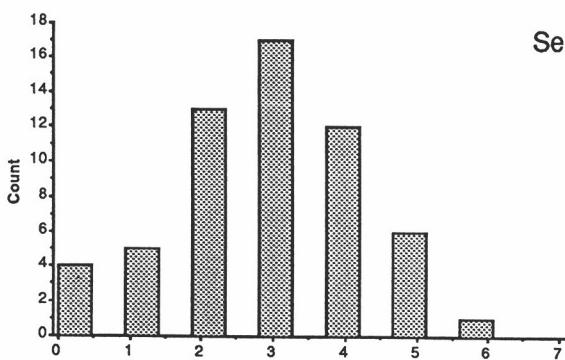
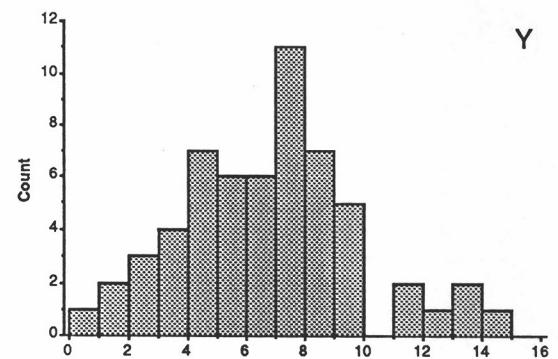
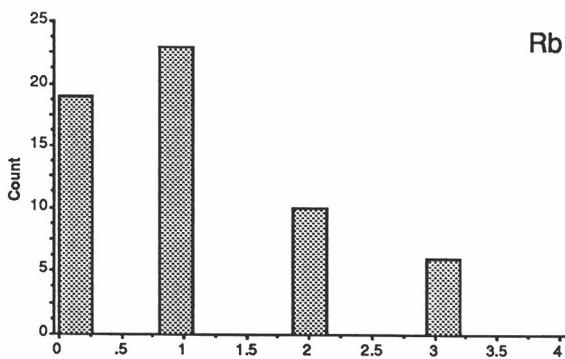
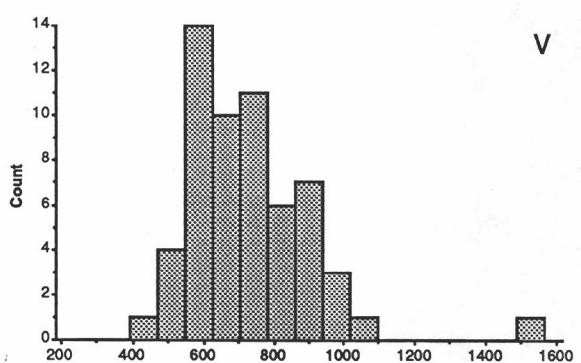
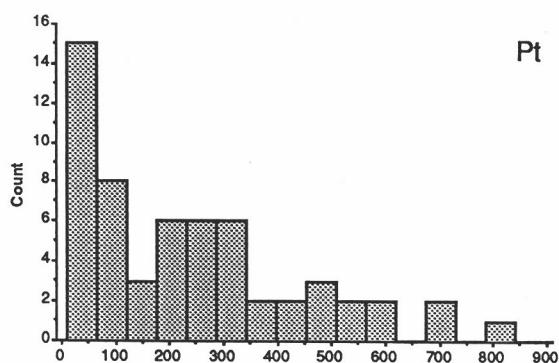
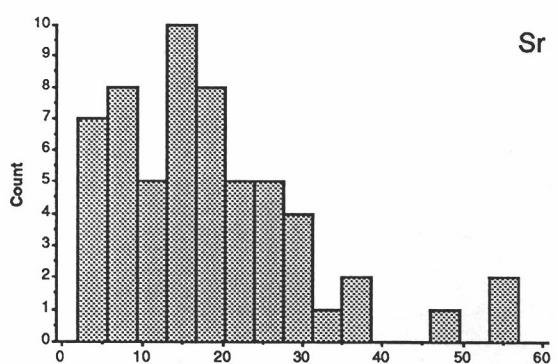
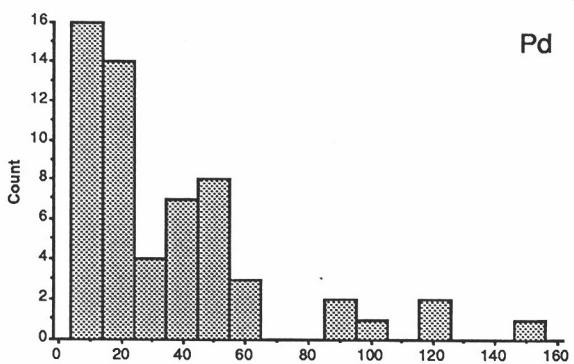
## **APPENDIX IX**

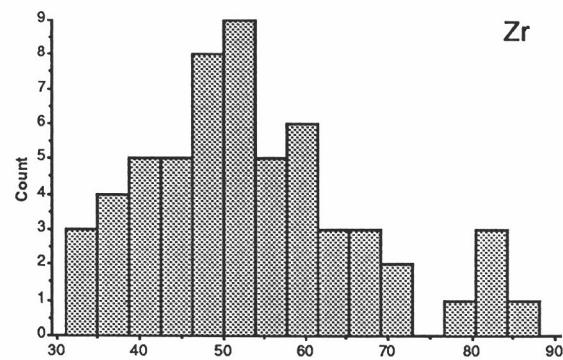
### **LAG GEOCHEMISTRY: FREQUENCY DISTRIBUTIONS**











## **APPENDIX X**

### **LAG AND DURICRUST GEOCHEMISTRY AND MINERALOGY: DATA LISTINGS**

Sample Numbers			Co-ordinates			XF(f)	XF(f)	XF(f)	XF(p)	XF(f)	XF(f)	XF(f)	XF(f)	XF(f)	XF(f)	XF(f)	XF(p)	XF(f)	GRAV	Total
Fld No	Lab Seq	Lib No	North m	East m	R.L. m	SIO2 %	Al2O3 %	Fe2O3 %	Fe2O3 %	MnO %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	TiO2 %	P2O5 %	S %	LOI %	- %
Units	-	-																		
OB 01	L08-1489	08-1489	10801.36	12508.34	211.459	9.10	5.48	79.84	71.63	0.09	0.29	0.16	0.00	0.02	0.42	0.56	0.059	0.019	5.57	101.04
OB 02	L08-1539	08-1490	10709.81	12505.31	212.546	8.82	5.18	80.52	70.77	0.12	0.22	0.09	0.01	0.02	0.65	0.89	0.047	0.019	4.72	100.41
OB 03	L08-1505	08-1491	10678.02	12506.42	212.020	8.99	5.90	80.40	71.20	0.09	0.25	0.10	0.00	0.03	0.38	0.49	0.076	0.014	5.52	101.75
OB 04	L08-1541	08-1492	10636.83	12505.62	212.330	15.36	9.15	67.46	59.90	0.07	0.73	0.21	0.04	0.03	0.71	0.91	0.047	0.014	5.73	99.56
OB 05	L08-1542	08-1493	10604.93	12505.08	212.734	16.86	6.73	69.49	59.76	0.06	0.63	0.18	0.00	0.03	0.97	1.30	0.042	0.012	4.40	99.41
OB 06	L08-1517	08-1494	10570.70	12504.61	213.908	12.29	5.87	73.85	63.91	0.09	0.21	0.14	0.00	0.02	1.45	2.07	0.043	0.022	4.69	98.67
OB 07	L08-1549	08-1495	10535.70	12503.80	214.788	7.39	7.46	74.87	64.77	0.05	0.20	0.07	0.00	0.01	0.92	1.22	0.028	0.044	9.24	100.28
OB 08	L08-1545	08-1496	10499.91	12504.06	213.062	11.62	6.94	70.91	63.76	0.03	0.38	0.08	0.03	0.02	0.58	0.77	0.023	0.035	9.99	100.64
OB 09	L08-1493	08-1497	10470.17	12504.81	212.127	14.64	10.71	64.40	59.62	0.09	0.66	0.20	0.04	0.03	0.57	0.76	0.034	0.021	8.67	100.07
OB 10	L08-1514	08-1498	10449.64	12503.69	212.269	13.31	11.28	64.50	59.76	0.12	0.36	0.13	0.01	0.03	0.41	0.52	0.052	0.026	10.40	100.63
OB 11	L08-1537	08-1499	10423.65	12502.40	213.647	11.23	11.83	64.25	59.48	0.14	0.43	0.10	0.05	0.02	0.40	0.50	0.046	0.043	12.40	100.94
OB 12	L08-1536	08-1500	10400.94	12501.75	214.439	11.91	17.90	56.56	52.90	0.23	0.26	0.20	0.04	0.02	0.56	0.71	0.060	0.041	12.70	100.48
OB 13	L08-1507	08-1501	10376.24	12505.42	214.232	10.24	21.69	53.41	50.61	0.11	0.19	0.17	0.00	0.03	0.68	0.87	0.058	0.041	13.60	100.22
OB 14	L08-1512	08-1502	10345.02	12538.45	211.992	9.53	18.93	58.43	53.90	0.08	0.19	0.11	0.03	0.02	0.67	0.84	0.062	0.053	12.50	100.61
OB 15	L08-1546	08-1503	10322.48	12538.70	211.757	9.24	17.63	63.91	59.05	0.09	0.12	0.05	0.00	0.02	0.89	1.13	0.071	0.032	9.66	101.71
OB 16	L08-1540	08-1504	10295.30	12501.79	210.983	9.22	24.05	50.58	47.75	0.08	0.18	0.16	0.00	0.02	0.79	0.95	0.056	0.053	15.00	100.19
OB 17	L08-1495	08-1505	10274.41	12501.58	215.416	5.93	23.34	56.44	54.04	0.07	0.11	0.02	0.02	0.01	0.79	0.97	0.058	0.063	13.90	100.75
OB 18	L08-1527	08-1506	10248.93	12499.51	215.500	6.45	22.20	57.77	54.47	0.07	0.15	0.03	0.00	0.01	0.80	1.01	0.065	0.052	13.50	101.10
OB 19	L08-1496	08-1507	10222.80	12503.39	214.372	6.39	23.97	54.11	51.18	0.06	0.13	0.05	0.00	0.01	0.86	1.07	0.049	0.053	14.80	100.48
OB 20	L08-1524	08-1508	10198.73	12502.41	211.549	11.88	17.42	58.00	54.04	0.05	0.19	0.03	0.02	0.01	0.61	0.75	0.041	0.053	12.40	100.70
OB 21	L08-1518	08-1509	10170.96	12500.72	207.491	13.22	14.13	61.67	57.90	0.11	0.23	0.17	0.00	0.02	0.55	0.68	0.048	0.043	10.80	100.99
OB 22	L08-1532	08-1510	10149.21	12498.86	205.167	13.42	14.20	62.31	58.47	0.17	0.23	0.17	0.01	0.03	0.56	0.69	0.046	0.031	9.89	101.06
OB 23	L08-1547	08-1511	10997.41	12605.64	209.000	6.42	7.54	82.95	70.63	0.10	0.18	0.08	0.01	0.02	0.74	0.99	0.045	0.010	2.84	100.93
OB 24	L08-1530	08-1512	10897.71	12606.20	208.763	7.97	5.70	81.53	69.63	0.10	0.27	0.18	0.05	0.03	0.78	1.02	0.044	0.014	3.43	100.10
OB 25	L08-1528	08-1513	10847.66	12605.69	209.379	9.12	4.87	81.09	68.05	0.13	0.33	0.21	0.03	0.02	0.96	1.29	0.048	0.011	3.11	99.93
OB 26	L08-1544	08-1514	10794.45	12605.25	210.079	9.98	5.64	80.75	68.34	0.09	0.25	0.12	0.06	0.02	0.65	0.83	0.066	0.008	3.66	101.30
OB 27	L08-1523	08-1515	10745.22	12604.84	210.811	10.76	5.14	74.49	65.34	0.08	0.25	0.11	0.05	0.02	0.78	1.07	0.049	0.035	7.55	99.31
OB 28	L08-1516	08-1516	10695.54	12604.32	211.031	7.20	5.10	79.07	68.77	0.12	0.34	0.08	0.00	0.01	0.88	1.24	0.050	0.045	5.69	98.58
OB 29	L08-1500	08-1517	10646.37	12603.87	211.195	9.50	7.30	77.66	67.48	0.10	0.39	0.23	0.02	0.04	0.69	0.92	0.048	0.012	3.84	99.83
OB 30	L08-1519	08-1518	10595.97	12603.61	211.643	13.27	6.41	74.67	66.62	0.10	0.45	0.22	0.00	0.05	0.59	0.77	0.044	0.014	6.72	102.54
OB 31	L08-1529	08-1519	10546.60	12603.04	211.910	6.53	6.10	84.36	71.49	0.08	0.20	0.09	0.00	0.02	0.82	1.10	0.050	0.007	2.95	101.21
OB 32	L08-1525	08-1520	10496.62	12602.62	210.400	8.97	6.95	78.47	68.34	0.10	0.76	0.56	0.00	0.04	0.76	1.01	0.042	0.016	4.39	101.06
OB 33	L08-1491	08-1521	10445.97	12602.25	210.219	14.69	10.06	64.90	59.48	0.08	1.16	0.20	0.01	0.03	0.53	0.68	0.043	0.027	8.48	100.21
OB 34	L08-1498	08-1522	10396.97	12601.88	210.746	14.27	11.14	64.28	59.19	0.13	0.71	0.60	0.00	0.05	0.44	0.53	0.045	0.052	9.08	100.80
OB 35	L08-1497	08-1523	10347.92	12601.34	210.919	14.36	14.79	58.25	54.04	0.10	0.26	0.32	0.04	0.03	0.55	0.69	0.050	0.030	10.70	99.48
OB 36	L08-1531	08-1524	10298.54	12600.98	211.382	8.74	15.99	68.90	62.19	0.08	0.11	0.07	0.00	0.02	0.88	1.10	0.075	0.021	7.09	101.98
OB 37	L08-1501	08-1525	10249.74	12600.71	212.802	7.69	16.79	68.86	62.05	0.10	0.10	0.04	0.02	0.02	1.03	1.29	0.061	0.033	7.05	101.79
OB 38	L08-1494	08-1526	10198.68	12600.40	213.100	7.00	21.60	61.97	56.47	0.11	0.10	0.03	0.01	0.02	0.90	1.11	0.062	0.045	10.00	101.84
OB 39	L08-1511	08-1527	10150.46	12600.63	208.073	11.79	18.84	56.24	52.90	0.13	0.27	0.36	0.03	0.02	0.71	0.85	0.047	0.035	12.70	101.17

Lib No -	XF(p) Ba ppm	XF(p) Ce ppm	XF(f) Co ppm	XF(f) Cr* ppm	XF(p) Cr ppm	XF(f) Cu ppm	XF(p) Cu* ppm	XF(f) Ga ppm	XF(p) Ga ppm	XF(p) Ge ppm	XF(f) La ppm	XF(p) Mn ppm	XF(p) Nb ppm	XF(f) Ni ppm	XF(p) Ni ppm	XF(p) Pb ppm	F/IMS Pd ppb	F/MS Pt ppb	XF(p) Rb ppm	XF(p) Se ppm
08-1489	88	59	108	19288	23746	8	50	11	7	0	15	531	3	1352	1015	20	4	10	0	4
08-1490	67	49	110	25478	32308	12	40	11	12	3	16	768	2	1133	850	14	6	21	1	0
08-1491	51	59	78	18556	22279	1	45	11	7	0	22	545	0	1289	940	15	4	20	3	1
08-1492	85	41	109	21041	25683	113	151	30	21	3	25	435	2	1209	941	11	23	74	1	2
08-1493	98	40	68	27729	34640	5	46	28	31	0	13	411	3	877	665	16	17	40	1	3
08-1494	188	36	47	32589	42703	1	49	38	38	1	11	557	3	776	583	13	25	54	0	4
08-1495	66	24	66	27364	34834	21	66	29	30	1	0	290	4	928	674	8	60	84	0	3
08-1496	55	21	78	19518	23721	26	65	14	18	1	8	187	1	1103	836	6	100	114	1	3
08-1497	109	45	104	15553	19246	296	355	15	19	2	13	654	0	1604	1309	9	39	225	2	4
08-1498	73	37	155	12716	15492	400	453	12	13	1	0	828	3	2182	1725	5	47	280	0	2
08-1499	44	33	187	13692	16797	478	522	11	7	2	0	959	1	2259	1786	5	64	300	1	4
08-1500	91	35	184	12074	14565	442	502	22	22	1	2	1626	1	1283	1058	12	44	370	2	2
08-1501	132	29	72	11584	14329	419	506	29	30	1	14	802	2	1082	903	12	15	200	1	3
08-1502	89	32	67	11460	14047	309	378	25	28	0	2	545	2	849	664	15	17	290	0	3
08-1503	58	42	47	10709	13459	266	309	40	32	1	14	557	4	582	460	17	6	225	0	3
08-1504	59	25	71	9410	11443	439	532	26	31	1	0	542	1	579	459	13	18	310	1	5
08-1505	25	30	20	8273	10424	289	354	28	31	6	7	482	4	579	453	17	23	245	1	4
08-1506	70	24	22	8167	10163	268	330	32	34	1	7	473	3	582	445	15	22	310	0	4
08-1507	42	26	35	9754	11936	328	371	32	34	2	17	358	0	606	468	19	30	310	1	4
08-1508	38	31	18	9027	10981	439	499	24	26	1	10	310	2	720	542	13	94	490	1	4
08-1509	57	39	84	8409	10413	562	600	27	23	3	0	734	0	673	512	12	155	720	0	3
08-1510	103	36	78	8897	11017	512	565	22	27	3	9	1130	0	648	505	16	92	540	2	5
08-1511	43	42	80	27230	34673	12	57	27	23	0	20	587	2	973	686	26	8	43	0	1
08-1512	198	42	78	26631	33167	16	51	18	15	4	4	650	1	864	625	18	6	40	0	2
08-1513	135	57	78	32558	40629	-4	49	27	21	0	18	836	2	822	571	15	5	33	2	0
08-1514	59	70	91	25221	30431	19	30	15	12	3	17	552	2	1066	742	20	4	13	3	1
08-1515	79	36	119	27653	35343	15	38	12	15	3	11	457	6	835	602	8	10	12	0	2
08-1516	46	48	103	35103	46315	30	59	21	12	0	3	754	6	899	651	13	24	72	0	0
08-1517	145	51	59	24753	31542	13	52	21	21	3	21	646	3	1074	806	21	15	70	1	3
08-1518	158	45	84	21978	27552	24	40	16	19	0	15	669	2	1057	813	17	12	33	0	5
08-1519	50	45	53	24753	31007	38	43	30	27	0	24	488	7	886	632	16	13	70	2	0
08-1520	258	40	77	23272	29222	9	57	22	24	2	10	622	4	1069	814	12	6	240	2	2
08-1521	73	40	90	15908	19362	257	287	10	17	1	0	513	5	1599	1279	11	47	185	1	3
08-1522	262	42	141	11486	13765	323	363	9	17	2	8	875	0	1725	1392	12	41	200	0	3
08-1523	100	41	114	15257	18710	250	287	24	24	0	17	689	2	1258	1009	14	39	155	0	3
08-1524	52	46	28	9617	11664	164	201	38	40	5	0	518	3	554	435	23	9	225	3	3
08-1525	36	47	33	7578	9208	136	180	47	45	4	0	612	2	420	331	25	12	240	1	4
08-1526	24	37	27	6935	8358	136	186	39	38	1	0	685	3	412	315	19	15	255	1	3
08-1527	96	32	77	8357	10145	577	648	22	27	3	4	887	1	611	465	10	120	840	0	2

Lib No	XF(f) Sr ppm	XF(p) Sr* ppm	XF(f) V ppm	XF(p) V* ppm	XF(f) Y ppm	XF(p) Y* ppm	Zn ppm	Zn* ppm	Zr ppm	Zr* ppm	Type	[110] Goeth	[110] Hemat	[001] Kaolin	[101] Quartz	[220] Maghm	Goeth AlSub Mol%
08-1489	34	19	371	541	6	9	161	135	54	38	A	16	96	0	18	5	2
08-1490	28	17	478	687	2	6	161	126	68	39	A	11	92	0	23	4	1
08-1491	23	15	379	501	5	5	149	107	53	38	A	5	86	0	18	3	1
08-1492	34	24	554	757	6	7	93	73	65	58	A	12	61	12	39	3	1
08-1493	26	15	736	1026	1	5	107	88	88	72	A	11	72	8	80	2	3
08-1494	37	28	1081	1563	0	4	108	96	115	81	B	15	71	0	54	0	3
08-1495	15	5	708	1015	0	3	104	100	68	48	B	57	47	0	0	0	14
08-1496	14	5	488	667	0	1	97	91	43	31	B	53	34	0	5	0	12
08-1497	25	20	537	775	1	4	94	81	56	41	B	19	51	4	15	0	0
08-1498	20	18	510	718	6	7	100	75	52	36	C	27	39	9	0	2	15
08-1499	14	13	530	771	2	7	106	98	41	34	C	56	31	7	0	0	16
08-1500	24	21	454	600	4	8	72	62	57	45	C	33	32	11	0	0	18
08-1501	27	24	477	650	5	7	53	42	71	64	C	32	28	9	0	0	3
08-1502	23	13	522	706	7	4	35	35	65	56	C	37	38	8	0	0	4
08-1503	11	8	620	888	9	9	47	52	103	79	B	15	58	4	0	3	1
08-1504	14	10	505	683	6	7	55	57	67	67	C	41	32	9	6	0	4
08-1505	9	4	485	655	7	13	99	91	78	69	C	24	40	0	0	0	3
08-1506	2	6	520	727	8	12	100	93	74	68	C	26	50	4	0	0	4
08-1507	12	7	446	594	1	7	112	99	77	66	C	32	36	4	0	0	2
08-1508	6	8	418	567	4	8	124	108	64	51	C	46	39	11	0	0	1
08-1509	17	15	402	562	0	5	90	85	58	49	C	36	43	11	0	2	2
08-1510	26	19	421	561	10	9	81	74	52	49	C	28	55	12	0	3	2
08-1511	17	11	617	896	1	6	99	81	82	64	A	-	-	-	-	-	-
08-1512	36	23	640	918	8	4	162	123	76	60	A	-	-	-	-	-	-
08-1513	30	18	725	1011	5	6	216	171	94	63	A	-	-	-	-	-	-
08-1514	24	13	543	741	8	9	178	144	74	55	A	-	-	-	-	-	-
08-1515	20	14	598	835	3	2	165	129	69	51	A	-	-	-	-	-	-
08-1516	23	13	617	920	0	2	233	186	72	55	A	-	-	-	-	-	-
08-1517	45	32	624	885	5	5	109	86	82	60	A	-	-	-	-	-	-
08-1518	41	30	474	696	1	8	110	90	67	49	A	-	-	-	-	-	-
08-1519	24	12	694	928	2	2	104	80	69	49	A	-	-	-	-	-	-
08-1520	65	46	598	841	4	6	116	84	61	44	A	-	-	-	-	-	-
08-1521	19	16	482	670	6	3	90	69	54	42	B	-	-	-	-	-	-
08-1522	79	55	410	576	5	5	66	49	51	35	B	-	-	-	-	-	-
08-1523	42	28	551	764	4	8	48	41	65	53	C	-	-	-	-	-	-
08-1524	14	10	591	809	7	8	57	50	110	81	C	-	-	-	-	-	-
08-1525	14	5	492	675	3	7	32	31	117	87	C	-	-	-	-	-	-
08-1526	12	5	390	526	0	3	37	34	98	81	C	-	-	-	-	-	-
08-1527	27	25	437	595	4	8	90	78	56	53	C	-	-	-	-	-	-

Sample Numbers			Co-ordinates			XF(f)	XF(f)	XF(f)	XF(p)	XF(f)	XF(f)	XF(f)	XF(f)	XF(f)	XF(f)	XF(f)	XF(p)	GRAV	Total	
Field No	Lab Seq	Lib No	Northing	Easting	R.L.	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	S	LOI	-
OB 40	L08-1509	08-1528	10099.66	12600.14	208.947	11.43	16.74	59.52	54.90	0.07	0.19	0.07	0.04	0.01	0.67	0.81	0.045	0.049	12.30	101.14
OB 41	L08-1508	08-1529	10000.00	12600.00	200.000	13.40	19.23	58.23	53.76	0.21	0.32	0.22	0.02	0.05	0.73	0.85	0.082	0.026	9.39	101.91
OB 42	L08-1503	08-1530	9900.61	12599.99	196.829	17.61	25.60	45.84	42.75	0.20	1.00	0.69	0.07	0.07	0.48	0.56	0.067	0.020	10.30	101.95
OB 43	L08-1504	08-1531	10969.47	12385.49	211.268	6.27	6.14	83.66	71.06	0.13	0.18	0.16	0.03	0.02	0.69	0.93	0.047	0.010	2.83	100.16
OB 44	L08-1535	08-1532	10868.11	12385.85	212.571	6.08	6.25	78.37	69.20	0.09	0.17	0.07	0.04	0.01	0.70	0.99	0.053	0.024	7.10	98.95
OB 45	L08-1538	08-1533	10767.71	12387.38	213.912	7.54	6.39	79.08	68.48	0.06	0.17	0.05	0.02	0.01	0.70	0.95	0.041	0.033	6.53	100.63
OB 46	L08-1551	08-1534	10717.83	12387.19	214.806	10.54	6.45	73.21	64.34	0.07	0.25	0.05	0.00	0.01	0.52	0.68	0.036	0.057	9.65	100.84
OB 47	L08-1543	08-1535	10668.07	12387.95	214.550	13.41	8.99	71.13	62.33	0.08	0.42	0.20	0.09	0.04	0.51	0.62	0.043	0.015	6.06	100.98
OB 48	L08-1490	08-1536	10618.67	12387.85	214.499	13.13	9.88	68.67	62.33	0.08	1.05	0.32	0.04	0.03	0.58	0.75	0.026	0.030	6.56	100.39
OB 49	L08-1533	08-1537	10568.80	12388.01	215.170	10.21	10.45	71.55	63.62	0.11	0.32	0.30	0.03	0.03	0.52	0.66	0.046	0.020	7.15	100.74
OB 50	L08-1526	08-1538	10517.85	12386.04	216.205	14.70	10.68	65.45	59.05	0.05	0.34	0.15	0.04	0.02	0.42	0.54	0.052	0.025	8.30	100.23
OB 51	L08-1513	08-1539	10469.48	12388.40	216.705	9.26	19.60	55.77	52.33	0.09	0.22	0.05	0.01	0.01	0.71	0.90	0.052	0.051	14.50	100.32
OB 52	L08-1521	08-1540	10419.27	12388.49	214.085	7.82	24.20	51.56	49.18	0.06	0.15	0.03	0.02	0.01	0.61	0.79	0.050	0.052	15.80	100.36
OB 53	L08-1515	08-1541	10370.41	12390.37	205.957	15.02	18.77	51.04	48.61	0.09	0.85	0.07	0.04	0.02	0.48	0.59	0.056	0.047	13.20	99.68
OB 54	L08-1522	08-1542	10321.49	12391.50	203.085	16.98	19.02	49.76	46.75	0.10	0.57	0.04	0.02	0.02	0.46	0.56	0.070	0.047	13.00	100.09
OB 55	L08-1550	08-1543	10270.49	12393.35	202.071	17.90	18.54	50.52	47.89	0.13	0.35	0.11	0.01	0.03	0.53	0.64	0.059	0.041	12.50	100.72
OB 56	L08-1502	08-1544	10220.82	12395.48	201.530	14.53	15.35	60.84	57.05	0.10	0.32	0.11	0.01	0.04	0.59	0.73	0.061	0.028	9.44	101.42
OB 57	L08-1499	08-1545	10170.94	12397.78	200.998	13.75	16.10	60.24	56.62	0.22	0.30	0.15	0.06	0.04	0.63	0.76	0.062	0.028	9.55	101.13
OB 58	L08-1510	08-1546	10121.09	12399.85	199.422	14.63	15.34	60.40	55.76	0.19	0.43	0.19	0.02	0.04	0.63	0.76	0.070	0.028	9.42	101.38

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OB 60	L08-1556	08-1552	10950.00	12400.00	211.000	7.65	4.78	69.99	62.62	0.22	0.55	0.03	0.00	0.00	1.04	1.54	0.026	0.081	11.80	96.17
OB 61	L08-1553	08-1553	10700.00	12600.00	211.000	6.34	4.37	80.54	70.63	0.07	0.25	0.23	0.02	0.02	0.74	1.02	0.025	0.075	8.41	101.09
OB 62	L08-1555	08-1554	10535.00	12491.00	218.223	3.86	4.17	80.89	69.20	0.06	0.12	0.03	0.01	0.01	2.19	3.30	0.031	0.141	6.68	98.19
OB 63	L08-1552	08-1555	10750.00	12600.00	211.000	13.93	3.36	75.37	66.77	0.05	0.22	0.15	0.00	0.01	0.99	1.35	0.024	0.060	6.13	100.29
OB 64	L08-1554	08-1556	10850.00	12400.00	213.000	6.88	4.06	80.52	70.34	0.04	0.30	0.23	0.08	0.02	1.22	1.72	0.048	0.055	6.57	100.03

### Standards

STD 009	L08-1492	08-1547	-	-	-	13.65	7.50	72.42	64.19	0.24	0.16	0.10	0.00	0.18	0.57	0.67	0.195	0.045	7.90	102.96
STD 009	L08-1506	08-1548	-	-	-	13.59	7.64	72.59	64.05	0.24	0.14	0.10	0.08	0.18	0.56	0.67	0.188	0.045	7.94	103.29
STD 009	L08-1520	08-1549	-	-	-	13.54	7.45	72.03	64.19	0.24	0.16	0.09	0.00	0.17	0.57	0.67	0.191	0.044	7.99	102.47
STD 009	L08-1534	08-1550	-	-	-	13.68	7.62	72.90	64.19	0.24	0.17	0.09	0.02	0.18	0.57	0.68	0.194	0.043	7.96	103.67
STD 009	L08-1548	08-1551	-	-	-	13.74	7.63	73.02	64.05	0.24	0.17	0.09	0.05	0.18	0.57	0.67	0.191	0.043	7.91	103.84
Mean	-	-	-	-	-	13.64	7.57	72.59	64.14	0.24	0.16	0.09	0.03	0.18	0.57	0.67	0.192	0.044	7.94	103.25
% Pre	-	-	-	-	-	1.14	2.30	1.09	0.24	1.56	15.31	11.65	230.94	5.02	1.57	1.33	2.894	4.545	0.93	1.06
Pre.Val.	-	-	-	-	-	13.78	7.54	65.05	65.05	0.20	0.15	0.13	0.04	0.20	0.70	0.70	0.050	0.041	8.10	-
Detn Lts	-	-	-	-	-	0.01	0.02	0.01	0.10	0.00	0.02	0.00	0.02	0.00	0.01	0.01	0.005	50.000	0.01	-

Lib No	XF(p) Ba	XF(p) Ce	XF(f) Co	XF(f) Cr*	XF(p) Cr	XF(f) Cu	XF(p) Cu*	XF(f) Ga	XF(p) Ga	XF(p) Ge	XF(f) La	XF(p) Mn	XF(p) Nb	XF(f) Ni	XF(p) Ni	XF(p) Pb	F/MS Pd	F/MS Pt	XF(p) Rb	XF(p) Se
08-1528	32	36	64	10606	12990	957	997	20	26	1	6	457	0	535	400	12	116	680	1	3
08-1529	86	53	40	6360	7600	296	341	30	28	2	20	1445	2	613	459	21	52	520	2	3
08-1530	134	37	45	6258	7426	93	163	31	28	3	15	1405	2	515	407	12	22	310	1	2
08-1531	94	55	97	28676	36836	3	35	18	15	0	12	802	5	1066	748	24	6	46	1	1
08-1532	48	38	99	29370	39344	4	49	16	8	4	14	532	4	833	638	11	11	20	1	2
08-1533	59	37	104	26052	33503	2	53	20	18	0	1	362	4	877	648	13	16	40	1	2
08-1534	71	29	183	20778	25491	74	85	14	15	1	12	408	0	1280	938	8	35	40	0	4
08-1535	132	45	82	17960	21067	94	131	17	13	0	14	456	0	1488	1108	17	28	112	2	2
08-1536	197	35	95	17393	21744	190	230	22	18	0	20	508	3	1310	980	18	50	135	3	3
08-1537	142	30	173	18537	22674	273	316	21	20	2	18	752	1	1345	1056	13	24	160	3	5
08-1538	106	40	67	20128	24548	210	244	14	15	3	13	277	2	1247	911	12	20	72	1	6
08-1539	39	24	95	13504	16760	975	1036	20	22	1	1	607	0	1896	1537	12	62	470	1	3
08-1540	13	33	57	11412	14058	488	572	20	25	2	9	382	3	991	820	8	29	280	0	2
08-1541	41	28	85	11885	14577	638	721	14	20	1	4	576	0	768	591	8	54	580	2	5
08-1542	20	27	95	11527	13985	567	633	19	21	0	1	682	1	761	565	10	47	600	2	4
08-1543	83	29	106	8772	10572	629	706	21	20	3	0	893	1	703	543	8	54	500	1	4
08-1544	162	45	48	9242	11352	334	360	28	23	4	17	680	6	755	568	17	38	390	1	5
08-1545	132	40	37	9221	11496	370	418	23	24	5	12	1503	0	821	576	15	41	440	3	1
08-1546	141	34	41	9835	12016	415	458	22	24	1	13	1252	3	780	613	11	52	440	0	2

### Fe-rich Duricrust

08-1552	153	23	164	44868	44700	0	38	19	16	3	24	1596	3	973	692	4	14	26	0	4
08-1553	100	23	189	26074	33196	7	33	6	11	0	15	381	1	1108	729	0	17	18	2	4
08-1554	43	20	33	42434	52187	0	35	78	83	0	7	320	11	361	226	9	25	52	0	4
08-1555	101	17	98	23137	30625	7	22	11	16	0	22	285	4	802	326	7	6	8	2	0
08-1556	211	23	69	31203	36617	8	37	22	17	2	19	217	4	520	331	5	6	9	0	1

### Standards

08-1547	380	42	9	506	583	102	152	25	28	0	7	1560	1	108	40	44	2	10	6	6
08-1548	374	46	1	534	586	117	149	25	29	0	0	1579	2	127	41	45	2	12	4	6
08-1549	375	40	0	504	586	101	152	25	28	0	8	1568	2	111	41	45	2	13	6	6
08-1550	371	46	4	500	593	113	151	24	26	3	0	1545	5	104	48	47	2	11	8	3
08-1551	364	43	1	516	588	101	155	28	25	0	13	1564	2	116	41	43	2	14	5	3
-	373	43	3	512	587	107	152	25	27	1	6	1563	2	113	42	45	2	12	6	5
-	3	12	245	5	1	14	3	12	12	447	200	2	126	16	7	0	26	51	68	
-	354	18	19	471	471	141	141	25	25	1	12	1543	2	30	30	53	6	3		
-	15	10	5	10	5	10	5	3	5	3	50	20	5	10	10	5	1	1	5	

Lib No	XF(f) Sr	XF(p) Sr*	XF(f) V	XF(p) V*	XF(f) Y	XF(p) Y*	XF(f) Zn	XF(p) Zn*	XF(f) Zr	XF(p) Zr*	Type	Goeth	Hemat	Kaolin	Quartz	Maghm	AlSub Mol%
08-1528	15	8	452	618	3	7	62	54	61	50	C	-	-	-	-	-	-
08-1529	42	36	375	505	12	14	68	66	80	61	C	-	-	-	-	-	-
08-1530	60	56	295	389	8	11	58	54	53	49	C	-	-	-	-	-	-
08-1531	32	17	605	862	4	7	129	96	74	56	A	-	-	-	-	-	-
08-1532	16	13	646	945	0	4	125	104	59	49	A	-	-	-	-	-	-
08-1533	7	4	592	819	2	1	84	69	69	51	A	-	-	-	-	-	-
08-1534	9	6	454	596	0	0	96	82	37	32	B	-	-	-	-	-	-
08-1535	39	21	434	607	6	7	98	74	53	41	B	-	-	-	-	-	-
08-1536	41	27	500	737	5	5	60	53	74	52	B	-	-	-	-	-	-
08-1537	46	35	508	698	6	6	92	78	60	47	B	-	-	-	-	-	-
08-1538	22	21	589	833	1	3	95	74	59	42	B	-	-	-	-	-	-
08-1539	14	6	432	599	4	8	127	111	64	58	C	-	-	-	-	-	-
08-1540	11	2	444	601	12	6	63	60	70	61	C	-	-	-	-	-	-
08-1541	17	11	468	618	0	4	35	35	58	45	C	-	-	-	-	-	-
08-1542	6	7	473	620	4	4	42	41	53	46	C	-	-	-	-	-	-
08-1543	22	17	551	721	4	7	59	64	58	46	C	-	-	-	-	-	-
08-1544	29	23	568	781	6	9	104	91	65	52	C	-	-	-	-	-	-
08-1545	32	27	519	736	15	13	117	105	66	50	B	-	-	-	-	-	-
08-1546	39	28	504	687	14	11	127	111	54	55	B	-	-	-	-	-	-

### Fe-rich Duricrust

08-1552	18	9	680	1029	0	0	351	300	85	62	D	72	47	0	27	8	10
08-1553	36	31	463	690	1	3	182	157	62	47	D	52	59	0	13	3	11
08-1554	6	3	1579	2489	6	0	73	53	129	96	D	36	79	0	18	0	10
08-1555	35	23	591	839	0	0	145	125	70	53	D	37	77	0	58	2	11
08-1556	38	28	849	1258	3	0	152	117	78	55	D	45	72	0	14	3	10

### Standards

08-1547	19	14	680	924	10	13	357	299	118	78	-	-	-	-	-	-	-
08-1548	11	12	697	911	12	13	357	305	116	82	-	-	-	-	-	-	-
08-1549	26	14	706	892	14	11	355	305	106	78	-	-	-	-	-	-	-
08-1550	24	16	698	918	12	13	355	299	104	84	-	-	-	-	-	-	-
08-1551	19	14	699	920	15	13	350	298	106	80	-	-	-	-	-	-	-
-	20	14	696	913	13	13	355	301	110	80	-	-	-	-	-	-	-
-	59	20	3	3	31	14	2	2	12	6	-	-	-	-	-	-	-
-	12	12	932	932	13	13	295	295	88	88	-	-	-	-	-	-	-
-	10	3	15	10	5	3	5	5	10	4	-	-	-	-	-	-	-

## **APPENDIX XI**

**DATA LISTING AND COMPARATIVE STATISTICS FOR MAJOR  
AND TRACE ELEMENTS IN DIFFERENT HORIZONS OF THE  
REGOLITH, MT. CARNAGE**

## Appendix XI. Mt. Carnage Data Listing and Comparative Statistics

### MT. CARNAGE DATA LISTING

MC 24  
EASTING = 10400      AZIMUTH = 0.0  
NORTHING = 11090      INCLINATION = 52.0

Sample Number	Dept m	REG	Pt ppb	Pd ppb	Pt%
2401	1.00	L	845	435	66.02
2402	2.00	L	675	405	62.50
2403	3.00	L	810	440	64.80
2404	4.00	L	690	435	61.33
2405	5.00	L	630	355	63.96
2406	6.00	L	780	350	69.03
2407	7.00	L	1300	457	73.99
2408	8.00	L	950	515	64.85
2409	9.00	L	830	457	64.49
2410	10.00	L	610	545	52.81
2411	11.00	L	495	425	53.80
2412	12.00	L	540	295	64.67
2413	13.00	L	470	260	64.38
2414	14.00	Sc	340	255	57.14
2415	15.00	Sc	195	106	64.78
2416	16.00	Sc	235	112	67.72
2417	17.00	Sc	215	100	68.25
2418	18.00	Sc	185	74	71.43
2419	19.00	Sc	185	78	70.34
2420	20.00	Sc	245	72	77.29
2421	21.00	Sc	245	112	68.63
2422	22.00	Sc	250	185	57.47
2423	23.00	S	180	215	45.57
2424	24.00	S	210	135	60.87
2425	25.00	S	165	108	60.44
2426	26.00	S	245	180	57.65
2427	27.00	S	98	92	51.58
2428	28.00	S	92	98	48.42
2429	29.00	S	135	110	55.10
2430	30.00	S	76	110	40.86
2431	31.00	S	108	165	39.56
2432	32.00	S	92	155	37.25
2433	33.00	S	63	125	33.51
2434	34.00	S	116	125	48.13
2435	35.00	S	94	83	53.11
2436	36.00	S	92	96	48.94
2437	37.00	S	125	104	54.59
2438	38.00	S	125	195	39.06
2439	39.00	S	155	165	48.44

**Appendix XI. Mt. Carnage Data Listing and Comparative Statistics**

Sample Number	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	MgO %	Na <sub>2</sub> O %	Ba ppm	Co ppm	Cr ppm
2401	12.92	28.13	30.88	0.70	1.86	0.44	120	262	2809
2402	17.14	24.95	41.89	0.96	0.08	0.37	28	26	5190
2403	15.87	20.96	46.04	1.03	0.05	0.33	9	11	6685
2404	15.79	20.00	45.32	1.04	0.05	0.37	7	19	10071
2405	17.12	20.80	45.32	1.14	0.05	0.33	9	24	9321
2406	17.10	21.16	44.18	0.98	0.05	0.37	11	21	8336
2407	16.86	19.65	45.61	0.99	0.05	0.42	16	19	8673
2408	15.87	18.08	47.04	1.08	0.05	0.40	17	22	11532
2409	16.94	20.71	46.47	0.99	0.05	0.42	8	37	5559
2410	15.94	19.04	47.04	1.08	0.05	0.36	31	37	12679
2411	14.21	14.38	49.47	1.09	0.05	0.36	15	32	19264
2412	14.58	15.03	49.18	1.17	0.05	0.31	14	32	17598
2413	12.71	14.30	53.04	1.18	0.18	0.28	69	58	15586
2414	13.41	36.47	27.45	0.53	2.50	0.82	475	110	10534
2415	8.27	42.06	24.30	0.48	3.45	1.22	133	121	9060
2416	8.31	48.14	24.01	0.47	3.91	1.18	7	145	10585
2417	7.86	42.95	24.02	0.44	3.49	1.18	7	141	10712
2418	8.25	47.06	23.72	0.48	4.04	1.15	16	182	11902
2419	8.18	43.99	25.02	0.46	3.71	1.13	54	231	11428
2420	7.96	46.60	25.01	0.48	4.19	1.17	21	309	10692
2421	7.09	41.33	23.59	0.44	4.37	1.16	85	807	11039
2422	6.44	45.38	24.30	0.40	7.33	1.02	147	2168	9749
2423	5.03	43.79	22.73	0.31	12.17	0.67	42	787	5384
2424	5.50	46.93	20.01	0.36	10.64	1.00	14	413	9517
2425	4.34	48.56	14.58	0.26	15.34	0.95	12	244	5936
2426	4.76	47.77	17.87	0.24	14.81	0.86	65	778	6175
2427	3.76	44.15	19.87	0.21	12.86	1.06	16	874	5840
2428	4.36	42.86	22.30	0.21	12.80	1.15	13	530	5759
2429	4.18	39.81	23.16	0.23	11.89	1.18	11	587	6090
2430	4.63	41.91	24.87	0.26	10.88	1.25	65	709	6930
2431	3.80	43.02	21.73	0.22	8.25	1.19	208	928	7662
2432	4.55	41.86	24.58	0.24	9.32	1.17	87	510	7474
2433	4.09	44.49	23.02	0.24	11.27	0.95	174	381	6687
2434	3.80	45.83	22.44	0.25	11.61	1.00	18	337	5660
2435	3.23	42.51	20.16	0.18	11.48	1.28	12	192	4775
2436	3.45	47.66	20.44	0.18	12.42	1.18	10	228	4882
2437	3.32	47.71	19.02	0.17	12.40	1.20	14	228	4299
2438	3.45	50.98	20.29	0.18	12.14	1.15	20	250	4525
2439	3.89	48.47	17.59	0.22	14.71	1.17	48	182	4056

**Appendix XI. Mt. Carnage Data Listing and Comparative Statistics**

Sample Number	Cu ppm	Ga ppm	La ppm	Mn ppm	Ni ppm	S %	Sc ppm	Sr ppm	V ppm	Y ppm	Zn ppm	Zr ppm
2401	639	17	19	1500	803	1.265	85	95	176	11	57	79
2402	710	19	11	988	808	0.574	92	20	250	8	107	70
2403	888	18	5	1105	974	0.196	99	7	288	5	133	52
2404	741	20	17	1232	907	0.231	98	5	310	5	115	48
2405	754	20	11	1192	830	0.230	100	7	295	1	95	65
2406	757	18	5	1229	891	0.316	99	13	269	3	106	46
2407	1567	16	5	1443	1215	0.280	100	6	277	5	130	46
2408	1535	18	13	1567	1346	0.296	100	8	319	7	160	52
2409	967	16	10	2253	600	0.269	82	6	253	3	70	42
2410	940	20	13	1913	867	0.230	104	7	324	6	109	59
2411	1493	20	14	718	786	0.264	154	6	232	3	108	45
2412	1577	24	17	668	616	0.209	153	5	388	3	93	48
2413	1911	19	22	1005	807	0.218	143	7	395	7	110	47
2414	736	13	5	1951	1108	0.092	93	27	171	3	131	28
2415	772	9	13	1868	3194	0.089	92	38	61	1	368	22
2416	1093	9	5	645	4574	0.120	84	35	44	4	561	23
2417	1275	10	13	571	5336	0.053	70	23	54	1	679	20
2418	1413	7	5	505	5012	0.087	62	32	62	3	552	31
2419	1472	10	10	3266	5182	0.056	65	23	97	4	551	22
2420	1451	9	5	1156	5366	0.111	60	38	65	5	518	24
2421	1602	8	15	6214	5869	0.050	57	22	74	8	467	25
2422	2000	8	23	15948	7149	0.093	50	36	120	16	491	18
2423	1329	8	28	6563	4686	0.027	34	16	241	71	353	17
2424	1517	6	18	1850	8103	0.022	45	23	78	33	730	20
2425	670	5	27	1466	4267	0.061	34	26	84	58	279	16
2426	768	6	33	5796	4052	0.146	33	24	160	73	239	13
2427	382	7	25	3132	4283	0.040	26	20	119	42	375	10
2428	200	6	11	2569	4166	0.293	29	26	142	30	252	11
2429	575	6	22	2583	4391	0.166	27	21	156	44	269	13
2430	303	6	20	4120	4556	0.317	31	27	162	45	285	16
2431	335	6	26	7316	4119	0.072	30	27	162	23	268	10
2432	147	4	12	2768	3485	0.070	32	18	139	19	172	12
2433	98	6	18	3127	3153	0.038	28	24	146	23	131	15
2434	123	5	10	1711	3127	0.040	24	18	129	44	134	18
2435	122	4	12	1380	2585	0.064	20	24	105	28	105	8
2436	198	4	12	1077	2824	0.224	19	29	102	31	92	11
2437	298	4	15	1491	2520	0.114	19	25	99	20	80	9
2438	263	6	14	1662	2598	0.125	18	24	94	72	75	11
2439	333	5	15	2107	1927	0.297	23	21	102	28	77	15

## Appendix XI. Mt. Carnage Data Listing and Comparative Statistics

### MT. CARNAGE RAB HOLE MC 24: COMPARATIVE STATISTICS

#### Major and alkaline earth elements

Comparison of arithmetic means								
	Titles	Obs.	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO%	Sr ppm	Ba ppm
L	Laterite	13	19.78	15.62	45.50	0.20	15.	27
Sc	Clay saprol	9	43.78	8.42	24.60	4.11	30.	105
S	Saprolite	17	45.19	4.13	20.86	12.06	23.	49

Comparison of standard deviation								
	Titles	Obs.	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO%	Sr ppm	Ba ppm
L	Laterite	13	3.95	1.56	5.17	0.50	24.	32
Sc	Clay saprol	9	3.60	1.98	1.18	1.33	7.	149
S	Saprolite	17	3.06	0.63	2.67	1.83	4.	59

Comparison of geometric means								
	Titles	Obs.	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	MgO%	Sr ppm	Ba ppm
L	Laterite	13	19.41	15.53	45.14	0.08	9.	18
Sc	Clay saprol	9	43.60	8.25	24.56	3.95	30.	45
S	Saprolite	17	45.05	4.08	20.67	11.92	23.	29

#### Elements associated with mineralization

Comparison of arithmetic means							
REG	Titles	Obs.	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
L	Laterite	13	740.	413.	63.59	1114.	0.352
Sc	Clay saprol	9	233.	122.	67.01	1313.	0.083
S	Saprolite	17	128.	133.	48.42	451	0.124

Comparison of standard deviation							
REG	Titles	Obs.	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
L	Laterite	13	222.	81.	5.53	434.	0.291
Sc	Clay saprol	9	48.	61.	6.46	401.	0.025
S	Saprolite	17	49.	39.	8.21	414.	0.101

Comparison of geometric means							
REG	Titles	Obs.	Pt ppb	Pd ppb	Pt%	Cu ppm	S%
L	Laterite	13	712.	405.	63.29	1039.	0.298
Sc	Clay saprol	9	229.	111.	66.65	1252.	0.080
S	Saprolite	17	120.	128.	47.69	325.	0.090

## Appendix XI. Mt. Carnage Data Listing and Comparative Statistics

### Lithophile elements

#### Comparison of arithmetic means

REG	Titles	Obs.	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
L	Laterite	13	1.03	10254.	108.	19.	54	290
Sc	Clay saprol	9	0.46	10633.	70.	9.	24	83
S	Saprolite	17	0.23	5979.	28.	6.	13	131

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#### Comparison of standard deviation

REG	Titles	Obs.	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
L	Laterite	13	0.12	4950.	25.	2.	11	60
Sc	Clay saprol	9	0.04	843.	16.	2.	4	40
S	Saprolite	17	0.05	1389.	7.	1.	3	40

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#### Comparison of geometric means

REG	Titles	Obs.	TiO <sub>2</sub> %	Cr ppm	Sc ppm	Ga ppm	Zr ppm	V ppm
L	Laterite	13	1.03	9056.	106.	19.	53	284
Sc	Clay saprol	9	0.46	10578.	69.	9.	23	76
S	Saprolite	17	0.23	5825.	27.	5.	13	125

### Base and transition elements

#### Comparison of arithmetic means

REG	Titles	Obs.	Zn ppm	Mn ppm	Co ppm	Ni ppm
L	Laterite	13	107.	1293.	46.	881.
Sc	Clay saprol	9	480.	3569.	468.	4754.
S	Saprolite	17	230.	2983.	480.	3814.

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#### Comparison of standard deviation

REG	Titles	Obs.	Zn ppm	Mn ppm	Co ppm	Ni ppm
L	Laterite	13	26.	447.	66.	207.
Sc	Clay saprol	9	155.	4982.	673.	1721.
S	Saprolite	17	162.	1893.	256.	1391.

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#### Comparison of geometric means

REG	Titles	Obs.	Zn ppm	Mn ppm	Co ppm	Ni ppm
L	Laterite	13	104.	1222.	31.	859.
Sc	Clay saprol	9	443.	1846.	263.	4293.
S	Saprolite	17	188.	2531.	415.	3606.

## Appendix XI. Mt. Carnage Data Listing and Comparative Statistics

### **Alkali and rare earth elements.**

#### Comparison of arithmetic means

REG	Titles	Obs.	Na <sub>2</sub> O%	La ppm	Y ppm
L	Laterite	13	0.37	12.	5.
Sc	Clay saprol	9	1.11	10.	5.
S	Saprolite	17	1.08	19.	40.

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#### Comparison of standard deviation

REG	Titles	Obs.	Na <sub>2</sub> O%	La ppm	Y ppm
L	Laterite	13	0.05	5.	3.
Sc	Clay saprol	9	0.12	6.	5.
S	Saprolite	17	0.16	7.	18.

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#### Comparison of geometric means

REG	Titles	Obs.	Na <sub>2</sub> O%	La ppm	Y ppm
L	Laterite	13	0.36	11.	4.
Sc	Clay saprol	9	1.11	9.	4.
S	Saprolite	17	1.07	18.	37.