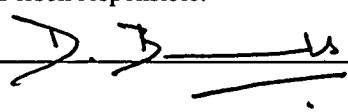
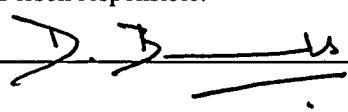


NGU Report 97.106

Soil geochemistry of the Bleikvassli area (Status
Report No. 3). Detailed investigations of the
Grasvatnet area.

Report no.: 97.106	ISSN 0800-3416	Grading: Confidential until 01.01.2000	
Title: Soil geochemistry of the Bleikvassli area (Status Report No. 3). Detailed investigations of the Grasvatnet area.			
Authors: Krog, Reidar		Client: NGU and Bleikvassli Gruber	
County: Nordland		Commune: Hemnes	
Map-sheet name (M=1:250.000) Mo i Rana		Map-sheet no. and -name (M=1:50.000) Storakersvatnet 2027 III	
Deposit name and grid-reference:		Number of pages: 44	Price (NOK):
		Map enclosures: 	
Fieldwork carried out: 1993-1996	Date of report: 20.06.97	Project no.: 2543.29	Person responsible: 
Summary: A combined geological, geophysical and geochemical exploration project aimed at finding new ore reserves in the vicinity of the Bleikvassli mine, Nordland county was initiated by NGU in 1993. A number of the anomalous areas detected during this regional survey were followed up with more detailed investigations. One of these was the Grasvatnet area where detailed geological mapping revealed sulphide-impregnations with restricted thickness and extent. Deep geophysical anomalies (Transient Field EM) are connected with these mineralisations and this report deals with the results of detailed soil sampling around the mineralisations and geophysical anomalies.			

Emneord: Geochemistry	Till	Massive sulfides
Exploration	Anomaly	Pb, Zn, Cu, Au
Soil	Weathered material	

CONTENTS

1	INTRODUCTION	5
2	METHODS	5
3	SULPHIDE MINERALISATIONS AND GEOPHYSICAL ANOMALIES.....	6
4	RESULTS	6
5	DISCUSSION	7
6	CONCLUSIONS.....	8
7	REFERENCES	8

APPENDIX

- 1 Topography of the survey area
- 2 Field numbers of the samples in the Grasvatnet area
- 3 Map of Pb-values and topography in the Grasvatnet area
- 4 Map of Pb-values in the Grasvatnet area
- 5 Map of Zn-values and topography in the Grasvatnet area
- 6 Map of Zn-values in the Grasvatnet area
- 7 Map of Cu-values and topography in the Grasvatnet area
- 8 Map of Cu-values in the Grasvatnet area
- 9 Map of Au-values and topography in the Grasvatnet area
- 10 Map of Au-values in the Grasvatnet area
- 11 Map of B-values in the Grasvatnet area
- 12 Map of Ba-values in the Grasvatnet area
- 13 Map of Be-values in the Grasvatnet area
- 14 Map of Ca-values in the Grasvatnet area
- 15 Map of Cd-values in the Grasvatnet area
- 16 Map of Ce-values in the Grasvatnet area
- 17 Map of Co-values in the Grasvatnet area
- 18 Map of Cr-values in the Grasvatnet area
- 19 Map of Fe-values in the Grasvatnet area
- 20 Map of K-values in the Grasvatnet area
- 21 Map of La-values in the Grasvatnet area

- 22 Map of Li-values in the Grasvatnet area
- 23 Map of Mg-values in the Grasvatnet area
- 24 Map of Mn-values in the Grasvatnet area
- 25 Map of Mo-values in the Grasvatnet area
- 26 Map of Ni-values in the Grasvatnet area
- 27 Map of P-values in the Grasvatnet area
- 28 Map of Sc-values in the Grasvatnet area
- 29 Map of Sr-values in the Grasvatnet area
- 30 Map of Ti-values in the Grasvatnet area
- 31 Map of V-values in the Grasvatnet area
- 32 Map of Y-values in the Grasvatnet area
- 33 Map of Zr-values in the Grasvatnet area
- 34 Statistics on the chemical analyses of the regional samples
- 35 Coordinates and analytical values of samples taken in the Grasvatnet area

1 INTRODUCTION

A combined geological, geophysical and geochemical exploration project aimed at finding new ore reserves in the vicinity of the Bleikvassli mine in the county of Nordland was initiated by NGU in 1993. A regional soil sampling survey was carried out as part of this project and is described in NGU Report No. 95.155. (Krog 1995a). One of the anomalous areas discovered during this regional survey, the Grasvatnet area, was followed up in 1994 with the collection of 15 new soil samples. Following this, further investigations were carried out in this area in 1996 in the form of ground geophysics (Dalsegg 1996b), geological studies (Bjerkgård & Larsen 1996) and 205 new soil samples. The results of the soil sampling carried out in 1996 are described in this report. The term «soil» is used by NGU for both organic soil and inorganic overburden, although in this study, soil samples consisted of till and weathered material.

2 METHODS

The regional soil samples collected in 1993 and the follow-up samples collected in 1994 were taken with a spade from a depth of 0.4 m or, if the soil was of insufficient thickness, at the base of the soil, as close to the bedrock as possible. The follow-up samples taken in 1996 were collected on 14 traverses; from traverse 1601-1609 to traverse 1764-1805 (the numbers refer to the sample numbers within each traverse as shown in Appendix 2). These samples were taken using a hand auger from the base of the soil or at a maximum depth of 1.3 m. Sample spacing was 25-50 m. Soil samples were taken where possible in the c-horizon. In much of the sampling area, however, a c-horizon is not present and the samples were therefore largely taken from the b-horizon. Only soil consisting of till and weathered material was sampled. Humus, peat, marine deposits, fluvial or glacial-fluvial sediments were not sampled. The sample weight was 1 kg in 1993 - 94 and 0.1 kg when using the auger in 1995-96. Sample bags were made of high wet-strength paper and special waterproof adhesives. The equipment was free from heavy metal contamination.

The samples were dried at about 40°C for 2-3 weeks. The <0.06 mm fraction (dry sieving) of the samples was analysed after having been numbered in a random order. Two analytical methods and laboratories were used:

ICP-AES analysis at NGU's laboratories. Determination of 31 elements. Samples were analysed using a Thermo Jarrel Ash ICP 61 after partial extraction of a 1 gram sample with 7 N HNO₃, according to NS 4770.

Gold (Au) analysis at ACME Analytical laboratories LTD.

20 gram sample, fire assay and analysis by ICP/graphite furnace. Only the samples collected in 1993 and 1994 were analysed for Au.

3 SULPHIDE MINERALISATIONS AND GEOPHYSICAL ANOMALIES

Sulphide mineralisations (Bjerkgård & Larsen 1996) and deep geophysical anomalies (Transient Field EM) (Dalsegg 1996 b) were found in several places in the Grasvatnet area (Appendices 2 and 3). The northernmost of these mineralisations occurs in thin lenses located very close to the site of the soil sample anomaly from 1993. The mineralisation is of skarn-type with on average 2.2 % Cu, 0.2 % Pb, 0.6 % Zn, 23 ppm Ag and 230 ppb Au. These values are consistent with the soil anomaly values of 400 ppm Cu and 59 ppb Au.

About 1.5 km SSE of this mineralisation is a pyrite-impregnated quartz-sericite schist. This mineralisation is between 30 and 100 m thick and can be followed for about 700 m along strike direction. The content of pyrite varies between 5 and 20 % and the base metal concentrations are very low (maximum 100 ppm).

About 2.5 km further south, at Rabotsbekken, is a mineralised zone (about 10 m thick and 250 m long in the direction of strike) where three different types of mineralisation can be observed. Samples from the mineralised zones indicate an average composition of approximately 0.1 % As, 0.3 % Zn, 0.3 % Cu, 0.3 % Pb and 23 ppm Ag but they all have very low concentrations of Au. This mineralised zone also produces a Transient Field EM (TFEM) geophysical anomaly at the surface in the area of the mineralisation.

Several other TFEM-anomalies were located below the surface (25 - 200 m) in the area between the pyrite and the Rabotsbekken mineralisations (Appendix 2).

4 RESULTS

The analytical results, field numbers and UTM co-ordinates of the 238 samples from the Grasvatnet area are listed in Appendix 35. The minimum, maximum, median, arithmetic average and standard deviation values for the analyses of 746 samples taken from the Bleikvassli region in 1993 are listed for comparison in Appendix 34.

Appendices 3 to 33 contain geochemical maps at a scale of 1:30 000 for the following elements: Pb, Zn, Cu, Au, B, Ba, Be, C, Ca, Cd, Ce, Co, Cr, Fe, K, La, Li, Mg, Mn, Mo, Ni, P, Sc, Sr, Ti, V, Zr, Y. The maps are produced as single-element maps using a series of symbols for different ranges of analytical values based on the following percentiles of the values of the 746 regional samples: 25, 50, 75, 95, 98 and 99 %. However, the symbol values used for Cd and Au are different as these elements are present in much lower concentrations. The values for Ag were not plotted as no values were recorded for this element above the detection limit whilst the values for Si, Al and Na were also not plotted because only a very small proportion of the total content of these elements is extractable with 7 N HNO₃ according to NS4770.

Using reference samples and re-analysed samples, the repeatability of the analytical determinations was found to be better than +/- 10 % at the 95 % confidence level. The repeatability (including re-sampling and re-analysis) of an analytical value on re-sampling at a 25 m interval in the background area is assumed to be approximately +/- 25 to 40 % (based on the results of the traverses 1619-1627, 1618-1610, 1601-1609, 1737-1745, 1754-1746, 1755-1763, 1805-1764).

5 DISCUSSION

Till and peat cover the area around the three northernmost traverses (1601-1609, 1610-1618, 1619-1627). Soil was sampled in an attempt to determine the length of the skarn-mineralisation which is observed about 300 m NW of these traverses (Appendix 2). However, the base metal concentrations measured in samples taken from these traverses are low (see Appendices 4, 6 and 8) and no influence of sulphide mineralisation on the samples is readily apparent. An exception may be the 13 ppb Au content of sample no. 836, collected in 1994 and situated close to traverse 1619-1627 (Appendices 2 and 10). This may be a coincidence but given that:

- a) the next three traverses (1737-1763) contain three values of 10, 14 and 443 ppb Au,
- b) the direction of ice movement and the terrain slope are towards north and that
- c) only 9 of 746 regional samples collected in 1993 contained 13 ppb or more Au,

it is possible that the Au-mineralisation may be traced for more than 1.5 km in a southerly direction along the strike. However, the base metal analyses suggest that at least the Cu-concentration and possibly all of the base metals concentrations are strongly reduced in the southern part of this zone.

The traverses 1863-1868 and 1677-1682 are located close to and below the eastern slope of the pyrite mineralization (Appendix 2). The analyses of the soil from these traverses confirmed the lack of base metals observed during the mineralogical studies of the pyrite mineralisation (Bjerkgård & Larsen 1996).

The six traverses 1650-1676, 1713-1689, 1714-1736, 1649-1639, 1628-1638 and 1805-1764 are situated below, close to or on the eastern slope (ca. 20 degrees inclination) of the Rabotsbekken mineralisation and the TFEM anomalies. Several enhanced Zn-values come from the area on the north-eastern side of the mineralisation. Given the direction of ice movement and the slope, these values are interpreted as the result of the influence of the Rabotsbekken mineralisation. One Cu-value (200 ppm) is also interpreted to be the result of this mineralisation.

One sample from the northern end of traverse 1650-1676 contains 209 ppm Cu and enhanced values of a large number of other elements (Be, Ca, Co, Cr, Li, Mg, Mn, Ni, Sc, Sr and Zr). These enhanced values in the Bleikvassli area are generally not due to sulphide mineralisation but rather to carbonate-rich lithologies (Krog 1995a and b). This interpretation is supported by an examination of the geological map of the Grasvatnet area (Bjerkgård & Larsen 1996), where the northern end of traverse 1650-1676 is the only location within the Grassvatnet area where a calcite marble deposit coincides with sampling localities. For this reason none of the concentration levels measured in samples from the Grasvatnet area (including the elevated Cu-value) seem to be of use as indicators of mineralisation.

6 CONCLUSIONS

Analysis of soil samples taken in 1996 from the Grassvatnet area have not produced any high values which can be interpreted as originating from an unknown mineralisation.

A limited number of enhanced Au-concentrations south of a skarn-type mineralisation in the study area indicate that this mineralisation may be traced for more than 1.5 km along the strike direction.

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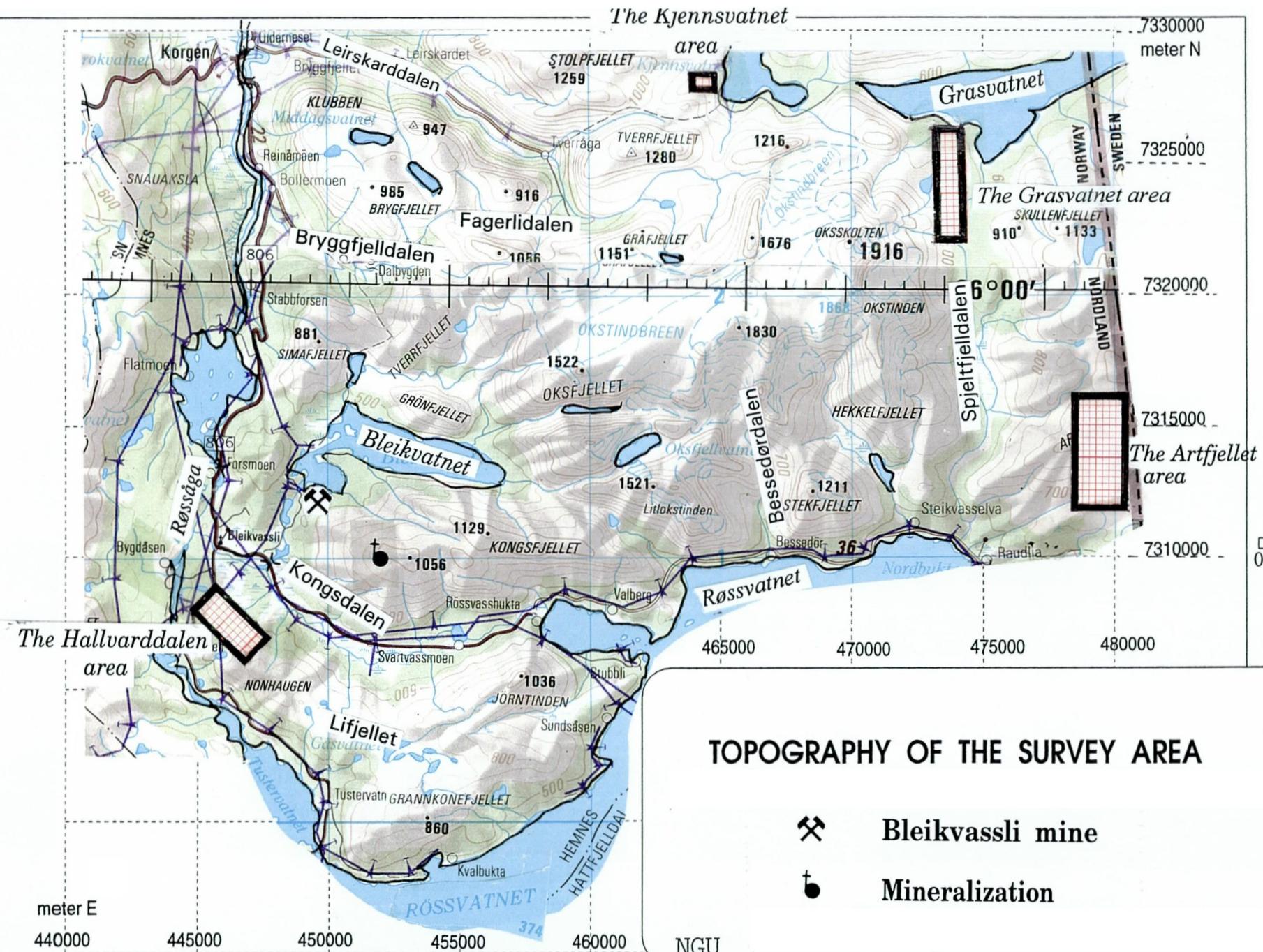
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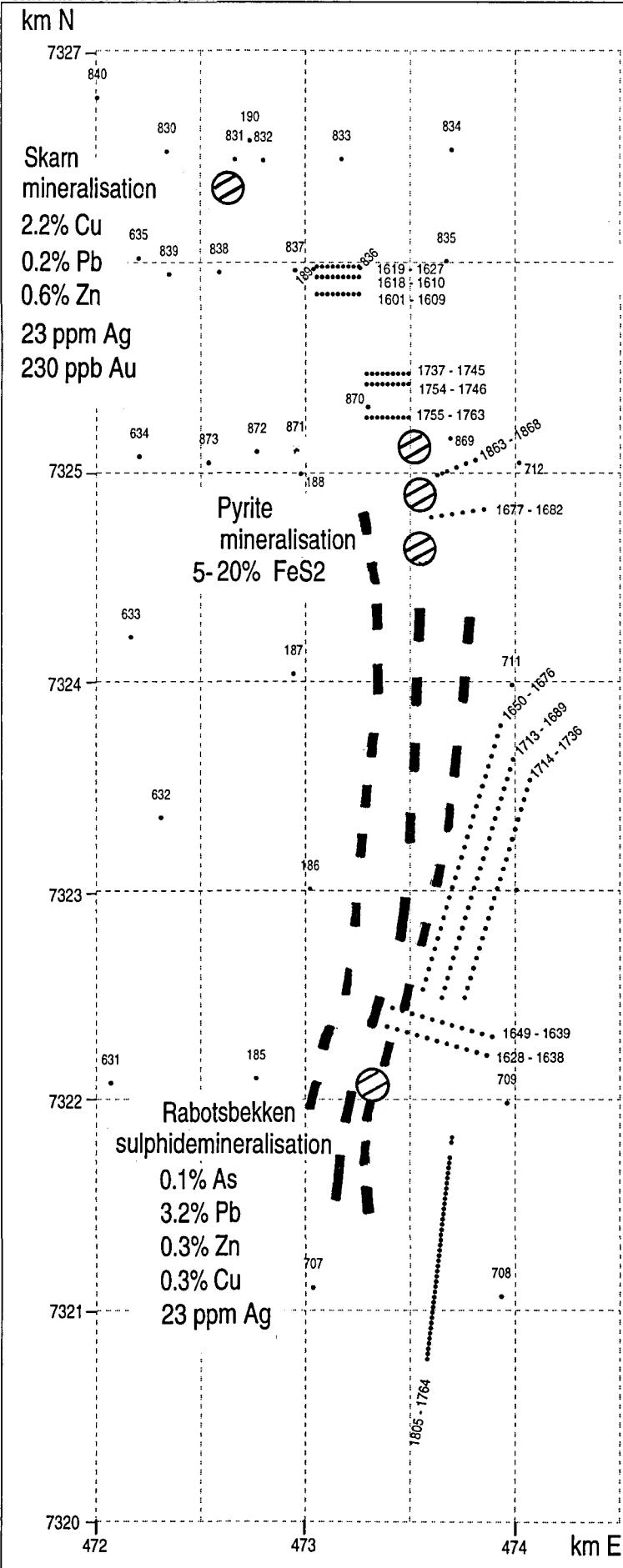
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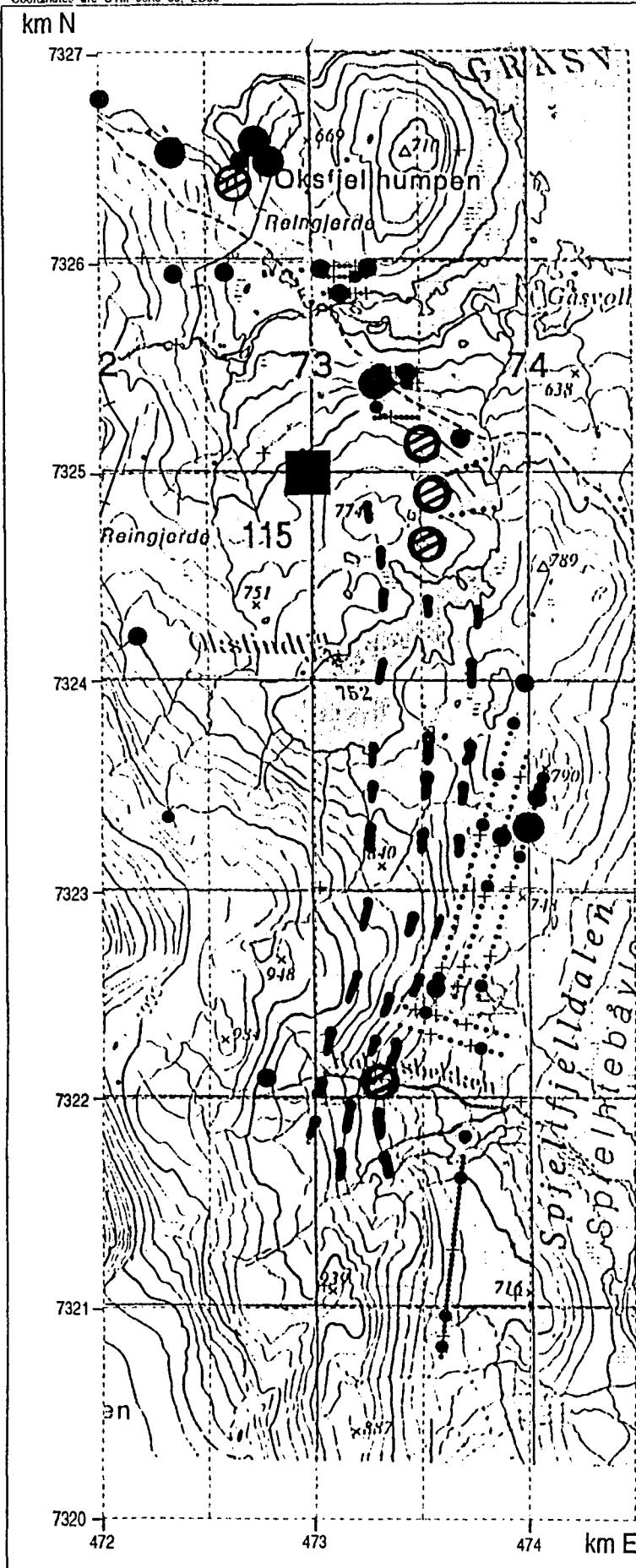
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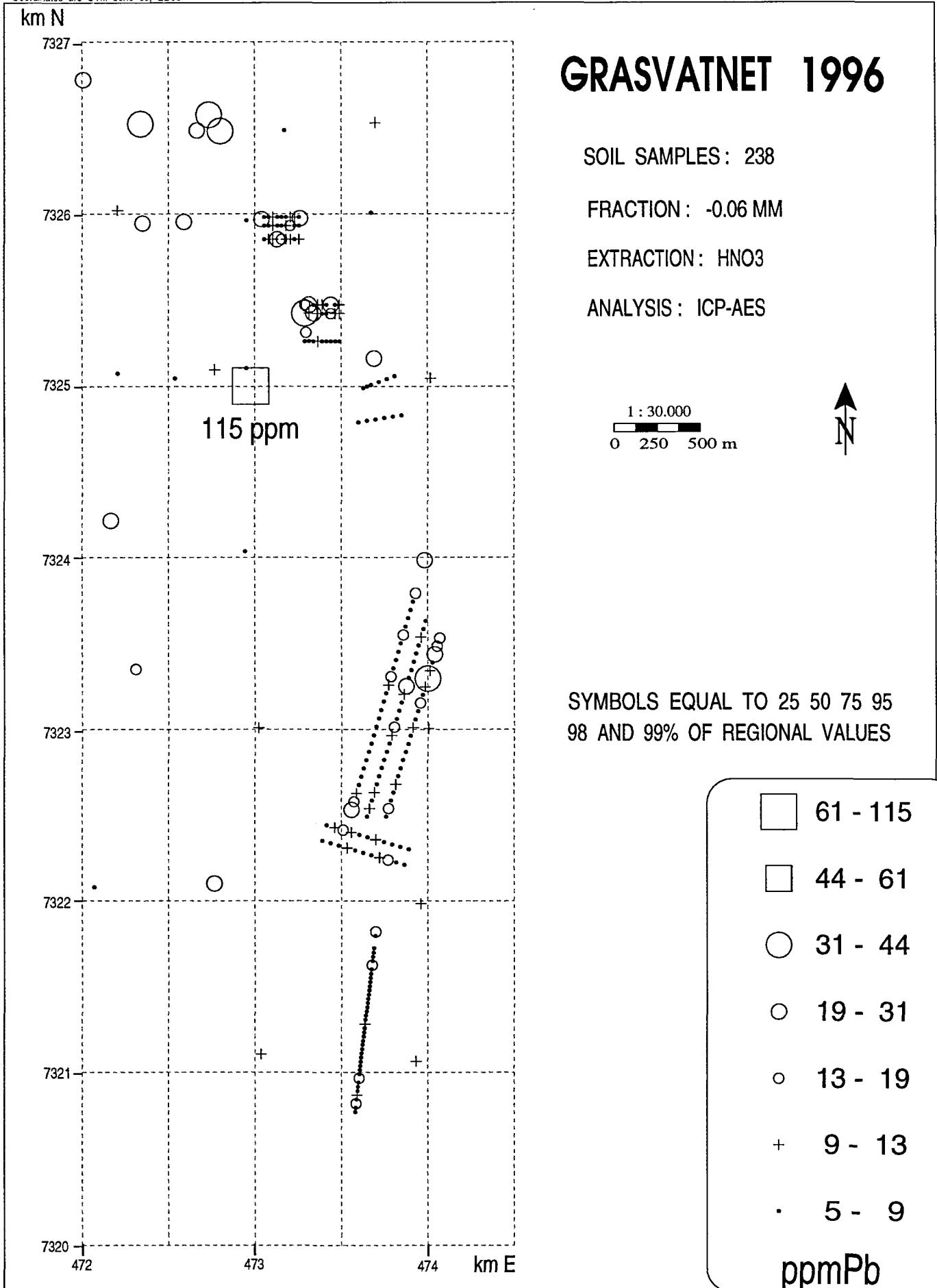
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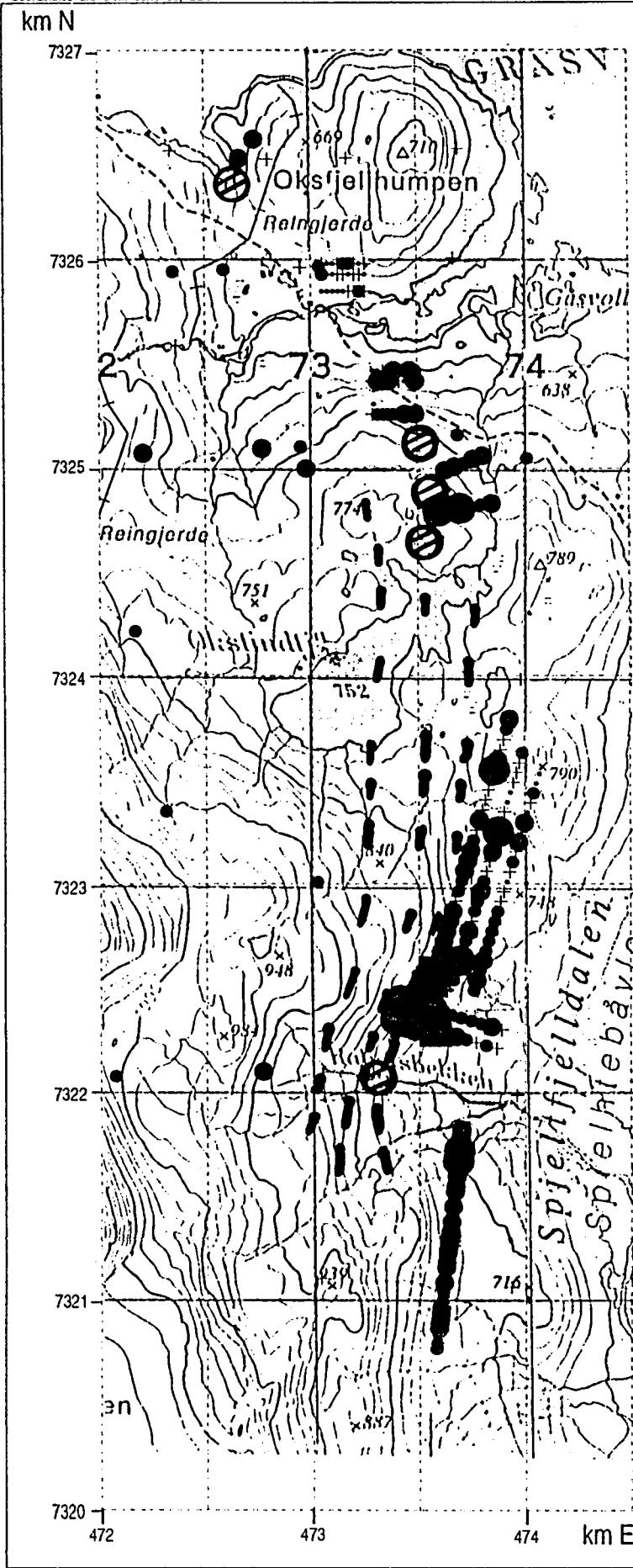
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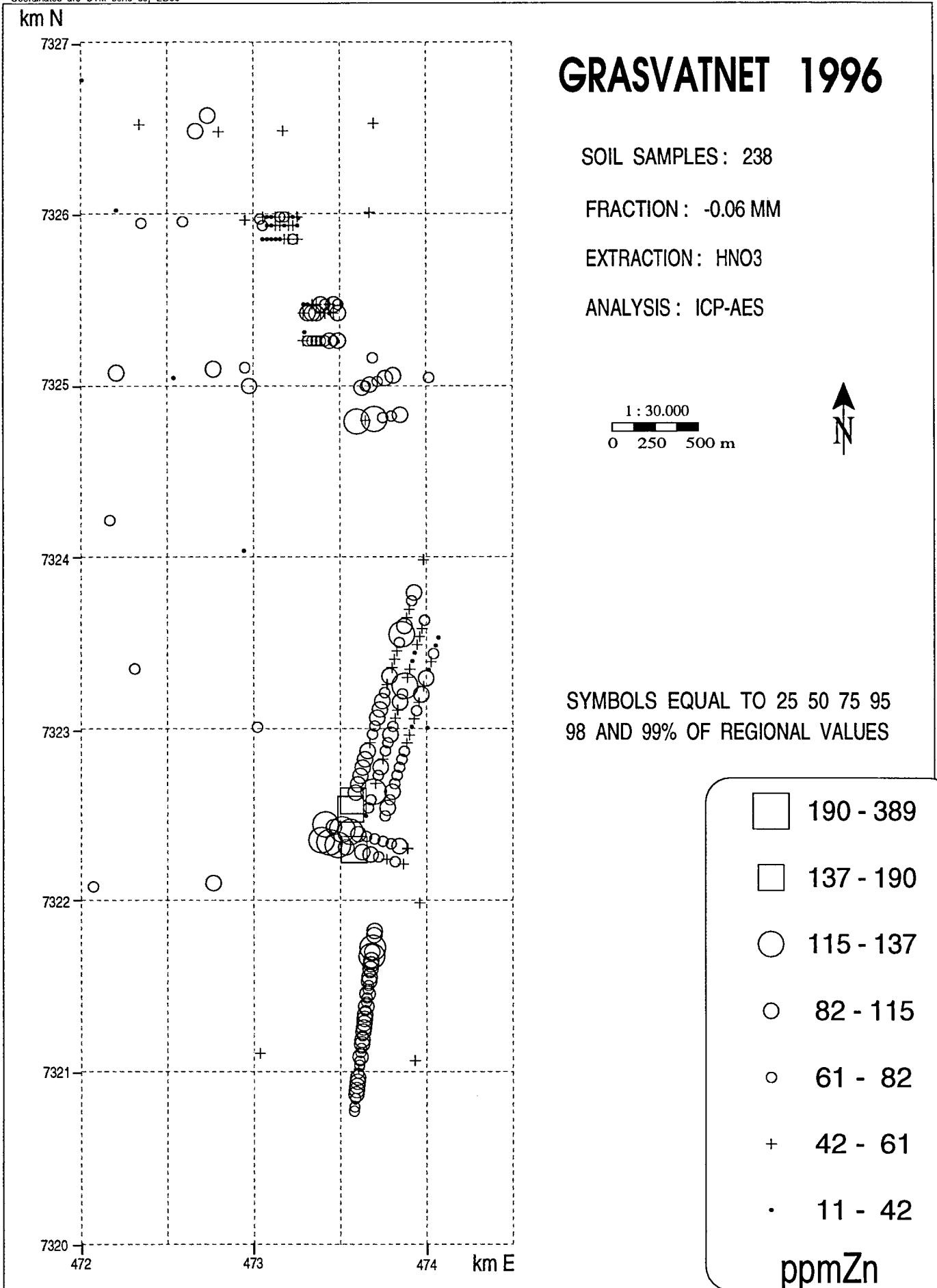
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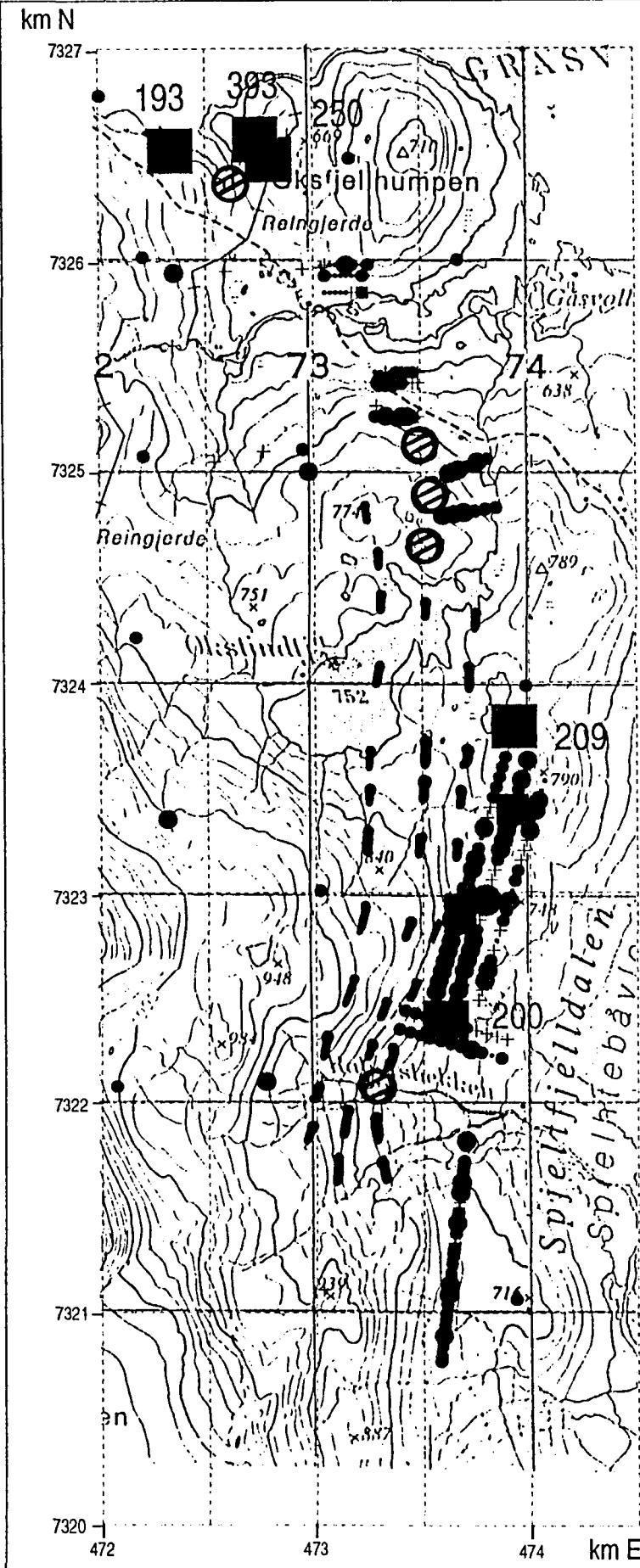
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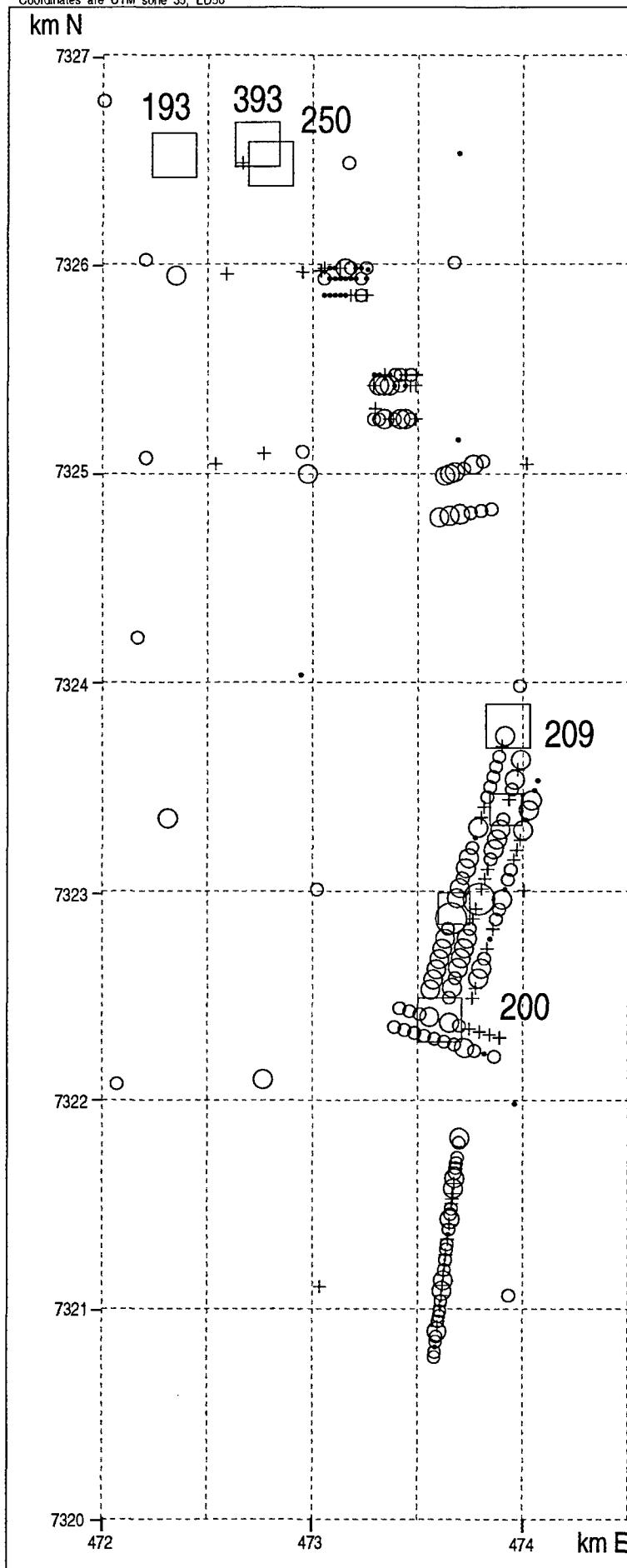
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Coordinates are UTM zone 35, ED50



Coordinates are UTM zone 35, ED50



GRASVATNET 1996

SOIL SAMPLES: 238

FRACTION: -0.06 MM

EXTRACTION: HNO₃

ANALYSIS: ICP-AES

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0 250 500 m

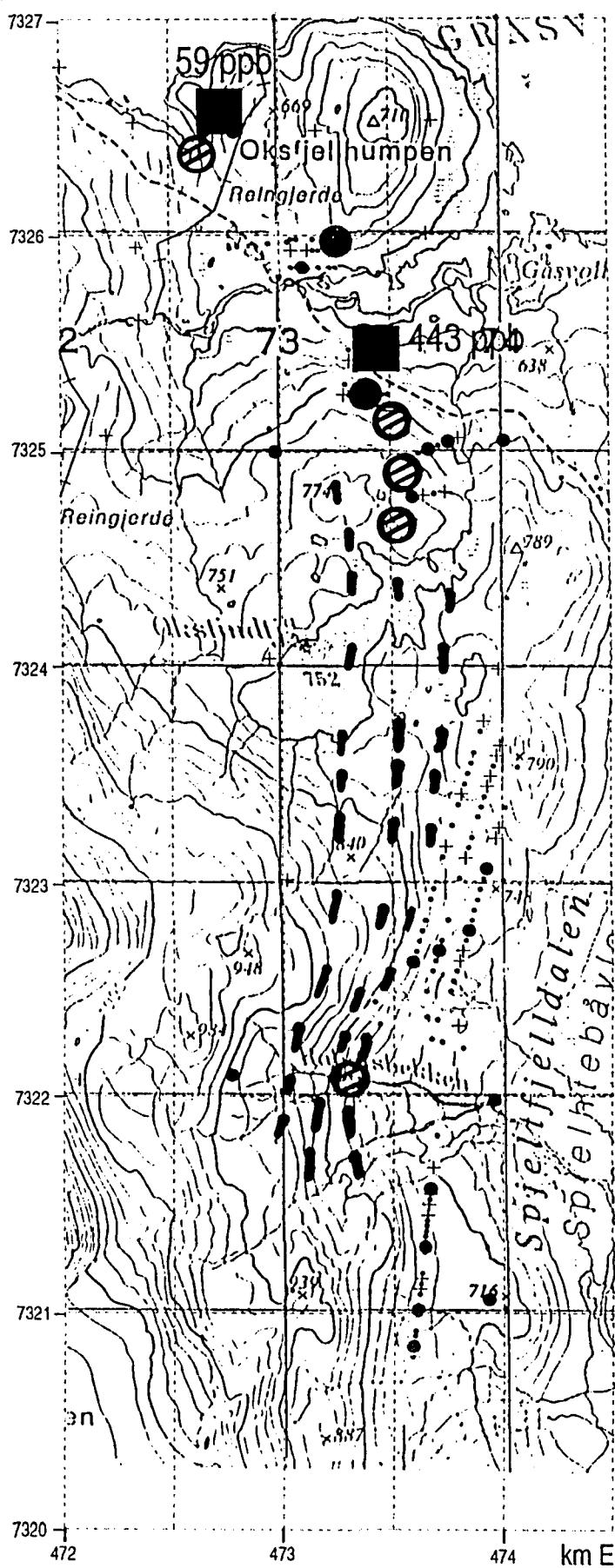


SYMBOLS EQUAL TO 25 50 75 95
98 AND 99% OF REGIONAL VALUES

 	177 - 393
 	151 - 177
 	108 - 151
 	56 - 108
 	35 - 56
+	19 - 35
•	2 - 19
ppmCu	

Coordinates are UTM zone 35, ED50

km N



GRASVATNET 1996

SOIL SAMPLES: 162

FRACTION: -0.06 MM

EXTRACTION: FIRE ASSAY

ANALYSIS: ICP-AES

1 : 30.000
0 250 500 m



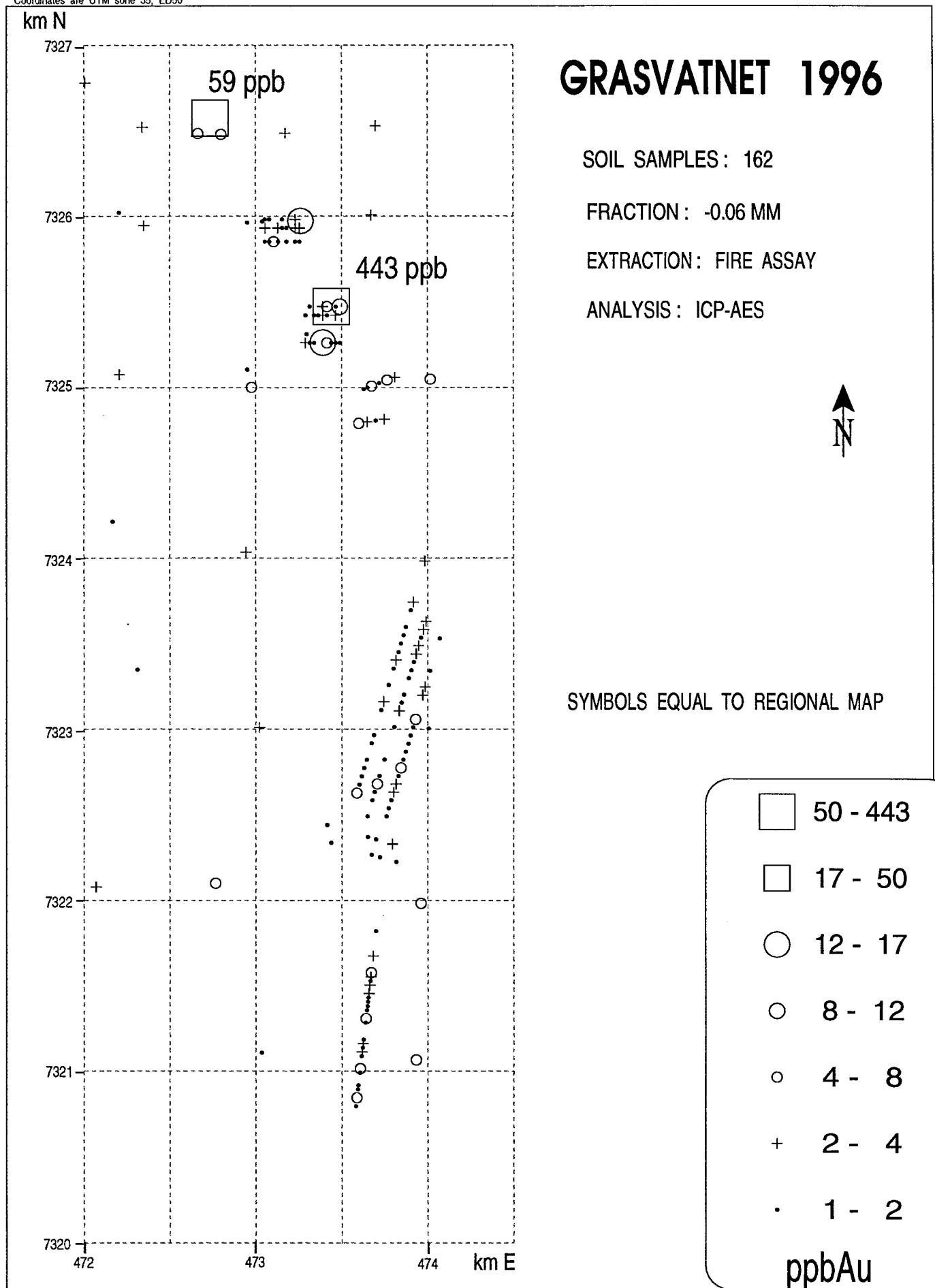
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(—) TFEM ANOMALIES

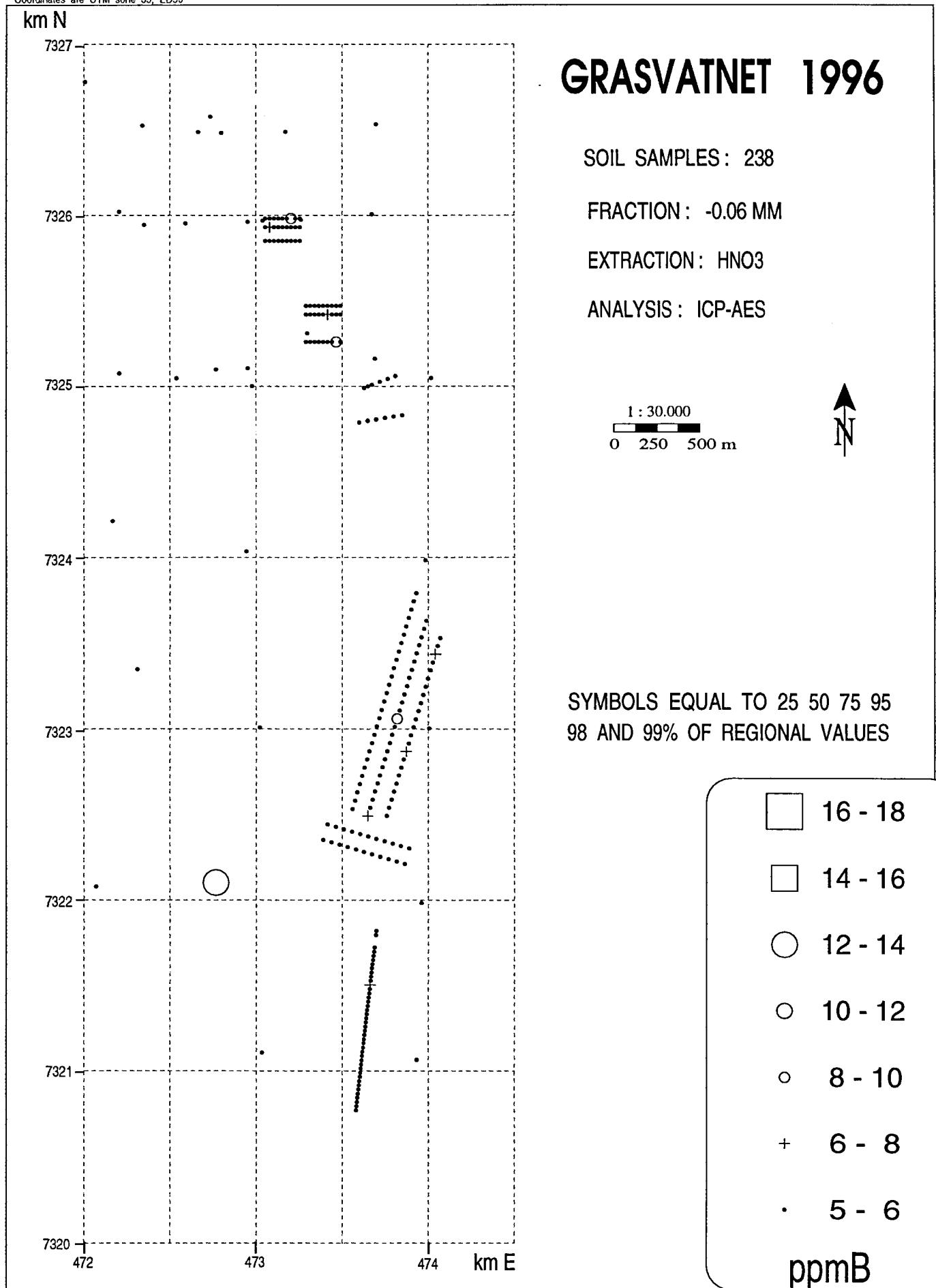
SYMBOLS EQUAL TO REGIONAL MAP

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■	17 - 50
●	12 - 17
●	8 - 12
●	4 - 8
+	2 - 4
•	1 - 2
	ppbAu

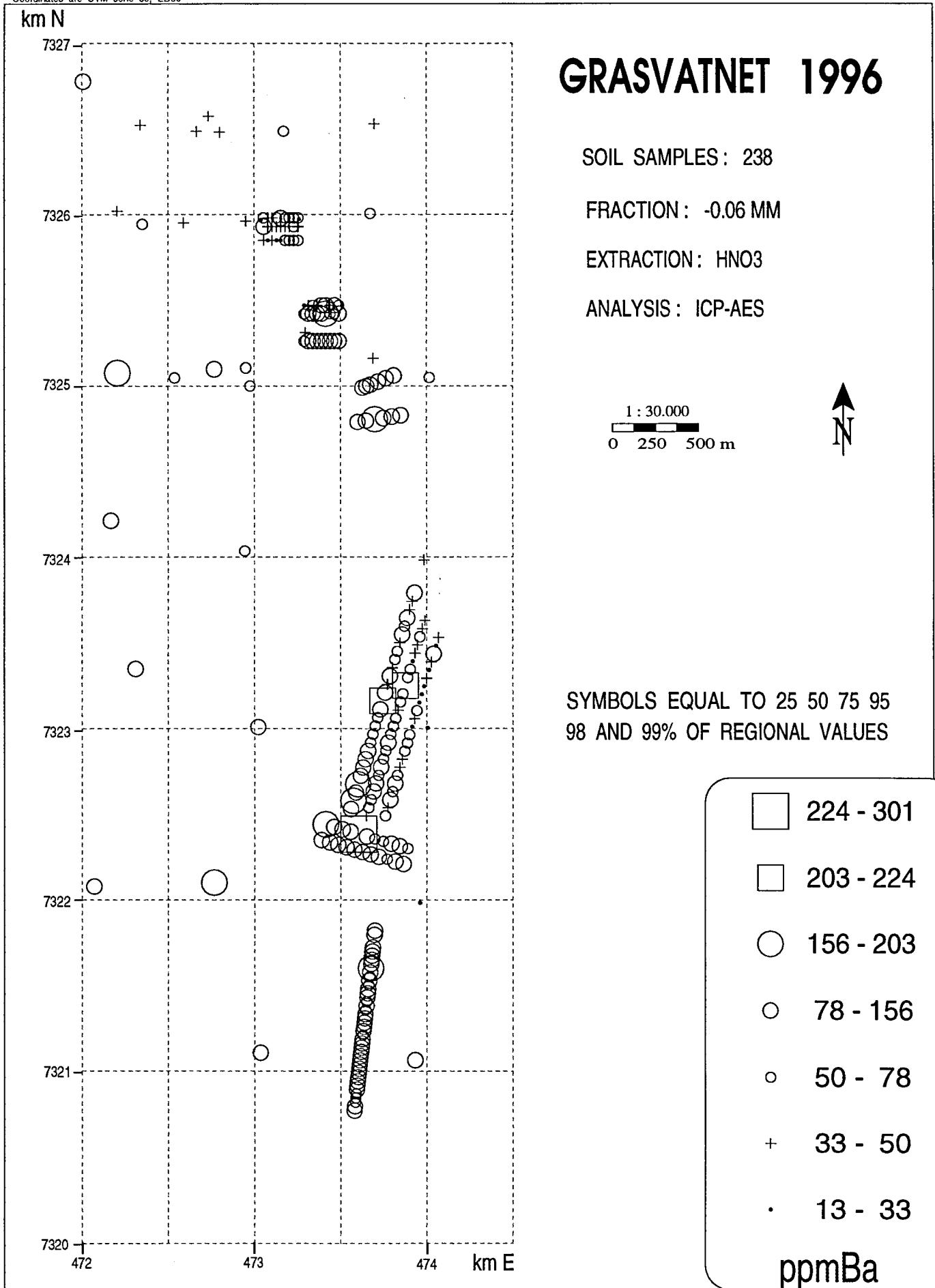
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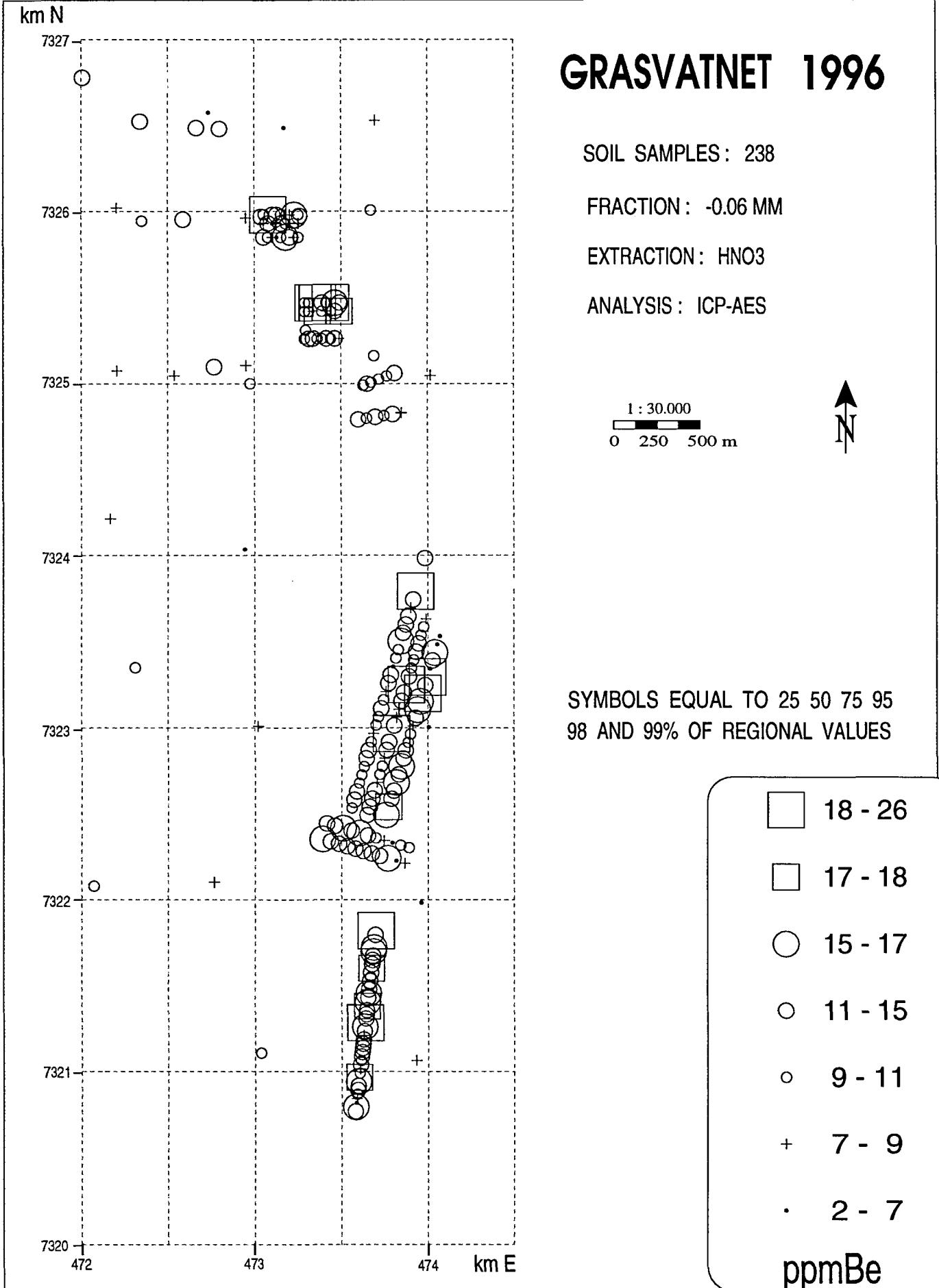
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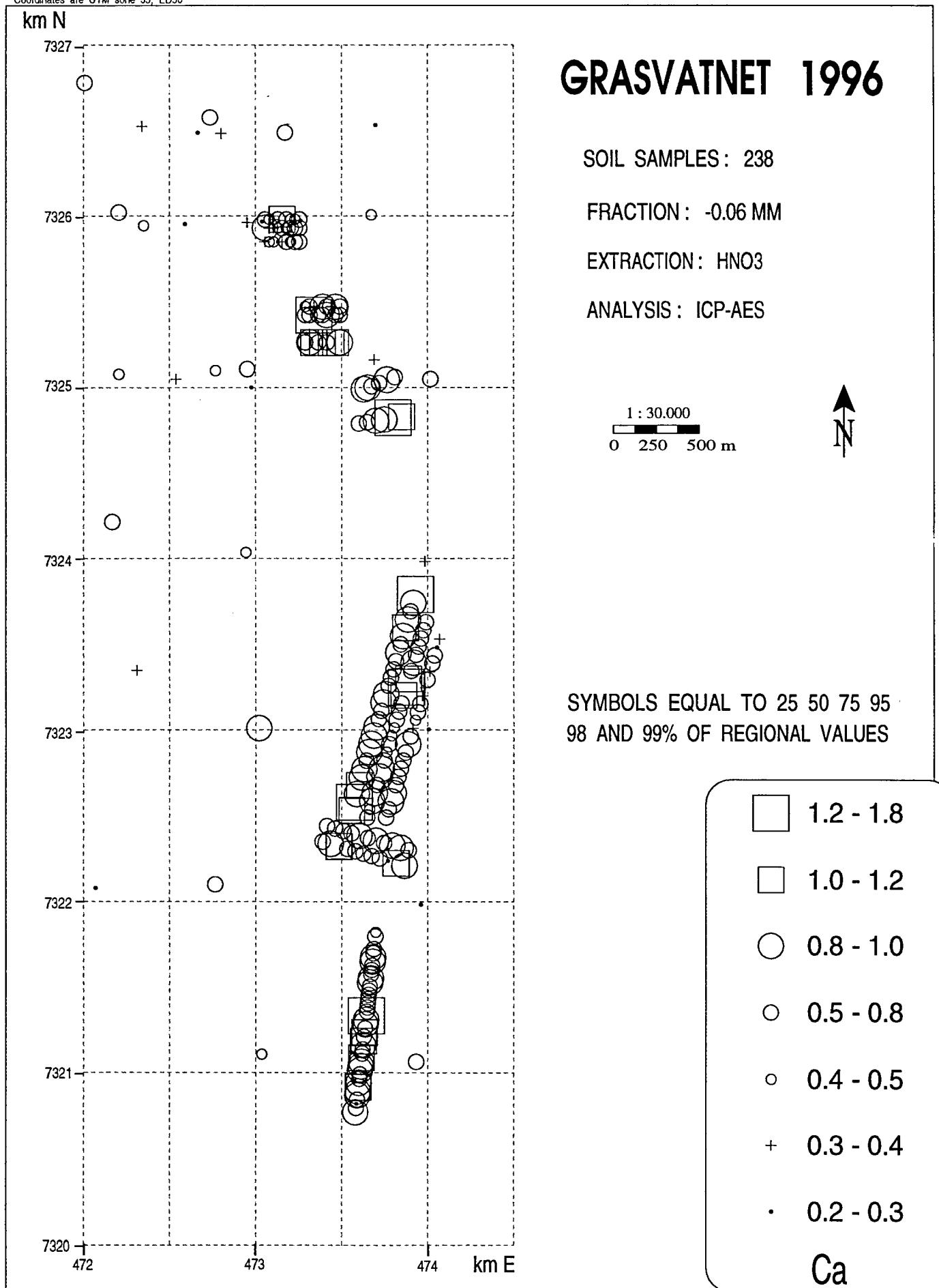
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Coordinates are UTM zone 35, ED50



Coordinates are UTM zone 35, ED50



Coordinates are UTM zone 35, ED50

km N

7327

7326

7325

7324

7323

7322

7321

7320

473

474

km E

GRASVATNET 1996

SOIL SAMPLES: 238

FRACTION: -0.06 MM

EXTRACTION: HNO₃

ANALYSIS: ICP-AES

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0 250 500 m

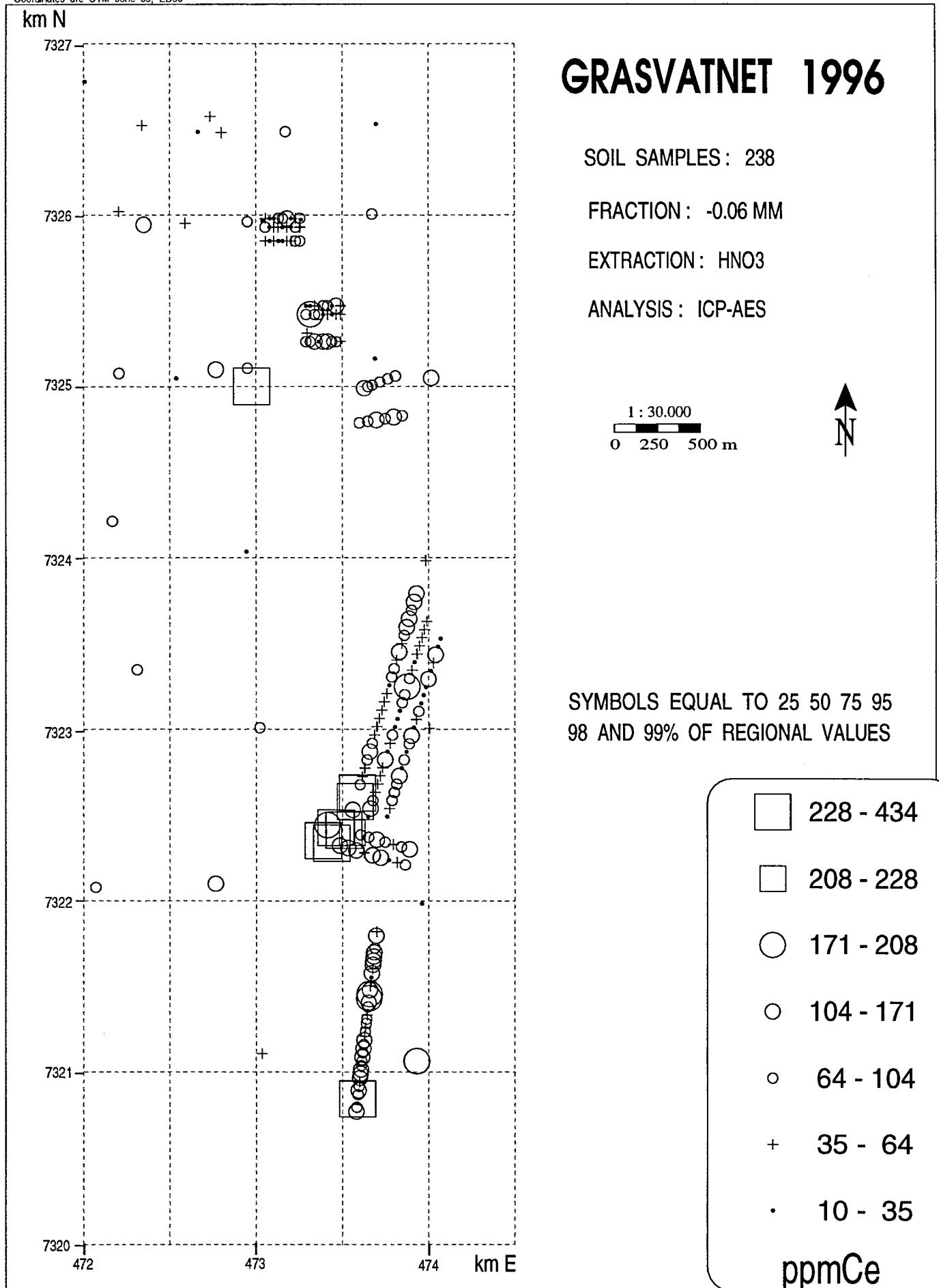


SYMBOLS EQUAL TO 25 50 75 95
98 AND 99% OF REGIONAL VALUES

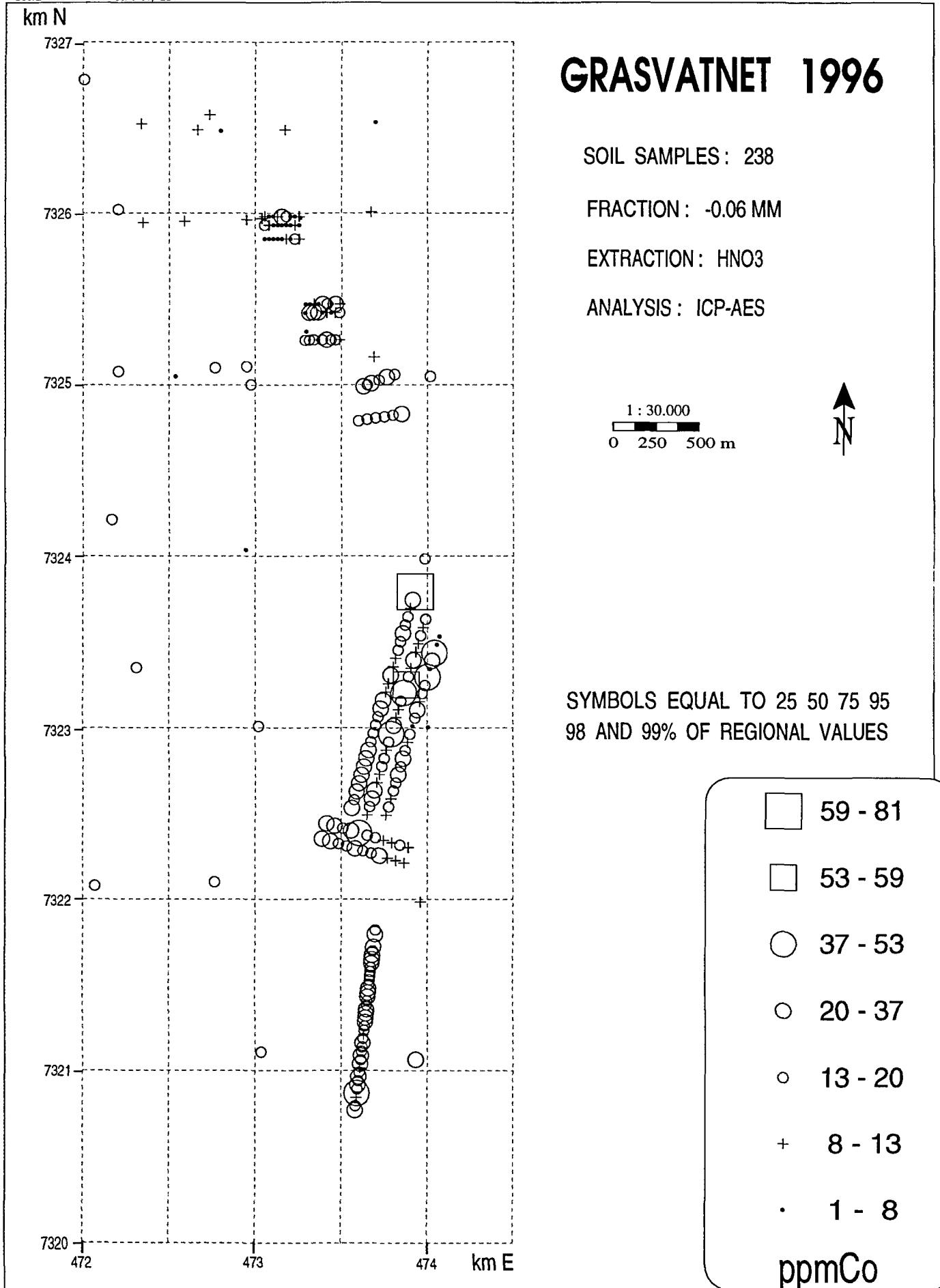
□	4.0 - 4.2
□	3.0 - 4.0
○	2.5 - 3.0
○	2.0 - 2.5
○	1.5 - 2.0
+	1.2 - 1.5
•	1.0 - 1.2

ppmCd

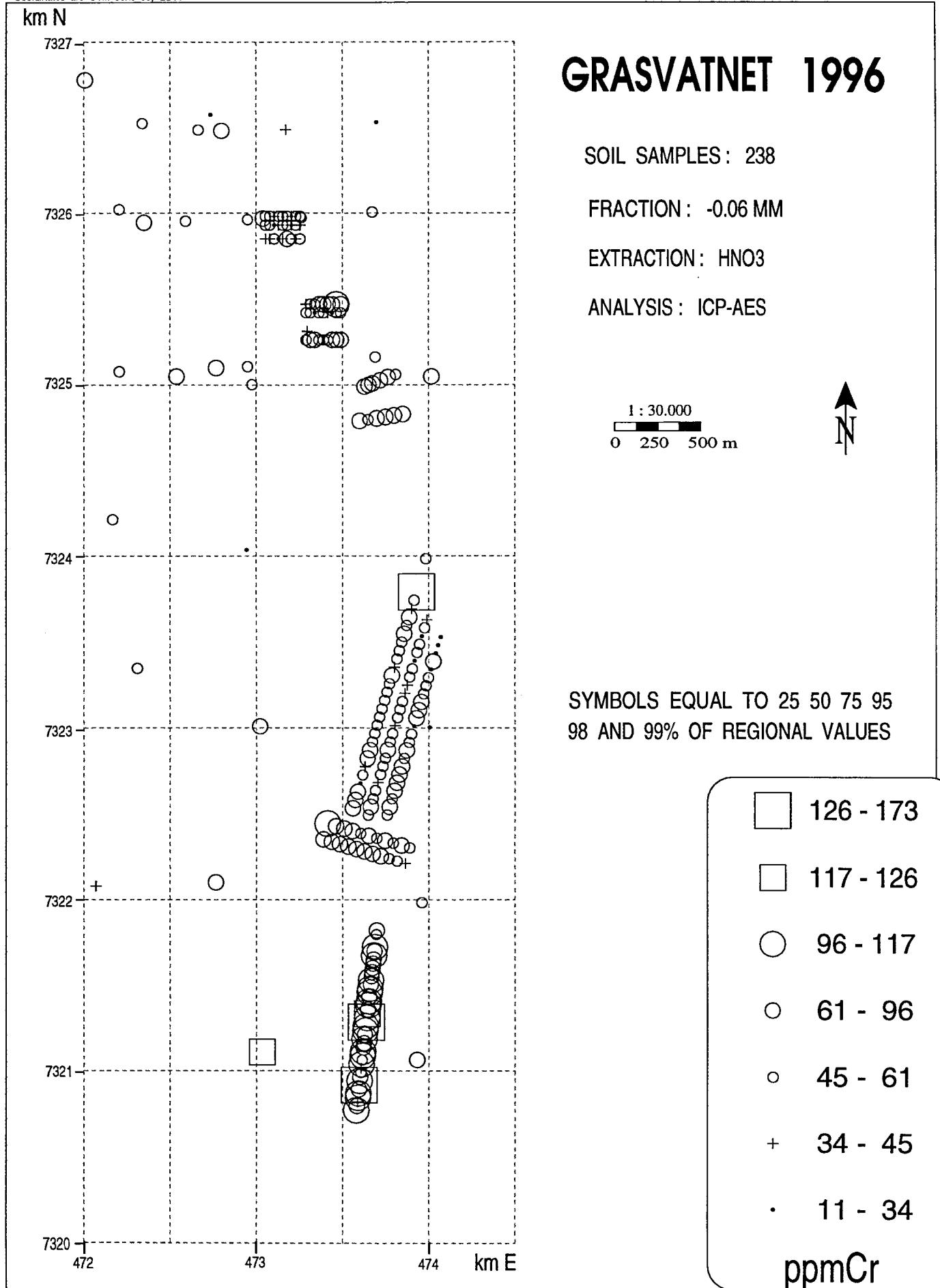
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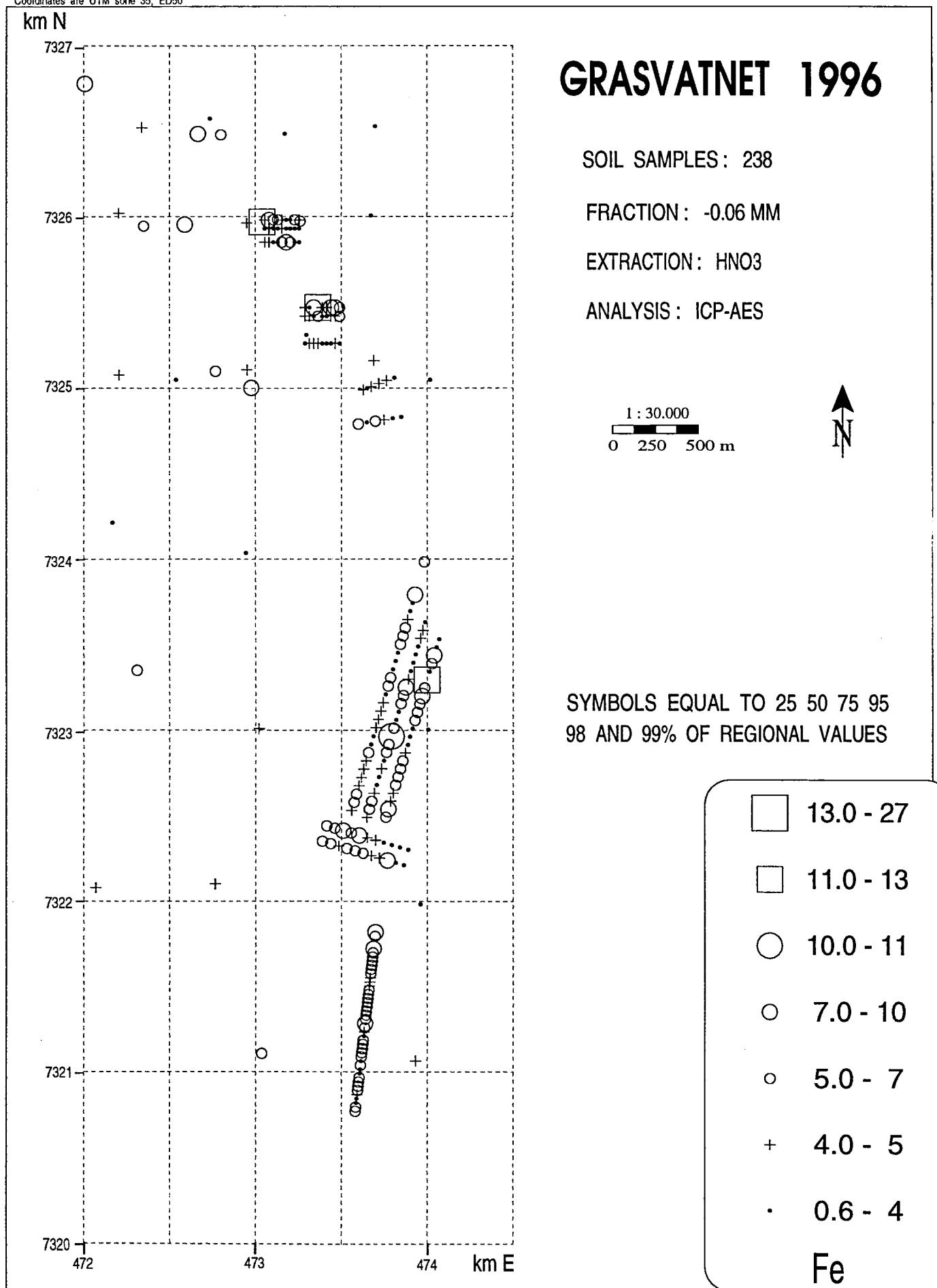
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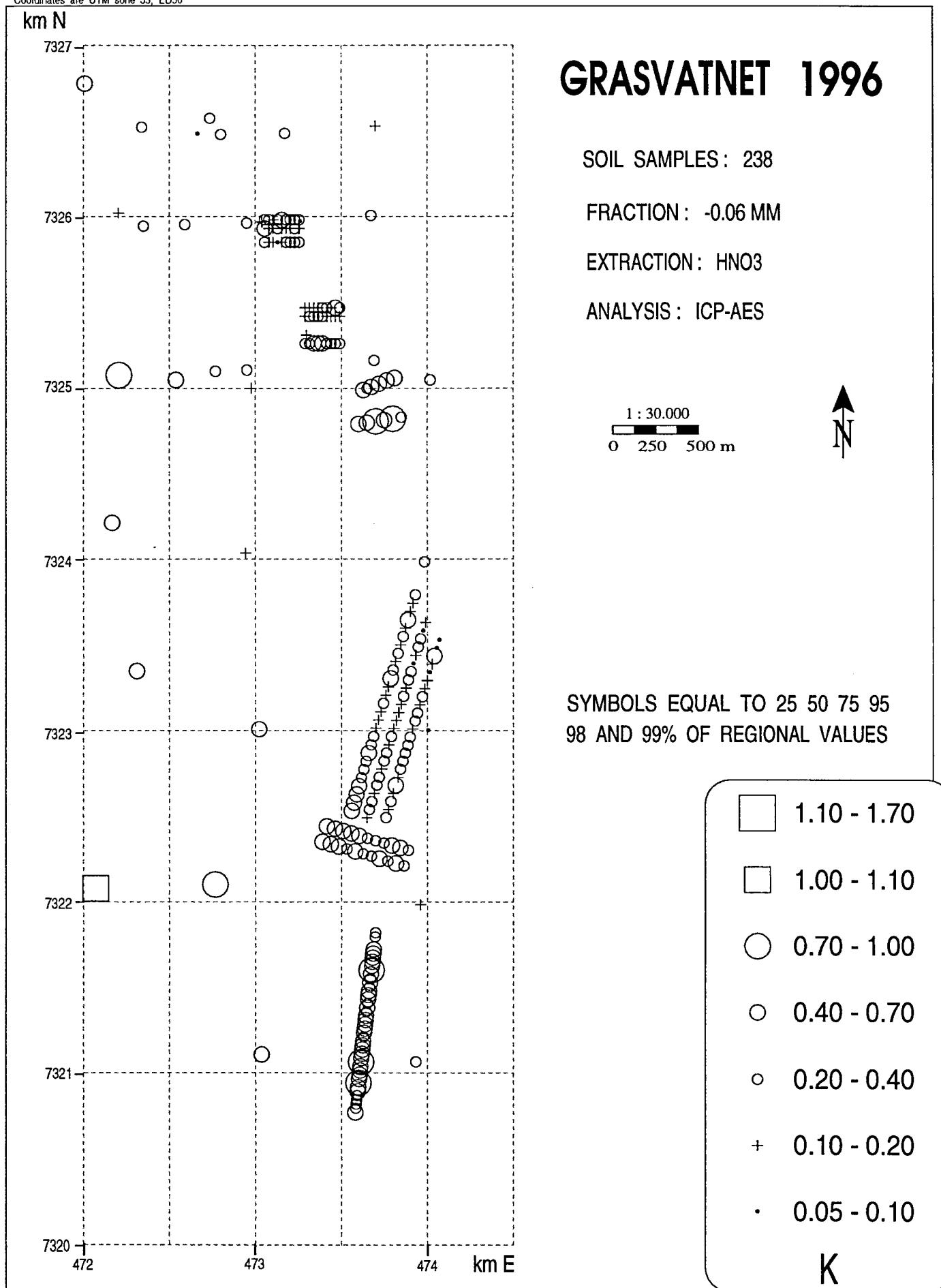
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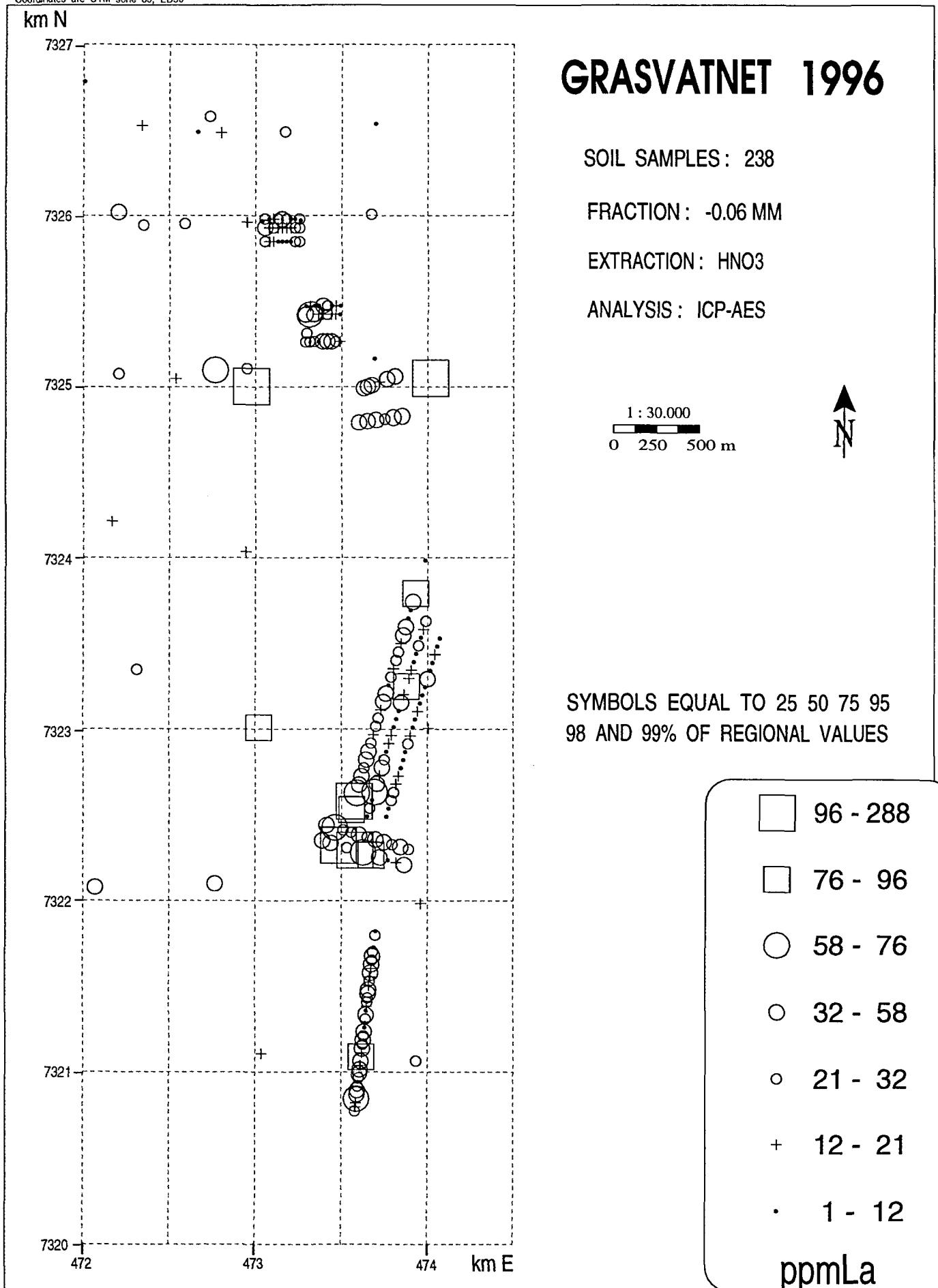
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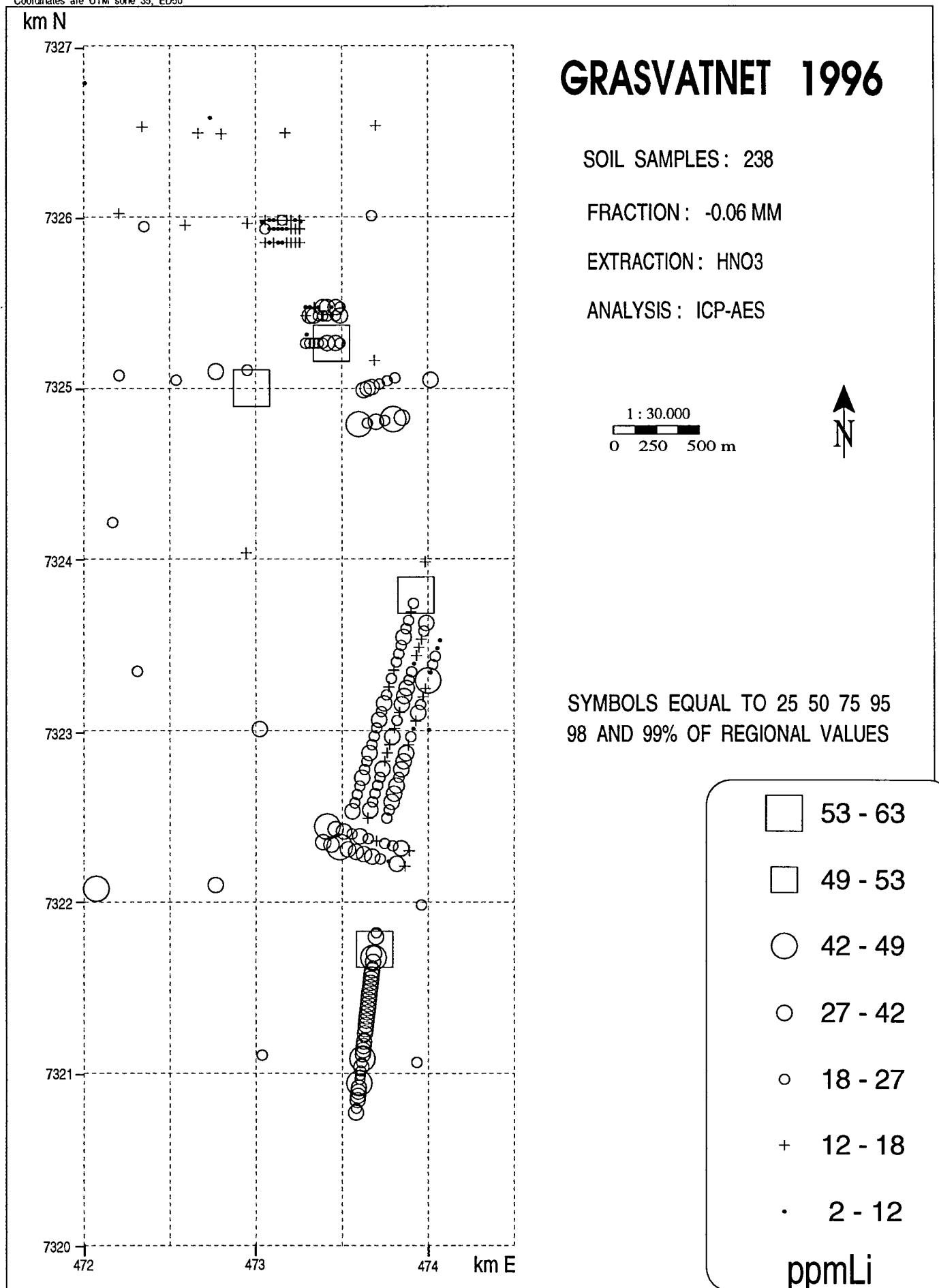
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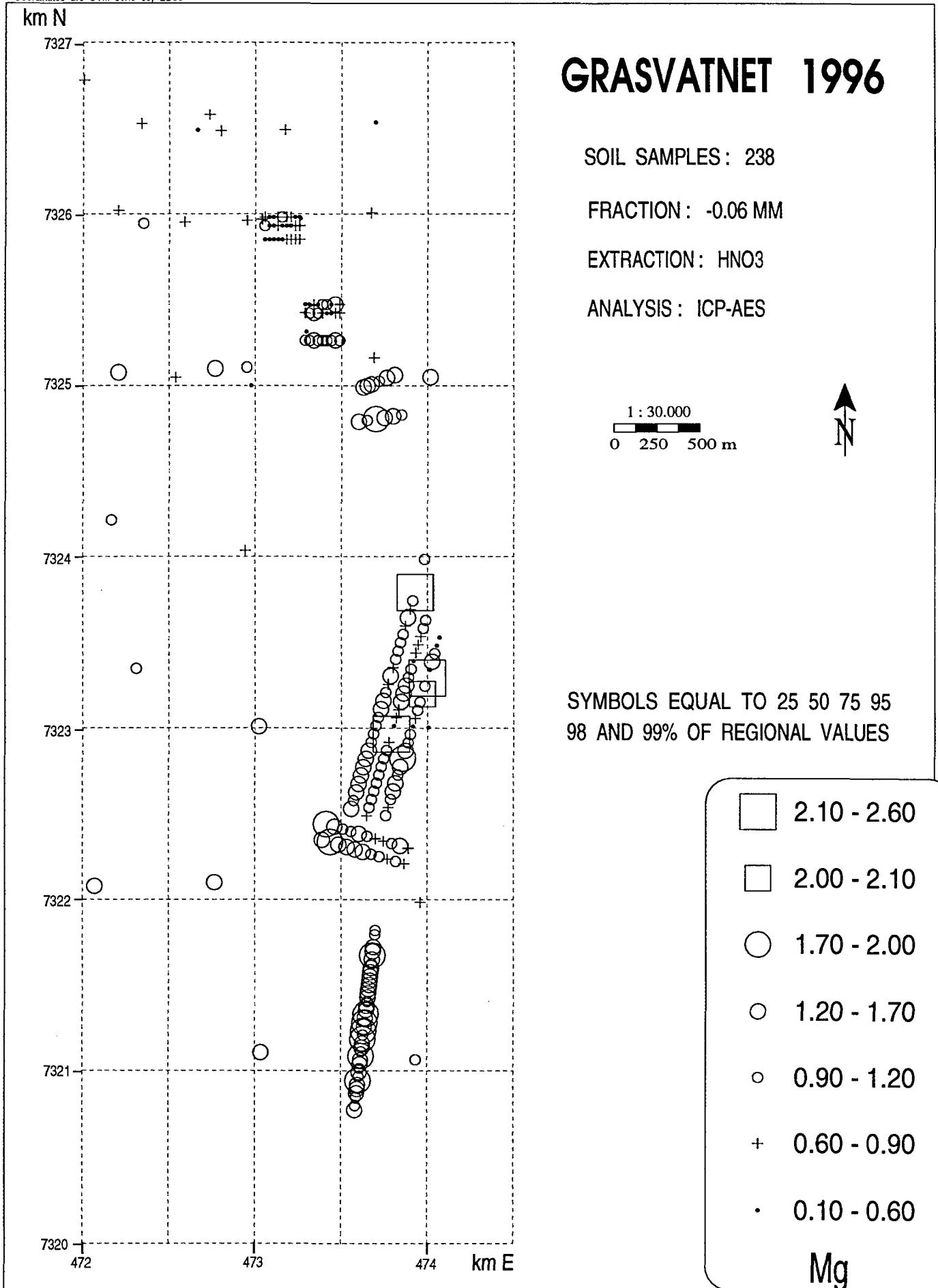
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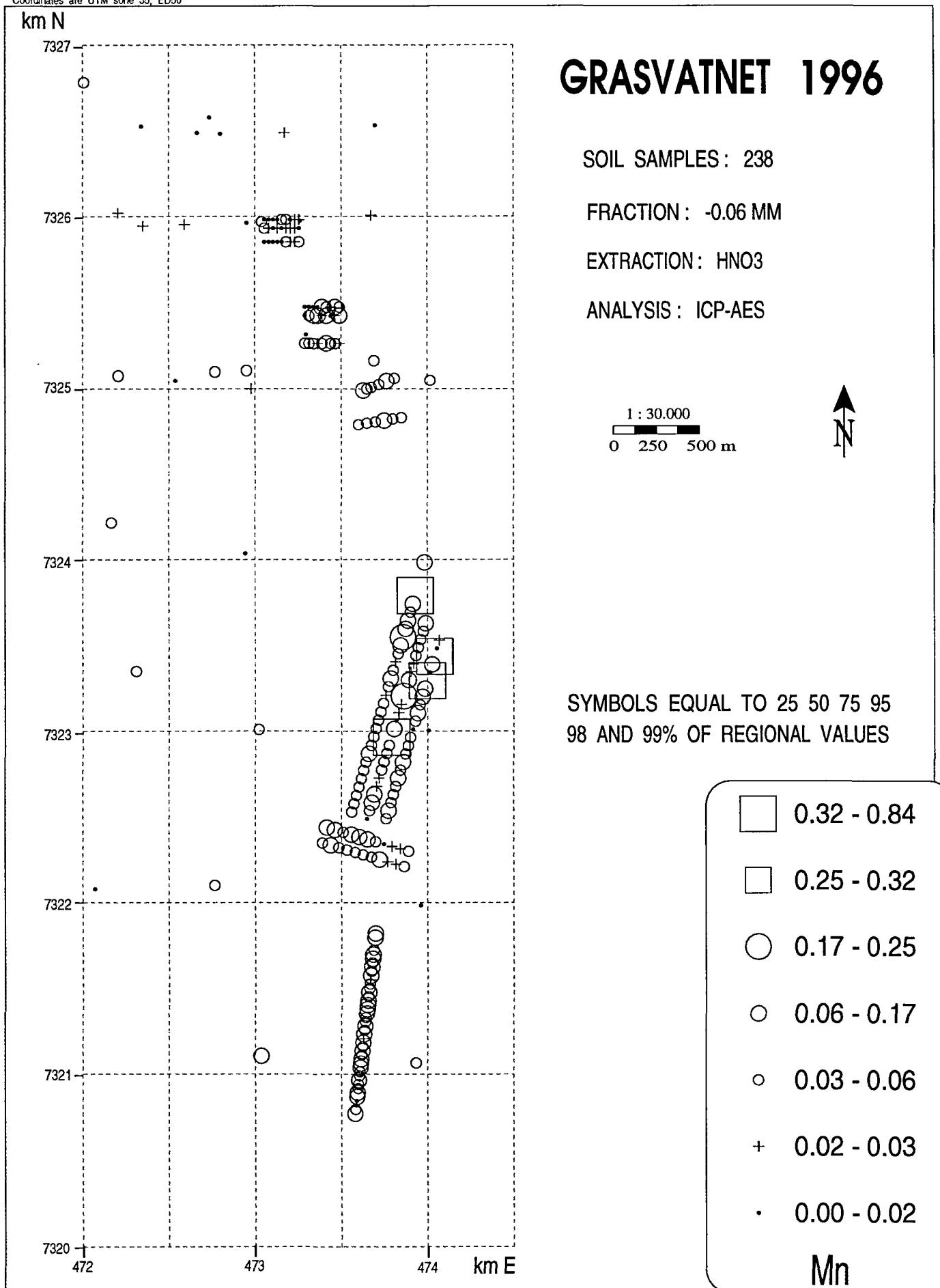
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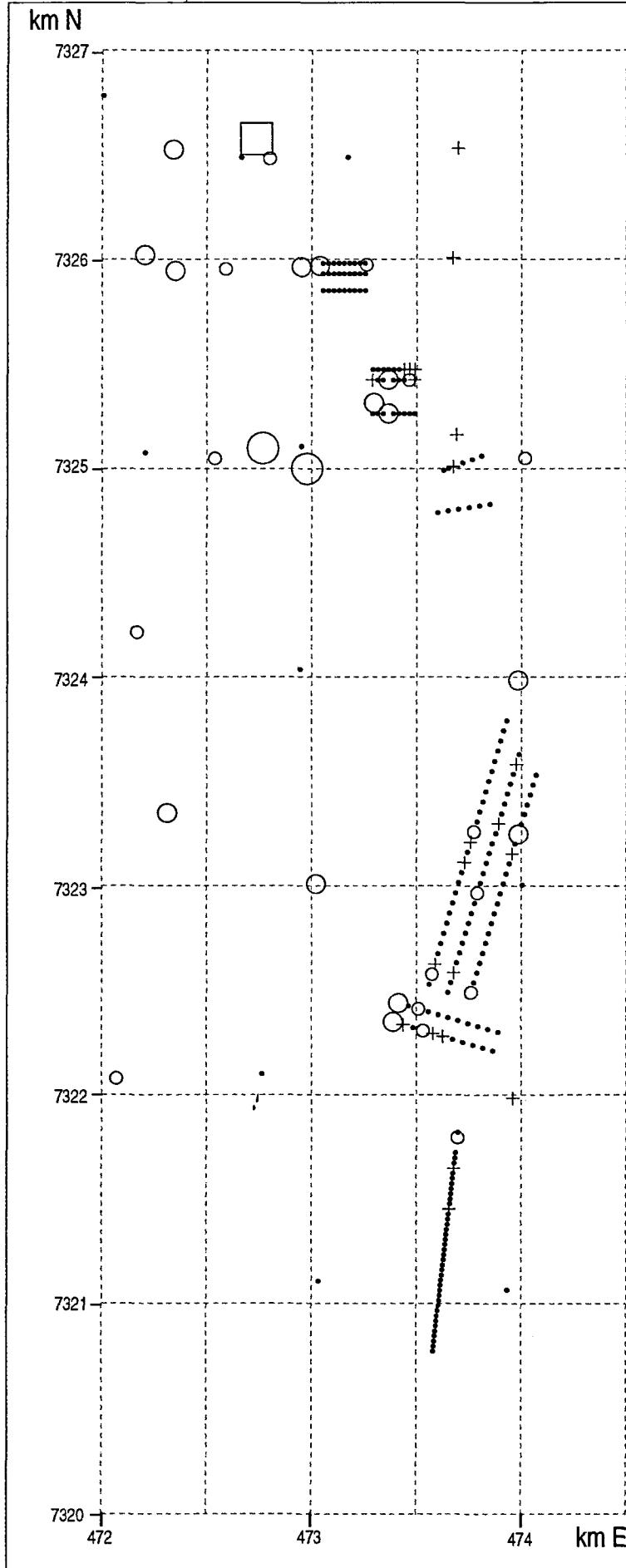
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Coordinates are UTM zone 35, ED50



Coordinates are UTM zone 35, ED50



GRASVATNET 1996

SOIL SAMPLES: 238

FRACTION: -0.06 MM

EXTRACTION: HNO₃

ANALYSIS: ICP-AES

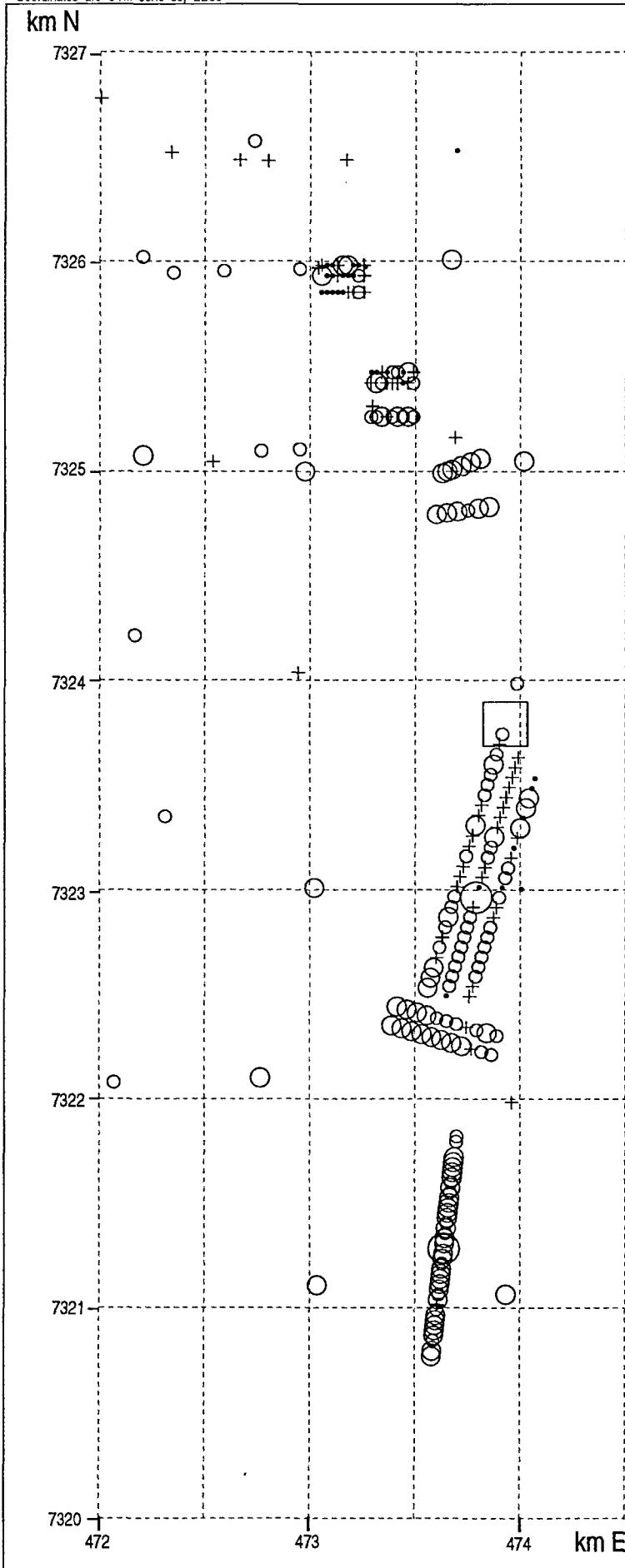
1 : 30.000
0 250 500 m



SYMBOLS EQUAL TO 25 50 75 95
98 AND 99% OF REGIONAL VALUES

□	7.4 - 19.2
□	6.1 - 7.4
○	4.5 - 6.1
○	2.2 - 4.5
○	1.5 - 2.2
+	1.2 - 1.5
•	1.0 - 1.2

Coordinates are UTM zone 35, ED50



GRASVATNET 1996

SOIL SAMPLES: 238

FRACTION: -0.06 MM

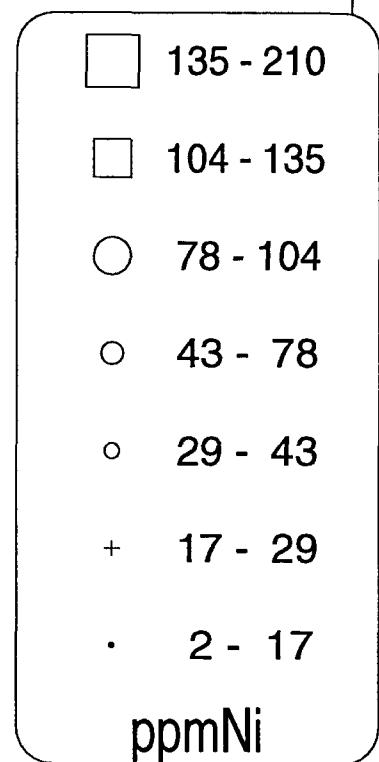
EXTRACTION: HNO₃

ANALYSIS: ICP-AES

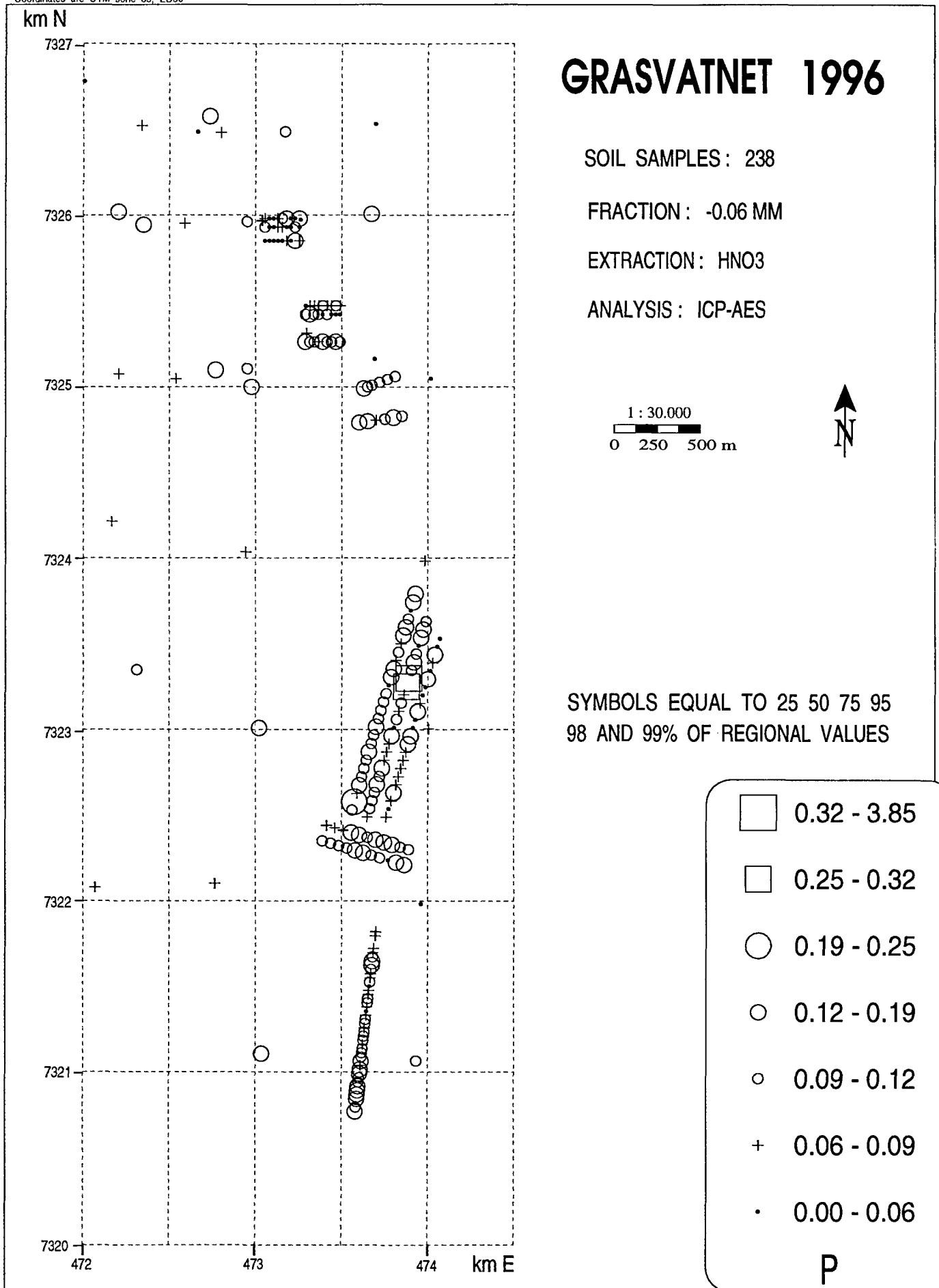
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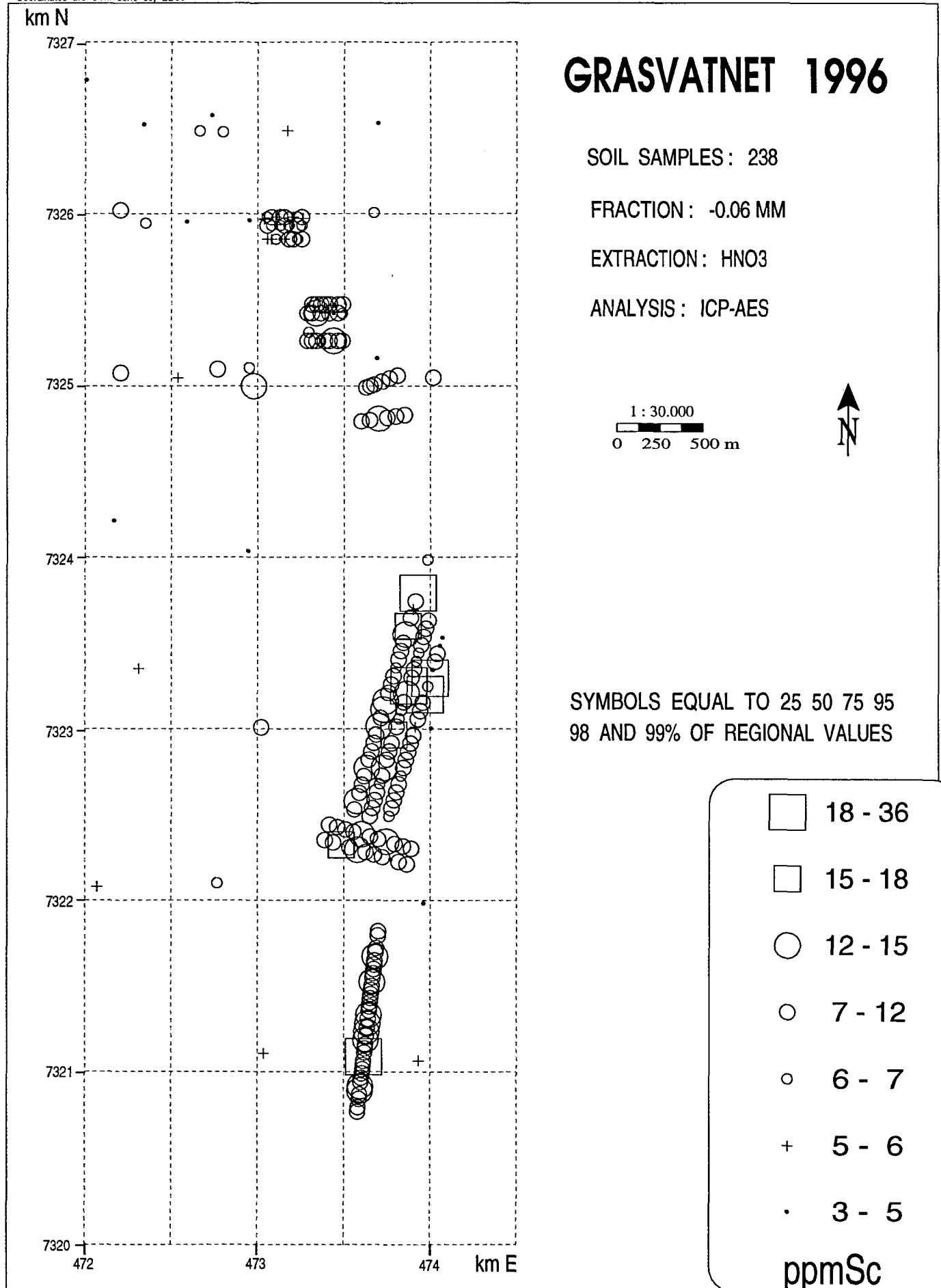
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98 AND 99% OF REGIONAL VALUES



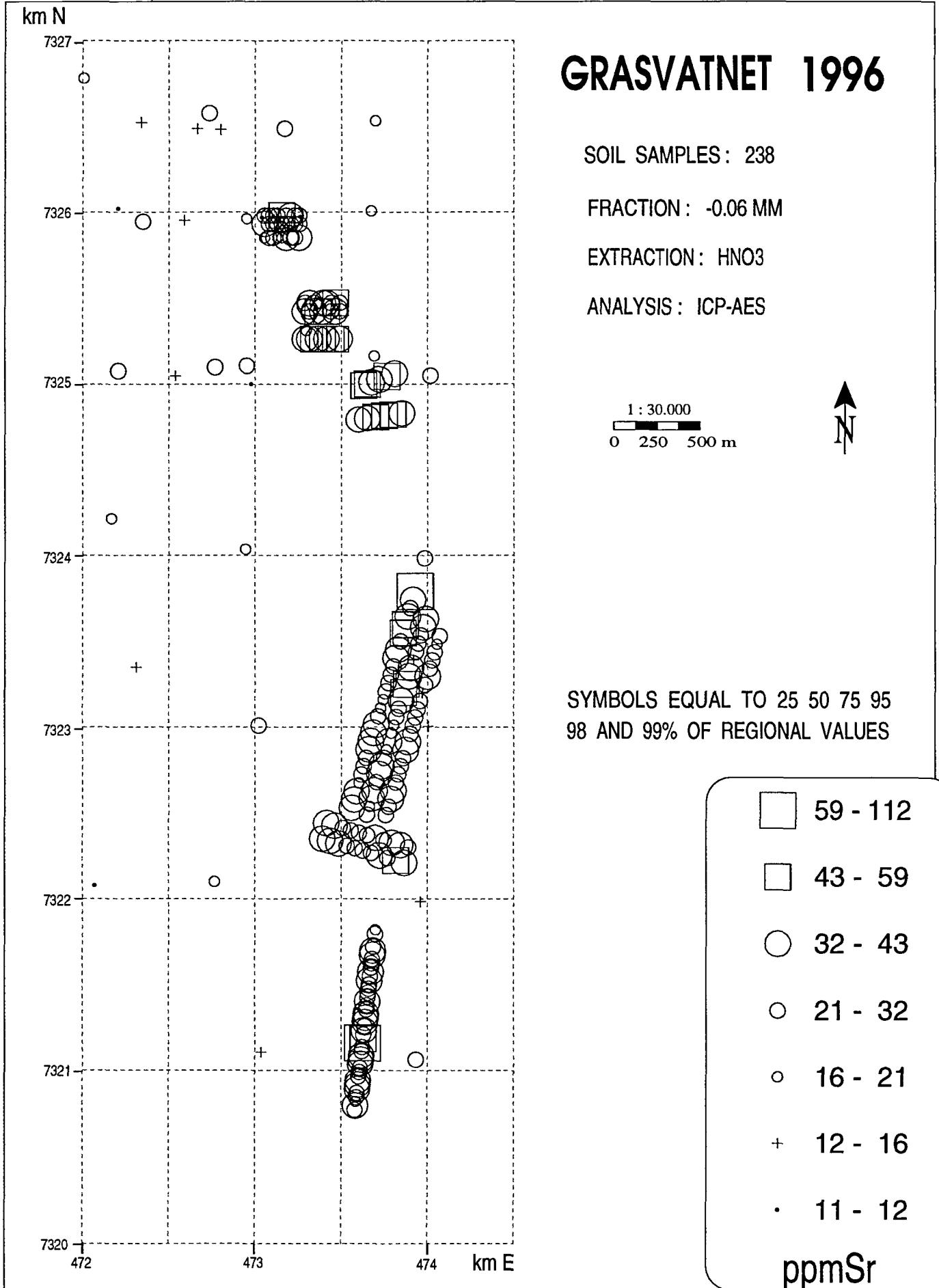
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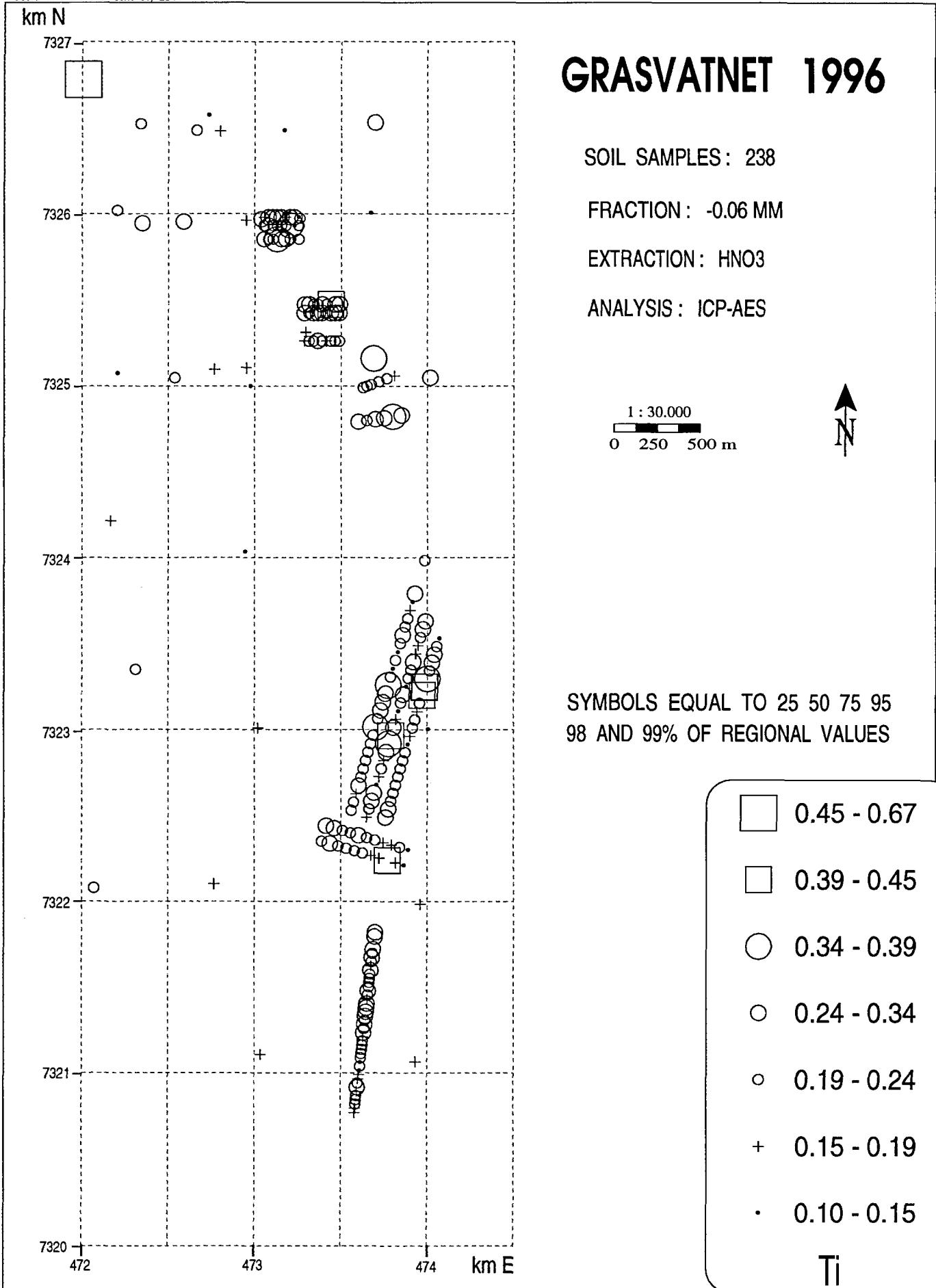
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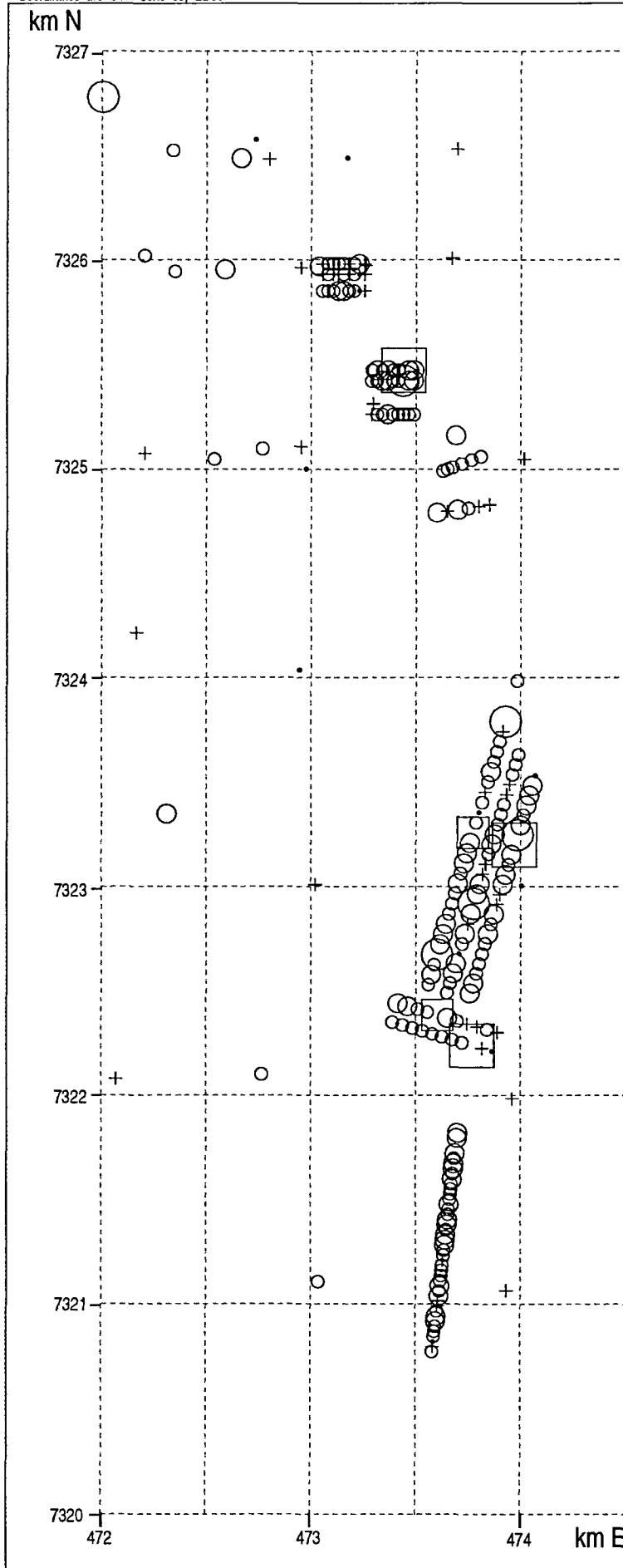
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Coordinates are UTM zone 35, ED50



Coordinates are UTM zone 35, ED50



GRASVATNET 1996

SOIL SAMPLES: 238

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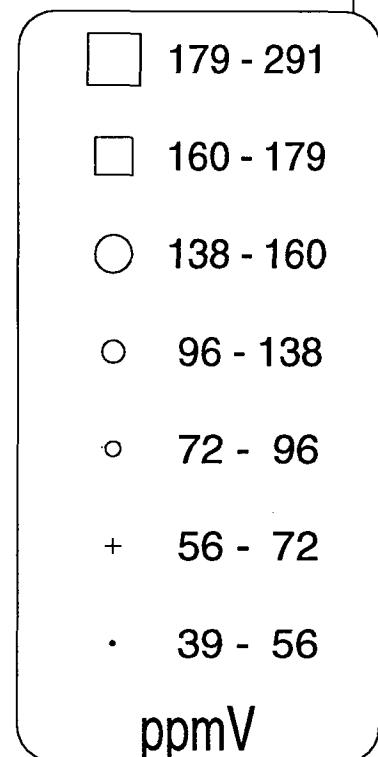
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ANALYSIS: ICP-AES

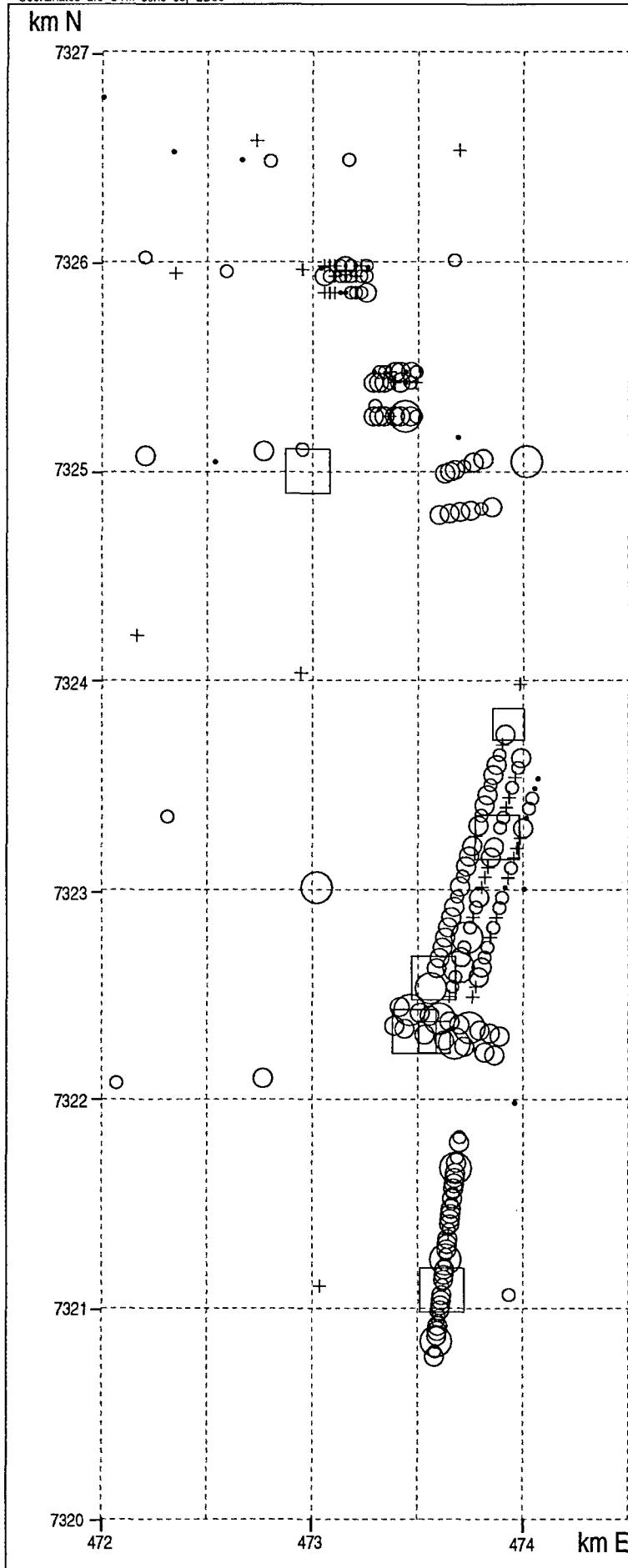
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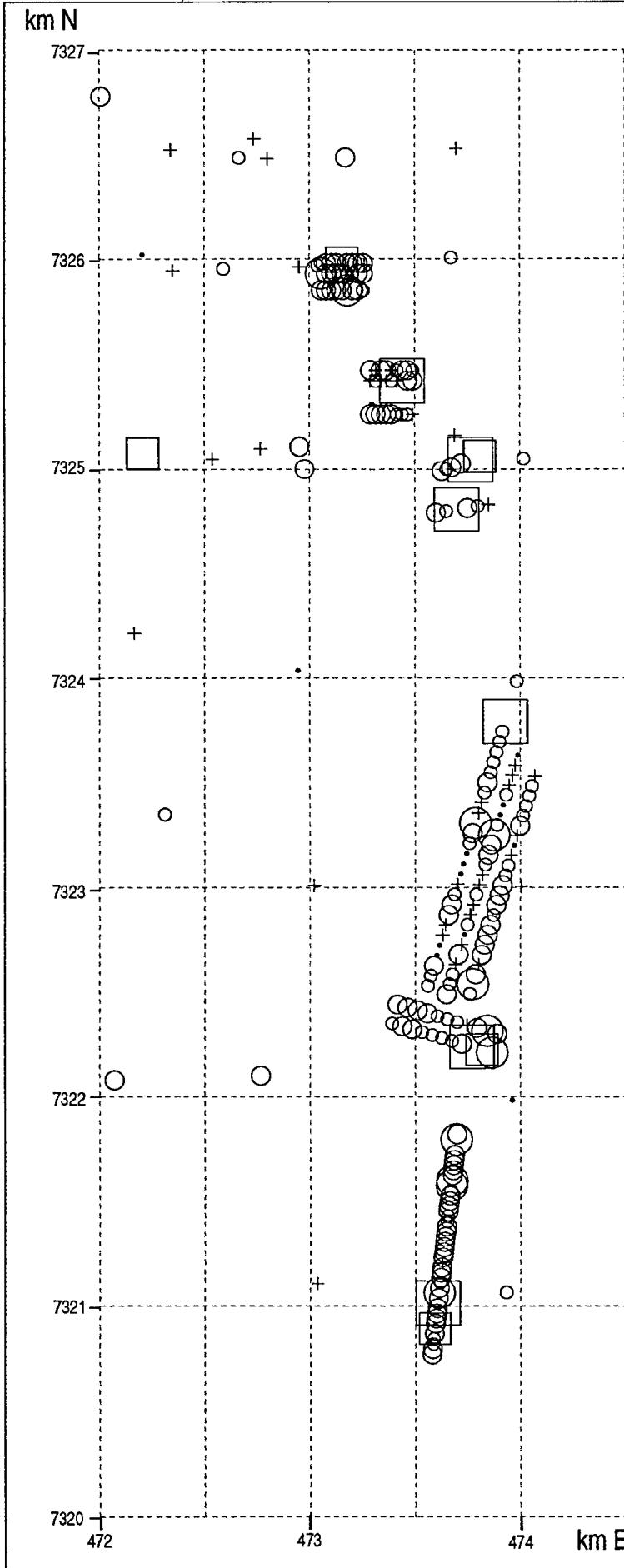
SYMBOLS EQUAL TO 25 50 75 95
98 AND 99% OF REGIONAL VALUES



Coordinates are UTM zone 35, ED50

**GRASVATNET 1996**

Coordinates are UTM zone 35, ED50



GRASVATNET 1996

SOIL SAMPLES: 238

FRACTION: -0.06 MM

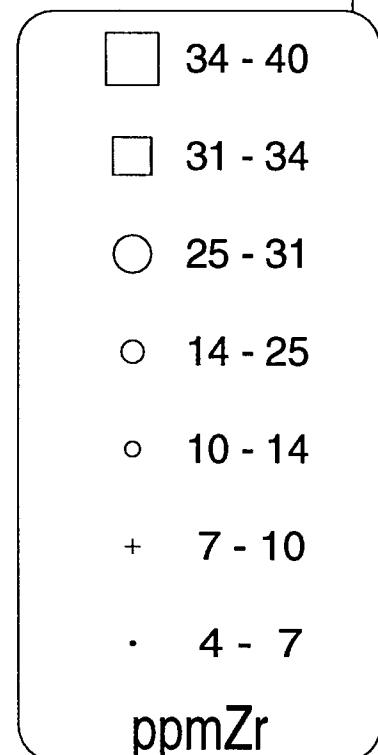
EXTRACTION: HNO₃

ANALYSIS: ICP-AES

1 : 30.000
0 250 500 m



SYMBOLS EQUAL TO 25 50 75 95
98 AND 99% OF REGIONAL VALUES



STATISTICS OF ANALYTICAL VALUES OF REGIONAL SOIL SAMPLES

	Unit	Min	Max	Median	Average	SD	N
Pb	ppm	5	157	12.77	15.27	13.22	746
Zn	ppm	3	954	60.98	64.59	50.39	746
Cu	ppm	1	3206	33.62	46.37	123.36	746
Au	ppb	1	90	2	3.32	5.69	746
Ag	ppm	1	1	1	1	0	746
Al	%	0.147	6.6	2.41	2.40	0.82	746
B	ppm	5	119	5	5.39	5.01	746
Ba	ppm	10	436	50.95	64.53	48.31	746
Be	ppm	0	39	8.69	9.05	3.91	746
C	%	0.02	37.8	3.54	4.33	3.63	746
Ca	%	0.020	6.8	0.36	0.42	0.40	746
Cd	ppm	1	2	1	1.00	0.05	746
Ce	ppm	10	434	62.67	75.18	55.82	746
Co	ppm	1	93	13.11	16.03	12.42	746
Cr	ppm	1	173	45.35	50.50	25.22	746
Fe	%	0.044	26.9	4.74	5.25	2.69	746
Fines	%	7	97	33.33	35.37	13.97	746
K	%	0.000	1.6	0.20	0.28	0.244	746
La	ppm	1	287	20.31	25.51	23.92	746
Li	ppm	1	75	18.38	20.45	11.67	746
Mg	%	0.014	2.7	0.86	0.90	0.47	746
Mn	%	0.001	0.9	0.03	0.05	0.07	746
Mo	ppm	1	19	1.43	1.91	1.55	746
Na	%	0.010	0.1	0.03	0.03	0.01	746
Ni	ppm	2	205	28.81	33.91	26.33	746
P	%	0.003	3.0	0.08	0.09	0.12	746
S	%	0.00	0.4	0.02	0.04	0.04	746
Sc	ppm	1	31	5.71	6.28	3.28	746
Si	%	0.010	0.4	0.01	0.02	0.032	746
Sr	ppm	2	880	15.84	18.55	33.56	746
Ti	%	0.022	0.6	0.19	0.20	0.08	746
V	ppm	3	378	72.26	79.20	34.35	746
Zr	ppm	1	45	9.57	11.18	6.51	746
Y	ppm	1	260	13.09	16.63	16.63	746

Coordinates and analytical values of 238 samples of the Grasvatnet area. NGU project no. 672543.29.

1

Values below detection limit are set to detection limit.

Field nr.	East (UTM sone 33)	North nr.	Rand. nr.	Ag	Al	Au	B	Ba	Be	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sc	Si	Sr	Ti	V	Y	Zn	Zr	
Unit Det.lim.	m	m		ppm	%	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
				1	0.01	2	5	1	0.2	0.01	1	10	1	1	0.01	0.01	1	1	0.01	0.02	1	0.01	2	0.01	5	0.2	0.01	2	0.01	1	0.2	0.01	2	0.01	
185	472765	73221100	10581	1	2,47	6	14	188	8	0,59	1	115	19	65	80	4,15	0,96	54	37	1,54	0,06	1	0,04	72	0,09	22	7	0,04	17	0,18	77	39	97	22	
186	473021	7323009	10228	1	2,63	3	5	117	8	0,92	1	104	14	65	50	4,30	0,43	93	29	1,24	0,06	2	0,04	45	0,15	12	9	0,01	26	0,16	71	53	81	7	
187	472942	7324036	10514	1	1,50	2	5	51	4	0,43	1	23	6	34	14	2,10	0,19	17	12	0,63	0,01	1	0,03	18	0,08	5	4	0,01	19	0,15	50	11	33	6	
188	472976	7324996	10144	1	4,75	4	5	53	10	0,20	1	434	13	55	99	7,29	0,19	287	54	0,59	0,03	5	0,02	48	0,14	116	14	0,06	11	0,13	52	148	104	14	
189	473039	7325968	10428	1	2,15	1	5	32	12	0,20	1	10	11	75	24	12,99	0,19	1	10	0,69	0,04	2	0,03	23	0,10	26	6	0,01	12	0,33	102	6	67	14	
190	472734	7326576	10153	1	1,70	59	5	47	5	0,56	1	52	9	31	393	2,98	0,27	25	11	0,64	0,02	7	0,03	34	0,15	44	4	0,01	21	0,11	39	13	103	7	
631	472069	7322078	10149	1	2,90	2	5	120	9	0,27	1	79	15	35	42	4,19	1,02	40	47	1,62	0,02	2	0,06	31	0,09	5	6	0,01	12	0,19	69	17	74	23	
632	472309	7323348	10413	1	2,35	1	5	126	9	0,39	1	89	15	47	61	5,03	0,48	30	25	1,20	0,03	4	0,04	41	0,12	18	5	0,01	16	0,19	106	14	76	11	
633	472165	7324214	10286	1	1,98	1	5	120	9	0,51	1	79	17	51	46	3,95	0,42	20	23	1,05	0,04	2	0,04	40	0,09	22	5	0,01	19	0,16	70	12	74	9	
634	472205	7325075	10645	1	2,81	3	5	189	7	0,46	1	86	17	53	55	4,67	0,74	29	27	1,52	0,06	1	0,05	56	0,09	8	8	0,01	23	0,16	70	21	95	34	
635	472203	7326020	10251	1	2,26	1	5	37	8	0,67	1	51	16	56	52	4,04	0,11	39	16	0,63	0,02	2	0,06	37	0,17	11	7	0,01	11	0,22	83	17	36	4	
707	473035	7321108	10102	1	2,66	1	5	80	11	0,40	1	45	14	122	31	5,39	0,42	12	25	1,21	0,07	1	0,03	49	0,12	11	5	0,01	13	0,19	78	12	57	9	
708	473933	7321065	10188	1	2,41	7	5	87	9	0,63	1	188	20	62	40	4,33	0,38	26	23	1,15	0,06	1	0,04	49	0,12	11	6	0,01	21	0,15	68	14	55	11	
709	473961	7321983	10306	1	1,99	6	5	24	7	0,29	1	21	9	57	13	3,18	0,11	12	27	0,84	0,01	1	0,03	24	0,05	10	4	0,01	12	0,17	63	8	60	6	
710	474006	7323004	10069	1	1,16	1	5	21	4	0,30	1	36	5	26	22	2,39	0,10	13	7	0,49	0,01	1	0,03	17	0,06	12	4	0,01	14	0,13	52	7	29	9	
711	473984	7323984	10336	1	2,24	3	5	45	11	0,36	1	58	19	57	45	5,86	0,23	9	14	0,93	0,08	2	0,04	35	0,07	26	6	0,01	22	0,20	78	10	54	10	
712	474017	7325048	10207	1	2,65	5	5	76	8	0,67	1	130	14	71	33	3,96	0,25	98	39	1,29	0,05	2	0,03	44	0,06	10	8	0,01	25	0,26	70	41	77	10	
830	472238	7326524	11050	1	2,36	3	5	46	12	0,35	1	48	8	52	193	4,79	0,23	13	13	0,70	0,02	2	0,04	25	0,09	37	5	0,01	16	0,22	75	9	56	10	
831	472664	7326486	11169	1	3,25	4	5	36	13	0,28	1	19	9	57	26	7,84	0,10	2	14	0,48	0,02	1	0,03	18	0,05	25	6	0,01	15	0,23	97	8	88	13	
832	472798	7326481	11072	1	3,05	4	5	44	12	0,38	1	48	8	62	247	6,42	0,23	21	14	0,70	0,01	2	0,04	23	0,10	33	6	0,01	16	0,17	65	16	59	10	
833	473172	7326488	11074	1	2,06	2	5	57	6	0,56	1	70	10	37	45	2,95	0,28	26	16	0,76	0,02	1	0,04	28	0,11	8	5	0,03	23	0,14	48	17	57	15	
834	473699	7326531	11024	1	1,93	2	5	46	8	0,28	1	25	5	31	11	3,05	0,12	11	13	0,48	0,01	1	0,04	13	0,02	12	4	0,01	17	0,24	61	10	44	9	
835	473674	7326006	11031	1	3,15	2	5	62	10	0,49	1	93	12	50	48	3,66	0,33	25	19	0,87	0,02	1	0,05	46	0,13	5	6	0,10	20	0,14	57	16	61	14	
836	473261	7325973	11087	1	2,58	13	5	28	12	0,17	1	10	4	48	7	6,55	0,08	1	7	0,25	0,02	2	0,02	7	0,05	25	6	0,02	11	0,20	66	7	28	9	
837	472950	7325961	11146	1	2,35	1	5	48	8	0,36	1	69	11	50	33	4,53	0,30	19	17	0,81	0,02	2	0,03	35	0,09	8	5	0,01	17	0,17	57	11	59	9	
838	472589	7325953	11175	1	2,55	5	45	11	0,30	1	44	11	56	28	7,14	0,21	28	16	0,70	0,02	2	0,03	29	0,06	31	5	0,02	15	0,28	127	16	64	13		
839	472348	7325944	11066	1	2,43	3	5	68	10	0,48	1	104	13	71	57	5,23	0,37	24	21	1,09	0,02	4	0,04	38	0,12	23	6	0,01	21	0,25	96	12	70	10	
840	471894	7326780	11170	1	2,30	2	5	126	14	0,64	1	10	17	93	37	9,68	0,46	1	10	0,87	0,03	1	0,03	28	0,02	26	4	0,01	20	0,67	154	3	36	19	
869	473692	7325160	11077	1	1,73	5	50	9	0,31	1	17	11	53	13	4,98	0,22	4	15	0,72	0,05	1	0,03	22	0,06	28	4	0,01	19	0,38	133	6	75	10		
870	473297	7325310	11026	1	2,32	1	5	46	9	0,27	1	43	6	42	22	3,62	0,13	22	11	0,44	0,02	2	0,03	17	0,09	14	6	0,01	17	0,16	69	14	37	4	
871	472951	7325105	11144	1	2,68	1	5	69	7	0,54	1	87	16	46	56	4,05	0,35	31	22	1,03	0,04	1	0,04	39	0,11	7	7	0,02	24	0,16	64	17	69	20	
872	472767	7325096	11100	1	3,10	5	87	11	0,40	1	126	19	78	33	6,10	0,24	65	33	1,20	0,03	5	0,04	40	0,18	12	11	0,01	22	0,17	85	32	92	7		
873	472538	7325048	11039	1	2,39	5	75	8	0,36	1	28	6	63	19	2,82	0,41	12	19	0,82	0,01	2	0,04	27	0,06	8	5	0,01	14	0,22	84	7	40	7		
1601	473055	7325850	14120	1	2,40	1	5	45	12	0,39	1	47	5	39	16	4,09	0,26	21	13	0,52	0,01	1	0,03	13	0,03	5	5	0,02	20	0,26	94				

Coordinates and analytical values of 238 samples of the Grasvatnet area. NGU project no. 672543.29.

2

Values below detection limit are set to detection limit.

Field nr.	East (UTM zone 33)	North m	Rand. nr.	Ag	Al	Au	B	Ba	Be	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sc	Si	Sr	Ti	V	Y	Zn	Zr						
Unit Det.lim.	m	m		ppm	%	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%					
				1	0.01	2	5	1	0.2	0.01	1	10	1	1	0.01	0.01	1	1	0.01	0.01	1	0.01	0.02	1	0.01	2	0.01	5	0.2	0.01	2	0.01	1	0.01	2	0.01	1	0.01	2	0.01
1618	473255	7325930	14184	1	2,26	2	5	45	9	0,51	1	54	7	37	19	3,76	0,18	23	13	0,62	0,02	1	0,04	18	0,05	7	6	0,01	29	0,23	69	15	41	18						
1619	473055	7325980	14022	1	2,74	1	5	53	10	0,50	1	57	8	57	25	4,01	0,27	24	15	0,73	0,02	1	0,04	22	0,07	9	7	0,01	23	0,18	64	13	52	14						
1620	473080	7325980	14078	1	2,47	1	5	47	18	0,42	1	23	6	52	15	7,02	0,21	8	9	0,56	0,02	1	0,04	13	0,03	8	7	0,03	27	0,30	95	11	34	23						
1621	473105	7325980	14013	1	1,87	5	42	12	0,35	1	33	6	39	13	5,40	0,18	13	8	0,43	0,02	1	0,04	12	5	0,01	22	0,27	90	9	32	21									
1622	473130	7325980	14151	1	2,60	5	58	12	0,54	1	66	10	49	25	5,48	0,29	24	16	0,83	0,02	1	0,05	23	0,07	9	7	0,01	29	0,26	87	17	54	17							
1623	473155	7325980	14041	1	3,14	1	5	110	10	1,03	1	86	21	61	68	4,49	0,52	34	23	1,15	0,04	1	0,08	66	0,12	5	10	0,01	53	0,26	83	25	80	32						
1624	473180	7325980	14210	1	2,21	5	62	9	0,70	1	112	18	45	56	3,71	0,32	27	15	0,77	0,04	1	0,05	45	0,13	8	7	0,01	30	0,19	60	17	64	17							
1625	473205	7325980	14149	1	1,88	8	66	8	0,46	1	25	7	42	8	3,04	0,28	11	12	0,72	0,02	1	0,04	11	0,02	12	5	0,01	35	0,32	93	8	51	23							
1626	473230	7325980	14124	1	2,08	2	5	51	16	0,42	1	37	6	46	16	5,70	0,22	7	10	0,46	0,02	1	0,04	14	0,04	13	6	0,01	26	0,29	101	10	37	21						
1627	473255	7325980	14030	1	2,98	5	66	11	0,67	1	102	11	54	47	4,48	0,23	28	13	0,54	0,03	1	0,05	28	0,15	5	7	0,02	28	0,15	62	17	46	15							
1628	473390	7322350	14113	1	3,17	5	100	15	0,64	1	262	21	68	50	5,30	0,46	52	28	1,27	0,07	3	0,05	46	0,11	5	10	0,01	33	0,21	82	37	119	14							
1629	473438	7322336	14005	1	3,43	1	5	120	12	0,85	1	248	22	85	45	5,21	0,53	39	41	1,77	0,07	1	0,04	55	0,11	5	9	0,01	34	0,27	89	28	125	16						
1630	473485	7322322	14146	1	3,38	5	127	12	1,01	1	129	17	86	50	4,82	0,51	113	43	1,63	0,04	1	0,05	53	0,11	5	16	0,01	39	0,23	91	103	117	16							
1631	473533	7322308	14177	1	2,86	5	103	12	0,76	1	128	19	77	46	5,39	0,40	26	28	1,23	0,05	2	0,05	50	0,10	13	8	0,01	29	0,22	93	25	109	12							
1632	473580	7322294	14206	1	3,41	5	102	12	0,78	1	142	20	89	47	5,77	0,45	98	32	1,37	0,05	1	0,05	56	0,13	8	13	0,01	31	0,22	96	65	138	14							
1633	473628	7322280	14193	1	3,28	5	84	12	0,74	1	38	17	83	37	5,11	0,37	58	29	1,26	0,04	1	0,05	45	0,13	5	10	0,01	32	0,22	90	38	91	11							
1634	473675	7322266	14017	1	3,25	1	5	82	11	0,62	1	107	19	74	55	4,82	0,37	78	27	1,16	0,05	1	0,05	48	0,11	5	11	0,01	27	0,18	78	49	94	10						
1635	473723	7322252	14191	1	2,69	1	5	99	11	0,75	1	166	21	62	62	4,89	0,45	39	21	1,04	0,09	1	0,05	54	0,13	9	9	0,02	34	0,17	73	31	73	18						
1636	473770	7322238	14025	1	1,63	5	56	17	0,31	1	20	10	46	37	8,37	0,28	1	9	0,65	0,03	1	0,03	28	0,02	17	5	0,01	21	0,42	195	7	57	35							
1637	473818	7322224	14038	1	2,39	1	5	109	6	1,18	1	45	12	57	11	2,51	0,55	18	29	1,12	0,03	1	0,07	35	0,14	5	10	0,01	50	0,19	60	21	71	33						
1638	473865	7322210	14147	1	1,85	5	79	8	0,97	1	85	12	41	50	3,05	0,37	50	16	0,83	0,05	1	0,06	33	0,17	5	10	0,01	33	0,12	56	36	53	26							
1639	473890	7322300	14208	1	2,55	5	53	9	0,65	1	119	13	48	34	3,99	0,25	25	15	0,73	0,04	1	0,04	30	0,12	5	7	0,01	26	0,14	61	21	55	17							
1640	473843	7322314	14056	1	3,28	5	113	9	1,00	1	84	14	94	27	3,79	0,55	48	35	1,69	0,02	1	0,07	46	0,11	5	11	0,01	41	0,23	90	27	88	28							
1641	473795	7322328	14171	1	2,53	3	5	106	6	0,89	1	59	11	59	32	2,62	0,50	26	25	1,16	0,02	1	0,06	32	0,15	8	8	0,01	36	0,17	67	21	74	17						
1642	473748	7322342	14156	1	2,69	5	69	8	0,64	1	97	9	63	29	3,28	0,26	57	19	0,84	0,02	1	0,05	26	0,12	8	14	0,02	28	0,18	68	41	63	9							
1643	473700	7322356	14050	1	2,47	1	5	78	10	0,91	1	140	15	56	53	4,49	0,33	54	17	0,80	0,06	1	0,06	31	0,16	9	10	0,01	38	0,19	85	39	61	13						
1644	473653	7322370	14142	1	2,93	1	5	86	12	0,74	1	76	19	66	72	4,65	0,28	27	26	1,17	0,06	1	0,06	33	0,11	5	12	0,01	29	0,24	106	24	74	10						
1645	473605	7322384	14034	1	2,60	5	301	16	0,89	1	66	46	46	200	8,18	0,54	44	31	1,40	0,14	1	0,06	37	0,16	7	15	0,01	21	0,30	168	43	109	14							
1646	473558	7322398	14216	1	3,00	5	104	13	0,62	1	225	23	79	64	6,46	0,43	29	26	1,08	0,07	1	0,05	60	0,13	13	8	0,01	26	0,20	96	25	116	14							
1647	473510	7322412	14199	1	3,18	5	84	15	0,58	1	239	20	74	54	7,22	0,43	21	31	1,19	0,05	2	0,04	57	0,09	17	8	0,01	24	0,22	95	24	119	17							
1648	473463	7322426	14003	1	3,33	5	94	13	0,67	1	274	24	84	43	6,07	0,45	63	34	1,46	0,06	1	0,05	49	0,08	11	10	0,01	33	0,25	99	40	112	15							
1649	473415	7322440	14089	1	3,38	1	5	186	15	0,76	1	177	25	110	46	5,62	0,66	40	44	1,84	0,08	3	0,04	62	0,09	5	11	0,01	35	0,30	125	26	121	16						
1650	473560	7322530	14176	1	2,91	5	136	11	1,12	1	168	22	73	57	4,78	0,44	77	32	1,34	0,05	1	0,05	53	0,13	19	10	0,01	34	0,21	88	49	160	11							
1651	473574	7322579	14192	1	2,96	5	159	13	1,29	1	258	19	65	69	5,59	0,47	274	25	1,17	0,04	2	0,04	63	0																

Coordinates and analytical values of 238 samples of the Grasvatnet area. NGU project no. 672543.29.

3

Values below detection limit are set to detection limit.

Field nr.	East (UTM m	North sone 33)	Rand. nr.	Ag	Al	Au	B	Ba	Be	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sc	Si	Sr	Ti	V	Y	Zn	Zr
				ppm	%	ppb	ppm	ppm	1	0,2	0,01	1	10	1	1	0,01	0,01	1	1	0,01	0,2	1	0,02	2	0,01	5	0,2	0,01	2	0,01	1	0,2	2	0,01
1668	473816	7323403	14072	1	2,52	2	5	58	11	0,77	1	49	9	56	32	3,49	0,18	24	20	0,94	0,02	1	0,05	24	0,09	8	9	0,01	38	0,21	80	20	60	8
1669	473830	7323452	14139	1	2,59	1	5	67	9	0,81	1	121	14	54	56	3,58	0,30	26	18	0,99	0,06	1	0,06	33	0,11	5	10	0,02	34	0,14	69	23	55	14
1670	473845	7323500	14100	1	3,07	1	5	43	17	0,54	1	44	18	56	46	6,27	0,17	14	19	0,92	0,14	1	0,04	40	0,09	9	10	0,01	30	0,21	93	17	65	15
1671	473859	7323549	14055	1	3,04	1	5	80	12	0,83	1	100	24	67	49	5,70	0,24	47	29	1,18	0,25	1	0,06	33	0,13	13	13	0,01	43	0,28	104	37	126	11
1672	473873	7323597	14170	1	3,09	1	5	51	12	1,05	1	114	18	48	52	5,24	0,11	54	21	0,77	0,17	1	0,05	45	0,18	5	17	0,03	53	0,19	78	39	86	12
1673	473887	7323646	14105	1	3,08	5	96	13	0,94	1	134	19	72	39	4,64	0,46	12	26	1,35	0,11	1	0,05	42	0,12	5	9	0,01	39	0,20	93	17	54	13	
1674	473902	7323694	14202	1	2,10	1	5	35	8	0,51	1	82	10	38	24	3,49	0,12	10	14	0,66	0,03	1	0,04	20	0,05	7	6	0,01	28	0,18	87	10	44	14
1675	473916	7323743	14111	1	2,62	2	5	47	11	0,92	1	128	20	46	69	3,61	0,20	36	20	1,00	0,09	1	0,05	43	0,15	5	9	0,01	42	0,15	66	24	66	12
1676	473930	7323791	14068	1	4,17	5	153	20	1,74	2	129	81	145	209	9,08	0,31	81	55	2,53	0,75	1	0,06	210	0,12	15	30	0,01	112	0,33	146	63	105	35	
1677	473600	7324790	14220	1	3,43	4	5	97	12	0,78	1	84	18	86	86	5,56	0,47	38	47	1,62	0,04	1	0,06	49	0,14	5	10	0,01	37	0,26	97	25	122	20
1678	473650	7324798	14119	1	2,76	3	5	80	10	0,80	1	96	14	59	80	3,36	0,42	41	21	1,05	0,03	1	0,06	43	0,13	5	10	0,01	37	0,19	71	30	60	13
1679	473700	7324806	14053	1	4,05	1	5	171	13	0,96	1	105	19	83	79	6,11	0,89	47	35	1,83	0,05	1	0,08	71	0,09	5	13	0,01	51	0,28	120	38	119	40
1680	473750	7324814	14045	1	3,07	2	5	88	11	0,99	1	102	17	69	37	4,63	0,42	29	24	1,24	0,06	1	0,07	39	0,10	5	11	0,02	51	0,24	92	22	68	23
1681	473800	7324822	14127	1	2,91	5	144	12	1,22	1	125	18	73	45	3,84	0,72	36	44	1,43	0,04	1	0,03	55	0,15	5	8	0,01	54	0,35	72	18	82	13	
1682	473850	7324830	14197	1	2,71	5	81	7	1,03	1	102	23	73	40	3,07	0,34	32	29	1,13	0,07	1	0,06	48	0,10	7	9	0,01	37	0,24	66	23	102	9	
1683	473630	7324990	14168	1	3,08	1	5	121	10	0,95	1	116	25	79	76	4,42	0,51	34	28	1,35	0,06	1	0,07	77	0,13	5	12	0,01	44	0,23	88	28	82	17
1684	473652	7324999	14102	1	3,05	1	5	94	11	0,82	1	83	17	81	57	3,70	0,41	36	29	1,38	0,03	1	0,07	52	0,10	5	12	0,01	44	0,23	85	27	80	11
1685	473675	7325008	14027	1	2,87	7	5	117	10	0,79	1	92	25	68	58	4,22	0,54	33	27	1,42	0,06	1	0,06	59	0,11	5	12	0,01	38	0,21	87	28	86	17
1686	473720	7325026	14194	1	2,53	1	5	108	10	0,73	1	64	15	63	43	4,33	0,48	18	23	1,17	0,05	1	0,05	46	0,11	5	8	0,01	35	0,20	88	18	75	19
1687	473765	7325044	14160	1	2,94	5	5	133	11	0,93	1	103	26	66	65	4,72	0,59	34	23	1,44	0,09	1	0,07	54	0,12	5	12	0,01	44	0,22	93	29	96	34
1688	473810	7325060	14121	1	2,64	2	5	136	12	0,79	1	86	15	58	55	3,84	0,62	32	26	1,25	0,04	1	0,06	48	0,11	5	10	0,01	34	0,19	76	25	85	33
1689	473990	7323630	14011	1	2,44	3	5	44	9	0,67	1	57	19	43	60	3,71	0,14	21	36	0,97	0,06	1	0,05	21	0,11	5	11	0,01	36	0,26	80	21	66	5
1690	473976	7323583	14183	1	2,59	2	5	34	10	0,80	1	37	12	53	28	4,06	0,08	13	26	0,99	0,05	1	0,04	21	0,18	5	10	0,01	38	0,26	87	15	54	7
1691	473962	7323535	14201	1	1,82	1	5	50	10	0,51	1	37	18	34	63	4,50	0,24	9	13	0,74	0,05	1	0,04	18	0,12	12	8	0,01	22	0,22	86	11	42	8
1692	473947	7323488	14091	1	2,18	2	5	42	11	0,59	1	52	11	46	37	3,92	0,23	24	22	1,26	0,04	1	0,05	27	0,07	5	7	0,01	28	0,17	67	16	49	9
1693	473933	7323440	14107	1	2,14	3	5	34	11	0,62	1	63	12	45	34	3,82	0,15	10	13	0,66	0,05	1	0,05	20	0,11	5	6	0,01	26	0,16	61	12	40	11
1694	473919	7323393	14077	1	1,45	1	5	13	11	0,86	1	23	24	19	153	3,64	0,05	4	8	0,41	0,03	1	0,09	19	0,12	5	7	0,04	13	0,26	83	10	23	4
1695	473905	7323345	14128	1	2,57	1	5	51	10	0,70	1	46	10	49	36	3,26	0,21	20	20	1,01	0,03	1	0,05	21	0,11	5	10	0,01	34	0,21	84	15	50	5
1696	473891	7323298	14067	1	2,80	1	5	56	14	1,08	1	90	15	53	59	4,85	0,21	17	24	1,02	0,07	1	0,06	24	0,28	5	9	0,01	43	0,21	93	17	57	11
1697	473877	7323250	14167	1	5,44	5	213	20	1,22	4	190	55	40	85	8,92	0,18	80	35	1,36	0,84	1	0,06	59	0,29	29	36	0,01	44	0,11	112	69	128	25	
1698	473862	7323203	14046	1	3,52	1	5	52	13	1,09	1	79	37	40	62	6,12	0,24	14	36	1,38	0,19	1	0,06	37	0,09	11	13	0,01	53	0,31	108	20	70	17
1699	473848	7323155	14141	1	2,92	1	5	61	15	0,79	1	65	14	60	38	6,02	0,16	43	37	1,26	0,02	1	0,05	32	0,11	7	9	0,01	33	0,22	96	29	102	19
1700	473834	7323108	14174	1	2,77	2	5	39	8	0,55	1	31	9	55	21	3,35	0,19	11	16	0,79	0,02	1	0,05	24	0,08	5	7	0,01	24	0,15	59	12	43	12
1701	473820	7323060	14204	1	2,11	10	61	8	0,60	1	25	9	49	23	3,55	0,15	10	19	0,81	0,02	1	0,04	26	0,11	5	6	0,01	27	0,17	71	11	58	7	
1702	473806	7323013	14029	1	1,87	1	5	58	14	0,45	1	29	24	37	35	6,45	0,11	9	13	0,54	0,12	1	0,05	14	0,06	15	7	0,01	20	0,31	124	12	62	8
1703	473792	7322965	14143	1	4,18	5	74	21	0,42	1	74	53	56	114	10,40	0,24	15	32	2,11	0,51	2	0,02	80	0,14	13	16	0,01	19	0,42	137	22	104	13	
1704	473777	7322918	14047	1	2,13	5	126	12	0,80	1	38	15	48	35	5,45	0,18	19	17	0,82	0,05	1	0,06	19	0,10	8	11	0,01	34	0,36	139	19	72	8	
1705	473763	7322870	14178	1	2,61	5	56	14	0,41	2	31	12	73	27	6,20	0,25	4	17	0,95	0,03	1	0,05	34	0,08	5	7	0,01	18	0,25	117	10	65	9	
1706	473749	7322823	14122	1	2,51	1	5	57	9	0,59	1	111	14	51	47	3,84	0,32	22	17	0,95	0,05	1	0,05	33	0,09	5	7	0,01	27	0,16	65	15	58	11
1707	473735	7322775	14144	1	2,45	5	89	11	0,92	1	50	16	47	91	4,17	0,17	45	28	1,05	0,06	1	0,06	30	0,15	5	14	0,01	32	0,22	97	47	82	6	
1708	473721	7322728	14150	1	2,49	1	5	72	10	0,82	1																							

Coordinates and analytical values of 238 samples of the Grasvatnet area. NGU project no. 672543.29.

Values below detection limit are set to detection limit.

Field nr.	East (UTM sone 33)	North nr.	Rand. nr.	Ag	Al	Au	B	Ba	Be	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sc	Si	Sr	Ti	V	Y	Zn	Zr		
Unit Det.lim.	m	m		ppm	%	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	
				1	0.01	2	5	1	0.2	0.01	1	10	1	1	0.01	0.01	1	1	0.01	0.01	1	0.01	0.02	1	0.01	2	0.01	5	0.2	0.01	2	0.01	1	0.2	2	1
1718	473816	7322679	14131	1	3,28	2	5	94	16	0,62	1	76	13	78	38	6,47	0,45	15	28	1,32	0,05	1	0,04	38	0,08	10	9	0,01	23	0,24	93	18	69	23		
1719	473830	7322726	14015	1	2,90	1	5	53	12	0,58	1	148	20	73	35	5,04	0,20	19	26	0,90	0,07	1	0,04	42	0,09	5	7	0,01	25	0,21	83	15	70	15		
1720	473845	7322774	14118	1	3,09	5	5	45	15	0,55	1	15	15	84	17	5,57	0,21	5	39	1,46	0,03	1	0,04	30	0,06	5	12	0,01	29	0,22	107	13	64	20		
1721	473859	7322821	14196	1	3,37	1	5	50	12	0,58	1	71	23	58	29	5,76	0,29	10	31	1,78	0,08	1	0,04	38	0,09	8	8	0,01	25	0,20	81	15	71	19		
1722	473873	7322868	14073	1	3,41	1	6	62	14	0,77	1	32	16	81	42	4,86	0,33	8	28	1,36	0,04	1	0,08	23	0,07	5	10	0,01	35	0,23	101	11	63	12		
1723	473887	7322915	14080	1	2,54	1	5	55	10	0,82	1	77	11	52	38	3,15	0,31	23	17	0,93	0,05	1	0,06	28	0,13	5	9	0,01	36	0,15	62	19	49	15		
1724	473901	7322963	14032	1	2,58	1	5	75	9	0,77	1	134	18	55	79	3,94	0,40	20	21	1,02	0,05	1	0,06	40	0,13	5	8	0,01	31	0,16	71	17	57	19		
1725	473915	7323010	14074	1	1,68	1	5	29	7	0,38	1	16	2	30	6	2,39	0,11	8	7	0,30	0,01	1	0,03	5	0,03	10	5	0,03	23	0,23	110	8	19	14		
1726	473929	7323057	14164	1	3,01	4	5	41	14	0,45	1	43	14	62	39	6,83	0,22	10	14	0,88	0,05	1	0,04	30	0,06	7	9	0,01	24	0,23	99	12	48	13		
1727	473943	7323105	14109	1	3,26	5	60	16	0,63	1	97	21	61	56	5,82	0,24	16	28	1,13	0,08	1	0,05	41	0,14	5	8	0,02	26	0,17	79	14	78	12			
1728	473957	7323152	14076	1	2,79	5	28	17	0,61	1	25	10	66	27	6,03	0,14	6	22	1,06	0,03	1	0,04	25	0,08	17	9	0,01	31	0,23	122	11	59	9			
1729	473971	7323199	14016	1	3,31	2	5	24	18	0,39	1	10	20	57	30	9,94	0,26	1	18	2,01	0,09	1	0,05	16	0,06	5	22	0,01	14	0,43	291	10	88	6		
1730	473985	7323246	14162	1	2,28	2	5	25	13	0,38	1	22	17	47	28	6,60	0,12	1	17	1,19	0,10	3	0,03	17	0,05	10	7	0,01	25	0,41	151	9	50	9		
1731	474000	7323294	14213	1	4,36	5	48	20	0,71	1	134	46	47	98	12,70	0,13	34	48	2,48	0,41	1	0,02	69	0,16	32	20	0,01	42	0,36	112	37	112	21			
1732	474014	7323341	14101	1	1,02	1	5	25	6	0,38	1	21	4	29	11	2,07	0,08	8	4	0,27	0,01	1	0,03	10	0,03	11	4	0,01	27	0,20	87	8	20	12		
1733	474028	7323388	14165	1	3,14	5	37	12	0,76	1	63	24	79	72	5,28	0,18	9	26	1,35	0,08	1	0,06	51	0,08	5	11	0,01	30	0,29	102	17	61	10			
1734	474042	7323435	14004	1	3,02	8	98	16	0,67	1	115	51	26	84	8,39	0,47	14	21	0,92	0,32	1	0,03	56	0,16	21	12	0,03	28	0,33	103	17	77	11			
1735	474056	7323483	14180	1	1,18	5	25	6	0,24	1	13	3	25	2	2,49	0,08	5	3	0,17	0,01	1	0,03	4	0,02	14	4	0,02	20	0,22	101	5	21	11			
1736	474070	7323530	14070	1	0,70	1	5	36	2	0,32	1	18	1	11	3	0,58	0,10	7	2	0,10	0,02	1	0,03	2	0,03	17	4	0,01	23	0,16	43	6	11	8		
1737	473290	7325470	14203	1	1,90	5	27	10	0,43	1	24	5	41	12	4,70	0,12	7	11	0,48	0,01	1	0,03	11	0,04	18	5	0,01	31	0,26	93	9	38	18			
1738	473315	7325470	14087	1	1,98	1	5	46	11	0,65	1	35	4	50	12	3,59	0,17	16	11	0,60	0,02	1	0,04	9	0,07	19	7	0,02	39	0,30	117	14	40	10		
1739	473340	7325470	14135	1	3,33	5	54	18	0,39	1	51	11	58	30	8,22	0,18	11	15	0,62	0,02	1	0,03	21	0,08	6	8	0,01	22	0,20	88	14	44	17			
1740	473365	7325470	14125	1	3,43	5	46	26	0,28	1	10	8	66	14	12,50	0,13	1	11	0,48	0,02	1	0,03	16	0,06	12	7	0,01	17	0,23	106	12	54	19			
1741	473390	7325470	14079	1	2,81	2	5	105	12	0,88	1	95	22	62	54	4,20	0,28	35	28	1,17	0,10	1	0,06	36	0,11	11	11	0,01	42	0,24	90	28	87	10		
1742	473415	7325470	14166	1	2,75	5	5	99	9	0,75	1	75	18	63	48	4,07	0,22	32	28	1,15	0,05	1	0,06	36	0,09	6	9	0,01	34	0,23	89	25	79	11		
1743	473440	7325470	14106	1	1,53	443	5	41	22	0,32	1	10	5	69	29	9,49	0,16	1	5	0,41	0,03	1	0,03	7	0,06	22	5	0,01	22	0,43	199	5	45	22		
1744	473465	7325470	14037	1	3,66	1	5	110	16	0,91	1	110	33	102	39	7,71	0,41	17	38	1,39	0,07	1	0,05	59	0,10	6	11	0,01	44	0,27	115	19	98	24		
1745	473490	7325470	14154	1	2,93	10	5	68	13	0,56	1	47	11	75	23	5,98	0,21	8	21	0,80	0,03	1	0,04	21	0,07	10	7	0,01	31	0,28	109	13	73	14		
1746	473490	7325420	14103	1	2,35	1	5	82	17	0,60	1	54	19	55	22	6,45	0,19	7	33	0,84	0,08	1	0,04	35	0,06	12	6	0,01	31	0,25	108	12	82	23		
1747	473465	7325420	14126	1	2,46	5	72	13	0,69	1	37	10	55	20	4,58	0,15	16	27	0,77	0,02	2	0,05	24	0,05	10	7	0,01	35	0,29	99	17	60	16			
1748	473440	7325420	14134	1	1,14	1	5	63	11	0,24	1	33	4	27	17	4,40	0,19	13	5	0,35	0,01	1	0,03	6	0,02	19	3	0,01	21	0,29	154	6	34	35		
1749	473415	7325420	14071	1	1,87	1	7	197	9	0,86	1	49	10	41	43	2,77	0,17	31	25	0,58	0,07	1	0,04	28	0,09	7	8	0,01	44	0,22	79	29	56	7		
1750	473390	7325420	14014	1	2,26	2	5	78	9	0,77	1	35	8	53	15	3,76	0,30	13	20	0,85	0,02	1	0,05	25	0,06	9	6	0,01	32	0,28	77	12	50	12		
1751	473365	7325420	14081	1	2,90	1	5	112	17	0,73	1	83	23	52	69	6,39	0,29	18	26	1,01	0,06	3	0,05	27	0,11	11	9	0,01	48	0,26	115	17	87			

Coordinates and analytical values of 238 samples of the Grasvatnet area. NGU project no. 672543.29.

5

Values below detection limit are set to detection limit.

Field nr.	East (UTM sone 33)	North nr.	Rand. nr.	Ag	Al	Au	B	Ba	Be	Ca	Cd	Ce	Co	Cr	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Sc	Si	Sr	Ti	V	Y	Zn	Zr					
Unit Det.lim.	m	m		ppm	%	ppb	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%				
				1	0.01	2	5	1	0.2	0.01	1	10	1	1	1	0.01	0.01	1	1	0.01	0.02	1	0.01	2	0.01	5	0.2	0.01	2	0.01	1	0.2	2	1	0.01	1	0.2	2	1
1768	473683	7321674	14137	1	3,56	2	5	109	14	0,84	1	118	21	100	47	5,70	0,46	56	43	1,79	0,07	1	0,06	59	0,10	5	13	0,01	33	0,25	104	46	127	19					
1769	473680	7321650	14157	1	3,49	5	130	12	0,85	1	127	22	96	48	5,30	0,68	30	33	1,59	0,06	1	0,08	64	0,14	5	10	0,01	31	0,19	109	22	86	21						
1770	473678	7321625	14207	1	2,92	5	88	12	0,79	1	136	21	82	57	5,62	0,47	39	22	1,17	0,12	1	0,05	65	0,16	19	10	0,01	29	0,16	77	25	86	24						
1771	473675	7321601	14093	1	3,05	5	159	18	0,61	1	56	17	77	30	6,86	0,83	13	31	1,58	0,05	1	0,04	41	0,12	8	10	0,01	24	0,27	113	19	102	25						
1772	473672	7321576	14217	1	3,21	4	5	124	11	0,76	1	139	19	74	66	5,09	0,64	52	27	1,44	0,07	1	0,06	62	0,09	5	12	0,01	34	0,19	84	34	81	28					
1773	473669	7321552	14001	1	2,75	3	5	78	11	0,84	1	27	13	76	20	4,55	0,32	15	40	1,38	0,02	1	0,05	42	0,10	5	7	0,01	28	0,20	79	16	102	13					
1774	473666	7321528	14063	1	3,27	1	5	90	13	0,99	1	55	17	101	29	4,39	0,41	28	34	1,32	0,04	1	0,06	45	0,10	5	12	0,01	42	0,23	90	27	83	14					
1775	473664	7321503	14205	1	3,36	2	6	75	11	0,71	1	49	16	96	33	4,73	0,32	17	38	1,49	0,03	1	0,05	54	0,06	5	8	0,01	31	0,21	84	19	79	16					
1776	473661	7321479	14182	1	3,00	5	151	13	0,76	1	151	20	105	50	6,08	0,63	53	36	1,36	0,09	1	0,05	60	0,09	7	11	0,01	28	0,26	100	38	81	16						
1777	473658	7321454	14114	1	3,45	3	5	92	16	0,67	1	206	20	102	38	5,66	0,47	54	37	1,46	0,06	1	0,05	55	0,08	5	10	0,01	28	0,21	92	33	83	15					
1778	473655	7321430	14138	1	2,86	1	5	110	13	0,79	1	172	23	85	57	5,37	0,55	29	30	1,40	0,11	1	0,05	52	0,11	7	11	0,01	29	0,17	87	25	77	13					
1779	473653	7321406	14075	1	3,44	1	5	77	16	0,74	1	126	18	101	26	5,84	0,38	28	29	1,18	0,07	1	0,05	39	0,10	6	11	0,01	33	0,25	104	28	82	12					
1780	473650	7321381	14097	1	3,21	1	5	103	17	0,71	1	86	18	112	41	6,43	0,53	14	33	1,35	0,07	1	0,05	57	0,09	5	9	0,01	30	0,26	96	18	102	25					
1781	473647	7321357	14209	1	3,08	1	5	61	11	0,64	1	31	22	85	18	5,14	0,22	8	40	1,29	0,13	1	0,05	40	0,05	5	8	0,01	30	0,25	92	12	65	15					
1782	473644	7321332	14082	1	3,83	5	97	14	1,29	1	64	22	124	30	5,10	0,48	34	38	1,88	0,05	1	0,09	65	0,07	5	12	0,01	40	0,29	103	24	104	24						
1783	473641	7321308	14159	1	3,67	5	5	101	13	0,90	1	93	20	108	40	6,01	0,53	25	32	1,44	0,06	1	0,05	57	0,12	5	11	0,01	33	0,24	103	25	108	14					
1784	473639	7321283	14088	1	3,40	1	5	116	22	0,95	1	87	27	152	48	8,84	0,64	8	27	1,89	0,09	1	0,07	88	0,11	11	13	0,01	35	0,24	132	21	89	18					
1785	473636	7321259	14108	1	3,13	5	80	16	0,68	1	51	17	102	30	5,57	0,47	12	34	1,30	0,05	1	0,05	53	0,07	5	9	0,01	28	0,21	89	16	88	20						
1786	473633	7321235	14090	1	3,07	5	136	12	1,10	1	103	19	101	35	4,36	0,56	57	39	1,71	0,07	1	0,06	62	0,12	5	12	0,01	33	0,28	88	40	102	16						
1787	473630	7321210	14033	1	2,59	5	78	9	0,70	1	48	11	73	26	3,57	0,38	23	21	1,11	0,02	1	0,05	36	0,11	5	8	0,01	26	0,17	71	17	71	9						
1788	473627	7321186	14084	1	3,62	1	5	127	15	1,13	1	150	18	114	45	5,27	0,69	49	39	1,71	0,06	1	0,07	64	0,11	5	15	0,01	47	0,22	96	38	87	24					
1789	473625	7321161	14215	1	3,46	2	5	128	13	0,81	1	73	20	91	35	5,93	0,58	24	40	1,53	0,05	1	0,05	60	0,08	5	9	0,01	63	0,22	95	24	90	15					
1790	473622	7321137	14148	1	3,03	1	5	85	13	0,75	1	139	17	87	62	5,03	0,44	34	29	1,28	0,07	1	0,05	51	0,11	5	11	0,01	31	0,20	91	25	72	21					
1791	473619	7321113	14223	1	2,93	2	5	95	11	0,58	1	101	17	108	26	5,52	0,47	19	33	1,17	0,06	1	0,05	50	0,10	6	8	0,01	23	0,23	94	18	82	13					
1792	473616	7321088	14040	1	3,74	1	5	128	14	1,11	1	169	21	113	71	6,18	0,61	92	43	1,80	0,11	1	0,06	70	0,09	5	18	0,01	40	0,21	106	74	87	22					
1793	473613	7321064	14155	1	2,66	5	151	9	0,86	1	99	18	46	35	3,88	0,78	41	27	1,32	0,07	1	0,07	36	0,14	5	9	0,02	33	0,16	72	25	68	30						
1794	473611	7321039	14060	1	3,17	5	86	13	0,93	1	75	23	111	48	6,49	0,45	17	28	1,65	0,12	1	0,07	50	0,10	8	12	0,01	35	0,23	122	27	76	22						
1795	473608	7321015	14006	1	2,07	5	5	92	8	0,84	1	120	12	35	27	3,31	0,47	52	20	0,96	0,05	1	0,06	26	0,18	5	7	0,01	31	0,12	58	26	49	35					
1796	473605	7320990	14024	1	2,51	1	5	126	9	0,77	1	110	16	49	35	3,81	0,64	41	26	1,25	0,06	1	0,06	35	0,14	6	8	0,01	30	0,16	70	25	69	25					
1797	473602	7320966	14129	1	3,63	5	86	18	0,54	1	132	21	83	54	6,32	0,44	21	26	1,12	0,07	1	0,05	54	0,11	13	8	0,01	22	0,17	78	16	83	18						
1798	473600	7320942	14099	1	3,71	5	122	15	0,98	1	48	20	105	39	5,67	0,73	7	42	1,82	0,05	1	0,07	59	0,11	5	10	0,01	34	0,23	102	15	92	16						
1799	473597	7320917	14057	1	3,85	1	5	102	13	1,03	1	74	21	163	31	5,93	0,57	23	36	1,59	0,04	1	0,06	63	0,12	5	15	0,01	39	0,27	113	31	84	24					
1800	473594	7320893	14096	1	2,97	1	5	138	14	0,99	1	112	20	85	74	5,11	0,66	44	38	1,50	0,07	1	0,07	70	0,13	5	13	0,01	39	0,18	93	39	86	32					
1801	473591	7320868	14020	1	3,10	5	66	10	0,80	1	81	37	96	37	4,25	0,39	54	34	1,																				