# Open File Envelope No. 6819

**EL 1376** 

#### HOPE BANK

#### PROGRESS AND FINAL REPORTS FOR THE PERIOD 5/1/87 TO 5/7/88

Submitted by

**CRA Exploration Pty Ltd** 1988

© open file date 30/9/88

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Enquiries: Customer Services

Ground Floor

101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000 Facsimile: (08) 8204 1880



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#### CRA EXPLORATION PTY. LIMITED

(INC. IN N.S.W.)

Adelaide Office: 31 OSMOND TERRACE, NORWOOD 5067 Head Office: 55 COLLINS STREET, MELBOURNE 3001

P.O. BOX 254 Norwood

**TELEPHONE: 42 8871** 

TELEGRAMS: "EXPLORECO"

TELEX: AA 88605

30th April, 1987

The Director-General,
Department of Mines & Energy, South Australia
P.O. Box 151,
EASTWOOD. S.A. 5063.

Dear Sir,

Re:

Hope Bank E.L. 1376, S.A.

Report For Quarter Ended 5th April, 1987

No field work was undertaken.

Digital aeromagnetic data was purchased from the BMR. Data will be COMTAL imaged by CRAE's Canberra Research Group to aid geological mapping.

Expenditure for the quarter to the nearest accounting period amounted to to: \$5339.00. The expenditure consisted of:

Payroll	\$1770.00
General Supplies	\$ 414.00
Vehicle Operation	\$ 80.00
Travel	\$1434.00
Property	\$ 720.00
General Overheads	~\$~92 <b>1</b> <del>;</del> 00°
	•
Total	\$5339.00

Yours faithfully,

W.H. JOHNSTON

CHIEF GEOLOGIST, S.A./N.T.

WHJ/pq



P.O. BOX 254 Norwood

**TELEPHONE: 42 8871** 

TELEX: AA 88605

TELEGRAMS: "EXPLORECO"



#### CRA EXPLORATION PTY. LIMITED

(INC. IN N.S.W.)

Adelaide Office: 31 OSMOND TERRACE, NORWOOD 5067 Head Office: 55 COLLINS STREET, MELBOURNE 3001

9th July, 1987

The Director General, S.A. Department of Mines & Energy, P.O. Box 151, EASTWOOD. S.A. 5063

Dear Sir,

Re:

HOPE BANK E.L. 1376

Second Quarterly Report - Period Ending 5 July, 1987

No field work was undertaken.

Digital aeromagnetic data purchased from the BMR was COMTAL imaged by CRAE Canberra Research Group.

A detailed stream geochemical sampling has been planned and is programmed to commence in mid July 1987. Concurrently a detailed stratagraphic mapping at 1:40 000 scale will be undertaken.

Expenditure for the quarter to the nearest accounting period amounted to \$1,443.00, the expenditure consisted of:

Payroll \$ 892.00 General Supplies \$ 119.00 General Overheads \$ 432.00

\$1443.00

Yours faithfully,

W.H. JÓHNSTON
Chief Geologist

WHJ/dp

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AND ENERGY
SECURITY

191 19

#### CRA EXPLORATION PTY. LIMITED

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# THIRD QUARTERLY REPORT FOR HOPE BANK EL 1376, SOUTH AUSTRALIA, FOR THE PERIOD ENDING 5TH OCTOBER, 1987

**AUTHORS:** 

B. MURRELL

S.P. SUGDEN

DATE:

21ST OCTOBER, 1987

COPIES TO:

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SUBMITTED BY:

ACCEPTED BY:



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SAa 4244 SAa 4742	Hope Bank EL 1376, S.A Location Plan Hope Bank EL 1376, S.A Sample Sites, Catchments and Geology - Overbank Clays	1:250 000 1:100 000

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Table 1

Adelaidean Stratigraphy - Hope Bank EL 1376

#### LIST OF APPENDICES

 ${\tt Appendix} \ {\tt I} \qquad \qquad {\tt Analytical} \ {\tt Results}$ 

#### 1. SUMMARY

Overbank silt samples were collected from four hundred and fifty-two catchments in the 0.5  $\rm km^2$  to 5.0  $\rm km^2$  size range. A nominal -10 micron fraction separated from these samples was analysed for twenty elements including gold. A further one hundred and ten soil samples east of the Waukaringa Mine and from the drainage divides of the catchment sampled by 1239595 and six rock samples from miscellaneous locations were also collected.

Mapping of the licence area showed that the Tarcowie Siltstone, the host of the Waukaringa and Ajax Mines, changed along strike from being a prominent ridge-forming unit to one of low relief favoured as drainage lines. These portions were not tested by previous licence holders, nor covered by sampling in this survey. Sampling is recommended.

Forty adjacent catchments anomalous in gold only, all drain the upper glacial sequence (Elatina Subgroup). This reinforces the indication from the regional survey that gold concentrations occur at this stratigraphic level (e.g. at the Dustholes Mine, Mt. Grainger) and are probably fluvial concentrations.

#### 2. LOCATION

Hope Bank EL 1376 is located approximately 20 km north west of the Yunta township on the Adelaide-Broken Hill Highway (plan no. SAa 4244).

#### 3. RECOMMENDATIONS

#### 3.1 Interpretation

Final assays have been only recently received. Therefore only preliminary interpretations and recommendations have been made. Further, more detailed interpretation is necessary before the next phase of field work begins and final recommendations made.

#### 3.2 Spur Soil Sampling

Marginal spurs and subdividing spurs of catchments showing sufficient anomaly to be of interest should be soil sampled at 100 m spacing. This should allow delineation of the parts of the catchments containing the source of the anomaly.

#### 3.3 Gridding

Areas such as the upper portion of the catchment represented by sample 1239595 need to be soil sampled on a grid pattern no bigger than about 25 m x 125 m to delineate targets for backhoe costeaning and channel sampling.

#### 3.4 Costeaning

The valley expression of the Tarcowie Siltstone upstream and downstream of Folly Dam should be exposed in at least three sections by a digger or backhoe costean (the cover is generally less than 2 m) and channel samples collected over zones of argillic alteration and other rock types of interest.

#### 4. INTRODUCTION

Hope Bank EL 1376 was granted to CRA Exploration Pty. Limited on the 6th January, 1987 for a period of one year. The licence covers an area of approximately 1303 sq km and covers parts of East Wydown, McCoys Well, Melton, Minburra, Teetulpa & Wabricoola stations.

In the period 1981 to 1985, Utah spent in excess of, (Historical), \$600,000 sampling and drilling a tenement with approximately the same boundaries in an attempt to locate a Telfer style gold resource without success (SADME Open File Report envelope No. 4547). The stream sediment geochemistry approach used in this survey was designed to test all subcrop within the licence area regardless of stratigraphy and the multi-element signature used to rate areas of anomalous gold.

#### 5. GEOLOGY

The main rock units found within the licence are the Adelaidean sediments of the Yudnamutana, Farina & Elatina Subgroups and Wilpena Group. Thin Quaternary sands, gravels and alluvium cover much of the above stratigraphy.

Table 1 describes the Adelaidean stratigraphy in greater detail.

Locally the licence covers the eastern and western closures of the Waukaringa Syncline and a parallel antiform in the same sequence to the south. The mineralisation at Waukaringa and Ajax mines (which lie in that portion of the Waukaringa Syncline not held by CRAE) is associated

with quartz and arsenical pyrite filling dilation zones in layer-parallel fault planes. At Waukaringa Mine, material on the dumps (apparently from development work) contains superfine sulphide mineralisation in sandstones and black siltstones, suggesting that the mineralisation in the quartz lodes occurs nearby to primary mineralisation in the sediments.

<u>Table 1</u>

ADELAIDEAN STRATIGRAPHY - HOPE BANK EL 1376

Group	Unit	Lithology		
Wilpena Gp	Pound Sst.	Quartzite feldspathic sandstone & siltstone		
	Wonoka Fmn.	Calcareous siltstone & shale minor limestone & quartzites		
	Ulupa siltstone	Siltstone (Brachina Equliv)		
Elatina Sub Gp - Upper Glacial Gp		Diamictite & fluvials		
Farina Sub Gp (intraglacials)	Undifferentiated	Shales, siltstone, carbonatic siltstones, minor carbonate units		
	Tarcowie siltstone	Siltstone & sandstone		
	Willochra Fmn.	Siltstone, shale, minor gritty sandstone & limestone		
	Tapley Hill Fmn.	Siltstone, limestone, minor breccia bands, slump conglomerates & sandstone		
Yunnamunta Sub Gp	Wilyerpa Qtzite	Sandstone, siltstone and minor tillites		
	Apilla Tillite	Boulder tillite siltstone & sandstone		
Callana Gp	Undifferentiated			

#### 6. CONCEPTS

The target sought is disseminated gold mineralisation which would have been too fine in grain size to have led to discovery of the source by panning. A number of pannable gold occurrences were located in the district during the Nineteenth Century including the Teetulpa alluvial goldfield and the layer-parallel lodes of the Waukaringa and Manna Hill goldfields. The one to two metre thick regolith which mantles much of this region is considered sufficient cover to mask mineralisation not associated with quartz veins or major gossans, but not sufficient to hide a chemical signature.

The kaolinitic clays of the regolith have a small but significant cation exchange capacity. The choice of clay-size material as a sample medium for this project was forced by the dynamics of this landscape. Much runoff is as sheet flood during rainstorms and little material above sand-size is transported to the drainage lines. The quartz sand/silt component is assumed chemically inert and its removal gives a more homogeneous sample medium than is able to be obtained by sieving. The relatively normal distribution of the background populations of most base metals as they report in their frequency distribution histograms appears to support this assumption. The occurrence of multi-element signatures in some samples is considered more significant than outstanding gold values.

#### 7. SAMPLING

Stream sediment samples were collected at sites pre-determined by plotting stereoscopically over the aerial photographs. Each site represented a primary catchment in the size range 0.5 to 5.0 km². Samples were collected from the overbank silts/clays of the floodplain, with care being taken that the sample was not dominated by local colluvium. Where no flood plain was developed, silts were collected from clay curls in dried pool bottoms, settling areas behind bushes in the channel or remnant overbank deposits exposed in the sediments along the creek bank. Clay size fraction material, separated from the overbank silts by suspension and decantation, was submitted for analysis.

Four hundred and fifty-two catchments were sampled in the first pass and a further 68 soil samples were collected at 100 m spacing along lines crossing the mine-host stratigraphic sequence in the axial zone of the syncline east of the Waukaringa Mine. Soil samples were processed identically to the overbank silts. Little horizon differentiation is present in these soils though well developed argillic B-horizons are occasionally seen in remnant palaeosols. The soils are mainly skeletal (A)/C soils with a large lithic component. Aeolian sand sheets mantle these in some areas and the ubiquitous drainage line calcretes which form upon both fresh and kaolinized rocks suggests that much of the soil carbonate is derived from a carbonate component brought in the sand sheets.

All samples were analysed for gold to a nominal detection limit of 0.0005 ppm (aqua regia digest/solvent extraction/FAAS) 8 other elements were determined by AAS and a further 10 by ICP. In addition the first 181 samples were assayed for platinum and palladium by lead fire assay.

One catchment with anomalous gold values (1239595) supported by a multi-element signature (which was identified from the first batch of results received) was followed up by collecting 42 soil samples at 100 m spacings up the spurs bounding the catchment from the original sample site. The source of the anomaly appears to be in the Tindelpina Shale Member and higher up in the lower part of the Tapleys Hill Formation.

#### 8. INITIAL RESULTS

The first pass sampling over the whole exploration licence area revealed an area in which all catchments sampling the upper glacial package (mapped as Elatina Subgroup) reported elevated gold values. This stretches from east of Wabricoola Homestead to west of One Tree Hill on McCoys Well. These results are not supported by anomalies in other elements with sulphide affinities, so it is considered that this gold may be derived from fluvial concentrations in reworked zones within this unit.

In regional orientation work it was noted that an arsenic/antimony association did not follow stratigraphic units but crossed the stratigraphy on a north-northeasterly trend. During geological reconnaissance this was found to be the trend of closely spaced joint sets. North of Melton (outside the licence area) some of these joints were noted filled by a quartz/siderite/haematite after sulphide association, but usually a thin selvedge of slightly ferruginized rock rather more resistant to weathering (presumably also silicified) than the adjacent material is all that can be observed. These joints cut and displace the layer-parallel quartz veins of both the Waukaringa Lode type and the short strike parallel quartz pods which abound in this area.

One robust multi-element anomaly appeared from the first data set (1239595). Follow up results have only recently been received, which have shown a zone of anomalous gold associated with the Tindelpina shale member and further up the lower part of the Tapleys Hill Formation.

The geomorphic expression of the Tarcowie Siltstone was noted to change quite abruptly around the region from a strong ridge-former as at Waukaringa and Ajax Mines to a zone of no outcrop favoured as the drainage line as at the Eighteen Mile and Folly Dams. Examination of stream bottom exposures east of Folly Dam showed three zones of apparent argillic alteration within pyritic silts. The Utah map shows that these zones were not sampled, but as the Folly Dam area lies adjacent to the anticline of Apilla Tillite where Utah recorded

much of their gold anomalism and to catchment 1239595 with its multi-element signature, it is considered that further examination of this interval is warranted. Thin-sections cut from the argillic alteration zone which under the hand lens appeared to have the possibility of an acid tuff component, showed only calcification of altered siltstone.

S.P. SUGDEN / B. MURRELL

SPS/BM/pq

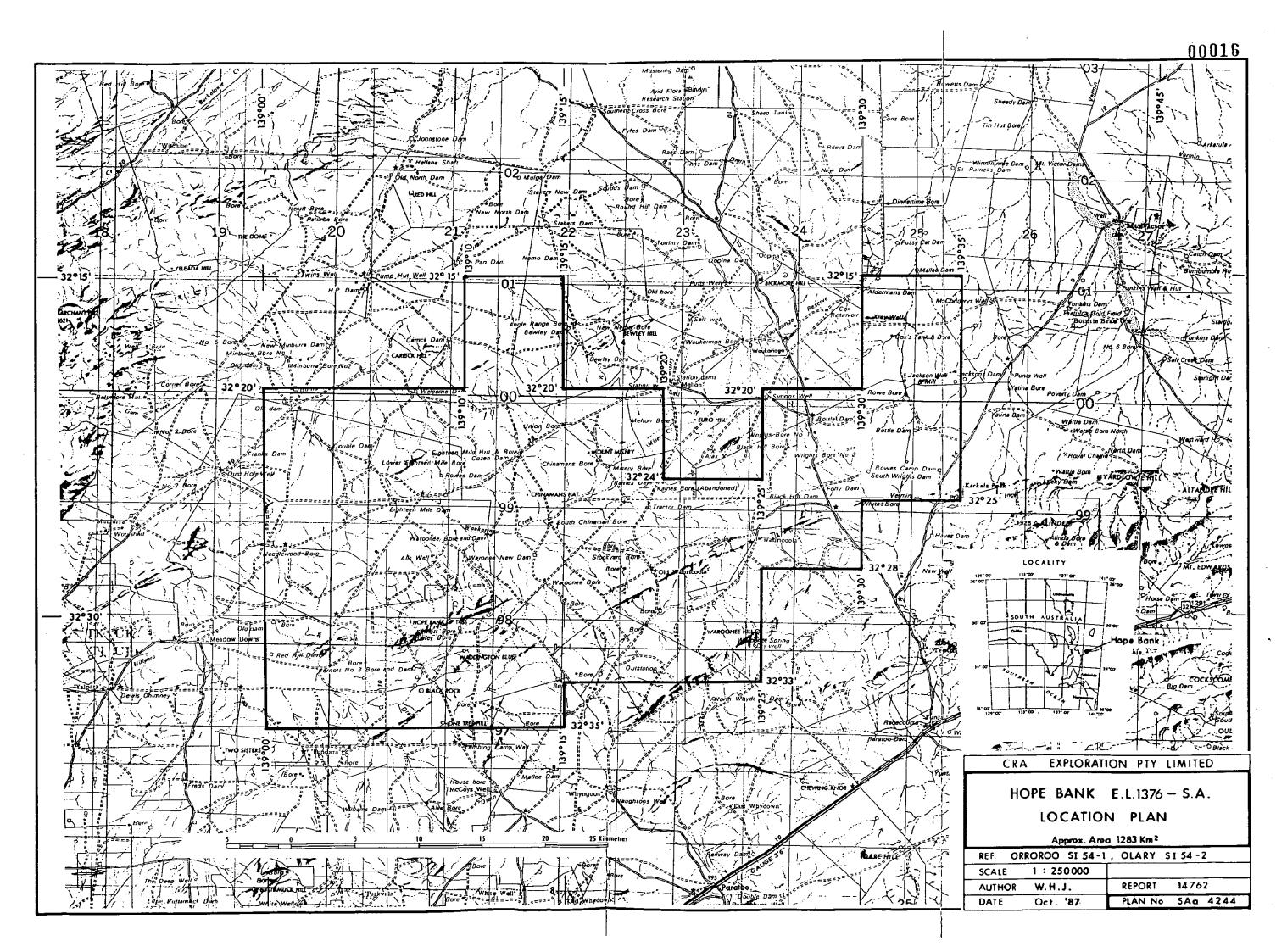
#### EXPENDITURE

Expenditure for the period ended  $30\,\mathrm{th}$  September, 1987 the nearest accounting period amounted to \$61 330.00, as listed below.

		- \$	\$
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Supplies		1	790
Vehicle		3	858
Travel		1	055
Rent	•	5	481
Contractors		7	347
Laboratory		3	469
Sundry			600
Overheads		. 8	186
	Total	<del></del> \$61	330
	- 5 002	. 401	<b></b>

#### KEYWORDS

Gold, Geochemistry - Stream Sediment, Clays, Soils, Multi-Element, Waukaringa, South Australia



# APPENDIX I ANALYTICAL RESULTS



**NATA CERTIFICATE** 

Amdel Limited - Inc. in S.A.

25 August 1987

Dr. B. Murrell

Amdel 31 Flemington Street, Frewville, S.A. 5063

Telephone: (08) 372 2700

Address all correspondence to: P.O. Box 114, Eastwood, S.A. 5063

Telex: AA82520 Facsimile: (08) 79 6623

CRA Exploration Pty Ltd PO Box 656 FYSHWICK ACT 2609

#### REPORT AC 134/88

YOUR REFERENCE:

DPO 46556

REPORT COMPRISING:

Cover sheet Page G1-G10 Page I1-I10

DATE RECEIVED:

13 July 1987

Approved Signatory:

Don Patterson

Manager, Geo-Analytical Services

for Dr William G. Spencer General Manager Applied Sciences Group

Administration Officer PO Box 656 FYSHWICK ACT 2609

Chief Geologist Information Services CCPO Box 656 FYSHWICK ACT 2609

The report relates specifically to the sample tested and also the entire batch in so far as the sample is truly representative of the sample source.

tk



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Analysis code	PM1/3S	SPE	Report	AC 134/	′88		Page	e G1
NATA Certific						Res	sults in	n ppm
Sample	Вi	Co -	Cr	Cu	Мо	Ni	₽b	Zn
1239417 1239418 1239420 1239421 1239423 1239424 1239425 1239426 1239427 1239429 1239430 1239431 1239431 1239433 1239433 1239436 1239437 1239438 1239440 1239441 1239445 1239456	<pre></pre>	11 13 13 12 12 11 14 21 17 16 10 19 10 13 17 17 13 14 15 11 11 12 11 11 11 11 11 11 11 11 11 11	35 30 37 37 34 32 33 35 37 28 37 28 33 30 32 34 33 32 32 24 32 27 27 27 27 27 27 27 27 27 27 27 27 27	27 30 27 25 27 25 27 27 28 21 29 28 20 34 25 27 27 28 21 27 27 28 27 27 27 28 27 27 28 27 27 27 28 27 27 27 27 27 27 27 27 27 27 27 27 27	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	26 28 26 27 23 26 31 29 28 29 28 28 28 28 28 29 21 21 21 21 21 21 21 22 21 22 21 22 21 21	11 11 11 13 14 12 14 14 19 18 11 16 12 18 11 11 11 11 12 13 14 11 11 11 11 11 11 11 11 11 11 11 11	73 72 63 84 89 10 96 87 77 83 79 83 79 83 79 83 79 83 79 83 77 83 77 83 79 83 79 83 70 84 70 87 70 87 70 87 70 87 70 87 70 87 70 70 70 70 70 70 70 70 70 70 70 70 70
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)

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Analysis	code PM1/3	SPE	Report	AC 134	/88		Pag	ge G2
NATA Ceri	tificate					Re	sults	in ppm
Sample	Вi	Со	_ Cr	Cu	Мо	Ni	Ρ <u>̄</u> b	Zn
1239457	<i>&lt;2</i>	9	26	24	2	19	10	60
1239458	2	12	35	31	1	25	18	73
1239459	<u>~2</u>	. 12	31	27	2	23	14	72
1239460	<2	14	34	23	2	22	18	88
1239461	<2	14	32	27	3	24	17	85
1239462	<2	13	35	25	2	22	15	74
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	<2	14	32	23	2	20	15	90
1239464	<2	12	26	20	2	19	13	82
1239465		9	22	20	4	15	9	55
1239466	<2		34	29	3	24	11	90
1239467	<2	14			. 1	16	9	65
1239468	. <2	· 9	25	22 23	<1	16 16	10	64
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1239471	<2	12	34		1	25 25	15	99
1239472	<2	14	<i>32</i>	29 36	1 1	23 24	15.	86
1239473	<2	14	<i>39</i>	26 20		27	13	90
1239474	<2	13	37	29 17	<1	18	13 6	5 <i>9</i>
1239475	<2	8	22	17	<1		12	87
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1239477	<2	17	35	26	<1	27 26	18 15	97 84
1239478	<2	12	30	28	<1	26 24	13	7 <i>9</i>
1239479	<2	13	29	27	<1	24		
1239480	<2	10	27	25	<1	22	10	74 .
1239481	<2	10	28	24	2	24	12	82
1239482	<2	10	25	25	<1	23	10	74
1239483	3	15	32	30	1	29	17.	86
1239484	<2 ·	16	32	30	2	31	17	88
1239485	· <2	11	33	28	3	29	12	89
1239486	<2	12	30	27	<1	27	9	<i>86</i>
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1239488	<2	11	33	24	<1	27	11	82
1239489	<2	13	33	26	<1	27	13	94
1239490	<2	16	43	25	<1	28	16	93
1239491	<2	12	35	24	<1	23	14	77
1239492	<2	7	26	18	1	18	4	5 <i>6</i>
1239493	<2	12	39	30	1	22	9	78
1239494	<2	16	40	31	1	32	12	86
1239495	<2	14	<i>36</i>	28	1	27	13	87
1239496	<2	11	37	27	2	25	12	86
Detn lim	nit (2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)

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Analysis code	PM1/3S	PE	Report	AC 134/	88		Page	e <i>G3</i>
NATA Certifica						Res	ults i	n ppm
Sampl <u>e</u>	Вi	Со	Cr	Cu	Мо	Ni	Pb -	Zn
Sample  1239497 1239498 1239500 1239501 1239502 1239503 1239505 1239506 1239506 1239507 1239508 1239510 1239511 1239512 1239513 1239514 1239515 1239516 1239517 1239518 1239518 1239521 1239521 1239522 1239523 1239524 1239525 1239526 1239527 1239528 1239527 1239528 1239527 1239528 1239531 1239531 1239533 1239533 1239536	Bi	Co 12 11 13 13 13 13 13 13 14 13 13 14 13 13 14 13 13 14 13 14 13 14 15 13 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Cr 34 32 37 39 38 37 38 39 31 31 32 33 33 34 32 33 33 34 32 33 33 34 36 37 38 38 38 38 38 38 38 38 38 38	Cu 27 23 27 26 26 28 27 26 26 28 37 30 28 32 31 32 8 32 33 33 32 8 36 32 36 32 36 32 36 32 36 32 36 32 36 32 36 32	Mo <1 1 2 2 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Ni 24 23 29 26 22 22 23 23 23 23 23 23 33 33 33 33 33	10 10 11 14 14 11 10 11 10 11 10 11 11 10 11 11 11 11	79 76 98 93 95 87 88 79 75 82 110 73 75 72 71 73 64 79 110 105 87 110 105 105 105 105 105 105 105 105 105
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)
DCCH TIMIC		121	(3)	(1)	` _ /	( )		( = /

# lø amdel

Analysis cod	e PM1/3	SPE	Report	AC 134	/88		Pag	je G4
NATA Certifi	cate					Re	esults	in ppm
Sample _	Ві	Co	Cr	Cu	Мо	Ni	Pb	Zn
1239541 1239542 1239543 1239544 1239545 1239547 1239549 1239550 1239551 1239552 1239553 1239555 1239555 1239556 1239556 1239560 1239561 1239562 1239563 1239563 1239563 1239563 1239564 1239565 1239565 1239567 1239567 1239576 1239570 1239570 1239570 1239570 1239570 1239570 1239570 1239570 1239570 1239570 1239570 1239577 1239577 1239577 1239577 1239577	<pre></pre>	14 15 13 13 10 11 14 10 11 11 11 11 12 14 11 11 11 11 11 11 11 11 11 11 11 11	27 25 29 21 25 24 23 22 24 25 24 26 27 31 32 33 33 36 36 37 39 36	34 29 27 26 37 30 26 25 25 26 27 28 29 29 30 32 21 31 31 31 31 31 31 31 31 31 31 31 31 31	1 2 2 1 2 3 3 1 1 1 2 1 2 1 2 1 2 1 2 1	28 29 28 17 21 19 25 22 21 21 21 22 22 23 23 27 27 28 22 27 21 28 22 22 23 27 27 28 28 27 28 27 28 28 28 28 28 28 28 28 28 28 28 28 28	7 7 10 11 28 29 12 15 10 12 12 12 12 12 14 12 12 14 15 16 17 18 17 18 17 18 17 18 17 18 17 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	87 94 81 61 95 76 55 71 58 82 93 88 85 79 100 98 86 79 94 94 94
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)

### lő) amdel

Analysis cod	e PM1/3	SPE	Report	AC 134	/88	·	Pag	e G5
NATA Certifi	cate			•		Re	sults i	n ppm
Sample	Ві	Со	Cr	Cu	Мо	Ni	Pb	Zn
1239581 1239582 1239583 1239584 1239585 1239586 1239588 1239588 1239590 1239590 1239591 1239591 1239593 1239593 1239594	<2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <	11 20 11 13 20 23 13 12 14 19 15 20 25 13 21	31 32 39 37 39 40 34 41 35 39 40 42 42 38 60 37	23 23 30 26 29 33 27 33 28 31 32 31 31 35 24	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	18 21 18 22 26 28 21 24 22 24 23 28 28 22 34 21	10 16 15 12 20 20 11 14 19 19 17 18 14 41 20	81 96 83 78 93 94 75 92 90 86 90 100 85 92 180 91
1239597 1239598 1239599 1239600	<2 <2 <2 <2	16 14 11 15	43 41 31 40	34 30 28 28	2 <1 1 1	27 27 22 25	21 19 14 18	90 85 76 95
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)

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# 16 amdel

NATA Cert	ificate					R	esults	in	ppm	
		<b>.</b>								
Sample	Au	Рt	Pd						-	
1239417	0.0010	0.001	0.001							
1239418	0.0025 <0	0.001	0.002			•				
1239419	0.0005 <0		0.002							
1239420	0.0005 <0		0.001							
1239421	0.0005 <0		0.002		•					
1239422	0.0025 < 0		0.001							
1239423	0.0015		0.002							
1239424	0.0015		0.002 0.002							
1239425	0.0015 <0		0.002							
1239426 1239427	0.0015		0.002							
1239427	0.0005		0.001							
1239429	0.0035		0.002		•					
1239430	0.0020		0.001							
1239431		0.001	0.002							
1239432	0.0010-	0.001	<0.001							
1239433	0.0025		0.001							
1239434	0.0035/<		<0.001							
1239435	0.0040 <		<0.001							
1239436	0.0600/<		<0.001							
1239437	0.0030 <		<0.001							
1239438	0.0320° 0.0080~<		<0.001	•	`					
1239439 1239440	0.0015		0.001							
1239440	0.0015		<0.001							
1239442	0.0010		0.002							
1239443	0:0025		0.001							
1239444	0.0015		0.001							
1239445	0.0030/<	0.001	0.002							
1239446	0.0015		0.001							
1239447	0.0015/<		0.002							
1239448	0.0010 <		0.001		•					
1239449	0.0005		0.002							
1239450	0.0015 < 0.0005 <		0.001 0.002							
1239451	0.0005 <		0.002							
1239452 1239453	0.0005 <		0.002				•			
1239453	0.0030		0.001							
1239455	0.0025		0.001	•	•					
1239456	0.0110		0.002							
Detn lim	it(.0005)(	0.001	(0.001)					•		

Analysis code PM1/3SPE Report AC 134/88

### 6 amdel

1239487

1239488

1239489

1239490

1239491

1239492

1239493 1239494

1239495

1239496

Page G 7 Report AC 134/88 Analysis code PM1/3SPE Results in ppm NATA Certificate Pt Рd Sample Au1239457 0.0015 < 0.0010.002 0.0015 < 0.001 0.001 1239458 0.0010 0.002 0.003 1239459 0.0030 < 0.001 0.001 1239460 0.002  $0.0015^{\prime}$  0.0011239461 0.0025 < 0.001 <0.001 1239462 0.0015/<0.001 0.002 1239463 <0.001 0.0005/<0.001 1239464 0.001 0.0020<<0.001 1239465 0.0005 < 0.001 0.002 1239466 0.002 0.0005 < 0.001 1239467 0.002 0.0005 < 0.001 1239468 0.002 1239469 0.0005 < 0.001 0.0020- 0.001 0.001 1239470 0.0005 < 0.001 0.004 1239471 <0.001 0.0005/<0.001 1239472 0.0005~<0.001 0.002 1239473 0.001 0.0005~<0.001 1239474 0.0005 < 0.001 <0.001 1239475 1239476 0.0005 < 0.001 0.001 0.0005 < 0.001 1239477 0.003 0.0005/<0.001 0.002 1239478 0.0030 < 0.001 0.001 1239479 0.002 1239480 0.0025 < 0.001 0.001 1239481 0.0015-<0.001 0.0010-<0.001 0.001 1239482 0.0015 < 0.001 0.002 1239483 0.0015-<0.001 0.001 1239484 0.0025 < 0.001 < 0.001 1239485 0.0030~<0.001 <0.001 1239486

Detn limit(.0005)(0.001)(0.001)

0.0010 < 0.001

0.0010-<0.001

0.0010-<0.001

0.0010~<0.001

0.0025 < 0.001

0.0050-<0.001

0.0020 < 0.001

0.0015 < 0.001

0.0015 0.001

0.0010 < 0.001

0.002

0.001

0.003

0.003

0.004

0.004

0.002

0.005

0.010

0.009

### **l**g amdel

Report AC 134/88 Page G8 Analysis code PM1/3SPE Results in ppm NATA Certificate PdPtSample Au 0.0010 < 0.0010.001 1239497 0.0005 < 0.001 < 0.001 1239498 0.0005 < 0.001 < 0.001 . 1239499 0.0025 < 0.001 < 0.001 1239500 0.0005 < 0.001 < 0.001 1239501 0.001 0.0005 < 0.001 1239502 0.001 0.0005/<0.001 1239503 0.002 0.0005/<0.001 1239504 0.001 0.0005 < 0.001 1239505 0.002 0.0005 < 0.0011239506 0.001 0.0005' < 0.001 1239507 0.002 1239508 0.0005' < 0.0010.002  $0.0005^{\circ} < 0.001$ 1239509  $0.0005^{\prime} 0.001$ 0.002 1239510 0.0005/<0.001 <0.001 1239511 0.0015/<0.001 <0.001 1239512 0.001  $0.0025 \cdot < 0.001$ 1239513 0.0005 < 0.001 <0.001 1239514 0.0005/<0.001 0.001 1239515 1239516  $0.0005^{\circ} < 0.001$ <0.001 0.0005 < 0.001 <0.001 1239517 0.0025 < 0.001 <0.001 1239518 0.0010 < 0.001<0.001 1239519 0.001 0.0005 < 0.0011239520 0.0005' < 0.001 < 0.001 1239521 0.0005' < 0.001 < 0.0011239522 0.0005 < 0.001 < 0.001 1239523 0.0005'<0.001 <0.001 1239524 0.0005 < 0.001 < 0.001 1239525 0.0005, <0.001 <0.001 1239526 0.0005, < 0.001 < 0.0011239527 0.0015' < 0.001 < 0.001 1239528 0.0005, <0.001 <0.001 1239529 0.0005, < 0.001 < 0.0011239530 0.0005 < 0.001 < 0.001 1239531 0.0005' < 0.001 < 0.0011239532

0.0005' < 0.001

Detn limit(.0005)(0.001)(0.001)

0.0005' < 0.001 < 0.001

0.0005' < 0.001 < 0.001

0.0005 < 0.001 < 0.001

1239533

1239534

1239535

1239536

0.001

*G9* 

Page

### amdel

Report AC 134/88 Analysis code PM1/3SPE Results in ppm NATA Certificate PdΡt Αu Sample . 0.0050 < 0.001 < 0.001 1239541 0.003 1239542 0.0025 < 0.001 0.0005 < 0.001 0.003 1239543 0.0005 < 0.001 0.003 1239544 0.002 0.0060 < 0.001 1239545 0.002 0.0035 < 0.001 1239546 0.0025: <0.001 0.003 1239547 0.003 0.0025 < 0.001 1239548  $0.0020 \cdot < 0.001$ 0.002 1239549 0.003 1239550 0.0020 < 0.0010.004 0.0030 < 0.001 1239551 0.0035 0.001 0.003 1239552 0.0030 < 0.0010.002 1239553 0.002 0.0035 < 0.001 1239554 0.0020 <0.001 <0.001 1239555 0.0030 < 0.001 0.003 1239556 0.0020 < 0.001 0.001 1239557 <0.001 0.0035 < 0.0011239558 0.0045 < 0.001 0.001 1239559 0.0040 < 0.001 0.002 1239560 0.0025 < 0.001 0.0011239561 0.0045 < 0.001 <0.001 1239562 0.0010 < 0.001 <0.001 1239563 0.0025 < 0.001 < 0.001 1239564 0.0015 < 0.001 0.001 1239565 0.0010 < 0.001 0.003 1239566 0.0005 < 0.0010.001 1239567 0.0005 0.001 0.001 1239568 0.0005 < 0.001 0.001 1239569 0.0005/<0.001 <0.001 1239570 0.002 0.0005 0.001 1239571 0.003 0.0040 0.001 1239572 0.0025 < 0.001 0.002 1239573 0.0005 < 0.001 0.0031239574 0.0025 < 0.0010.005

0.003

0.003

0.002

0.002

<0.001

Detn limit(.0005)(0.001)(0.001)

0.0055

0.0015 < 0.001

0.0025 < 0.001 0.0045 < 0.001

0.0045. < 0.001

0.001

1239575

1239576

1239577

1239578 1239579

1239580

### l6) amdel

Analysis code PM1/3SPE Report AC 134/88 Page G10

NATA Certificate Results in ppm

Detn limit(.0005)(0.001)(0.001)

Analysis cod	e ICP2		Repor	t AC 134	1/88		Pag	e I1
NATA Certifi	cate			•		Re	sults i	n ppm
Sample	As	Ва	Fe	Mn	Ρ	Sb	La	Nb
1239417	10	160	4.78%	560	320	<i>35</i>	140	<5
1239418	10	200	4.14%	940	500	35	120	· <b>5</b>
1239419	10	180	4.38%	800	380	35	130	5
1239420	5	170	4.98%	560	340	35	140	< 5
1239421	10	240	4.36%	700	500	35	140	5
1239422	5	170	4.58%	580	360	35	130	5
1239423	5	180	5.35%	1100	<i>550</i>	35	140	. <5
1239424	10	220	5.65%	1450	<i>650</i>	40	160	<5
1239425	5	180	4.88%	1000	450	40	140	<b>&lt;</b> 5
1239426	10	180	5.75%	960	<i>550</i>	40	150	< 5
1239427	5	130	4.22%	560	340	35	120	<5
1239428	10	1.80	5.40%	1200	600	35	150	<5
1239429	10	150	3.96%	450	300	30	120	5
1239430	10	180	5.65%	800	600	45	180	<5
1239431	10	150	5.30%	860	500	35	1 <i>50</i>	<5
1239432	10	140	4.04%	460	320	30	110	5
1239433	10	180	5.20%	1250	600	40	150	<5
1239434	10	160	5.75%	880	<i>550</i>	40	160	<5
1239435	5	160	4.62%	440	800	35	130	∵<5
1239436	15	220	3.98%	1300	800	35	120	5
1239437	10	180	4.74%	880	400	35	140	<5
1239438	10	190	4.14%	680	<i>550</i>	35	130	5
1239439	10	190	4.38%	780	<i>600</i>	40	130	5
1239440	10	170	4.70%	840	450	35	140	< 5
1239441	10	140	4.22%	470	280	35	130	<5
1239442	10	160	4.38%	6 <b>60</b>	400	40	130	5
1239443	10	170	3.30%	400	400	30	100	10
1239444	5	150	4.68%	500	360	35	130	<b>&lt;</b> 5
1239445	10	160	3.90%	480	400	30	120	5
1239446	10	180	4.94%	780	. 550	40	150	<5
1239447	10	130	3.24%	460	450	30	110	10
1239448	10	180	5.30%	660	500	40	150	5
1239449	10	110	2.80%	410	400	30	95	10
1239450	10	170	3.98%	<i>560</i>	450	30	120	5
1239451	10	130	3.86%	600	360	25	120	<5
1239452	10	180	3.94%	600	550	35	120	10
1239453	10	140	3.24%	490	500	30	100	5
1239454	15	150	3.58%	600	650	30 ′	120	10
1239455	10	150	4.46%	720	500	<i>35</i>	130	<5
1239456	15	150	3.46%	580	700	35	110	10
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

# lý amdel

Analysis code	e ICP2		Report	AC 134	1/88		Page	e 12
NATA Certific	cate					Re	sults i	n ppm
					-			
Sample	As	Ва	Fe	Mn	Ρ	Sb	La	Nb
1239457	10	130	2.88%	410	360	30	95	5
1239458	10	140	4.78%	500	300	35	140	< 5
1239459	10	110	3.38%	490	320	30	100	5
1239460	10	130	3.48%	620	450	30	110	5 5
1239461	10	150	3.74%	720	600	35	110	
1239462	5	85	3.76%	490	300	30	110	< 5
1239463	10	150	3.70%	600	<i>500</i>	35	130	5
1239464	10	200	4.00%	700	700	35	140	10
1239465	5	140	2.80%	<i>580</i>	500	30	95	5
1239466	10	110	2.06%	280	340	20	75	5
1239467	10	140.	2.88%	560	500	30	100	10
1239468	5	95	2.24%	320	400	25	90	5
1239469	5	140	2.14%	300	360	25	95	10
1239470	<5 ·	170	4.42%	410	450	<5	70	<5
1239471	<b>&lt;</b> 5	160	4.28%	<i>580</i>	380	<5	<i>65</i>	<5
1239472	<5	160	4.34%	680	600	<5	70	<5
1239473	<b>&lt;</b> 5	75	4.64%	640	400	<5	70	<b>&lt;</b> 5
1239474	<5	170	4.50%	680	400	<5	75	<5
1239475	<5	110	2.62%	380	400	5	40	5
1239476	<i>&lt;5</i>	160	4.38%	<i>660</i>	380	<5	70	< 5
1239477	<5	220	4.60%	940	650	<5	75	<5
1239478	<5	160	4.06%	660	400	< 5	65	< 5
1239479	<5 ·	160	4.14%	680	<i>550</i>	<5	65	<5
1239480	<5	160	3.46%	520	600	<5	60	5
1239481	<5	170	3.48%	560	600	<5	60	5
1239482	< 5	140	3.34%	460	500	< 5	55	5
1239483	<5	170	4.26%	720	500	<b>&lt;</b> 5	70	<5
1239484	<5	160	4.56%	860	450	< <u>5</u>	70	< 5
1239485	<5	150	3.80%	380	380	<b>&lt;</b> 5	75 70	5
1239486	<5	150	3.94%	520	500	<5	70	5
1239487	<5 <sub>-</sub>	150	3.56%	560	650	<5	<i>60</i>	5
1239488	< 5	110	3.44%	520	<i>650</i>	<5 	50	5
1239489	<b>&lt;</b> 5	130	4.26%	700	700	<5	<i>60</i>	<b>&lt;</b> 5
1239490	<5	170	4.66%	800	<i>550</i>	<b>&lt;</b> 5	70	<b>&lt;</b> 5
1239491	<b>&lt;</b> 5	150	4.08%	620	450	<5	70	< 5
1239492	10	180	2.40%	240	400	10	45 70	15 75
1239493	<5 .5	140	5.15%	660	400	<5 <5	70 75	<5 5
1239494	<5	190	4.32% 4.44%	940	700 600	<5 <5	75 80	5 <5
1239495	<5 <5	160 140	4.44%	800 660	650	₹5 ₹ <b>5</b>	75	5
1239496	()	140	4.10%	000	0.50	<b>\</b> J	13	J
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

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Analysis code	ICP2		Repor	t AC 134	1/88		Рa	g e	13
NATA Certifica	ate					F	Results	in	ppm
Sample	As	Ва	Fe	Mn	P	Sb	La		Nb
1239497	< <i>5</i>	130	3.62%	600	650	<5	70		5
1239498	·<5	140	3.82%	620	600	<5	65		5
1239499	< <i>5</i>	160	4:34%	800	900	<5	80		<5
1239500	< <i>5</i>	210	4.62%	1000	600	<b>&lt;</b> 5	80		<5
1239501	<5	160	4.76%	960	500	<5	75		<5
1239502	.<5	200	4.50%	820	700	<5	80		- 5
1239503	<5	150	4.44%	1050	<i>550</i>	<i>&lt;5</i>	70		<5
1239504	<5	190	4.22%	680	650	<5	80		5
1239505	<5 <5	130	3.20%	490	600	<b>&lt;</b> 5	65		5
1239506	<5	160	3.34%	560	7 <i>50</i>	<5	65		5
1239507	<5	140	4.46%	860	800	< <b>5</b>	7 <i>5</i>		<5
1239508	<5	160	4.00%	580	500	<5	80		<5
1239509	< 5	170	4.26%	640	400	<5	80		<5
1239510	<b>₹</b> 5	140	3.38%	520	450	<5	60		<5
1239511	₹5	140	3.22%	540	450	<b>&lt;</b> 5	55		5
1239512	<5	110	2.50%	350	380	<5	5 <i>5</i>		< <b>5</b>
1239513	5	95	2.26%	280	340	<5	55		5
1239514	<5	75	2.12%	330	240	<b>&lt;</b> 5	40		<5
1239515	<5	190	4.86%	1100	500	10	50		<5
1239516	<5	150	4.20%	780	450	10	45		<5
1239517	5	150	3.60%	500	450	10	40		5
1239518	< <del>5</del>	100	4.14%	660	550	10	45		5
1239519	<b>₹</b> 5	170	4.24%	860	600	10	50		5
1239520	<b>&lt;</b> 5	95	3.60%	460	360	10	35		<5
1239521	<5	190	5.25%	880	380	10	50		<5
1239522	<5	190	4.70%	660	400	10	50		<5
1239523	<b>√</b> 5	180	4.40%	680	400	10	55		<5
1239524	< <b>5</b> .	130	4.68%	600	380	10	5 <i>0</i>		<5
1239525	15	160	5.65%	1150	750	10	60		<5
1239526	5	140	3.94%	540	500	10	50		5
1239527	₹5	85	4.36%	500	340	10	45		₹5
1239528	<i>&lt;</i> 5	160	5.20%	1050	500	10	<i>55</i>		<5
1239529	<b>&lt;</b> 5	150	4.58%	840	450	10	50		<5
1239530	<5	210	4.48%	880	750	10	55		5
1239531	<b>&lt;</b> 5	170	4.12%	580	450	10			<5
1239532	<5	160	3.66%	600	650	10	50		10
1239533	<5	180	4.94%	740	500	10	60		<5
1239534	5	130	4.10%	640	800	10	50		5
1239535	<5	95	4.66%	440	360	10	50		<5
1239536	<i>&lt;</i> 5	130	5.70%	720	400	10	55		<5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)

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Analysis cod	e ICP2		Report	t AC 134	1/88		P a	ge	I 4
NATA Certifi	cate					Re	sults	in	ppm
Sample	As	Ba	Fe	Mn	Р	Sb _	La		Nb
1239541	<b>&lt;</b> 5	220	3.90%	720	600	10	50		5
1239542	5	180	4.04%	620	650	10	45		5
1239543	<5	210	4.26%	680	650	10	50		5
1239544	<i>&lt;5</i>	170	3.04%	450	450	10	45		5
1239545	<5	220	4.14%	1150	750	10	50		5
1239546	5	190	4.10%	1300	800	10	45		5
1239547	<5	190	3.54%	470	450	. 10	50		10
1239548	5	170	3.50%	920	850	10	40		10
1239549	<5	250	4.18%	780	600	10	50		5
1239550	<b>&lt;</b> 5	180	4.82%	640	360	10	45		<5
1239551	5	190	2.86%	430	400	10	40		10
1239552	<5	240	3.30%	420	400	10	35		10
1239553	<5	210	3.20%	520	500	10	40		10
1239554	<b>&lt;</b> 5	220	3.60%	460	450	10	45		10
1239555	< <b>5</b>	230	5.00%	780	600	10	5 <i>0</i>		5
1239556	<5	220	4.18%	660	<i>650</i> .	10	45		10
1239557	< 5	290	4.72%	820	700	10	60		5
1239558	<5	160	3.28%	410	400	10	35		10
1239559	<5	260	4.70%	820	650	10	5 <b>0</b>		5
1239560	<5	190	4.90%	660	<i>500</i>	10	<i>55</i>		5
1239561	<5	150	5.10%	620	450	10	45		<5
1239562	<5	220	4.36%	660	5 <b>0</b> 0	10	5 <i>0</i>		5
1239563	<b>&lt;5</b> .	210	4.24%	<i>520</i>	450	5	45		<5
1239564	<5	190	3.80%	430	400	10	45		10
1239565	<5	190	4.10%	470	400	10	45		5
1239566	<5	200	4.34%	620	550	10	45		5
1239567	<5	200	4.86%	860	<i>650</i>	25	85		<5
1239568	<5	200	6.55%	1000	700	25	95		< 5
1239569	<b>&lt;5</b> .	210	6.25%	840	<i>550</i>	30	95		<b>&lt;</b> 5
1239570	<i>&lt;5</i>	200	6.15%	780	700	· 30	95		< 5
1239571	<5	200	5.35%	820	650	25	95		5
<i>1239572</i>	<5	210	6.75%	1200	<i>6</i> 50	25	100		<5
1239573	5	190	4.30%	560	600	25	85		10
1239574	5	190	5.35%	7 <i>80</i>	700	25	95		5
1239575	5	180	4.62%	620	600	25	85		5
1239576	<5	170	4.04%	500	450	25	80		10
1239577	5	180	4.20%	540	600	25	80		10
1239578	<5	190	5.30%	1100	500	25	95		<5
1239579	<5	200	5.30%	1000	550	30	100		< 5
1239580	5	240	5.15%	1450	600	25	100		<i>&lt;5</i>
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)

### l(j) amdel

Analysis cod	e ICP2		Repor	t AC 13	4/88		Pag	je 15
NATA Certifi	cate					Re	sults	in ppm
Sample	As	Ва	Fe	Mn	Р	Sb	L a	Nb
1239581	5	160	3.78%	450	400	20	80	10
1239582	5	190	4.32%	860	<i>500</i>	20	90	5
1239583	<5	85	5.55%	460	380	30	100	<5
1239584	5	210 -	5.05%	640	450	30	100	<5
1239585	5	170	5.90%	1050	600	30	110	<5
1239586	5	210	5.65%	1350	650	30	110	<5
1239587	5	170	4.62%	660	450	30	95	<5
1239588	10	180	5.80%	720	600	35	110	<5
1239589	5	220	4.96%	820	<i>550</i>	30	100	5
1239590	5	160	5.45%	1050	500	30	110	<5
1239591	5	180	5.80%	780	<i>550</i>	30	110	< 5
1239592	5	220	5.80%	1150	<i>550</i>	35	110	<5
1239593	5	120	5.40%	1150	500	30	120	<5
1239594	5	210	5.25%	700	380	30	110	< 5
1239595	10	410	6.55%	1500	1850	55	130	<b>&lt;</b> 5
1239596	5	230	4.66%	760	450	30	100	<5
1239597	5	190	5.65%	920	500	35	120	<5
1239598	5	170	4.84%	760	400	30	100	<5
1239599	5	160	3.60%	450	380	25	80	5
1239600	5	200	5.05%	800	380	30	110	<5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)



Analysis code	ICP2		Report A	AC 134	/88		Page	16
NATA Certific	ate					Result	s in	ppm
Sample	Sn	W						
1239417 1239418 1239419 1239420 1239421 1239423 1239424 1239425 1239426 1239427 1239428 1239429 1239431 1239431 1239432 1239433 1239436 1239436 1239437 1239438 1239440 1239441 1239442 1239441 1239442 1239446 1239447 1239448 1239448 1239447 1239448 1239447 1239448 1239447 1239450 1239450 1239450 1239450 1239456 Detn limit	30 30 35 35 35 35 36 30 35 35 36 36 37 37 37 37 37 37 37 37 37 37 37 37 37	25 25 25 30 30 30 30 30 30 30 30 30 30 30 30 30						
· · · · · · · ·	· - •							

### 16) amdel

	Analysis code	ICP2		Report	AC	134/88		. Pä	ige	17
	NATA Certifica	ate						Results	in	$\rho \rho m$
				•						
	Sample	Sn	W				-			
	1239457	25	25				,	•		
	1239458	30	30							
	1239459	25 25	25 30							
	1239460 1239461	25 25	<i>30</i>							
	1239462	25 25	30	•			•			
	1239463	30	<i>30</i> .							
	1239464	30	30							
	1239465	20	25							
	1239466	15	20							
	1239467	20	30							
	1239468	15	20							
	1239469	20	20							
	1239470	25	<5							
	1239471	25 25	<5							
	1239472	25 25	<5 <5							
	1239473 1239474	25 25	<5							
	1239474	25 15	<5							
	1239475	25	<5							
	1239477	25 25	<5 ≤5							
	1239478	20	<5							
	1239479	25	<5							
	1239480	20	<5							
	1239481	20	<5			•				
	1239482 <sub>,</sub>	20	<5	1						
	1239483	20	-							
	1239484	20	<5							
	1239485	20 25	<5							
	1239486 1239487	25 20	<5 <5							
-	1239488	15	<5.							
	1239489	2.0	<5							
	1239490	25	<5							
	1239491	20	< <del>5</del>							
	1239492	15	<5							
	1239493	30	<b>&lt;</b> 5							
	1239494	25	<5	•						
	1239495	25 25	<5							
	1239496	25	<5							
	Detn limit	(5)	(5)							

Analysis code ICP2		Report AC 134/88	Page	. <i>18</i>
NATA Certificate			Results in	ppm
Sample Sn	W			
1239497       20         1239498       20         1239499       20         1239500       25         1239501       20	<5 <5 <5 <5 <5			
1239501       20         1239502       25         1239503       20         1239504       25         1239505       15         1239506       15	<5 <5 <5 <5 <5		,	
1239507       20         1239508       25         1239509       25         1239510       20         1239511       15         1239513       15	<5 <5 <5 <5 <5 <5 <5			
1239514       10         1239515       15         1239516       15         1239517       15         1239518       15         1239519       15         1239520       10	<5 <5 <5 <5 <5 <5 <5			
1239521       20         1239522       20         1239523       15         1239524       15         1239525       10         1239526       15         1239527       10	<5 <5 <5 <5 <5 <5			
1239528       15         1239529       15         1239530       15         1239531       15         1239532       15         1239533       20         1239534       15	<5 <5 <5 <5 <5 <5		ù.	
1239535 15 1239536 15 Detn limit (5)	<5 <5 (5)	· · · · · · · · · · · · · · · · · · ·		

ppm

## **|6** amdel

	Analysis code	ICP2	Report AC 134/88	Page
	NATA Certific	ate		Results in
	Sample	Sn W		
	1239541	15 <5		· ·
	1239541	15 <5		•
	1239543	15 <5		
	1239544	15 <5		
	1239544	15 <5		
	1239546	15 <5		
	1239546	15 <5		
	1239548	15 <5		
	1239548 1239549	15 <5 15 <5		4
	1239550	15 <5	•	
	1239551	10 <5	,	
	1239552	15 <5		
	1239553	15 <5	•	
	1239554	15 <5		
	1239555	20 <5		•
	1239556	15 <5		
	1239557	20 <5		
	1239558	15 <5		
	1239559	20 <5		
	1239560	20 <5		
	1239561	20 <5		
٠	1239562	15 <5		
	1239563	15 <5		
	1239564	15 <5		
	1239565	15 <5		
	1239566	15 <5		
	1239567	20 <5		
	1239568	<i>30</i>	et disconnection of the second	
	1239569	<i>30</i> < <i>5</i>		
	1239570	<i>30</i> < <i>5</i>		
	1239571	30 5		
	1239572	and the second s		
	1239573	<i>25 5</i>		· ·
	1239574	<i>25 5</i>		
	1239575	25 <5 25 5 25 5 25 5 25 5 25 5 25 5 30 5 25 5		
	1239576	<i>25 5</i>		•
	1239577	<i>25</i> 5		
	1239578	<i>25 5</i>		
	1239579	<i>30 5</i>		•
	1239580	25 5		A P
	Detn limit	(5) (5)		
			· ·	

## lő) amdel

Detn limit

Analysis code	ICP2		Report	AC 134/	'88 .		Ра	ge	I 1 0
NATA Certific	ate		**			Re	sults	in	ppm
Sample	Sn	W							
<i>.</i> '•	4	-				-			
1239581	20	10							
1239582	20	10	,						
1239583	25	5.							
1239584	25	10		,	,				
1239585	<i>25</i> .	5		•					
1239586	30	5					•		
1239587	<i>25</i>	10							
1239588	30	5							
1239589	25	5							
1239590	30	10					•		
1239591	30	5		:					
1239592	30	5							
1239593	<i>25</i> .	10	,						
1239594	30	5							,
1239595	45	20							
1239596	30	5							
1239597	30	10	•						
1239598	25	5	• •	•					
1239599	20	10.	_						
1239600	30	5							



technology and enterprise

#### **NATA CERTIFICATE**

Amdel Limited - Inc. in S.A.

26 August 1987

Amdel 31 Flemington Street, Frewville, S.A. 5063

Telephone: (08) 372 2700

Address all correspondence to: P.O. Box 114, Eastwood, S.A. 5063

Telex: AA82520 Facsimile: (08) 79 6623

Dr. Burton Murrell CRA Exploration Pty Ltd PO Box 656 1 FYSHWICK ACT 2609

#### REPORT AC 517/88

YOUR REFERENCE:

DP0 46557

REPORT COMPRISING:

Cover sheet Page I1-I12 Page G1-G12

DATE RECEIVED:

18 August 1987.

Approved Signatory:

Don Patterson

Manager, Geo-Analytical Services

Dr William G. Spencer General Manager Applied Sciences Group

CRA Exploration Pty Ltd PO Box YUNTA SA 5440

Chief Geologist Information Services PO Box 656 FYSHWICK ACT 2609

The report relates specifically to the sample tested and also the entire batch in so far as the sample is truly representative of the sample source.

tk



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## k) amdel

Analysis cod	e ICP2		Repor	t AC 517	7 / 8 8		Pa	ige I1
NATA Certifi	cate					Re	sults	in ppm
Sample	As	Ва	Fe	Mn . ,	Р	Sp	La ·	ИÞ
1239537	< 5	240	5.65%	1500	500	10	10	< 5
1239538	< 5	210	4.98%	820	380	5	5	< 5
1239539	< 5	170	6.00%	1100	400	15	5	< 5
1239540	< 5	180	5.95%	1350	500	20	10	5
1239601	< 5	240	5.80%	1550	750	20	10	< 5
1239602	< 5	200	6.05%	1100	550	25	15	5
1239603	< 5	290	4.68%	450	600	15	< 5	< 5
1239604	<5	250	6.90%	1050	550	25	< 5	< 5
1239605	< 5	210	5.60%	1100	500	15	10	< 5
1239606	< 5	190	4.94%	720	400	10	< 5	< 5
1239607	< 5	220	5.35%	1050	550	10	< 5	< 5
1239608	< 5	190	5.55%	920	400	10	< 5	< 5
1239609	< 5	210	5.90%	800	380	20	< 5	< 5
1239610	< 5	170	5.65%	800	360	20	< 5	< 5
1239611	< 5	210	5.60%	1000	500	10	5	< 5
1239612	< 5	210	5.75%	1000	450	10	< 5 →	< 5
1239613	< 5	230	5.10%	920	550	10	< 5	₹5
1239614	<5	230	5.85%	960	450	25	5	5
1239615	< 5	180	5.55%	840	400	25	< 5	5
1239616	5	200	6.40%	1050	500	3 <b>5</b>	< 5	10
1239617	< 5	190	6.05%	840	500	30	5	5
1239618	<5	230	6.80%	1250	600	30	5	5
1239619	<5	170	5.90%		320	20	< 5	< 5
1239620	< 5	240	5.60%	940	400	15	< 5	<5
1239621	< 5	160	4.88%	640	360	15	< 5	< 5
1239622	<5	200	5.85%	900	550	25	5	10
1239623	< 5	190	5.75%	1200	500	20	5	5
1239624	<5	140	4.62%	880	400	15	5	< 5∙
1239625	< 5	180	5.30%	940	400	15	5	< 5
1239626	< 5	160	5.00%	680	360	15	< 5	<_5
1239627	< 5	170	5.45%	1050	500	15	10	< 5
1239628	<5	140	5.80%	960	500	10	10	< 5
1239629	< 5	120	4.68%	760	380	5	< 5	< 5
1239630	< 5	130	5.10%	1100	240	5	< 5	< 5
1239631	< 5	140	4.60%	880	380	< 5	5	< 5
1239632	< 5	180	4.96%	840	380	10	5	< 5
1239633	< 5	150	5.55%	800	380	10	10	< 5
1239634	< 5	140	5.60%	840	360	10	5	< 5
1239635	< 5	160	5.50%	700	320	15	< 5	< 5
1239636	< 5	100	4.64%	900	300	10 -	5	< 5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

## lg amdel

Analysis code	e ICP2		Report	AC 51	7/88		Page	12
NATA Certific	cate		•		. :	R	esults in	ppm
	•		•					
Sample	As	Ba .	Fe	Mn	P	Sb	La	Ир
1239637	< 5	170	5.20%	900	450	10	5	₹5
1239638	< 5 ⋅	200	5.45%	700	340.	10	< 5 ∴	< 5
1239639	₹5	180	4.96%	820	400	1.0	. <5	< 5
1239640	< 5	130	5.00%	500	260	10	< 5	< 5
1239641	< 5	140	5.05%	1000	300	10	5	< 5
1239642	< 5	130	5.20%	640	400	. 10	<b>5</b> _	< 5
1239643	< 5	150	5.20%	1050	300	15	5	< 5
1239644	< 5	150	4.66%	760	340	5	5	< 5
1239645	< 5	210	5.10%	660	320	10	< 5	< 5
1239646	< 5	180	4.60%	580	380	10	< 5	·<5
1239647	< 5	140	4.52%	720	300	5	10	< 5
1239648	< 5	160	4.96%	760	450	10	5	< 5
1239649	< 5	190	5.00%	800	400	10	<5	< 5
1239650	<5.	180	5.35%	960	400	10	5	< 5
1239651	< 5	160	4.86%	980	380	10	5	< 5
1239652	< 5	170	5.35%	820	4.0.0	10	< 5	<5 :
1239653	< 5	160	4.90%	760	450	10	< 5	< 5
1239654	< 5.	130	5.30%	600	360	10	5	< 5 ⋅
1239655	< 5	180	5.10%	820	380	10	5	< 5
1239656	< 5	150	5.20%	800	450	15	5	< 5,
1239657	< 5	150	4.76%	660	360	10	< 5	< 5
1239658	< 5	160	4.54%	620	240	10	< 5	< 5
1239659	< 5	160	5.40%	840	340	10	< 5	< 5
1239660	< 5	120	5.05%	760	320	10	5	< 5
1239661	< 5	120	5.55%	940	500	5	< 5	< 5
1239662	< 5	140	5.40%	560	340	15	< 5	< 5
1239663	<b>₹5</b>	130	5.60%	6 4 D	360	20	< 5	5.
1239664	₹5	170	5.25%	560	300	15	< 5	< 5
1239665	< 5	170	5.90%	740	400	.15	<5	< 5 ∖
1239666	< 5	150	6.10%	720	340	15	5	< 5
1239667	<5 ⋅	160	4.96%	520	300	10	<5 ,	<⋅5
1239668	¹<5	150	5.95%	840	450	15	< 5	< 5
1239669	₹5	160	5.45%	520	500	15	· <5	5
1239670	< 5 €	180	4.74%	540	300	10	< 5	< 5
1239671	< 5	150	5.80%	800	340	15	< 5	< 5
1239672	< 5	130	5 1.5%	700	300	15	, <b>&lt;</b> 5	< 5
1239673	< 5	160	6.45%	880	650	15	< 5	< 5
1239674	< 5	140	5.95%	940	500	20	5	5
1239675	< 5	170	4.70%	600	500	15	< 5	< 5
1239676	<5	160	5.85%	8 8 0	360	20	< 5	5
				•	•			
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(-5.)

#### lø amdel

Analysis cod			•	t AC 51				
NATA Certifi	.cate					R€	sults in	n ppm
Sample	·As	Ва	Fe	Mn	Р	Sb	La	Nb
1239677	< 5	140	5.80%	800	360	15	<5	< 5
1239678	< 5	160	5.90%	700	360	20	< 5	5
1239679	< 5	150	5.85%	720	450	15	<b>&lt;</b> 5	< 5
1239680	< 5	170	6.00%	920	450	15	< 5	< 5
1239681	₹5	100	5.10%	660	320	10	10	. <5
1239682	<b>&lt;</b> 5	150	5.50%	820	360	10	< 5	< 5
1239683	<b>&lt;</b> 5	160	5.55%	920	450	15	⟨5	< 5
1239684	< <b>5</b>	- 130	6.25%	660	360	15	<b>&lt;</b> 5	< 5
	< 5	130	6.20%	680	450	15	<b>&lt;</b> 5	< 5
1239685					400	10	< 5	< 5
1239686	< 5	150	5.80%	800				
1239687	< 5	150	5.70%	680	400	10	< 5	< 5
1239688	< 5	150	5.85%	900	400	10	< 5	< 5
1239689	<b>&lt;</b> 5	140	5.35%	980	380	15	< 5	< 5
1239690	< 5	140	4.06%	500	400	10	< 5	< 5
1239691	< 5	160	5.10%	800	360	10	< 5	< 5
1239692	< 5	160	4.28%	820	400	15	<b>&lt;</b> 5	< 5
1239693	< 5	170	3.78%	400	450	15	< 5	< 5
1239694	< 5	120	4.22%	760	280	10	< 5	< 5
1239695	< 5	110	4.40%	920	360	10	< 5	< 5
1239696	<5	110	3.88%	720	220	15	< 5	< 5
1239697	<5 ⋅	130	4.96%	880	360	15	< 5	< 5
1239698	<5	170	4.98%	1200	4 0 0.	10	< 5	< 5
1239699	< 5	. 180	4.74%	900	450	15	< 5	< 5
1239700	< 5	160	4.84%	980	500	1 5	< 5	< 5
1239701	< 5	190	5.25%	1450	450	15	< 5	< 5
1239702	<5	130	5.15%	840	450	10	< 5	< 5
1239703	< 5	150	4.60%	1050	550	10	< 5	< 5
1239704	₹ ₹5	170	4.56%	700	650	15	< 5	5
1239705	·< 5	170	5.90%	1000	450	15	< 5	< 5
1239706	<5	180	5.05%	1050_	550	15	<5 ·	< 5
1239707	< 5	180	5.25%	660	650	15	<5	5
1239708	<5	130	3.78%	700	800	10	5	5
1239709	<b>&lt;</b> 5	170	5.20%	840	450	1.5	5	5
1239710	<b>&lt;</b> 5	180	4.82%	760	500	20	5	5
1239711	<b>&lt;</b> 5	180	5.40%	800	550	15	10	5
1239712	<b>&lt;</b> 5	170	5.40%	720	500	15	5	5
1239713 .	<b>&lt;5</b>	130	3.84%	520	450	15	5	5
1239714	<5	170	5.45%	800	450	15	5	5 <sup>°</sup>
		200		980	500	15	< 5	
1239715 1239716	<5 <5	180	5.95% 5.90%	980	500	15	< 5	5 5
								, c
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5

#### lő amdel

Analysis co	ode ICP2		Repor	t AC 517	7/88		Pa	age	I 4
NÁTA Certi	ficate					Re	esults	in	ppm
Sample	As	Ва	Fe	Mn	P.	- Sb	La	•	Ир
1239717	< 5	170	5.50%	920	500	20	< 5		5
1239718	< 5	180	5.60%	820	450	20	< 5		5
1239719	5	180	5.30%	780	550	15	< 5		5
1239720	< 5	170	5.35%	720	400	20	< 5		5
1239721	5	180	5.55%	760	550	20	< 5		5
1239722	5	200	5.70%	940	550	20	< 5		5
1239723	< 5	180	5.35%	760	550	15	< 5		5
1239724	< 5	170	5.55%	700	550	15	< 5		5
1239725	< 5	150	4.58%	580	550	10	< 5		< 5
1239726	< 5	140	4.90%	700	360	5	< 5		< 5
1239727	< 5	160	4.52%	640	550	10	< 5		< 5
1239728	<.5	140	4.68%	7'40	450	10	< 5		<,5
1239729	< 5	130	4.54%	600	600	10	< 5		< 5
1239730	< 5	160	5.40%	800	400	10	5		< 5
1239731	< 5	15Ó	5.35%	740	400	15	< 5		< 5
1239732	< 5	160	4.98%	820	600	10	10		5
1239733	< 5	170	4.42%	600	650	10	< 5		< 5
1239734	< 5	180	5.10%	920	700	10	5		< 5
1239735	< 5	180	4.80%	860	600	15	<5	,	< 5
1239736	< 5	120	3.50%	450	500	10	₹5		5
1239737	< 5	150	4.54%	620	550	5	₹5		< 5
1239738	<5 ⋅	1.70	5.25%	960	500	10	5		< 5
1239739	< 5	140	3.74%	480	650	15	< 5		5
1239740	< 5	140	4.28%	620	550	10	< 5		5
1239741	< 5	180	4.68%	700	600	10	< 5		< 5
1239742	< 5	170	4.30%	580	600	5	< 5		< 5
1239743	< 5	150	4.40%	620	600	10	<5		< 5
1239744	< 5	180	5.65%	1000	650	10	5		< 5
1239745	< 5	140	4.48%	640	500	10	<5		< 5
1239746	< 5	160	3.88%	520	600	10	< 5		5
1239747	< 5	140	4.10%	620	650	. 10	< 5		< 5
1239748	< 5	140	4.02%	620	600	5	< 5		< 5
1239749	< 5	140	4.06%	600	700	10	< 5		< 5
1239750	< 5	190	5.10%	860	550	10	< 5		< 5
1239751	< 5	150	4.12%	540	360	10	< 5		< 5
1239752	<5	150	5.75%	660	320	15	< 5		< 5
1239753	< 5	150	5.10%	560	400	10	< 5		< 5
1239754	<5	180	5.45%	920	500	15	< 5		< 5
1239755	< 5	120	4.56%	640	450	10	< 5		< 5
1239756	45	140	4.66%	500	400	10	. <5		< 5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)

## lő amdel

Analysis co	ode ICP2		Repor	t AC 51	7/88		P	age	I 5
NATA Certi	ficate				•		Results	in	<b>bb</b> w
									•
Sample	As	Βà	Fe	Mn	Р	Sb	La		Nb
1239757	170	170	5.40%	560	550	10	< 5		5
1239758	< 5	180	5.50%	1100	450	15	< 5	٠.	< 5
1239759	< 5	130	5.20%	. 660	240	15	< 5		< 5
1239760	< 5	190	4.54%	640	550	10	< 5		< 5
1239761	< 5	180	5.65%	1100.	500	15	< 5		< 5
1239762	35	200	6.00%	840	550	15	< 5		< 5
1239763	< 5	160	5.50%	700	450	. 15	< 5		< 5
1239764	< 5	150	5.35%	860	550	15	< 5		₹5.
1239765	< 5	150	5.05%	940	400	10	· <5		< 5
1239766	. <5	150	5.20%	440	280	15	<5		< 5
1239767	< 5	100	3.16%	440	300	10	< 5		< 5
1239768	<5	95	2.28%	270	100	10	< 5		< 5
1239769	< 5	150	4.26%	540	500	10	`<5		< 5
1239770	< 5	130	5.20%	860	400	15	< 5		< 5
1239771	,\5 <5	150	5.60%	1050	500	20	< 5		< 5
1239772	<5	130	5.90%	920	550	20	< 5		< 5
1239773	< 5	160	5.70%	600	450	20	. <5		5.
1239774	<5	150	5.20%	720	400	15.			<5
1239775	<b>&lt;</b> 5	150	5.80%	720	450	15	< 5	•	< 5
1239776	<b>&lt;</b> 5	180	5.80%	960	550	15	< 5	,	5
1239777	< 5	160	5.40%	880	450	15	< 5	* * *	5
1239778	<5	150	5.50%	820	550	15	< 5	,	< 5
1239779	· <5	140	5.70%	760	650	20	< 5	,	5
1239780	<5	150	5.90%	500	300	20			5
1239781	<b>&lt;</b> 5	100	6.15%	640	320	15	< 5		5
1239782	<5	150	5.55%	780	500	15	< 5		5
1239783	< 5	130	4.70%	5 4 0°	450	15	< 5		5
1239784	< 5	160	5.40%	600	340	15	<b>&lt;</b> 5		5
1239785	< 5	170	5.80%	720	340	20	₹5		5
1239786	< <b>5</b>	170	4.52%	580	500	15	₹5		- 5
1239787	<5 <5	120	3.42%	380	450	15	< 5		5
	<5	170	5.95%	720	450		₹5		5
1239788			6.35%	700		20		- "	5
1239789	<b>&lt;</b> 5	200			500	20	<b>&lt;</b> 5		< 5
1239790	<5	170	7.10%	860					<b>&lt;</b> 5
1239791	< 5	200	5.70%	0.83	750	25 20			< 5
1239792	<5	160	6.15%		450 500				
1239793	< 5	200	5.85%	820	500		< 5	٠.	< 5
1239794	< 5	200	5.45%	820	650		< 5		< 5
1239795	< 5	140	5.60%	760		15			< 5
1239796	< 5	150	5.80%	760	400	. 15	< 5		< 5
Detn limit	(5)	(5)	(50)	(5)	(50)	( 5	(5)	: .	(5)

# l) amdel

Analysis cod	e ICP2		Repor	t AC 51		Page I6		
NATA Certifi	cate					R€	sults i	n ppm
Sample	As	B a⁻	Fe	Mn	Р	Sb -	La	Ир
1239797	< 5	200	5.90%	860	500	20	< 5	< 5
1239798	< 5	210	5.15%	660	900	15	< 5	5
1239799	< 5	230	6.65%	1000	700	20	< 5	< 5
1239800	< 5	200	6.20%	1 100	700	15	< 5	< 5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

# lő amsel

1239636

Detn limit

10

(5)

< 5

(5)

Analysis code	ICP2		Report AC 517/88	Page
NATA Certific	ate			Results in p
Sample	Sn	- <b>W</b>		-
1239537	20	< 5		
1239538	20	< 5		
1239539	25	< 5		
1239540	25	< 5		
1239601	20	< 5		
1239602	25	< 5		
1239603	1.5	< 5	·	-
1239604	30 `	< 5		
1239605	20	< 5		•
1239606	20	< 5		
1239607	20	< 5		
1239608	20	< 5		
1239609	25	< 5	• •	
1239610	20	< 5		
1239611	20	· < 5		•
1239612	20	. < 5		
1239613	20	< 5		
1239614	25 ,	. 5		
1239615	25	5		
1239616	30	10		
1239617	25	5		•
1239618	25	5		
1239619	25	< 5		
1239620	20	< 5		
1239621	20	< 5		
1239622	25	5		
1239623	20	< 5		
1239624	15	< 5		
1239625	20	< 5		
1239626	20	< 5	•	
1239627	15	< 5		
1239628	20	< 5		
1239629	10	< 5		
1239630	10	< 5	•	r
1239631	10	< 5		
1239632	15	< 5		
1239633	15	< 5		
1239634	15	< 5		
1239635	20	< 5		
	4.0			

## ký amdel

Analysis code	ICP2		Report	AC	517/88		Pag	e I8
NATA Certifica	ate					Res	sults i	n ppm
Sample -	Sn ·	W				-		
1239637	15	< 5						·
1239638	20	< 5					• • •	
1239639	20	< 5						
1239640	20	< 5						
1239641	15	< 5						9
1239642	15	< 5						
1239643	15	< 5						
1239644	15	< 5						
1239645	20	<5						
1239646	15	< 5						
1239647	15	< 5	•					
1239648	20	< 5						
1239649	15	< 5				•		
1239650	15	< 5						
1239651	15	< 5						
1239652	20	< 5						
1239653	15	< 5						
1239654	15	< 5						
1239655	15	< 5						
1239656	15 .	< 5					•	
1239657	15	< 5						
1239658	15	< 5						
1239659	15	< 5						
1239660	15	< 5						
1239661	15	< 5						
1239662	15	< 5						
1239663	20	< 5						
1239664	20	< 5	•					
1.239665	20	< 5			•			
1239666	20	< 5			•		_	
1239667	15	< 5	-					
1239668	20	< 5						
1239669	15	< 5						
1239670	15	< 5						
1239671	20	< 5						
1239672	15	< 5						
1239673	20	< 5			-			
1239674	15	< 5						
1239675	15	< 5						
1239676	20	< 5						
Detn limit	(5)	(5)						

Analysis code	ICP2		Report	AC 5	17/88		Pa	ge	I 9	
NATA Certifica	ate						Results	in	ppm	
		•								
Sample	Sn	W								
1239677	20	<5								
1239678	20	<5								
1239679	20	< 5								
1239680	20	< 5					,			
1239681	15	<5			4					
1239682	15	<5								
1239683	15	<5								
1239684	20	< 5								
1239685	20	< 5								
1239686	15	< 5 ⋅								
1239687	15	<5				•				
1239688	20	< 5								
1239689	15	< 5								
1239690	15	<5		•						
1239691	20	< 5								
1239692	15	< 5								
1239693	15	<5 ⋅								
1239694	15	< 5								
1239695	15	< 5								
1239696	1 5.	< 5								
1239697	15	< 5								
1239698	15	< 5								
1239699	15	< 5								
1239700	20	<5								
1239701	20	< 5								
1239702	15	< 5								
1239703	15	< 5								
1239704	20	<∙5								
1239705	20	< 5								
1239706	. 20	< 5						•		
1239707	15	<5								
1239708	10	<5 ⋅	•							
1239709	15	< 5								
1239710	15	< 5					*			
1239711	15	< 5								
1239712	20	< 5								
1239713	15	< 5								
1239714	20	< 5		-						
1239715	20	< 5								
1239716	20	< 5								
Detn limit	(5)	(5)								

#### **l**g amdel

Analysis code	ICP2		Report A	.C 517/88	Р	age	I 1 0
NATA Certifica	ate			•	Results	in	ppm
							-
Sample	Sn	W		•			-
1239717	20	< 5					
1239718	20	< 5					
1239719	20	< 5			•		
1239720	20	< 5					
1239721	20	< 5					
1239722	20	< 5					
1239723	20	< 5					
1239724	20	< 5		•			
1239725	15	< 5					
1239726	15	< 5		•	4		
1239727	10	< 5	*				
1239728	1.5	< 5	* .				
1239729	10	< 5					
1239730	15	< 5					
1239731	15	< 5					
1239732	15	< 5					
1239733	15	< 5			•		
1239734	15	< 5					
1239735	15	< 5					
1239736	10	< 5					
1239737	15	< 5	-	•			
1239738	15	< 5					
1239739	15	< 5				•	
1239740	15	< 5					
1239741	15	< 5		•			
1239742	10	< 5					
1239743	15	< 5					
1239744	15	< 5		•			
1239745	1.5	< 5		•			
1239746	15	< 5					
1239747	15	< 5					
1239748	15	< 5	•				
1239749	15	< 5					
1239750	15	< 5	•				
1239751	15	< 5					
1239752	20	< 5					
1239753	20	< 5					
1239754	20	< 5					
1239755	15	< 5					
1239756	10	< 5					
Detn limit	(5)	(5)			*.	•	

## lý amdel

1239795

1239796

Detn limit

20

20

(5)

< 5

< 5

(5)

Analysis	code ICP2		Repor	t AC	517	/88		Рa	ge	I 1 1	
NATA Cert	cificate						Resu	lts	in	ppm	
Sample	Sn	W									
1239757	15	< 5									
1239758	15	< 5									
1239759	20	< 5							•		
1239760	15	< 5									
1239761	20	< 5									
1239762	20	< 5									
1239763	20	< 5								•	
1239764	15	< 5									
1239765	15	< 5									
1239766	20 .	< 5									
1239767	10	< 5									
1239768	10	< 5									
1239769	15	< 5	•								
1239770	15	< 5									
1239771	20	< 5						,			
1239772	20	< 5									
1239773	20	< 5									
1239774	20	< 5									
1239775	20	< 5					•				
1239776	20	< 5									
1239777	20	< 5									
1239778	20	< 5				•				•	
1239779	20	< 5									
1239780	20	< 5									
1239781	20	< 5	,								
1239782	20	< 5	•								
1239783	15	< 5									
1239784	20	< 5									
1239785	20	<b>&lt;</b> 5									
1239786	20	<b>&lt;</b> 5									
1239787	15	< 5									
1239788	25	< 5									
1239789	25	< 5									
1239790	25	< 5									
1239791	25	< 5									
1239792	25	< 5									
1239793	20	< 5							,		
1239794	20	< 5									
4930706	2.0	7.5									

## lő) amdel

Analysis cod	le ICP2		Report AC 517/88	Page I12
NATA Certifi	.cate			Results in ppm
Sample	Sn	W	-	
1239797	20	< 5		
1239798	2 O	< 5		
1239799	25	< 5		
1239800	20	< 5		
Dotn limit	(5)	(5)		

#### (6) amdel

Analysis code	PM1/3SPE	Re	port AC	517/88			Page	G 1
NATA Certifica	ate		•			Resul	ts in p	pm
Sample		Bi	Co-	Cr-	Cu	Mo	Ni -	Рb
•								
1239537		<2	18	37	37	< 1	35	23
1239538		< 2	1 4	40	30	< 1	33	20
1239539	•	< 2	19	42 ·	33	< 1	29	19
1239540		<2	17.	42	31	< 1	26	22
1239601		< 2	18	4.1	34	< 1	28	22
1239602		< 2	15	4 1	33	· <1	30	20
1239603		< 2	- 9	35	23 -	< 1	27	12
1239604		< 2	10	4 1	26	< 1	26	19
1239605		<2	13	4 1	28	< 1	26	19
1239606		< 2	11	38	23	< 1	23	19
1239607		< 2	12	4 1	27	< 1	27	23
1239608		< 2	12	42	23	< 1	25	18
1239609		< 2	1 1	4 1	26	< 1	24	21
1239610		< 2	12	42	25	< 1	24	19
1239611		< 2	1 4	42	28	1	29	20
1239612	•	< 2	13	42	28	< 1	30	22
1239613		< 2	11	36	24.	1	20	20
1239614		< 2	. 11	42	26	< 1	24	23
1239615		· <2	12	42	26	< 1	25	23
1239616		< 2	14	4 1	26	< 1	22	20
1239617		<2	1 1	4 1	29	< 1	24	20
1239618		< 2	13	43	29	< 1	22	22
1239619		<2 □	9	59	29	1 -	27	18
1239620		< 2	12	58	26	< 1	27	21
1239621		<2	10	50	23	< 1	20	19
1239622		< 2	13	58	28	< 1	23	19
1239623		< 2	1 4	5 4	27	< 1	23	21
1239624		. < 2	11	47	26	< 1	19	24
1239625	•	· ·<2	11	51	24	< 1	22	23
1239626		< 2	10	4 9	2 4	< 1	21	18
1239627		<2	14	48	27	< 1	23	25
1239628		< 2	12	5 1	33	<1	29	26
1239629		<2	10	39	24	< 1	22	22
1239630		< 2	- 1 4	45	27	<1	3 <b>0</b>	19
1239631		<2	11	3.8	23	<1	20	18
1239632		<2	14	4 5	27	<1	23	22
1239633		<2	15	4 5	28	<1	23	20
1239634		<2	14	47	3.1	< 1	28	19
1239635	•	<2	13	4 5	30	< 1	23	16
1239636		<2	18	4 0	26	< 1	26	16
Detn limit		(2)	(2)	(5)	(1)	(1)	(2)	(2)



Analysis code PM1/3SPE	Repo	ort AC 5	517/88		P	age G2	<u> </u>
NATA Certificate					Results	in ppm	า
					•		
Comple	Bi	.C o	Cr	Cu	Мо	Ni	Рb
Sample	DT .		CI	Cu .	110	14.1	
1239637	<2	15	4:5	.27	< 1	26	21
1239638	< 2	13	4 8	27	<1	22	18
1239639	<2	1 4	43	31	< 1	24	1 4
1239640	< 2	1.1	49	28	< 1	24	1 4
1239641	< 2	18	44	30	< 1	2.5	17
1239642	< 2	14	45	29	< 1	24	15
1239643	< 2 .	19	4.5	2.7	< 1	29	18
1239644	< 2	1 4	4-1,	28	< 1	25	19
1239645	<u>,</u> < 2.	12	4.8	25	< 1	22	18
1239646	< 2	11	42	28	<b>&lt; 1</b>	21	17
1239647	< 2.	1:7	46	29	<1 -	25	19
1239648	< 2	16	49	28	. < 1 ⋅	24	20
1239649	< 2	16	4.6	23	< 1	26	19
1239650	< 2	1.8	50	27	< 1	24	19
1239651	< 2	19 . °	4 8	26	K 1	25	20
1239652	< 2	15	50	27	<1 .	26	2 1
1239653	< 2	1.4	4 4		<b>&lt;1</b> ,	22	18
1239654	< 2	15.	49	28	<b>&lt; 1</b> .	27	19
1239655	< 2.	15	4 5	24	<1	29	19
1239656	< 2	16	47	24	<b>&lt;1</b>	23	20
1239657	< 2	15 .	47	23	< 1	22	18
1239658	< 2	14	4.8	24	<1	24	16
1239659	< 2	19	50		<1	28 26	20 20
1239660	< 2	21	4 4 5 1	29 29	<b>₹1</b> - , ; ; ; ; <b>₹1</b>	30	2 G
1239661	<2 <2	20 14	48	24	<1 ·	24	21
1239662 1239663	<2	15	47	23	<b>&lt;1</b>	25	19
1239664	< 2 <sup>-</sup>	13	45	20	<b>K1</b>	19	16
1239665	<2	14	5.0	27	<1	25	20
1239666	< 2	17	50	35	<1	26	21
1239667	·<2	13	43	28	<1	23	18
1239668	< 2	15	49	3.0	< 1	27	20
1239669	< 2	1 4	4 6	31	<1	3.1	15
1239670	< 2°	13	45	26	< 1	25	20
1239671	< 2	16	52	31	<1	30	20
1239672	< 2	16	53	3 1	<1	33	24
1239673	< 2	13	53	28	< 1	25	19
1239674	< 2	18	46	29	<1	3.1	23
1239675	< 2	14	42.	24	<1	26	19
1239676	< 2	16	50	29	< 1	25	18
						•	•
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)
	•	* .					

## 16 amdel

	Analysis code PM1/3SPE	R	eport AC	517/88			Page	G 3
	NATA Certificate					Resul	ts in p	pm
	Sample	Bi-	Со	Cr	Cu	Mo	Ni	Рb
	1239677	< 2	16	51	28	1	27	22
	1239678	< 2	16	50	30	< 1	26	22
	1239679	< 2	17	47	3 1	< 1	25	17
	1239680	< 2	18	51	32	< 1	24	22
	1239681	< 2	13	42	30	<1	21	16
	1239682	< 2	16	49	29	< 1	23	16
	1239683	< 2	18	46	29	< 1	28	22
	1239684	< 2	13	5 1	28	< 1	25	16
	1239685	< 2	12	47	32	< 1	24	14
	1239686	< 2	17	48	.5 3	< 1	30	25
	1239687	< 2	12	43	.26	<1	23	19
	1239688	< 2	1 4	47	2.7	< 1	28	20
	1239689	< 2	21	50	34	< 1	26	24
	1239690	< 2	1 4	47	32	<1	25	18
	1239691	< 2	15	51	29	<1	25	21
	1239692	< 2	13	47	23	< 1	20	25
	1239693	< 2	1 1	43	21	< 1	19	17
	1239694	< 2	1 4	43	25	< 1	22	18
	1239695	< 2	1 4	39	25	< 1	20	16
	1239696	< 2	1 4	46	26	1	2 1	19
	1239697	< 2	16	4 5	2 4	<1	20	18
	1239698	< 2	20	47	28	1	24	23
. *	1239699	< 2	14	42	25	< 1	20	18
	1239700	< 2	18	47	. 25	< 1	22	23
	1239701	< 2	22	4 5	29	< 1	29	23
	1239702	< 2	13	39	27	<b>&lt; 1</b>	21	15
	1239703	< 2	15	4 0	2 2	<1	23	19
	1239704	< 2	12	36	25	< 1	20	17
	1239705	< 2	15	42	28	<1	26	21
	1239706	< 2	1 4	37	22	< 1	21	19
	1239707	< 2	1.3	47	29	< 1	27	13
	1239708	< 2	9	37	22	< 1	19	9
	1239709	< 2	1 4	4 8	28	<1	23	15
	1239710	< 2	1 1	4 0	27	< 1	17	13
	1239711	< 2	12	4 3	26	<1	2 1	16
	1239712	< 2	12	4 8	3 1	<1	23	9
	1239713	< 2	12	40	29	< 1	23	12
	1239714	< 2.	1 1	4 8	3 1	< 1	27	12
	1239715	< 2	12	4 6	27	<1	28	13
	1239716	< 2	11	4 2	23	<b>&lt;1</b>	20	12
	Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)

## **l**Øamdel

Analysis code PM1/3SPE	R	eport AC	517/88	i .		Page	G 4
NATA Certificate			-		Resul	ts in p	pm
Sample	Bi	Co	Cr	Cu	Мо	Ni	Рb
1000717	4.0	1.7	4.6		< 1	3 1	14
1239717	< 2	13	46	32		24	12
1239718	<2	11	47	25	< 1	25	12
1239719	< 2	11	45	30 30	< 1 < 1	25 25	. 13
1239720	< 2	13	43		1	29	15
1239721	<2	12	46	30	1	27	13
1239722	<2	12	45	33			
1239723	<2	11	43	26	< 1	29	12
1239724	<2	12	45	33	< 1	27	10
1239725	<2	1 1	52	36	< 1	23	12
1239726	< 2	10	5 7	36	<1	25	10
1239727	<2	9	4 4	33	< 1	24	11
1239728	< 2	10	57	23	< 1	25	11
1239729	< 2	10	4 8	25	< 1	25	9
1239730	< 2	10	5 4	26	< 1	32	16
1239731	< 2	10	4 9	30	< 1	26	14
1239732	< 2	12	49	33	< 1	28	1 4
1239733	< 2	8	4 3	28	< 1	26	11
1239734	< 2	12	52	29	< 1	35	14
1239735	<2	1 1	4 9	23	< 1	24	17
1239736	< 2	8	36	23	< 1	24	9
1239737	< 2	11	5 1	25	< 1	29	12
1239738-	< 2	9	49	27	< 1	31	17
1239739	< 2	6	37	23	< 1	22	11
1239740	< 2	9	4 5	28	< 1	24	11
1239741	< 2	8	45	26	< 1	28	13
1239742	< 2	7	42	23	< 1	25	13
1239743	<2	9	4 0	22	< 1	25	12
1239744	< 2	10	4 5	2 4	< 1	30	16
1239745	< 2	9	39	25	₹1	27	13
1239746	< 2	9	36	26	<.1	21	12
1239747	<2	8	4 0	27	< 1	25	. 11
1239748	< 2	8	3 6	2 4	< 1	21	12
1239749	< 2	8	36	23	< 1	20	12
1239750	< 2	11	43	25	< 1	33	20
1239751	<2	1 1	37	29	< 1	23	17
1239752	< 2	10	4 3	27	< 1	27	19
1239753	< 2	9 .	37	23	< 1	25	16
1239754	< 2	13	39	2 4	< 1	25	.18
. 1239755,	< 2	11	36	20	< 1	29	17
1239756	< 2	9	29	36	< 1	24	8
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)

#### 16 amdel

Analysis code	PM1/3SPE		Report	AC 517/	3 8		Page	G 5
NATA Certifica	ate					Resu]	Lts in p	pm
Sample		3i	Со	Cr	Cu	Мо	Ni	Рb
1239757	<	(2	9	32	74	< 1	20	14
1239758	•	٤2	12	38	29	< 1	30	18
1239759		2	11	40	39	<1	26	13
1239760		ζ2	11	34	35	< 1	18	12
1239761		(2	13	40	32	< 1	28	17
1239762	<	٤ )	13	37	42	₹1	25	13
1239763	<	(2	1 2	4.6	29	< 1	2 4	18
1239764	<	٤2	11	4 2	29	<1	21	17
1239765	<	(2	1 1	4 1	. 30	< 1	21	9
1239766	<	< 2	1 0	40	31	< 1	25	1 1
1239767	<	٤2	9	37	30	< 1	23	10
1239768		< 2	1 0	36	29	< 1	23	1.0
1239769	<	< 2	12	37	27	< 1	22	13
1239770		< 2	9.	39	26	< 1	25	1 4
1239771	<	۲)	13	46	3 1	< 1	28	13
1239772	<	< 2	1 1	45	32	<1	30	15
1239773		< 2	10	43	30	< 1	27	12
1239774	•	< 2	10	49	28	<1	24	15
1239775		< 2	. 10	55	3 4	<1	27	1 4
1239776	<	< 2	13	50	37	<1	27	15
1239777		ζ2	10	4 4	32	< 1	2 4	17
1239778	•	ζ2	11	46	32	<1	27	16
1239779	•	< 2	13	55	35	<1	35	18
1239780	•	< 2	12	58	30	<1	36	14
1239781	•	ζ2	10	60	30	<1	31	14
1239782	•	< 2	10	55	29	<1	36	12
1239783		< 2	10	49	30	<1	52	10
1239784		< 2	7	4 4	27	< 1	28	11
1239785		< 2	9	4 5	3 1	′ <1	28	1.1
1239786		< 2	10	4 1	3 4	<b>&lt;1</b> .	33	9
1239787		< 2	8	- 32	3 0	< 1	26	12
1239788		< 2	10	4 4	22	<1	28	14
1239789		< 2	9	49	30	< 1	28	15
1239790		< 2	11	42	28	<1	30	12
1239791		< 2	11	43	32	1	28	16
1239792		< 2	9	46	27	<1	29	18
1239793		< 2	10	4 4	26	<1	32	17
1239794		< 2.	11	46	27	< 1	25	17
1239795		< 2	6	41	21	<1	26	9
1239796		< 2	9	48	3 1	<1	29	17
Detn limit		(2)	(2)	(5)	(1)	(1)	(2)	(2)



Analysis code PM1/3SPE	Re	port AC	517/88			Page	G 6
NATA Certificate					Resul	ts in p	pm
Sample	Вi	Co	Cr	Cu _	Мо	Ni	Рb
1239797	< 2	1 0	- 41	36	1	29	1 7
1239798	< 2	8	40	3 4	< 1	24	15
1239799	< 2	9	47	30	< 1	32	22
1239800	< 2	13	50	29	< 1	31	19
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)



Analysis code PM1/3SPE Report AC 517/88

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NATA Certificate

Results in ppm

Sample	Zn Au
1239537	98 0.0075
1239538	86 0.0050
1239539	92 0.0050
1239540	87 0.0045
1239601	94 0.0065
1239602	90 0.0050
1239603	75 0.0050
1239604	77 0.0045
1239605	81 0.0040
1239606	72 0.0065
1239607	93 0.0045
1239608	78 0.0060
1239609	74 0.0055
1239610	76 0.0055
1239611	87 0.0055
1239612	79 0.0055
1239613	74 0.0060
1239614	78 0.0065
1239615	76 0.0050
1239616	75 0.0060
1239617	72 0.0060
1239618	81 0.0060
1239619	73 0.0055
1239620	83 0.0055
1239621	66 0.0055
1239622	78 0.0050
1239623	85 0.0050
1239624	75 0.0055
1239625	93 0.0060
1239626	71 0.0040
1239627	84 0.0040
1239628	94 0.0060
1239629	71 0.0045
1239630	71 0.0060
1239631	67 0.0045
1239632	75 0.0070
1239633	75 0.0050
1239634	76 0.0035
1239635	73 0.0050
1239636	71 0.0120
	(0) ( 0005)
Detn limit	(2)(.0005)

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1239676

Detn limit

Analysis code PM	11/3SPE	Report	AC 517/88	Page G8
NATA Certificate				Results in ppm
Sample	Zn	Au		-
4000007		0.0115		·
1239637				
1239638		0.0120		
1239639	65	0.0035		
1239640		0.0085		
1239641	. 65	and the second s		
1239642	74	0.0085	t and	
1239643	73	0.0075		
1239644	75	0.0085		
1239645	73	0.0080		
1239646	63	0.0095		•
1239647				
1239648		0.0065		
1239649	83	0.0070		
1239650	74	0.0065		
1239651	76	0.0080		-
1239652		0.0080		
1239653	82		•	
1239654	73	0.0080		
1239655	68	0.0080		
1239656	82	0.0075		
1239657	86	0.0100	•	
1239658	. 72	0.0105	**	
1239659	80	0.0110		
1239660	70	0.0100	•	
1239661	90	0.0115		
1239662	73	0.0110		
1239663	77	0.0090		
1239664	77	0.0105		
1239665	81		,	
1239666		0.0110		
1239667		0.0110		<b>N</b>
1239668				·
1239669	95	0.0120		
1239670	100	0.0095		
1239671				
1239672	100 79	0.0085		
1239673		0.0105		
1239674		0.0103		
1239675	97	0.0100	•	

85 0.0085

(2)(.0005)

## **l**g amdel

Analysis code PM1/3SPE		Report	AC	517/88		Page	G 9
NATA Certificate						Results in	ppm
•							
Sample	Zn	Au			-	•	
1239677	9 4	0.0080					
1239678	80	0.0090					
1239679	80	0.0065					
1239680	87	0.0070					
1239681	65	0.0050					
1239682	79	0.0060			, .		
1239683		0.0065					
1239684		0.0060					
1239685		0.0045					
1239686		0.0065					
1239687		0.0050				•	
1239688	83	0.0055					
1239689	89			•			
1239690		0.0055					
1239691		0.0070					
1239692		0.0055					
1239693		0.0055					
1239694		0.0045					
1239695		0.0045					
1239696		0.0055					
1239697		0.0055				•	
1239698		0.0060				•	
1239699		0.0040					
1239700		0.0045					
1239701		0.0050	•				
1239702		0.0043					
1239703		0.0050		•			
1239704		0.0050		36			
1239705 1239706		0.0055				•	
1239707		0.0035					
1239708		0.0050					
1239709	8 1						
1239710	75						
1239711		0.0040	•				
1239712		0.0035					
1239713		0.0040	•				
1239714		0.0045					
1239715		0.0040		•			
1239716		0.0030					
Detn limit	(2	)(.0005	)				

#### **i**g amde

Analysis code PM1/3SPE		Report	AC 517/88	Page G1
NATA Certificate			e e	Results in pp
	_			
Sample-	Zn	Au	-	
1239717	73	0.0090		
1239718	73	0.0055		
1239719	73	0.0070	,	
1239720	75	0.0055		
1239721	78	0.0090		
1239722	78	0.0070		
1239723	69	0.0060		
1239724	77	0.0050		
1239725	69	0.0060		
1239726	72			
1239727	66	0.0060		
1239728		0.0045		
1239729	67		•	
1239730	80	0.0045		
1239731	7 1	0.0050		,
1239732	8 2	0.0070		
1239733	65			
1.239734	82			
1239735	73	0.0065		
1239736	49	0.0025	•	
1239737	70	0.0055		
1239738	8 1	0.0040		·
1239739	58	0.0040		
1239740	64	0.0040		
1239741	67	0.0030	,	
1239742	65	0.0040		
1239743	69	0.0020	4	
1239744	80	0.0010		·
1239745	72	0.0025		•
1239746	61	0.0015		
1239747	69	0.0025		
1239748	62	0.0020	•	
1239749	65	0.0020		
1239750	84	0.0020		
1239751 ,	68	0.0020	•	•
1239752	.74	0.0035		
1239753	7 1	0.0065	•	
1239754	80	0.0035		
1239755	65	0.0020		
1239756	47			
Detn limit	(2	)(.0005	)	

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1239795

1239796

Detn limit

4		
Analysis code PM1/3SPE	Report AC 517/88	Page G11
NATA Certificate		Results in ppm
Sample	Zn Au	•
1239757	52 0.6400	
1239758	66 0.0075	**
1239759	56 0.0185	
1239760	65 0.0110	
1239761	70 0.0075	
1239762	73 0.0350	•
1239763	73 0.0070	
1239764	73 0.0060	•
1239765	63 0.0035	
1239766	55 0.0055	
1239767	60 0.0030	
1239768	50 0.0030	
1239769	54 0.0035	
1239770	61 0.0025	
1239771	64 0.0030	
1239772	64 0.0035	
1239773	69 0.0040	
.1239774	58 0.0035	
1239775	62 0.0040	
1239776	74 0.0035	
1239777	65 0.0030	,
1239778	70 0.0035	
1239779	94 0.0040	
1239780	86 0.0055	
1239781	83 0.0040	
1239782	86 0.0035	
1239783	65 0.0040	
1239784	62 0.0035	
1239785	63 0.0040	
1239786	63 0.0030	
1239787	64 0.0025	
1239788	70 0.0035	
1239789	67 0.0040	
1239790	70 0.0035	
1239791	67 0.0045	
1239792	68 0.0035	
1239793	72 0.0035	
1239794	120 0.0050	•
	50 0 000F	

56 0.0035

71 0.0030

(2)(.0005)



Analysis code PM1/3SPE	Report AC 517/88	Page G12
NATA Certificate	•	Results in ppm
Sample	Zn Au	
1239797 1239798 1239799 1239800	67 0.0085 64 0.0060 84 0.0055 82 0.0050	
Detn limit	(2)(.0005)	



**NATA CERTIFICATE** 

Amdel

31 Flemington Street, Frewville, S.A. 5063

Telephone: (08) 372 2700

Amdel Limited-Inc in S.A.

Address all correspondence to: P.O. Box 114, Eastwood, S.A. 5063

Telex: AA82520 Facsimile: (08) 79 6623

5 October 1987

Mr B Murrell CRA Exploration Pty Ltd PO Box 656 FYSHWICK ACT 2609



#### REPORT AC 765/88

YOUR REFERENCE:

DPO 46560

REPORT COMPRISING:

Cover sheet Page G1-G14 Page I1-I14

DATE RECEIVED:

9 September 1987

Approved Signatory:

Trevor Francis

Don Patterson

Manager, Geo-Analytical Services

Dr William G. Spencer General Manager \_\_\_\_

Applied Sciences Group

Mr W H Johnston CRA Exploration Pty Ltd 31 Osmond Tce. NORWOOD SA 5067

Chief Geologist Information Services CCCRA Exploration Pty Ltd PO Box 656 FYSHWICK ACT 2609

The report relates specifically to the sample tested and also the entire batch in so far as the sample is truly representative of the sample source.



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## lő amdel

Analysis code	PM1/3SPEC	Report AC	765/8	3 <i>8</i>	Page	G1
NATA Certifica	ate	Order No.	DPO 4	16560	Results in	ppm
Sample	Мо	Ni	Pb	Zn	Au	
1449001	<1	31 -	13	85	0.0080	
1449002	<1	27 .	11	70.	0.0030	
1449003	2	27	13	64	0.0035	
1449004	<1	25	11	77	0.0065	
1449005	<1	28	12	83	0.0035	
1449006	<1	28	12	84	0.0025	
1449007	<1	26	9	69	0.0025	
1449008	ī	34	11	84	0.0015	
1449009	<1	32	. 11	7 <i>8</i>	0.0015	
1449010	1	39	11	86	0.0040	
1449011	2	34	11	84	0.0010	
1449012	1	36 .	16	100	0.0015	
1449013	. 3	39	13	93	0.0005	
1449014	3 2	30	10	92	0.0015	
1449015	3	28	13	79	0.0015	
1449016	<1	29	11	78	0.0010	
1449017	<1	28	13	 89	0.0010	
1449018	<1	29	13	87	<0.0005	
1449019	<1  ✓1	26	10	- 76	0.0015	
1449020	<1	31	14	91	0.0010	
1449021	<1	30	15	90	<0.0005	
1449022	<1	30	8	73	0.0010	
1449023	1	31	11	87	<0.0005	
1449024	<1	25	11	71	0.0005	
1449025	3	26	9	74	0.0020	
1449026	· 3	<i>26</i>	. 9	7 <i>2</i>	0.0025	
1449027	4	24	8	76	<0.0005	
1449028	<1	31	.10	81	0.0020	
1449029	<1	23	12	65	<0.0005	
1449030	<1	27	12	78	<0.0005	
1449031	<1	28	14	<b>8</b> 7	<0.0005	
1449032	<1	28	8	<i>75</i>	0.0010	
1449033	<1	21	14	59	<0.0005	
1449034	<1 \	29	8	<i>75</i>	<0.0005	
1449035	<1	26	1.1	68	<0.0005	
1449036	<1	23	12	69	0.0040	
1449037	<1	26	11	7 <i>2</i>	0.0025	
1449038	<1	30	12	87	0.0005	
1449039	<1	26	15	84	<0.0005	
1449040	<1	27	10	74	<0.0005	
Detn limit	(1)	(2)	(2)	(2)	(.0005)	

# 6 amdel

Analysis code PM1	Z3SPEC	Report AC	765/88	9	Pa	ge	G2
	, , , , , , , , , , , , , , , , , , , ,				0 14 -	2	
NATA Certificate		Order No.	DPO 41	6560	Results	111	ppm
Sample	<i>Mo</i>	Νi	РЬ	Zn -	Au		
Jamp TC	. 110						
1449041	4	33	17	86	0.0010		
1449042	3	34	17	91	0.0010		
1449043	. 4	23	12	68	0.0010		
1449044	3	28	13	7 <i>9</i>	<0.0005 <0.0005		
1449045	2	31	15	90 07	0.0010	-	
1449046	<1	28 26	14 17	87 81	<0.0010		
1449047	1	26 20	13	81 82	0.0010		
1449048	<1	28 28	13 13	87	<0.0015		
1449049	<1 <1	28	9	7 <i>5</i>	0.0010		
1449050	<1	28 .	11	83	<0.0015		
1449051 1449052	<1	28 ·	11	7 <i>9</i>	0.0010		
1449053	<1	27	11	77	0.0020		
1449054	2	26	11	7 <i>6</i>	0.0010		
1449055	4	27	11	83	0.0010		
1449056	i	29	10	83	<0.0005		
1449057	4	27	11	80	<0.0005		
1449059	<1	25	7	76	0.0030		
1449060	<1	26	9	87	<0.0005		
1449061	<1	<i>25</i>	8	80	0.0010		
1449062	< 1	29	12	68	<0.0005		
1449063	1	<i>32</i>	15	91	<0.0005		
1449064	<1	31	10	87	0.0015		
1449065	1	28	11	87	0.0020		
1449066	<1	24	10	70	0.0010		
1449067	<1	21	9	64.	0.0020		
1449068	2	23	7	58	0.0010		
1449069	<1	22	10	65 50	0.0025		
1449070	1	19	6	58	0.0040		
1449071	2	19 30	8	60	<0.0005		
1449072	2	<i>30</i>	16	110	0.0020		
1449073	1 2	27 25	10 <sup></sup> 9	. 83 75	0.0010 0.0025		
1449074 1449075	3	30	11	88	0.0025		
1449075	<1	36	14	100	<0.0025		
1449077	<1	20	6	61	0.0025		
1449077	<1	30	12	97	<0.0025		
1449079	<1	35	22	115	0.0005		
1449080	2	27	9	81	<0.0005		
1449081	<1	30	10	84	0.0020		
Detn limit	(1)	(2)	(2)	(2)	(.0005)		

## **l**gamdel

Analysis code	PM1/3SPEC	Report AC	765/88	Pā	age G3
NATA Certific	ate	Order No.	DPO 46560	Results	in ppm
Sample -	Мо	Ni	Pb Z	Zn Au	
1449082 1449083 1449084 1449085 1449087 1449088 1449089 1449090 1449091 1449093 1449095 1449096 1449097 1449098 1449099 1449100 1449101 1449102 1449103 1449104 1449105 1449107 1449108 1449107 1449108 1449111	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	33 37 31 27 32 33 29 30 32 33 29 30 32 36 37 32 31 30 44 26 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 31 31 31 31 31 31 31 31 31 31 31 31	11	92       <0.0005	
Doon Hail	(1)	(	( 2./	(2) (.0003)	

## ko amdel

. Analysis code P	M1/3SPEC	Report	AC 765/8	8	Pā	ige G4
NATA Certificat	i e	Order N	o. DPO 4	6560	Results	in ppm
Sample	Мо	Ni	Pb	Zn	Au	
1449122	<1	28	14	92	<0.0005	
1449123	3	<i>32</i>	14	99	<0.0005	
1449124	1	<i>36</i>	12	92	<0.0005	
1449125	<1.	28	10	80	0.0010	
1449221	. 1	33	13	79	0.0020	
1449222	2	34	14	78	0.0010	
1449223	1	34	12	7 <i>6</i>	0.0015	
1449224	<1	14	<2	30	<0.0005	
1449225	<1	22	13	57	0.0045	
1449226	. 7	33	16	76	0.0060	
1449227	2	29	13	66	0.0055	
1449228	1	29	11	63	0.0040	
1449229	2	29	17	5 <i>9</i>	0.0070	
1449230	1	29	16	60	0.0030	
1449231	1 2 1 2	31	21	64	0.0015	
1449232	<1	33	17	7 <i>9</i>	0.0035	
1449233	<1	33	17	76	0.0025	*
1449234	1	31	17	63	0.0015	
1449235	1	30	15	73	0.0015 -	_
1449236	1 .2	35	18	81	0.0010	
1449237	3	30	15	66	<0.0005	
1449238	. 2	32	18	78	0.0010	
1449239	2 2	35	15	77	0.0010	
1449240	2	34	8	7 <i>9</i>	0.0025	
1449241	<1	41	$\tilde{g}$	92	0.0020	
1449242	1	.37	$\tilde{g}_{_{\perp}}$	95	0.0005	
1449243	<1	35	7	87	0.0010	
Detn limit	(1)	(2)	(2)	(2)	(.0005)	

## **l**Ø amdel

Analysis code PM	1/3SPEC	Report A	C 765/8	8	Pag	ge G7
NATA Certificate		Order No	. DPO 4	6560	Results	in ppm
Sample	Мо	Ni	Pb	Zn	Au	-
1449244	3	34	10	81	0.0060	
1449245	3	38	13	8 <b>8</b>	0.0025	
1449246	. 3	29	6	71	0.0030	
1449247	3	41	10	96	0.0030	
1449248	3	31	10	89	0.0035	
1449249	. 4	31	11	84	0.0045	-
1449250	3	29	13	86	0.0080	
1449251		30	17	82	0.0070	
1449252	2 2 2 2	29	1 O	74	0.0050	
1449253	2	<i>32</i>	10	88	0.0040	
1449254	2	37	14	86	0.0055	
1449255	3	38 °	14	87	0.0045	
1449256	4	<i>36</i>	15	83	0.0025	
1449257	3	39	14	91	0.0055	
1449258	<i>3</i> <i>3</i>	30	12	7 <i>8</i>	0.0015	
1449259	3	<i>30</i> ·	11.	74	<0.0005	
1449260	4	44	13	99	0.0020	
1449261	3	<i>36</i>	19	94	0.0010	
1449262	2	28	12	73	0.0025	
1449263	1	29	13	79	0.0025	
Detn limit	(1)	(2)	(2)	(2)	(.0005)	

Analysis code PM1/3SPEC	: R	Peport AC	765/88		Pag	ge	G8
NATA Certificate	C	Order No.	DPO 46560	. 1	Results	in	ррт
Sample	Ag	Вi	.Co	Cr	Cu		
1449001	< 1	<2	.18	33	34		•
1449002	<1	<2	16 .	29	32		
1449003	< 1	<2	17	<i>32</i>	30		
1449004	< 1	<2	15	<i>35</i>	<i>29</i> .		
1449005	< 1	<2	16	<i>32</i>	31		
1449006	< 1	<2	16	30	31		
1449007	< 1	<2	13	30	29 ·	-	
1449008	< 1	<2	14	39	<i>32</i>		
1449009	< 1	<2	17	34 -	29		
1449010	<1	<2	17	36	31		
1449011	< 1	<2	17	39	<i>32</i>		
1449012	<1	<2	19	39	33		
1449013	< 1	₹2	20	38	33		
1449014	< 1	<2	17	36	33		
1449015	< 1	2	17	36	29		
1449016	< 1	<2	16	34	27		,
1449017	<1	<2	18	37	28		
1449018	<1	<2	17	36	28		
1449019	< 1	<2	15	31	28		
1449020	< 1	<2	18	35	31		
1449021	< 1	<2	20	37	29		
1449022	<1	<2	20	39	33		
1449023	<1	<2	19	38	31		
1449024	<1	<2	18	30	24		
1449025	< 1	<2	16	30	29		
1449026	< 1	< <u>2</u>	Ĩ 6	29.	29		
1449027	<1	<2	14	25	26		
1449028	<1	<2	18	32	<i>30</i>		•
1449029	< 1	<2	15	25	25		
1449030	<1	<2	19	30	28		
1449031	< 1	<2	20	30	. 28		
1449032	<1	- <2	15	29	31		
1449033	<1	<2	15	24	23		
1449034	< 1	<2	24	23	28		
1449035	< 1	<2	21	25	28		
1449036	<1	<2	16	23	30		
1449037	<1	<2	17	28	30		
1449038	< 1	2	21	27	31		
1449039	< 1	<2	17	26	27		
1449040	<1	<2	16	27	32		
Detn limit	(1)	(2)	(2)	(5)	(1)		



Analysis code PM1/3SPEC		Report AC	765/88		Pa	gе	G9
NATA Certificate		Order No.	DPO 46560	)	Results	in	ppm
Sample	Ag	В і	_ Co	Cr	Cu		
		. 2	26	33	35		
2 1.72 2 7 2	< 1	<2		35 35	3 <i>6</i>		
2 . , 3 0	<1	<2	24		25		
1449043	<1	<2	14	23			
	<1	<2	. 15	30	33 21		
1449045	<1	<2	20	31	31	_	
1449046	<1	<2	17	29	30		
1449047	< 1	<2	18	27	28		
1449048	<1	<2	17	29	28		•
1449049	<1	<2	16	29	28		
1449050	<1	<2	. 16	26	26		
1449051	<1	₹2	16	28	27		
1449052	<1	<2	17	26	28		
1449053	<1	<2	16	27	28		
1449054	<1	<2	16	26	26		
1449055	<1	<2	15	28	26		
1449056	<1	2	15	31	28		
1449057	<1	<2	16	28	26		
1449059	<1	<2	14	25	28		
1449060	<1	<2	17	25	27		
1449061	<1	<2	14	25	22		
1449062	<1	<2	22	26	25		
1449063	<1	<2	22	31	31 ·		
1449064	<1	<.2	15	33	30		
1449065	<1	<2	17	26	30		
1449066	<1	<2	15	20	27		
1449067	<1	<2	15	17	27		
1449068	<1	<2	14	20	<i>25</i>		
1449069	<1	<2	15	18	27		
1449070	<1	<2	12	16	24		
1449071	< 1	₹2	13	17	24		
1449072	<1	<2	21	29	30		
1449073	<1	<2 ·	17	23	27		
1449074	<1	<2	16	24	27		
1449075	<1	<2	18	28	31		
1449076	< 1	<2	22	35	<i>32</i>		
1449077	< 1	<2	12	18	23		
1449078	< 1	<2	19	25	31		
1449079	<1	<2	22	25	33		
1449080	< 1	<2	16	24	27	•	
1449081	<1	<2	16	23	27		
Detn limit	(1	) (2)		(5.			

### **l**ő amde!

Analysis code PM1/3SPEC		Report AC	765/88		Ρē	ige	G10
NATA Certificate		Order No.	DPO 46560		Results	in	ppm
Sample	Ag	Bi_	Со	Cr	Cu		-
1449082 1449083	<1 <1	<2 <2	18 20	27 30	31 30		
1449084 1449085	<1 <1	<2 <2	24 19	- 25 30	37 36		
1449086 1449087	<1 <1	<2 <2	22 22	39 41	37 32	-	
1449088 1449089	<1 <1	<2 <2	19 20	29 29	32 33		
1449090 1449091	<1 <1	<2 <2	22 18	31 32	33 32		
1449092 1449093	<1 <1	<2 <2	20 16	35 30	30 26		
1449094 1449095	< 1 < 1	<2 <2	23 20	33 26	32 28		
1449096 1449097	<1 <1	<2 . <2	19 14	31 16	30 24		
1449098 1449099	<1 <1	<2 3	23 20	22 20	30 32		
1449100 1449101	<1 <1	<2 <2	11 23	25 21	30 35		
1449102 1449103	<1 <1 <1	<2 <2 <2	25 24 21	23 25 22	32 28 25		
1449104 1449105 1449106	<1 <1	<2	18 21	22 25	28 30		
1449107 1449108	<1 <1	. <2	19 18	23 22	30 29		
1449109 1449110	<1 <1	₹2	20 20	27 25	29 32		
1449111 1449112	<1 <1	<2	19 21	21 24	30 30		
1449113 1449114	<1 <1	<2	18 18	24 17	30 22		
1449115 1449116	<1 <1		14 17	20 25	26 29		
1449117 1449118	<1 <1	<2	17 16	27 25	32 28		
1449119 1449120 1449121	<1 <1 <1	<i>&lt;2</i>	17 20 18	27 28 24	25 27 27		
Detn limit	(1		(2)	(5)			

### **l**gamdel

Analysis code PM1/3	BSPEC R	eport AC	/63/88		ray	e G11
NATA Certificate	0	rder No.	DPO 46560	٠	Results i	n ppm
Sample	Ag	Ві	Со	Cr	Cu	
1449122	<1	<2	17	24	28	
1449123	<1	<2	20	24	26	
1449124	<1	<2	22	24	28	
1449125	<1	<2	. 17	24	28	
1113123	,	_			- · ·	
1449221	. <1	<2	14	19	29	
1449222	<1	<2	15	20	26	
1449223	<1	<i>&lt;2</i>	14	19	24	
1449224	<1	<2	5	7	8	
1449225	<1	<2	. 9	14	15	
1449226	<1	₹2	17	25	27	
1449227	<1	<2	15.	23	24	
1449228	<1	⟨2	16	20	23	
1449229	<1	<2	18	25	2 <i>9</i>	
1449230	<1	<2	20	27	2.5	
1449231	<1	<2	22	26	25 ± 31	
1449232	<1	<2	20	28	30	
1449233	<1	<2	21	27	32	
1449234	<1	<2	19	27	29	
1449235	<1	<2	13 18	24	29 28	
1449236	<1	<2	25 ·	28	31	
1449237	<1	<2	19	23	25	
1449238	· <1	<2	18	23 29		
1449239	<1	<2	20	29 27	31 29	
1449240	<1	<2	20 15			•
1449241		<2		24	26 31	
1449242	<1 <1		16	28	31	
1449243	<1	<2 3	15 14	26 24	28 24	
Detn limit	(1)	(2)	(2)	(5)	(1)	



Analysis code PM1/3S.	PEC Re;	oort AC	755738		Гā	ge G14
NATA Certificate	Ord.	der No. i	DPO 46560	)	Results	in ppm
Sample	Λg	Вi	Co	cr	Cu	
1449244 1449245 1449246 1449247 1449248 1449250 1449251 1449252 1449253 1449253 1449255 1449256 1449256 1449259 1449260 1449261 1449262	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	<2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <	15 17 13 18 17 16 16 15 16 20 21 22 24 17 15 31 21	24 28 23 22 22 23 21 19 21 26 22 22 23 22 25 26 24	23 26 19 29 24 26 22 25 28 33 35 30 35 29 24 38 28 20	- -
1449263 Detn limit	<1 (1)	(2)	18	27 (5)	23 (1)	



Analysis code	ICF2		Repor	t AC 76	5/88		Pag	e II
NATA Certific	ate					Ré	esults i	n ppm
Sample	A5 .	Ва	Fe	Mn	P	Sb	L a	Nb
1449001 1449002 1449003 1449004 1449005 1449006 1449007 1449009 1449010 1449011 1449012 1449013 1449014 1449015 1449016 1449017 1449018 1449019 1449019 1449020 1449021 1449021 1449021 1449021 1449021 1449021 1449021	55555555555555555555555555555555555555	250 180 150 110 260 220 180 190 240 210 210 210 210 210 210 210 210 210 21	7.40% 4.76% 6.70% 6.40% 6.20% 5.55% 5.30% 7.45% 6.10% 6.95% 7.60% 7.70% 6.40% 6.95% 7.00% 6.70% 6.70% 6.70% 6.70% 6.70% 6.70% 7.50% 7.50% 7.50% 7.50% 7.50% 7.25%	1050 800 960 780 920 600 800 1000 740 920 1250 1150 860 960 800 1250 1100 660 1100 1250 800 1050 880 1050 1050 1250	1050 550 450 320 850 850 450 500 500 1050 750 550 450 500 500 550 450 550 320 550 500 500 500 700	25 15 25 25 25 25 25 25 25 25 20 20 20 20 25 25 25 25 25 25 25 25 25 25 25 25 25	<pre>&lt;555555555555555555555555555555555555</pre>	55555555555555555555555555555555555555
1449031 1449032 1449034 1449035 1449036 1449037 1449038 1449039	5 10 10 15 10 10 10 10	220 340 180 230 240 270 160 210 240 180	6.95% 6.35% 5.00% 4.84% 7.60% 5.45% 6.75% 7.05% 6.15% 7.75%	1300 620 800 620 1600 900 720 1300 1000 900	650 550 550 500 700 950 320 600 850 550	25 25 15 15 25 25 30 25 30 30	<5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)



	Analysis code	ICP2		Repor	t AC 765	5/88		Pa	g e	12
	NATA Certific	ate					F	Results	in	ppm
	Sample	As	Ва	Fe	Mn	P	Sb	La		Nb
	1449041	15	230	8.85%	1500	700	35	<5		5
	1449042	15	240	9.95%	1450	1000	40	< 5		5
	1449043	10	210	5.60%	660	700	25	< 5		5
	1449044	10	150	8.15%	820	<i>550</i>	30	< 5		< 5
	1449045	10	220	7.10%	1200	700	30	< 5		<5
	1449046	10	270	6.85%	920	75 <i>0</i>	30	< 5		5
	1449047	10	210	7.20%	1000	650 ·	30	< 5		₹5
	1449048	10	220	7. <i>85%</i>	920	600	<i>35</i>	< 5		5
	1449049	15	240	8.65%	940	800	40	<5		5
	1449050	15	25.0	6.45%	700	600	40	< <i>5</i>		10
	1449051	10	260	7.40%	820	500	<i>35</i>	< 5		5
	1449052	15	240	6.40%	880	650	30	<i>&lt;5</i>		10
	1449053	15	210	6.40%	780	500	30	· <5		5
	1449054	<i>15</i> .	190	5.95%	720	450	30	<5		5
	1449055	10	180	5.50%	640	450	30	<5		5
	1449056	10	180	7.25%	660	400	35	<5		5
	1449057	10	210	5.65 <b>%</b>	700	500	30	<5		5 5 5 5 5
	1449059	10	170	4.72%	620	600	20	₹5		
	1449060	10	190	4.92%	700	<i>650</i>	20	<5 ⊂		<5
	1449061	10	160	4.82%	440	450	20	<5_		<5
	1449062	10	170	5.2 <b>0%</b>	760	340	20	<5		<5
	1449063	10	200	6.55%	1050	500	20	< <u>5</u>		<5 -
	1449064	15	140	7.15%	520	340	25	<b>&lt;</b> 5		< 5
	1449065	15	160	5.25%	660	600	25	< 5		5
	1449066	10	150	4.28%	660	500	15	< 5		<5
	1449067	10	190	3.64%	460	400	15	<5		<5
	1449068	<5	180	4.18%	600	450	20	55		<b>&lt;</b> 5
	1449069	< 5	160	3.78%	680	550	15	50		<5 5
	1449070	< 5	170	3.20%	440	450	20	45		< 5
	1449071	<5	140	3.46%	500	500	20	45 75		<5
	1449072	<5	220	5.90%	1050	750	30	75		< 5
	1449073	<5	160	4.62%	760	600 500	25 25	60 55		<5 · ·
	1449074	<5	160	4.50%	560	500	25	55 65		<5
	1449075	<5	160	5.65%	760	400 550	30	- 65		<5
1	1449076	<5	170	6.55%	1000	550 500	<i>30</i>	80 40		<5
1	1449077	< 5	220	3.14%	410 900	500 650	20 30	40 65		<5
ı	1449078	<5	200	5.40% 3.98%	700	550 550	30 20	65 55		<5 <5
	1449079 1449080	<5 <5	130 150	3.98% 4.48%	700 660	650	20 25	55 55		<5 25
	1449081	< 5	130 140	4.48%	540	550 550	20 20	. 55		<5 <5
	1443001	\ )	140	4.44%	540	550	20			()
ì	Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)



Analysis code	ICP2		Repor	t AC 76	5/88		Pä	ige I3
NATA Certifica	ate					Re	esults	in ppm
Sample	As	Ва	Fe	Mn	P	Sb	La	Nb
1449082	<5	9.0	5.75%	720	300	. 25	65	<b>&lt;</b> 5
1449083	<5	120	5.15%	_800	500	<sup>-</sup> 25	65	< <i>5</i>
1449084	<5	190	6.10%	1350	600	<i>25</i>	80	<5
1449085	< <b>5</b> .	210	5.65%	1100	700	25	7 <i>5</i>	<5
1449086	<5	180	5.95%	1000	550	30	75	< 5
1449087	<5	230	6.20%	1200	700	30	<i>75</i>	<5
1449088	₹5	200	5.05%	1200	650	20	65	<5
1449089	<5	180	5.85%	1300	<i>500</i>	<i>25</i> ·	. 80	<5
1449090	<5	180	5.75%	1000	500	30	75	<5
1449091	<5	160	5.95%	760	320	30	75	<5
1449092	₹5	200	5.70%	900	600	30	70	₹5
1449093	<5	220	4.58%	660	700	30	60	<5
1449094	<5	200	6.40%	1200	500	30	80	₹5
1449095	< 5	170	4.64%	660	650	25	60	₹5
1449096	<5	210	5.70%	800	500	25 25	70	<5
1449097	<5	170	2.86%	540	320	10	40	<5
1449098	<5	120	5.10%	840	450	20	7 <i>5</i>	<5
1449099	<5	120	4.56%	920	600	20	55	<5
1449100	<5	180	4.78%	760	400	15	65	<5
1449101	<5	150	5.00%	1250	1600	20	60	<i>&lt;</i> 5
1449102	<5	190	5.50%	1250	650	20	65	<5
1449103	₹5	170	5.50%	940	280	20	70	<5
1449104	< <i>5</i>	160	4.44%	640	400	20	55	<5
1449105	<5	130	4.02%	620	360	20	50	. <5
1449106	<5	150	4.50%	540	500	20	55	<5
1449107	<5	120	4.44%	520	550	20	5 <i>0</i>	<5
1449108	<5	130	4.04%	620	400	20	5 <i>5</i>	<5
1449109	₹ <b>5</b>	200	5.15%	580	450	30	65	<5
1449110	<5	140	4.80%	560	360	30	60	<5
1449111	<5	150	4.10%	740	600	20	60	<5
1449112	<5	150	4.78%	860	650	30	65	< 5
1449113	<5	150	4.40%	740.	900	25	60	<5
1449114	< <i>5</i>	130	3.18%	620	700	20 20	40	<5
1449115	5	140	3.10%	500	650	20	45 ·	
1449116	10	. 150	4.52%	620	550			<5
1449117	<5	170				20 25	60 70	<5
1449117	<5	170 160	4.94% 4.76%	660 700	700 750	25 20	70	<5
1449119	<5	140			750 600	<i>20</i>	65 CE	<5
1449119	<5	210	4.54%	720	600 650	<i>20</i>	65 75	<5
1449121	<5 <5	210 170	5.55% 5.25%	1000 880	650 700	20 20	7 <i>5</i> 7 <i>0</i>	<5 <5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

### l(j) amdel

Analysis co	de ICP2		Repor	t AC 76	55/88		Ра	ge I4
NATA Certif	icate		·				Results	in ppm
Sample	As	Ва	Fe	Mn	P	Sb	La	Nb
1449122	<5	160	4.62%	800	650	. 20	70	<5
1449123	<5	160	4.96%	880	700	20	70	. <5
1449124	<5	150	4.80%	900	600	25	70	< 5
1449125	<5	140	4.16%	680	550	25	65	<5
1449221	5	140	3.54%	040	150	1 E	:	_
1449222	<i>5</i>	150		840	450	15	<5 .5	5
1449223	10	150 150	3.58% 3.88%	760 1000	380 500	20	<5	5
1449224	5	50	1.20%	270	500 240	20	<5	5
1449225	<i>5</i>	120	2.40%	600	240 340	10 15	< 5	< 5
1449226	5	170	4.34%	800	340 340	20	<5	< 5
1449227	5	170	3.74%	620	450	20 20	<5 <5	5 5
1449228	10	200	5.00%	880	500	10	65	
1449229	10	210	6.25%	1000	360 360	20	95	10 10
1449230	10	200	7.35%	1100	380	15	95	10 <5
1449231	10	210	6.70%	1250	400	15 15	100	5
1449232	10	230	7.40%	1050	340	20	100	< 5
1449233	15	210	7.15%	1100	450	20.	100	5
1449234	10	150	6.75%	780	300	15	85	< <b>5</b>
1449235	10	190	5.80%	840	400	15 15	85	10
1449236	10	160	6.35%	1250	400	15 15	90	< 5
1449237	5	150	5.45%	880	320	10	75	. 5
1449238	15	190	7.20%	880	340	25	100	5
1449239	10	180	6.05%	960	340	15	90	< <b>5</b>
1449240	10	200	5.40%	680	500	20	80	10
1449241	15	160	5.95%	900	450	15	80	5
1449242	10	160	4.98%	680	600	20	80	10
1449243	10	150	5.25%	600	700	10	75	10
1449244	10	160	5.20%	700	500	15	80	5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)



e ICP2		Repor	t AC 76	5/88		Pa	ge I7
cate			-		$R\epsilon$	sults	in ppm
As	Ва	Fe	Mn	Р	Sb	La	Nb
10 5 10 5 10 5 5 10 10 10 10	180 170 210 210 210 210 230 180 190 210 200 170 250 170	6.15% 4.40% 4.48% 4.46% 4.60% 4.60% 4.60% 6.25% 5.65% 5.65% 5.80% 6.15% 4.76%	800 560 980 940 1000 940 1600 920 860 1050 1200 1450 1800 660	280 500 800 750 750 600 550 450 550 380 500 550 650	25 15 15 20 25 20 15 15 25 20 15 25 20	85 60 70 70 70 80 70 55 70 90 80 90 85 75	5 15 15 25 20 20 10 5 <5 <5 15
10 5 10 5 (5)	180 180 220 150	5.95% 6.40% 6.55% 1.98%	1150 920 680 360	600 360 320 220 (50)	20 20 20 5 (5)	95 95 90 50	<5 <5 5 5 (5)
	As 10 5 10 5 10 5 10 10 10 10 10 10 10 5 10 5	As Ba  10 180 5 170 10 210 5 210 5 210 10 210 5 230 5 180 5 190 10 210 10 200 10 170 10 250 10 170 10 150 10 180 5 180 10 220 5 150	As Ba Fe  10 180 6.15% 5 170 4.40% 10 210 4.48% 5 210 4.46% 5 210 4.48% 10 210 4.60% 5 230 4.40% 5 180 3.60% 5 190 4.06% 10 210 6.25% 10 200 5.65% 10 170 5.80% 10 170 5.80% 10 170 4.76% 10 150 5.00% 10 180 5.95% 5 180 6.40% 10 220 6.55% 5 150 1.98%	As Ba Fe Mn  10 180 6.15% 800 5 170 4.40% 560 10 210 4.48% 980 5 210 4.46% 940 5 210 4.48% 1000 10 210 4.60% 940 5 230 4.40% 1600 5 180 3.60% 920 5 190 4.06% 860 10 210 6.25% 1050 10 200 5.65% 1200 10 170 5.80% 1450 10 250 6.15% 1800 10 170 4.76% 660 10 150 5.00% 660 10 180 5.95% 1150 5 180 6.40% 920 10 220 6.55% 680 5 150 1.98% 360	As Ba Fe Mn P  10 180 6.15% 800 280 5 170 4.40% 560 500 10 210 4.48% 980 800 5 210 4.46% 940 750 5 210 4.48% 1000 750 10 210 4.60% 940 600 5 230 4.40% 1600 550 5 180 3.60% 920 450 5 190 4.06% 860 550 10 210 6.25% 1050 380 10 200 5.65% 1200 380 10 170 5.80% 1450 500 10 250 6.15% 1800 550 10 170 4.76% 660 650 10 150 5.00% 660 600 10 180 5.95% 1150 600 5 180 6.40% 920 360 10 220 6.55% 680 320 5 150 1.98% 360 220	As Ba Fe Mn P Sb  10 180 6.15% 800 280 25 5 170 4.40% 560 500 15 10 210 4.48% 980 800 15 5 210 4.46% 940 750 15 5 210 4.48% 1000 750 20 10 210 4.60% 940 600 25 5 230 4.40% 1600 550 20 5 180 3.60% 920 450 15 5 190 4.06% 860 550 15 10 210 6.25% 1050 380 25 10 200 5.65% 1200 380 20 10 170 5.80% 1450 500 15 10 250 6.15% 1800 550 15 10 250 6.15% 1800 550 15 10 170 4.76% 660 650 20 10 150 5.00% 660 600 25 10 180 5.95% 1150 600 20 5 180 6.40% 920 360 20 5 180 6.40% 920 360 20 5 150 1.98% 360 220 5	As Ba Fe Mn P Sb La  10 180 6.15% 800 280 25 85 5 170 4.40% 560 500 15 60 10 210 4.48% 980 800 15 70 5 210 4.46% 940 750 15 70 5 210 4.48% 1000 750 20 70 10 210 4.60% 940 600 25 80 5 230 4.40% 1600 550 20 70 5 180 3.60% 920 450 15 55 5 190 4.06% 860 550 15 70 10 210 6.25% 1050 380 25 90 10 200 5.65% 1200 380 25 90 10 200 5.65% 1200 380 20 80 10 170 5.80% 1450 500 15 90 10 250 6.15% 1800 550 15 85 10 170 4.76% 660 650 20 75 10 150 5.00% 660 600 25 80 10 180 5.95% 1150 600 20 95 5 180 6.40% 920 360 20 95 10 220 6.55% 680 320 20 90 5 150 1.98% 360 220 5 50



Analysis cod	de ICP2		Report AC 765/88 Pa	ад€	18
NATA Certif	icate		Results	in	ppm
Sample	Sn	W		•	
1449001	15	10	•		
1449002	10	15	,		
1449003	15	10	•		
1449004	20	5	• .		
. 1449005	15	10			
1449006	15	15			
1449007	15	10			
1449008	20	10	•		
1449009	15	10			
1449010	15	10 .			
1449011	20	15			
1449012	20	10	•		
1449013	20	10			
1449014	15	20	e.		
1449015	15	10	•		
1449016	20	10			
1449017	15	10			
1449018	15	15			
1449019	15	10			
1449020	20	10			
1449021	20	10			
1449022	15	10	<u>.</u>		
1449023	20	10	·		
1449024	10	5			
1449025	15	15	·		
1449026	10	20			
1449027	15	10			
1449028	15	10			
1449029	15	20			
1449030	15	15	•		
1449031	15	15			
1449032	20	15			
1449033	10	20			
1449034	10	20			
1449035	15	15			
1449036	15	20			
1449037	20	20			
1449038	20	15	•		
1449039	20	20	•		
1449040	20	15			
Detn limit	(5)	(5)			



Analysis cod	de ICP2		Report AC 76	55/88	Pā	ge	I9
NATA Certifi	icate				Results	in	ppm
Sample	Sn	W					
1449041	25	15					
1449042	30	15					-
1449043	15	20			-		
1449044	20	15					
1449045	20	15					
1449046	20	15					
1449047	20	15					
1449048	25 25	15 15			•		
1449049	25 20	15 20	•				
1449050 1449051	20 25	20 15					
1449052	20	15					
1449053	20	20					
1449054	20	15	÷		•		
1449055	15	20			•		
1449056	20	20					
1449057	20	20					
1449059	15	15					
1449060	20	15					
1449061 1449062	15 15	15 20					
1449063	20	20 15					
1449064	20	15 15					
1449065	15	20		•			
1449066	10	15					
1449067	10	20		•		٠.	
1449068	<5	70					
1449069	<5	65					
1449070	<b>&lt;</b> 5	60					
1449071	<5 -	60	•				
1449072	5	95 00					
1449073 1449074	<5	80 75					
1449075	5	95					
1449076	< 5 5 5	110					
1449077	₹5	55					
1449078	5	90	•				
1449079	<5	75		•			
1449080	< <i>5</i>	75					
1449081	< 5	75					
Detn limit	(5)	(5)					

Page I10



Analysis code ICP2

NATA Certific	cate							Res	ults	in	ppm
Sample	Sn	W									
1449082	5	95									
1449083	< <i>5</i>	90								-	
1449084	. 5	100				•					
1449085	5	95									
1449086	5	100									
1449087	5	100	-								
1449088	<5	<i>85</i>									
1449089	<5	95									
1449090	5	95									
1449091	5	95			•						
1449092	5	95	•								
1449093	5	80									٠
1449094	5	100									
1449095	< 5	80		٤٠							
1449096	5	95 ·									
1449097	₹5	50									
1449098	<5 .5	90									
1449099	<5 .c	80 .									
1449100	<5	<i>85</i>									
1449101 1449102	<5 <5	90 95									
1449102	<5.	95 95									
1449103	<5.	93 80									
1449105	<5	70									
1449106	<5	80				•					
1449107	<5	80									
1449108	<5	75		-			•	-			,
1449109	5	90									
1449110	<5	85					•				
1449111	<5	7 <i>5</i>									•
1449112	₹5	85									
1449113	<5	80									
1449114	₹5	60									
1449115	< 5	65									
1449116	< <i>5</i>	80				_					
1449117	<5	90									
1449118	₹5	80									
1449119	<5	80									
1449120	₹5	95									
1449121	<5	90									
Detn limit	(5)	(5)·									

Report AC 765/88

## lý amdel

Analysis code	e ICP2		Repor	t AC 7	65/88	F	age Ill
NATA Certifi	cate					Results	in ppm
Sample	Sn	. W					
1449122 1449123 1449124 1449125	<5 <5 <5 <5	80 85 -85 80				-	
1449221 1449222 1449223 1449224 1449225 1449226 1449227 1449229 1449230 1449231 1449232 1449233 1449235 1449235 1449236 1449237 1449236 1449237 1449238 1449239 1449240 1449241 1449242	10 10 10 5 10 15 20 20 25 20 15 20 20 20 20 20 20 20 20 20 20 20 20 20	15 15 10 15 15 15 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 20 25 20 25 20 25 20 25 20 20 20 20 20 20 20 20 20 20 20 20 20					
Detn limit -	(5)	(5)				•	



Analysis code ICP2

Kapant 40 764 80

Page II4

NATA Certificate

Results in ppm

Sample	Sn	W
1449245	20	20
1449246	15	20
1449247	15	20
1449248	15	20
1449249	20	25
1449250	20	25
1449251	20	20
1449252	15	15
1449253	15	20
1449254	20	25
1449255	20	20
1449256	15	25
1449257	15	$\overline{15}$
1449258	20	20
1449259	20	25
1449260	20	25
1449261	20	20
1449262	25	20
1449263	10	5
Detn limit	(5)	. (5)

#### CRA EXPLORATION PTY. LIMITED

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### FOURTH QUARTERLY REPORT FOR

HOPE BANK EL 1376, SOUTH AUSTRALIA,

FOR THE PERIOD ENDING 5TH JANUARY, 1988

**AUTHORS:** 

D.C. PALMER

DATE:

22ND DECEMBER, 1987

COPIES TO:

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SADME

SUBMITTED BY:

ACCEPTED BY:

Portal



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### LIST OF PLANS

Plan No.	<u>Title</u>	Scale
SAa 4244	Hope Bank EL 1376, S.A Location Plan	1:250 000
SAa 4741	Hope Bank EL 1376, S.A Sample Sites,	1:100 000
	Numbers and Geology	
\SAa 4742	Hope Bank EL 1376, S.A Sample Sites,	1:100 000
1	Catchments and Geology - Overbank Clays	
SAa 4853	Hope Bank EL 1376, S.A Sample Sites and	1:100 000
	Geology with Anomalous Stream Sediment	
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	Values on DPO Basis

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Figure	<b>9</b>	Cumulative Percentage Frequency Graph Au Suspended Silt Sample (Drainage) Hope Bank EL 1376 DPO 46560

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Suspended Silt Sample (Drainage)
DPO 46560

Figure 11 Cumulative Percentage Frequency Graph
Suspended Silt Samples (Drainage)
DPO 46560

Figure 12 Cumulative Percentage Frequency Graph
Suspended Silt Samples (Drainage)
Suspended Silt Samples (Drainage)
Hope Bank EL 1376
DPO 46560

#### LIST OF APPENDICES

Appendix I

Analytical Results and Grid Co-ordinates

#### SUMMARY

Final assay data values were received for stream sediment samples from four hundred and fifty two catchments throughout Hope Bank EL 1376.

Catchments anomalous in Au (97th Percentile) and Pb, Zn, Cu (95th Percentile) were delineated.

Anomalous Au values were returned from catchments draining the Elatina Sub-group, however, the majority were of low magnitude and aren't supported by multi-element signatures.

Weak Zn/Au anomalism is recorded from three catchments (1239668-1239670) draining the Farina Sub-Group, south of Waddington Bluff.

Weak Cu/Pb/Zn anomalism is also recorded from catchments (1449079, 1449084-1449086) draining an anticlinal closure of Apilla Tillite east of Hantken Hill.

Follow up soil sampling of these two multi-element anomalous catchments is recommended.

#### 2. RECOMMENDATIONS

The following actions should be undertaken during the next phase of field work on EL 1376.

- i. Soil sampling at 100 m spacing of the subdividing and marginal spurs of catchments east of Hantken Hill (Cu Pb Zn anomalism) and similarly catchments south of Waddington Bluff which recorded Au/Zn anomalism.
- ii. Rock chip samples in these two regions should also be taken.
- iii. Based on results from recommendations (i) and (ii), further detailed soil sampling on a grid pattern 25 m x 125 m, including catchment 1239595 (as previously recommended, Murrell/Sugden, 1987) should be undertaken to further delineate targets for costeaning.

#### 3. INTRODUCTION

Hope Bank EL 1376 was granted to CRA Exploration Pty. Limited on the 6th January, 1987 for a period of one year.

The stream sediment geochemistry survey conducted within the licence area was designed to test all subcrop, regardless of stratigraphy and to use multi-element signatures to rate areas of anomalous gold in an attempt to locate a (stratabound Au) Telfer-style gold resource.

This report details the work carried out during the fourth quarter for EL 1376.

#### 4. LOCATION

Hope Bank EL 1376 is located approximately 20 km north west of Yunta, on the Adelaide-Broken Hill Highway (plan no. SAa 4244). The licence covers an area of approximately 1303 sq km encompassing parts of East Wydown, McCoys Well, Melton, Minburra, Teetulpa and Wabricoola stations.

#### 5. GEOLOGY

The major rock units found within the licence are the Adelaidean sediments of the Yudnamutana, Farina & Elatina Subgroups and Wilpena Group. Thin Quaternary sands, gravels and alluvium cover much of the above stratigraphy.

Table 1 describes the Adelaidean stratigraphy.

Hope Bank EL 1376 covers the eastern and western closures of the Waukaringa Syncline and a parallel antiform incorporating the same sequence to the south.

Mineralisation at Waukaringa and Ajax mines (which lie in the northern portion of the Waukaringa Syncline not held by CRAE) is associated with quartz and arsenical pyrite filling dilation zones in layer-parallel fault planes within the Farina Sub Group.

Material on dumps at the Waukaringa Mine contains superfine sulphide mineralisation in sandstones and siltstones, suggesting that the mineralisation in the quartz lodes occurs nearby to primary mineralisation in the sediments (Murrell, B. and Sugden, S., 1987).

Table 1

ADELAIDEAN STRATIGRAPHY - HOPE BANK EL 1376

Group	Unit	Lithology
Wilpena Gp	Pound Sst.	Quartzite feldspathic sandstone & siltstone
	Wonoka Fmn.	Calcareous siltstone & shale minor limestone & quartzites
	Ulupa siltstone	Siltstone (Brachina Equliv)
Elatina Sub Gp - Upper Glacial Gp		Diamictite & fluvials
Farina Sub Gp (intraglacials)	Undifferentiated	Shales, siltstone, carbonatic siltstones, minor carbonate units
	Tarcowie siltstone	Siltstone & sandstone
	Willochra Fmn.	Siltstone, shale, minor gritty sandstone & limestone
	Tapley Hill Fmn.	Siltstone, limestone, minor breccia bands, slump conglomerates & sandstone
Yunnamunta Sub Gp	Wilyerpa Qtzite	Sandstone, siltstone and minor tillites
	Apilla Tillite	Boulder tillite siltstone & sandstone
Callana Gp	Undifferentiated	

#### 6. PREVIOUS WORK

Stream sediment samples from four hundred and fifty two sites were collected from sites representing a primary catchment in the size range 0.5 to  $5.0~\rm km^2$  (plan SAa 4741).

The suspended clay fraction (-10 mm) from each of the stream sediment samples was analysed for the presence of gold to a detection limit of 0.0005 ppm whilst eight other elements were determined by AAS and a further ten by ICP. In addition, the first 181 samples were analysed for platinum and palladium by lead fire assay (DPO 46556).

A further 58 soil samples were collected at 100 m spacing in the axial zone of the Waukaringa Syncline crossing the mine-host stratigraphic sequence.

A multi-element signature with anomalous gold values from catchment 1239595, was followed up by collecting 37 soil samples at 100 m spacings up the spurs bounding the catchment (plan SAa 4742).

A detailed discussion of sampling procedures and concepts is given in the third quarterly report for EL 1376 (Murrell, B. and Sugden, S., 1987)

#### 7. WORK CARRIED OUT

Work carried out during the fourth quarter comprised compilation of Pb, Zn, Cu and Au results above the threshhold positioned at the 95th Percentile of background population for each element.

Au revealed a distinct change in slope above the 95th Percentile which was interpreted to represent the boundary between background and anomalous samples. Table 2 lists anomalous Au, Cu, Pb, Zn and As values for each data set.

Due to clear differences in base line shifts (esp. Au) in the laboratory runs, each data set was examined individually, on a DPO basis.

Only assay values pertaining to the -10 um suspended clay fraction from drainage samples were evaluated. Furthermore, to reduce skewness in the data set high element values from the Ajax Mine (samples 1239756, 1239757, 1239759, 1239762) were not included in the 46557 DPO data set.

Cumulative frequency graphs for Au, Pb,  ${\rm Zn}$  and  ${\rm Cu}$  are displayed on figures 1-12.

TABLE 2 SUMMARY OF ANOMALOUS ELEMENT and VALUES BASED ON DPO

ELEMENT	DPO NO.	CURVE TYPE	ANOMALOUS VALUE	NO. OF
	<del>  </del>		>95TH PERCENTILE	SAMPLES
Zn	46557	Normal Distribution	95 ppm	8
	46556	Normal Distribution	110 ppm	9
	46560	Normal Distribution	106 ppm	4
Cu	46556	+ve skewed	37 ppm (4)	. 3
	46557	+ve skewed	35.5 ppm	4
	46560	Normal Distribution	35 ppm	6
Pb	46556	+ve skewed	22 ppm	6
	46557	-ve skewed	24 ppm	8
	46560	+ve skewed	21 ppm	8 5
As	46556	4 populations	N.A.	_
	46557	Poor Distribution	5 ppm	1
	46560	4 populations	N.A.	_
Au ·	46556	Log normal Distribution	5.1 ppb (1)	7
	46557	Log normal Distribution	12.0 ppb (2)	5
	46560	Log normal Distribution	4.8 ppb (3)	3

<sup>96</sup>th Percentile Level 97th Percentile Level 97th Percentile Level 99th Percentile Level (1) (2) (3) (4) N.B.

#### 8. RESULTS

A compilation of Au, Pb, Zn, Cu and As anomalism from each data set showing areas of elevated metal values appears on plan SAa 4853.

A summary of interpreted results is as follows:-

i. Catchments draining the Upper glacial unit (mapped as between Wabricoola Homestead and north of Waddington Bluff (Elatina Subgroup) reported anomalous gold values, the majority which are not supported by other base metals.

This gold is probably derived from fluvial concentrations, in reworked zones within the diamictite unit.

- ii. Zn/Au anomalism is recorded from three catchments (1239668-1239670) draining the Farina Sub-Group Interglacials to the south of Waddington Bluff.
- iii. Cu/Pb/Zn anomalism is recorded from catchments (1449079, 1449084-1449086) draining an area incorporating an anticlinal closure of Apilla Tillite, east of Hantken Hill.

Isolated Pb and Cu anomalism is also recorded from catchments adjacent to or draining from this stratigraphic unit throughout Hope Bank EL 1376.

iv. Isolated Zn anomalies exist from catchments draining Farina Subgroup glacials (Tapley Hill Formation Equivalents) in the north-eastern portion of EL 1376. This is the same sequence that appears to be the source of a multi-element signature at catchment 1239595, north of Folly Dam.

D.C. PALMER

DCP/pq

#### EXPENDITURE

Expenditure for the period ended 31st December, 1987 the nearest accounting period amounted to  $$4\ 516.00$ , as listed below.

		\$
Payroll Supplies Vehicle		-5 941 572 799
Travel Rent Contractors		2 596 242 164
Laboratory Sundry Overheads		5 493 69 522
	Total	\$4 516

#### REFERENCES-

Murrell, B. & Sugden, S.P.

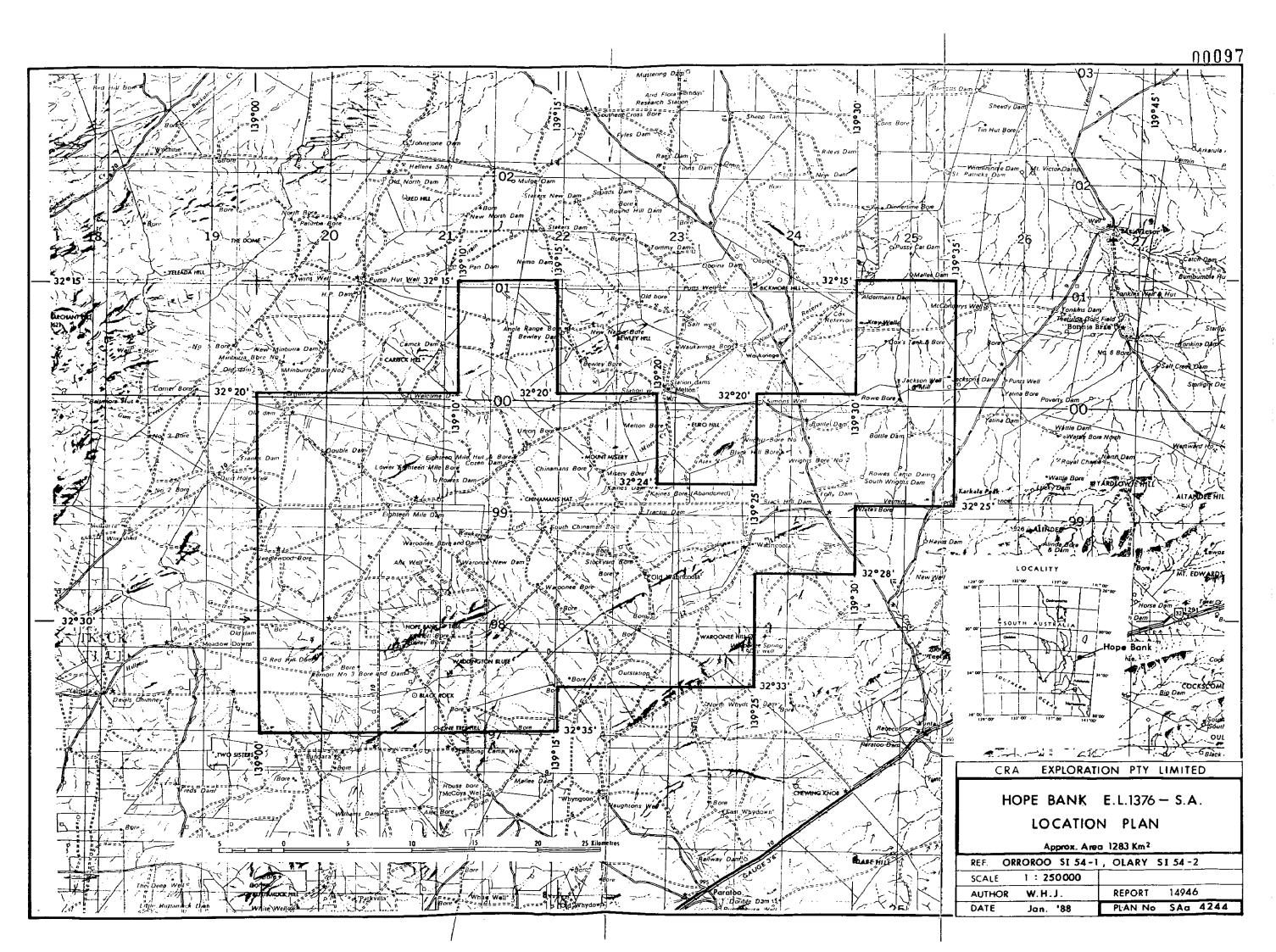
Third Quarterly Report For Hope Bank EL 1376, South Australia, For The Period Ending 5th October, 1987. (CRAE Report No. 14762)

#### LOCATION

Orroroo SI 54-01 Olary SI 54-02

#### **KEYWORDS**

Gold, Geochemistry - Stream Sediment, Clays, Soils, Waukaringa



Αυ

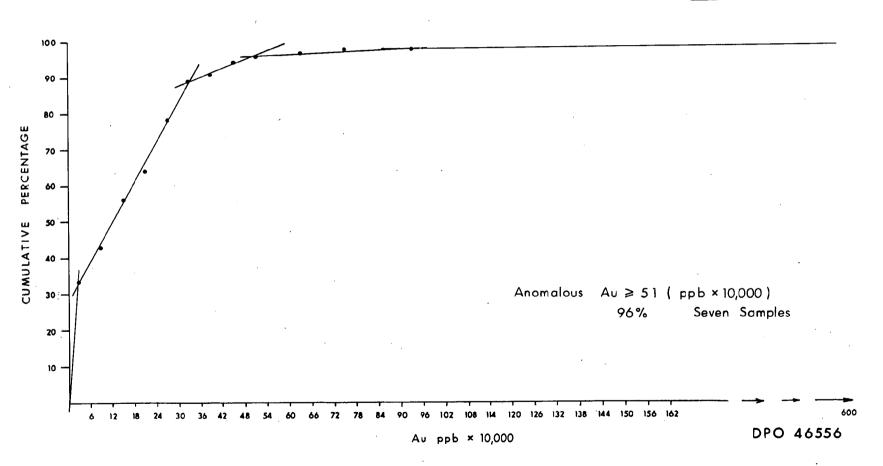
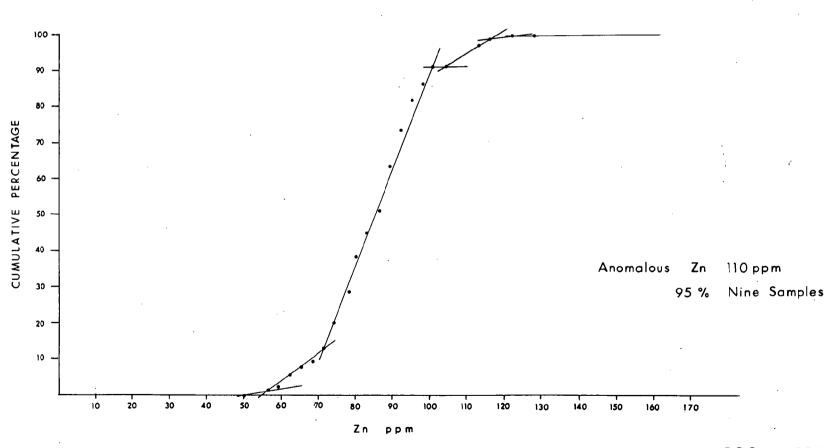


Fig. 1

HOPE BANK EL 1376
SUSPENDED SILT SAMPLES (DRAINAGE)
CUMULATIVE FREQUENCY GRAPH

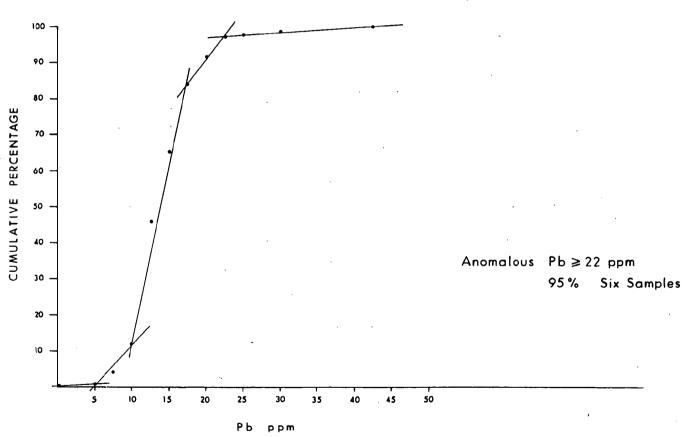
Zn



DPO 46556

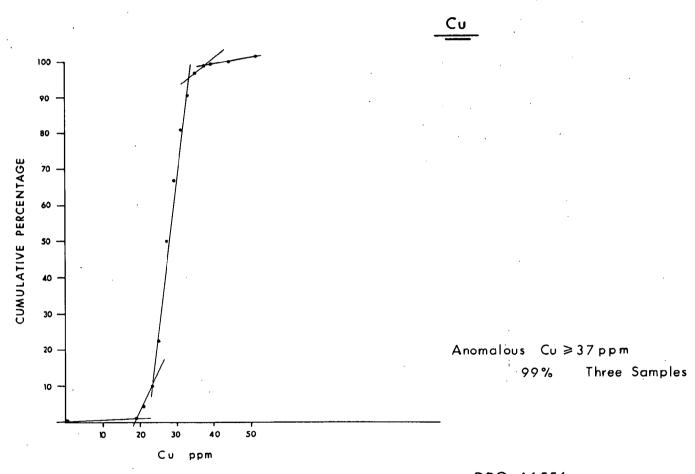
Fig. 2

Pb



DPO 46556

Fig. 3



DPO 46556

AuB = ( Auppb × 10,000

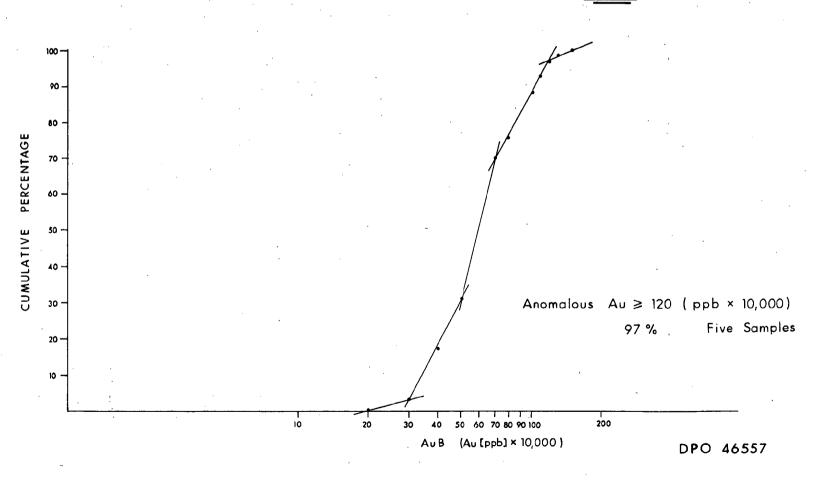
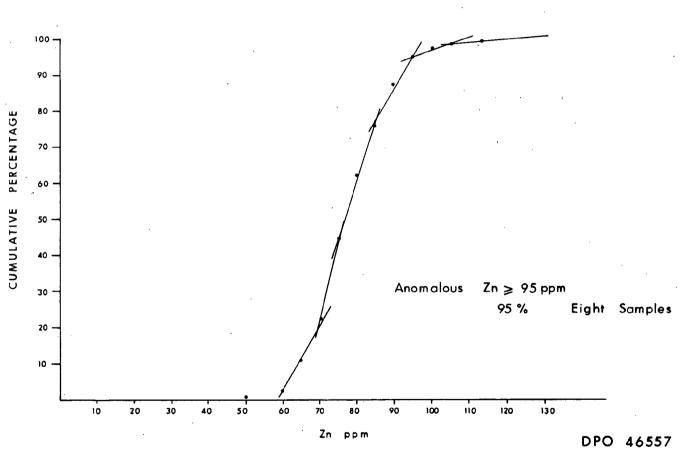


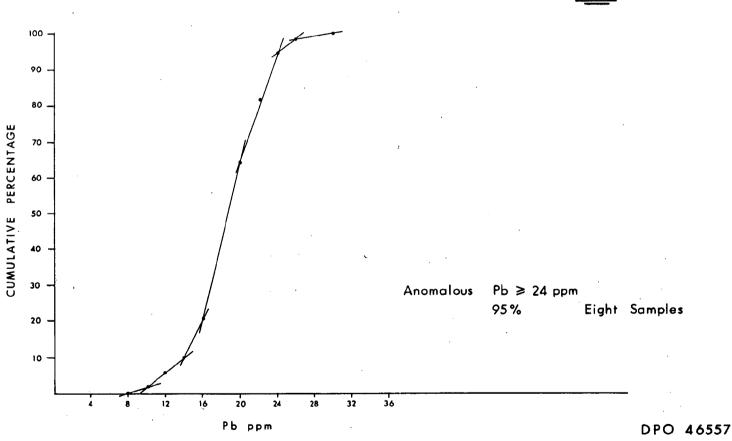
Fig. 5

HOPE BANK EL 1376
SUSPENDED SILT SAMPLES (DRAINAGE)
CUMULATIVE FREQUENCY GRAPH

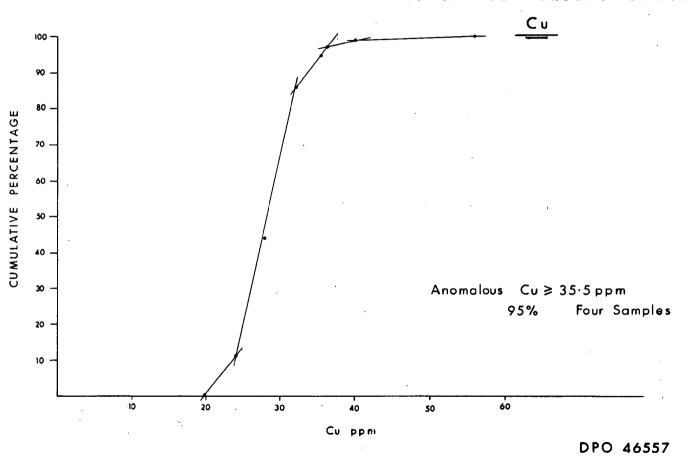




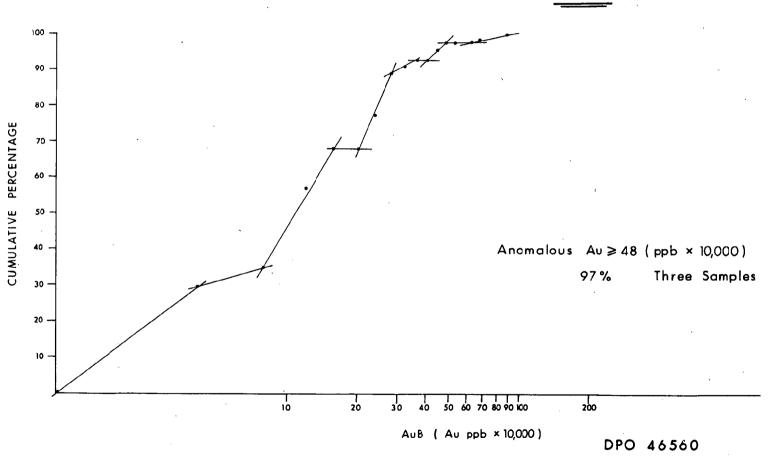
Pb

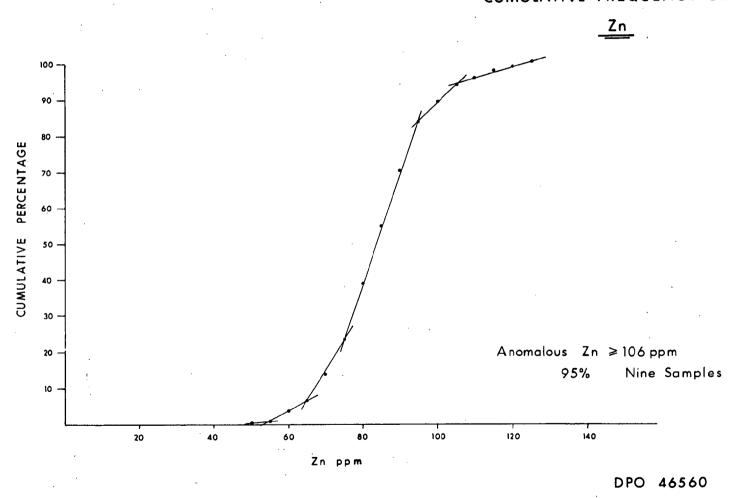


HOPE BANK EL 1376
SUSPENDED SILT SAMPLES (DRAINAGE)
CUMULATIVE FREQUENCY GRAPH



AuB = (Au ppb × 10,000)





# HOPE BANK EL 1376 SUSPENDED SILT SAMPLES (DRAINAGE) CUMULATIVE FREQUENCY GRAPH



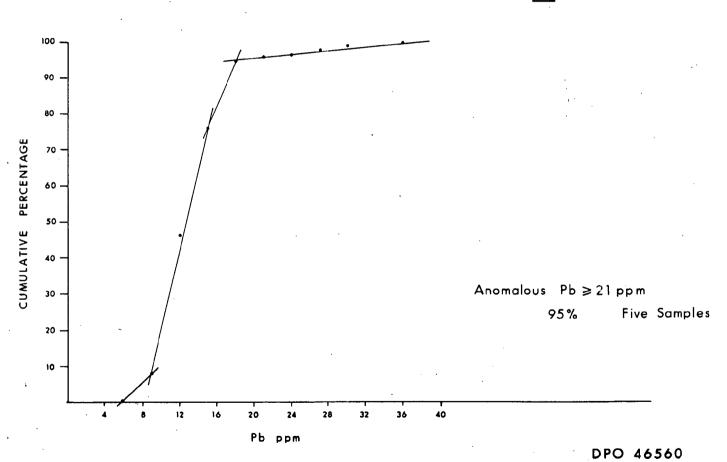
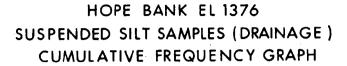
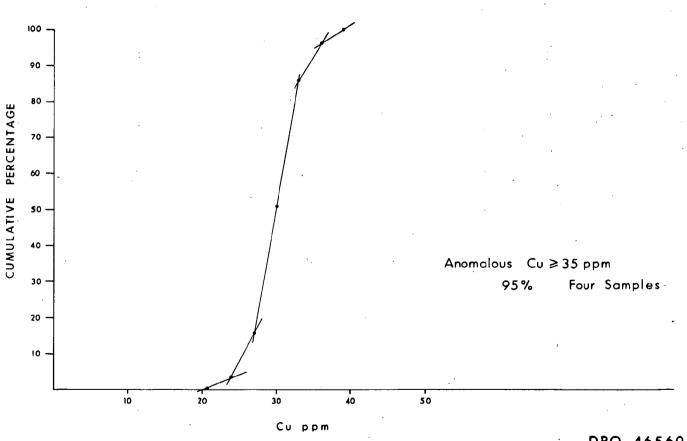


Fig: 11





DPO 46560

#### APPENDIX I

ANALYTICAL RESULTS AND GRID CO-ORDINATES



NATA CERTIFICATE

CRA Exploration Pty Ltd

ACT

2609

Amdel Limited - Inc. in S.A.

25 August 1987

Dr. B. Murrell

PO Box 656 . FYSHWICK # Amdel

31 Flemington Street, Frewville, S.A. 5063

Telephone: (08) 372 2700

Address all corresponde of the 11 P.O. Box 114, Eastwood, S.A. 5063

Telex: AA82520

Facsimile: (08) 79 6623

REPORT AC 134/88

YOUR REFERENCE:

DPO 46556

REPORT COMPRISING:

Cover sheet Page G1-G10 Page I1-I10

DATE RECEIVED:

13 July 1987

Approved Signatory:

Don Patterson

Manager, Geo-Analytical Services

for Dr William G. Spencer General Manager Applied Sciences Group

cc Administration Officer PO Box 656 FYSHWICK ACT 2609

cc Chief Geologist Information Services PO Box 656 FYSHWICK ACT 2609

The report relates specifically to the sample tested and also the entire batch in so far as the sample is truly representative of the sample source.

tk



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Branches in Sydney, Melbourne, Perth, Brisbane, Canberra, Darwin, Townsville, Burnie. Represented world-wide



Analysis cod	e PM1/3.	SPE	Report	AC 134	/88		Page	e G1
NATA Certifi	cate					Res	sults i	n ppm
Sample	Вi	Со	Cr	Cu	Мо	Ni	Pb	Zn
1239417 1239418 1239420 1239421 1239422 1239424 1239425 1239426 1239427 1239428 1239429 1239430 1239431 1239433 1239433 1239435 1239436 1239437 1239436 1239440 1239440 1239440 1239440 1239440 1239441 1239442 1239446 1239446 1239447 1239448 1239448 1239449 1239450 1239450 1239451 1239452	<pre>&lt;2</pre>	11 13 13 12 12 11 14 21 17 16 10 19 10 13 17 17 13 14 15 11 12 10 12 11 14 12 11 14 12 11 12 11 11 12 11 11 11 11 11 11 11	35	Cu 27 307 25 27 25 27 21 31 29 28 24 30 34 25 27 27 28 21 27 28 21 27 28 27 27 28 27 27 28 27 27 28 27 27 28 27 28 27 28 28 28 28 28 28 28 28 28 28 28 28 28	Mo	N 26 28 26 27 23 26 31 28 29 28 28 28 28 28 29 21 21 21 21 21 21 21 21 21 21 21 21 21	11 11 11 13 14 12 14 19 12 18 11 16 12 20 18 14 11 10 16 11 11 11 11 11 11 11 11 11 11 11 11	73 72 63 84 68 89 105 64 90 59 76 97 83 90 79 61 76 88 63 77 88 74
1239453 1239454 1239455 1239456	<2 3 <2 <2	11 13 15 13	27 31 31	25 33 28	<1 <1 <1	26 24 25	12 16 14	79 83 79
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)

Analysis code	PM1/3S	PE	Report	AC 134/	88		Pa	ge	G2
NATA Certific	ate						Results	in	ppm
Sample	Вi	Со	Cr.	Cu	Mo	Ni	Pb		Zn
1239457	<2	9	26	24	2	19	10		60
1239458	2	12	35	31	1	25	· 18		73
1239459	<2	12	31	27	2	23	14		72
1239460	<2	14	34	23	2	22	18		88
1239461	<2	14	32	27	3	24	17		85
1239462	₹2	13	35	25	2	22	15		74
1239463	<2	13	35	26	3	22	14		80
1239464	₹2	14	32	23	2	20	15		90
1239465	<2	12	26	20	2	19	13		82
1239466	<2	9	22	20	4	15	9		<i>55</i>
1239467	<2	14	34	29	3	24	11		90
1239468	<2 ·	9	25	22	1	16	9		65
1239469	3	. 8	27	23	· <1	16	10		64
1239470	<2	13	38	34	<1	25	9		83
1239470	<2	12	34	25	1	22	12		77
1239471	<2	14	32	29	1	25	15		99
1239472	<2	14	3 <i>9</i>	26	1	24	15		86
1239473	<2	13	37	29	<1	27	13		90
1239475	<2	8	22	17	<1	18	6		59
1239475	2	13	35	26	<1	27	12		87
1239477	<2	17	35 35	26	<1	27	18		97
1239478	<2	12	3 <i>0</i>	28	<1	26	15		84
1239478	<2	13	29	27	<1	24	13		79
1239480	<2	10	27	25	<1	22	10		74
1239481	<2	10	28	24	2	24	12		82
1239482	<2	10	25	25	<1	23	10		74
1239483	3	15	32	30	1	29	17		86
1239484	<2 ⋅	16	32	30	2	31	17		88
1239485	<2	11	33	28	3	29	12	1	89
1239486	<2	12	30	27.	<1	27	9		86
1239487	<2	11	26	27	<1	23	12		82
1239488	<2	11	33	24	<1	27	11		82
1239489	<2	13	33	26	<1	27	13		94
1239490	<2	16	43	25	<1	28	16		93
1239491	<2	12	35	.24	<1	23	14		77
1239492	<2	7	26	18	1	18	4		5 <i>6</i>
1239493	<2	12	39	30	1	22	9		78
1239494	<2	16	40	31	1	32	12		86
1239495	<2	14	3 <i>6</i>	28	1	27	13		87
1239496	<2	11	<i>37</i>	27	2	25	12		86
		- <b>-</b>	- ,						
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	: -	(2)



				40.43			0.5	~~ C7
Analysis cod	e PM1/s	ISPE	Keport	AC 134	4788		Pa	ge G3
NATA Certifi	cate					R	Results	in ppm
		·						
Sample	Ві	Co	Cr	" Cu	Мо	Ni	Pb	Zn
1239497	<2	12	34	27	<1	24	10	79
1239498	<2	11	32	23	1	23	10	76
1239499	2	12	37	27	2	29	11	98
1239500	<2	15	39	25	2	28	14	93 05
1239501	<2	14	40	26	<1	29	12	95 07
1239502	-3	13	38	26	<1	24	14	<i>87</i>
1239503	<2	15	37	26	<1.	26	14	88
1239504	<2	13	<i>36</i>	28	. 2	24	11	79
1239505	<2	12	27	27	1	23	10	75
1239506	<2	11	29	26	<1	22	13	82
1239507	<2	13	33	30	<1	- 28	15	110
1239508	<2	12	33	35	<1	22	10	7 <i>3</i>
1239509	<2	12	34	32	<1	23	10	7 <i>5</i>
1239510	<2	9	26	31	<1	18	11	72
1239511	<2	11	22.	30	2	22	10	71
1239512	<2	11	<i>26</i>	29	2	22	10	73
1239513	<2	10	23	28	2	20 26	11	64
1239514	<2.	11	<i>23</i>	<i>32</i>	3	26	12 22	79 110
1239515	<2	20 15	37 21	36 34	<1	33		105
1239516	<2	15	31	34	<1	31 28	16. 11	103 87
1239517	<2	12	31	<i>32</i>	1			
1239518 1239519	<2 <2	14 17	34 32	31 31	<1 2	30 33	10 17	110 100 -
		11		26	1	29	9	91
1239520 1239521	<2 <2	11 19	28 38	36	1	38	17	115
1239521	<2	15 15	3 <i>6</i>	42	<1	3 <i>6</i> 34	17	105
1239523	<2	15 15	34 . 32	42 39	<1	3 <i>4</i> 35	16	105
1239524	<2	13	43	33	<1	33	14	105
1239525	<2	15 15	22	33 31	<1	38	9	76
1239526	<2	13	33	34	<1	28	7	89
1239527	<2	14	33 37	28	<1	35	10	100
1239528	<2	17	3 <i>9</i>	28	1	36	15	115
1239529	<2	13	38	30	<1	.35	7	100
1239530	<2	14	38	<i>32</i>	<1	30	12	98
1239531	<2	13	3 <i>6</i>	33	<1	25	9	86
1239532	ζ2	13	29	33	<1	25	8	81
1239533	<2	15 ·	39	<i>32</i>	2	32	12	115
1239534	<2	1.3	30		1	28	11	110
1239535	<2	12		36	2	35	14	105
1239536	<2	14	41	32	2	33	14	125
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)



	Analysis code	PM1/3SF	PE	Report ,	AC:134/	88		Pa	ge	G4
	NATA Certifica	ate		·			R	esults	in	ppm
	Sample	Ві	Со	Cr ·	Cu	Мо	Ni	Pb		Zn
	1239541	<2	14	27	34	1	28	7		87
	1239542	<2	15	25	29	.2	29	7		94
	1239543	<2	13	29	27	2	28	10		81
	1239544	<2	9	21	26	1	17	11		61
	1239545	<2	.13	25	<i>32</i>	2	20	28		90
	1239546	<2	13	21	<i>3</i> 7	· 3	21	29		95
	1239547	<2	10	24	30	3	19	19		76
	1239548	<2 ·	11	24	20	<1	19	<i>32</i> -		55
	1239549	<2	14	33	26	<1	29	15		79
	1239550	5	14	29	25	<1	25	14		71
	1239551	<2	10	22	24	<1	20	. <i>9</i>		58
	1239552	3	11	25	25	<1	22	7		67
*	1239553	⟨2	11	24	24	<1	21	9		61
	1239554	₹2	11	26	25	<u> </u>	19	9		69
	1239555	<2	14	32	26	2	24	13		88
	1239556	<2	12	29	25	1	21	12		82
	1239557	<2	14	32	24		22	15		93
	1239558	. <2	10	27	28	.<1	20	10		71
	1239559	<2	15	31	26	<1	23	12		88
	1239560	<2	13	32	29	<1	26	12		88
	1239561	<i>(2)</i>	12	35	28	<1	28	13		93
	1239562	<2	14	32	29	<1	29	12		88
	1239563	<2	11	30	29	1	22	14		85
	1239564	4	11	28	30	<1	22	12		75
	1239565	<2	12	30	32	2	22	12		79
	1239566	<2	13	27	32	1	23	12		77
	1239567	<2	14	29	32	2	23	17		8 <i>9</i>
	1239568	₹2	16	35	34	1	27	14		105
	1239569	<2	15	34	26	2	25	18		100
	1239570	<2	13	3 <i>2</i>	27	1 -	23	21		100
	1239571	<i>&lt;2</i>	14	32	26	2	22	17		90
	1239572	<2	19	42	31	1	27	20		98
	1239573	4	12	30	30	<1	18	14		68
	1239574	· <2	16	31	34	2	25	15		86
	1239575	<2	11	35	25	2	21	13		86
	1239576	3	10	31	23		18	12		73
	1239577	3 -	11	33	24	1	20	10		7 <i>9</i>
	1239578	<b>5</b> .	18	38	26	1	28	17		94
	1239579	3	16	39	27	2	<2	15		92
	1239580	<2	22	36	31	1	24	21		94
•	Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)		(2)



Analysis code	e PM1/3	SPE	Report	AC 134	/88	-	Pag	ge G5
NATA Certifi	cate				•	Re	sults	in ppm
Sample	Ві	Со	Cr	- Cü	Мо	Ni	Рb	Zn
1239581	<2	11	31	23	<1	18	10	81
1239582	<2	20	<i>32</i>	23	<1	21	16	96
1239583	<2	11	39	30	<1	18	15	83
1239584	<2°	13	37	26	<1	22	12	78
1239585	<2	20	<b>39</b>	29	<1	26	20	93
1239586	<2	23	40	<i>33</i>	<1	28	20	94
1239587	<2	13	34	27	<1	21	11	. 75
1239588	<2	12	41	33	<1	24	14	92
1239589	<2	14	35	28	<1	22	19	90
1239590	<2	19	39	31	<1	24	19	86
1239591	<2	15	40	<i>32</i>	<1	23	19	90
1239592	<2	20	42	<i>32</i>	1	28	17	100
1239593	<2	25	42	31	2	28	18	85
1239594	<2	13	38	31	<1	22	14	92
1239595	<2	21	60	.35	<1	34	41	180
1239596	<2	13	<i>3</i> 7	24	1	21	20	91
1239597	<2	16	43	34	2	27	21	90
1239598	<2	14	41	30	<1	27	19	85
1239599	<2	11	31	28	1	- 22	14	76
1239600	<2	15	40	28	1	25	18	95
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)	(2)

G6

Page

Results in ppm



Report AC 134/88 Analysis code PM1/3SPE NATA Certificate PdSample 1239417 0.0010 0.001 0.001 0.0025 < 0.001 0.002 1239418 0.002 0.0005 < 0.0011239419 0.0005 < 0.001 0.001 1239420 0.0005 < 0.001 0.002 1239421 0.0025 < 0.001 0.001 1239422 0.0015 < 0.0010.002 1239423 0.0015 0.001 0.002 1239424  $0.0015^{\circ} < 0.001$ 0.002 1239425 0.002  $0.0015^{\circ} < 0.001$ 1239426 0.0010 0.001 0.002 1239427 0.001 1239428  $0.0005^{\circ} < 0.001$ 0.0035 < 0.0010.002 1239429 1239430 0.0020 0.001 0.001 0.0020 - 0.001 0.002 1239431 <0.001 0.0010 < 0.0011239432 0.0025 0.001 0.001 1239433 0.0035 < < 0.001 <0.001 1239434 0.0040 < 0.001 . 1239435 <0.001 1239436 0.0600 < 0.001 < 0.0010.0030 < 0.001 < 0.001 1239437  $0.0320^{2} \ 0.001 \ < 0.001$ 1239438 0.0080~<0.001 <0.001 1239439 0.001 1239440 0.0015 < 0.0011239441 0.0045 - 0.002 < 0.001 0.0010- 0.002 0.002 1239442 0.0025- 0.002 0.001 1239443 0.0015 < 0.001 1239444 0.001 0.0030/<0.001 0.002 1239445  $0.0015^{-1}$  0.0010.001 1239446 0.0015 < 0.001 1239447 0.002 0.001 1239448 0.0010 < 0.001 0.0005 < 0.001 0.002 1239449 0.001 1239450 0.0015 < 0.0010.002 1239451 0.0005 < 0.0011239452 0.0005 < 0.0010.002

Detn limit(.0005)(0.001)(0.001)

0.0045 < 0.001

0.0030-<0.001

0.0025 < 0.001

0.0110 < 0.001

-1239453 1239454

1239455

1239456

0.002

0.001

0.001

0.002

*G* 7

Page

Results in ppm

Report AC 134/88 Analysis code PM1/3SPE NATA Certificate Sample Au: PtРd 1239457 0.0015 < 0.001 0.002 0.0015 < 0.001 0.001 1239458 0.0010 0.002 0.003 1239459 0.0030 < 0.001 0.001 1239460  $0.0015^{\prime}$  0.0010.002 1239461 0.0025 < 0.001<0.001 1239462 0.0015/<0.001 0.002 1239463 0.0005/<0.001 <0.001 1239464 0.001 1239465 0.0020<<0.001 0.0005 < 0.0010.0021239466 0.0005 < 0.0010.002 1239467 0.0005 < 0.0010.002 1239468 0.0005 < 0.001 0.002 1239469 0.001 1239470 0.0020 0.001 1239471 0.0005 < 0.0010.004 0.0005<<0.001 <0.001 1239472 0.0005~<0.001 0.002 1239473 0.001 1239474 0.0005 < 0.0010.0005~<0.001 1239475 <0.001 0.001 1239476 0.0005 < 0.001 0.003 0.0005 < 0.001 1239477 0.0005/<0.001 0.002 1239478 0.0030~<0.001 1239479 0.0011239480 0.0025 < 0.0010.002 1239481 0.0015~<0.001 0.001 0.001 0.0010 < 0.0011239482 0.0015 < 0.0010.002 1239483 0.0015 < 0.001 0.001 1239484 0.0025 < 0.001 < 0.001 1239485 1239486 0.0030~<0.001 <0.001 1239487 0.0010 < 0.0010.002 1239488 0.0010~<0.001 0.001 1239489 0.0010-<0.001 0.003 1239490 0.0010~<0.001 0.003 0.0025 < 0.001 0.004 1239491 1239492 0.0050 < 0.0010.004 1239493 0.0020 < 0.0010.002 0.0015 < 0.001 1239494 0.005 1239495 0.0015 0.001 0.0100.0010 < 0.0011239496 0.009

Detn limit(.0005)(0.001)(0.001)



										_			
NATA Cert	ifica	te						,		Kes	uit	s in	ppn
Sample		Au	Pt	Po	· -								٠
1239497	0.00	10 < 0	.001	0.001	!								
1239498		05/<0		<0.001									
1239499		05/ <0		<0.001									
1239500		25 < 0		<0.001									
1239501		05/<0		<0.001									
1239502		05' <0		0.001									
1239503		05/<0		0.001									
1239504		05'<0		0.002									
1239505		05 < 0		0.001									
1239506		05: <0		0.002									
1239507		05' <0		0.00						•			
1239508		05' <0		0.002									
1239509		05' <0		0.002									
1239510		05' 0		0.002									
1239511		05/ <0		<0.003									
1239512		15/ <0		<0.001									
1239513		25: <0		0.00									
1239514	0.00	05. <0	.001	<0.001	!								
1239515	0.00	05' <0	.001	0.00	<u> </u>								
1239516	0.00	05. <0	.001	<0.001	!								
1239517	0.00	05 < 0	.001	<0.001	<u>!</u>								
1239518	0.00	25/ <0	.001	<0.002	[								
1239519	0.00	110' <0	.001	<0.00	<u>.</u>								
1239520		05, <0		0.001									
1239521		05′ <0		<0.00					,				
1239522		105' <0		<0.001									
1239523		105, <0		<0.00.									
1239524		05′ <0		<0.00									
1239525		105' <0		<0.00								·	
1239526		05, <0		<0.00.									
1239527				<0.00.									
1239528		15′ <0		<0.00.				_					
1239529		05, <0		<0.00.						•			
1239530		105, <0		<0.00.									
1239531		105^ <0		<0.00		-							
1239532		05' <0		<0.00.									
1239533		005' <0		0.00									
1239534				<0.00.									
1239535		005′ <0							•				
1239536	0.00	105° <0	.001	<0.00.	I								

Analysis code PM1/3SPE Report AC 134/88 Page G9

NATA Certificate Results in ppm

Sample Au Pt Pd

Sample	Aŭ	·-Pt	Pd
1239541	0.0050	<0.001	<0.001
1239542	0.0025	<0.001	0.003
1239543	0.0005	<0.001	0.003
1239544	0.0005		0.003
1239545	0.0060		0.002
1239546	0.0035	<0.001	0.002
1239547	0.0025		0.003
1239548	0.0025	<0.001	0.003
1239549	0.0020		0.002
1239550	0.0020		0.003
1239551	0.0030	<0.001	0.004
1239552	0.0035	0.001	0.003
1239553	0.0030	<0.001	0.002
1239554	0.0035	<0.001	0.002
1239555	0.0020	<0.001	<0.001
1239556	0.0030	<0.001	0.003
1239557	0.0020	<0.001	0.001
1239558	0.0035		<0.001
1239559	0.0045		0.001
1239560	0.0040		0.002
1239561	0.0025		0.001
1239562	0.0045		<0.001
1239563	0.0010		<0.001
1239564	0.0025		<0.001
1239565	0.0015		0.001
1239566	0.0010		0.003
1239567	$0.0005^{\circ}$		0.001
1239568	0.0005		0.001
1239569	0.0005		0.001
1239570	0.0005		<0.001
1239571	0.0005		0.002
1239572	0.0040		0.003
1239573	0.0025		0.002
1239574	0.0005		0.003
1239575	0.0025		0.005
1239576	0.0015		0.003
1239577	0.0025		0.003
1239578	0.0045		0.002
1239579	0.0055		<0.001 0.002
1239580	0.0043	<0.001	0.002

Detn limit(.0005)(0.001)(0.001)



Analysis c	ode PM1/3SPE	Report AC 1	134/88	Page G10
NATA Certi	ficate			Results in pp
Sample	Au Pt	Pd		

Sample	Au	Pt	Pd
1239581	0.0050	<0.001	0.002
1239582	0.0025	0.001	0.001
1239583	0.0025	<0.001	0.002
1239584	0.0020	<0.001	0.003
1239585	0.0020	<0.001	0.003
1239586	0.0020	0.001	0.002
1 <i>2395</i> 87	0.0020	0.002	0.001
1239588	0.0025	<0.001	0.004
1239589	0.0035	<0.001	0.002
1239590	0.0015	<0.001	0.003
1239591	0.0030	0.001	0.002
1239592	0.0030	<0.001	0.002
1239593	0.0035	0.001	0.001
1239594	0.0030	0.003	0.001
1239595	0.0160	<0.001	<0.001
1239596	0.0025	<0.001	<0.001
1239597	0.0025	<0.001	<0.001
1239598	0.0020		<0.001
1239599	0.0025	<0.001	0.003
1239600	0.0015	<0.001	<0.001

Detn limit(.0005)(0.001)(0.001)



Analysis cod	e ICP2		Repor	t AC 13	4/88		Pā	ige	I 1
NATA Certifi	cate						Results	in	ppm
Sample	<b>A</b> 5	Ва	Fe	Mn	P	Sb	La		Nb
1239417	10	160	4.78%	560	320	3.5	140		<b>&lt;</b> 5
1239418	10	200	4.14%	940	<i>500</i>	35	. 120		5
1239419	10	180	4.38%	800	380	35	130		5
1239420	5	170	4.98%	<i>560</i>	340	35	140		<5
1239421	10	240	4.36%	700	500	35	140		5
1239422	5	170	4.58%	580	360	3 <b>5</b>	130		<b>5</b> -
1239423	5	180	5.35%	1100	<i>550</i>	35	140		<5
1239424	10	220	5.6 <b>5</b> %	1450	<i>650</i>	40	160		<5
1239425	5	180	4.88%	1000	450	40	140		<5
1239426	10	180	5.75%	960	550	40	150		<5
1239427	5	130	4.22%	560	340	35	120		<5
1239428	10 -	180	5.40%	1200	600	35	150		<5
1239429	10	150	3.96%	450	300	30	120		5
1239430	10	180	5.65%	800	600	45	180		<5
1239431	10	150	5.30%	860	500	35	150	-	<5
1239432	10	140	4.04%	460	320	. 30	110		5
1239433	10	180	5.20%	1250	600	40	150		<5
1239434	10	160	5.75%	880	550	40	160		<5
1239435	. 5	160	4.62%	440	800	35	130		<5
1239436	15	220	3.98%	1300	800	35	120		5
1239437	10	180	4.74%	880	400	35	140		<5
1239438	10	190	4.14%	680	550	35	130		5
1239439	10	190	4.38%	780	600	40	130		5
1239440	10	170	4.70%	840	450	35	140		< <b>5</b>
1239441	10	140	4.22%	470	280	35	130		<b>&lt;</b> 5
1239442	10	160	4.38%	660	400	40	130		5
1239443	10	170	3.30%	400	400	30	100		10
1239444	5	150	4.68%	500	360	35	130		<b>&lt;</b> 5
1239445	10	160	3.90%	480	400	30	120		5
1239446	10	180	4.94%	780	5 <b>50</b>	40	150		<5
1239447	10	130	3.24%	460	450	30	110		10
1239448	10	180	5.30%	660	500	40	150		5
1239449	10	110	2.80%	410	400	30	95		10
1239450	10	170	3.98%	560	450	. 30	120		5
1239451	10	130	3.86%	600	360	25	120		<5
1239452	10	180	3.94%	600	550	35	120		10
1239453	10	140	3.24%	490	500	30	100		5
1239454	15	150	3.58%	600	650	30	120		10
1239455	10	150	4.46%	720	500	35	130		₹5
1239456	15	150	3.46%	580	700	35	110		10
Detn limit	(5)	(5)	(50)	(5)	(50)	(5	(5)		(5)



Analysis cod	e ICP2		Report	AC 13	4/88		Pā	ge	12
NATA Certifi	cate					ŀ	Results	in	ppm
Sample	<b>A</b> s	Ва	Fe	Mn	р	Sb	La		Nb
1239457	10	130	2.88%	410	360	30	95		5
1239458	10	140	4.78%	500	300	35	140		<5
1239459	10	110	3.38%	490	320	30	100		5
1239460	10	130	3.48%	620	450	<i>30</i>	110		5
1239461	10	150	3.74%	720	600	35	110		5
1239462	5	85	3.76%	490	<i>300</i>	30	110		<5
1239463	10	150	3.70%	600	<i>500</i>	35	130		5
1239464	10	200	4.00%	700	700	35	140		10
1239465	5	140	2.80%	580	500	30	95		5
1239466	10	110	2.06%	280	340	20	75		5
1239467	10	140	2.88%	560	500	30	100		10
1239468	5	95	2.24%	320	400	25	90		5
1239469	5	140	2.14%	300	360	25	<i>95</i>		10
1239470	<b>₹</b> 5	170	4.42%	410	450	<5	70		<5
1239471	<b>&lt;</b> 5	160	4.28%	580	380	< 5	65		<5
1239472	<b>&lt;</b> 5	160	4.34%	680	600	<5	<i>70</i>		<5
1239473	<b>&lt;</b> 5	75	4.64%	640	400	₹5	70		<5
1239474	< <b>5</b>	170	4.50%	680	400	<5	75 <sup>´</sup>		<5
1239475	<b>&lt;</b> 5	110	2.62%	380	400	5	40		5
1239476	<5	160	4.38%	660	380	<5	70		< <i>5</i>
1239477	<b>&lt;</b> 5	220	4.60%	940	650	<5	<i>75</i>		<5
1239478	<5	160	4.06%	660	400	<5	65		<5
1239479	<5	160	4.14%	680	<i>550</i>	<5	65		<5
1239480	<b>&lt;</b> 5	160	3.46%	520	600	< 5 <sup>°</sup>	60		5
1239481	<b>&lt;</b> 5	170	3.48%	560	600	<5	60		5
1239482	<b>&lt;</b> 5	140	3.34%	460	500	< <u>5</u>	55		5
1239483	<5	170	4.26%	720	500	<5	70		<5
1239484	<b>&lt;</b> 5	160	4.56%	860	450	. < 5	70		<5
1239485	<5	150	3.80%	380	380	<5	75	٠	5
1239486	<i>&lt;</i> 5	150	3.94%	<i>520</i>	500	<5	70		5
1239487	<5	150	3.56%	560	<i>650</i>	<5	60		5
1239488	<5	110	3.44%	· <i>520</i>	<i>650</i>	<5	<i>50</i>		5
1239489	<5	130	4.26%	700	700	<5	60		<5
1239490	<b>&lt;</b> 5	170	4.66%	800	<i>550</i>	<5	70		<5
1239491	<5	150	4.08%	620	450	<5	70		<5
1239492	10	180	2.40%	240	400	10	45		15
1239493	<5 -	140	5.15%	660	400	<5	70		<5
1239494	<5	190	4.32%	940	700	<5	75		5
1239495	<5	160	4.44%	800	600	<5	80		<5
1239496	`<5	140	4.18%	660	<i>650</i>	<5	75		5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)



			•	•					
Analysis code	ICP2		Repor	t AC 13	4/88		Pā	age.	13
NATA Certific	ate					R	esults	in	ppm
Sample	As	- Ba	Fe	· Mn:	P	Sb	La		Nb
Sampre	42	Du	, ,		•	30	Lu		110
1239497	<5	130	3.62%	600	650	<5	70	•	5
1239498	₹5	140	3.82%	620	600	<5	65		5
1239499	<5	160	4.34%	<i>800</i>	900	<5	80		·<5
1239500	<5	210	4.62%	1000	600	<5	80		<5
1239501	<5	160	4.76%	960	500	<5	75		<5
1239502	<5°	200	4.50%	<i>820</i>	700	<5	80	-	5
1239503	<b>&lt;</b> 5	150	4.44%	1050	<i>550</i>	<5 ˆ	70		<5
1239504	<5°	190	4.22%	680	650	<b>₹</b> 5	80		5
1239505	<i>&lt;</i> 5	130	3.20%	490	600	<b>&lt;</b> 5	<i>65</i>		5
1239506	<5	160	3.34%	560	750	<b>&lt;</b> 5	65		5
1239507	<b>&lt;</b> 5	140	4.46%	860	800	<5	75		<b>&lt;</b> 5
1239508	<5	160	4.00%	580	500	₹5	80		<b>&lt;</b> 5
1239509	<b>&lt;</b> 5	170	4.26%	640	400	<b>&lt;</b> 5	80		<b>&lt;</b> 5
1239510	<5	140	3.38%	520	450	√5	<i>60</i>		√5
1239511	<b>&lt;</b> 5	140	3.22%	540	450 450	<5	55		5
1239512	<b>&lt;</b> 5	110	2.50%	350	380	<b>₹</b> 5	55		< <b>5</b>
1239512	5	95	2.26%	280	340	<b>₹</b> 5	55		5
1239514	<5	75	2.12%	330	240	₹5	40		<5
1239514	<5	1.90	4.86%	1100	500	10	50		<5
1239516	<5	150 150	4.20%	780	450	10	45		<5
1239517	5	150 150	3.60%	500	450 450	10	40		
1239517	√5	100							5
1239516	<5	100 170	4.14%	660	550 600	10	45		5
1239519			4.24%	860 460	600 360	10	<i>50</i>		5
	<5	95 100	3.60%	460	360	10	35		<5
1239521	<5	190	5.25%	880	380	10	50		<b>&lt;</b> 5
1239522	<5	190	4.70%	660	400	10	50		< 5
1239523	<5	180	4.40%	680	400	10	55		<5
1239524	<5	130	4.68%	600	380	10	50		<5
1239525	15	160	5.65%	1150	75 <i>0</i>	10	60	,	<b>&lt;</b> 5
1239526	5	140	3.94%	540	500	10	50		5
1239527	<5	85	4.36%	500	340	10	45		<5
1239528	<5	160	5.20%	1050	500	10	<i>55</i>		<b>&lt;</b> 5
1239529	·<5	150	4.58%	840	450	10	50		<5
1239530	<5	210	4.48%	880	750	10	<i>55</i>		5
1239531	<5	170	4.12%	580	450	10	<i>50</i>		<i>&lt;5</i>
1239532	<5	160	3.66%	600	650	10	50		10
1239533	<5	180	4.94%	740	500	10	60		<5
1239534	5	130	4.10%	640	800	10	· 50		5
1239535	<b>&lt;</b> 5	95	4.66%	440	360	10	50		<5
1239536	<i>&lt;5</i>	130	5.70%	720	400	10	55		<5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)

Analysis co	ode ICP2		Repor	t AC 13	4/88		Pā	ge	14
NATA Certii	ficate					R	esults	in	ppm
Sample	A s	Вä	Fe	Mn	P	Sb	La		Nb
1239541	· <5	220	3.90%	. 720	600	10	50		5
1239542	5	180 .	4.04%	620	<i>650</i>	10	45		5
1239543	< 5	210	4.26%	680·	650	10	50		5
1239544	<i>&lt;5</i>	170	3.04%	450	450	10	45		5
1239545	· <5	220	4.14%	1150	<i>750</i>	10	_ <i>50</i>		5
1239546	5	190	4.10%	1300	800	10	45		5
1239547	<b>√</b> 5	190	3.54%	470	450	. 10	50		10
1239548	5	170	3.50%	920	<i>850</i>	10	40		10
1239549	< <b>5</b>	250	4.18%	780	600	10	50		5
1239550	< <i>5</i>	180	4.82%	640	360	10	45		<5
1239551	5	190	2.86%	430	400	10	40		10
1239552	< <b>5</b>	240	3.30%	420	400	10	35		10
1239553	<i>₹5</i>	210	3.20%	520	500	10	40		10
1239554	< <i>5</i>	220	3.60%	460	450	10	45		10
1239555	<b>₹</b> 5.	230	5.00%	780	600	10	50		5
1239556	<5	220	4.18%	660	650	10	45		10
1239557	<5°	290	4.72%	820	700	10	60		5
1239558	<b>₹</b> 5	160	3.28%	410	400	10	35		10
1239559	· <5	260	4.70%	820	650	10	<i>50</i>		5
1239560	<i>&lt;</i> 5	190	4.90%	660	500	10	55		5
1239561	<i>&lt;</i> 5	150	5.10%	620	450	10	45		<5
1239562	₹5	220	4.36%	660	500	10	50		5
1239563	<i>&lt;5</i>	210	4.24%	520	450	5	45		<5
1239564	<5	190	3.80%	430	400	10	45		10
1239565	<i>&lt;</i> 5	190	4.10%	470	400	10	45		5
1239566	<b>&lt;</b> 5	200	4.34%	620	550	10	45		5
1239567	< 5	200	4.86%	860	<i>650</i>	25	85		< <b>5</b>
1239568	<b>&lt;</b> 5	200	6.55%	1000	700	25	95		.<5
1239569	<b>&lt;</b> 5	210	6.25%	840	550	30	95		<5
1239570	<5	200	6.15%	780	700	30	95		<b>&lt;</b> 5
1239571	<b>&lt;</b> 5	200	5.35%	820	650	25 <sup>°</sup>	95		5
1239572	<5	210 210	6.75%	1200	650	25 25	100		.< <b>5</b>
1239573	5	190	4.30%	560	600	25 25	85		10
1239574	5	190	5.35%	780	700	25 25	95		
	5	180		620	600	25 25	95 85		5 5
1239575		170	4.62% 4.04%		450				
1239576 1239577	<5 5	170 180		500 540	600	25 25	80 80		10 10
1239577 1239578			4.20%			25 25			
	<5	190	5.30%	1100	500 550	25 20	.95		<5
1239579	<5 5	200	5.30%	1000	550	30 35	100		<5
1239580		240	5.15%	1450	600	25	100		<5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)



Analysis cod	e ICP2		Report AC 134/88				ige I5	
NATA Certifi	cate			•		R	esults	in ppm
Sample	As	Ва	Fe	Mn	P	Sb	La	Nb
1239581	5	160	3.78%	450	400	20	80	10
1239582	· 5	190	4.32%	860	500	20	90	5
1239583	< 5	85	5.55%	460	380	30	100	<5
1239584	5	210	5.05%	640	450	30	100	<5
1239585	5	170	5.90%	1050	600	30	110	<5.
1239586	5	210	5.65%	1350	650	30	110	<5
1239587	5	170	4.62%	660	450	30	95	<5
1239588	10	180	5.80%	720	600	35	110	<5
1239589	5	220	4.96%	820	550	30	100	5 .
1239590	5	160	5.45%	1050	<i>500</i>	30	110	<5
1239591	5	180	5.80%	780	<i>550</i> ·	30	110	<5
1239592	5	220	5.80%	1150	<i>550</i>	35	110	<5
1239593	5	120	5.40%	1150	<i>500</i>	30	120	√ <5
1239594	5	210	5.25%	700	380	30	110	<5 €
1239595	10	410	6.55%	1500	1850	55	130	<5
1239596	5	230	4.65%	760	450	30	100	<5
1239597	. 5	190	5.65%	920	500	35 ·	120	< 5
1239598	5	170	4.84%	760	400	30	100	<5
1239599	5	160	3.60%	450	380	25	80	. 5
1239600	5	200	5.05%	800	380	30	110	<5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)



Analysis code	ICP2		Report .	AC 134/8	8		Р	age	16
NATA Certific	ate						Results	in	ppm
Sample	Sn	W							
•	k	25	•						
1239417	30	25 25						·	
1239418	30 30	25 25		,		• •			
1239419 1239420	35°	30		·		•			*
1239421	35 35	<i>30</i>							
1239422	35 35	<i>30</i>		**			•		
1239423	35 35	25	•						•
1239424	40	35						,	
1239425	<del>35</del>	<i>30</i>	•		**				
1239426	40	30	•						
1239427	30	30							
1239428	35	30							
1239429	30	25							
1239430	40	35							
1239431	35	30							
1239432	25	25							
1239433	35	<i>35</i> -	•			•			*
1239434	40	35					•		
1239435	30	25							
1239436	30	30							•
1239437	35	<i>30</i>							
1239438	30	30							
1239439	35	30	-	•			٠		-
1239440	30	<i>30</i> ·							
1239441	30	30						-	
1239442	<i>35</i>	30							
1239443	25 25	25 20							
1239444 1239445	35 30	30 25							
1239446	35	30		,				*	
1239447	25	25							
1239448	40	30							
1239449	.20	25							
1239450	25	30							
1239451	20	25					•		
1239452	30	30						•	
1239453	25	25		• •	•				
1239454	25	30							
1239455	30	30		•			*		
1239456	25	30	•		•		•		
<b>.</b>		_							
Detn limit	(5)	(5)							

Detn limit

(5)

(5)

Analysis code ICP2		Report AC 134/88	Pā	age	<i>I</i> ,7
NATA Certificate			Results	in	ppm
Sample Sn	W		•		,
1239457 25	25				
1239458 30	30				
1239459 25	25		•	,	
1239460 25	30	• 1			
1239461 25	30	_			
<i>1239462</i> 25	30				
1239463 30	30				
. 1239464 30	30				
1239465 20	. 25				
1239466 15	20				
1239467 20	30	1			
1239468 15	.20	•			
1239469 20	20				
1239470 25	< 5				
1239471 25	<b>&lt;</b> 5				
1239472 25	<5				
1239473 25	<5 .5				
1239474 25 1239475 15	<5 <5				
1239475 15 1239476 25	<5	·			
1239477 25	<5				
1239478 20	<5		• .		
1239476 25	< <i>5</i>				
1239480 20	<5				
1239481 20	<b>&lt;</b> 5				
1239482 20	<5				
1239483 20	<5				
1239484 20	<5 <sup>°</sup>	•			
1239485 20	<5				
<i>1239486</i> 25	<5				
1239487 20	<5				
<i>1239488</i> 15	<5⁻				
1239489 20	< 5	•			
<i>1239490 25</i>	<5				
1239491 20	<5				•
1239492 15	< <b>5</b>				
- 1239493 30	<b>&lt;</b> 5				
1239494 25	<5				
1239495 25	<5				
<i>1239496</i> 25	<5				



Analysis code	ICP2		Report A	C 134.	/88	Pa	ige	18
NATA Certific	ate					Results	in	ppm
Sample	Sn	W				•	·.	•
1239497 1239498 1239499 1239500 1239501 1239502 1239503 1239504	20 20 20 25 20 25 20 25 20	<5 <5 <5 <5 <5 <5 <5						
1239505 1239506 1239507 1239508 1239509 1239510 1239511 1239512 1239513	20 25 25 20 15 15 15	<5 <5 <5 <5 <5 <5 <5 <5 <5						
1239515 1239516 1239517 1239518 1239519 1239520 1239521 1239522 1239523 1239524 1239525 1239526	15 15 15 15 10 20 20 15 15	<5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <						
1239527 1239528 1239529 1239530 1239531 1239532 1239533 1239534 1239535	10 15 15 15 15 15 15 20 15 15	<5 <5 <5 <5 <5 <5 <5 <5 <5						
Detn limit	(5)	(5)						
						,		

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Results in ppm

Report AC 134/88

Analysis code	ICP2	
NATA Certifica	ate.	
, , , , , , , , , , , , , , , , , , ,		
Sample	Sri	W
1239541	15	<5 15
	15	<5
	15 15	<5
	15	<5 45
	15 15	<5
	15 15	<5
		<5
	15 15	<5
		< 5
1239550 1239551	15 10	<5 <5
	15 15	₹5
	15 15	<5
1239554	15 15	<5
	20 .	.<5 .<5
,	15	<5
1239557	20	<5
1239558	15	<5
1239559	20	<5
1239560	20	< 5
1239561	20	<5
1239562	15	<5
1239563	15	<5
1239564	<i>15</i> .	<5
	15	<5
	15	< 5
	20	<5
	30	< 5
	30	<5
1239570	30	< 5
1239571	30	5
1239572	25	<5
1239573 1239574	25 25	2
1239574	25 s	5
1239576	25	<i>5</i>
1239576	25 25 25 25 25 25 25 25 30	<i>5</i>
1239578	25	5 5
1239579	30	5
1239580	25	<5555555555555555555555555555555555555
• •		
Det <sup>o</sup> n limit	(5)	(5).



Analysis cod	e ICP2		Report A	C 134/88	Page I10
NATA Certifi	cate				Results in ppm
Sample	·Sn·	W			
1239581 1239582 1239583	20 20 25	10 10 5			
1239584 1239585 1239586 1239587	25 25 30 25	10 5 5 10		-	
1239588 1239589 1239590	30 25 30	5 5 10			
1239591 1239592 1239593 1239594	30 30 25	5 5 10			·
1239594 1239595 1239596 1239597	30 45 30 30	5 20 5 10			
1239598 1239599 1239600	25 20 30	5 10 5			
Detn limit	(5)	(5)			



NATA CERTIFICATE

ACT

2609

Amdel Limited - Inc. in S.A.

26 August 1987

PO Box 656 FYSHWICK

Dr. Burton Murrell CRA Exploration Pty Ltd Amdel 31 Eleminaton St.

31 Flemington Street, Frewville, S.A. 5063

Telephone: (08) 372 2700

Address all correspondence to: P.O. Box 114, Eastwood, S.A. 5063

Telex: AA82520

Facsimile: (08) 79 6623

REPORT AC 517/88

YOUR REFERENCE:

DPO 46557

REPORT COMPRISING:

Cover sheet Page I1-I12 Page G1-G12

DATE RECEIVED:

18 August 1987

Approved Signatory:

Don Patterson

Manager, Geo-Analytical Services

for Dr William G. Spencer General Manager Applied Sciences Group

cc CRA Exploration Pty Ltd PO Box YUNTA SA 5440

cc Chief Geologist Information Services PO Box 656 FYSHWICK ACT 2609

The report relates specifically to the sample tested and also the entire batch in so far as the sample is truly representative of the sample source.

tk



This laboratory is registered by the National Association of Testing Authorities, Australia. The test(s) reported herein have been performed in accordance with its terms of registration. This document shall not be reproduced except in full.

### **Ø** amdel

Analysis co	de ICP2		Repor	t AC 51	7/88		Ра	ge,	I 1
NATA Certif	icate					ſ	Results	in	ppm
Sample	As	Ва	Fe	Mn	P	Sb.	La		Иb
1239537	< 5	240	5.65%	1500	500	10	10		< 5
1239538	. <5	210	4.98%	820	380	5	5		< 5
1239539	< 5	170	6.00%	1100	400	15	5		< 5
1239540	<5	180	5.95%	1350	500	20	10		5
1239601	₹5	240	5.80%	1550	750	20	10		< 5
1239602	< 5	200	6.05%	1100	550	25	15		5
1239603	₹5	290	4.68%	450	600	15	· <5		< 5
1239604	<b>&lt;</b> 5	250	6.90%	1050	550	25	₹5		<5
1239605	<b>&lt;</b> 5	210	5.60%	1100	500	15	1.0		< 5
1239606	<b>&lt;5</b>	190	4.94%	720	400	10	<5		<b>&lt;</b> 5
	< 5		5.35%	1050	550	10	<b>&lt;</b> 5		<b>&lt;</b> 5
1239607		220		920	400		<5		<b>&lt;</b> 5
1239608	< 5	190	5.55%			10			
1239609	<b>₹</b> 5	210	5.90%	800	380	20	< 5		< 5
1239610	<b>&lt;</b> 5	170	5.65%	800	360	20	< 5		K5
1239611	< 5	210	5.60%	1000	500 '	10	5		< 5
1239612	< 5	210	5.75%	1000	450	10	< 5		< 5
1239613	< 5	230	5.10%	920	550	10	< 5		< 5
1239614	< 5	230	5.85%	960	450	25	5		5
1239615	< 5	180	5.55%	840	. 400	25	< 5		5
1239616	5	200	6.40%	1.050	500	35	< 5		10
1239617	·< 5	190	6.05%	840	500	30	5		5
1239618	< 5	230	6.80%	1250	600	30	5		5
1239619	< 5	170	5.90%	620	320	20	< 5		< 5
1239620	< 5	240	5.60%	940	400	15	< 5		< 5
1239621	< 5	160	4.88%	640	360	15	< 5		< 5
1239622	< 5	200	5.85%	900	550	25	5		10
1239623	< 5	190	5.75%	1200	500	20	5	,	5
1239624	< 5	140	4.62%	880	400	15	5	·	< 5
1239625	< 5	180	5.30%	940	400	15	5		< 5
1239626	<5	160	5.00%	680	360	15	< 5		< 5
1239627	< 5	170	5.45%	1050	500	15	10		< 5
1239628	< 5	140	5.80%	960	500	10	10		< 5
1239629	< 5	120	4.68%	760	380 .	5	< 5		< 5
1239630	· <5	130	5.10%	1100	240	5 .	< 5		< 5
1239631	< 5	140	4.60%	880	380	< 5	5		< 5
1239632	<5	180	4.96%	840	380	10	5		< 5
1239633	< 5	150	5.55%	800	380	. 10	10		< 5
1239634	< 5	140	5.60%	840	360	10	5		< 5
1239635	< 5	160	5.50%	700	320	15	<5		< 5
1239636	< 5	100	4.64%	900	300	10	5		< 5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)



Analysis code	ICP2		Repor	t AČ 51	7/88		Pa	ge	I 2
NATA Certific	ate						Results	in	ppm
Sample	As	Ba	Fe	Mn	P	Sb	La		Nb
1239637	< 5	170	5.20%	900	450	10	. 5		⟨5 .
1239638	<b>&lt;</b> 5	200	5.45%	700	.340	10	. <5		<b>&lt;</b> 5
1239639	< 5	180	4.96%	820	400	10	<5		<b>&lt;</b> 5
1239640	< 5	130	5.00%	500	260	10	< 5		
1239641	< 5 < 5	140	5.05%	1000	300	10	5 .		< 5 < 5
				640	400		5 ·		
1239642	< 5	130	5.20%			10			< 5
1.239643	<b>&lt;5</b>	150	5.20%	1050	300	15	5		< 5
1200011	< 5 	150	4.66%	760	340	5	5		< 5
1239645	< 5	210	5.10%	660	320	10	< 5		<b>&lt;</b> 5
1239646	<b>&lt;</b> 5	180	4.60%	580	380	10	< 5		< 5
1239647	< 5	140	4.52%	720	300	5	10		< 5
1239648	< 5	160	4.96%	760	450	10	5		< 5
1239649	₹5	190	5.00%	800	400	10	< 5		< 5
1239650	< 5	180	5.35%	960	400	10	5		< 5
1239651	< 5	160	4.86%	980	380	10	5		< 5
1239652	< 5	170	5.35%	820	400	10	<5		< 5
1239653	< 5	160	4.90%	760	450	10	< 5		< 5
1239654	<b>&lt;</b> 5	130	5.30%	600	360	10	5		< 5
1239655	< 5	180	5.10%	820	380	1,0	5		< 5
1239656	<b>&lt;</b> 5	150	5.20%	800	450	15	5		< 5
1239657	< 5	150	4.76%	660	360	10	<b>&lt;5</b>		< 5
123965,8	<b>&lt;</b> 5	160	4.54%	620	240	10	< 5 . 5		< 5
1239659	< 5	160	5.40%	840	340	10	< 5,		< 5
1239660	< 5	120	5.05%	760	320	10	- 5		< 5
1239661	< 5	120	5.55%	940	500	5	< 5		< 5
1239662	< 5	140	5.40%	560	340	15	<b>&lt;5</b>		< 5
1239663	< 5	130	5.60%	640	360	20	< 5		5
1239664	<5 .	170	5.25%	560	300	15	< 5		< 5
1239665	< 5	170	5.90%	740	400	15	< 5		< 5
1239666	< 5	150	6.10%	720	340	15	5		< 5
1239667	< 5	160	4.96%	520	300	10	< 5		< 5
1239668	< 5	150	5.95%	840	450	15	< 5		< 5
1239669	< 5 -	160	5.45%	520	500	15	< 5		5
1239670	< 5	180	4.74%	540	300	10	< 5		< 5
1239671	< 5 -	150	5.80%	800	340	15	< 5		< 5
1239672	< 5	130	5.15%	700	300	15	<b>&lt; 5</b>		< 5
1239673	`<5	160	6.45%	880	650	15	< 5		< 5
1239674	< 5	140	5.95%	940	500	20	5		5
1239675	< 5	170	4.70%	600	500	15	· <5		< 5
1239676	< 5	160	5.85%	880	360	20	< 5		5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)



Analysis code	ICP2	Report	AC 5	17/88		Pa	ge	Ι3
NATA Certifica	ate					Results	in	ppm
Sample	As Ba	a Fe	Mn	P	Sb	La		Ир
1239677	< 5 140		800	360	15	< 5		< 5
1239678	< 5 160	5.90%	700	. 360	20	< 5		5
1239679	<5 150	5.85%	720	450	15	< 5		< 5
1239680	<5 170	6.00%	920	. 450	15	< 5		< 5
1239681	< 5 100	5.10%	660	320	10	10		< 5
1239682	<5 150	5.50%	820	360	10	< 5		< 5
1239683	<5 160	5.55%	920	450	15	< 5		< 5
1239684	<5 130	6.25%	660	360	15	< 5		< 5
1239685	<5· 130	6.20%	680	450	15	< 5		< 5
1239686	<5 150	5.80%	800	400	10	< 5	,	< 5
1239687	<5 150	5.70%	680	400	10	< 5		< 5
1239688	<5 150	5.85%	900	400	10	< 5		< 5
1239689	<5 140	5.35%	980	380	15	< 5		∢5
1239690	< 5 140	4.06%	500	400	10	< 5		< 5
1239691	<5 160	5.10%	800	360	10	< 5		< 5
1239692	< 5 160	4.28%	820	400	15	< 5		< 5
1239693	<5 170	3.78%	400	450	15	< 5		< 5
1239694	<5 120		760	280	10	< 5		⟨5 -
1239695	<5 110		920	360	10	< 5		∢5
1239696	<5 110		720	220	15	< 5		< 5
1239697	<5 130		880	360	15	< 5		₹5
1239698	<5 170		1200	400	10	< 5		< 5
1239699	< 5 180		900	450	15	< 5		∢5
1239700	< 5 160		980	500	15	< 5		< 5
1239701	<5 190		1450	450	15	< 5		∢5
1239702	< 5 130		840	450	10	< 5		<5
1239703	< 5 150		1050	550	10	< 5		⟨5
1239704	< 5 170		700	650	15	< 5	,	5
1239705	< 5 170		1000	450	15	< 5		< 5
1239706	<5 180		1050	550	15	< 5 ·		₹5
1239707	<5 180		660	650	15	< 5		5
1239708	< 5 130		700	800	10	5		5
1239709	<5 170		840	450	15	5		5
1239710	< 5 180		760	500	20	5		5
1239711	<5 180		800	550	15	10		5
1239712	< 5 170		720	500	15	5		5
1239713	<5 130		520	450	15	5		5
1239714	< 5 170		800	450	15	5		5
1239715	< 5 200		980	500	15	< 5		5
1239716	<5 180		980	500	15	< 5		5
Detn limit	(5) (5	5) (50)	(5)	(50)	(5)	(5)		(5)

Analysis cod	e ICP2	·	Report	AC 51	7/88		P	age :	I 4
NATA Certifi	cate				,		Results	in p	pm
				• .					
Sample	As	Ва	Fe	Mn	P	Sb.	La	N	b.
1239717	< 5	170	5.50%	920	500	20	< 5		5
1239718	< 5	180	5.60%	820	450	20	< 5		5
1239719	5	180	5.30%	780	550	15	<5		5
1239720	< 5	170	5.35%	720	400	20	. <5		5
1239721	. 5	180	5.55%	760	550	20	< 5		5 .
1239722	5	200	5.70%	940	550	20	< 5		5
1239723	. < 5	180	5.35%	760	550	15	<5		5
1239724	<5	170	5.55%	700	550	15	< 5		5
1239725	. <5	150	4.58%	580	550	10	<5	· </td <td></td>	
1239726	₹5.	140	4.90%	700	360	5	<5	</td <td></td>	
1239727	₹5	160	4.52%	640	550	10	<5	</td <td></td>	
1239728	< 5	140	4.68%	740	450	10	<b>&lt;</b> 5	<u>``</u>	
1233720	<b>&lt;</b> 5	130	4.54%	600	600	10	<b>&lt;</b> 5	< !	
1239730	< 5	160	5.40%	800	400	10	5	· </td <td></td>	
1239731	<b>&lt;</b> 5	150	5.35%	740	400	15	<b>&lt;</b> 5	<u> </u>	
1239732	<b>&lt;</b> 5	160	4.98%	820	600	10	. 10		5
1239733	<5	170	4.42%	600	650	10	< 5	</td <td></td>	
1239734	<5	180	5.10%	920	700	10	- 5	₹!	
1239735	<b>&lt;</b> 5	180	4.80%	860	600	15.	<b>&lt;</b> 5	· </td <td></td>	
1239736	<5	120	3.50%	450	500	10	< 5		5
1239737	<5	150	4.54%	620	550	5	, < 5	· </td <td></td>	
1239738	< 5	170	5.25%	960	500	10	5	</td <td></td>	
1239739	< 5	140	3.74%	480	650	15	< 5		5
1239740	< 5	140	4.28%	620	550	10	< 5		5
1239741	< 5	180	4.68%	700	600	10	< 5	· </td <td></td>	
1239742	< 5	170-	4.30%	580	600	. 5	< 5	</td <td>5</td>	5
1239743	< 5	150	4.40%	620	600	10	< 5	</td <td></td>	
1239744	<5	180		1000	650	10	5	· </td <td>5</td>	5
1239745	√ < 5	140	4.48%	640	500	10	<5	ζ!	5
1239746	<5	160	3.88%	520	600	10	< 5	1	5
1239747	< 5	140	4.10%	620	650	10	< 5	< !	5
1239748	<5	140	4.02%	620	600	5	· <5	</td <td>5</td>	5
1239749	₹5	140	4.06%	600	. 700	10	<5	</td <td>5</td>	5
1239750	<5	190	5.10%	860	550	10	< 5	< !	5 ·
1239751	₹5	150	4.12%	540	360	10	< 5	</td <td>5</td>	5
1239752	· <5	150	5.75%	660	320	15	< 5	< !	5
1239753	< 5	150	5.10%	560	400	10	< 5	</td <td>5</td>	5
1239754	< 5	180	5.45%	920	500	15	<b>' &lt;5</b>	</td <td><b>5</b> .</td>	<b>5</b> .
1239755	< 5	120	4.56%	640	450	10	< 5	</td <td></td>	
1239756	4 5	140	4.66%	500	400	10	< 5	<b>〈</b> !	5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	( !	5)
1									



	Analysis co	de ICP2		Repor	t AC 51	17/88		Pa	ge I5
	NATA Certif	icate				·	1	Results	in ppm
	Sample	· As	Ва	Fe	Mn	Р	Sb	<u>L</u> a	Nb
	1239757	170	170	5.40%	560	550	10	< 5	5
	1239758	< 5	180	5.50%	1100	450	15	< 5	< 5
	1239759	< 5	130	5.20%	660	240	15	<5	< 5
	1239760	< 5	190	4.54%	640	550	10	< 5	< 5
	1239761	<5 ⋅	180	5.65%	1100	500	15	< 5	< 5
	1239762	35	200	6.00%	840	550	15	< 5	< 5
	1239763	< 5	160	5.50%		450	15	< 5	< 5
	1239764	< 5	150	5.35%	860	550	15	<b>&lt;5</b> .	<5,
	1239765	< 5	150	5.05%	940	400	10	< 5	< 5
	1239766	< 5	150	5.20%	440	280	15	< 5	< 5
	1239767	< 5	100	3.16%	440	300	10	< 5	< 5
	1239768	< 5	9 5	2.28%	270	100	10	₹5	< 5
	1239769	< 5	150	4.26%	540	500	10	< 5	ζ5
	1239770	< 5	130	5.20%	860	400	15	< 5	< 5
	1239771	< 5		5.60%	1050	<b>50</b> 0	20	< 5	₹5
	1239772	< 5	130	5.90%	920	550	20	< 5	. <5
	1239773	< 5	160	5.70%	600	450	20	< 5	5
	1239774	< 5	150	5.20%	720	400	15	< 5	< 5
	1239775	< 5	150	5.80%	720	450	15	< 5	< 5
	1239776	< 5	180	5.80%	960	550	15	< 5 ·	5
	1239777	< 5	160	5.40%	880	450	15	< 5	5
	1239778	< 5	150	5.50%	820	550	15	< 5	< 5
	1239779	< 5	140	5.70%	760	650	20	< 5	5
•	1239780	< 5	150	5.90%	500	300	20	< 5	5
	1239781	< 5	100	6.15%	640	320	15	< 5	5
	1239782	< 5	150	5.55%	780	500	15	< 5	5
	1239783	< 5	130	4.70%	540	450	15	< 5	5
	1239784	< 5	160	5.40%	600	340	15	< 5	· 5
	1239785	< 5	170	5.80%	720	340	20	< 5	5
	1239786	< 5	170	4.52%	580	500	15	< 5	5
	1239787	< 5	120	3.42%	380	450 -	15	< 5	5
	1239788	< 5	170	5.95%	720	450	20	< 5	5
	1239789	< 5	200	6.35%	700	600	20	< 5	. 5
	1239790	< 5	170	7.10%	860	500	20	< 5	< 5
	1239791	< 5	200	5.70%	680	750	25	< 5	< 5
	1239792	< 5	160	6.15%	600	450	20	< 5 -	< 5
	1239793	. <5	200	5.85%	820	500	20	< 5	< 5
	1239794	<5	200	5.45%	820	650	15	< 5	< 5
	1239795	< 5	140	5.60%	760	320	15	< 5	< 5
	1239796	< 5	150	5.80%	760	400	15	< 5	< 5
	Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)



Analysis	code	ICP2		Repor	t AC 51	7/88		Pa	ge I6
NATA Cert	ific	ate	•	•				Results	in ppm
						•			
Sample		As	Ва	Fe	Mn	Р	d 2	La	МÞ
1239797		< 5	200	5.90%	860	500	20	,<5	<5
1239798		<5	210	5.15%	660	900	. 15	< 5∘	5
1239799		< 5	230	6.65%	1000	700	20	< 5	< 5
1239800		< 5	200	6.20%	1100	700	15	< 5	< 5
Detn limi	t	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

I 7

n ppm

# (j) amdel

	Analysis code	E ICP2		Report	t AC	517/88	3 .			Рa	g
	NATA Certific	cate							Result	s	ir
	•				•						
	Sample	Sn	W								
	1239537	20	< 5								
	1239538	20	< 5				•				
	1239539	25	< 5								
	1239540	25	< 5								
	1239601	20	< 5								
	1239602	25	< 5					,			
	1239603	15	< 5			Ť		•			
	1239604	30	< 5						, ,	•	
	1239605	20	< 5								
	1239606	20	< 5								
	1239607	20	< 5				•				
	1239608	20	< 5								
	1239609	25	< 5								
	1239610	20	< 5								
	1239611	20	< 5	•							
	1239612	20	< 5	•							
	1239613	20	< 5								
	1239614	25	5								
	1239615	25	5								
	1239616	30	10								
•	1239617	25	5						•		
	1239618	25	5				•				
	1239619	25	< 5								
	1239620	20	< 5								
	1239621	20	< 5				-				
	1239622	25	5								
	1239623	20	< 5								
	1239624	15	< 5								,
	1239625	20	< 5								
	1239626	20	< 5								•
	1239627	15	< 5	•							
	1239628	`20	< 5								
	1239629	10	< 5					,			
	1239630	10	< 5	•							
	1239631	10	< 5								
	1239632	15	< 5		-						
	1239633	15	< 5			•					
	1239634	15	< 5								
	1239635	20	< 5								
	1239636	10	< 5								
	Detn limit	(5)	(5)								

# (g) amdel

Analysis code	ICP2	Report	AC 517/88		Pa	age	1 8
NATA Certific	ate			• .	Results	in	ppm
Sample	Sn l						
1239637	15 <	i					
1239638	20 </th <th>j</th> <th></th> <th></th> <th></th> <th></th> <th></th>	j					
1239639	20 <						
1239640	20 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239641	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239642	15 </th <th>;</th> <th></th> <th></th> <th></th> <th></th> <th></th>	;					
1239643	15 </th <th>;</th> <th></th> <th></th> <th>•</th> <th></th> <th></th>	;			•		
1239644	15 <	<b>;</b>					
1239645	20 </th <th>i</th> <th>·</th> <th></th> <th></th> <th></th> <th></th>	i	·				
1239646	15 </th <th>·</th> <th></th> <th></th> <th></th> <th></th> <th></th>	·					
1239647	15 </th <th>i '</th> <th></th> <th></th> <th></th> <th></th> <th></th>	i '					
1239648	20 </th <th>· ·</th> <th></th> <th></th> <th></th> <th></th> <th></th>	· ·					
1239649	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239650	15, </th <th></th> <th></th> <th>:</th> <th></th> <th></th> <th></th>			:			
1239551	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239652	20 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th>•</th>						•
1239653	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239654	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239655	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239656	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239657	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239658	15 </th <th></th> <th></th> <th></th> <th>,</th> <th></th> <th></th>				,		
1239659	15 . </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239660	15 <						
1239661 1239662	15 <br 15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239663	20 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239664	20 </th <th></th> <th></th> <th></th> <th>,</th> <th>,</th> <th></th>				,	,	
1233665	20 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239666	20 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239667	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239668	20 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>						
1239669	15 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th>•</th>						•
1239670	15 <						
1239671	20 <						
1239672	15 <		-				
1239673	20 <						
1239674	15 <						
1239675	15 <						
1239676	20 <						
Detn limit	(5) (	5)					

# g amdel

Analysis code	ICP2		Report AC 517/88
NATA Certific	2+0		
NATA CELCITIC	ate		
Sample	Sn .	W	
1239677	20	< 5	
1239678	20	< 5	
1239679	20	< 5	
1239680	20	<5 ⋅	
1239681	. 15	< 5	
1239682	15	< 5	
1239683	15	₹5 -	
1239684	20	< 5	
1239685	20	< 5	
1239686	15	<5 ⁻	
1239687	15	< 5	
1239688	. 20	< 5	
1239689	15	< 5	
1239690	15	₹5	
1239691	20	< 5	
1239692	15	< 5	
1239693	15	< 5 €	
1239694	15	< 5	
1239695	15	< 5	$\mathcal{S}_{i} = \{ (i,j) \mid \mathbf{v} \in \mathcal{V} \mid (i,j) \in \mathcal{V} \mid \mathbf{v} \in \mathcal{V} \}$
1239696	15.	< 5	
1239697	15	< 5	
1239698	15	< 5	
1239699	15	< 5	
1239700	20	< 5	
1239701	20	< 5	
1239702	15	< 5	
1239703	15	< 5	
1239704	20	< 5	
1239705	20	< 5	
1239706	20	<5	•
1239707	15	<5	
1239708 1239709	10	< 5 < 5	•
1239710	- 15 15	< 5	
1239711	15	· <5	
1239712	20	< 5	
1239712	15	< 5	
1239713	20	< 5	
1239715	20	< 5	
1239716	20	< 5	
Detn limit	(5)	(5)	
*			



Analysis code	ICP2	Report AC 517/88	Page I10
NATA Certifica	ate.		Results in ppm
	*		
		in a second that the second	
Sample	Sn	W	
4000747		, E	
1239717	20	<b>(5</b>	
1239718	20	<b>(5</b> (5	
1239719 1239720	20	<b>(5</b>	
1239721	20 *	<b>(5</b>	
1239722		<5	
1239723	20	<5	
1239724	20	(5	
1239725	15	<b>&lt;5</b>	
1239726	15	<b>(5</b> )	
1239727	10	<5	•
1239728	15	<b>(5</b>	
1239729	10	<b>(5</b>	
1239730	15	<b>(5</b>	
1239731	15	<5	
1239732	15	< 5	
1239733	15	<5	
1239734	15	<b>&lt;</b> 5	
1239735	15	< 5	
1239736	10	<b>&lt;</b> 5	
1239737	.15	< 5	
1239738	15	<b>&lt;</b> 5	
1239739	15	< 5	
1239740	15	< 5	
1239741	15	< 5	•
1239742	10	<5	
1239743	15	<b>&lt;</b> 5	
1239744	15	<b>&lt;</b> 5	
1239745	15	< 5	
1239746 1239747	15	< 5	•
1239748	15 15	<5 <5	•
1239749	15	< 5	
1239750	15	< 5	
1239751	15	< 5	
1239752	20	<5 -	
1239753	20	<5	
1239754	20	<5	
1239755	1.5	<5	
1239756	10	<5	
•			
Detn limit	(5)	(5)	•
	-	· ·	



Analysis code	e ICP2		Report	AC 5	17/88		P	age	I 1 1
NATA Certific	cate			.*		-	Results	in	ppm
Sample	Sn	W					•		
1239757	15	< 5	·						
1239758	15	< 5							
1239759	20	< 5				* - *			•
1239760	15	< 5 ⋅		-			,		
1239761	20	< 5			•				
1239762	20	< 5	•						
1239763	20	< 5							
1239764	15	< 5							
1239765	15	< 5	•				• •		
1239766	20	< 5 ⋅		•					
1239767	10	< 5							
1239768	10	< 5							
1239769	15	< 5							
1239770	15	< 5		• •					
1239771	20	< 5							
1239772	20	< 5							
1239773	20	< 5							
1239774	20	< 5			·				
1239775	20	< 5							
1239776	20	< 5							
1239777	20	< 5							
1239778	20	< 5							
1239779	20	< 5							
1239780	20	< 5							
1239781	20	< 5				,	•		
1239782	20	< 5							
1239783	15	< 5						,	
1239784	20	< 5							
1239785	20 .	< 5							
1239786	20	< 5 < 5			•				
1239787.	15								
1239788	25 25	< 5 < 5							
1239789	25 25	< 5							
1239790 1239791	25 25				-	*			
1239791	25 25	< 5 < 5 <sub>.</sub>	-						
1239793	20	< 5				*			
1239794	20	<5 ·							
1239795	20	< 5	•				•		
1239796	20	<b>&lt;</b> 5							
		· <del>-</del>							
Detn limit	(5)	(5)			-	•	•		



Analysis cod	le ICP2	Report AC 517/88 Page I12
NATA Certifi	cate	Results in ppm
Sample	Sn	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
1239797	20	
1239798	20	<b>&lt;5</b> .
1239799	25	<5
1239800	20	<5
Detn limit	(5)	(5) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6



Analysis code PM1/3SPE	R	eport AC	517/88		. '	Page	G 1
NATA Certificate			•		Resul	ts in p	pm
		•					
Sample	Вi	Со	Cr	Cu	Мо	Ni	Рb
1239537	<2	18	37	37	< 1	35	23
1239538	< 2	1 4	40	30	<1 ⋅	33	20
1239539	< 2	19	42	33	< 1	29	19
1239540	< 2	1 7	42	31	< 1	26	22
1239601	< 2	18	4 1	34	< 1	28	22
1239602	< 2	15	4 1	33 ′	<1	30	20
1239603	< 2	9	35	23	< 1	27	12
1239604	< 2	1.0	4 1	26	< 1	26	19
1239605	<2	13	4 1	28	< 1	26	19
1239606	< 2	1 1	38	23	< 1.	23	19
1239607	< 2	12	4 1	27	<1	27	23
1239608	< 2	1 2	42	23	< 1⁻	25	18
1239609	<2	1 1.	4.1	26	< 1.	24	21
1239610	< 2	12	42	25	< 1	24	19
1239511	< 2	1 4	42	28	1	29	20
1239612	< 2	13	42	28	< 1	30	22
1239613	· < 2	11	36	24	1	20	20
1239614	< 2	11	42	26	<1.	24	23
1239615	< 2	12	42	26	<1	25	23
1239616	< 2	1 4	4.1	26	< 1	22	20
1239617	< 2	1 1	4 1	29	<1 ·	24	20
1239618	< 2	13	43	29	< 1	22	22
1239619	<2	9	59	29	1	27	18
1239620	<2∙	12	58	26	< 1	27	21
1239621	<2	10	50	23	< 1	20	19
1239622	< 2	13	58	28	< 1	23	19
1239623	<2	1 4	5 4	27	< 1	23	21
1239624	< 2	11	47	26	< 1	19	24
1239625	<2	11	5 1	24	< 1	22	23
1239626	<2	10	49	24	<1	21	18
1239627	<2	1 4	48	27	< 1	23	25
1239628	<2	12	51	33	<1	29	26
1239629	<2	10	39	24	< 1	22	22
1239630	< 2	14	45	27	< 1	30	19
1239631	〈2 〈2-	11	38	23	< 1	20	1-8
1239632 1239633	< 2- < 2	1 4 1 5	45 45	27 28	< 1 < 1	23	22
1239634	<2	14 .	4 7	31	< 1 < 1	23 28.	20 19
1239635	<2	13	45	30	< 1	2 0. 2 3	16
1239636	< 2	18	40	26	< 1	26	16
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)



Analysis code PM1/3SP	E R	eport AC	517/88	8		Page	G 2
NATA Certificate					Resul	ts in p	pm
Sample	Вi	Co	Cr	Cu	Mo	Ni	Рb
1239637	<2	15	4 5	27	< 1 *	26	2 1
1239638	< 2	13.	48	27	< 1	22	18
1239639	<2	1.4	43	31	< 1	24	. 14
1239640	< 2	11	49	28	< 1	24	1 4
1239641	< 2	18	4 4	30	< 1	25	17
1239642	< 2	1 4	4.5	29	< 1	24	15
1239643	<b>&lt;2</b>	19	4 5	27	< 1	29	18
1239644	< 2	1.4	4.1	28	<.1	25	19
1239645	. <2	12	48	25	< 1	22	18
1239646	< 2	1.1	42	28	< 1	21	. 17
1239647	< 2	17	46	29	. <1	25	19
1239648	< 2	16	4 9	28	< 1	24	20
1239649	< 2	16	46	23	< 1	26	19
1239650	< 2	18 -	50	27	< 1	24	19
1239651	< 2	19	48	26	< 1	25	20
1239652	< 2	15	50	27 .	< 1	26	21
1239653	< 2	1.4	44	25	< 1	22	18
1239654	< 2	1 5	49	28	, < 1	27	19
1239655	< 2	15	45	24	< 1	29	19
1239656	< 2	16	47	2 4	< 1	23	· 20
1239657	< 2	15	47	23	`<1	22	18
1239658	< 2	1.4	48	2 4	< 1	24	1 6
1239659	< 2	19	50	29	< 1	28	20
1239660	< 2	2 1	44	29	<1 ⋅	26	20
1239661	<2	20	51	29	< 1	30	26
1239662	< 2	- 14	48	24	< 1	24	2 1
1:239663	<2	15	47	23	< 1	25	19
1239664	< 2	13	4 5	20	< 1	19	16
1239665	<2	1 4	50	27	< 1	25	20
1239666	< 2	1 7.	50	35	<1	26	21
1239667	< 2	13	43	28	< 1	23	18
1239668	< 2	15	49	30	< 1	27	20
1239669	<2	1.4,	46	31	< 1	31	15
1239670	< 2	13	4.5	26	< 1	25	20
1239671	<2	16	. 52	31	< 1	30	20
-1239672	< 2	- 16	53	31	<1	33	24
1239673	<2 ⋅	13	53	28	< 1	25	19
1239674	· <2	18	46	29	<1	3 1	23
1239675	< 2	1 4	4 2	24	< 1	26	19
1239676	< 2	16	50	29	< 1	25	18
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)

					517/00			Page	G3 -
Analysis (	code P	PM1/3SP	E R	eport AC	517/88	•		Page	63
NATA Cert	ificat	e					Resul	ts in p	pm
		• •	D.	<b>.</b>	Cr	Cu	Мо	Ni	Рb
Sample			Вi	Co	CI .	Cu	110	14.7	1 2
1239677			<2	. 16	5 1	28	1 :	27	22
1239678			< 2	16	50	30	< 1	26	22
1239679			< 2	17	47	31	< 1	25	17
1239680			<2	18	5 1	32	< 1	24	22
1239681			<2 .	13	42	30	<b>&lt;</b> 1	2.1	16
1239682			< 2	16	49	29	<1	23	16
1239683			<2	18	4 6	29	<1	28	22
1239684			·· <2·	13	51	28.	<1	25	16
1239685		•	<2	12	47	32	<1	2 4	14
1239686			< 2	17	48	53	<1	30	25
1239687			<2	12	43	26	<1	23	19
1239688	•	•	<2	14	47	27	<.1	28	20
1239689			<2	21	50	34	<1 -	26 25	24
1239690			< 2	14	47	32	<1	25 25	18 21
1239691			<2	15	51	29 23	<1 <1	20 20	25
1239692			< 2	13.	47	23	<1	19	17
1239693			< 2	11	43 43	25	< 1	22	18
1239694			< 2 < 2	14	39	25	< 1	20	16
1239695			<2	14	46	26	1	21	19
1239696			<b>(2</b>	16	45	24	· <1	20	18
1239697			<2	20	47	28	1	24	23
1239698			<2	14	42	25	< 1	20	18
1239699		•	<2	18	47	25	₹1	22	23
1239700			·<2	22	45	29	<1	29	23
1239707			<2	13	39	27	<1	21	15
1239702			<2	15	40 .	22	<1	23	19
1239704			. <2	12	36	25	< 1	20	17
1239705			<2	15	42	28	< 1	26	2 1
1239706			< 2	14	37	22	· <b>&lt; 1</b>	21	19
1239707			<2	13	47	29	< 1	27	13
1239708			< 2	9	37	22	< 1	19	9
1239709			<2	14	4 8	28	< 1	23	15
1239710			< 2	11	4 0	27	<1	17 -	13
1239711			< 2	12	43	26	< 1	2 1 ·	16
1239712	-		`<2	12	4.8	3 1	< 1	23	9
1239713			<2	12	4 0	29	< 1	23	12
1239714			< 2	11	48	31 ,	· <1	27	12
1239715			< 2	12	46	27	< 1	28	13
1239716	•		< 2	- 11	4 2	23	< 1	20	12
Detn limi	t.		(2)	(2)	(5)	(1)	(1)	(2)	(2)



Analysis code PM1/3SPE	n I	Report AC	517/88	÷ .		Page (	G 4
NATA Certificate			•		Result	s in p	pm .
		**	•				**
Sample	Вi	Со	Cr	Cu .	Мо	Ni	Pb
1239717	< 2	13	4 6	32	<1	31	14
1239718	<2	1 1	47	25	₹1,	24	12
1239719	<2	11	4 5	30	<b>&lt; 1</b>	25	12
1239720	< 2	13	43	3.0	< 1	25	13
1239721	< 2	. 12	46	30	1	29	15
1239722	< 2	1.2	45	33	1	27	1.3
1239723	. <2	11 -	43	26	<b>&lt; 1</b>	29	12
1239724	< 2	12	45	33	< 1	27	10
1239725	< 2	1.1	5 2	36	< 1	23	12
1239726	< 2	10	5.7	36	< 1	25	10
1239727	< 2	9	44	33	< 1	24	11
1239728	< 2	10	57	23	< 1	25	11
1239729	< 2	1.0	48	25	< 1	25	9
1239730	< 2	10	54	. 26	< 1	32	16
1239731	< 2	10	49	30	< 1	26	1.4
1239732	<2.	12	49	33	< 1	28	1:4
1239733	< 2	. 8	43	28	< 1	2,6	1.1
1239734	< 2	12	52	29	< 1	35	14
1239735	< 2	. 11	49	23	<1 ~	24	17
1239736	< 2	8	36	.23	< 1	24	9
1239737	< 2	11	5 1	25	< 1	29	12
1239738	< 2	9	49	27	< 1	31	17
1239739	< 2	<sup>′</sup> 6	37	23	<1	22	11
1239740	< 2	· . 9	45	28	< 1	24	1.1
1239741	< 2	8	45	26	; <b>&lt; 1</b>	28	13:
1239742	< 2	7	42	23	< 1	25	13
1239743	< 2	9	4 0	22	<1	25	12
1239744	< 2	10	4 5	2 4	< 1 · 1	30	16
1239745	< 2	9	39	25	₹1	27	13
1239746	< 2	9	36	26	< 1	21	12
1239747	< 2	8	40	27	. <1	25	11
1239748	< 2	8	36	2 4	< 1	21	12
1239749	< 2	8	36 .	<del></del> -,	<1 .	20	12
1239750	< 2	11	43	25	< 1	33	20
1239751	< 2	1.1	37	2.9	< 1	23	17
1239752	< 2	1 0	43	. 27	< 1	27	19
1239753	< 2	9	37	23	< 1	25	16
1239754	< 2	13	39	2 4	< 1	- 25	18
1239755	< 2	11	36	20	< 1	29	17
1239756	< 2	9	29	3 6	<b>&lt; 1</b> ,	24	8
Detn limit	(2)	(2)	(5)	(1)	(1),	(2)	(2)
						•	

Analysis code PM1/3SPE	Rе	port AC	517/88			Page	G 5
NATA Certificate					Resul	ts iņ p	pm
							-
Sample	Bi	Co	Cr	Cu	Мо	Ni	Рb
Sampre						•	
1239757	< 2	9	32	7.4	<b>&lt;</b> 1	20	14
1239758	< 2	12	3.8	29	< 1	30	18
1239759	2	11	4 0	39	< 1	26	13
1239760	< 2	11	3 4	ູ 3 5	< 1	18	12
1239761	< 2	13	40	3 Ž	< 1	28	17
1239762	<2	13	37	42	< 1	25	13
1239763	<2	12	46	29	<1 .	2 4	18
1239764	<2	1 1	4 2	29	< 1	2 1	17
1239765	<2	1.1	4 1	30	<1	21	9.
1239766	<2	10	4 0	3 1	< 1	25	11
1239767	<2	9	37	30	< 1	23	10
1239768	<2	10	36	29	< 1	23	10
1239769	<2	12	3 7	27	< 1	22	13
1239770	< 2	9	39	26	< 1	25	1 4
1239771	<2	13	46	3 1	< 1	28	13
1239772	< 2	1.1	4 5	32	< 1	30	15
1239773	<2	10	43	3.0	< 1	27	12
1239774	< 2	10	4 9	28	< 1	24	15
1239775	< 2	10	5 5	34	< 1	27	14
1239776	< 2	13	50	37	< 1 →	27	15
1239777	<2	10	4 4	32	< 1	2 4.	17
1239778	< 2	1 1	4.6	32	< 1	27	16
1239779	< 2	13	55	35	< 1	35	18
1239780	< 2	12	58	30	< 1	36	.1 4
1239781	< 2	10	60	<sub>.</sub> 30	< 1 →	3 1	14
1239782	< 2	10	55	29	< 1	36	12
1239783	< 2	10	49	30	< 1	52	10
1239784	< 2	7	4 4	27	< 1	28	1 1
1239785	<2	9	45	31	< 1	28	11
1239786	< 2	10	4 1	3 4	< 1	33	9
1239787	<2	8	32	30	<1	26	12
1239788	< 2	10	4 4	22	< 1	28	14
1239789	< 2	9	49	30	· <1	28	15
1239790	< 2	1 1	42	28	< 1	30	12
1239791	< 2	1.1	43	32	1	28	1.6
1239792	< 2	9	46	27	< 1	29	18
1239793	< 2	10	4 4	26	<1	32	17
1239794	< 2	11	46	27	< 1	25	17
1239795	<2	6	4.1	21	< 1	26	9
1239796	< 2	9	4 8	3 1	< 1	. 29	17
Detn limit	(2)	(2)	(5)	(1)	(1)	(2)	(2)



Analysis cod	e PM1/3SPE	R€	port AC	51.7/88			Page	G6
NATA Certifi	cate					Resul	ts in p	pm
Sample	• · · ·	Bi	Co	C <b>r</b> ,	Cu	Мо	Ni -	Pb
1239797		.<2	10	4.1	36	1	29	17
1239798		< 2	8	40	34	< 1	24	15
1239799		<2	. 9	47	30	< 1	32	22
1239800		< 2	13	50	29	< 1	3 1	19
Detn limit		(2)	(2)	(5)	(1)	(1)	(2)	(2)



	Analysis co	de PM1/3SPE		Report A	A C	517/88			Pa	age	G 7
	NATA Certif	icate						Resi	ılts	in	ppm
	•	-						,	-		
•	Sample	•	Zn	Au.		•					
*					•	, .			*		
	1239537		98	0.0075		*					
	1239538		86	0.0050							
	1239539		92	0.0050						•	•
	1239540		87	0.0045							
	1239601		94	0.0065		-					
	1239602	•	<b>9</b> 0	0.0050							
	1239603		75	0.0050					٠.		
	1239604		77	0.0045							
	1239605		8 1	0.0040							•
	1239606		72	0.0065							
	1239607		93	0.0045							
	1239608		78	0.0060							
	1239609		74	0.0055							
	1239610		76	0.0055							
	1239611	•	87	0,.0055							
	1239612		79	0.0055			·1	٠ -	•		* 4
	1239613		74	0.0060							
	1239614		78	0.0065							
	1239615		76	0.0050					4		
	1239616		75	0.0060							
	1239617		72	0.0060							
	1239618	•	8 1	0.0060							
	1239619		73	0.0055							
	1239620	• • •	83	0.0055							
	1239621		66	0.0055							
	1239622		78	0.0050							
	1239623		85	0.0050							
	1239624		75	0.0055							
	1239625		93	0.0060			•				
	1239626		7 1	0.0040							
	1239627			0.0040							
	1239628		9 4	0.0060					•		
	1239629	·	7 1	0.0045							
	1239630		7 1	0.0060							
	1239631		67	0.0045							
	1239632		75								
	1239633		75								
	1239634	·	76								
	1239635		73			•					
	1239636	•	7 1	0.0120							•
			, ~	\						*	
	Detn limit		(2	)(.0005)			-				
		•									



	Analy	sis	code	PM1/3SPE		Report	A,C	517/88			P	age	G 8
	ΝΔΤΔ	Cert	ifica	ate					\$ 1 m	Re	sults	in	ppm⊴
î				t was a second of	7.			·					
ġ.					4.	•	:		٠.			,	
	Samp.	Le ·			Zn	Au							
٠,		* *				nia National Articles							
٠	12390					0.0115					3	. `	
	1239					0.0120					1 54		
	12390					0.0090		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	· .	. **.			
	12391			And the second second		0.0085			-		A TOTAL		
5	1239					0.0085				6.2 m	*	•	- 1
	1239					0.0075							V 12
	1239					0.0085							
	1239				73	0.0080							
	1239	546	~		63	0.0095					* *		
	1239	547				0.0070							
• *	1239					0.0065		A p		* * *			
	1239	1.				0.0070						,**	
 	1239					0.0065	•			•			
•	1239				.*	0.0080							
: 1	1239		1.1			0.0065	٠.,						
	1239			entral de la companya della companya de la companya de la companya della companya de la companya della companya de la companya della companya		0.0080	2		*				
£.;	1239					0.0080							+ 1
	1239					0.0075			4				
, ,	1239		3		86	0.0100							
•	1239	658	•		72	0.0105			•				
	1239					0.0110							
٠	1239		*			0.0100		* **					-
	1239			•	90	0.0115	,						1 1
	1239		. • • • • • • • • • • • • • • • • • • •		77	0.0110						4	
3	1239 1239				77.						-		
	1239		**		8 1			•				٠	
٠,٠	1239				79								
. · ·	1239					0.0110					*		
	1239				9,6	0.0140		1.0					•
	1239				9 5	0.0120	•		•				
٠. ٠	. 1239				100			#* · · · · · · · · · · · · · · · · · · ·	•	-			
	1239				8 5								
	1239				100								
	1239		-		79					.*		•	**
	1239		e e	-	92			•				•	
•	1239 1239		•		97 85	0.0085							•
- /	1239	, ,		* *	0.3	0.0003					•• •	٠. '	•
٠.	Detn	lim	it		(2	)(.0005	)	-					
	. =		• •		·								
	:	4. g						•		. •			

Page G9

Results in ppm



NATA Certificate

		4								
	The second second			•		,				
	Sample	•	Zn	Au						
	1239677		94	0.0080						
	1239678	•	80	0.0090						
	1239679		80	0.0065						
	1239680	•	87	0.0070						
	1239681	,	65	0.0050				-		
	1239682		79	0.0060						
	1239683	•	89	0.0065						
	1239684	•	75	0.0060						
	1239685		86	0.0045						
	1239686		93	0.0065						
	1239687		84	0.0050	•					
	1239688		83	0.0055						
	1239689	•	89	0.0060					. *	
	1239690		90	0.0055						
	1239691	•	84	0.0070						
	1239692		80							
	1239693		71							
٠.	1239694		72							
	1239695		64							
	1239696		6 4							
	1239697		73							
	1239698	•	86							
	1239699		80							
	1239700		86							
	1239701		85							
	1239702		79							
	1239703		89							
	1239704		7 1							
	1239705		72							
	1239706		75							
	1239707		88				•			
	1239708		64							
	1239709	•	81							
	1239710			0.0045						
	1239711			0.0040						
	1239712			0.0035						
	1239713			0.0040						
	1239714			0.0045	•					
	1239715			0.0040						
	1239716			0.0030						
	Detn limit		(2	)(.0005)						
	, = = <u> </u>			•					•	

Analysis code PM1/3SPE Report AC 517/88



Analysis code PM1/3SPE	Report	AC 517/88 Pa
NATA Certificate		Results
Sample Zr	h 🗀 : Au	
1239717	0.0090	
123.9718	0.0055	
1239719 73	0.0070	
1239720 75	0.0055	
1239721 78	3 0.0090·	
1239722 78	0.0070	
	0.0060	
1239724 77	0.0050	
1239725 69	0.0060	
1239726 72	0.0045	
1239727 66	0.0060	
1239728 7.4	0.0045	
1239729 67	0.0055	
	0.0045	
· · · · · · · · · · · · · · · · · · ·	0.0050	
	2 0.0070	
	5 0.0070	
	0.0055	
· · · · · · · · · · · · · · · · · · ·	0.0065	
	0.0025	
* 11	0.0055	
	0.0040	
	0.0040	
	0.0040	
·	0.0030	
	0.0040	
	0.0020	
	0.0010	
	0.0025	
1239746 61		
	0.0025	
	0.0020	
	0.0020	
	0.0020	
t .	0.0020	
	0.0065	
	0.0005	
The state of the s	0.0033	
1239756 47		
41		
Detn limit (2	2)(.0005)	<b>,</b>
Dech Timit	. , , , , , , , , , , , , , , , , , , ,	
	. *	



Analysis code PM1/3SPE	Report AC	517/88	Page G11
NATA COMPTON			Results in ppm
NATA Certificate			Results In ppiii
Sample	Zn Au		
		•	
1239757	52 0.6400		
1239758	66 0.0075		
1239759	56 0.0185		
1239760	65 0.0110	*	
1239761	70 0.0075		
1239762	73 0.0350		
1239763	73 0.0070	9	
1239764	73 0.0060	•	
1239765	63 0.0035		
1239766	55 0.0055	* .	
1239767	60 0.0030	4.74	
1239768	50 0.0030		
1239769	54 0.0035		
1239770	61 0.0025		
1239771	64 0.0030		
1239772	64 0.0035		
1239773	69 0.0040	***	
1239774	58 0.0035	•	
1239775	62 0.0040 74 0.0035		
	65 0.0030		
1239777	70 0.0035		
1239778	94 0.0040		
1239779	86 0.0055	•	
1239780	83 0.0040		
1239782	86 0.0035	ч	
1239783	65 0.0040		
1239784	62 0.0035		
1239785	63 0.0040	•	
1239786	63 0.0030		
1239787	64 0.0025		
1239788	70 0.0035		
1239789	67 0.0040		
1239790	70 0.0035		
1239791	67 0.0045		
1239792	68 0.0035		
1239793	72 0.0035	٠.	
1239794	120 0.0050		
1239795	56 0.0035	•	
1239796	71 0.0030	*	
Detn limït	(2)(.0005)		



Analysis code PM1/3SP	E Report A	C 517/88	Page G12
NATA Certificate		•	Results in ppm
Sample	Zn Au		
1239797	67 <b>0</b> .0085		
1239798	64 0.0060	•	,
1239799	84 0.0055		•
1239800	82 0.0050		•
Detn limit	(2)(.0005)		



**NATA CERTIFICATE** 

Amdel

31 Flemington Street, Frewville, S.A. 5063

Telephone: (08) 372 2700

Amdel Limited-Inc in S.A.

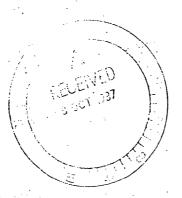
Address all correspondence to: P.O. Box 114, Eastwood, S.A. 5063

Telex: AA82520

Facsimile: (08) 79 6623

5 October 1987

Mr B Murrell CRA Exploration Pty Ltd PO Box 656 FYSHWICK ACT 2609



#### REPORT AC 765/88

YOUR REFERENCE:

DPO 46560

REPORT COMPRISING:

Cover sheet Page G1-G14 Page I1-I14

DATE RECEIVED:

9 September 1987

Approved Signatory:

Trevor Francis

Manager, Geo-Analytical Services .

Ďon Patterson

for Dr William G. Spencer General Manager Applied Sciences Group

cc Mr W H Johnston CRA Exploration Pty Ltd 31 Osmond Tce.

NORWOOD SA 5067

CC Chief Geologist Information Services
CRA Exploration Pty Ltd
PO Box 656
FYSHWICK ACT 2609

The report relates specifically to the sample tested and also the entire batch in so far as the sample is truly representative of the sample source.



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# (j) amdel

Analysis code PM17	33, 23	Report AC			Pa	
NATA Certificate		Order No.	. DPO	46560	Results	ın ppm
	Mo	Ni	Pb	Zn	Au	
Sample	Мо	/V./	F.D	211	Au	
1449001	<1	31	13	85	0.0080	••
1449002	<1	27	11	70	0.0030	
1449003	2	27	13	64	0.0035	
1449004	<1	<i>25</i>	11	77 83	0.0065 0.0035	
1449005	<-1	28 28	12 12	84	0.0035	
1449006	<1 <1	28 26	9	69	0.0025	<del>-</del>
1449007 1449008	1	34	11	84	0.0015	r,
1449009	<1	32	11	.; 7 <i>8</i>	0.0015	
1449010	1	39	11	86	0.0040	•
1449011	2	34	11	84	0.0010	
1449012		36 •	16	100	0.0015	
1449013	3	39	13	93	0.0005	
1449014	Ź	30	10	92	0.0015	
1449015	3	28	13	7 <i>9</i>	0.0015	
1449016	<1	29	11	78	0.0010	
1449017	<1	28	13	89	0.0010	
1449018	<1	29	13	87	<0.0005	
1449019	<1	<i>26</i>	10 14	76 91	0.0015 0.0010	
1449020 1449021	<1 <1	31 30	14 15	90	<0.0005	
1449022	<1	30 30	8	73	0.0010	1
1449023	1	31	11	87	<0.0005	
1449024	<1	25	$\overline{11}$	71	0.0005	
1449025	3	26	.9	74	0.0020	
1449026	3	26	9	7 <i>2</i>	0.0025	
1449027	4	24	8	7 <i>6</i>	<0.0005	
1449028	< 1	31	10	. 81	0.0020	
1449029	<1	23	. 12	65	<0.0005	
1449030	<1	. 27	12	7 <i>8</i>	<0.0005	
1449031	<1	28 20	. 14	87	<0.0005	**
1449032 1449033	<1 <1	28 21	- 8 14	75 - 59	0.0010 <0.0005	
1449034	<1	21 29	8	7 <i>5</i>	<0.0005	
1449035	<1	26	11	68 68	<0.0005	
1449036	<1	23	12	69	0.0040	•
1449037	₹1	26	11	72	0.0025	
1449038	<1	30	12	87	0.0005	* ************************************
1449039	<1	26	15	84	<0.0005	,
1449040	<1	<i>2</i> 7	10	74	<0.0005	٠
<b>D</b> = <b>L</b> = <b>1</b>		(0)			( 0005)	•
Detn limit	(1)	(2)	(2)	(2)	(.0005)	
				. 1	the second of	

# 6 amdel

-				
Analysis code PM1/35	SPEC	Report AC	765/88	Page G2
NATA Certificate	:1.	Order No.	DPO 46560	Results in ppm
Sample	Мо	Ni	Pb Zn	. Au
1449041	4	33	17 86	0.0010
	3	34	17 91	0.0010
1449042		23	12 68	0.0010
1449043	4 3		13 79	<0.0005
1449044	3 2	28 31	15 90	<0.0005
1449045				0.0010
1449046	<1	28		<0.0010 <0.0005
1449047	1	26		0.0010
1449048	<1	28	13 82	<0.0010
1449049	< 1	28	13 87	
1449050	<1	28	9 75	0.0010
1449051	<1	28 .	11 83	<0.0005
1449052	<1	28	11 79	0.0010
1449053	<1	27	11 77	0.0020
1449054	2	26	11 76	0.0010
1449055	4	27	11 83	0.0010
1449056	1	<i>29</i>	10 83	<0.0005
1449057	4	27	11 80	<0.0005
1449059	<1	25 26	7 76	0.0030
1449060	<1	26	9 87	<0.0005
1449061	<1	<i>25</i>	8 80	0.0010
1449062	<1	29	12 68	<0.0005
1449063	1 .	32	15 91	<0.0005
1449064	<1	31	10 87	0.0015
1449065	1 .	.28	11 87	0.0020
1449066	<1	24	10 70	0.0010
1449067	<1	21	9 64	0.0020
1449068	2	23	7 58	0.0010
1449069	<1	22	10 65	0.0025
1449070	1	19	6 58	0.0040
1449071	2	19 30	8 60	<0.0005
1449072	2	30	16 110	0.0020
1449073	1 2 3	27	10 83	0.0010
1449074	2	25	9 75	0.0025
1449075	3.	30	11 88	0.0025
1449076	<1	36 30	14 100	<0.0005 .
1449077	<1	20	6 61	0.0025 <0.0005
1449078	<1	30 35	12 97	
1449079	<1	35 37	22 115	0.0005 <0.0005
1449080 1449081	2	27 30	9 81 10 84	0.0020
1775001	<1	5.0	10 04	0.0020
Detn limit	(1)	(2)	(2) (2)	(.0005)
•				



Analysis code PM1/3SPEC	Report AC	765/88	Page G3
NATA Certificate	Order No.	DPO 46560	Results in ppm
Sample Mo	Ni	Pb Zn	
1449082 <1 1449083 <1	33 37	15 92 11 105	<0.0005 0.0010
1449084 2	31	33 120	0.0005
1449085 <1	27	19 110	0.0010
1449086 <1	32	12 94	<0.0005
1449087 <1	33	15 105 15 91	<0.0005 0.0010
1449088 1 1449089 2	29 29	15 91 17 99	<0.0015
1449089 2 1449090 1	30	13 96	0.0015
1449091 <1	32	13 93	<0.0005
1449092 <1	33	16 105	0.0025
1449093 <1	<i>25</i> .	9 82	0.0020
1449094 <1	34	29 100	0.0005
1449095 <1	29	11 94	0.0020
1449096 <1	32 19	12 97 15 50	0.0045 0.0020
1449097 <1 1449098 <1	30	25 70	0.0015
1449099 <1	32	15 87	<0.0005
1449100 <1	36	17 88	0.0025
1449101 1	<i>35</i> .	17 100	0.0045
1449102 <1	35	21 100	0.0015
1449103	32	16 90	0.0010
1449104 <1 1449105 <1	26 27	15 78 13 79	0.0025 0.0015
1449106 <1	32	14 88	0.0015
1449107 <1	33	12 98	0.0025
1449108 3	28	14 74	0.0020
1449109 1	<i>32</i> .	16 96	0.0015
1449110 <1	34	13 93	0.0025
1449111 <1	29 31	11 83 16 91	<0.0005 <0.0005
1449112 <1 1449113 1	31 30	11 90	<0.0005
1449114 1	44	6 100	0.0010
1449115 2	26	8 67	<0.0005
1449116 <1	<i>32</i>	13 91	0.0020
1449117 <1	32 '	9 90	0.0015
1449118 2	31	13 95	<0.0005
1449119 <1 1449120 1	<i>32</i> 37	9 88 15 95	<0.0005 0.0005
1449121 <1	3 <i>1</i>	13 95 12 96	0.0010
Detn limit (1)	(2)	(2) (2	

## (g) amdel

Analysis code P	M1/3SPEC	Report	AC 765/8	8	Pa	ge G4
NATA Certificat	<i>e</i>	Order N	No. DPO 4	6560	Results	in ppm
Sample	Mo	<i>N i</i>	Pb	Zn	Au -	
1449122	<1 ⋅	28	14	92	<0.0005	
1449123	3	32	14	99	<0.0005	
1449124	1	36	12	92	<0.0005	•.
1449125	<1	28	10	80	0.0010	4. 4.
1440221		<b>.</b>	13	79	0.0020	
1449221	$\frac{1}{2}$	33			0.0020	
1449222	2	34 34	14 12	78 76	0.0015	
1449223	1	34 14	· 12	70 30	<0.0015	
1449224 1449225	<1 <1	22	13	57	0.0045	
1449225	$\frac{1}{2}$	33	15 16	76	0.0043	•
1449227	2	29.	13	66	0.0055	
1449227		29. 29	13	63	0.0033	1
1449220	1 2	29 29	17	59	0.0070	_
1449230	1	29 29	16	. 60 · ·	0.0070	
1449230	2	31	21	64	0.0035	
1449231	the second secon		21 17	7 <i>9</i>	0.0015	
1449232	<1. <1.	33 33	17	7 <i>9</i> 7 <i>6</i>	0.0035	, .
1449234	1		17	•	the state of the s	
1449234	1	31 30	17	63 73	0.0015 0.0015	
1449235	1	30 35	13 18	73 81		
1449236	2 3	30	18 15	66	0.0010 <0.0005	
1449237		30 32				٠,
1449238	2		18	7 <i>8</i>	0.0010	
- · · · · · · · · · · · · · · · · · · ·	2 2	35	15	. 77	0.0010	
1449240 1449241	<1	34 41	-8 9	79 92	0.0025 0.0020	
1449242	1	37	9	92 95		
1449242		37 35	9 7	95 87	0.0005	
1449243	<1	33	/	8/	0.0010	
Detn limit	(1)	(2)	(2)	(2)	(.0005)	



Analysis code	PM1/3SPEC	Report A	C 765/88	3	Pā	ge G7
NATA Certific	tate	Order No	DPO 4	6560	Results	in ppm
Sample	Мо	Ni	Pb	Zn	Au	
1449244	3	34	10	81	0.0060	
1449245	3	38	13	88	0.0025	
1449246	3	29 ·	6	71	0.0030	
1449247	. 3	41	10	96	0.0030	
1449248	3	. 31	10	89	0.0035	_
1449249	4	31	11	84	0.0045	-
1449250	3	29	13	<i>86</i>	0.0080	
1449251	. 2	30	17	82	0.0070	
1449252	. 2	29	. 10	74	0.0050	
1449253	2	32	10	88	0.0040	•
1449254	2	37 ·	14	86	0.0055	
1449255	. 3	<i>38</i> *	14	. 87	0.0045	
1449256	• 4	<i>36</i>	15	83	0.0025	
1449257	3	39	14	91	0.0055	
1449258	. 3	3 <b>0</b>	12	78	0.0015	
1449259	3	30	11	74	<0.0005	
1449260		44	13	99	0.0020	
1449261	4 3 2	<i>36</i>	19	94	0.0010	
1449262		28	12	73	0.0025	
1449263	1	29	13	79	0.0025	
Detn limit	(1)	(2)	(2)	(2)	(.0005)	

Analysis	code PM1/3SPEC		Report AC	765/88		P ā	ige	G8
NATA Cer	tificate		Order No.	DPO 46560		Results	in	ppm
Sample		Ag	Ві	Со	Cr	Cu		
1449001 1449002 1449003 1449004 1449005 1449006 1449007 1449009 1449010 1449011 1449013 1449013 1449015 1449015 1449016 1449017 1449018 1449019 1449021 1449031 1449031 1449031 1449031 1449031 1449031 1449031 1449031 1449031 1449031 1449031 1449031		<pre></pre>	<2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <	18 16 17 15 16 13 14 17 17 17 19 20 17 17 18 20 19 18 16 14 18 15 19 20 15 15 12 17 17 17 17 17 18 18 17 17 17 17 17 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	33 29 32 35 30 39 34 36 39 38 36 37 39 38 30 29 25 30 29 27 26 27 (5)	34 32 30 29 31 31 29 32 29 31 32 33 33 33 29 27 28 28 31 29 29 26 30 25 28 31 29 31 29 31 29 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 32 31 31 31 31 31 31 31 31 31 31 31 31 31		
DEGIT FIME	<i>i</i> 6	( 1	. / (2)	(2)	(3)	(1)		



Analysis code PM1/3SPEC		Report AC	765/88		Pā	ige	G9
NATA Certificate		Order No.	DPO 46560		Results	in	ppm
Sample	Ag	Вi	Со	Cr	Cu		
1449041	<1	<2	26	3 <u>3</u>	35		
1449042	< 1	. <2	. 24	35	<i>36</i>		
1449043	<1	<2	14		<i>25</i>		
1449044	<1	<2	15	30	<i>33</i>		
1449045	<1	<2	- 2 <b>0</b>	31	31		
1449046	<1	<2	17	29	30	_	
1449047	<1	<2	18	27	28		
1449048	<1	<2	17	29	28		
1449049	< 1	<2	16	29	28		
1449050	<1	<2	16	26	<i>26</i>		
1449051	<1	₹2	16	28	27		
1449052	< 1	<2	17	26	28		
1449053	< 1	<2	16	27	28		
1449054	< 1	<2	16	26	26 26		
1449055	<1	<2	15	28	26	•	
1449056 1449057	<1 <1	· 2	15 16	31 28	28 26	•	
1449059	<1	<2	14	25 25	28		
1449060	<1	. <2	17	25	27		
1449061	<1	<2	14	25 25	22		
1449062	<1	⟨2	22	26	25		
1449063	<1	<2	22	31	31	,	
1449064	<1	<2	15	33	30		•
1449065	<1	<2	17	2,6	30		
1449066	<1	<2	15	20	27	-	
1449067	<1	<2	15	17	27	•	
1449068	<1	<2	14	20	25		
1449069	< 1	. <2	15	18	27		
1449070	< 1	<2	12	16	24	,	
1449071	<1	<2	13	17	24		
1449072	< 1	<2	21	29	30		
1449073	< 1	<2	17	23	27		
1449074	< 1	· <2	16	24	27		
1449075	<1	<2	18	28	31		
1449076	< 1	<2	22	35	32		
1449077	<1	<2	12	18	23		
1449078 1449079	<1	<2	19	25	31		
1449079 1449080	<1	<2	22	25	33		
1449081	< 1 < 1	<2 <2	16	24	27		
•			16	23	27		
Detn limit	(1	(2)	(2)	(5)	(1)		

Analysis code	PM1/3SPEC	Report AC	765/88		Page G10
NATA Certific	ate ,	Order No.	DPO 46560	Result	s in ppm
Sample		g Bi	Co	Cr Cu	
Sample  1449082 1449083 1449084 1449085 1449087 1449089 1449090 1449091 1449092 1449093 1449095 1449095 1449097 1449098 1449099 1449101 1449101 1449101 1449105 1449106 1449107 1449108 1449107 1449109 1449111 1449112 1449113 1449115 1449115 1449115 1449115 1449117		1 <2 1 <2 1 <2	18 20 24 19 22 29 19 20 22 18 20 16 23 20 19 14 23 20 11 23 25 24 21 18 21 18 21 19 18 21 19 18 21 19 18 21 20 20 20 20 20 21 21	27 31 30 30 25 37 30 36 39 37 41 32 29 32 29 33 31 33 32 32 35 30 30 26 33 32 26 28 31 30 16 24 22 30 25 30 21 35 22 25 23 30 25 30 27 29 27 29 28 29 29 30 20 30 30 30 30 30 30 30 30 30 30 30 30 30 3	
1449118 1449119 1449120 1449121	<	<1 <2 <1 <2 <1 <2 <1 <2 <1 <2 <1 <2 <1 <2	16 17 20 18	25 28 27 25 28 27 24 27	3 5 7
Detn limit	(	(1) (2)	· (2) ·	(5) (1	•

#### (6) amdel

Analysis code PM1/3SPEC	<b>;</b>	Report AC	765/88		Pā	age G11
NATA Certificate		Order No.	DPO 46560		Results	in ppm
Sample	Ag	Ві	Co	Cr	Cu	
1449122	<1	<2	17	24	28	
	<1	<2		24	26	
1449123	<1	<2	22	24	28	
1449124 1449125	<1	<2	17	24	28	
		_		4.0		
1449221	<.1	<2	14	19	29	
1449222	<1	<2	15	20	26	
1449223	<1	. <2	14	19	24	
1449224	<1	<2	5	7	8	
1449225	<1	<2.	9	14	15.	
1449226	<1	. <2	17	25	27	•
1449227	< 1	<2	. 15	23	24	
1449228	< 1	· <2	16	20	23	
1449229	< 1	<2	18	25.	29	
1449230	< 1	<2	20	27	25	٠
1449231	<1	<2	22 .	26	31	
1449232	<1	<2	20	28	30	
1449233	< 1	<2	21	·27	<i>32</i>	,
1449234	<1	<2.	19	27	29	
1449235	< 1	<2	1:8	24	. 28	
1449236	< 1	<2	, 25°	28	31	
1449237	< 1	<2	19	23	25	
1449238	< 1	<2	18	29	31	•
1449239	< 1	· <2	20	27	- 29	
1449240	<1	<2	15	24	26	
1449241	<1	<2	16	28	31	
1449242	<1	<2	15	26	28	
1449243	< 1	3	14	24	24	• .
Detn limit	(1	) (2)	(2)	(5)	(1)	
•					٠.	



Analysis code PM1/3SPEC	Report AC	765/88	Page G14
NATA Certificate	Order No.	DPO 46560	Results in ppm
Sample A	g Bi	Co Cr	Cu
1449245 1449246 1449247 1449248 1449249 1449250 1449251 1449252 1449253 1449253 1449254 1449255 1449256 1449257 1449258 1449259 1449260 1449261 1449262	1	15 24 17 28 13 23 18 23 17 22 16 23 16 21 15 19 16 21 20 26 21 22 22 22 24 22 27 22 24 22 27 22 27 22 28 21 29 22 21 22 21 22 22 22 24 22 27 22 28 21 29 22 20 26 21 22 21 22 22 22 24 22 27 22 28 21 29 22 20 26 21 22 21 22 22 22 24 22 27 22 28 21 29 22 20 26 21 22 21 22 22 22 24 22 27 22 28 21 29 21 20 26 21 22 22 22 24 22 27 27 28 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29 2	26 19 29 24 26 22 25 28 33 35 33 35 30 35 29 24 38 28 28
Detn limit	(2)	(2)	5) (1)



Analysis cod	e ICP2		Repor	t. AC 76	5/88		Page	e I1
NATA Certifi	cate		• •			Re	sults in	n ppm
Sample	As	Ва.	Fe	Mri	P	Sb	La	Nb
1449001	5	250	7.40%	1050	1050	25	<i>&lt;</i> 5	5
1449002	5	180	4.76%	800	550	<i>15</i>	<b>₹5</b> , _	. 5
1449003	5	150	6.70%	960	450	20	<i>&lt;5</i>	< 5
1449004	5	110	6.40%	780	320	25	< <u>5</u>	< 5
1449005	5	260	6.20%	920	850	25	< 5 -	5
1449006	5	220	5.55%	920	850	20	< 5	<5
1449007	5	180-	5.30%	600	450	25	< 5	5
1449008	5	190	7.45%	800	500	30	< <b>5</b> .	.<5
1449009	5	240	6.10%	1000	650	20	< <u>5</u>	<5
1449010	· <5	180	6.95%	740	500	25	<b>&lt;</b> 5	<5
1449011	< 5	210	7.20%	920	500	25	<b>&lt;</b> 5	<5
1449012	< 5	240	7.60%	1250	1050	25	<5 . 5	<5 .5
1449013	5	270	7.70%	1150	750	25	<b>₹</b> 5	<5
1449014	5	160	6.40%	860	550	25	<5	5
1449015	5	250	7.00%	960	550	20	<5 . 5	<5
1449016	. 5	220	6.60%	800	450	25	<5 	<5
1449017	5	210	6.95%	1250	600	20	<5	<5
1449018	. 5	210	7.00%	1100	500	20	<5	<5
1449019	10	210	6.10%	660	500	25 20	<5	<5
1449020	5 5	220	6.70%	1100	850 650	20 30	< 5 < 5	<5 <5
1449021		210	6.95%	1250	650 450			<5
1449022 1449023	10 5	200 180	7.30% 7.50%	800 1050	450 550	25 25	<5 <5	<5
1449023	<5	110	4.44%	900	320	25 15	<5	<5
1449025	. 5	230	5.10%	820	550	20	< 5	5
1449026	5	140	3.72%	620	360	20	. <5	10
1449027	5	200	5.50%	880	500	20	< <b>5</b>	<5
1449028	5	140	7.05%	1000	500	20	<5	<5
1449029	10	210	5.70%	1050	600	25	√5	< <b>5</b>
1449030	5	180	7.25%	1250	700	25	<5 ·	<5
1449031	5	220	6.95%	1300	650	25	₹5	< <del>5</del>
1449032	10	340	6.35%	620	<i>550</i>	25	<5	5
1449033	10	180	5.00%	800	<i>550</i>	15	< <b>5</b>	<5
1449034 -	15	230	4.84%	620	<i>500</i>	15	<i>&lt;5</i>	5
1449035	10 .	240	7.60%	1600	700	25	<5	< 5
1449036	10	270	5.45%	900 ,	950	25	<5	5
1449037	10	160	6.75%	720	320	30	< 5	5
1449038	10	210	7. <i>05%</i>	1300	600	25	<5	<5
1449039	10	240	6.15%	1000	850	30	<5	5
1449040	10	180	7.75 <b>%</b>	900	550	30	<5 ··	<5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)



An <u>a</u> lysis cod	de ICP2	•	Repor	t AC 76	5/88		Pa	ge	12
NATA Certif	icate					Re	sults	in	ppm
Sample	As	B a	Fe	Mn	ř	Sb	La		Nb
1449041	15	230	8.85%	1500 1450	700 1000	35 40	<5 <5		5 5
1449042 1449043	15 10	240 210	9.95% 5.60%	660	700	25	<5		5
1449044	10	150	8.15%	820	550°	<i>30</i> .	< 5		₹5
1449045	10	220	7.10%	1200	700	30	<5		<5
1449046	10	270	6.85%	920	750	30	· <5		5
1449047	10	210	7.20%	1000	650	30	< 5		<5
1449048	10	220	7.85%	920	600	35	< 5		5
1449049	15	240	8.65%	940	800	40	< <u>5</u>		5
1449050	15	250	6.45%	700	600	40	<b>&lt;</b> 5		10
1449051	. 10	260	7.40%	820	500	<i>35</i>	<5		5
1449052	15	240	6.40%	880	<i>650</i>	<i>30</i>	<5 .5	•	10
1449053	15	210	6.40%	780	500	30	<5		5 5
1449054	15	190	5.95%	720	450 450	<i>30</i>	<5 <5		5
1449055	10	180	5:50%	640 6 <b>6</b> 0	450 400	30 35	< 5		5 5
1449056 1449057	10 10	180 210	7.25% 5.65%	700	500 500	-30	< <i>5</i>		5
1449059	10	170	4.72%	620	600	20	<5		5
1449060	10	190	4.92%	700	650	20	₹5		< <b>5</b>
1449061	10	160	4.82%	440	450	20	< <i>5</i>		₹5
1449062	10	170	5.20%	760	340	20	<b>&lt;</b> 5		<b>&lt;</b> 5
1449063	10	200	6.55%	1050	<i>500</i>	20	< 5		<5
1449064	15	140	7.15%	520	340	25	· <5		<5
1449065	15	160	5.25%	660	600	25	<5		5
1449066	10	150	4.28%	660	500	15	< 5		< 5
1449067	10	190	3.64%	460	400	15	<5		< 5
1449068	<5	180	4.18%	600	450	20	55		<5
1449069	< 5	160	3.78%	680	550 450	15 20	50		<5
1449070 1449071	<5 <5	170 140	3.20% 3.46%	440 500	500	20 20	45 45		<5 <5
1449072	< <b>5</b>	220	5.90%	1050	750	30	75	,	<5
1449073	· <5	160	4.62%	760	600	25	60		<5
1449074	< <i>5</i>	160	4.50%	560	500	25	- 55		<5.
1449075	<5	160	5.65%	760	400	30 -	65		<5
1449076	< <b>5</b>	170	6.55%	1000	550	30	80		<5
1449077	<5	220	3.14%	410	500	20	40		<5
1449078	. <5	200	5. <b>40%</b>	900	650	30	65		<5
1449079	< 5	130	3.98%	700	<i>550</i>	20	<i>55</i>		<5
1449080	< 5	150	4.48%	660	650	25	55		<5
1449081	<5	140	4.44%	540	550	20	55		₹5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)		(5)



Analysis code	ICP2		Repor	t AC 76	5/88		Pag	ge I3
NATA Certific	ate					Re	esults	in.ppm
							•	
Sample	As	Ва	Fe	Mn	<i>P</i>	Sb .	Lā	Nb
1449082	< 5	90 _	5.75%	720	<i>300</i> .	25	65	<5
1449083	₹5	120	5.15%	_800	500	25	65	<5
1449084	<5	190	6.10%	1350	600	25	80	<5
1449085	< 5	210	5.65%	1100	700	25 30	75 75	<5 <5
1449086 1449087	<5 <5	180 230	5.95% 6.20%	1000 1200	550 700	30 30	75 75	<5
1449087	<5	200 -	5.05%	1200	650	20	65	<5
1449089	<5	180	5.85%	1300	500	25	80	<5
1449090	₹5	180	5.75%	1000	500	30	75	<5
1449091	< 5	160	5.95%	760	320	30	75	<5
1449092	₹5	200	5.70%	900	600	30	70	<5
1449093	<5	220	4.58%	660	700	. 30	60	<5
1449094	<5	200	6.40%	1200	500	. 30	80	<5
1449095	< 5	170	4.64%	660	650	25	60	. <5
1449096	<5	210	5.70%	800	500	25	70	<5
1449097	< <u>5</u>	170	2.86%	540	320	10	40	< 5
1449098	< 5	120	5.10%	840	450	20	75	<5
1449099	<5	120	4.56%	920 760	600	20	55 C5	<5 .5
1449100 1449101	₹5 ₹5	180 150	4.78% 5.00%	760 1250	400 1600	15 20	65 60	<5 <5
1449102	< 5	190	5.50%	1250 1250	650	20 20	65.	<5
1449103	<5	170	5.50%	940	280	20	70	<5
1449104	<5	160	4.44%	640	400	20	55	<i>&lt;</i> 5
1449105	<5	130	4.02%	620	360	20	50	<5
1449106	<5	150	4.50%	540	500	20	55	<5
1449107	< 5	120	4.44%	<i>520</i>	<i>550</i>	20	50	<5
1449108	<5 ·	130	4.04%	620	400	20	<i>55</i>	<5
1449109	< 5	200	5.15%	580	450	30	65	< 5
1449110 1449111	<5	140	4.80%	560	360	30	60	<5
1449111 1449112	<5 <5	150 150	4.10% 4.78%	740	600	20	60	, <5
1449113	< 5	150 150	4.78%	860 740	650 900	30 25	65 60	· <5
1449114	< <b>5</b>	130	3.18%	620	700	23 20	40	<5 <5
1449115	5	140	3.62%	500	650	20	45	<5
1449116	10.	150	4.52%	620	550	20	60	<5
1449117	<5	170	4.94%	660	700	25	70	. <5
1449118	<5	160	4.76%	700	750	20	65	<5
1449119	< 5	140	4.54%	720	600	20	65	<.5
1449120	< 5	210	5.55%	1000	650	20	75	<5
1449121	·<5	170	5.25%	880	700	20	70	<5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

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٠.,						T 100	*.	D a c	e I4
	Analysis cod	e 1CP2		керог	t AC 76	5/88		Pag	e 14
	NATA Certifi	cate.					Re	esults i	n ppm
•	Sample	A 5	Ba	Fe	Mn	Р	Sb	La	Nb .
	1449122	< 5	160	4.62%	800	650	20	70	<5
	1449123	<5	160	4.96%	880	700	20	70	_ <5
	1449124	<5	150	4.80%	900	600	25	. 70	₹ ₹5
	1449125	<b>&lt;</b> 5	140	4.16%	680	550	<i>25</i>	65	<5
				2 = 40/	0.40	450	15	< <i>5</i>	5
	1449221	5	140	3.54%	840	450	and the second s	<5 · ·	<i>5</i>
	1449222		150	3.58%	760	380	20	< 5	<i>5</i>
. · .	1449223	10	150	3.88%	1000	500	20		√5
	1449224	· <u>5</u>	50	1.20%	270	240	10	<5 <5	< 5
	1449225	5	120	2.40%	600	340	15 20		5
	1449226	5	170	4.34%	800	340	20	< 5	5
	1449227		170	3.74%	620	450	20	<5	
	1449228	10	200	5.00%	880	500	10	65	10
	1449229	10	210	6.25%	1000	360	20	95	10
	1449230	10	200	7.35%	1100	380	15	95	< 5
	1449231	10	210	6.70%	1250	400	1.5	100	. 5
	1449232	10	230	7.40%	1050	340	20	100	< 5
	1449233	15	210	7.15%	1100	450	20	100	. 5
	1449234	10	150	<i>6.</i> 75%	780	300	15	85	< <b>5</b> .
	1449235	10	190	5.80%	840	400	15	· : 85	10
	`1449236	10	160	6.35%	1250	400	15	90	< 5
	1449237	5.	150	5.45%	880	320	10	75	5
	1449238	15	190	7.20%	880	340	25	100	5
	1449239	10	180	6.05%	960	340	15	90	√5
	1449240	10	200	5.40%	680	500	20	80	10
	1449241	15	160	5.95%	900	450	15	80	5
	1449242	10	160	4.98%	680	600	- 20	80	10
	1449243	10	150	5.25%	600	700	10	75-	10
•	1449244	10	160	5.20%	700	500	15	80	5
	Detn limit	(5)	(5)	(50)	.(5)	(50)	(5)	(5)	(5)



Analysis cod	de ICP2	•	Repor	t AC 76	5/88		Pag	ge I7
NATA Certif	icate				•	Re	sults	in ppm
Sample	A 5	Вa	Fe	Mn	P	Sb '	La	Nb
1449245	. 10	180	6.15%	800	280	25	85	5
1449246	5	170	4.40%	560°	500	15	60	15
1449247	10	210	4.48%	980	800	15	70	15
1449248	5	210	4.46%	940	75 <i>°</i> 0	15	70	15
1449249	5	210	4.48%	1000	75 <i>0</i>	20	70	<i>25</i>
1449250	10	210	4.60%	940	600	- 25	80 -	20 `
1449251	5 -	230	4.40%	1600	550	20	70	20
1449252	5	180	3.60%	920	450	15	<i>55</i>	20
1449253	5	190	4.06%	860	550	15	70	10
1449254	10	210	6.25%	1050	380	<i>25</i> ·	90	5 1
1449255	10	200	5.65%	1200	380	20	80	5
1449256	10	170	5.80%	1450	500	15	90	<5
1449257	10	250	6.15%	1800	550	15	<i>85</i>	<5
1449258	10.	170	4.76%	° 660	650	20	<i>75</i> .	15
1449259	10	150	5.00%	660	600	25	80.	15
1449260	10	180	5.95%	1150	600	20	. <b>95</b>	<5
1449261	5	180	6.40%	920	360	20	95	<5
1449262	10	220	6.55%	680	<i>320</i> .	20	90	5
1449263	5	150	1.98%	360	220	5	50	5
Detn limit	(5)	(5)	(50)	(5)	(50)	(5)	(5)	(5)

## (j) amdel

Analysis code ICP2

NATA Certifi	cate		
		·. ·	1
Sample	Sn	W.	•
Jampie	<i></i>	.,,	•
1449001	15	10	
1449002	10	15	
1449003	15	10	
1449004	20	5	
1449005	15	10	
1449006	15 15	15 15	Analysis C
1449007	15 15	10 10	
			NATA Certi
1449008	20	10	
1449009	15	10	
1449010	15	10	Sample.
1449011	20	15	Jampio
1449012	20	10	1449122
1449013	20	10	1449123
1449014	15	20	1449124
1449015	15	. 10	1449125
1449016	20	10	1449123
1449017	15	. 10	440001
1449018	15 -	15	1449221
1449019	<i>15</i> .	10	1449222
1449020	20	10	1449223
1449021	20	10	1449224
1449022	15	10	1449225
1449023	20	10 .	1449226
1449024	10.	5	1449227
1449025	15	15	1449228
1449026	10	20	1449229
1449027	15	10	1449230
1449028	15	10	1449231
1449029	15 15	20	1449232
1449030	15 15	15	1449233
1449031	15 15	15 15	1449234
1449032	20	15 15	1449235
			1449236
1449033	10	20	1449237
1449034	10	20 .	1449238
1449035	15	15	1449239
1449036	15	20	1449240
1449037	20	20	1449241
1449038	20	15	1449242
1449039	20	20	1449243
1449040	20	15	
D - 4 - 7 - 1	,		1449244
Detn limit	(5)	(5)	Detn lim
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Analysis code CI NATA Certific, e

ta to a			2 · · · · · · · · · · · · · · · · · · ·		
Sample					
1449041		5	cm (	del	
1449042			Zana da		2.55.15
1449043		5			
1449044		9	· ·		f - 1 - 1
1449045			Analysis	code ICP2	
1449046		J.			
1449047		Ö	NATA Cer	tificate	
1449048		5	-		at in the
1449049		e.			
1449050		0	Sample	Sn.	W
1449051		.5			٠.
1449052		•	1449122	<5	80
1449053		U	1449123	<5	85
1449054		0	1449124	<5	85
1449055			1449125	<5	80
1449056	100				
1449057		0	1449221	10	15
1449059	5	F	1449222	10	15
1449060			1449223 .	10	20
1449061		5	1449224	<5	10
1449062		5 5	1449225	5	15
1449063			1449226	10	15
1449064		U	1449227	$\overline{10}$	15
1449065		5	1449228	15	<i>15</i> .
1449066		-	1449229	20	20
1449067		_	1449230	20	20
1449068		5	1449231	20	25
1449069		5	1449232	25	20
1449070			1449233	25	25
1449071		5	1449234	20	15
1449072	•	5	1449235	15	20
1449073			1449236	20	20
1449074		J	1449237	15	20
1449075		5	1449238	25	25
1449076		F.	1449239	20	20
1449077			1449240	20	25
1449078	,	5	1449241	20	20
1449079		5	1449242	20	25
1449080			1449243	15	20
1449081		5	1449244	$15^{\circ}$ $15^{\circ}$ $15^{\circ}$	20
Detn limi	t	- ' ' '	Detn limi	t (5)	(5)

Page I10

Results in ppm



Analysis code	ICP2		Report AC 765/88
NATA Certific	ate		
_	,		
Sample	Sn	W	
1449082 1449083 1449084 1449085 1449086 1449089 1449089 1449090 1449091 1449093 1449093 1449094 1449095 1449096 1449097 1449098 1449099 1449100 1449101 1449101 1449105 1449106 1449106 1449107 1449108 1449109 1449109 1449109 1449110 1449110	55555555555555555555555555555555555555	95 90 100 95 100 85 95 95 95 80 90 80 80 80 85 95 80 80 80 85 85 85 85 85 86 87 87 87 87 87 87 87 87 87 87 87 87 87	
1449112 1449113 1449114 1449115 1449116 1449117 1449118 1449119 1449120	<5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	85 80 60 65 80 90 80 80 95	
Detn limit	(5)	(5)	•

# (j) amdel

Analysis code I	CP2		Report AC	765/88	:	Pag	ge Ill
NATA Certificat		•		-	•	Results	in ppm
Sample S	în .	W					•
1449123 < 1449124 <	:5 :5	80 85 85 80	÷		-	e e	
1449222 11 1449223 11 1449224 31 1449225 1449226 11 1449227 11 1449229 12 1449230 12 1449231 12 1449232 12 1449233 12 1449233 12 1449235 11 1449236 12 1449237 12 1449238 12 1449239 12 1449240 12 1449241 12	0 0 5 5 0 0 5 0 0 5 0 0 5 0 0 5 0 0 5 0	15 15 20 10 15 15 15 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 26 26 26 26 26 26 26 26 26 26 26 26 26					,
1449244	15	20 20	· .				-
Detn limit	(5)	(5)		•			

Page, IIA

ults in ppm



Detn limit

Analysis code ICP2	?
NATA Certificate	Res
Sample Sn	
1449245 20	20
1449246 15	20
1449247 15	20
1449248 15	20
1449249 20	25
1449250 20.	25 25 3 4 4 5 5 6 5 6 5 6 5 6 5 6 6 6 6 6 6 6 6
1449251 20	20
1449252 15	15
1449253 15	20.
1449254 20	25
1449255 20	20
. 1449256 15	25
1449257 15	15
1449258 20	20
1449259 20	<b>25</b>
1449260 20	25
1449261 20	20
1449262 25	20
1449263 10	5.

#### DPO 46556

Sample ho	to the terminal	MORT:
1279417		0411145
1259436	and and the second	8407895
1229419		<u> កុក១០ខ្លឹងថ</u> ៃ
2.2.2.7.4.2.2.		<u> </u>
1239421		5412971
1239411	Land And Land	6412124
1239423	554475 2004	.6412086
1239424 1239425	151841 155445	6412063
1239425	252947	.6411 <b>98</b> 6 .6411 <b>8</b> 52
1239427	352501	6411821
1239428	1	6410857
1239429	346528	6412002
1239430	345366	6410957
1239431	343772	6410998
1239432	347806	6411793
1239433	348330	6412134
1239434		6412155
1239435	350386	6409652
1239436	350794	6409266
1239437	- 3457 <b>4</b> 1, J	6408937
1239438	ĮA-VVJŠ	6408390
1239439	544155	6410423
1239440 1739441	342999 342999	6410564 6412007
1239442	34272 <del>4</del>	6413267
1239443	343247 343247	6413661
1239444	342739	6414048
1239445	343467	6414871
1239446	3+2265	5413737
1239447	X41894	641,5658
1239445	341635	5413728
1239449	341308	6413592
1239450	3 <del>4</del> 4747	6412499
1239451	340650	6412287
1239452	340280	6412015
1239453	339984	6411791
1239454	337446	6411739
1239455	338744	6411303
1239456 1239457	338402 337385	6411036 6410729
1239458	. 55% 555 336474 .	6407940
1239459	335452	6407458
1239460	334634	6406005
1239461	333973	6405595
1239462	TESASA	5405196
1239463	33453 <b>8</b>	6410508
1239454	. juganya ji	6411772
1239465	334504	6411854
1239466	334815	6412071
1239467	335201	5412168
1239468	335759	6412418
1239469	336494	6412790
1239470 1239471	337546 338584	6412465 6412291
1239472	338395	6413815
1237472	338100	6414471
1239474	337791	6414363
1239475	340782	5408921
1239476	33 <b>8</b> 854	6409065

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1239477	342770	. was in it is a second
1229493	•	
122747-	5 <u>4</u> 1302	
1775 <del>- 42</del> 1	1129814	1.44
,	The second se	
1234442	1001=1	ويعلق لا المنطقيل
1239461	556313	
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1739465	137455	rateorizáty.
1239486	358016	4-47611
1239487	<b>5157</b> 59	
1239488	325671	4-0 <u>5</u> 7:2
1139489		Z
	325aba	
1239490		2442222
1229491	<u> 354190</u>	
1239494		44295 <u>&amp;</u> 0
1/239493	359163	4450777
1239454	261717	4430319
1239495	361534	8429959
1239496		
	360902 775=73	0427425
1239497	360503	
-123949B	3408±0	- 6428279
1239499	362573	<u> </u>
1939500	161166	2.407732
1239501	362714	2-1-020
1234501	364594	
1239503	and the second of the second o	6427741
	- <u>163476</u>	
1239504	363524	<u>jažoj94</u>
1239505	363422	6425691
1239506	363592	042E86E
1239507	362215	<i>ۼؠڿ</i> ڎ۩ڮڮڮ
1239505	340030	6426851
1239509	359670	4427006
1239510	354762	<u> </u>
	358323	\$41917Y
	358433	-6419003:
1239513	358837	641970Z
1239514	357808	8419699
	360823	الأنب الدائي عدوم
1239516	361226.	0420259
	342302	- 4470429.
1239518	362976	4419300
1239519	363082	فكلخاهد
	363709	_41 <b>8</b> 345
1239521	J64357	6416382
1239522	364677	6418555
1239523	Jodenie –	إخروا والموا
1239514	Jazese,	4.5
1239525	320225	2+11035 8+11780
1239526	361574	0422478
1239527	361180	రిశ్వైవార్డు.
1239528	360660	4421917
1239529	. Jave24 🦠	<u>6424276</u>
.1239530	359153	6424177
1239531	358999	- 641441
1239532	360171	6425412
1239533	858393	5423719
6.5		
	357595	0422403
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1239536	ప్రాంత్ర	_64200±€

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Bample d		ख्यूंस <b>ए</b>
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	The first of the second	e + 16
121.854		, 0 <del>4</del> 16231 .
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1217545		e-17.140
12193-6		5417071
1115-1-7		2417271
er in the country of the	<u> </u>	
	<u> </u>	<u>413694</u>
1239550.	- Jei918	0413114
123455;	1,142605	6421182
1239552		6421049
1237358	្ត ខុ <del>គ្គ១៩៦៩</del>	0420952
120,4554	<u> </u>	9420575
1274555	42	64:7545
1219556	<u> </u>	6419590
1239557 1239558	358015	0419024
1119558	337144	: 5419012:
1759559	_ <u></u>	6418220
1239540	Jakok	6419210
1239561	257173	6420041
1257562	335054	5418301
1237565	: Stakets	2417591
1239544		. 6417112.
177565		6416779
1239566	351642	6415977
1714567	120783	. 6423018
1237558	<u> </u>	6423851
1237567	331154	6425950
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1227271	. SOSASM	
1239572	335155	5424396) 5424799
1239573 1239574	334759 335546	5424740
1239575	342715	6421900
1239576	<u> </u>	
1239577	35 <b>8</b> 582	
1224276		5407492
1229579.		6408274
1239580	355012	6407718
1239581	354550	54076 <b>8</b> 6
1237582	35360a	6407073
.1239563	352453	64077A0
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1239585	5 354393 °	5408221
	255101	6406588
1239587.	556716	5409214
1239568		6412521
1237545	ZE1649	4412853
1,234590	The second secon	6412712
1239591	353152	5412857
122499	25276	6413022
1239593		5413061
1239594	354347	6413317
1237575	355457	6413903
1239594	356985	6414072
1779597	<u> </u>	6414521
123755		6414678
1239599	359559	6415213
1,1239600	THOUSE	5414117

#### DPO 46560

Staple no	. SHET	WENTH
1449001	315877	<b>441108</b> 0
1447(00)	315415	5415710
1449000	017909	041553Z
144700-		5-115-752
1449005	010671	6419751
1449005	31:420	5418736
1449.00	3.8054	6421536
1449008		<u>6420653</u>
1449000	32u371	5420559
1449010	321057	6421715
1449011	322749	6421400
1449012	35:178:	5422548
1449011	<u> 2011 205 1</u>	6423361
1469015		6424212
1449015	322296	6425109
1449016	322o78	6425693
1449017	323503	6426319
1449011	<u></u>	5425576
1445017	3257.47	6425176
1449020	327575	6427256
1449021	329171	6427108
1449022	327522	6426751
1449025	32/330	6424228
1449024	3177J9	5420180 ·
1449025	529918	6422878
1449025	329071	6422422
1449027	528464	6421972 .
1449028	328356	6422192
1449029	· ·	6423639
1449030	32382e	6423105
1449051	325468 -	6422985
1449032	325727	6424472
1449033	325653	6423825
1449034	325265	6423116
1449035	523593	6421054
1449036	SX3 <b>414</b>	6420854
1449037	323822 .	6420435
1449058	52550 <i>0</i>	5418556
1449007	322644 ·	6418492
1449040	32187 <b>8</b>	6417182
144904i	320164	6415011
1449042	321364	6414140
1449040	321758	6413 <b>86</b> 2,
1449044	322577-1	6413459
1449045	324319	6412338
1449045	324780 ·	5412+ <b>2</b> 8
الاعتراض المعال		6412791
1449048	316552	54.33 <b>61</b>
1449049	224724	<u> </u>
1449059	335209	5417551
1449051	334771	6417210
1449052	<u>ప్రస్తేశల</u>	6416497
1449051	330735	6415977
1449054	조교 <b>등점</b> [71]	6415637
	329443	64:5217
1449056	326524	6414987
1449057	327884	5414536
1449059	327049	6412244
	327774	6412629
1449061	U28652	6412682
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Sample.	no. choi.	. 현재실제의 인 -
. <u></u> 445022		
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		en santie
144900		5416057
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144906		
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1449074		5405/16 ·
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1449078	of the contract of the contrac	6407485
144907		6406593
1449078		64U5783
1449079		
1447073		6405774
144908		- 64035 <b>64</b>
1449082	and the second second	5403356
144906.		5+03322
144508	and the second s	6403805
144908		
144903	The second secon	a405347
144908		5405919
1447088		5404134
1449089		6404264
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144909	2 327434	5407005
1449093	5 326471	6407141
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1449095	3 : [ZZZ668	5407665
1449096		a+0/335 <sub>{</sub>
1449097		6402472
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1449095		a-14959
144910		<u>-40425</u> 7
1449101		6405096
1449102		6405994
1449107		6407210
1449104		640708U.
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1449100	4 14 A	<u> </u>
1449107	the state of the s	oeu4711
1449108		
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1449112		6-28650
1447113		6+26066 6428483
144911		- 6428400.
144911	and the second s	6428516
1449116		64 <u>28</u> 222
1449147		6428150
1449118	A Committee of the Comm	
1449115		5427983
1449120		5427699
1449121		427816

	Sample o	o, gaši	RUKTH
	1449102	12 km 23 22 m 22	6-17/33
	1449122	<u> Tal\$4</u> 1.0	542/550
	1448114	<u> </u>	ۇرۇپىچ <sub>/</sub> <u>ئىل</u> ىن
	12449125	165240	E417050
	3 244 4 <u>2 2 2</u> 2	333250	6415350
	140222	The same and the s	-4:5%4O
	1449125	<u>355474</u>	2-12135
	FILE PINSE	<u> </u>	5415030
	] 4442 <u>7</u> 55	35550E	6414920
	1449225	355325	6414615
	1449227	<u> </u>	6414710
	1449228		$\pm 4.4500$
	1449229		6414490
	1444770	- <u>155545</u> -	<u> 医神主神经机构</u>
	1447231	355495	ω41429Φ
	1449232	355545	5414180
	1449233.	357595	54140 <b>5</b> 5
	1449254	355444	5413750
	1449235	<u> </u>	5413830
	1449236	35 <b>5</b> 670	6413710
٠	1449237	355615	4413 <b>615</b>
	1449256	ISSSer	5413500.
	1449239	TB 2727/4	2412650
	1492+0	<u> 1555 255</u>	5+15/15
	1449241	335154	54137 <b>8</b> 0
	1449242		5-15 <b>640</b>
	1449243	354925	6413590
	1449244	354810	6415945
	1449245	354695	6414000
	1449246	3545 <b>8</b> 0	5414065
	1447247	354480	5414150
	1449248:	354435	6414200
	1449249	354395	6414265
	1449250	354355	6414335
	1449251	354320	541440 <b>5</b>
	1449252	354290 354270	5414480 6414550
	1449253 1449254	354245	6414550
	1449254	354230	6414705
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	1449206	354210 354200	5414760 -
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DPO: 46557

	Sample no	t, EASI,	NURTH
	1239237	ښوخ وه پ ک	6407509
	1239538	151548	6407507 640 <b>6</b> 367
	1239539		5405557 5405555
	and the second s	7 a	
	1239540 1		
		2517/21	6404548 77075
	1239602 1239603	250 <u>424</u>	6403758
	1257605	J47426 J48401	6404632 6404632
	1239605	34441 344141	640406Ú
	1237606	247322	• I
	1237607		6403845
	1239608	346626	6403663
	the state of the s	345025	. 5403116 ·
	4239609	344033	6403263
	1239610	342969	6402749
	1239611	342716	6401924
		S#1800	6401738
	1239613	341549	6401428
	1239514	341197	6400960
	1239615	340247	6399823
	1209616	339970	6399447
	1239617	339733	6399066
	1239618	339556	6398726
	1239617	339177	6397954
	1259620	338 <b>88</b> 4	6397420
	1239621	338496	6396813
	1239622	338131	6396188
	1239623	337783	6395074
	1237624	339248	6393145
	1239625	339693	6393017
	1239626	336273	6397409
	1239627	337799	6398105
	1239628 /	338024	. 6398253
	1239629	33 <b>84</b> ,126	6398477
	1239630	338241	6399189
	1239631	338540	6399284
	1239632	338357	6399942
	1239433	339179	6400151
	1239634	339633	6400335
	1239635		6400732.
	1239636	340494	6401248
	1239637	341410	6402182
	1239638	341655	6402444
,	1239639	342337	6403060
	1239640.		6403321
	1239641		6404011
•	1239642		6404580
	1239643.		6404804
	1239644		6404735
	1239645		5405958
	1237646	549302	6406161
	1239647	349778	6407026
	1239548	343310	6394062
	1239649	344293	6394101
	1237650	346100	6394320
•	1239651	346830	6394781
	1239652	347338	~6395257 ·
	1239653	347757	6395771
	1207654	348248	6395598
	1239655	348387	6396324
	1239656	348872	6396893

Sample n	o. EAsl	HURTH
1239657	349493	្នំនទាំងប្រក
1237658	<u>, jagovice</u> .	6277112
1239659	<u>359495</u>	627722 <b>8</b>
1239660	كيينوكي (	aliga yadi
1219661	- Spubli	
1239662	351241	<u> </u>
1219663	334250	
1239664 1239665	335002	6393970 6393646
1239666	335795	6395946
1239667	335669	6376768
1239668	332225	6396246
1239669	329905	6378621
1239670	330073	439/451
1239671	330725	6396471
1239672	330507 329567	<u>6395960</u> 6395323
1239673 1239674	328546	-6395373 -6394774
1239675	328531	6396459
1239676	327225	6345257
1239677	325995	6394514
1239678	326353	6393345
1239679	323173	্১৯৯৭, ১৯৯
1239680	322781	6395,45
1239681	321243	<u>6</u> 395958
1239682	320592	. <u>6</u> 1961 <u>6</u>
1239663 1239684	317885 317202	6396398 6397502
1239685	314330	6398404
1239686	314313	6398716
1239687	314799	6398497
1239688	316442	4368066
1239689	317217	6398171
1239690	318538	6399185
1239691 1239692	317640 319340	6401059 6400354
1239693	319128	6401549
1239694	319884	6401291
1239695	320499	6401765
1239696		6399197
1239697	321897	6398460
1239698	325071	6348070
1239699 1239700	326207 326494	6399008 6399465
1239700	327578	6400787
1239702	32/553	64012/4
1239703	327015	
1239704	325660	<u></u>
1239705	324054	6379705
1239706	121414	
1239707	358400 358500	6425450
1239708 1239709	358500 358600	5425490 6425490
1239710	358700	6425510
1239711	358800	6425550
1239712.	358900	6425550
1239713	<u>პ</u> 58980	6425603
1239714	559075	6425656
1239715 1239716	359170 359240	6425769 6425762
1272/10	. Jack	- <del>07</del> 4235 <b>0</b> 4

Sample no	. EASI	NORTH
1239717	259250	5425815
1229714	259440	4425868
1239719	339530	6472445
1227720	259620	5425975
1239721	759710	5425028
	357 <b>4</b> 00	2425081
1259725	229490	0420104
1239724	259980	c426187
1239775	360055	6426240
1239726	360150	6426293 -
1239727	360235	6426348
1239728	360320	6426404
1239729	3504 <sub>0</sub> 5	5425459
1239750	3 <b>5</b> 0490	6426515
1239731	360575	6426570
1239732	360660	6426526
1239733	Se0745	6426581
1239734	360830	6426737
1239735	355359	6425644
1239736	361000 j	6426848
1239737	350980	6426948
1239738	560960 ·	6427049
1239739	350940	54271 <b>49</b>
1239740	360420	6427249
1239741	290400	6427350.
1739742	560912	6427450
12297+3	Jeufizt	5427550
1239744	350935	6427650
1239745	360948	6427750 6427850
1239746 1239747	380472   380490	6427950 6427950
1239745	360984	6428050
1239749	361995	6428150
1239750	353417	6421250
1239751	348338	5419018
1239752	348175	6418579
1239753		6416611
1239754	347090	6417942
1239755	346768	6417931.
1239756	347637	-6416505
1239757	347770	6416473
1239758	348184	6416435
1239759	348356	6416297
1239760	349144	6417504
1239761	349404	5417241
1239762	34/447	6417580
1259743	ر <u>ڪن ل</u> اڪيڪرل رحمت سا	<del>5-10-25</del>
1239764 1239765	545₹6 <u>6</u>	6418653
1239766	310635 310644	6408167 4407992
1239767	310570	5407.959
1239765	310817	6408041;
1239769	311702	6408289
1239770	312399	6407518
1239771	312016	6405615
1239772	The state of the s	6405216
1239773	312982	6405354
1239774	313015	6406036
1239775	3145Z4	o405336°
1239776	515143	6404886;
		-

Sample no	EAST	MURTH
1239777	315632	8404494
1239778	315922	<u>040-108</u>
1239779	316195	<u> 540) 5229</u>
1239780	316547	<u> 5+25</u>
1239/81	317003	<u> </u>
1239781	318993	540/483
1239783	321144	<u>6407570</u>
1239784	321877	6446257
1239785	321862	6410544
1239786	322065	6411767
1239787	321081	6412948
1239788	320852	6413796
1239789	320297	6414845
1239790	319214	6413716
1239791	318857	6413507
1239792	317871	6413793
1239793	316497	6413827
1239794	318673	6411676
1239795	318694	6410783
1239796	318126	- 6 <del>4</del> 07826
1239797	314324	6408043
1239798	315114	6409158
1239799	315584	<b>54</b> 09788
1239800	315614	5410V70



## CRA EXPLORATION PTY. LIMITED

(INC. IN N.S.W.

Adelaide Office: 31 OSMOND TERRACE, NORWOOD 5067 Head Office: 55 COLLINS STREET, MELBOURNE 3001

P.O. BOX 254 Norwood

TELEPHONE: 42 8871

TELEGRAMS: "EXPLORECO"

TELEX: AA 88605

8th April, 1988

The Director General,
Department of Mines & Energy, South Australia
P.O. Box 151,
EASTWOOD. S.A. 5063.

Dear Sir,

Re:

#### HOPE BANK EL 1376

#### Quarterly Report For Period Ending 5th April, 1988

During the quarter, no field work was undertaken.

Expenditure for the period ended 31st March, 1988 was minimal and amounted to  $$3\ 087$ , consisting of:

Payroll	\$	935
Supplies	\$	356
Vehicle	\$	734
Rent	\$	245
Overheads	\$	817
	•	
	\$3	087

Yours faithfully,

W.H. JOHNSTON

CHIEF GEOLOGIST S.A./N.T.

WHJ/pq

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SIXTH QUARTERLY & FINAL REPORT FOR HOPE BANK EL 1376, SOUTH AUSTRALIA, FOR THE PERIOD ENDING 5TH JULY, 1988

AUTHOR:

D.C. PALMER

DATE:

25TH AUGUST, 1988

COPIES TO:

CIS CANBERRA

SADME

SUBMITTED BY:

ACCEPTED BY:



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### LIST OF PLANS

Plan No.	<u>Title</u>	<u>Scale</u>
SAa 4244 SAa 4741	Hope Bank EL 1376, S.A Location Plan Hope Bank EL 1376, S.A Sample Sites, Numbers and Geology	1:250 000 1:100 000
SAa 4742	Hope Bank EL 1376, S.A Sample Sites, Catchments and Geology - Overbank Clays	1:100 000
SAa 4853	Hope Bank EL 1376, S.A Sample Sites and Geology with Anomalous Stream Sediment Geochemistry	1:100 000
SAa 4950	Hope Bank EL 1376, S.A Yellow Dam Area Rock Sample Location Plan with Geology	1: 50 000

#### LIST OF TABLES

Table 1 Work Conducted within Hope Bank EL 1376
Table 2 Adelaidean Stratigraphy - Hope Bank EL 1376

#### LIST OF APPENDICES

Appendix I Rock Sample Ledger - Sample Nos. 1164149-1164150, 1164152-1164200

#### 1. SUMMARY

Catchments within Hope Bank EL 1376 which reported anomalous multielement signatures were selected for follow up sampling.

Exposures of outcrop and float were sampled from within catchments 1239668-1239670, south of Waddington Bluff, and catchments 1449079, 1449084-1449086 east of Hantken Hill.

Follow up rock chip and float sampling returned low base metal and gold assays.

#### 2. INTRODUCTION

Hope Bank EL 1376 was granted to CRA Exploration Pty. Limited on 6th January, 1987 for a period of one year. A subsequent extension for a one year period was granted on 6th January, 1988.

During 1987, a stream sediment geochemistry survey was conducted within the Hope Bank EL 1376 licence. The survey was designed to test all subcrop regardless of stratigraphy and to use multi-element signatures to rate areas of anomalous gold in an attempt to locate a Telfer-style (stratabound Au) resource.

This report describes the work carried out during the sixth quarter ending 5th July, 1988, and summarises all work completed by CRA Exploration Pty. Limited.

#### 3. CONCLUSIONS

Exposures of outcrop sampled in catchments south of Waddington Bluff returned background metallic element values.

The source of the Cu/Pb/Zn stream sediment anomalism recorded in adjacent catchments east of Hantken Hill, appears to be a small lateritic ironstone accumulation overlying the Apilla Tillite.

Work programmes completed by CRA Exploration Pty. Limited within EL 1376 has downgraded the potential of the area to host significant stratabound gold mineralisation. No further work appears warranted within Hope Bank EL 1376.

#### 4. LOCATION

Hope Bank EL 1376 is located approximately 20 km north west of the Yunta township, on the Adelaide-Broken Hill Highway (plan no. SAa 4244). The licence covers an area of approximately 1303 sq km encompassing parts of East Wydown, McCoys Well, Melton, Minburra, Teetulpa and Wabricoola stations.

#### 5. PREVIOUS WORK

Work carried out on Hope Bank EL 1376 by CRA Exploration Pty. Limited, up to and including the sixth quarter is summarised in Table 1. A detailed discussion of sampling procedures and concepts is given in the third quarterly report for EL 1376 (Murrell, B. & Sugden, S.P., 1987).

#### Table 1

		•	
Year	Remarks	<u>Specifications</u>	Report
1987	Stream Sediment Sampling	452 Catchments, 0.5-5.0 km <sup>2</sup> in size	3rd Qtly Rpt Hope Bank EL 1376
1987	Geochemistry	452 samples assayed for Au (0.5 ppb) fire/AAS + 8 elements (ICP), 10 elements (AAS), first 181 samples Pt and Pd lead/fire AAS.	3rd Qtly Rpt Hope Bank EL 1376
1987	Soil sampling	37 samples from spurs bounding catchment 1239595.	·
	· ,	56 samples of mine-host stratigraphic sequence in Waukaringa Syncline.	3rd Qtly Rpt Hope Bank EL 1376
1987	Rock Sampling	6 samples, miscellaneous locations	3rd Qtly Rpt Hope Bank EL 1376
1987	Geochemistry	93 soil samples assayed for Au + base metals	3rd Qtly Rpt Hope Bank EL 1376

#### Table 1 (cont.)

Year	Remarks	<u>Specifications</u>	Report
1987	Statistics	Compilation of anomalous Cu,Pb,Zn,As 95th Percentile, Au 97th Percentile. Delineation of catchments with multi-element signatures.	4th Qtly Rpt Hope Bank EL 1376
1988	Rock Chip Sampling	51 Rock samples from anomalous catchments	6th Qtly Rpt Hope Bank EL 1376
1988	Geochemistry	42 rock samples assayed for Au & base metals	6th Qtly Rpt Hope Bank EL 1376

#### GEOLOGY

The major rock units found within the licence are the essentially unmetamorphosed folded Adelaidean sediments of the Burra Group, Umberatana Group (Yudnamutana, Farina and Elatina Sub-Groups) and Wilpena Group. Outcrop of Tertiary rocks is limited to small areas of ferruginous laterite and silcreted sands. Thin Quaternary sands, calcreted gravels, alluvium and colluvium cover much of the Adelaidean stratigraphy.

Table 2 describes the Adelaidean stratigraphy within Hope Bank EL 1376.

Hope Bank EL 1376 covers the eastern and western closures of the Waukaringa Syncline and a parallel antiform incorporating the same sequence to the south. The mineralisation at Waukaringa and Ajax mines (which lie in that portion of the Waukaringa Syncline not held by CRAE) is associated with quartz and arsenical pyrite filling dilation zones in layer parallel fault planes. Superfine sulphide mineralisation occurs in the Farina Sub-Group sandstones and siltstones at Waukaringa Mine, suggesting that the mineralisation in the quartz lodes occurs nearby to primary mineralisation in the sediments (Murrell, B. & Sugden, S.P., 1987).

Table 2

ADELAIDEAN STRATIGRAPHY - HOPE BANK EL 1376

Gr	oup/Sub Group	Unit	Lithology
	Wilpena Gp	Pound Sst. Wonoka Fmn.	Quartzite feldspathic sand- stone & siltstone Calcareous siltstone & shale minor limestone & quartzites
		Ulupa Siltstone	Siltstone (Brachina Equliv)
[	Elatina Sub Gp - Upper Glacial Gp		Diamictite & fluvials
up ] ]	Farina Sub Gp (intraglacials)	Undifferentiated	Shales, siltstone, carbonatic siltstones, minor carbonate units
na Group	Wonoka Fmm.  Ulupa Silts  [ Elatina Sub Gp [ - Upper Glacial Gp [ Farina Sub Gp [ (intraglacials)		Siltstone & sandstone
Umberatana		Pound Sst.  Quartzite feldspathic sand—stone & siltstone Wonoka Fmn.  Calcareous siltstone & shal minor limestone & quartzite  Ulupa Siltstone  Siltstone (Brachina Equliv)  Diamictite & fluvials  Undifferentiated Shales, siltstone, carbonatic siltstones, minor carbonate units  Tarcowie Siltstone & sandstone  Siltstone  Willochra Fmn.  Siltstone, shale, minor grit sandstone & limestone  Tapley Hill Siltstone, limestone, minor breccia bands, slump conglom erates & sandstone.  Wilyerpa  Sandstone, siltstone and min	Siltstone, shale, minor gritty sandstone & limestone
P [			breccia bands, slump conglom-
[ [	Tapley Hill Siltstone, limestone, more breccia bands, slump concerntes & sandstone.  Yudnamutana Sub Gp Wilyerpa Sandstone, siltstone and tillites  Appila Tillite Boulder tillite siltstone	Sandstone, siltstone and minor tillites	
	•	Appila Tillite	
	Burra Gp	Undifferentiated	

<sup>&</sup>quot;CRA CONFIDENTIAL INFORMATION - UNAUTHORISED USE PROHIBITED."

#### 7. WORK CARRIED OUT

From the stream sediment sampling programme completed within Hope Bank EL 1376, catchments reporting 'anomalous' base metal and Au assay values were delineated for follow up sampling (plans SAa 4741, SAa 4742 & SAa 4853). A summary of interpreted results is detailed in CRAE Report No. 14946.

During the sixth quarter sampling of representative outcrop was completed in the following areas;

- i. catchments 1239668-1239670, south of Waddington Bluff which reported weak Zn/Au 'anomalism', and
- ii. catchments 1449079, 1449084-1449086, east of Hantken Hill which recorded Cu/Pb/Zn 'anomalism', in an area incorporating an anticlinal closure of Appila Tillite.

Fifty one rock chip and float samples were collected. Sample locations are plotted on plan SAa 4950.

Low base metal and Au assay values were returned from all rock chip samples. Anomalous Zn (470 ppm), Pb (1100 ppm) and elevated Cu (160 ppm) values were returned from a sample of lateritic ironstone float (sample no. 1164197), collected within catchment 1449085. A rock sample ledger appears in Appendix I.

#### 8. DISCUSSION

The source of Cu/Pb/Zn stream sediment anomalism recorded in adjacent catchments, east of Hantken Hill, appears to be a small lateritic ironstone accumulation overlying the Appila Tillite (plan SAa 4950).

The limited areal extent of the lateritic ironstone and the low base metal and Au assays, returned from rock samples collected in catchments south of Waddington Bluff, has downgraded the potential of the area to host significant stratabound Au mineralisation.

No further work appears warranted within Hope Bank EL 1376.

D.C. PALMER

DCP/pq

## EXPENDITURE

Expenditure for the period ended 30th June, 1988, the nearest accounting period amounted to  $\$8\ 860$ , as listed below.

		\$
Payrol1		4 402
Supplies		260
Vehicle		1 569
Travel		231
Rent		327
Sundry		800
Overheads		1 271
	Total	\$8 860

#### REFERENCES

Murrell, B. & Sugden, S.P.

Third Quarterly Report For Hope Bank EL 1376, South Australia, For The Period Ending 5th October,

1987. (CRAE Report No. 14762)

Palmer, D.C. 1987

1987

Fourth Quarterly Report For Hope Bank EL 1376, South Australia, For The Period Ending 5th January, 1988. (CRAE Report No. 14946)

#### LOCATION

Orroroo SI 54-01 Olary SI 54-02

#### **KEYWORDS**

Gold, Geochemistry - Stream Sediment, Clays, Soils, Waukaringa

## APPENDIX I

ROCK SAMPLE LEDGER
SAMPLE NOS. 1164149-1164150, 1164152-1164200

## C.R.A. EXPLORATION PTY. LTD. - ROCK SAMPLE FIELD DATA SHEET.

PAGE Nº 10F6

Area: Hope BANK EL1374 Collected: D.C.P

Analysed by: ANALYTICAL Date anal. rec:

Lab. report no: 40731

Map ref: ORROROO Date collected: 13/4/88
Photo name: PARATOO Date to lab:
Run No: 5/127 D.P.O. No: 37542

Plan no: SAa 4950

C.R.A.report no:

Sample type 1. Chip. 3	: . Channel	Test: 1. Chemistry		3. '	Thin	. e c	rion	ANALYSIS I			F/AAS		107		AAS	AAS	AAS	AAS	AAS	AAS	1	1
2. Float 4	Panel.	2. Duplicate		4.	<u>Polis</u>	he c	section.	DETECTION			0.01	2		2	<u> </u>	<del>'</del>	<u> </u>		10	1/0	0.02	
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Number	EAST	NORTH	AS.	<u> </u>	3 2 3	<u>"</u>	ROCK DESCRIPTI		ಜ		Aυ	As	W	50	Pb	Zn	Ag	Cu	Ni	Co	U	M.
1164149	331680	6399040	1				GREY GREEN SILTY S	ANDSTONE	20	65	.01	4	<u> </u>	a	5	61	∙5	24	30	5	1.9	44
							(TARCOWIE SILTSI	ONE)											<u> </u>		ļ	↓
1164150	331550	6399530	1			-			10	110	.05	١	1.5	1	30	ಎ7	.5	اد	90	5	1.7	150
							PAPLEY HILL FORM	4710N)											ļ		<u> </u>	
1164152	330790	6399300	1				GREY-GREEN LAMINAT	ED SILISTONE	5	60	.01	18	3.5	4	20	.ao	∙5	38	70	5	3.3	470
-							STAPLEY HILL FOR	YATION)	].										<u> </u>			
1164153	331050	6399820	2				QUARTZ (VEIN) with	IRON OXIDE	15	-								<u> </u>				
							PSEUDOMORPH after		1.												<u> </u>	
1/64154	331100	6399880	2			1	CARBONATE FL															
119.41.		00.700	-		1	1		· · · · · · · · · · · · · · · · · · ·														
1164155	330950	6400140	2		T	1	SILICIFIED GREY-RE	DBROWN	5	50									·			
	300 100			$\neg$		T	QUARTZOSE SANDST															
1164156	330300	6399720	7			T	YELLOW-BROWN, GRE		180	60	.05	0	<i>1</i> .5	a	20	70	.5	34	30	10	2.9	210
1101110	33333		$\Box$		1		SILTSTONE, with															
<del>,</del>		1	$\Box$		1		layers. (TAPLEY HILL															
1164157	331510	6399750	7		+	†	BLACK MICACEOUS .		40	55	·02	ıa	a·5	4	20	100	.5	30	50	5	3.9	45
,, , , ,	33,000				$\top$	╁	with iron oxide	•														
			TT	_	_	T	(TAPLEY HILL FOR		<del>                                     </del>			-										
1164158	3332/0	6399170	1,		+	╁╴	PALE GREEN-GRE		*		-01	2	3·5	4	5	130	·s	17	50	10	٦	45
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1164159	333125	6394320	2	$\dashv$		十	QUARTZ (VEIN) with		_	_					<b></b>		<u> </u>					1
1164157	33723	837,023		+	+	╁┈	inclusions.	grtygreen						<u> </u>								
1164160	333200	6399810	<del>  ,  </del>	$\dashv$	+	+	GREY-GREEN LAMIN	1475	+		.005	<del>-,</del>	3.5	4	5	100	.5	37	40	10	3.5	50
1164/60	333200	6511010	+++	+	+				5	65			<u> </u>	<b>-</b>	<u> </u>	1.55	<del></del>	<del>                                     </del>	† <u> </u>	<del>                                     </del>		7
	<del>                                     </del>	+	╁	+	+-	+	SILTSTONE with		<del>-</del>	00		<del>  </del>		<del>                                     </del>	<del>                                     </del>		<del> </del>	-	<del> </del>	<u> </u>		<del>                                     </del>
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## C.R.A. EXPLORATION PTY. LTD. - ROCK SAMPLE FIELD DATA SHEET.

PAGE Nº 20F6

Area: Hore BANK ELIST Collected: D.C.P

Map ref: ORROROO Date collected: 14/6/88

Photo name: PARATOO Date to lab:

Run No: 5/127 D.P.O. No: 37542

Analysed by ANALYTICAL Date anal. rec

Lab.report no: 4073/

Plan no: SAu 4950

C.R.A. report no:

Sample type: 1. Chip. 3	loat 4. Panel. 2. Duplicate 4. Polish		sec	tion		ANALYSIS			F/AAS	1012	ICP	ICP	AAS	AAS	AAS	AAS	AAS	AAS	ICP	AAS			
2. Float 4	. Panel.	2. Duplicate		4.	<u>Poli</u>	ishe:	d section.		DETECTION			0.01	<u> </u>	0.5	ے	10	1, '	<b>.</b>	<u> </u>	10	1,0	0.02	11
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1164164	332801	6398570	,		$\dashv$	+	QUARTO	VEIN) WI	ll areen	<del> </del>										<u> </u>	<u> </u>		
1104104	332801	05/05/0			+	十		nelusions		<del> </del>							<b>†</b>			<del></del>	<u> </u>		1
<del>.</del>			$\vdash$	$\vdash$	$\dashv$	+	Milleral	<u>in enggings</u>	·	1	<del>                                     </del>												
1164165	332625	1269520	2	$\vdash$	_	╅┈	0000	(45.41) ·	/•	•	<del> </del>	٠٥٦		.5	,	5	48	.5	18	10	5	.06	120
1104103	332023	6376320	5	-	+				th greygreen	1.		.04	-		•		1						+
		<del> </del>	$\vdash$	$\vdash$	-	-	Sirrarone	fragment	<b>S.</b>	<u> </u>													†
1164166	332626	6398520	2	$\vdash$	_	+	Tanto	XIDE BEUX		<del> </del> -				<del></del>			ļ					<del> </del>	-
1164166	332626	6378320	4	$\vdash$		╫				<del> </del>							<b>}</b>				<del>                                     </del>	<del> </del>	+
		ļ	$\vdash$	$\vdash$	-	+	atter Fy	RITE (der	nisaice).	<del> </del>							<del> </del>				<b></b>	<del>                                     </del>	<del>                                     </del>
144 4 46 5		120000	+		$\dashv$			<u> </u>								<u> </u>					<del></del>	4.2	57
1164167	332820	6344200				+		BUFF SIL		-		-05	6	3.5	4	5	65	.5	18	10	5.	4.7	51
		<u> </u>	$\vdash$		┥-				ngly cleaved	20	78			ļ			<del> </del>	•	<u> </u>	ļ	<del> </del>		+
·			$\vdash$			-	and cale									ļ			<u> </u>		,	<del> </del>	+-
				_	_	_ _		INGA SILI	-							ļ	<del> </del>				<u> </u>		<del> </del>
1164168	332750	6399395	1	_	$\perp$		PALE BR	OWN LAN	INATED	15	85	.005	ь	٦.	4	70	87	•5	31	30	70	3.9	240
				$\dashv$				ANDSTON														<b>.</b>	<del> </del>
						$\perp$	<del></del>	CHRA FOR				ļ					ļ			<u> </u>		<b> </b>	<del> </del>
1164169	332600	6399490	1				PALE BE	OWN-YELL	W LAHINATE	10	68	·n	1.	ع.ج	عد	10	ь¬	·s	34	40	5	3.3	3₽€
							SILTY SA	NDSTONE	with black											L	L		↓
				Т			laminae	and imp	xide after											ĺ	ĺ	1	

## C.R.A. EXPLORATION PTY. LTD. - ROCK SAMPLE FIELD DATA SHEET. ANALYTICAL Analysed by: SERVICES Lab. report no: 4073/

PAGE N: 30F 6

Area: Hope Bank EU376 Collected: D.C.P

Mapref: OREOROD Date collected: 14/6/88

Photo name: Date to lab:

Run No: KOOWAHORE Alian D.P.O. No: 37542

Date anal rec: Plan no:

SAa 4950 C.R.A. report no:

Somple type: 1. Chip. 3	: . Channel.	Test: 1. Chemistry	<del>,</del>	3	. Thir		rion	ANALYSIS I			F/AAS		ICP	ICP	AAS	AAS	AA5	AAS	AAS	AAS		AAS
2. Float 4	. Panel.	2. Duplicate	:	1	-		section.	DETECTION			0.01	<u> </u>	0.5	<u> </u>	10	<u> </u>	1	- 1	10	10	0.02	1-
Sample	AM.G/Long	/Lat./Local		듩	¥ 50 0	일당	ROCK DESCRIP	- 6	323	SCINT C.P.S	<b></b>	Meto	ol Co		(рр	m)	r	T	<del></del>		<del></del>	
Number	EAST	NORTH	14.	37	₹51	동	KOCK DESCRIP	TION	10 L	<u>~</u> 7	Αυ	AS	W	Sn	Pb	Zn	Ag	Cu	Ni	Co	U	Mn
1164170	333860	6398950	2		100		QUARTZ, QUARTZ/S	ILTSTONE	ļ		.005	1	1.5	1	5	12	.5	4	10	5.	26	130
			_		$\perp$		FLOAT. FROM QUI		25	78		·	<u> </u>		ļ			<u> </u>			<u> </u>	<del>                                     </del>
** * * * * * * * * * * * * * * * * * *				Ŀ			(ENORAHA SHALE	=)												<u> </u>	ļ	
1164171	333900	6399130	2				QUARTZ (VEIN) wit	4 green	<u> </u>		-10		. 1	1	5	140	. 5	8	40	10	.36	940
					ŀ		Subhedral crystuls ,	~	<u> </u>	<u> </u>		<u> </u>		,							<u>.</u>	ļ.,
		-							<u> </u>				<u> </u>			<u>.                                    </u>		L			ļ	<u> </u>
1164172	334000	6399270	2				IRON OXIDE PSE	UDO HORPH							<u> </u>			<u>.</u>	<u> </u>		<u> </u>	<u> </u>
							after PYRITE (de	vils dice)									,				<u> </u>	<u> </u>
			1				from												<u> </u>	, ,	<u> </u>	
1164173	333695	6399820	1				GREEN-GREY to	BROWN	10	85	.04	4	ع.و	<b>ച</b> .	S	100	.5	್ವಿಕ	30	10	1.9	830
			1				SILTSTONE															
							(WAUKARINGA SIL	TSTONE)											ļ			
1164174	333750	6398000	1				RED-BROWN LAI	TINATED	5	75-	.03	1	2	i	5	67	·s	28	20	5	34	IZC
1,0							SANDSTONE/QUA															
						1	(ELATINA GROU															
1164175	333500	6397980	1				LAMINATED and CROS		10	65	105	8	1.5	l.	10	53	.5	31	20	5	3,3	590
110			1.				LIGHTGREY SAN															
			1			$\neg$	(ELATINA GRO															
1164176	330450	6404880	1			+	SIUCIFIED MICEO-		TE-		.01	1	1:5	ı	5	19	.5	ויו	20	5	1.2	100
7,0	30-,0-	0.0.000			T		(pebble sandstone)		10			<b>.</b>							_			T
			1			1	APILLA TILLIT	<b>(</b> 4										1.				T
1164173	330990	6404890	1	$\Box$	$\dashv$		GRANITIC CLAST IN		5		.005		1	4	5	18	•5	غ۱	5	5	1.7	76
1104:17	330110	0104010	1		_	_	40 cm in diamete				· · · · ·											
			+-			$\dashv$	(APILLA TILLIT			<u> </u>				-				1	1			1
1164178	331040	6404900	1,	$\square$		$\dashv$	MATRIX DOMINATED		10	107	.02	1	s		5	28	-5	حد	10	5	1.2	490
1104118	33/040	DW4700	#	$\mid - \mid$		+	Grey-Inht brown			1 T			<u> </u>		<u> </u>			1	T	T -		
, ,			+	$\vdash$	$\dashv$	$\dashv$	(wouthered) and que				<del> </del>	<u> </u>				T .			1		,	
	<del>                                     </del>		+	$\vdash \vdash$	.	-	(APILLA TILLITE)			<del></del>	-	<del> </del>	<u> </u>		<del>                                     </del>	<del>                                     </del>	<del> </del>	<b> </b>	<del>                                     </del>	1	T .	1

## C.R.A. EXPLORATION PTY. LTD. - ROCK SAMPLE FIELD DATA SHEET. D.C.P Analysed by: SERVICES Lab. report no: 40731

PAGEN: 40FG

Area: HOPE BANKELB% Collected: D.C.P

Date anal. rec: Plan no: SAa 4950

Mapref: ORROROD Date collected: 14/4/88
Photo name: KOONAMOREDate to lab:

Run No:	-	D.P.O. No			42		C.R.A.report no:	4,150		'											•	
Sample 1992 1. Chip. 3		Test: 1. Chemistry		_	<b>T1</b> ·		V	ANALYSIS	METHO	D	F/AAS	ICP	ICP	ICP	AAS	AAS	AAS	AAS	AAS	AAS	ICP	AA:
	. Panel.	2. Duplicate		4.	Pol	n sect Iished	l section.	DETECTION			0.01	2	0.5	2 .	10	1	ı	1	ō	10	0.02	
Sample	COOR	DINATES	2,0	Ξ.	<b>₹</b>	.S ►	0 0		となる	33		Meto	ıl Co	ntent	(pp	m)			-	-		
Number	EAST	NORTH	SAM	<u>0</u> €	¥ 5 2	TES	ROCK DESCRIPT	70N	MAG SUS SIJIBS	53	Au	As	٦	52	Pb	Zn	Ag	Cu	7:	Co	υ	M
1164179		6404445					MATRIX DOMINATED		10		.005	Ų	<b>5</b>	-	20	60	·š	30	20	5	3.8	59
							Grey-brown weath	ered with								<u> </u>				<u> </u>	<u> </u>	
,							gtzite, gneiss, schist	asperclast										ļ		L		$oldsymbol{ol}}}}}}}}}}}}}}}}}$
							(ARLLA TILLITE	<u> </u>		<u> </u>									·	L	<u> </u>	
1164180	331200	6404400	1				MATRIX DOMINATE	DTILLTE	10	110	.005		4	2-	5	59	·5	28	20	5	3.2	62
							as for 1164179															
							(APILLA TILLI	TE)													<u> </u>	
1164181	33/450	6404450	1				MATRIX DOMINATE	D TILLITE		l	.005	1	į	i .	20	81	· <u>5</u>	29	10	5	3.4	62
							Strongly cleaved, u	with	5-	110												
							ironoxide hulos.															L
							(APILLA TILLI	TE)													<u>.                                    </u>	
1164182	331640	6404450	1				VARVED SANDST	ONE			.०७५		<b>5</b>	ı	S	10	∙5	10	10	5	.60	ьс
							(lominated) quar	tzose						•						$oxed{oxed}$	<u> </u>	
							dominant.													<u> </u>		_
							(APILLA TILLIT	E?)														
1/64/83	33/880	6404175	1				HATRIX DOMINAT	ED TILLITE	7		۰ ٥٥٥	õ	ಎ	l	5	44	·5	26	10	5	3.6	56
							as for 11641	79	10	70						<u> </u>				<u> </u>		
			П				(APILLA TILL	ITE)														
1164184	332430	6403600	1		$\sqcap$		MASSIVE RED-BRO		5	60	.005	1	a.5	١	5	طا	٠5	Ь	10	5	08.	ST
							QUARTZITIC SAN									,						L
	-		1.				weak silicification															
							(WILYERPA QUA				1 .											
1164185	3323/6	6403420	1				GREY LAMINATE		20	65	.005	10	ď	4	5	70	·5	42	20	5	4.3	88
					T	$\top$	SILTSTONE					,										
			П				(TINDELPINA SI	YALE)	.1													
1164186	332235	6403320	1		$\dashv$		LAMINATED SILT		10	70	.005	ı	3_	ھ	5	51	·5	29	5	5	<b>ə</b> ·3	47
					$\top$		(PYRITIC)															
		T	1			$\neg$	TINDELPINA SI	MALE)			1					T			ľ	1	1	Ī

## C.R.A. EXPLORATION PTY. LTD. - ROCK SAMPLE FIELD DATA SHEET. C.P. Analysed by: SERVICES Lab. report no: 4073/

PAGEN: 50F6

Area: Hope Bank EL376 Collected: D.C.P Mapref: ORROROD Date collected: 15/6/88

Photo name: Koon AMORE Date to lab:

Run No: 4/110

D.P.O. No: 37542

Date anal. rec: Plan no: SAG 4950

C.R.A. report no:

. Channel.	Test:  1. Chemistry		3.	Thin	seci	rion	ANALYSIS /			F/Ans	CP	ICP	ICP	AAS	AAS	AAS	AAS		AAS	ICP	<del></del>
. Panel.	2. Duplicate		4.	Poli	shed	section.								10	<u> </u>	1	1	10	1,0	0.03	
	INATES		<b>Ξ</b> _:	≾≅ં ત	지느	0		First First	126		Meta	al Co	ntent	(pp	m)						
FAST	NORTH	N E	₹5	₹ <u>S</u> lz	퇴일	KOCK DESCRI	PTION	9 × 4	43	Au,	As	7	Sn	Pb	Zn	Ag	Cu	2	ဒ	U	M
<u> </u>	INORIII	۲		十	$\top$																
332080	6403145	2	$\Box$			QUARTZ - IRONS	TONE FLOAT														
			_	_	_			<u> </u>				ļ				<u> </u>		ļ			-
331400	6402530	1				RED BROWN QUAL	RTZITIC	10	70	·05	. 1	1.5	١.	40	90	·s	19	20	5	.76	34
						SANDSTONE		<u> </u>						ļ			ļ				
						WILLYERPA QU	ARTZITE)												<u> </u>	ļ	<u> </u>
331675	6402900	1		L		RED BROWN QUA	RTUTTC	15	74	.005	١	ユ	1 .	5	40	•5	16	10	5	.56	58
					-	SANDSTONE								<u> </u>			<u> </u>		<u> </u>	<b></b>	
			Т			WILLYERPA QU	ARTZITE)				[										L
33/675	6402901	1				MILKY VEIN QUA	ARTZ			.∞5	ı	ı	1	5	8	·5	15	5	5	.56	38
															<u> </u>		<u></u>		<u> </u>		$\perp$
332430	6403580	1		$\neg$		BLUE-GREY MASS	SVE	5	90	-005	1	·25	1	20	70	•5	ר	5	5	ا٠د	71
					1				. '												
				1																	
332540	6403850	1	ヿ	_	1	<del></del>				.005	١	.5		5	3	.5	6	5	5	.20	<u>ا</u> ا
2525 10	010000			<u> </u>	1							<u> </u>									Π
332600	6403900	1								·005	1	.25	1	20	19	.5	8	5	5	1.8	30
552650	0400100	1	$\neg$		$\top$					330											Π
		$\vdash$		$\dashv$	- -	+ <del></del>	UALE)		-			-									Т
331510	64.03290	1	+		+			5	70	.005		3	1	50	61	.5	16.	10	5.	2	68
331310	640210	1	+		+		KIZIIC		70	<u> </u>										1	
		$\vdash$					(שדו כדסמי				<b></b>			<del>                                     </del>	1					1	$\vdash$
7717110	14.202		$\dashv$	_				10	05	.005	<del>                                     </del>		<u> </u>	30	19	-5	10	5	5	.50	74
331340	6403833	1			+			10	83	1005	<u> </u>	1.3	<u> </u>	30	<del>  ` ` </del>	<u> </u>	<u> </u>	<del>                                     </del>	<del>                                     </del>		广
			+				4 BOULDER	_			<del> </del>			<del> </del>		<del>                                     </del>	<del> </del>		+	<del> </del>	+
	ļ	$\vdash \vdash$	_	_ -	+-						<del> </del>		<del> </del>	+	<del> </del>	<b></b>	1	<del>                                     </del>	<del> </del>	-	+
		<b>├</b>				CAPILLA TILLI	7E)			ļ	ļ			<del> </del>	<del> </del>	<del>                                     </del>		<del> </del>	<del> </del>	<del> </del>	+
	ļ	$\sqcup$	_	_						ļ	<b> </b>		<del> </del>	+		<del> </del>	<del> </del>	<del> </del>	<del> </del>		+
	Panel. COORE AM.G/Long. EAST  332080  331400  331675  332430	Panel. 2. Duplicate COORDINATES AM.G/Long./Lat/Local EAST NORTH  332080 6403145  331400 6402530  331675 6402900  332430 6403580  332540 6403850  332540 6403850  331510 6403290	2. Duplicate COORDINATES AM.G/Long./Lat/Local EAST NORTH  332080 6403/45 2  331400 6402530 /  331675 6402900 /  332430 6403580 /  332540 6403850 /  332540 6403850 /  331510 6403290 /	COORDINATES   AM.G/Long./Lat./Local   EAST   NORTH   S   S   S   S   S   S   S   S   S	COORDINATES   AM.G/Long./Lat/Local   EAST   NORTH   ST   ST   ST   ST   ST   ST   ST	COORDINATES	Panel. 2. Duplicate 4. Polished section.  COORDINATES AM.G/Long./Lat/Local EAST NORTH SET STORY  AND COORDINATES AM.G/Long./Lat/Local EAST NORTH SET STORY  AM.G/Long./Lat/Local EAST ROCK DESCRI  ROCK DESCRI  ROCK DESCRI  RED BROWN QUA  SANDSTONE  (WILLYERPA DO  AM.G/Long./Lat/Local EAST RED BROWN QUA  SANDSTONE  (TINDELPINA SHI  SANDSTONE  (TINDELPINA SHI  SANDSTONE  (TINDELPINA SHI  SANDSTONE  (TINDELPINA SHI  SANDSTONE  (WILLYERPA QUA  COMPONENT FROM  TILLYER	Channel. 1. Chemistry Panel. 2. Duplicate  COORDINATES  AM.G/Long. / Lat/Local EAST NORTH SET TO SECTION  332080 6403145 2	Channel. 1. Chemistry 2. Duplicate 4. Polished section. DETECTION LIMIT COORDINATES  AM. G/Long. / Lat/Local Expression	Channel. 1. Chemistry Panel. 2. Duplicate COORDINATES AM.G/Long. /Lat/Local EAST NORTH  3. Thin section COORDINATES AM.G/Long. /Lat/Local EAST NORTH  COORDINATES AM.G/Long. /Lat/Local EAST NORTH  COORDINATES AM.G/Long. /Lat/Local EAST NORTH  COORDINATES  3. Thin section COORDINATES COORDINATES  AM.G/Long. /Lat/Local EAST NORTH  COORDINATES  COORDINATES  COORDINATES  COORDINATES C	Channel. 1. Chemistry Panel. 2. Duplicate 4. Polished section.  COORDINATES AM.G/Long./Lat/Local EAST NORTH  332080 6403/45 2	Channel. 1. Chemistry Panel. 2. Duplicate 4. Polished section.  COORDINATES AM.G/Long./Lat/Local EAST NORTH  332080 6403145 2	Channel   Chemistry   Chemistry   Copplicate   Copplicate   Copplished   Section   Detection   Limit(ppm)   Color   Copplished   Section   Detection   Limit(ppm)   Color   Copplished   Copplished   Section   Detection   Limit(ppm)   Color   Copplished   Copplished   Section   Detection   Limit(ppm)   Color   Copplished   Copplis	Chemistry   Component   Chemistry   Component   Comp	Channel   Chemistry   Coordinates   Coordi	Channel   1. Chemistry   Channel   1. Chemistry   Correct   2. Duplicate   4. Polished section.   DETECTION LIMIT(pp.m)   0-01   2. 0-5   2. 10   1   1   1   1   1   1   1   1   1	Channel   1 Chemistry   2   1   1   1   1   1   1   1   1   1	Channel   Chan	Channel   Chan	Chamility   Cham	Chamility   Chemistry   Chemistry   Chemistry   Chemistry   Chemistry   Constitution   Chemistry   Constitution   Chemistry   Constitution   Chemistry   Constitution   Chemistry   Constitution   Chemistry   Constitution   Chemistry   Chemistry

# C.R.A. EXPLORATION PTY. LTD. - ROCK SAMPLE FIELD DATA SHEET. Analysed by: SERVICES Lab. report no: 40731

PAGE N: 60F6

Area: HOPE BANK EU376Collected: D.C.P Mapref: ORROROD Date collected: 15/6/88 Photo name: KoonAMORE Date to lab:
Run No: 4/110 D.P.O. No: 37542

Date anal. rec: Plan no: SAa 4950 C.R.A.report no:

Run No:	4/110	D.P.O. No	: 3	754	42	C.R.A.report no:			-			<del>,</del>						`.	<del></del>		· ·
Sample type: 1. Chip. 3	: . Channel	Test: 1. Chemistry		3. T	hin sec	tion:	ANALYSIS I			F/AAS	ICP	ICP	ICP	AAS	AAS	AAS	AAS	AAS	AAS	+	+
2. Float 4	. Panel.	2. Duplicate		4. F	Polishe	d section.	DETECTION	LIMIT (	ppm)	0.01	٦	0.5	2.	10	1			10	10	0.03	1
Sample	COORI	/Lat/Local	22	<u> </u>	- S - E	ROCK DESCRI		SUS SUS SIXES	さん	<u> </u>	Meto	ıl Co	ntent	(рр	m)						
Number	EAST	NORTH		<b>34</b> %		KOCK DESCRI	ptions	3 "	4	.Au	As	W	Sn	Pb	zn	Ag.	Cu	2:	Co	U	M
164196	331715	6404600		40		GREY WHITE DUAL				·005	6	1	١	10	48	-5	13	10	5	1.9	63
	-					with SILTSTONE F	RAGHENTS												<u> </u>		
	,-															.,			<u> </u>		_
1164197	33/730	6404550	2	35	<u> </u>	IRONSTONE (LAT	ERITE ??)			.005	ے	2	14	1100	470	•5	160	90	30	6.3	48
	·					FLOAT with some	10 1164196										-			<u> </u>	<u> </u>
						(TERTIARY LATE	RITE)					<u> </u>								<u> </u>	1
1164198	331225	6405225	1			BLUE-GREEN DOL	DHITIC	10	85	.005	8	1	1	5	41	.5	18	5	5	2	33
11 11 11 11 11 11 1 1 1 1 1 1 1 1 1 1						SILISTONE with C	ALCRETE							`					<u> </u>		_
						(TINDELPINA SH,															
1164199	331200	6405330	1			BLUE-GREEN DO	LOHITIC	15	70	.005	Ь	-5	1	20	44	.5	12	5	5	a·5	35
1, .	÷. :					SILTSTONE						<u> </u>								<u> </u>	<u> </u>
						(TINDELPINA SI	YALE)	14.								ļ	•		<u> </u>	<u> </u>	<u> </u>
1164200	331280	6405390	2			BUFF-YELLOW W		5	55	.605	4	1	. 1 .	10	46	·5	22	5	5	್ಷ.₃	41
						DOLOHITIC ?? SAND															
						(TINDELDINA										<u> </u>		"	<u> </u>		1
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