ANNUAL REPORT

EXPLORATION LICENCE 7642
"Kilgour"

22nd January 1997 to 21st January, 1998

Licensee:	Ashton Mining Limited
Operator:	Ashton Mining Limited
Sheet Reference:	1:250,000 Wallhallow (SE53-07)
Submitted to:	Department of Mines and Energy, Darwin
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February, 1998
Report Number: 52196

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SUMMARY

During the period 22nd January, 1997 to 21st January, 1998, Ashton Mining Limited, on behalf of the Australian Diamond Exploration Joint Venture (ADE JV), carried out an exploration programme over Exploration Licence 7642. This report provides details of work undertaken within the licence during the reporting period.

Outstanding results for the 185 loam samples collected in the previous reporting period, became available, with thirty samples returning positive results, including one reporting a kimberlitic chromite grain. Work within the current reporting period was focused within the locality of this sample, with additional loam sampling, EM-34 surveying, vegetation sampling and drilling of anomalies being undertaken to locate a source. In total, 15 loam, 154 vegetation and 14 drill spoil samples were collected.

Exploration expenditure for the reporting period amounted to $ 123,041 against a covenant of $75,000.

1.0 INTRODUCTION

This report details exploration activities carried out by Ashton Mining Limited over Exploration Licence 7642 during the period 22nd January 1997 to 21st January, 1998.

Ashton Mining is manager of the licence on behalf of the Australian Diamond Exploration Joint Venture (ADEJV). Parties to the ADEJV are Ashton Mining Limited and Aberfoyle Resources Limited.

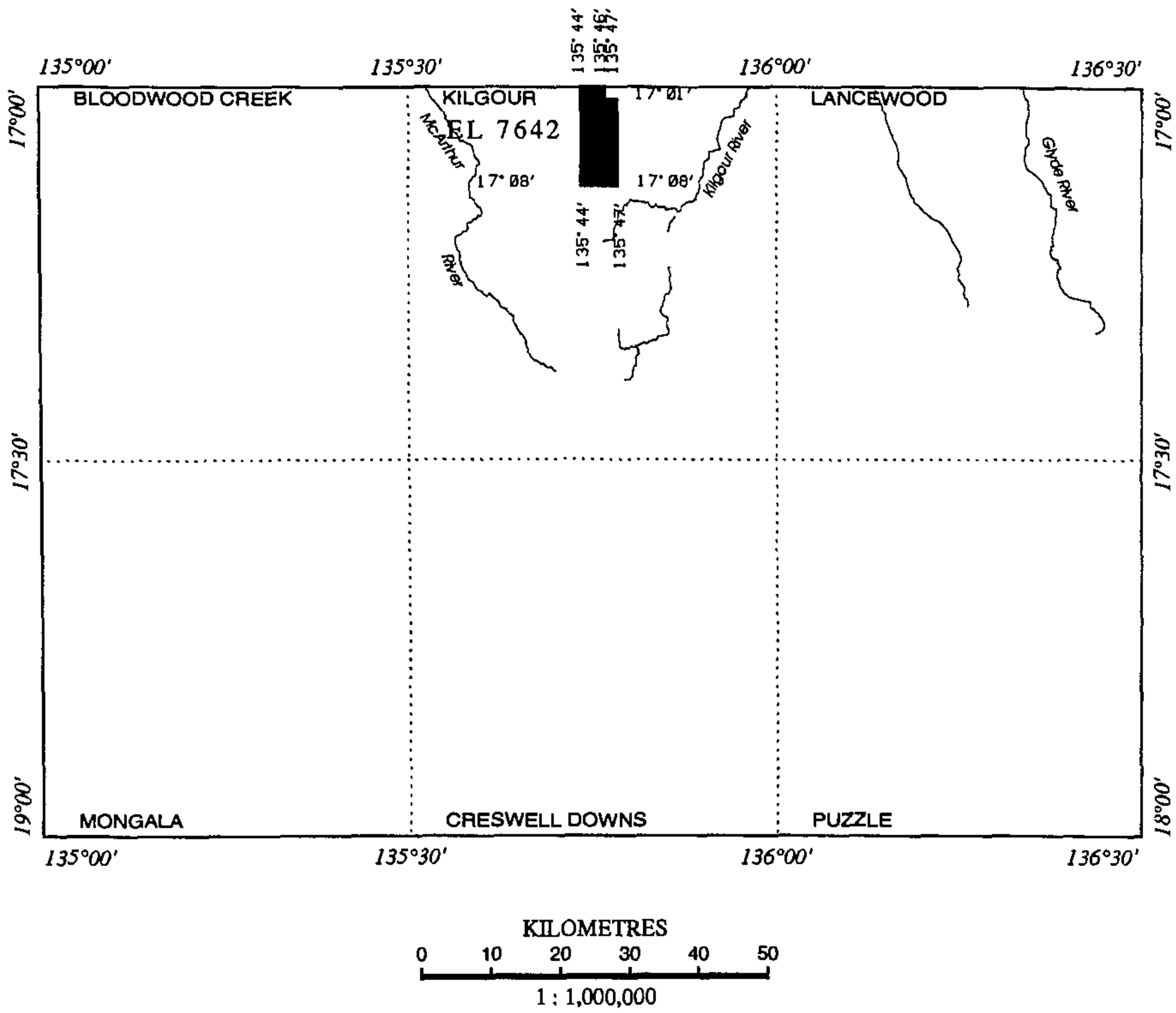
Exploration licence 7642 was granted to Ashton Mining on the 22nd January, 1992 for a period of six years. In October 1997, application to renew this licence was lodged with the Department of Mines and Energy, Northern Territory. Approval is awaited. The licence, originally covered an area of 84 blocks, however through statutory reductions, now comprises 23 blocks. A tenement history is provided in Table 1.

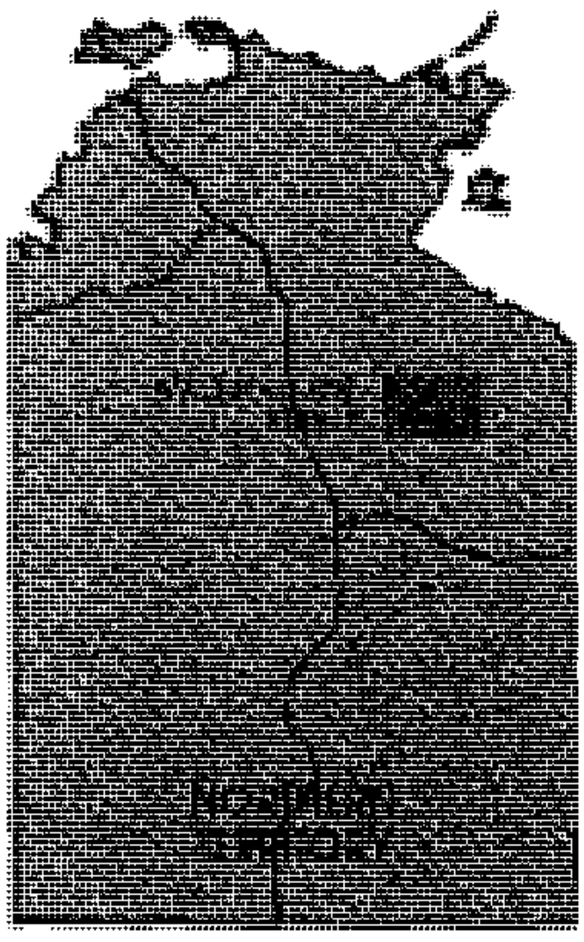
Table 1
Tenement History

Licence	Blocks 1992	Blocks 1993	Blocks 1994	Blocks 1995	Blocks 1996	Blocks 1997
EL 7642	184	184	92	46	23	Waiver Renewal Pending

The tenement is located on the Wallhallow (SE53-07) 1:250,000 map sheet and the Kilgour 1:100,000 map sheet. A tenement location map is shown in Figure 1. The target for exploration within this licence is diamond bearing kimberlitic intrusives.

A statement of expenditure is included in this report.





ASHTON MINING LIMITED
A.D.E. JOINT VENTURE

EXPLORATION LICENCE 7642
ANNUAL REPORT
FIGURE 1
LOCATION MAP

FEBRUARY, 1998

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2.0 DIAMOND EXPLORATION

2.1 Outstanding Results

Laboratory processing of 185 loam samples collected in the previous reporting period became available. Thirty samples returned positive results, with twenty-seven reporting microdiamond, two reporting chromite, and one sample reporting both diamond and chromite. The most significant result was from sample 96012-156, located on the northern grid, which contained a kimberlitic chromite grain. Sample locations are shown on Plan 1 of this report. A full listing of results is provided in Appendix 1.

2.2 Loam Sampling

To follow-up positive sample 96012-156, a smaller scale loam grid was completed, centred over the sample site of 96012-156. Samples were collected at 50m spacings, covering an area of 400m x 400m. Fifteen loam samples, each consisting of six bags, were collected and dispatched to Ashton's Perth laboratory for processing *(see Section 2.8)*. Five samples reported positive, each containing microdiamonds. Sample locations are shown on Figure 2. A listing of results is provided in Appendix 2

2.3 Geophysics

A 500m x 500m area, also centred on positive sample 96012-156, was surveyed by EM-34. Lines were oriented east-west, with 50m line spacings. A total of 5 line kms were completed. Results from the survey showed that the background conductivity was relatively high, probably due to the presence of a variable thickness of black soil. However, a zone of high conductivity was also noted, occurring in an area of sub-

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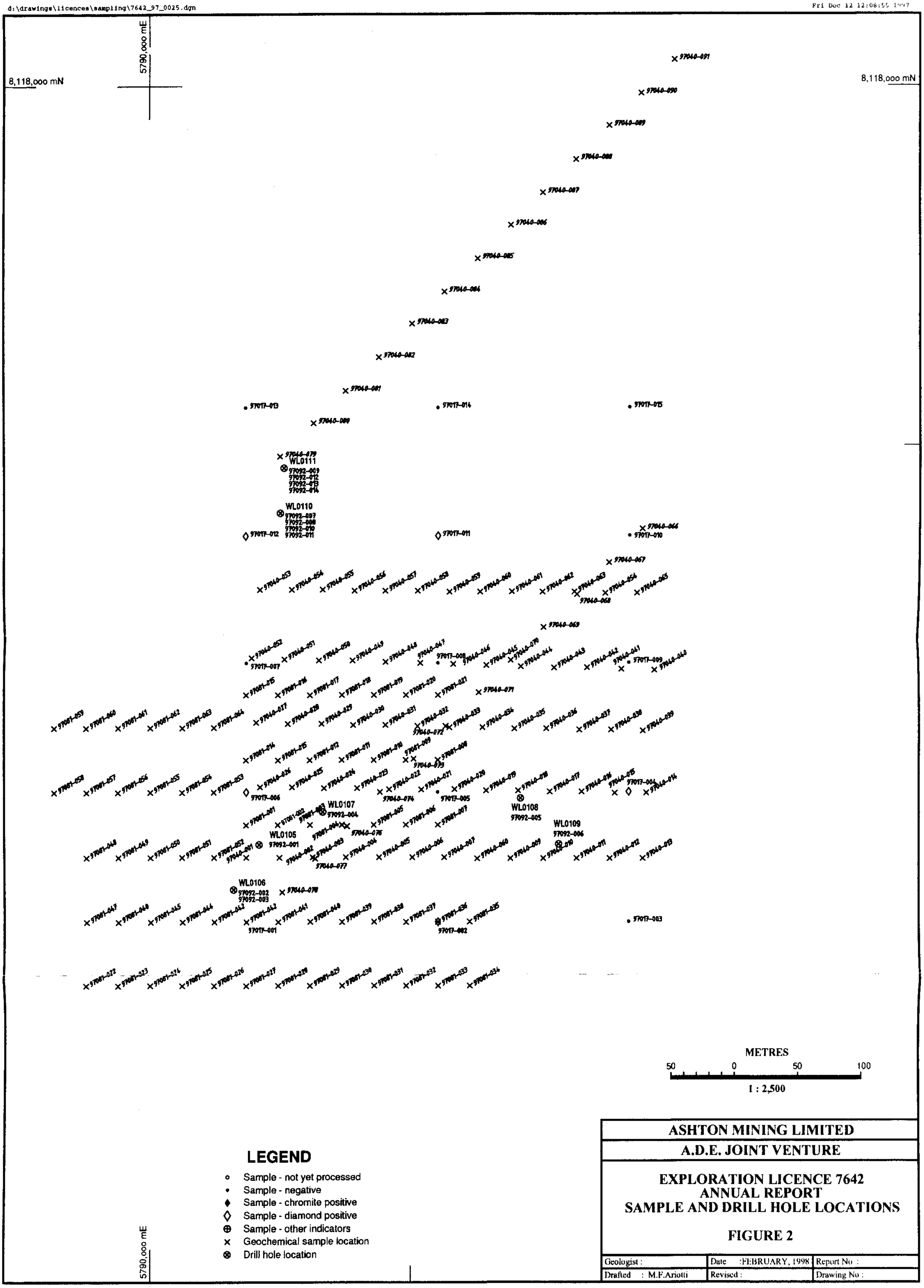


ASHTON MINING LIMITED

A.D.E. JOINT VENTURE

EXPLORATION LICENCE 7642
ANNUAL REPORT
SAMPLE AND DRILL HOLE LOCATIONS

FIGURE 2

Geologist :	Date :FEBRUARY, 1998	Report No :
Drafted : M.F.Ariotti	Revised :	Drawing No :

cropping chert.

To further define the area of high conductivity, a second area was chosen from EM-34. This covered an area of 200m x 300m, with survey lines spaced at 25m, running in a north-south direction. A total of 2.7 line kms were completed.

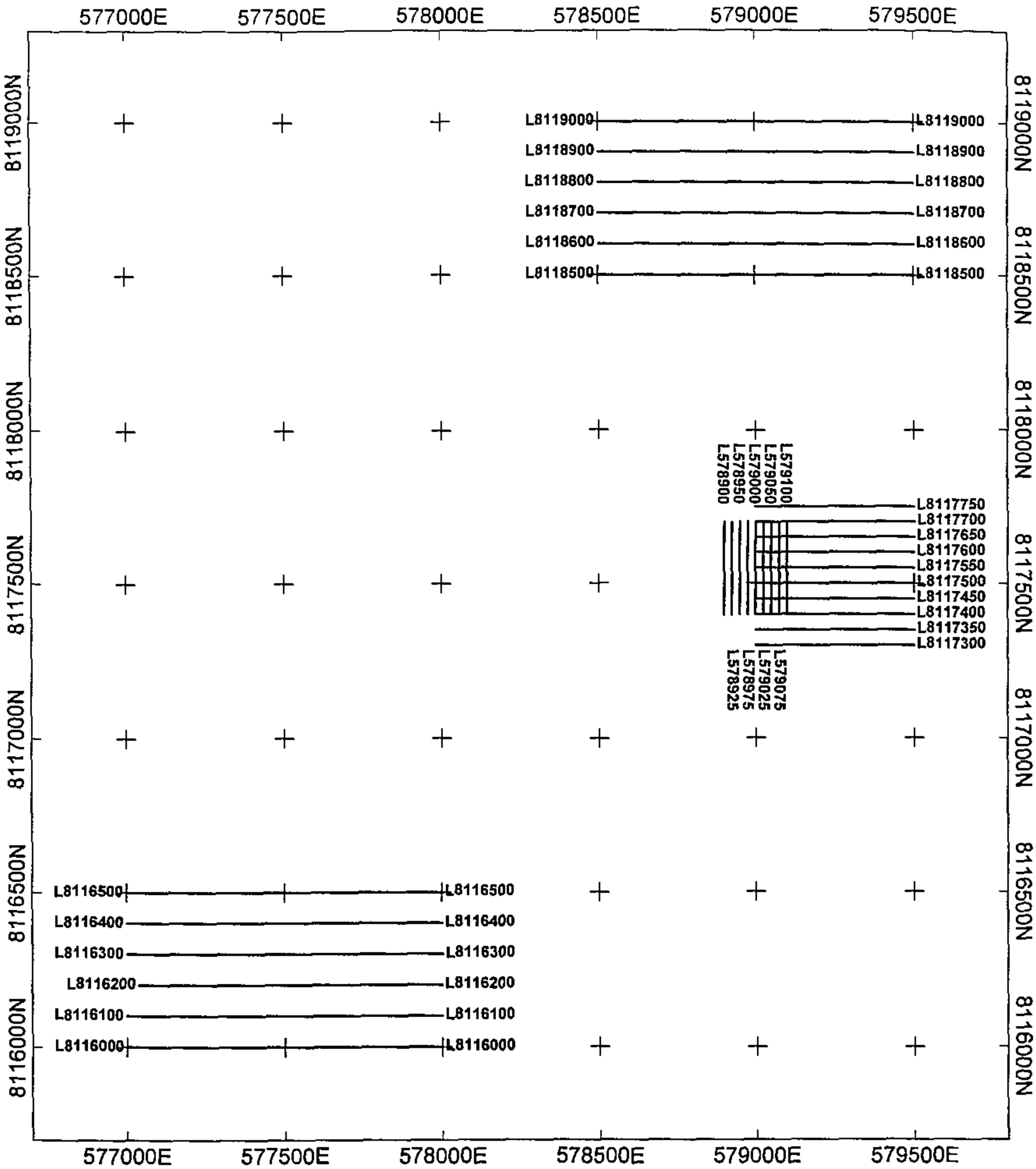
In the previous field season, two areas were surveyed within EL 7642, however this data was omitted, in error, from the annual report for the 1996-1997 period (Report No. 52053). A total of 12 line kms were completed. Traverse lines for all surveys are shown in Figure 3 and a contour plot is shown in Figure 4.

2.4 Vegetation Sampling

Vegetation sampling was undertaken in two programmes, as follow-up to positive sample 96012-156.

Ninety vegetation samples were collected in the first sampling programme, with all samples consisting of a variety of tall grass which is common throughout the area. The samples were collected on a 300m x 300m grid which was centred over 96012-156. Grid lines were spaced 50m apart, with samples collected every 25m. Sample locations are shown in Figure 2.

The interpretation of results indicated a strong coincident anomaly within the south-western corner of the original grid. In order to validate the existence of the anomaly, and



SURVEY SPECIFICATIONS:

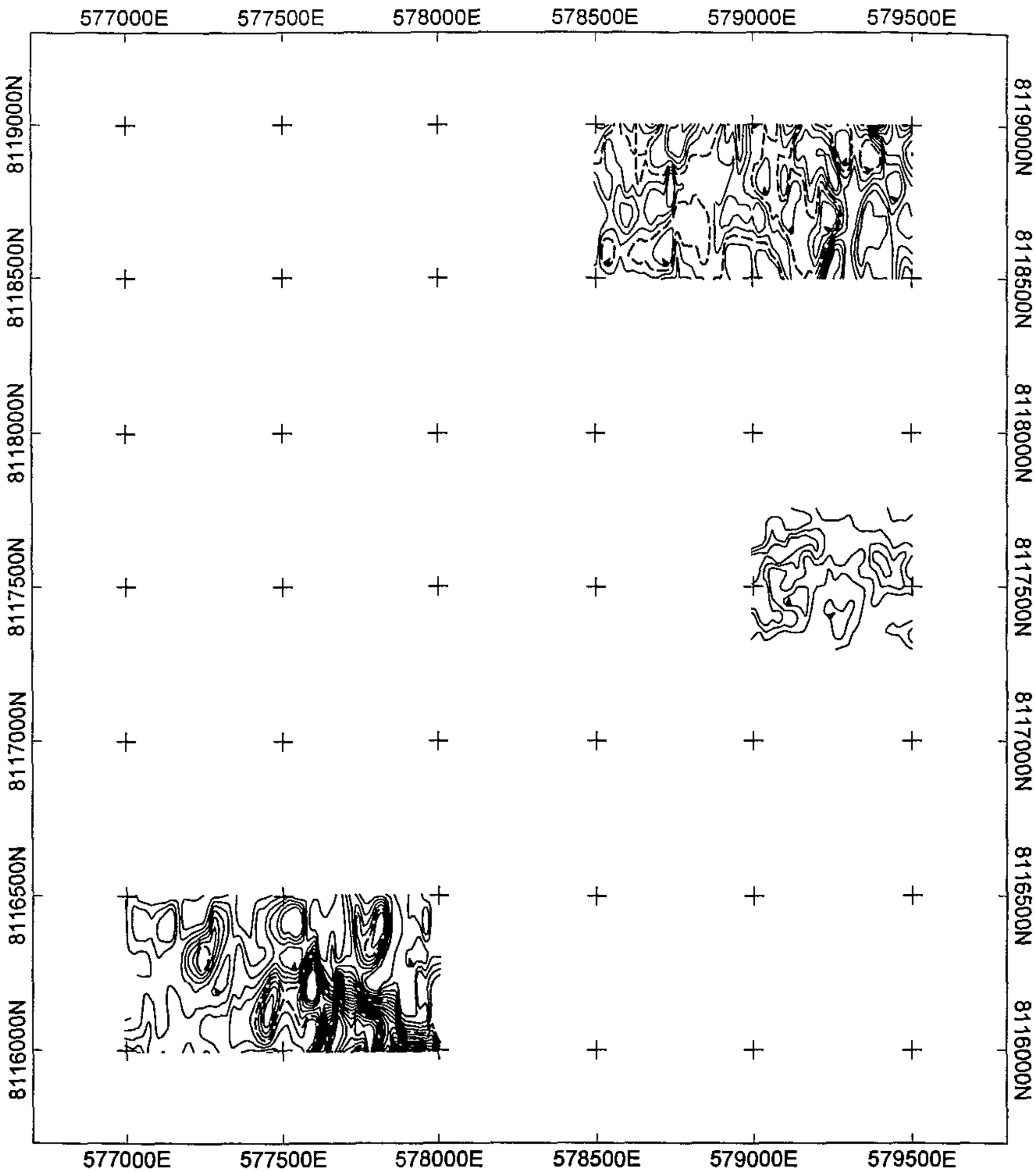
Instrument: Geonics EM34
Operating Frequency: 1600 Hz
Coil Orientation: Horizontal Dipole
Coil Separation: 20 m
Line Direction: East-West , some North-South
Line Separation: 25m, 50m and 100 m
Station Spacing: 20 m
Date of Survey: March 1997

Scale 1:20000

250 0.0 250 500 750 1000 1250

(meters)

Ashton Mining Limited
EL 7642 **Kilgour Prospect** **EM34 Survey**
Traverse Lines
Figure 3



SURVEY SPECIFICATIONS:

Instrument: Geonics EM34
Operating Frequency: 1600 Hz
Coil Orientation: Horizontal Dipole
Coil Separation: 20 m
Line Direction: East-West , some North-South
Line Separation: 25, 50 or 100 m
Station Spacing: 20 m
Date of Survey: March 1997

Scale 1:20000

250 0.0 250 500 750 1000 1250

(meters)

Contour Levels:

——— 10 mmhos
- - - - 100 mmhos

Ashton Mining Limited
EL 7642 **Kilgour Prospect** **EM34 survey**
Conductivity Contours
Figure 4

to check on its extent, further vegetation sampling was undertaken. This involved several infill lines on the original grid and an extension of the grid to both the south and the west. Sixty-four samples were collected in total. Samples were collected every 25m, with grid lines spaced at 50m.

2.5 Data Interpretation

All vegetation samples were submitted to H.K.Herbert and Associates for geochemical analysis. Geochemical results are provided in Appendix 3. Interpretation of data defined three zones with anomalous geochemistry.

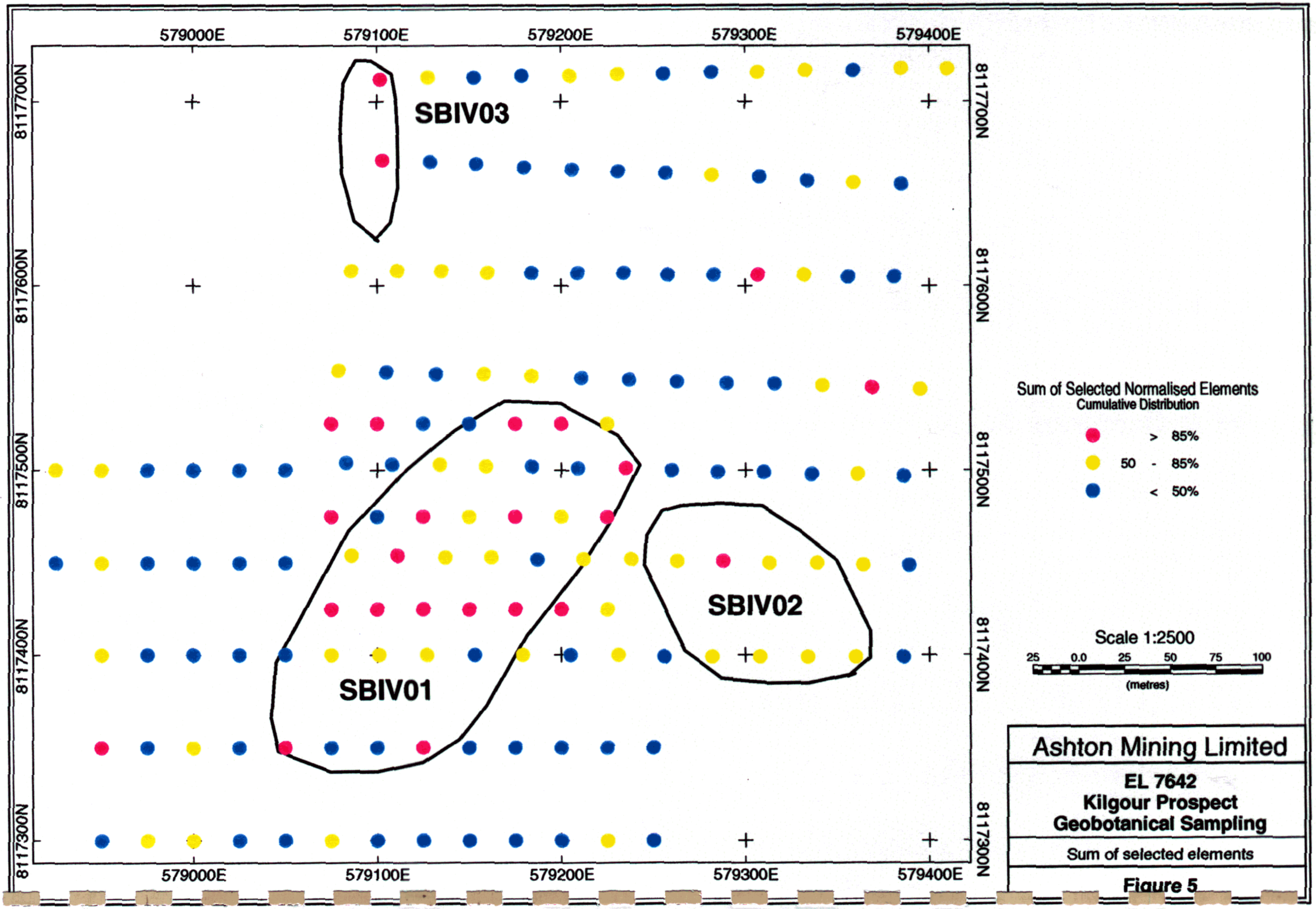
Previous vegetation sampling of grass has proven certain elements to have anomalous concentrations over kimberlites. These elements include: Cerium, Cobalt, Erbium, Gadolinium, Gallium, Lanthanum, Molybdenum, Niobium, Praseodymium, Thorium, Titanium and Thulium.

Due to the extreme variability in concentrations of the elements, all elements were first normalised using the following formula

$$Z = \frac{X - \mu}{\sigma}$$

Where :
Z – is the normalized value
X - is the original value
μ- Mean
σ- Standard Deviation

For interpretation, the above mentioned elements were normalised ,summed and then plotted as a cumulative distribution (refer to Figure 5). The data is presented as three levels; background – 0 –50%, above background 50 –85% and anomalous 85% +.


579000E
579100E
579200E
579300E
579400E
8117700N
8117600N
8117500N
8117400N
8117300N
SBIV03
SBIV01
SBIV02
Sum of Selected Normalised Elements
Cumulative Distribution
> 85%
50 - 85%
< 50%
Scale 1:2500
25 0.0 25 50 75 100
(metres)
Ashton Mining Limited
EL 7642
Kilgour Prospect
Geobotanical Sampling
Sum of selected elements
Figure 5

2.6 Drilling

Prior to commencing drilling activities, a substantial disturbance notice was lodged with the Department of Mines and Energy. The drilling programme was undertaken by Jack Schubert Drilling Services Pty Ltd of Mt Isa.

The three anomalies were designated as SBIV01, SBIV02 and SBIV03. Target SBIV01 covered the largest area (approximately 100m in diameter) and was tested with three holes, whilst SBIV02 and SBIV03 each had two holes drilled. In total, seven RAB holes (WL 105 to WL111) were drilled for 171 metres. A drillhole summary is provided in Appendix 4. Drill logs are given in Appendix 5. No kimberlitic material was reported.

From the seven holes, fourteen drill spoil samples were collected. Of these fourteen samples, nine were dispatched to Ashton's Perth laboratory for routine microdiamond and indicator mineral analysis. At the time of reporting, results are awaited.

Drillhole locations are shown on Figure 2.

2.7 Geochemistry

The remaining five drill spoil samples were submitted to Analab laboratories for analysis. The samples were tested for the following elements: Ni, Cr, La, Ce, P, Sr, Em, Nd, Ba and Sm. Geochemical results are given in Appendix 6.

2.8 Laboratory Procedure

The samples were processed by the Ashton Mining Limited Laboratory in Perth, where they were concentrated by Wilfley Table and heavy liquid separation techniques.

The heavy liquid used was tetrabromethane with a specific gravity of 2.96. The concentrates were then screened into various size fractions, further concentrated by magnetic and electrostatic separation techniques and a comprehensive grain by grain examination carried out on the minus 1.0mm plus 0.425mm fractions.

3.0 EXPLORATION EXPENDITURE

Exploration expenditure for the period 22nd January, 1997 to 21st January, 1998 amounted to $ 123,041. A detailed breakdown of expenditure is given in Appendix 7.

4.0 CONCLUSIONS & RECOMMENDATIONS

The source for the widespread occurrence of microdiamonds in the tenement area remains elusive. Given the almost total absence of conventional indicator minerals, dispersion from a secondary source must be considered a distinct possibility. Further work is recommended to ascertain whether this is the case.

5.0 PROGRAMME AND BUDGET

The proposed programme and budget for the period 22nd January, 1998 to 21st January, 1999 is as follows:-

- Follow-up and infill geochemical sampling.
- Follow-up and infill loam sampling.
- Ground geophysics.
- RAB drilling of selected targets.

Geoscientist/Professional Staff	6,000
Field Support/Office Staff	5,000
Travel/Accommodation/Meals	4,000
Field Supplies	3,000
Equipment	2,500
Vehicles	3,000
Freight/Storage	4,000
Drilling	15,000
Geophysics	7,000
Laboratory	30,000
Drafting/Computing	500
Total:	**$ 80,000**

APPENDIX 1

Outstanding Results
(1996 – 1997)

Sample Results for EL 7642

Annual Report for the period 22/01/97 to 21/01/98

Sample	SampleType	Result	Diamond Micro	Diamond Macro	Chromite	Other
96012-004	L	NEG	-	-	-	-
96012-005	L	POS	1	-	-	-
96012-006	L	NEG	-	-	-	-
96012-007	L	NEG	-	-	-	-
96012-008	L	POS	1	-	-	-
96012-009	L	POS	1	-	-	-
96012-010	L	NEG	-	-	-	-
96012-011	L	NEG	-	-	-	-
96012-012	L	NEG	-	-	-	-
96012-013	L	NEG	-	-	-	-
96012-014	L	NEG	-	-	-	-
96012-015	L	NEG	-	-	-	-
96012-016	L	NEG	-	-	-	-
96012-017	L	NEG	-	-	-	-
96012-018	L	POS	1	-	-	-
96012-019	L	NEG	-	-	-	-
96012-020	L	NEG	-	-	-	-
96012-021	L	NEG	-	-	-	-
96012-022	L	NEG	-	-	-	-
96012-023	L	NEG	-	-	-	-
96012-024	L	POS	1	-	-	-
96012-025	L	NEG	-	-	-	-
96012-026	L	NEG	-	-	-	-
96012-027	L	NEG	-	-	-	-
96012-028	L	NEG	-	-	-	-
96012-029	L	NEG	-	-	-	-
96012-030	L	NEG	-	-	-	-
96012-031	L	NEG	-	-	-	-
96012-032	L	NEG	-	-	-	-
96012-033	L	POS	1	-	-	-
96012-034	L	NEG	-	-	-	-
96012-035	L	NEG	-	-	-	-
96012-036	L	NEG	-	-	-	-
96012-037	L	POS	1	-	-	-
96012-038	L	NEG	-	-	-	-
96012-039	L	NEG	-	-	-	-
96012-040	L	NEG	-	-	-	-
96012-041	L	NEG	-	-	-	-
96012-042	L	NEG	-	-	-	-
96012-043	L	NEG	-	-	-	-
96012-044	L	POS	1	-	-	-
96012-045	L	NEG	-	-	-	-
96012-046	L	NEG	-	-	-	-

L = Loam

Sample Results for EL 7642

Annual Report for the period 22/01/97 to 21/01/98

Sample	SampleType	Result	Diamond Micro	Diamond Macro	Chromite	Other
96012-047	L	NEG	-	-	-	-
96012-048	L	NEG	-	-	-	-
96012-049	L	POS	1	-	-	-
96012-050	L	NEG	-	-	-	-
96012-051	L	NEG	-	-	-	-
96012-052	L	NEG	-	-	-	-
96012-053	L	NEG	-	-	-	-
96012-054	L	NEG	-	-	-	-
96012-055	L	NEG	-	-	-	-
96012-056	L	NEG	-	-	-	-
96012-057	L	NEG	-	-	-	-
96012-058	L	POS	1	-	-	-
96012-059	L	POS	1	-	-	-
96012-060	L	NEG	-	-	-	-
96012-061	L	NEG	-	-	-	-
96012-062	L	NEG	-	-	-	-
96012-063	L	NEG	-	-	-	-
96012-064	L	NEG	-	-	-	-
96012-065	L	NEG	-	-	-	-
96012-066	L	NEG	-	-	-	-
96012-067	L	NEG	-	-	-	-
96012-068	L	NEG	-	-	-	-
96012-069	L	NEG	-	-	-	-
96012-070	L	NEG	-	-	-	-
96012-071	L	NEG	-	-	-	-
96012-072	L	NEG	-	-	-	-
96012-073	L	NEG	-	-	-	-
96012-074	L	NEG	-	-	-	-
96012-075	L	NEG	-	-	-	-
96012-076	L	NEG	-	-	-	-
96012-077	L	NEG	-	-	-	-
96012-078	L	NEG	-	-	-	-
96012-079	L	NEG	-	-	-	-
96012-080	L	NEG	-	-	-	-
96012-081	L	NEG	-	-	-	-
96012-082	L	NEG	-	-	-	-
96012-083	L	NEG	-	-	-	-
96012-084	L	NEG	-	-	-	-
96012-085	L	NEG	-	-	-	-
96012-086	L	POS	1	-	-	-
96012-087	L	NEG	-	-	-	-
96012-088	L	POS	2	-	1	-
96012-089	L	NEG	-	-	-	-

L = Loam

Sample Results for EL 7642

Annual Report for the period 22/01/97 to 21/01/98

Sample	SampleType	Result	Diamond Micro	Diamond Macro	Chromite	Other
96012-090	L	NEG	-	-	-	-
96012-091	L	NEG	-	-	-	-
96012-092	L	NEG	-	-	-	-
96012-093	L	NEG	-	-	-	-
96012-094	L	NEG	-	-	-	-
96012-095	L	NEG	-	-	-	-
96012-096	L	NEG	-	-	-	-
96012-097	L	NEG	-	-	-	-
96012-098	L	POS	2	-	-	-
96012-099	L	NEG	-	-	-	-
96012-100	L	POS	1	-	-	-
96012-101	L	NEG	-	-	-	-
96012-102	L	NEG	-	-	-	-
96012-103	L	NEG	-	-	-	-
96012-104	L	NEG	-	-	-	-
96012-105	L	NEG	-	-	-	-
96012-106	L	NEG	-	-	-	-
96012-107	L	NEG	-	-	-	-
96012-108	L	POS	1	-	-	-
96012-109	L	NEG	-	-	-	-
96012-110	L	NEG	-	-	-	-
96012-111	L	NEG	-	-	-	-
96012-112	L	NEG	-	-	-	-
96012-113	L	NEG	-	-	-	-
96012-114	L	NEG	-	-	-	-
96012-115	L	NEG	-	-	-	-
96012-116	L	NEG	-	-	-	-
96012-117	L	POS	1	-	-	-
96012-118	L	NEG	-	-	-	-
96012-119	L	NEG	-	-	-	-
96012-120	L	NEG	-	-	-	-
96012-121	L	NEG	-	-	-	-
96012-122	L	NEG	-	-	-	-
96012-123	L	NEG	-	-	-	-
96012-124	L	NEG	-	-	-	-
96012-125	L	NEG	-	-	-	-
96012-126	L	NEG	-	-	-	-
96012-127	L	NEG	-	-	-	-
96012-128	L	NEG	-	-	-	-
96012-129	L	NEG	-	-	-	-
96012-130	L	NEG	-	-	-	-
96012-131	L	POS	1	-	-	-
96012-132	L	NEG	-	-	-	-

L = Loam

Sample Results for EL 7642

Annual Report for the period 22/01/97 to 21/01/98

Sample	SampleType	Result	Diamond Micro	Diamond Macro	Chromite	Other
96012-133	L	NEG	-	-	-	-
96012-134	L	NEG	-	-	-	-
96012-135	L	NEG	-	-	-	-
96012-136	L	POS	1	-	-	-
96012-137	L	POS	1	-	-	-
96012-138	L	NEG	-	-	-	-
96012-139	L	POS	1	-	-	-
96012-140	L	NEG	-	-	-	-
96012-141	L	NEG	-	-	-	-
96012-142	L	NEG	-	-	-	-
96012-143	L	NEG	-	-	-	-
96012-144	L	NEG	-	-	-	-
96012-145	L	NEG	-	-	-	-
96012-146	L	NEG	-	-	-	-
96012-147	L	POS	1	-	-	-
96012-148	L	NEG	-	-	-	-
96012-149	L	NEG	-	-	-	-
96012-150	L	NEG	-	-	-	-
96012-151	L	NEG	-	-	-	-
96012-152	L	NEG	-	-	-	-
96012-153	L	NEG	-	-	-	-
96012-154	L	POS	1	-	-	-
96012-155	L	POS	1	-	-	-
96012-156	L	POS	-	-	1	-
96012-157	L	NEG	-	-	-	-
96012-158	L	NEG	-	-	-	-
96012-159	L	NEG	-	-	-	-
96012-160	L	NEG	-	-	-	-
96012-161	L	NEG	-	-	-	-
96012-162	L	NEG	-	-	-	-
96012-163	L	NEG	-	-	-	-
96012-164	L	NEG	-	-	-	-
96012-165	L	NEG	-	-	-	-
96012-166	L	NEG	-	-	-	-
96012-167	L	POS	1	-	-	-
96012-168	L	NEG	-	-	-	-
96012-169	L	NEG	-	-	-	-
96012-170	L	NEG	-	-	-	-
96012-171	L	NEG	-	-	-	-
96012-172	L	NEG	-	-	-	-
96012-173	L	NEG	-	-	-	-
96012-174	L	NEG	-	-	-	-
96012-175	L	NEG	-	-	-	-

L = Loam

Sample Results for EL 7642

Annual Report for the period 22/01/97 to 21/01/98

Sample	SampleType	Result	Diamond Micro	Diamond Macro	Chromite	Other
96012-176	L	POS	1	-	-	-
96012-177	L	NEG	-	-	-	-
96012-178	L	NEG	-	-	-	-
96012-179	L	NEG	-	-	-	-
96012-180	L	NEG	-	-	-	-
96012-181	L	POS	1	-	-	-
96012-182	L	POS	1	-	-	-
96012-183	L	NEG	-	-	-	-
96012-184	L	NEG	-	-	-	-
96012-185	L	NEG	-	-	-	-
96012-186	L	POS	1	-	-	-
96012-187	L	NEG	-	-	-	-
96012-188	L	NEG	-	-	-	-

L = Loam

APPENDIX 2

Sample Results
(Current Period)

Sample Results for EL 7642

Annual Report for the period 22/01/97 to 21/01/98

Sample	SampleType	Result	Diamond Micro	Diamond Macro	Chromite	Other
97017-001	L	NEG	-	-	-	-
97017-002	L	POS	1	-	-	-
97017-003	L	NEG	-	-	-	-
97017-004	L	POS	1	-	-	-
97017-005	L	NEG	-	-	-	-
97017-006	L	POS	1	-	-	-
97017-007	L	NEG	-	-	-	-
97017-008	L	NEG	-	-	-	-
97017-009	L	NEG	-	-	-	-
97017-010	L	NEG	-	-	-	-
97017-011	L	POS	1	-	-	-
97017-012	L	POS	1	-	-	-
97017-013	L	NEG	-	-	-	-
97017-014	L	NEG	-	-	-	-
97017-015	L	NEG	-	-	-	-

L = Loam

APPENDIX 3

Geochemical Results
(Vegetation Sampling)

97040 SERIES VEGETATION

VEGETATION	Ti 49	V 51	Cr 52	Mn 55	Co 59	Ni 60	Cu 65	Zn 66	Ga 71	Ge 74	As 75	Se 82	Sr 84	Rb 85	Y 89	Zr 90	Nb 93	Mo 98	Ru 102	Rh 103	Ag 107	Pd 108	Cd 114	In 115	Sn 120	Sb 121	Ba 135
ppb in sample																											
97040001	196	35	30	9052	12	154	853	5063	4.9	28	31	21	3867	7569	5.5	119.0	7.0	236	0.04	0.06	1.65	0.41	8.6	0.47	55.2	11.8	11939
97040002	170	24	19	9396	16	218	822	3815	3.9	14	24	23	2082	8931	4.1	38.0	13.2	129	0.02	0.03	0.75	0.26	5.3	0.15	22.1	3.9	17333
97040003	150	24	27	10096	15	196	860	6176	3.5	9	21	10	3221	7415	6.6	17.3	7.7	126	0.01	0.03	0.55	0.12	4.6	0.01	9.8	5.3	15383
97040004	78	35	17	10830	29	416	877	3992	2.8	17	19	66	2546	9492	3.0	<0.1	5.6	216	0.03	0.05	0.47	0.14	7.2	0.08	5.7	1.5	8914
97040005	132	26	31	11086	20	449	990	8095	4.2	5	18	15	2789	11767	6.8	<0.1	4.8	135	0.03	0.07	1.20	0.10	10.0	0.09	6.6	3.9	16798
97040006	102	33	26	8714	20	370	822	3038	3.2	13	21	26	2217	6805	3.5	30.8	5.8	71	0.02	0.07	0.15	0.22	3.9	0.05	9.9	2.4	17313
97040007	123	21	19	8238	14	188	526	3167	2.4	3	6	9	2145	5855	5.1	37.5	3.6	37	0.04	0.04	0.36	0.22	5.8	0.03	7.9	2.5	9949
97040008	87	24	16	6720	14	141	759	3582	2.3	4	16	2	1620	10080	3.6	6.0	5.3	63	0.01	0.02	0.25	0.08	4.2	0.08	7.0	3.0	10414
97040009	100	85	32	6686	22	302	1494	5298	2.6	8	8	6	2087	5918	4.4	39.1	5.3	111	0.02	0.04	0.18	0.29	5.1	0.15	11.5	2.5	10846
97040010	150	55	29	10529	18	204	671	2149	4.3	10	20	8	3866	6995	8.4	58.9	6.9	58	0.04	0.08	0.06	0.20	10.0	0.00	12.4	0.8	20842
97040011	142	87	30	8491	28	203	830	2944	3.4	24	13	21	4461	7766	7.9	54.2	4.1	149	0.04	0.07	0.13	0.37	16.5	0.05	10.2	1.3	23833
97040012	125	48	20	8627	30	300	1043	4599	4.8	14	18	8	3568	8293	8.0	0.0	4.1	123	0.03	0.05	0.37	0.15	6.9	0.13	8.4	1.3	18356
97040013	108	32	16	7123	23	221	1060	4652	2.5	9	24	10	2741	10816	4.4	31.6	2.9	50	0.05	0.05	0.36	0.05	6.9	0.09	6.1	0.9	16715
97040014	135	31	26	9619	15	378	617	3781	2.5	7	24	35	3615	7757	4.6	11.1	2.3	96	0.07	0.06	0.09	0.05	6.0	0.05	4.5	0.0	10429
97040015	228	23	19	10254	36	363	1283	7689	3.8	11	18	60	3405	12126	4.8	18.4	2.2	163	0.09	0.07	0.14	0.10	6.1	0.06	5.5	2.6	9045
97040016	149	32	15	11265	21	206	1017	4831	3.4	13	16	31	3707	9029	5.9	19.5	2.2	82	0.03	0.03	0.02	0.12	8.5	0.11	1.9	2.0	16023
97040017	153	59	25	9942	43	301	882	8921	4.1	11	17	12	3063	8051	6.5	7.5	2.1	104	0.11	0.05	0.05	0.11	11.4	0.08	1.8	1.7	18798
97040018	205	40	21	8074	19	313	891	3328	4.0	10	18	11	4911	9371	14.3	36.5	3.0	52	0.07	0.08	0.08	0.22	10.8	0.06	4.6	1.2	28414
97040019	105	38	32	10797	26	361	831	5235	3.4	7	11	2	3602	8744	6.5	15.3	1.7	100	0.11	0.06	0.20	0.08	5.2	0.08	5.1	1.0	22395
97040020	102	24	26	6221	25	188	816	3783	2.1	8	24	13	3206	5794	5.0	50.7	3.6	35	0.00	0.07	0.12	0.00	4.5	0.07	11.8	1.2	16616
97040021	117	36	13	7084	22	237	1285	4713	2.4	21	19	21	4381	11027	8.2	35.3	1.7	96	0.01	0.06	0.13	0.09	4.0	0.05	6.6	0.1	26834
97040022	96	86	19	11976	27	236	823	5242	3.7	8	30	51	4022	11125	3.1	<0.1	1.8	143	0.11	0.05	0.01	0.12	8.4	0.09	1.6	0.3	10871
97040023	157	71	52	13555	17	543	699	4984	5.3	3	30	30	2863	8840	6.4	<0.1	1.5	55	0.03	0.04	0.12	0.10	2.9	0.12	0.2	1.0	13641
97040024	137	29	18	9766	14	570	1307	3836	3.9	12	16	6	4523	7290	11.6	32.5	1.8	84	0.01	0.08	0.17	0.09	7.7	0.13	8.0	0.5	18296
97040025	185	19	13	14806	10	156	750	1549	6.1	9	23	41	3542	6124	14.1	21.5	1.0	24	0.03	0.07	0.05	0.04	5.8	0.10	4.1	1.2	7755
97040026	188	22	10	20458	13	205	603	6109	14.0	2	7	8	978	7329	7.0	13.4	0.7	25	0.03	0.02	0.17	0.18	50.0	0.26	1.1	6.7	1008
97040027	128	29	9	9873	23	155	781	3814	3.1	20	17	48	3141	8592	2.9	13.1	0.8	180	0.07	0.04	0.15	0.18	7.8	0.09	0.5	0.9	10491
97040028	131	43	18	10359	18	108	743	1873	3.5	23	15	26	4286	5324	4.4	19.7	0.9	181	0.15	0.06	0.20	0.01	7.3	0.01	4.0	1.2	14622
97040029	88	29	14	8195	12	308	697	4279	3.7	17	20	26	4507	7964	7.2	<0.1	0.9	168	0.09	0.10	0.09	0.01	5.7	0.04	0.8	1.9	17859
97040030	153	77	16	6858	14	123	1244	2723	5.0	26	14	6	3970	4850	7.3	50.8	1.5	134	0.07	0.04	0.08	0.11	7.8	0.01	2.1	1.2	15061
97040031	69	26	8	5016	22	227	661	3137	1.7	11	4	16	2625	6025	4.8	22.5	0.8	95	0.07	0.02	0.06	0.04	2.8	0.02	2.2	0.8	15660
97040032	88	24	16	7103	20	179	557	1858	1.5	6	10	9	3468	5831	4.0	18.2	1.0	46	0.12	0.05	0.03	0.13	3.1	0.03	3.2	0.6	13944
97040033	181	29	11	8921	14	368	619	2423	6.3	3	9	24	1380	4436	10.8	25.7	0.5	85	0.03	0.05	0.06	0.04	3.5	0.01	1.0	0.0	10456
97040034	62	16	10	6704	33	127	436	3010	1.1	13	6	5	2072	4428	3.7	20.4	1.0	137	0.01	0.02	0.01	0.01	8.4	0.03	1.9	0.6	10230
97040035	92	37	13	8533	21	322	986	2339	2.0	9	12	0	2821	8354	4.6	13.7	0.4	68	0.07	0.04	0.02	0.13	6.5	0.04	1.3	0.1	16321
97040036	78	31	9	8660	26	179	783	3318	1.3	14	4	6	2298	5813	3.6	2.1	0.1	207	0.13	0.03	0.04	0.18	12.2	0.03	0.8	0.7	9070
97040037	87	41	27	8495	19	149	741	2201	3.5	7	10	0	2797	5939	4.3	13.7	0.8	95	0.05	0.05	0.02	0.14	4.9	0.11	2.1	1.7	13554
97040038	105	44	30	8701	17	172	816	1633	3.0	6	18	11	6093	9822	6.5	8.2	0.3	67	0.11	0.08	0.02	0.07	2.1	0.02	0.2	0.4	16190
97040039	61	27	13	8666	19	266	846	2753	2.8	7	20	16	3966	11731	4.8	1.1	0.3	147	0.12	0.10	0.00	0.13	6.5	0.09	1.0	0.2	13592
97040040	149	48	27	10249	28	160	635	2495	5.0	8	11	19	2857	8984	5.8	11.6	0.6	186	0.02	0.08	0.10	0.01	6.6	0.02	2.4	0.3	13798
97040041	143	39	12	8198	27	103	710	3925	4.9	14	20	12	2972	6857	10.2	66.1	1.0	191	0.00	0.06	0.03	0.03	18.9	0.05	2.9	0.8	15931
97040042	46	27	10	9036	15	164	668	2377	3.5	18	27	29	2469	6181	6.7	0.7	0.5	309	0.01	0.05	0.01	0.00	6.9	0.01	0.1	0.6	22220
97040043	55	19	8	6993	10	219	653	4724	2.0	7	16	1	2283	8221	5.3	14.7	0.3	48	0.04	0.03	0.05	0.13	12.0	0.00	1.4	0.2	20293
97040044	47	19	12	7516	38	99	444	4562	1.5	8	1	5	2014	5675	3.3	1.6	0.5	191	0.05	0.04	0.12	0.11	11.7	0.03	1.3	1.3	11899
97040045	67	15	10	8776	26	155	438	2121	1.9	10	8	8	2271	4268	3.7	18.9	0.3	32	0.02	0.04	0.04	0.09	9.6	0.02	0.7	0.1	18169
97040046	75	44	45	8572	16	257	634	2514	2.2	8	24	23	4180	8661	5.1	6.8	0.3	55	0.06	0.07	0.01	0.05	5.1	0.04	0.2	0.4	23346
97040047	42	14	17	6788	9	167	858	1663	2.3	4	10	1	2476	6897	4.4	1.7	0.4	46	0.00	0.02	0.04	0.14	3.8	0.04	0.3	0.4	15559
97040048	106	25	8	8451	9	99	660	3095	2.7	8	11	6	5416	3837	7.4	17.6	0.0	99	0.09	0.09	0.08	0.10	4.4	0.02	0.1	0.2	13786
97040049	83	33	16	8322	18	252	1044	3092	3.0	10	10	4	2314	9461	6.4	1.8	0.5	63	0.00	0.06	1.28	0.15	3.9	0.06	0.1	0.8	12847

97040 SERIES VEGETATION

VEGETATION	La 139	Ce 140	Pr 141	Nd 144	Eu 151	Sm 152	Gd 158	Tb 159	Dy 162	Ho 165	Er 166	Tm 169	Yb 172	Lu 175	Hf 178	Ta 181	W 182	Re 185	Ir 191	Os 192	Pt 195	Au 197	Hg 202	Tl 203	Pb 208
ppb in sample																									
97040001	8.0	23.3	1.3	6.0	2.0	6.5	0.98	0.46	0.86	0.69	0.75	0.10	0.63	0.10	1.58	2.02	4.7	0.059	0.143	0.008	0.192	0.093	2.26	1.0	73
97040002	5.2	14.7	1.2	4.9	3.1	9.6	0.84	0.29	0.72	0.58	0.59	0.06	0.58	0.11	1.03	2.29	7.0	0.013	0.109	0.089	0.139	0.055	0.22	1.6	59
97040003	10.5	19.1	1.9	8.8	2.9	9.1	1.18	0.53	0.94	0.90	1.41	0.12	0.39	0.08	0.67	4.07	3.0	0.011	0.047	0.100	0.009	0.037	1.37	1.0	53
97040004	3.7	8.2	0.7	2.8	1.3	5.5	0.57	0.09	0.54	0.29	0.54	0.06	0.73	0.03	0.41	2.47	9.8	0.013	0.009	0.020	0.041	0.029	0.65	2.6	38
97040005	11.0	21.8	2.1	9.2	3.1	11.2	1.78	0.36	0.76	0.85	0.95	0.11	0.39	0.11	0.18	2.12	1.2	0.013	0.020	0.005	0.071	0.021	1.14	8.5	142
97040006	5.6	9.3	1.0	5.2	2.6	9.8	0.80	0.23	0.42	0.43	0.65	0.05	0.39	0.05	0.53	3.62	1.5	0.000	0.015	0.049	0.079	0.024	0.69	1.5	34
97040007	8.2	15.8	1.5	7.2	1.8	6.1	1.18	0.32	0.53	0.74	0.93	0.07	0.80	0.08	0.43	2.26	1.4	0.021	0.022	0.014	0.023	0.027	0.47	15.8	50
97040008	6.5	11.8	1.3	4.8	2.1	5.9	0.70	0.24	0.43	0.27	0.84	0.05	0.38	0.01	0.45	3.38	<0.1	0.007	0.006	0.034	0.035	0.017	0.17	16.3	31
97040009	7.4	13.6	1.4	5.0	2.1	6.9	0.93	0.29	0.76	0.34	0.87	0.08	0.53	0.03	0.59	2.66	6.8	0.023	0.056	0.045	0.058	0.018	2.39	1.4	33
97040010	13.2	20.8	2.3	9.9	4.1	13.6	1.47	0.47	0.96	0.80	1.17	0.14	0.44	0.08	0.80	4.50	1.7	0.040	0.028	0.101	0.236	0.112	0.93	2.2	36
97040011	10.4	13.1	2.3	9.5	4.2	14.2	1.20	0.37	0.83	0.82	1.30	0.06	0.77	0.07	0.53	3.66	8.7	0.027	0.013	0.077	0.102	0.033	0.86	12.9	39
97040012	9.8	21.1	2.4	10.2	3.2	11.6	1.78	0.43	0.92	1.01	1.26	0.07	1.37	0.10	0.47	3.40	0.6	0.009	0.020	0.086	0.009	0.009	0.51	6.2	45
97040013	6.7	12.1	1.2	5.3	2.9	10.1	0.89	0.28	0.49	0.50	0.56	0.10	0.69	0.06	0.16	2.05	0.4	0.004	0.015	0.052	0.156	0.018	0.66	2.9	34
97040014	7.4	13.2	1.3	5.4	2.2	6.8	0.74	0.37	0.50	0.56	1.34	0.09	0.17	0.05	0.14	1.51	<0.1	0.015	0.014	0.028	0.085	0.020	0.44	3.0	22
97040015	6.9	12.0	1.4	5.6	1.6	6.6	0.94	0.35	0.53	0.38	0.94	0.13	0.34	0.07	0.19	1.49	<0.1	0.033	0.004	0.077	0.054	0.014	0.30	5.0	45
97040016	11.0	9.4	1.9	8.1	3.5	10.0	1.08	0.20	0.50	0.47	0.87	0.07	0.46	0.08	0.09	1.03	3.2	0.024	0.043	0.115	0.022	0.021	1.90	1.7	27
97040017	7.2	11.8	1.4	6.4	3.3	11.7	0.93	0.40	0.45	0.66	0.72	0.06	0.52	0.08	0.13	1.42	0.2	0.006	0.015	0.137	0.139	0.021	0.68	10.7	27
97040018	23.4	28.5	4.1	18.2	5.8	18.8	2.59	0.82	1.68	1.75	2.52	0.15	1.21	0.10	0.32	2.40	0.2	0.007	0.015	0.005	0.092	0.020	1.04	10.7	36
97040019	12.0	20.3	1.9	7.9	4.4	13.6	0.94	0.42	0.67	0.69	1.05	0.03	0.43	0.05	0.15	1.49	0.7	0.006	0.001	0.038	0.042	0.002	0.16	7.7	37
97040020	8.5	13.2	1.5	5.9	2.9	9.8	1.13	0.26	0.62	0.63	0.99	0.11	0.19	0.03	0.76	4.27	1.1	0.030	0.012	0.088	0.061	0.032	0.63	2.6	29
97040021	9.8	13.0	2.0	8.0	4.8	15.1	1.60	0.41	1.11	0.75	1.06	0.14	1.00	0.07	0.09	1.67	1.0	0.001	0.016	0.068	0.034	0.001	0.80	9.5	23
97040022	4.1	9.0	1.0	4.1	1.9	6.7	0.67	0.20	0.49	0.59	0.47	0.08	0.10	0.01	0.10	1.73	<0.1	0.026	0.048	0.108	0.049	0.053	0.37	2.3	20
97040023	8.9	18.4	2.0	9.1	2.8	7.5	1.41	0.45	0.63	0.87	0.76	0.08	0.32	0.08	0.15	0.91	<0.1	0.027	0.009	0.107	0.015	0.033	0.51	1.4	31
97040024	20.6	24.8	3.8	14.4	3.5	12.8	2.16	0.64	1.49	1.31	1.58	0.26	0.73	0.11	0.29	2.46	<0.1	0.013	0.024	0.010	0.113	0.100	1.51	2.7	30
97040025	26.5	22.6	4.6	18.4	1.8	6.6	3.17	1.25	2.10	1.44	1.79	0.11	1.29	0.07	0.08	0.26	<0.1	0.071	0.014	0.000	0.020	0.023	0.73	1.3	57
97040026	13.8	25.9	2.9	11.1	0.3	4.5	1.88	0.62	1.07	0.88	1.24	0.14	0.52	0.07	0.10	0.17	<0.1	0.001	0.011	0.090	0.043	0.011	0.16	5.2	56
97040027	3.6	24.1	0.7	3.6	1.8	6.4	0.79	0.14	0.24	0.38	0.33	0.06	0.49	0.02	0.12	0.63	<0.1	0.035	0.001	0.030	0.038	0.083	0.03	10.8	23
97040028	4.2	14.1	0.9	3.4	2.9	8.7	0.79	0.33	0.67	0.43	0.72	0.05	0.64	0.04	0.20	1.00	3.6	0.042	0.016	0.065	0.101	0.032	0.20	6.8	30
97040029	11.5	21.5	2.5	11.1	3.3	10.6	1.15	0.65	0.92	0.87	1.16	0.08	0.78	0.11	0.20	3.96	<0.1	0.010	0.015	0.035	0.166	0.012	0.13	0.8	30
97040030	9.2	25.2	2.2	10.0	2.9	10.3	1.48	0.60	0.97	1.29	1.87	0.20	0.96	0.07	0.31	3.84	5.8	0.044	0.006	0.011	0.070	0.032	0.55	0.1	56
97040031	7.2	25.4	1.6	5.4	2.8	8.9	1.21	0.24	0.67	0.75	0.56	0.05	0.58	0.01	0.04	3.07	0.1	0.001	0.006	0.009	0.046	0.177	0.82	4.1	29
97040032	6.3	11.7	1.2	4.8	2.2	8.8	0.64	0.27	0.52	0.50	0.65	0.08	0.33	0.04	0.08	1.94	<0.1	0.013	0.029	0.005	0.121	0.211	0.17	0.6	31
97040033	16.6	28.4	3.6	18.3	2.4	8.2	2.71	0.89	1.80	1.88	2.40	0.23	1.99	0.17	0.17	0.97	<0.1	0.002	0.014	0.021	0.044	0.073	1.36	6.0	28
97040034	5.2	5.0	0.9	4.3	2.0	6.1	0.70	0.29	0.52	0.51	0.46	0.07	0.25	0.04	0.15	3.69	0.7	0.011	0.032	0.014	0.015	0.036	1.15	5.1	17
97040035	7.5	11.7	1.4	6.3	2.8	9.9	1.39	0.28	0.65	0.48	0.95	0.07	0.56	0.09	0.08	1.38	<0.1	0.019	0.014	0.005	0.011	0.019	2.00	2.3	19
97040036	3.4	6.3	0.8	3.8	1.3	5.3	0.62	0.28	0.51	0.36	0.49	0.07	0.12	0.04	0.10	0.53	4.6	0.053	0.013	0.028	0.026	0.209	0.65	4.2	21
97040037	6.3	11.4	1.3	5.1	2.4	7.6	0.93	0.25	0.58	0.23	0.82	0.00	0.63	0.03	0.07	2.10	<0.1	0.006	0.015	0.044	0.030	0.137	0.04	0.6	28
97040038	11.5	15.3	2.0	9.4	3.2	10.0	1.08	0.58	0.97	0.67	0.91	0.09	0.06	0.04	0.13	0.92	<0.1	0.015	0.020	0.022	0.002	0.180	0.89	1.9	24
97040039	7.1	10.7	1.3	4.9	2.7	8.2	1.08	0.38	0.42	0.89	0.70	0.09	0.32	0.05	0.00	1.48	<0.1	0.115	0.014	0.114	0.099	0.099	0.92	3.5	33
97040040	9.0	19.5	1.5	7.5	2.8	7.9	1.20	0.51	0.73	0.84	0.61	0.05	0.19	0.12	0.01	1.24	<0.1	0.021	0.009	0.091	0.008	0.098	0.01	6.8	29
97040041	10.8	80.9	2.8	11.8	3.0	11.6	2.94	0.81	1.31	1.18	1.41	0.13	0.88	0.07	0.17	2.56	<0.1	0.004	0.004	0.025	0.043	0.062	0.28	12.7	47
97040042	5.1	25.0	1.3	6.8	4.0	14.4	1.40	0.34	0.63	0.80	0.86	0.07	0.19	0.10	0.12	3.30	0.9	0.001	0.010	0.031	0.064	0.089	0.84	0.7	31
97040043	9.7	22.2	1.7	8.3	2.8	11.1	1.19	0.39	0.85	0.49	0.85	0.12	0.44	0.03	0.17	2.33	<0.1	0.015	0.001	0.052	0.129	0.160	0.79	1.7	35
97040044	4.3	10.7	0.8	3.2	2.1	5.9	0.64	0.18	0.45	0.27	0.53	0.08	0.20	0.10	0.00	2.46	<0.1	0.014	0.039	0.031	0.043	0.035	0.76	12.7	61
97040045	5.2	14.2	1.0	5.1	3.0	10.4	0.72	0.40	0.37	0.44	0.73	0.10	0.69	0.03	0.12	1.16	<0.1	0.009	0.017	0.089	0.017	0.221	1.21	11.5	41
97040046	10.0	16.8	1.5	7.3	4.1	14.2	1.26	0.37	0.81	0.98	0.52	0.08	0.59	0.06	0.18	1.77	<0.1	0.003	0.021	0.063	0.016	0.039	1.90	2.0	31
97040047	7.9	17.7	1.4	6.8	2.5	8.8	0.76	0.38	0.53	0.19	0.54	0.07	0.27	0.08	0.05	2.03	<0.1	0.022	0.035	0.097	0.058	0.111	1.21	0.4	29
97040048	11.5	22.9	2.1	9.8	2.5	7.2	1.33	0.14	1.09	0.60	0.89	0.11	0.92	0.07	0.09	0.66	<0.1	0.018	0.018	0.041	0.020	0.158	0.70	0.3	50
97040049	8.8	22.4	1.9	9.3	2.2	7.9	1.50	0.42	0.99	0.87	1.06	0.15	0.67	0.12	0.04	2.32	0.1	0.012	0.024	0.030	0.046	0.074	0.89	0.2	27

97040 SERIES VEGETATION

VEGETATION	Bi 209	Th 232	U 238
ppb in sample			
97040001	1.31	5.30	0.77
97040002	2.48	1.91	0.71
97040003	1.69	2.68	0.69
97040004	1.70	1.05	0.77
97040005	1.39	1.27	0.06
97040006	1.11	1.31	0.70
97040007	0.87	1.42	0.37
97040008	0.84	1.32	0.20
97040009	5.17	1.47	0.51
97040010	0.97	2.28	0.63
97040011	0.59	2.16	1.39
97040012	0.82	1.33	0.69
97040013	0.03	0.64	0.92
97040014	0.33	0.30	0.61
97040015	0.39	1.03	0.63
97040016	0.36	1.01	0.40
97040017	0.24	1.51	0.72
97040018	0.43	1.88	0.66
97040019	0.27	0.59	0.37
97040020	0.53	1.81	0.44
97040021	0.15	1.47	0.59
97040022	0.29	0.94	0.59
97040023	1.05	0.90	0.51
97040024	0.54	1.91	0.38
97040025	1.50	1.53	0.33
97040026	1.21	1.88	0.62
97040027	0.17	0.99	0.29
97040028	0.86	1.03	0.91
97040029	0.09	0.72	0.49
97040030	0.32	1.39	1.82
97040031	0.52	1.18	0.44
97040032	0.45	0.74	0.31
97040033	0.65	3.74	0.55
97040034	0.10	0.70	0.19
97040035	0.25	1.11	0.56
97040036	0.62	0.09	0.36
97040037	2.25	0.96	0.78
97040038	2.26	0.84	1.15
97040039	0.92	0.32	0.78
97040040	0.39	0.99	2.00
97040041	4.77	2.44	1.22
97040042	2.36	0.45	1.27
97040043	2.03	0.64	0.54
97040044	1.91	0.48	0.16
97040045	1.24	0.94	0.33
97040046	2.78	0.82	0.59
97040047	1.27	0.14	0.30
97040048	3.05	0.83	0.67
97040049	1.02	1.54	1.11

97040 SERIES VEGETATION

VEGETATION	Ti 49	V 51	Cr 52	Mn 55	Co 59	Ni 60	Cu 65	Zn 66	Ga 71	Ge 74	As 75	Se 82	Sr 84	Rb 85	Y 89	Zr 90	Nb 93	Mo 98	Ru 102	Rh 103	Ag 107	Pd 108	Cd 114	In 115	Sn 120	Sb 121	Ba 135
97040050	45	19	10	7223	17	178	714	2075	1.7	12	13	34	1783	9082	2.6	0.9	0.7	152	0.01	0.04	0.02	0.01	6.2	0.05	0.1	0.0	5648
97040051	63	21	12	8700	19	278	742	3646	2.5	12	13	0	2350	4447	2.2	19.3	0.0	127	0.00	0.03	0.04	0.13	4.5	0.02	0.3	0.0	11379
97040052	95	29	19	5675	13	338	756	3920	3.3	14	16	15	2525	6252	5.4	4.8	1.0	205	0.01	0.02	0.02	0.06	24.1	0.03	0.1	0.3	9113
97040053	104	31	16	7254	11	108	1011	4171	3.7	17	22	22	2998	8035	6.7	14.9	0.2	293	0.07	0.06	0.04	0.09	7.9	0.00	6.8	1.1	8183
97040054	106	32	16	10839	23	182	608	3106	4.1	18	14	88	3242	10286	3.6	0.4	0.0	474	0.05	0.05	0.06	0.03	16.8	0.00	2.1	0.2	12783
97040055	109	18	15	4223	19	84	756	6422	2.9	13	17	18	6532	4555	4.4	13.4	0.4	598	0.09	0.11	0.04	0.00	5.3	0.01	7.0	0.3	9234
97040056	122	26	19	7551	17	425	802	3653	4.6	20	27	46	5692	7527	4.5	4.1	0.6	305	0.11	0.10	0.14	0.06	8.1	0.08	3.4	2.0	17865
97040057	74	19	11	9005	7	54	449	2733	3.0	9	27	28	1718	1679	4.9	1.3	0.2	70	0.01	0.04	0.05	0.05	2.9	0.03	0.0	0.2	3702
97040058	90	37	20	7365	16	269	935	2253	3.7	9	21	25	3471	8068	3.7	9.6	0.3	152	0.05	0.07	0.02	0.09	3.5	0.11	4.1	0.1	13109
97040059	83	67	26	8952	13	177	580	1303	2.6	10	16	19	2939	7842	4.9	0.8	0.2	64	0.05	0.04	0.00	0.09	6.1	0.00	3.5	0.1	14553
97040060	59	53	16	8365	17	298	894	3082	3.3	27	24	52	5847	9007	6.4	1.8	0.3	208	0.06	0.11	0.01	0.05	8.9	0.03	0.8	0.4	35210
97040061	63	46	25	8429	23	264	655	2361	2.6	10	22	26	4265	9099	4.1	1.6	0.3	46	0.08	0.07	0.02	0.03	29.7	0.03	1.4	0.3	17659
97040062	119	47	11	7362	14	110	795	3407	4.8	22	6	22	3624	5220	12.6	1.7	0.2	237	0.04	0.05	0.00	0.17	4.0	0.04	0.5	0.9	20349
97040063	103	35	19	6065	24	159	402	2368	4.5	16	16	15	1979	4478	9.6	39.5	0.8	66	0.00	0.06	0.00	0.10	12.9	0.02	4.6	0.0	10544
97040064	77	17	14	6531	14	96	595	2504	1.9	8	16	4	1883	8807	4.5	21.1	0.1	56	0.00	0.03	0.08	0.18	1.1	0.11	7.6	0.6	8968
97040065	57	22	14	8210	19	168	644	3198	1.9	9	11	7	2419	8344	3.8	2.2	0.1	124	0.01	0.02	0.01	0.19	4.3	0.02	0.3	0.2	11411
97040066	53	19	15	7341	16	234	528	1886	1.8	6	15	7	2433	9442	3.7	6.5	0.1	82	0.00	0.02	0.02	0.10	3.9	0.04	1.5	8.4	10433
97040067	128	61	12	6741	12	281	679	1603	4.1	24	23	262	4644	7109	7.2	0.2	0.0	445	0.01	0.09	0.13	0.04	8.7	0.03	1.6	0.9	14408
97040068	94	43	36	7937	18	239	683	2754	2.1	13	24	48	3175	8532	5.3	2.0	0.1	128	0.04	0.04	0.06	0.17	6.4	0.09	0.1	2.2	19265
97040069	152	26	14	9097	12	82	744	2749	2.9	12	12	28	3386	7178	3.7	11.9	0.1	130	0.01	0.04	0.02	0.09	4.5	0.08	2.3	2.2	9493
97040070	85	21	13	10043	17	66	218	1450	6.1	1	10	2	1244	5655	8.4	1.4	0.0	33	0.01	0.01	0.04	0.21	3.7	0.03	0.1	0.9	8026
97040071	72	15	9	6676	8	295	623	2806	2.1	16	13	15	2651	5606	3.9	10.7	0.9	96	0.02	0.02	0.15	0.09	3.8	0.08	5.1	0.1	12783
97040072	49	21	9	11928	10	103	668	2717	2.4	14	8	3	2430	7698	2.8	0.5	0.1	93	0.03	0.01	0.04	0.04	7.2	0.07	1.0	2.6	12237
97040073	68	23	11	11553	19	248	856	2363	3.8	19	4	18	5769	7682	4.2	1.1	0.1	174	0.10	0.08	0.04	0.03	10.1	0.11	0.7	1.2	26357
97040074	53	27	17	6895	15	183	524	3152	1.8	9	11	2	3244	8984	4.0	0.3	0.1	76	0.02	0.03	0.86	0.21	6.9	0.00	1.1	0.5	14579
Missing																											
97040076	74	23	11	8527	13	168	746	2459	2.7	36	9	7	2884	4544	4.3	7.6	0.6	253	0.05	0.05	0.71	0.04	6.1	0.01	0.1	3.4	10536
97040077	44	15	14	8602	15	146	482	6919	2.2	5	4	4	1489	9824	2.7	0.5	0.1	143	0.03	0.03	0.05	0.03	10.0	0.03	0.6	0.7	8447
97040078	269	70	21	7981	17	141	483	1891	12.0	12	14	7	1769	5447	15.9	35.8	0.4	217	0.04	0.02	0.29	0.06	11.0	0.16	2.9	0.6	9351
97040079	167	44	23	10674	33	192	648	5797	6.2	17	17	36	3488	5741	12.0	12.1	0.3	137	0.04	0.07	0.05	0.04	7.3	0.10	1.5	0.9	23762
97040080	79	42	20	6926	27	115	514	2816	3.5	14	15	18	2977	6174	5.9	6.7	0.3	74	0.04	0.05	0.22	0.09	8.5	0.00	4.6	0.4	16251
97040081	79	26	8	10512	11	88	525	2227	1.9	41	4	1	3923	5216	2.4	25.4	0.3	97	0.04	0.04	0.12	0.09	10.1	0.00	4.9	0.5	4956
97040082	67	19	30	6612	9	113	768	5180	1.4	9	6	1	2999	7912	4.1	9.5	0.1	79	0.04	0.04	0.20	0.23	5.8	0.02	4.8	0.7	14085
97040083	129	33	31	9266	13	144	742	2386	4.1	19	22	11	2293	7768	6.1	42.8	0.9	42	0.03	0.04	0.64	0.02	3.7	0.03	13.9	0.4	16350
97040084	95	49	36	10548	16	166	891	2584	3.8	14	10	10	3333	11136	7.3	0.5	0.0	89	0.03	0.06	0.15	0.10	7.1	0.10	3.2	0.1	15371
97040085	78	23	18	8578	13	152	506	2401	2.8	17	6	0	4572	7137	5.5	2.9	0.2	53	0.07	0.07	0.27	0.13	10.8	0.06	3.1	1.0	24353
97040086	81	24	36	9716	16	119	573	4261	3.5	9	18	17	2590	10684	5.3	0.1	0.3	42	0.01	0.05	0.54	0.01	7.3	0.00	2.0	3.8	9469
97040087	107	24	20	7029	12	329	855	3426	2.8	13	7	15	3266	9016	6.5	27.2	0.2	55	0.02	0.03	0.41	0.02	3.7	0.10	1.8	0.6	17939
97040088	121	36	15	9853	13	106	612	2763	3.2	22	14	26	5038	8234	6.6	29.4	0.1	62	0.10	0.08	0.20	0.01	5.9	0.02	0.1	0.9	26977
97040089	84	26	15	9041	12	134	586	1799	1.9	8	13	21	2948	6439	3.9	21.4	0.1	57	0.02	0.04	0.14	0.19	4.4	0.09	3.7	0.4	12818
97040090	147	42	29	10419	23	242	1021	3451	4.5	22	10	1	4451	12044	8.1	49.7	0.5	55	0.10	0.07	0.18	0.04	5.2	0.09	7.1	5.2	19609
97040091	110	21	25	9661	14	106	808	2407	2.5	17	5	12	3152	8201	5.9	43.8	0.4	34	0.04	0.05	0.09	0.03	4.0	0.09	10.6	2.1	14593

97040 SERIES VEGETATION

VEGETATION	La 139	Ce 140	Pr 141	Nd 144	Eu 151	Sm 152	Gd 158	Tb 159	Dy 162	Ho 165	Er 166	Tm 169	Yb 172	Lu 175	Hf 178	Ta 181	W 182	Re 185	Ir 191	Os 192	Pt 195	Au 197	Hg 202	Tl 203	Pb 208
97040050	3.8	11.5	0.7	3.0	0.8	3.4	0.60	0.10	0.44	0.31	0.32	0.00	0.32	0.11	0.04	2.88	<0.1	0.016	0.011	0.017	0.003	0.064	0.09	0.3	80
97040051	4.0	16.1	0.7	3.7	2.1	7.0	0.54	0.19	0.19	0.30	0.53	0.04	0.20	0.07	0.06	1.00	<0.1	0.028	0.023	0.023	0.015	0.095	0.41	2.0	25
97040052	7.1	21.3	1.7	7.5	1.9	5.4	1.37	0.41	0.88	0.92	0.78	0.09	0.54	0.07	0.28	4.56	<0.1	0.072	0.005	0.044	0.024	0.011	0.26	2.0	40
97040053	10.5	24.9	2.3	11.1	1.7	5.7	1.90	0.58	1.11	1.08	1.18	0.11	0.50	0.12	0.07	2.08	<0.1	0.036	0.031	0.048	0.004	0.013	1.43	0.5	28
97040054	3.9	17.8	1.2	4.7	1.7	7.6	1.07	0.22	0.42	0.47	1.17	0.02	0.31	0.10	0.02	0.89	<0.1	0.064	0.032	0.025	0.006	0.119	1.18	5.0	32
97040055	5.2	16.0	1.2	5.4	1.6	5.8	1.41	0.19	0.72	0.33	0.60	0.05	0.68	0.08	0.06	1.63	4.4	0.021	0.021	0.083	0.039	0.138	1.46	1.4	32
97040056	7.6	15.2	1.4	6.0	2.9	11.2	0.94	0.41	0.39	0.47	0.81	0.02	0.24	0.06	0.03	2.72	<0.1	0.223	0.007	0.088	0.040	0.015	2.07	1.9	30
97040057	7.9	23.2	1.6	6.7	0.9	3.5	1.01	0.35	0.74	0.28	0.61	0.14	0.59	0.07	0.00	1.31	<0.1	0.017	0.011	0.048	0.007	0.137	0.84	0.1	32
97040058	4.9	14.6	1.0	4.6	2.5	7.4	0.77	0.20	0.28	0.47	0.53	0.06	0.22	0.02	0.10	1.47	<0.1	0.018	0.017	0.071	0.015	0.028	1.69	0.6	24
97040059	5.9	13.7	1.2	5.6	2.3	8.3	0.77	0.14	0.53	0.30	0.51	0.03	0.54	0.07	0.07	1.01	<0.1	0.054	0.000	0.002	0.049	0.191	0.51	1.9	28
97040060	5.8	13.0	1.3	5.8	4.9	16.2	1.31	0.33	0.59	0.81	0.81	0.09	0.64	0.06	0.11	1.96	3.4	0.205	0.002	0.016	0.009	0.166	0.16	0.9	157
97040061	5.7	16.1	1.3	5.5	2.5	10.7	0.90	0.23	0.50	0.73	0.75	0.10	0.40	0.03	0.12	2.54	0.3	0.031	0.018	0.026	0.009	0.125	0.05	2.3	39
97040062	14.5	38.6	3.4	17.7	3.3	13.0	3.32	0.92	1.43	2.28	2.68	0.20	0.79	0.16	0.03	1.55	4.1	0.024	0.016	0.062	0.039	0.167	0.87	1.1	32
97040063	12.8	34.2	3.0	13.5	2.2	7.8	2.34	0.70	1.01	1.10	2.15	0.16	1.37	0.11	0.39	5.76	<0.1	0.020	0.025	0.008	0.022	0.122	0.94	12.1	33
97040064	8.1	15.5	1.5	6.6	1.6	4.7	0.90	0.30	0.68	0.40	1.10	0.02	0.12	0.00	0.00	1.99	<0.1	0.032	0.019	0.034	0.008	0.175	1.40	1.4	30
97040065	5.1	12.2	1.3	5.1	1.4	5.9	0.86	0.33	0.54	0.53	0.73	0.06	0.27	0.07	0.06	2.23	<0.1	0.034	0.025	0.049	0.025	0.072	1.35	0.5	21
97040066	6.6	13.5	1.2	4.3	1.6	6.9	0.85	0.33	0.32	0.56	0.71	0.00	0.10	0.06	0.01	1.60	<0.1	0.001	0.014	0.027	0.009	0.189	1.59	0.7	68
97040067	6.7	20.8	1.6	6.5	2.9	8.3	1.43	0.46	0.80	0.72	0.78	0.10	0.84	0.12	0.11	0.92	3.4	0.006	0.028	0.031	0.060	0.156	0.63	1.4	26
97040068	6.9	14.5	1.5	7.3	2.9	10.6	1.34	0.33	0.80	0.92	1.13	0.08	0.40	0.07	0.04	0.70	9.7	0.021	0.010	0.026	0.022	0.173	0.74	0.9	32
97040069	5.3	11.0	1.1	4.4	1.6	6.6	0.67	0.23	0.40	0.37	0.43	0.07	0.08	0.06	0.03	0.70	<0.1	0.012	0.027	0.040	0.053	0.150	1.55	0.7	26
97040070	12.5	32.2	2.7	12.7	1.5	5.7	2.33	0.60	1.29	0.96	1.46	0.19	0.40	0.18	0.01	0.47	<0.1	0.000	0.015	0.006	0.128	0.146	0.82	13.5	18
97040071	5.3	12.5	1.1	5.3	1.9	6.2	1.02	0.19	0.58	0.60	0.79	0.06	0.29	0.06	0.11	4.19	<0.1	0.072	0.012	0.044	0.015	0.114	0.24	1.5	28
97040072	3.5	8.1	0.8	3.7	2.0	7.1	0.62	0.27	0.58	0.63	0.48	0.05	0.63	0.02	0.08	1.40	1.5	0.151	0.009	0.061	0.054	0.120	0.85	0.3	36
97040073	4.7	8.8	0.9	4.8	4.3	13.3	1.02	0.38	0.50	0.41	0.98	0.08	0.27	0.07	0.02	1.95	7.6	0.066	0.017	0.023	0.013	0.076	0.12	4.3	34
97040074	6.2	11.6	1.2	6.3	2.2	7.3	0.52	0.23	0.52	0.67	0.61	0.09	0.38	0.02	0.02	2.73	<0.1	0.036	0.018	0.069	0.037	0.047	1.01	0.2	42
Missing																									
97040076	4.4	13.8	1.2	6.5	1.5	6.2	0.98	0.31	0.78	0.77	0.86	0.06	0.61	0.07	0.13	2.79	4.4	0.001	0.032	0.052	0.021	0.167	0.18	0.8	117
97040077	5.1	11.9	1.1	4.4	1.3	5.3	0.94	0.23	0.36	0.29	0.66	0.01	0.27	0.08	0.05	2.25	<0.1	0.002	0.011	0.054	0.052	0.127	0.44	10.8	17
97040078	21.4	51.5	5.3	25.6	2.4	7.5	3.65	1.29	2.93	2.58	3.61	0.36	2.42	0.28	0.19	1.78	<0.1	0.014	0.011	0.168	0.006	0.120	1.14	2.2	54
97040079	17.1	40.0	3.6	16.5	4.1	15.0	2.91	0.78	1.45	1.61	2.30	0.22	1.70	0.09	0.04	1.35	<0.1	0.044	0.009	0.074	0.043	0.080	0.07	3.3	42
97040080	7.9	19.6	1.7	8.5	2.9	9.8	1.15	0.44	1.01	1.13	1.11	0.16	0.63	0.09	0.10	3.38	<0.1	0.053	0.018	0.094	0.075	0.012	0.75	8.7	40
97040081	3.5	12.3	0.7	2.8	0.6	2.8	0.50	0.20	0.25	0.18	0.34	0.06	0.36	0.06	0.13	4.02	<0.1	0.047	0.015	0.095	0.020	0.129	0.10	2.6	25
97040082	5.7	12.2	1.1	5.7	2.2	6.8	0.74	0.22	0.62	0.64	0.63	0.06	0.42	0.07	0.07	2.18	<0.1	0.001	0.007	0.051	0.042	0.052	0.59	2.6	34
97040083	8.3	17.2	1.9	8.5	2.6	8.4	1.22	0.57	0.90	1.24	1.25	0.08	0.92	0.15	0.34	4.98	1.3	0.001	0.029	0.067	0.028	0.038	1.56	1.0	55
97040084	10.1	19.2	2.4	10.5	2.6	8.7	1.77	0.74	1.34	1.46	1.58	0.16	0.88	0.12	0.02	0.89	26.2	0.043	0.014	0.070	0.013	0.001	3.89	2.6	43
97040085	9.3	15.7	1.9	8.5	3.8	13.3	1.58	0.43	0.83	0.81	1.08	0.08	0.35	0.05	0.13	2.11	<0.1	0.177	0.013	0.078	0.030	0.080	0.23	18.6	35
97040086	6.7	15.5	1.6	6.0	1.6	6.2	1.24	0.34	0.89	0.78	0.75	0.13	0.84	0.04	0.04	2.85	<0.1	0.043	0.021	0.029	0.097	2.316	1.14	1.5	64
97040087	11.7	19.7	2.2	10.2	3.2	10.2	1.35	0.62	0.89	0.73	1.38	0.06	0.42	0.08	0.06	2.26	<0.1	0.032	0.030	0.057	0.038	0.023	1.14	1.1	45
97040088	10.4	14.1	2.0	8.7	4.2	14.0	1.27	0.53	0.91	0.92	0.93	0.09	0.53	0.14	0.12	1.62	0.1	0.095	0.031	0.078	0.033	0.129	0.45	2.2	40
97040089	6.7	12.5	1.3	6.1	2.0	7.1	0.83	0.23	0.60	0.58	1.01	0.04	0.60	0.06	0.01	1.34	<0.1	0.036	0.008	0.050	0.144	0.101	0.31	0.3	50
97040090	11.4	19.2	2.2	10.2	3.4	12.3	1.51	0.65	1.09	1.18	1.66	0.19	0.38	0.13	0.26	4.42	13.0	0.015	0.010	0.049	0.093	0.062	2.26	0.4	54
97040091	7.3	12.7	1.5	5.8	2.4	8.9	1.12	0.32	0.58	0.68	0.70	0.22	0.69	0.03	0.37	5.66	1.1	0.023	0.021	0.137	0.011	0.008	0.47	2.1	35

97040 SERIES VEGETATION

VEGETATION	Bi 209	Th 232	U 238
97040050	0.85	0.20	0.45
97040051	0.23	0.12	0.51
97040052	3.06	1.36	0.60
97040053	0.96	2.08	0.45
97040054	1.12	1.58	0.45
97040055	1.12	0.81	0.21
97040056	0.35	1.18	0.37
97040057	0.60	0.64	0.31
97040058	0.50	0.86	0.65
97040059	0.16	0.68	1.08
97040060	1.78	0.55	1.48
97040061	0.75	0.97	2.52
97040062	1.79	2.43	0.89
97040063	0.66	3.75	0.91
97040064	0.17	1.21	0.47
97040065	0.11	1.07	1.10
97040066	0.96	0.73	0.69
97040067	0.96	1.96	0.58
97040068	0.03	0.90	2.41
97040069	0.02	1.21	1.23
97040070	1.02	2.25	0.32
97040071	0.38	1.92	0.32
97040072	0.29	0.74	0.67
97040073	0.19	0.34	0.76
97040074	1.02	0.63	0.58
Missing			
97040076	0.55	1.78	0.47
97040077	0.08	0.93	0.32
97040078	0.92	7.91	1.16
97040079	0.30	3.06	0.79
97040080	2.10	2.43	0.85
97040081	0.13	1.19	0.79
97040082	2.91	1.19	1.39
97040083	1.61	2.06	1.30
97040084	0.46	1.07	2.58
97040085	0.63	1.08	1.24
97040086	0.88	0.97	1.40
97040087	0.42	1.54	0.94
97040088	0.40	1.62	1.22
97040089	0.57	1.17	1.88
97040090	1.13	2.85	2.51
97040091	0.68	1.46	0.90

97081 SERIES VEGETATION

ppb in solid SAMPLE	Ti 49	V 51	Cr 53	Mn 55	Co 59	Ni 60	Cu 65	Zn 66	Ga 71	Ge 74	As 75	Se 82	Sr 84
97081001	949.99	399.95	276.47	50201.18	97.72	1630.67	2430.27	7981.65	30.33	166.80	217.24	8.73	12421 31
97081002	561.15	308.63	227.76	82522.21	48.59	693.90	1181.26	3772.84	21.82	51.37	139.08	2.74	8620.58
97081003	646.33	576.77	234.21	45206.54	79.30	1525.50	2929.70	7717.38	21.03	132.88	106.21	1.98	20950.80
97081004	575.66	746.20	214.58	60478.64	114.47	1175.35	1911.71	6097.30	27.47	242.21	147.82	6.80	53216.86
97081005	541.08	430.20	372.24	50028.32	98.91	856.29	2013.69	8127.72	21.49	128.74	98.22	6.06	18791.96
97081006	703.34	505.17	227.75	29007.96	107.68	1530.07	2142.95	8227.46	36.60	207.77	89.66	11.64	19418.27
97081007	367.10	416.28	175.99	54547.47	71.47	1001.07	1617.03	11758.49	17.03	192.88	115.72	1.64	15221.76
97081008	648.45	466.71	136.78	65162.34	80.30	1641.46	1466.34	8257.90	29.35	193.92	62.42	9.82	31088.54
97081009	740.49	446.56	148.12	21089.64	74.68	1128.44	1515.72	3282.68	27.62	142.07	122.57	2.09	27474.87
97081010	653.15	466.36	185.49	67061.67	91.33	715.51	1186.01	2711.27	34.15	185.64	134.15	37.57	45303.65
97081011	386.27	532.25	203.80	73226.20	98.11	2222.37	1426.91	6204.00	15.96	88.28	112.49	21.85	14866.72
97081012	561.41	501.42	163.01	40471.02	61.56	1500.14	1155.08	4007.39	17.19	137.59	111.64	28.28	21422 96
97081013	359.37	337.14	89.57	24585.03	56.97	729.89	847.72	5231.90	16.04	98.16	132.31	34.14	10760.46
97081014	746.27	601.42	205.20	68698.12	78.08	1015.36	1498.40	6238.52	36.85	79.12	119.76	13.01	16494.48
97081015	785.61	475.72	152.79	18533.11	119.02	484.34	945.67	22926.45	41.29	203.76	86.58	7.66	25464.52
97081016	519.34	465.65	113.73	67624.02	95.34	772.52	2465.01	6257.43	24.20	294.15	110.73	7.03	17962.33
97081017	271.53	348.09	121.59	22472.36	54.80	561.75	1552.91	4879.11	9.21	54.57	102.70	10.70	13014.78
97081018	484.48	400.28	122.03	58208.54	58.77	924.81	1405.74	6406.08	19.55	157.17	170.49	2.67	16495.71
97081019	483.25	503.90	117.44	52014.02	222.68	826.81	1896.33	10125.14	28.61	195.50	148.51	16.02	12681.92
97081020	780.31	574.10	249.40	53389.71	198.20	938.80	1632.59	11234.44	43.62	91.15	128.76	28.75	6867.09
97081021	573.00	428.69	179.25	34722.60	180.20	1064.82	807.23	5765.78	27.45	256.25	123.46	2.02	15558.74
97081022	382.42	223.02	115.28	76318.66	36.77	741.58	1141.47	7233.62	15.47	91.79	122.14	7.82	3166.11
97081023	787.32	416.86	133.82	38230.36	94.42	1325.78	1333.57	12571.47	32.18	275.39	91.88	4.50	11788.60
97081024	1349.85	336.77	166.70	77158.91	94.19	845.80	1479.14	15635.94	24.19	78.15	159.81	5.07	3922.67
97081025	308.03	349.88	182.59	68752.93	63.05	566.47	995.21	3468.01	13.30	46.22	95.97	8.98	19110.76
97081026	294.77	307.51	152.28	98527.50	149.78	1337.97	1373.72	9698.02	15.51	36.30	108.90	9.01	14303.82
97081027	355.48	325.27	91.02	61006.56	55.02	2345.24	1577.56	9014.50	17.03	231.50	98.58	23.47	21279.54
97081028	300.23	531.01	140.35	41548.35	107.04	691.99	1165.03	7174.42	14.92	104.74	79.84	10.10	13850.65
97081029	337.22	378.72	61.65	27921.52	50.15	904.89	1380.06	4029.57	17.79	86.23	129.70	27.80	13332.09
97081030	254.71	289.64	92.49	38063.40	68.65	768.39	1018.67	2624.37	9.02	266.04	155.68	37.17	23212.13
97081031	451.19	401.36	68.17	67722.38	49.39	451.26	1133.70	3682.56	28.23	38.69	123.06	0.14	3286.77
97081032	371.81	216.41	113.72	62874.96	33.35	1250.02	1068.29	6250.67	20.50	41.02	154.53	15.64	3202.27
97081033	457.76	299.27	107.37	66476.30	83.17	1026.72	1398.02	9573.14	23.96	40.09	92.38	33.65	5471.43

97081 SERIES VEGETATION

ppb in solid													
SAMPLE	Ti 49	V 51	Cr 53	Mn 55	Co 59	Ni 60	Cu 65	Zn 66	Ga 71	Ge 74	As 75	Se 82	Sr 84
97081034	323.00	319.58	69.64	17210.01	59.71	611.41	1191.66	3726.97	18.83	156.35	111.39	2.59	14622.52
97081035	304.48	209.96	87.65	37947.53	66.71	532.77	1446.19	4318.59	13.52	218.12	67.13	23 94	6608 26
97081036	317.52	340.01	81.33	37545.79	104.78	1178.04	960.47	12389.22	17.27	61.30	94.57	16.66	11411.59
97081037	236.39	378.62	150.62	64632.15	65.46	761.53	1705.50	9295.18	15 29	26.60	130.00	10.25	9881.75
97081038	350.30	300.33	133.08	61222.15	51.39	524.69	1177.27	4009.53	11.45	48.97	87.73	15.28	19464.86
97081039	191.37	221.48	52.54	79494.95	53.79	700.20	1458.33	9073.18	8.59	63.10	145.34	0.66	8410.38
97081040	944.53	889.92	252.95	58714.27	228.75	1083.82	1169.94	5009.82	91.64	35.02	101.67	6.98	14643 11
97081041	476.54	485.83	142.70	14531.83	76.48	891.85	1436.57	5243.10	22.19	39.77	171.86	12.13	17101 78
97081042	376.13	305.74	70.04	23439.03	38.56	465.76	1479.35	4214.19	13.74	202.55	384.15	3.18	7771.11
97081043	632.67	552.69	117.28	20352.06	97.29	626.72	746.50	12028.34	50.73	75.63	79.05	12.60	12393.28
97081044	376.41	256.60	50.60	138741.81	55.93	409.24	1008.82	4311.77	28.26	29.58	114.16	1.05	7773.05
97081045	588.22	417.56	73.56	18173.26	73.32	608.19	1570.68	4984.07	32.84	155.09	125.87	11.03	15335.55
97081046	204.20	211.25	42.22	24112.96	45.89	991.86	1108.04	4125.62	12.21	87.82	128.36	11.83	8778 15
97081047	756.09	453.84	137.29	72492.61	61.66	2079.83	1262.00	9902.33	34.78	107.08	76.48	5.67	5068.42
97081048	479.38	425.24	121.44	53005.51	59.48	2511.52	1641.97	14289.91	37.40	42.65	94.99	1.12	8626.28
97081049	228.98	245.00	56.19	57119.97	49.51	1071.03	888.80	5121.30	20.13	40.60	84.16	18.32	6728.18
97081050	265.81	278.90	77.57	39016.35	50.54	1179.15	1131.47	6382.09	14.69	87.00	65.60	26.00	11504.28
97081051	50.77	44.43	42.62	9974.07	21.04	285.94	323.78	3385.91	5.53	27.04	78.32	27.10	3854.53
97081052	147.22	187.83	3.00	43885.87	73.32	308.09	433.60	6390.36	10.03	82.11	3.27	32.76	31055.58
97081053	289.15	241.10	33.67	34196.42	48.50	954.53	854.31	4897.26	18.50	101.51	86.58	20.73	8546.70
97081054	307.46	277.23	84.07	64006.67	78.49	976.53	1318.35	6798.22	17.74	79.77	95.68	10.38	8752.53
97081055	349.00	308.40	68.22	21965.72	44.18	449.67	866.46	3376.89	19.27	99.35	76.45	13.03	14362.30
97081056	453.22	459.91	88.60	46464.44	82.12	838.22	1081.96	10515.96	36.07	54.16	100.21	62.10	12704.70
97081057	329.96	250.67	57.77	76940.19	76.12	1031.36	1531.51	8159.37	21.59	39.61	72.97	11.02	6207.02
97081058	338.05	296.72	81.74	45078.74	68.16	1815.35	1071.17	12076.63	18.81	132.68	62.56	11.31	8085.85
97081059	431.85	421.45	70.28	24451.97	64.83	1280.31	1516.14	6949.41	26.12	45.73	36.97	19.47	8373.00
97081060	236.20	329.34	71.54	19302.08	36.61	467.32	879.26	2225.99	19.41	129.59	167.98	68.18	12555.00
97081061	341.12	242.29	55.39	66852.78	94.49	363.36	537.11	8004.14	17.95	49.45	151.01	48.37	25666.31
97081062	342.42	220.48	76.96	55329.29	58.21	919.95	1385.15	5279.22	16.87	114.30	104.01	32.11	17618.23
97081063	272.12	217.38	60.52	48150.66	53.36	1046.91	930.95	6167.53	17.60	122.90	61.48	33.07	17833.00
97081064	191.09	282.04	33.67	71028.40	19.54	577.63	679.11	2446.53	12.93	17.37	57.83	36.62	9874.30

97081 SERIES VEGETATION

ppb in solid													
SAMPLE	Rb 85	Y 89	Zr 90	Nb 93	Mo 98	Ru 102	Rh 103	Ag 107	Pd 108	Cd 114	In 115	Sn 120	Sb 121
97081001	34377.80	31.70	561.58	15.94	478.85	0.10	0.10	30.69	37.22	47.97	0.31	129.45	13.84
97081002	11558.78	21.14	314.81	16.78	364.26	0.16	0.09	58.59	18.15	31.13	0.38	92.59	7.45
97081003	14500.95	81.75	291.44	17.30	559.20	0.12	0.09	42.41	22.31	45.44	0.33	74.22	7 42
97081004	41820.28	62.63	189.11	13.58	650.31	0.12	0.11	28.41	16.22	65.45	0.33	56.70	5.63
97081005	20639.36	33.21	159.24	13.06	588.34	0.07	0.11	20.16	12.05	38.15	0.32	49.36	16.43
97081006	18493.57	65.65	224.61	13.64	723.28	0.02	0.10	77.43	14.06	49.18	0.31	78 31	2.84
97081007	18281.74	19.51	112.91	12.43	753.21	0.08	0.10	18.72	11.08	37.27	0.33	38.41	4.22
97081008	16793.56	61.38	162.67	13.60	342.95	0.10	0.10	49.84	13.54	39.42	0.36	50.32	14.86
97081009	15553.18	49.47	152.13	13.33	277.24	0.08	0.09	56.66	10.83	52.53	0.33	42.67	5.91
97081010	14410.46	53.86	149.22	12.83	982.41	0.09	0.11	26.57	28.90	35.73	0.40	41.47	8.40
97081011	20103.73	37.48	138.25	14.57	446.77	0.04	0.10	56.51	6.70	28.33	0.23	41.43	5.74
97081012	16418.82	43.67	133.49	12.43	602.72	0.08	0.10	37.48	16.37	33.14	0.47	39.78	5.30
97081013	7625.82	49.89	92.63	10.00	361.35	0.13	0.11	32.98	9.04	48.80	0.18	30.60	6.78
97081014	19087.64	62.17	145.06	13.22	563.73	0.08	0.10	27.39	9.13	30.30	0.25	34.52	10.10
97081015	5097.07	67.34	148.86	12.82	2277.23	0.04	0.10	41.09	6.30	27.76	0.29	36.25	13.13
97081016	17595.86	51.70	119.44	13.85	1339.50	0.08	0.09	57.96	11.75	31.32	0.28	41.09	7 43
97081017	23424.47	13.69	90.95	13.54	322.72	0.07	0.09	55.06	8.93	28.13	0.28	33 32	5.29
97081018	12426.40	44.44	101.65	12.35	376.40	0.09	0.11	20.80	11.57	41.22	0.31	30.14	3.32
97081019	18793.92	82.50	107.78	12.25	306.62	0.07	0.10	25.09	2.70	53.02	0.24	25.24	6.24
97081020	15291.52	85.20	166.72	14.21	152.72	0.07	0.08	40.12	4.09	38.20	0.15	32.68	3.05
97081021	9326.72	51.14	110.64	13.29	197.84	0.08	0.11	75.01	8.53	44.53	0.19	31.77	4.72
97081022	7282.16	42.30	83.22	11.13	99.27	0.03	0.09	25.17	5.45	249.32	0.28	41.83	5.88
97081023	12810.73	60.73	120.04	13.31	555.86	0.09	0.10	55.05	6.33	16.44	0.36	38.48	7.41
97081024	13027.31	50.25	104.23	13.74	340.98	0.10	0.16	27.58	7.15	41.02	0.19	28.39	4.70
97081025	20763.86	44.84	79.42	12.99	123.60	0.22	0.09	16.88	0.74	23.94	0.22	25.45	3.77
97081026	26083.69	52.97	67.60	11.07	261.07	0.13	0.09	10.60	1.38	20.47	0.20	22.79	1.23
97081027	14932.16	20.76	103.64	10.91	760.41	0.14	0.11	51.04	1.61	19.36	0.14	27.36	14.62
97081028	20961.95	21.40	79.84	14.14	285.50	0.05	0.11	14.64	2.34	28.92	0.24	24.79	3.57
97081029	24966.56	33.60	86.42	14.48	251.34	0.06	0.09	19.97	5.37	21.86	0.15	27.83	3.25
97081030	19830.75	12.55	64.31	11.04	735.33	0.07	0.10	18.86	7.12	47.76	0.21	24.04	0.92
97081031	4348.96	66.33	105.60	13.13	200.60	0.10	0.11	26.07	9.50	82.95	0.25	29.40	1.93
97081032	13378.14	28.90	74.39	13.35	425.01	0.06	0.08	20.77	1.19	26.29	0.22	36.45	3.71
97081033	12659.27	67.24	91.94	10.17	580.92	0.09	0.11	17.92	9.11	55.53	0.19	24.42	6.22

97081 SERIES VEGETATION

ppb in solid													
SAMPLE	Rb 85	Y 89	Zr 90	Nb 93	Mo 98	Ru 102	Rh 103	Ag 107	Pd 108	Cd 114	In 115	Sn 120	Sb 121
97081034	11002.83	67.80	68.48	11.76	180.44	0.01	0.09	10.76	1.30	26.90	0.18	23.08	6.22
97081035	9179.65	18.81	56.79	12.71	339.20	0.06	0.10	14.00	2.87	27.11	0.26	21.50	14.73
97081036	27107.95	33.69	83.64	9.93	452.69	0.15	0.12	15.47	2.43	26.98	0.15	24.14	11.20
97081037	19043.42	37.37	58.62	11.00	197.29	0.05	0.10	15 66	8.33	22.66	0.22	21.28	4.19
97081038	20593.42	21.93	70.94	13.53	251.61	0.01	0.10	11.70	2.76	90.29	0.19	27.52	8.69
97081039	22426.50	9.68	54.45	10.43	100.20	0.05	0.09	21.25	3.25	37.06	0.13	17.76	1.16
97081040	20567.69	345.37	207.79	15.24	308.50	0.04	0.07	10.70	4.83	126.98	0.10	25.70	3.41
97081041	20289.18	35.70	77.72	13.10	826.46	0.09	0.11	17.36	9.64	29.41	0.19	24.32	7.14
97081042	16572.93	17.94	57.21	15.94	225.53	0.05	0.10	22.50	4.91	37.34	0.18	19.40	2.34
97081043	17478.81	171.75	154.18	17.96	169.82	0.03	0.07	21.06	0.10	29.46	0.24	23.33	1.31
97081044	5821.70	102.64	67.88	14.52	93.61	0.06	0.13	19.02	0.69	50.19	0.24	21.22	4.38
97081045	11735.59	71.48	102.65	10.25	236.68	0.04	0.09	14.43	8.15	144.04	0.23	25.91	12.14
97081046	17261.64	12.74	55.25	11.09	309.87	0.09	0.09	12.05	3.20	20.78	0.14	16.98	2.56
97081047	17433.83	130.12	119.89	18.11	346.95	0.01	0.08	60.95	9.06	57.95	0.23	27.09	4.39
97081048	48737.31	58.73	92.23	13.51	732.10	0.04	0.09	13.80	0.54	58.92	0.20	20.99	3.88
97081049	27565.55	25.57	57.57	11.07	213.84	0.04	0.10	18.52	0.37	49.90	0.28	17.05	9.96
97081050	19852.94	23.38	58.42	18.38	299.78	0.02	0.07	22.96	5.95	26.81	0.20	17.96	3.18
97081051	14420.92	8.16	17.19	6.03	245.83	0.01	0.10	10.64	6.09	18.76	0.28	8.53	3.43
97081052	6881.47	111.35	39.98	3.70	122.48	0.02	0.06	8.96	2.91	26.97	0.18	12.58	2.24
97081053	14544.41	24.81	51.36	14.55	93.28	0.02	0.08	21.06	3.73	15.65	0.09	18.13	2.33
97081054	20645.50	65.58	62.39	16.43	205.74	0.06	0.10	23.07	1.79	37.86	0.22	19.60	4.55
97081055	27057.34	35.37	67.53	14.88	272.04	0.02	0.08	14.67	4.95	20.47	0.13	18.32	11.91
97081056	40886.87	60.25	85.20	12.56	446.49	0.00	0.08	14.31	0.83	38.91	0.13	11.67	9.17
97081057	12359.84	165.85	67.19	9.96	122.53	0.03	0.10	40.65	0.51	43.74	0.22	19.16	4.68
97081058	8848.26	30.65	66.61	16.79	408.28	0.01	0.09	27.41	0.59	37.88	0.13	19.84	5.58
97081059	23417.01	50.18	96.92	59.82	451.65	0.03	0.08	18.74	8.08	36.17	5.17	26.64	9.00
97081060	7933.61	24.04	74.42	27.35	840.17	0.03	0.08	39.08	14.49	48.96	1.09	31.54	10.17
97081061	14516.05	60.37	57.31	16.93	233.59	0.08	0.07	10.27	1.10	34.94	0.23	19.53	15.24
97081062	16795.93	32.73	48.81	11.26	731.71	0.08	0.07	9.83	1.95	31.37	0.29	18.51	16.12
97081063	17638.55	28.58	46.94	15.36	295.62	0.05	0.07	8.94	3.89	47.77	0.25	14.12	2.23
97081064	17004.34	16.49	44.26	14.93	270.28	0.11	0.16	15.60	2.24	31.36	0.11	14.51	4.67

97081 SERIES VEGETATION

ppb in solid													
SAMPLE	Te 128	Ba 135	La 139	Ce 140	Pr 141	Nd 144	Eu 151	Sm 152	Gd 158	Tb 159	Dy 162	Ho 165	Er 166
97081001	9.65	47248.36	60.46	101.91	17.82	38.62	9.11	194.55	10.10	1.62	10.79	3.49	3.03
97081002	4.98	22073.54	41.97	64.72	13.15	30.52	4.52	42.56	5.25	1.65	5.32	1.77	4.05
97081003	8.19	78114.73	160.15	201.70	34.99	94.55	10.82	73.20	17.74	2.42	15.03	3.04	5.43
97081004	7.96	97461.65	90.50	110.91	21.84	73.61	15.90	70.13	11.82	1.79	8.99	2.19	4.15
97081005	6.03	71726.60	55.40	79.83	12.00	38.28	12.01	48.47	8.37	0.93	7.73	1.81	3.39
97081006	4.83	113890.92	88.87	119.35	20.96	71.63	20.68	103.60	10.25	1.65	8.57	2.34	4.23
97081007	4.00	58056.42	30.13	39.04	7.94	19.19	7.68	30.74	5.10	0.97	4.29	1.01	2.55
97081008	7.69	106133.64	113.25	138.93	24.16	86.98	15.05	81.75	16.85	1.23	7.90	2.63	2.55
97081009	3.37	77975.63	70.84	119.82	18.76	54.01	13.54	54.16	6.83	1.23	8.17	2.33	1.65
97081010	7.30	76398.56	86.71	131.33	20.98	64.16	12.00	55.35	9.10	1.69	7.88	2.02	5.02
97081011	7.41	78602.14	73.94	82.96	14.88	35.38	10.56	56.88	6.13	0.72	4.46	0.98	4.05
97081012	8.20	51733.57	70.15	92.32	18.16	41.83	8.27	41.09	9.79	1.79	7.49	1.79	3.79
97081013	11.86	53648.18	77.13	109.01	18.91	56.17	8.93	44.11	12.27	1.53	9.20	2.17	5.77
97081014	9.36	53029.96	97.53	153.69	23.96	77.14	9.33	39.94	15.21	2.02	10.94	1.66	3.82
97081015	11.85	14483.92	91.44	174.91	27.70	83.11	4.95	28.79	14.13	2.55	13.27	3.23	7 43
97081016	11.20	71592.14	64.63	100.11	17.83	58.44	8.64	39.43	7.91	1.35	9.54	2.08	5.06
97081017	12.62	53298.06	28.75	35.96	8.83	15.46	5.63	34.42	2.47	1.21	3.18	1.03	3.88
97081018	7.42	43327.50	77.30	90.06	19.31	52.26	5.72	33.96	10.43	1.32	6.00	1.33	2.34
97081019	6.18	74673.42	106.33	171.22	26.10	89.59	14.53	55.41	16.57	2.38	12.69	2.95	7.01
97081020	5.89	59034.75	118.92	274.41	30.65	112.58	12.85	72.97	21.41	1.85	14.92	2.95	7.46
97081021	2.85	69199.11	69.94	135.50	18.22	64.69	10.73	44.30	13.91	1.64	6.66	1.88	4.60
97081022	3.76	21261.53	79.24	48.42	13.90	50.98	3.55	20.63	10.06	0.95	4.55	1.30	1.77
97081023	6.50	55182.09	69.84	126.01	17.33	62.20	7.74	33.31	12.55	1.96	7.67	1.70	5.96
97081024	6.82	13174.46	86.30	115.88	21.04	68.35	4.90	19.59	12.17	1.92	7.86	1.69	4.03
97081025	5.47	68378.76	81.43	122.01	15.97	48.78	10.06	41.11	10.29	1.09	6.13	1.15	2.45
97081026	2.76	74645.34	79.97	132.23	16.08	54.19	10.53	58.45	10.12	1.64	7.02	1.68	4.61
97081027	0.31	57509.20	38.86	34.19	8.81	20.77	8.21	36.11	3.47	0.05	2.92	0.37	0.87
97081028	8.99	52875.85	35.15	47.36	10.44	27.12	6.49	30.40	3.49	0.70	4.50	1.86	3.27
97081029	6.74	68023.37	56.68	73.50	13.47	39.05	9.16	35.17	6.19	0.87	7.76	1.56	3.78
97081030	10.08	85149.51	20.52	31.94	7.55	8.97	10.73	39.36	1.18	0.08	4.66	0.84	1.49
97081031	6.01	26110.13	103.06	154.06	24.49	86.59	5.08	32.26	16.47	1.87	8.75	1.94	5.65
97081032	5.90	28463.56	62.29	79.18	15.24	42.36	4.80	22.71	9.08	1.77	6.15	1.57	3.07
97081033	7.46	21392.34	125.81	136.01	27.40	96.79	4.70	24.10	13.01	2.52	11.90	2.57	4.77

97081 SERIES VEGETATION

ppb in solid													
SAMPLE	Te 128	Ba 135	La 139	Ce 140	Pr 141	Nd 144	Eu 151	Sm 152	Gd 158	Tb 159	Dy 162	Ho 165	Er 166
97081034	4.93	89334.16	91.51	129.55	23.18	83.70	14.35	58.70	14.06	2.58	12.94	1.96	4 56
97081035	4.89	65072.08	30.72	41.65	8.55	23.57	8.51	30.64	2.14	0.38	3.80	0.93	2.57
97081036	15.04	44960.47	62.79	93.25	14.06	41.24	7.81	32.92	5.82	0.98	6.25	1.08	2.58
97081037	9.76	68868.57	73.59	109.92	15.14	45.45	8.36	37.01	9.88	1.34	4 32	1.66	1.58
97081038	6.46	82751.91	45.39	64.35	9.87	28.32	11.11	44.66	4.68	0.29	4.92	1.38	1 62
97081039	7.73	32014.13	21.78	24.91	6.91	10.34	2 48	19.59	0.36	0.26	0.61	0.45	0.33
97081040	4.88	50409.37	421.52	879.47	110.07	443.71	24.52	112.75	84.91	11.03	66.92	12.11	31.84
97081041	2.18	47096.16	56.42	84.16	13.81	42.16	6.55	26.53	5.09	0.73	5.40	1.39	1.95
97081042	2.58	39067.67	25.43	41.82	8.28	17.93	5.97	17.02	3.19	0.02	3.55	1.30	1.10
97081043	10.72	49992.58	247.33	416.62	69.48	222.62	15.19	67.84	43.98	5.40	28.63	6.51	17.58
97081044	3.47	11910.34	159.30	211.87	40.57	137.68	5.18	33.55	24.25	3.51	13.75	2.96	7.03
97081045	12.49	83221.50	132.21	184.42	27.21	100.41	13.25	49.35	13.68	1.28	11.20	2.38	4 21
97081046	1.21	38189.91	34.07	49.24	8.53	20.83	3.44	19.44	3.42	0.24	3.55	0.71	2.67
97081047	6.15	16558.02	193.30	187.66	43.73	160.02	8.35	36.79	28.89	2.72	19.61	3.70	6.45
97081048	1.95	29895.61	89.51	142.50	22.08	75.16	5.47	31.04	13.44	1.59	11.02	2.60	6.21
97081049	6.51	30290.57	44.43	67.84	11.80	38.10	4.50	19.83	3.79	0.43	4.50	1.23	3.98
97081050	7.79	45418.01	43.23	64.21	10.80	26.92	7.09	28.38	7.03	0.33	4.00	1.49	2.68
97081051	6.36	12610.08	13.82	19.64	4.82	10.68	2.54	7.92	3.60	0.75	3.42	0.78	2.04
97081052	11.60	48439.75	221.39	229.73	44.23	141.23	8.63	51.74	25.23	3.46	15.74	4.39	8.49
97081053	7.96	18246.03	52.62	62.80	14.70	36.07	5.23	18.63	4.79	0.98	2.91	1.57	1.92
97081054	3.96	41157.81	96.23	119.64	22.57	76.71	7.74	34.67	13.09	1.66	8.90	2.38	5.78
97081055	4.89	37203.02	63.87	85.26	15.87	44.15	6.81	25.27	6.06	0.45	6.91	1.35	1.01
97081056	5.23	38499.00	94.51	151.93	23.41	81.43	7.79	33.21	14.64	1.45	12.23	2.55	5.25
97081057	4.00	20627.64	235.08	236.66	54.12	196.61	9.97	43.38	35.25	4.54	20.52	5.33	13.43
97081058	3.10	46280.85	49.64	75.51	13.42	36.35	6.07	28.99	4.82	0.89	4.97	1.09	1.99
97081059	9.27	35397.78	73.04	122.67	19.29	49.93	6.22	30.98	10.93	1.83	9.15	2.33	3.91
97081060	12.41	62052.78	42.19	61.42	14.70	26.45	6.33	35.17	5.53	1.14	6.35	1.94	2.49
97081061	3.86	64780.05	110.78	168.08	20.88	64.73	6.60	30.29	11.26	1.92	7.99	1.86	4.25
97081062	5.35	16371.70	50.50	84.73	12.63	38.96	2.41	13.78	5.38	1.39	5.37	1.30	1.50
97081063	9.61	39075.80	56.02	71.83	12.97	41.41	4.76	22.58	6.45	0.71	6.06	1.27	2.50
97081064	7.13	35790.00	32.04	51.12	8.59	17.78	4.24	18.81	2.27	0.13	1.84	0.55	1.12

97081 SERIES VEGETATION

ppb in solid													
SAMPLE	Tm 169	Yb 172	Lu 175	Hf 178	Ta 181	W 182	Re 185	Ir 191	Os 192	Pt 195	Au 197	Hg 202	Tl 203
97081001	0.02	0.39	0.89	1.18	2.71	47.19	0.02	0.54	0.02	0.23	0.47	46.36	1 00
97081002	0.09	0.20	0.37	1.99	3.85	31.98	0.04	0.56	0.02	0.29	0.58	45.72	0.49
97081003	0.08	0.16	0.45	2.07	4.72	37.93	0.05	0.38	0.01	0.21	0.43	50 43	0.58
97081004	0.19	0.30	0.51	1.34	3.02	52.98	0.11	0.03	0.00	0.09	0.18	29.16	7.17
97081005	0.14	0.21	0.46	1.32	2.95	87.26	0.01	0.07	0.01	0.10	0.21	23.74	2.12
97081006	0.01	0.19	0.64	1.74	3.20	87.29	0.07	0.04	0.01	0.09	0.18	45.03	1.22
97081007	0.09	0.12	0.28	2.11	2.85	62.76	0.03	0.08	0.01	0.11	0.23	28.83	0.83
97081008	0.07	0.27	1.02	1.08	3.07	18.90	0.02	0.05	0.01	0.17	0.33	31.01	0.72
97081009	0.13	0.07	0.23	1.02	2.92	27.35	0.03	0.14	0.00	0.06	0.12	37.88	0.43
97081010	0.12	0.14	0.74	1.24	2.93	37.21	0.04	0.18	0.00	0.17	0.35	43.42	1.15
97081011	0.05	0.06	0.18	0.90	3.16	12.21	0.04	0.13	0.03	0.29	0.58	23.67	1.05
97081012	0.13	0.36	0.58	0.77	3.07	20.91	0.04	0.39	0.01	0.22	0.45	43.78	1.84
97081013	0.10	0.32	0.52	1.92	2.04	19.37	0.01	0.01	0.01	0.13	0.26	38.17	1.40
97081014	0.18	0.18	0.56	1.00	3.10	13.25	0.04	0.02	0.01	0.08	0.17	32.19	8.07
97081015	0.13	0.36	0.91	1.64	2.73	83.84	0.01	0.22	0.02	0.12	0.23	55.39	2.93
97081016	0.04	0.36	0.10	0.95	3.33	129.44	0.02	0.30	0.00	0.10	0.20	46.93	3.20
97081017	0.04	0.24	0.36	1.18	2.93	17.08	0.02	0.36	0.01	0.14	0.27	38.53	7.41
97081018	0.13	0.02	0.34	1.05	3.07	20.44	0.04	0.02	0.00	0.10	0.21	29.22	1.49
97081019	0.14	0.26	1.58	1.12	2.78	30.44	0.04	0.03	0.01	0.03	0.06	35.05	2.99
97081020	0.11	0.19	0.39	0.89	2.98	16.45	0.06	0.03	0.02	0.11	0.21	4.94	10.24
97081021	0.13	0.26	0.10	1.07	2.51	12.37	0.03	0.02	0.00	0.11	0.22	25.96	3.99
97081022	0.08	0.07	0.46	0.82	2.25	37.24	0.02	0.02	0.01	0.10	0.21	22.06	0.48
97081023	0.15	0.36	0.45	1.00	2.77	45.45	0.02	0.06	0.01	0.17	0.34	11.93	0.41
97081024	0.10	0.29	0.25	1.91	2.43	14.16	0.03	0.00	0.02	0.15	0.30	25.26	3.28
97081025	0.11	0.06	0.58	0.82	2.43	13.08	0.01	0.04	0.01	0.10	0.19	26.04	1.49
97081026	0.10	0.15	0.14	0.48	2.32	9.13	0.07	0.14	0.00	0.11	0.21	10.31	0.89
97081027	0.02	0.11	0.22	1.48	2.40	34.25	0.05	0.07	0.03	0.16	0.32	12.02	0.02
97081028	0.06	0.15	0.22	1.12	3.03	49.67	0.06	0.25	0.02	0.17	0.35	19.64	0.38
97081029	0.04	0.23	0.06	1.14	3.04	12.41	0.00	0.06	0.01	0.20	0.41	29.68	1.93
97081030	0.03	0.24	0.19	0.45	2.23	12.29	0.04	0.17	0.02	0.13	0.25	32.02	2.69
97081031	0.06	0.27	0.09	1.24	3.03	10.02	0.05	0.06	0.00	0.04	0.08	13.03	0.34
97081032	0.08	0.31	0.37	2.17	2.41	11.37	0.04	0.13	0.02	0.10	0.19	12.46	0.50
97081033	0.11	0.29	0.62	0.57	2.29	6.70	0.05	0.25	0.00	0.16	0.31	19.07	0.40

97081 SERIES VEGETATION

ppb in solid SAMPLE	Tm 169	Yb 172	Lu 175	Hf 178	Ta 181	W 182	Re 185	Ir 191	Os 192	Pt 195	Au 197	Hg 202	Tl 203
97081034	0.18	0.41	0.79	0.64	2.36	65.26	0.03	0.11	0.01	0.07	0.13	15.34	1.02
97081035	0.12	0.08	0.01	0.38	2.26	30.92	0.03	0.16	0.00	0.08	0.17	21.43	0.51
97081036	0.03	0.39	0.25	1.14	2.59	12 98	0.01	0.18	0.01	0.12	0.25	21.89	3.19
97081037	0.12	0.15	0.21	0.62	1.86	9.36	0.04	0.08	0.00	0.15	0.29	14.74	8 56
97081038	0.05	0.25	0.09	0.65	2.37	13.54	0.05	0.15	0.01	0.09	0.18	7.99	1.58
97081039	0.02	0.15	0.39	0.27	2.01	9.95	0.06	0.20	0.03	0.09	0.17	6.90	0.26
97081040	0.47	2.23	3.04	1.97	2.69	11.05	0.06	0.13	0.00	0.06	0.12	8 04	0.46
97081041	0.03	0.03	0.10	0.46	2.23	23.38	0.07	0.09	0.01	0.11	0.22	13.70	2.12
97081042	0.05	0.05	0.11	0.86	2.62	15.42	0.04	0.04	0.02	0.07	0.14	11.07	0.06
97081043	0.30	0.64	0.92	1.34	2.66	23.78	0.08	0.02	0.01	0.18	0.36	9.05	4.58
97081044	0.19	0.14	0.62	1.85	2.21	7.38	0.01	0.06	0.02	0.09	0.18	18.84	0.68
97081045	0.04	0.12	0.58	0.95	2.42	13.79	0.03	0.22	0.03	0.15	0.30	29 28	1.65
97081046	0.05	0.03	0.12	0.83	2.40	13.04	0.00	0.26	0.01	0.11	0.21	7.06	0.52
97081047	0.15	0.67	0.90	1.85	2.85	12.68	0.05	0.08	0.01	0.10	0.19	10.20	0.15
97081048	0.13	0.29	0.40	1.02	2.15	7.64	0.02	0.15	0.01	0.13	0.26	8.75	4.22
97081049	0.11	0.13	0.38	0.62	2.50	6.46	0.01	0.00	0.00	0.07	0.14	15.71	6.59
97081050	0.08	0.01	0.02	1.06	2.47	10.77	0.01	0.07	0.00	0.12	0.24	12.95	1.84
97081051	0.11	0.19	0.28	0.84	0.96	5.31	0.00	0.34	0.01	0.06	0.12	13.33	0.40
97081052	0.06	0.20	1.00	0.91	1.31	9.52	0.00	0.03	0.02	0.12	0.23	32.59	1.36
97081053	0.06	0.01	0.17	0.92	1.69	35.36	0.00	0.13	0.02	0.08	0.17	12.76	0.28
97081054	0.10	0.22	0.24	0.95	2.75	10.38	0.04	0.07	0.01	0.08	0.16	9.75	1.92
97081055	0.08	0.08	0.27	0.90	2.44	11.59	0.06	0.21	0.02	0.06	0.12	2.73	1.08
97081056	0.14	0.31	0.26	1.05	1.69	5.24	0.01	0.10	0.01	0.03	0.06	4.72	0.85
97081057	0.14	0.54	0.34	1.16	2.40	10.52	0.04	0.11	0.01	0.08	0.16	1.91	0.15
97081058	0.06	0.13	0.00	0.45	2.31	8.01	0.05	0.13	0.01	0.09	0.19	6.91	0.09
97081059	0.07	0.09	0.63	1.63	5.56	11.32	0.08	0.16	0.01	0.07	0.14	5.07	0.02
97081060	0.08	0.23	0.05	1.92	3.65	18.87	0.06	0.21	0.02	0.11	0.22	9.82	0.78
97081061	0.08	0.10	0.19	1.70	2.38	5.81	0.02	0.05	0.01	0.04	0.07	8.38	4.92
97081062	0.12	0.10	0.09	0.78	2.42	12.09	0.02	0.12	0.00	0.07	0.14	9 67	1.87
97081063	0.13	0.02	0.02	1.63	2.28	7.57	0.04	0.10	0.01	0.11	0.23	5.81	4.39
97081064	0.04	0.14	0.17	1.18	2.50	5.02	0.04	0.15	0.01	0.08	0.17	0.26	0.64

97081 SERIES VEGETATION

ppb in solid								
SAMPLE	Pb 208	Bi 209	Th 232	U 238		(Y*Ce*Nd)/100	*La*Eu)/100000	
97081001	18705.92	133.82	6.84	2.00		12	68	
97081002	763.63	51.50	4.99	1.50		4	16	
97081003	492.93	58.65	5.10	2.19		156	363	
97081004	369.56	34.50	4.57	1.37		51	765	
97081005	210.51	36.75	4.57	1.37		10	125	
97081006	466.54	59.47	4.19	1.40		56	357	
97081007	125.58	26.76	3.22	1.35		1	35	
97081008	322.84	33.44	3.02	1.21		74	530	
97081009	282.90	30.03	3.65	1.11		32	264	
97081010	274.40	53.72	4.69	1.53		45	471	
97081011	191.09	21.66	2.82	0.73		11	116	
97081012	215.23	29.81	3.09	2.17		17	124	
97081013	128.21	18.30	1.90	0.93		31	74	
97081014	209.56	24.82	4.88	0.94		74	150	
97081015	245.59	21.87	4.89	1.87		98	115	
97081016	182.03	29.59	4.14	2.13		30	100	
97081017	112.60	25.16	2.55	0.81		1	21	
97081018	175.56	25.42	3.42	1.31		21	73	
97081019	135.95	20.39	3.70	1.63		127	196	
97081020	240.81	23.58	4.97	1.63		263	105	
97081021	189.67	20.55	4.26	0.87		45	117	
97081022	212.14	39.70	2.13	0.51		10	9	
97081023	169.21	35.27	3.69	1.41		48	64	
97081024	218.79	19.37	2.83	0.66		40	17	
97081025	141.95	22.00	2.21	1.17		27	156	
97081026	189.19	19.87	1.52	0.45		38	120	
97081027	113.28	18.37	1.03	2.29		1	68	
97081028	101.50	26.66	1.30	1.78		3	32	
97081029	153.51	24.77	1.89	1.33		10	69	
97081030	92.62	13.38	1.39	1.06		0	51	
97081031	191.15	22.63	3.37	0.88		88	17	
97081032	132.25	18.00	2.16	0.67		10	10	
97081033	188.14	39.45	2.80	1.12		89	32	

APPENDIX 4

Drillhole Summary

Drill Results for EL 7642

Annual Report for the period 22/01/97 to 21/01/98

						Diamond			
Anomaly	Hole	Sample	Interval	Metres	Result	Micro	Macro	Chromite	Other
SBIV01	WL 105	97092-001	03-23	28	npro	-	-	-	-
	WL106	97092-002	03-23	33	npro	-	-	-	-
		97092-003	23-33		npro	-	-	-	-
	WL 107	97092-004	03-22	22	npro	-	-	-	-
SBIV02	WL 108	97092-005	03-23	25	npro	-	-	-	-
	WL 109	97092-006	03-16	16	npro	-	-	-	-
SBIV03	WL 110	97092-007	04-15	22	npro	-	-	-	-
		97092-008	15-22		npro	-	-	-	-
		97092-010	11-12		Geochem analysis				
		97092-011	18-19		Geochem analysis				
	WL 111	97092-009	03-21	25	npro	-	-	-	-
		97092-012	14-15		Geochem analysis				
		97092-013	10-11		Geochem analysis				
		97092-014	22-24		Geochem analysis				

APPENDIX 5

Drill Logs

ASHTON MINING LIMITED

RAB HOLE: WL 105

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE | Anomaly/~~Line~~: GEOBOT. # 1 | Topographic map: KILGOUR 1:100 000

Grid Coordinates: — | AMG Coordinates: 579085 E 8117410 N

Tot.Depth: 28m	Hole Size: 4"	Azimuth: —	Inclination: −90°	Bit: HAMMER	Date: 5-10-97	Page: 1 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10⁻⁵ S.I. Units					
0	1m	—	Greyish-brn, fine-med. gr. soil - mod. consolidated.	0-28	<5				
1	2m	—	Brn, clayey soil overburden. Consolidated						
2	3m	—	Predom. fine gr., orange-red (mottled), dry, mod. weathered						
			clayey sl'st ~10% compact frags of fine gr., grey SST.						
3	5m	001	Orange-red (+ commonly mottled with green, white tints) fine gr.						
			dry but slightly plastic clay - abundant coarse gr. rock frags in						
			matrix. Consolidated material. ~10% grey l'st frags in 4-5m						
5	6m		l. grey, v. fine gr. l'st. 1-2% orange-red clay.						
6	22m		Olive-grey to grey l'st. Fine crystalline gr. comp. Hard						
			rock. Common dark spots on many frags <1-2mm diam. Readily						
			fizzes in acid. ~1% dark, vitreous chert frags. Very						
			uniform appearance in this interval.						
22	23m		L'st as above but v. small vol. of sample return due to						
			presence of water down-hole.						

ASHTON MINING LIMITED

RAB HOLE: WL 105

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE Anomaly/~~Line~~: GEOBOT. # (1) Topographic map: KILGOUR 1:100000

Grid Coordinates: — AMG Coordinates: 579085 E 8117410 N

Tot.Depth: 28m	Hole Size: 4"	Azimuth: –	Inclination: -90°	Bit: HAMMER	Date: 5-10-97	Page: 2 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix	Description	Magnetic Susceptibility X10^{-5} S.I. Units
23	24m	NO	L'st → but now water is flowing out of hole. Sample v.	
		SAMPLE	muddy + dried like cement.	
24	28m	POSSIBLE!	Sample is a muddy - brn material consisting of l'st chips	
			in a matrix of clay which has been washed out from	
			up-hole + has contaminated the sample.	
			E.O.H.	
			- Hole abandoned at 28m due to cavity penetration.	
			SUM: 0-2m: Clayey soil overburden.	
			2-4m: Weathered clayey sl'st + minor sst.	
			4-5m: Interface of overburden + l'st.	
			5-23m: Hard, grey l'st - uniform seq.	
			23-28m: Watertable - contaminated l'st sample +	
			cavity at base.	

ASHTON MINING LIMITED

RAB HOLE: WL 106

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE | Anomaly/~~Line~~: GEOBOT. # 1 | Topographic map: KILGOUR 1:100 000

Grid Coordinates: — | AMG Coordinates: 579065 E 8117375 N

Tot.Depth: 33m | Hole Size: 4" | Azimuth: — | Inclination: -90° | Bit: HAMMER | Date: 5-10-97 | Page: 1 / 3

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10⁻⁵ S.I. Units	
0	1m	—	Orange-brn, clayey, compacted soil overburden. Mod. sorted	0-1	70
			Friable clayey (but dry) aggregates common. ~5% purplish pisolits	1-2	20
1	2m	—	Brn (slight orange tinge), dry + friable clay-rich overburden.	2-3	130
			V.Fine gr. matrix, with common coarse + med.gr. pro + qtz frags.	3-4	40
2	3m	—	Abundant reddish-purple, sub-rounded Fe-rich pisolitis	4-5	10
			gen. ½-1cm but often larger (to ~2cm). ~30% brn, clayey	5-33	<10
			matrix simi. to above material.		
3	4m	002	Red-brn, fine-med gr. v. weathered, dry + friable, clayey sl'st		
			+ ~5% competent frags. of fine gr., grey sst. Occ. pisolitis		
4	5m		Fine gr. clay - reddish-brn colour with common mottled (green-orange		
			-white) + streaked (black + white) zones.		
5	8m		Creamy-biege coloured, fine gr. sandy sl'st. Common		
			orange, rust + white mottling. Commonly clayey esp at 5-6m,		
			with more competent rock frags at 7-8m. ~1% grey chert		

ASHTON MINING LIMITED

RAB HOLE: WL 106

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE Anomaly/~~Line~~: GEOBOT. # 1

Topographic map: KILGOUR 1:100 000

Grid Coordinates: —

AMG Coordinates: 579065 E 8117375 N

Tot.Depth: 33m	Hole Size: 4"	Azimuth: —	Inclination: -90°	Bit: HAMMER	Date: 5-10-97	Page: 2 / 3

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10^{-5} S.I. Units
5	8m	002	CONT... frags. → esp. at 7-8m.	
8	17m		V. fine gr + crystalline, grey l'st. Abundant small rock	
			frags in drill spoil + fine, white CO_3^- powdered dust. L'st	
			frags commonly have brn +/or white staining. V. hard + competent rock.	
			< 1% dark vitreous chert + minor pisolitic carbon.	
17	22m		Sim. L'st as above but slightly more powdered dust in	
			drill spoil.	
22	23m		L'st - grey, fine gr. + v hard. Small sample return + partially damp	
23	26m	003	Water flowing out of hole - L'st sample is v. muddy +	
			sets hard as cement in sun.	
26	33m		Sample consists of L'st chips sim. as above but	
			set in a d. brn, muddy, clay-rich matrix caused from	
			contam. wash-in from up the hole → due to excess	
			vol of water, NB: Orig. rock at this depth is only L'st.	

ASHTON MINING LIMITED

RAB HOLE: WL 106

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJC

Prospect: IVANHOE

Anomaly/~~Line~~: GEOBOT. # 1

Topographic map: KILGOUR 1:100000

Grid Coordinates: —

AMG Coordinates: 579065 E 8117375 N

Tot.Depth: 33m	Hole Size: 4"	Azimuth: –	Inclination: -90°	Bit: HAMMER	Date: 5-10-97	Page: 3 / 3

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10^{-5} S.I. Units
26	33m	003	Abundant rounded pisolitics + sl'st/s'st frags from	
		⊥	0-8m interval are evident in the contam. slurry	
			in this interval. The % of l'st chips also	
			diminishes towards the end-of-hole, + the sample	
			becomes considerably more clay-rich.	
			E.O.H.	
			→ Hole abandoned due to lithology + b/c of	
			inc. chance of hole collapse/cave-in due to excess water.	
			SUM: 0-2m: Clayey soil overburden.	
			2-5m: Pisolitics + clayey v. weathered sl'st.	
			5-8m: Less weathered sandy sl'st.	
			8-26m: Uniform L'st seq. (Water at 23m.)	
			26-33m · Contam. L'st-clay combo. (L'st only at this depth	

ASHTON MINING LIMITED

RAB HOLE: WL 107

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE

Anomaly/~~Line~~: GEOBOT. # 1

Topographic map: KILGOUR 1:100 000

Grid Coordinates: –

AMG Coordinates: 5~~49~~79135 E 811743~~50~~35 N

Tot.Depth: 22m	Hole Size: 4"	Azimuth: –	Inclination: -90°	Bit: HAMMER	Date: 6-10-97	Page: 1 / 1

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10⁻⁵ S.I. Units					
0	2m	–	Fine-med. gr., clayey, d. brn 'black soil' overburden.	0-2	<5				
2	3m	–	5% 'black soil' clay aggreg.; 10% d. grey, glassy chert with fine gr.	2-3	10				
			white, hard vinn + 80% brn-red, sandy v. weathered sl'st	3-22	<5				
			- often partly clayey, gen. fine gr with occ. med-coarse gr. particles						
3	4m	004	Orange-red, fine gr. sandy sl'st. Weathered, partly clayey rock.						
			+ ~5% grey chert frags.						
4	5m		Creamy-biege to l. brown fine gr. sandy sl'st. Less weathered.						
			Abundant chert frags (~15%) often >1cm.						
5	22m		Pale, grey + occ. biege or white L'st. Hard crystalline						
			rock. Fine gr. No fossils etc. Readily reacts with						
			HCl. Very uniform seq.						
			Slightly damp l'st powder in 21-22m.						
			E.O.H.						

ASHTON MINING LIMITED

RAB HOLE: WL 108

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE | Anomaly/~~Line~~: GEOBOT. # 2 | Topographic map: KILGOUR 1:100 000

Grid Coordinates: — | AMG Coordinates: 579290 E 8117445 N

Tot.Depth: 25m	Hole Size: 4"	Azimuth: —	Inclination: -90°	Bit: HAMMER	Date: 7-10-97	Page: 1 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10⁻⁵ S.I. Units					
0	2m	—	Dry, mod. clayey 'black soil' overburden. Grey-brn. colour;	0-2	10				
			med. gr. particles with some pisolitics <1cm. Mod. friable.	2-3	20				
2	3m	—	Westhend, orange-pink fine gr. sandy sl'st. 10% black soil frags	3-5	10				
3	4m	005	Biege - l.brown coloured, fine gr. sst/sl'st. Common	5-25	<10				
			partly plastic frags. of orange-red, gritty clay. ~10% hard,						
			white, fine gr. sst frags → seem to be assoc. with black, vitreous						
			chert (~2% only).						
4	5m		70% mod. hard, fine gr. l.brn. sst - with only minor clay						
			assoc. Rare chert. 30% grey l'st. chips.						
5	6m		V.hard, brn-grey, finely crystalline l'st. Abundant small						
			rock chips in sample. Minor chert frags. also.						
6	17m		Limestone + minor chert.						
17	19m		L'st as above + ~1% minor soft, part. plastic, brn-grey						
			carbonate clay → poss. thin seams in l'st?						

ASHTON MINING LIMITED

RAB HOLE: WL 108

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE

Anomaly/~~Line~~: GEOBOT. # (2)

Topographic map: KILGOUR 1:100000

Grid Coordinates: —

AMG Coordinates: 579290 E 8117445 N

Tot.Depth: 25m	Hole Size: 4"	Azimuth: —	Inclination: -90°	Bit: HAMMER	Date: 7-10-97	Page: 2 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10⁻⁵ S.I. Units
19	22 m	005	Hard, grey, fine gr 1'st. Fizzes in acid weakly. Some	
			orange 1'st frags. Some dust	
22	23m	⊥	Slightly damp 1'st with only small sample return	
23	25m	NO SAMPLE POSSIBLE	Muddy 1'st slurry with up-hole clayey contam.	
			due to washed-in material. Water flowing out of	
			ground.	
			E.O.H	

ASHTON MINING LIMITED

RAB HOLE: WL 109

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE

Anomaly/~~Line~~: GEOBOT. # 2

Topographic map: KILGOUR 1:100000

Grid Coordinates: —

AMG Coordinates: 579320 E 8117410 N

Tot.Depth:	Hole Size:	Azimuth:	Inclination:	Bit:	Date:	Page:
16m	4"	—	-90°	HAMMER	7-10-97	1 / 1

Interval (m) From	Interval (m) To	Sample No. Prefix 97-0912	Description	Magnetic Susceptibility X10^{-5} S.I. Units	
0	2m	—	Dry, fine-med. gr. 'black soil' overburden. Mod. consolidated but	0-2	10
			gen. friable. Grey-brn. colour. V. occ. small pisolitics.	2-16	<10
02	3m	—	75% 'black soil' as above + 25% weathered lst.		
3	16m	006	Brn-grey, with occ. pale orange + white mottling. Hard to		
			v. hard. fine gr. crystalline lst. Competent rock. Fresh,		
			unweathered appearance.		
			E.O.H		
			SUM: 0-2.5m: Black soil overburden		
			2.5-16 m: Limestone		

ASHTON MINING LIMITED

RAB HOLE: WL 110

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: VANHOE Anomaly/~~Line~~: GEOBOT. # 3 Topographic map: KILGOUR 1:100 000

Grid Coordinates: — AMG Coordinates: 579102 E 8117668 N

Tot.Depth: 22m | Hole Size: 4½" | Azimuth: — | Inclination: -90° | Bit: HAMMER | Date: 7-10-97 | Page: 1 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description ENTERED	Magnetic Susceptibility X10⁻⁵ S.I. Units	
0	1m	—	Reddish-brn, poorly sorted soil - un- to semi-consolidated with	0-2	300
			~25% brn/purple sub-rounded pisolitts av. ~1cm diam + smaller.	2-3	60
1	2m	—	75% red-purple + brn-purple, sub-rounded limonitic pisolitts	3-4	20
			+ occ. frags. of hard, silicified m'st. Av. ~1cm diam. but	4-22	< 10
			commonly up to 2cm. 25% red-brn soil matrix.		
2	3m	—	Dry, orange-brn, often gritty clay. ~5% pisolitts + fractured		
			frags. of l'st. Friable		
3	4m	—	Orange clay - often with grey, green mottling. Gen. soft - mod.		
			hard but compact. Mod. plastic. Some gritty qtz grains.		
			c 1-2% purplish pisolitts		
4	5m	007	Compact, v. fine gr. clay. Soft. Dom. khaki-grey colour		
			but with orange, grey, green mottling. Chips readily break along		
			irregular fracture planes		
5	6m		60% d. brn, fine gr. l'st 40% pale, clay + hard frags		

ASHTON MINING LIMITED

RAB HOLE: WL 110

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE | Anomaly/~~Line~~: GEOBOT. # 3 | Topographic map: KILGOUR 1:100 000

Grid Coordinates: — | AMG Coordinates: 579102 E 8117668 N

Tot.Depth: 22m	Hole Size: 4½"	Azimuth: —	Inclination: -90°	Bit: HAMMER	Date: 7-10-97	Page: 2 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description	Magnetic Susceptibility X10⁻⁵ S.I. Units
5	6m	007	cont... of pale l'st - gen. irregular shape	
6	7m		D. brn, hard + fine gr. lst + ~10% brn, soft + plastic clay	
7	8m		Hard, brn, v. fine gr. lst + minor clay (carbonate)	
8	11m		V. fine gr; lst - clayey matrix. Gen. l greyish-white	
			or orange clay. Usually mod. soft + friable. Clayey texture	
			+ feel.	
11	13m		l. brn-grey, very slightly gritty clay but ess. fine gr.	
			Soft but mod. compact. Poss. altered l'st?.	
13	14m		V. fine gr., yellowish-orange lst - has a clayey feel. Soft.	
			~5-10% soft grey clay	
14	15m		As for 11-13m + ~5% fine gr. orange clayey lst.	
15	16m	008	80% grey, hard L'st ; 20% soft, brn-grey, fine gr. clay	
16	22m		Hard, brn-grey L'st. ~1% carbonate clay - grey/green,	
			soft + plastic - in most 1m intervals. Cavity at 22m. EOH.	

ENTERED

ASHTON MINING LIMITED

RAB HOLE: WL 111

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by: SJL

Prospect: IVANHOE

Anomaly/~~Line:~~ GEOBOT. # 3

Topographic map: KILGOUR 1:100 000

Grid Coordinates: —

AMG Coordinates: 579105 E 8117703 N

Tot.Depth: 25m	Hole Size: 4½"	Azimuth: —	Inclination: -90°	Bit: HAMMER	Date: 7-10-97	Page: 1 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description ENTERED	Magnetic Susceptibility X10⁻⁵ S.I. Units
0	2m	—	Compact, clay-rich d.brn. soil. Typical 'black soil'.	
2	3m	—	50% black, clayey soil + 50% weathered, pale l'st.	
3	7m	009	Hard, fine gr. crystalline l'st. Var. pale-dark grey + minor	
			frags. of v.hard, glassy chert. 1-2% soft, orange-coloured carbonate	
7	8m		70% hard, grey l'st a.a. + 30% soft, partly clay-rich, orange	
			coloured carbonate → poss. altered l'st?	
8	12m		Whitish-grey + occ. greenish-grey; soft carbonate clay (reacts	
			with HCl). Gen. not plastic material – but compact. V. fine gr.	
			Also ~5% hard l'st frag's. + minor glassy chert	
12	13m		50% hard, fine gr. crystalline, grey l'st + 50% soft,	
			clayey orange carbonate (altered l'st?).	
13	16m		Yellowish-orange to pale orange-white carbonate. Fine gr	
			~75% of sample is mod.hard-hard (not as hard as grey	
			l'st though!) ~25% rel. soft, clayey material a.a.	

ASHTON MINING LIMITED

RAB HOLE: WL 111

GEOLOGICAL LOG FOR ROTARY AIR BLAST DRILLHOLE

Logged by:

Prospect:	Anomaly/Line:				Topographic map:	
Grid Coordinates:					AMG Coordinates: E N	
Tot.Depth:	Hole Size:	Azimuth:	Inclination:	Bit:	Date:	Page: 2 / 2

Interval (m) From	Interval (m) To	Sample No. Prefix 97-092	Description ENTERED	Magnetic Susceptibility X10^{-5} S.I. Units
16	18m	009	Pale orange-brn., mod. hard l'st. + ~20%	
			v.hard, crystalline grey l'st + ~10% mod. soft, plastic	
			clay-rich carbonate material.	
18	21m		Hard l'st, fine gr. calcite. ~2% greenish-grey CO_3 clay	
21	22		Mod. soft, greyish-white fine gr. slightly plastic	
			carbonate clay + minor % hard, grey l'st.	
22	25m		Intersected water table at ~22m.	
		ALSO: GEOCHEM	Sample material is highly contam. due to water	
		10-11m: 013	flushing out clay-rich intervals. Ess. only a brown,	
		14-15m: 012		
		22-24m: 014	sloppy mud sample with work frags. of hard, grey	
			l'st.	
			Cavity intersected at 25.5m. E.O.H.	

APPENDIX 6

Geochemical Results
(Drill Spoils)

GEOCHEMICAL RESULTS
EL 7642

Annual Report for the Period 22nd January 1997 to 21st January 1998

Sample	Sr	Ba	P	Cr	Ni	Ce	La	Nb	Nd	Sm	Eu
97092-010	44	553	657	25	25	16	62	<10	15	10	2
97092-011	84	130	2780	21	13	24	15	<10	12	<5	2
97092-012	30	140	972	28	17	27	20	<10	15	<5	3
97092-013	42	167	1123	36	26	45	35	13	25	<5	2
97092-014	52	67	527	23	18	18	12	<10	<10	<5	2
Method	I104	I104	I104	I104	I104	I104	I104	I104	I104	I104	I104
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Det. Limit	1	5	30	10	10	10	5	10	10	5	1

APPENDIX 7

Statement of Expenditure

STATEMENT OF EXPENDITURE

EXPLORATION LICENCE 7642

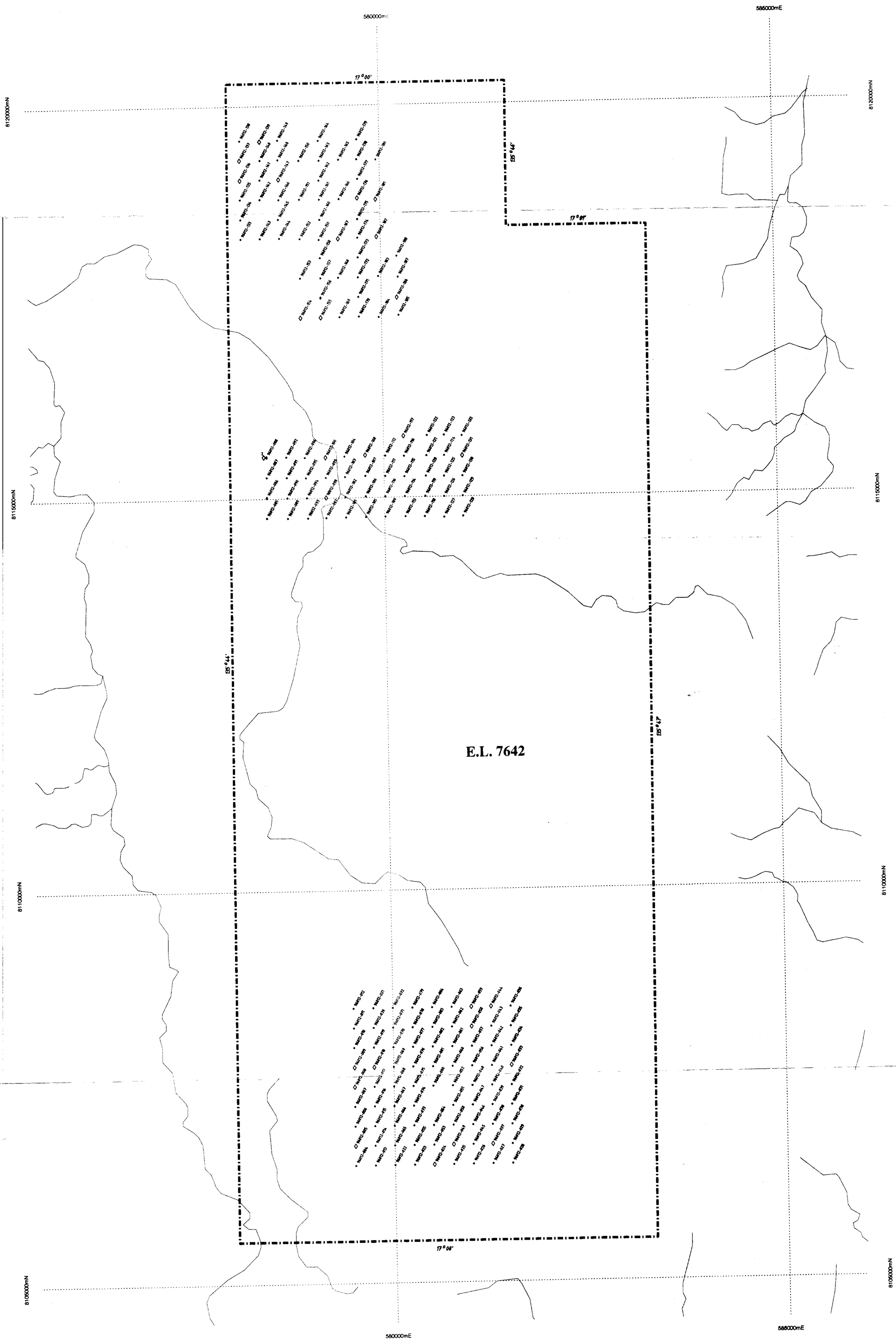
Annual Report

For the period
22nd January, 1997 to 21st January, 1998

Geoscientist/Professional Staff	6,564
Field Support/Office Staff	6,504
Other Contractors	316
Travel/Accommodation/Meals	3,779
Field Supplies	821
Equipment	805
Vehicles	1,926
Freight/Storage	3,671
Helicopter Charter	3,788
Drilling	4,860
Geochemistry	7,818
Laboratory	70,506
Drafting/Computing	417
Other	81
Sub-Total	111,856
Overheads	11,185
Total:	**$ 123,041**

97081 SERIES VEGETATION

ppb in solid								
SAMPLE	Pb 208	Bi 209	Th 232	U 238		(Y*Ce*Nd)/100	*La*Eu)/100000	
97081034	140.76	19.08	2.44	0.92		74	192	
97081035	90.39	25.19	1.53	0.80		2	17	
97081036	111.16	20.31	1.31	1.00		13	56	
97081037	95.33	14.73	1.91	0.86		19	61	
97081038	142.07	24.81	1.26	1.18		4	98	
97081039	79.13	13.58	0.43	0.46		0	5	
97081040	207.11	19.82	8.54	2.34		13477	1513	
97081041	204.25	55.33	1.71	1.02		13	63	
97081042	102.61	20.32	2.21	0.38		1	12	
97081043	259.71	27.13	5.39	1.34		1593	466	
97081044	181.88	31.17	2.85	1.30		299	64	
97081045	203.06	27.77	3.14	0.79		132	269	
97081046	89.01	23.34	2.05	0.90		1	10	
97081047	202.51	26.29	3.83	1.26		391	82	
97081048	134.18	24.02	4.19	0.98		63	42	
97081049	121.95	16.58	2.18	0.50		7	13	
97081050	132.49	14.11	1.90	0.99		4	35	
97081051	33.81	6.76	0.87	0.93		0	1	
97081052	142.53	13.10	0.62	1.76		361	594	
97081053	92.98	16.76	1.84	0.64		6	24	
97081054	147.43	20.16	1.76	0.57		60	65	
97081055	147.50	31.36	1.75	1.16		13	62	
97081056	105.91	13.05	1.70	0.98		75	94	
97081057	175.96	23.85	1.15	0.94		772	145	
97081058	98.49	20.11	1.93	0.63		8	24	
97081059	147.86	28.46	2.96	0.78		31	38	
97081060	121.27	37.59	2.09	2.01		4	34	
97081061	168.27	33.71	1.38	0.63		66	188	
97081062	102.05	18.94	2.12	1.12		11	21	
97081063	83.77	17.20	1.96	0.52		9	48	
97081064	55.46	7.04	0.92	0.53		1	13	



CR98/259

- Sample - not yet processed
- Sample - negative
- Sample - chromite positive
- Sample - diamond positive
- Sample - other indicators
- Geochemical sample location
- Drill hole location

KILOMETRES
0.5 0 0.5 1.0 1.5 2.0 2.5
1 : 25,000

ASHTON MINING LIMITED

A.D.E. JOINT VENTURE

EXPLORATION LICENCE 7642
ANNUAL REPORT
SAMPLE LOCATIONS

PLAN 1

Geologist :	Date : February, 1998	Report No : 52196
Drafted : M.F Arioti	Revised :	Drawing No :