CONTENTS ENVELOPE 4232

ROCKDALE HILL PTY. LTD.

EXPLORATION LICENCE NO. 820

'FREELING HEIGHTS EAST'

FIRST QUARTERLY REPORT

JULY, 1981.

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810493

810451

810482

MINERALOGICAL REPORT

PONTIFEX & ASSOCIATES PTY. LTD.

INTRODUCTION

Exploration Licence No. 820 covering approximately 44 sq. km was granted to Rockdale Hill Pty. Ltd. on 6th April, 1981 for a period of six months.

The area is located in the northern Flinders Ranges, approximately 7 km north-east of Freeling Heights, is bounded by longitudes 139°26' to 139°30' and latitudes 30°03' to 30°08'.

This report presents the results of geological exploration of deposits of rare elements. The company is mainly interested in the occurrence of columbite-tantalite, which is considered as an ideal exploration target for a small company with limited resources.

The area was chosen primarily on the basis of Anaconda Australia Inc. Paralana Concession (Special Mining lease 112) summarizing report which recommended more detailed examination of the Freeling Heights Ordovician Granite in order to "locate areas of low grade tin, wolfram, tantalum . . . of possible economic interest."

METHOD OF INVESTIGATION

The area is very mountainous with maximum height of 700m above sea level and contour of the terrain does not allow the use of any land vehicle. Field parties have operated for periods of 3-4 days at a distance from base-camp in order to penetrate the area.

The initial program involved sampling of stream sediment in water-courses at approximately 100m intervals. Samples numbered 23-196 were collected by this 100m interval method predominantly in the Northern sector of the area. Because 100m intervals were proving cost inefficient the program was modified to obtain in order of priority,

(i) Heavy mineral stream sediment concentrate.
(ii) Rock chip samples from pegmatitic and other intrusional formation
(iii) Stream sediment at 200m intervals.

The stream sediment samples were taken approximately 20cm below surface and bagged in plastic and calico.
About half of each sample collected was chemically analysed - an effort was made to ensure that material analysed was representative in fraction size of material in situ.

Samples were analysed by Comlabs Pty. Ltd. and mineralogically assessed by Pontifex & Associate Pty. Ltd. Limits of detection for X-Ray Flourescent analysis are: Nb (2), Ta (10), Sn (4), W (10), Th (4), Zr (4), Mo (2), U (4), La (20), Ce (20), Nd (20).
Limit of detection - Atomic Absorption Spectrophotometry - V (20).

0007

Predominant rock units of the sample areas are as follows:

British Empire Granite	Pegmatite (rock chip)
130 - 144	338 - 349
150 - 181	410 - 424
201 - 219	533 - 537
260 - 229	542 - 556
314 - 318	561 - 582
329 - 337	319 - 326
350 - 359	626 - 635
370 - 374	641 - 635
377 - 394	646 - 649
425 - 442	557 - 560
483 - 500	
501 - 531	
637 - 640	
686 - 731	
740 - 752	
754 - 756	
783 - 815	
303 - 326	

Remaining sample numbers were located in Freeling Heights Quartzite. Sample locations shown on water-courses represent stream sediment. All others represent rock chip samples.

GENERAL GEOLOGY

The area of interest consists of Palaeozoic Intrusions within Granite Ordovician and is surrounded by a Pre-Cambrian formation represented by Radium Creek Metamorphics and Older Granite Suite.

The Radium Creek Metamorphics were intruded by two generations of granites grouped as Older Granite Suite (1,600 m.yrs) and British Empire Granite (400 m.yrs). The Radium Creek Metamorphics and Older Granite Suite together comprise the Mt. Painter complex.

The Radium Creek Metamorphics contain Freeling Heights Quartzite and contacts between the Freeling Heights Quartzite and British Empire Granite are represented by moderately discordant large rafts of Freeling Heights Quartzite preserved with granodiorite. There is little sign of contact metamorphism or metasomotism except silicification and incipient biotite development. Pegmatitic offshoots are common along the Western margin along the massif, but are absent from the Eastern contact zone. Pegmatite distribution indicates that the Western contact form the roof and the eastern margin, the base of the intrusion. Granodiorites form a large oval massif on the Freeling Heights plateau. The massif is strongly jointed - preferred joint direction is approximately E.W. and slightly W. of N. The N-S joins are more persistent and appear to be relatively younger than the closely spaced E-W system. N.E.-S.W. sets are weakly developed.

Pegmatitic Zone on western margin of
British Empire Granite.

MINERALIZATION

The area was previously researched by Anaconda Australia Inc. in 1965/66 which investigated the occurrence of Cu, Zn and Pb primarily and secondarily analysed for Sn, W, Ta, Nb, Th and Zr in heavy mineral concentrate sediment from major streams draining areas of granitic rock.

Although Nb and Ta usually appear together in geochemical configurations often in association with Y, Zr, W, Ti, Th, Mn and occasionally U, atmospheric and hydrolytic processes can encourage concentration of Nb and Ta either separately (eg. columbite-tantalite-wolframite). Nb and Ta mineralization is often located in pegmatitic formations. Rock chip sample MF 555A (670ppm. Nb, 120ppm. Ta) seems to justify further investigation of at least this one pegmatitic intrusion, preferably by core drilling. However, prior to further field investigation of this location, fuller mineralogical and geochemical assessment of the anomalous material shall be required.

Irrespective of whether high-grade columbite-tantalite mineralization is representative of pegmatitic intrusions in the area under investigation, there exist many occurrences of medium-grade columbite - in this location, for example,

MF 551 (Nb 95ppm),
MF 554 (Nb 95ppm),
MF 542 (Nb 145ppm),
MF 547 (Nb 130ppm).

Of further interest in the licence area is the concentration of higher grade columbite-tantalite in a conglomerate-type water-course based deposit. Sample MF 815 (450ppm Nb, 510ppm Ta) is an example of material possibly enriched by selective transportation of heavier metal bearing rock.

This sample contains associated elements: Sn, W, Th and Zr. Further investigation of conglomerate is suggested because there are substantial deposits present in the creek where MF 815 was found. However, because of the variables of (i) location of source material and (ii) transportation processes of heavy metal bearing material, the location of enriched high-grade columbite-tantalite in conglomerate remains somewhat problematical. Refer to Mineralogical Report, (Pontifex & Associates Pty. Ltd.) for detailed microscopic assessment of MF 815.

Finally, the highest rate of Nb and Ta is recorded in heavy metal concentrate located adjacent to MF 815. Sample MF 812 (Nb 520ppm, Ta 800ppm) probably derived from systematic erosion of medium to higher grade columbite-tantalite in conglomerate-type material. It is apparent from reference to topographic variables that this material is selectively deposited where water flow-rate decreases. MF 812 also contains anomalous Sn, W, Th & Zr. MF 811 and MF 814 also suggest the liklihood of further occurrences of high grade columbite-tantalite content in heavy metal concentrates. Further intensive investigation of Nb and Ta concentrations in heavy metal stream sediment concentrate is warranted.

Location of MF 555A Pegmatite Rock Chip Sample.

CONCLUSIONS

Relatively high-grade columbite-tantalite mineralization has been located in disparate areas. Evidence warrants further detailed investigation to establish economic feasability of heavy metal concentrate deposits and conglomerate-type material in the water-course that flows approximately W-E on latitude 30°05', and pegmatite based columbite mineralization at approximately latitude 71°00', longitude 139°27'.

Heavy Metal Stream Sediment Concentrate (MF 812)

348000E

139° 26'

49

27'

50

51

52

53

29'

54

55

139° 30'

30° 02'

76

75

30° 03'

74

73

72

71 000 N

HAMILTON CREEK

VALLEY BORE

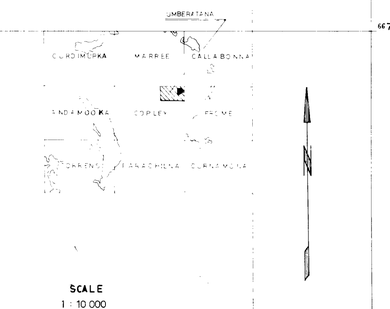
ROCKY OUTCROP

568

587

495

558



ROCKDALE HILL PROPRIETARY LTD.

EXPLORATION LICENCE . 820

FREELING HEIGHTS EAST

FIRST QUARTERLY REPORT

Drawn: H.B-S	Date: 1·7·81	ADELAIDE, S.A.	
Prepared: Z.B	Project No: Z/MF	Drawing No 1-2	
Checked: J.E			

Revisions:

4232-1

ROCKDALE HILL PTY. LTD.

EXPLORATION LICENCE NO. 820

'FREELING HEIGHTS EAST'

SECOND QUARTERLY REPORT

OCTOBER, 1981.

CONTENTS

INTRODUCTION:

Previous investigation had identified evidence of relatively high-grade columbite-tantalite mineralization in disparate areas within the licence. The company's activity during the second quarter has focused on the task of establishing indicators of economic feasability of heavy metal concentrate deposits and conglomerate-type material.

The geochemical data presented highlights the heterogenous composition of surface conglomerate.

METHOD OF INVESTIGATION:

Samples that refer to the X-Ray Flouresœent analysis that is presented in this report were all taken from conglomerate material in the watercourse that flows in a West-East direction at approximately 30°15' latitude. A total of 60 samples of typical conglomerate were taken from the surface along the watercourse up to the Western boundary of the licence area. Because samples were taken proximally to each other at varying distances depending on the factors of rock-type and deposit size, precise details of each sample location are available although not presented in this report. Our intention is to develop detailed rock-type mapping of the material in the watercourse from minerological and geochemical data in conjunction with aerial colour photography on a 1:2,000 scale.

MINERALIZATION:

Levels of mineralization from detailed rock-chip sampling of conglomerate material has qualified the proposition that conglomerate is a reliable source of high-grade tantalite. However anomalous levels of heavy metal mineralization are characteristic of this material and the proposition remains to be confirmed that consistently higher levels of Tantalite exist in the form of fossil beds or channels within the heterogenous material.

Samples MF815 (from previous report), MF854, MF828, MF859 and MF860, and MF867 represent the most highly mineralized locations found in this area of survey.

Detailed grid-based core drilling of the relatively shallow 1-2 metre depth to granite bedrock is considered to be warranted in order to confirm the presence of fossil beds of enriched Tantalite at each of these 4 locations.

CONCLUSIONS :

Evidence at this stage appears to warrant

(1) Grid-based core drilling of conglomerate deposits

(2) Grid and transect-based coring of sand deposits at the confluence of Hamilton Creek and the conglomerate enriched watercourse in order to quantify heavy metal concentrate mineralization.

(3) Grid-based pneumatic drilling of enriched pegmatite (refer previous report) as a preliminary to core drilling in this location.

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810824

Results in ppm

SAMPLE	Sn	Mo	W	Th	Zr	Nb	Ta
MF 817	10	32	95	20	70	18	<10
MF 819	14	38	30	14	55	24	<10
MF 821	10	4	20	8	6	24	<10
MF 822	<4	3	25	6	32	40	<10
MF 823	<4	3	25	6	12	38	10
MF 824	8	32	15	22	60	16	<10
MF 826A	10	38	10	20	75	20	<10
MF 826B	6	38	10	20	75	20	<10
MF 828	250	22	45	55	85	90	85
MF 833	20	4	15	50	85	34	<10
MF 835	14	22	10	12	60	16	<10
MF 837	10	5	15	14	50	24	<10
MF 839	<4	4	15	24	65	34	15
MF 841	60	18	20	26	90	30	25
MF 842	12	7	10	12	60	20	<10
MF 843	6	3	10	6	75	20	<10
MF 844	8	4	15	8	40	28	<10
MF 846	26	5	15	22	32	30	20
MF 848	28	9	15	36	130	46	25
MF 856	8	14	85	8	34	16	<10
MF 853	14	34	400	16	70	20	<10
MF 860	130	75	65	30	65	55	85
MF 865A	10	12	20	20	100	24	<10
MF 865B	16	16	15	24	110	32	<10
MF 873	24	12	15	22	70	26	15

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COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810824

Results in ppm

SAMPLE	Sn	Mo	W	Th	Zr	Nb	Ta
MF 876	44	9	25	48	85	50	30
MF 877	40	8	15	22	46	26	15
MF 878	<4	7	10	10	65	14	<10

Method of Analysis : Sn Mo W Th Zr Nb Ta : XRF1

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COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810824

Results in ppm

SAMPLE	Nb	Ta
MF 818	16	<10
MF 820	18	<10
MF 825A	42	25
MF 825B	26	<10
MF 827A	50	40
MF 827B	85	50
MF 829	14	<10
MF 834	18	<10
MF 836	36	<10
MF 840	20	<10
MF 845A	12	<10
MF 845B	30	15
MF 847	30	10
MF 849	24	<10
MF 850	24	<10
MF 851	26	10
MF 852	24	15
MF 854	100	70
MF 855	18	<10
MF 857	24	<10
MF 858	28	<10
MF 859	80	75
MF 861	48	15
MF 862	70	10
MF 863A	18	<10

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0021

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810824

Results in ppm

SAMPLE	Nb	Ta
MF 863B	16	<10
MF 864	32	10
MF 866A	30	20
MF 866B	42	20
MF 867A	60	40
MF 867B	55	65
MF 868	28	20
MF 869	38	15
MF 870	30	20
MF 871	26	<10
MF 872	24	10
MF 874	40	15
MF 875	65	45
MF 879	28	<10
MF 880	16	<10

Method of Analysis : Nb Ta : XRF1

NUMEROUS EXPOSED ROCKS

ROCKY OUTCROPS

858-60
818-824
827-9
830-2
833,34
835,6,7
839
840
841
842,3,4
844,6
847-857
865-77
861-4
878
879
880

UMBERATANA

CURDIMURKA | MARREE | CALLABONNA
ANDAMOOKA | COPLEY | LAKE EYRE
TORRENS | PARACHILNA | CURNAMONA

SCALE
1 : 10 000
100 200 300 400 500 METRES

RECEIVED
5 NOV 1981
DEPT. OF MINES AND ENERGY SECURITY
4232

ROCKDALE HILL PROPRIETARY LTD.

EXPLORATION LICENCE 820
FREELING HEIGHTS EAST
SECOND QUARTERLY REPORT

Drawn: H.B-S	Date: 1·10·81	ADELAIDE, S.A.	
Prepared: Z.B.	Project No: 2/MF	Drawing No: 1-1	
Checked: J.E.			

Revisions:

4232-2

22

ROCKDALE HILL PTY. LTD.

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Telephone (08) 223-5040
After Hours (08) 390-3170

FINAL REPORT

EXPLORATION LICENCE 820

FREELING HEIGHTS EAST AREA

Samples of alluvial sand were taken along transects in the main watercourse which runs through the area under consideration.

These samples were taken from depths to 2m. and analysed for Nb and Ta.

It is conseidered that the results obtained do not warrant further investigation.

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COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM820279

0024

Results in ppm

SAMPLE	Sn	Nb	W	Ta
F 1	<4	30	20	<10
F 2	6	30	15	<10
F 3	6	30	<10	<10
F 4	4	16	<10	<10
F 5	<4	32	20	<10
F 6	4	20	10	<10
F 7	<4	16	20	10
F 8	10	36	20	<10
F 9	12	50	40	<10
F 10	<4	16	<10	<10
F 11	4	16	15	<10
F 12	<4	10	30	<10

Method of Analysis : Sn Nb W Ta : XRF1

.../ 2

ANALYTICAL REPORT

0025

JOB COM820279

Results in ppm

SAMPLE	Nb	Ta
M Fa 1	22	10
M Fa 2	20	<10
M Fa 5	12	<10
M Fa 6	12	<10
M Fa 7	14	<10
M Fa 8	14	15
M Fa 9	10	<10
M Fa 10	12	<10
M Fa 11	14	<10
M Fa 12	12	<10
M Fa 13	14	<10
M Fa 14	16	<10
M Fa 15	12	<10
M Fa 16	14	<10
M Fa 17	10	<10
M Fa 18	10	<10
M Fa 19	16	<10
M Fa 20	14	<10
M Fa 21	12	<10
M Fa 22	10	<10
M Fa 23	14	<10
M Fa 24	10	<10
M Fa 25	10	<10
M Fa 26	12	<10
M Fa 27	22	<10

.../ 3

ANALYTICAL REPORT

0026

JOB COM820279

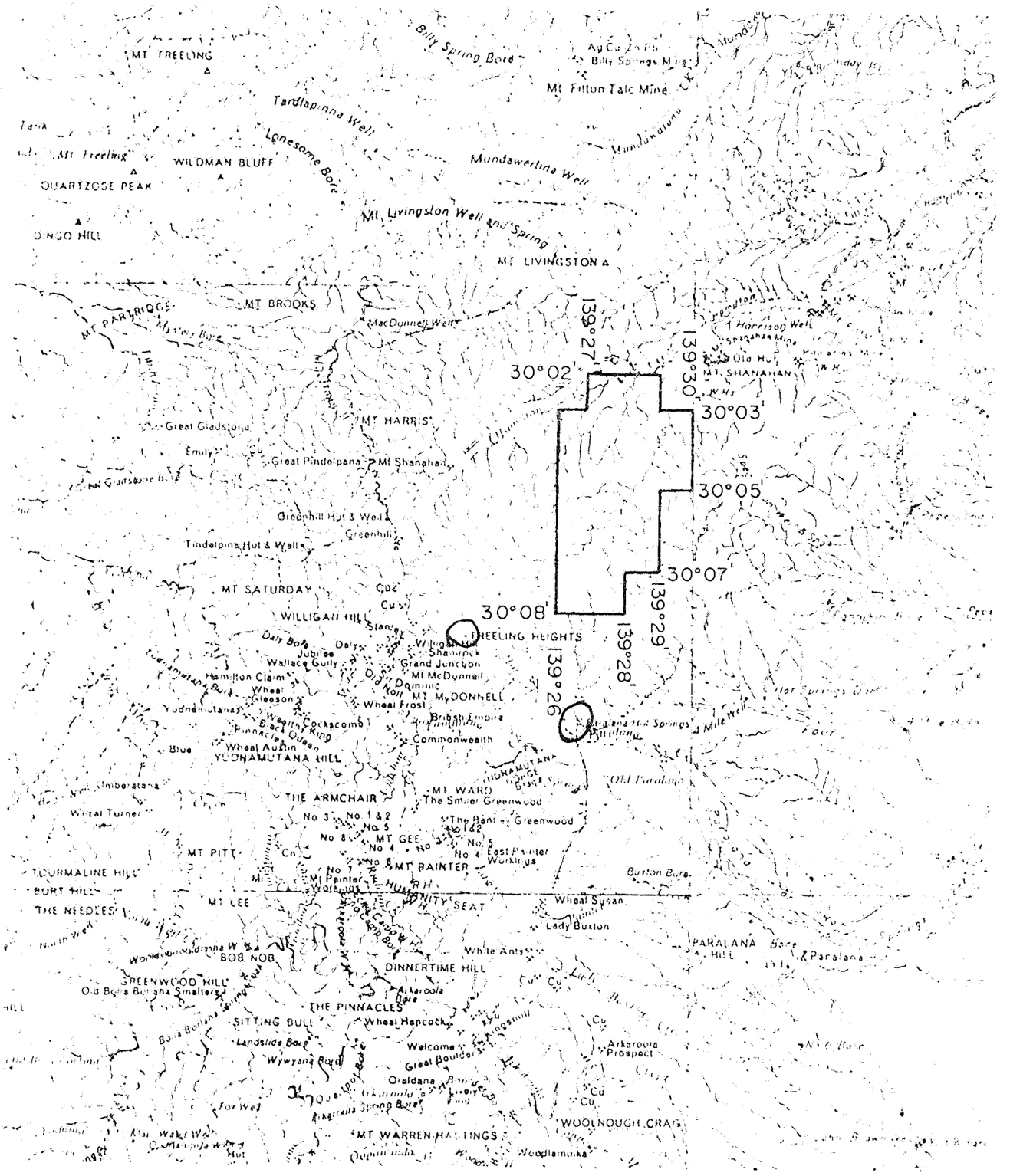
Results in ppm

SAMPLE	Nb	Ta
M Fa 28	10	<10
M Fa 29	24	10
M Fa 30	24	<10
M Fa 31	130	55
M Fa 32	5	<10
M Fa 33	14	<10
M Fa 34	12	<10
M Fa 35	18	<10
M Fa 36	34	15
T 1	20	<10
T 2	18	<10
T 3	16	<10
T 4	14	<10
T 6	18	<10
T 20	20	<10
T 21	18	<10
T 22	16	<10
T 23	16	<10
T 24	14	<10
T 25	12	<10
T 26	12	<10
USBD	16	<10
PRSD	55	40

Method of Analysis : Nb Ta : XRF1

0027

SCHEDULE A



SCALE 1:250,000

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

APPLICANT: ROCKDALE HILL PTY. LTD.

DM: 635/80 AREA: 53 square kilometres

1:250000 PLANS: COPLEY

LOCALITY: FREELING HEIGHTS EAST AREA - Approx. 110 km N.E. of Leigh Creek

DATE GRANTED: DATE EXPIRED: EL No:

305 SOUTH ROAD
MILE END SOUTH
STH. AUST. 5031
TEL.: (08) 43 5722
TELEX: AA 89323

0028

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451

Results in ppm

SAMPLE	Nb	Ta
MF 617	20	<10
MF 618	26	15
MF 619	24	15
MF 620	42	15
MF-621A	10	<10
MF-621B	16	15
MF 622	5	<10
MF 623	28	<10
MF 624	18	15
MF 625	44	30
MF 626	60	20
MF 627	38	<10
MF 628	8	<10
MF 629	42	<10
MF 630	14	<10
MF 631	14	<10
MF 632	28	10
MF 635	3	<10
MF 636	16	<10
MF 637	22	<10
MF 638	5	<10
MF 639	18	<10
MF 640	6	10
MF 641	36	<10
MF 642	26	<10

.../ 2

305 SOUTH ROAD
MILE END SOUTH
STH. AUST. 5031

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ANALYTICAL REPORT 0029

JOB COM810451

Results in ppm

SAMPLE	Nb	Ta
MF 643	18	<10
MF-644A	8	<10
MF-644B	7	<10
MF 645	12	<10
MF 646	18	<10
MF 647	36	<10
MF 648	42	<10
MF 649	75	<10
MF 650	20	<10
MF 651	36	<10
MF 652	18	<10
MF 653	20	<10
MF 654	46	<10
MF 655	18	<10
MF 533	14	<10
MF 534	14	<10
MF 535	16	<10
MF 536	12	<10
MF 537	16	<10
MF 541	34	<10
MF 542	145	<10
MF 543	90	<10
MF 544	60	<10
MF 545	9	<10
MF 546	80	<10

.../ 3

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451

0030

Results in ppm

SAMPLE	Nb	Ta
MF 547	130	10
MF 548	50	<10
MF 549	120	10
MF 550	50	<10
MF 557	38	<10
MF 558	44	<10
MF 559	26	10
MF 560	18	<10
MF 561	50	10
MF 562	50	10
MF 563	24	<10
MF 564	30	<10
MF 565	7	<10
MF 566	42	<10
MF 567	36	<10
MF 568	6	<10
MF 569	18	<10
MF-570A	3	<10
MF-570B	55	15
MF-572A	34	<10
MF 574	16	<10
MF 576	20	<10
MF-578A	28	<10
MF-578B	40	<10
MF 580	36	<10

.../ 4

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451

0031

Results in ppm

SAMPLE	Nb	Ta
MF 582	7	<10
MF 584	8	<10
MF 260	14	<10
MF 261	12	<10
MF 262	12	<10
MF 263	16	<10
MF 264	16	<10
MF 265	12	<10
MF 266	18	<10
MF 267	14	<10
MF 268	20	<10
MF 269	12	<10
MF 270	14	<10
MF 271	14	<10
MF 272	12	<10
MF 273	18	<10
MF 274	10	<10
MF 275	10	<10
MF 276	22	<10
MF 277	14	<10
MF 278	12	<10
MF 279	10	<10
MF 280	18	<10
MF 281	16	<10
MF 282	20	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT 0032

JOB COM810451

Results in ppm

SAMPLE	Nb	Ta
MF 283	12	<10
MF 284	18	<10
MF 285	16	<10
MF 286	26	10
MF 287	18	<10
MF 288	28	<10
MF 290	12	<10
MF 291	18	<10
MF 292	24	<10
MF 293	16	<10
MF 294	42	<10
MF 295	40	<10
MF 296	22	<10
MF 297	16	<10
MF 298	12	<10
MF 299	12	<10
MF 300	22	<10
MF 301	26	<10
MF 302	26	<10
MF 303	12	<10
MF 350	9	<10
MF 351	8	<10
MF 352	10	<10
MF 353	12	<10
MF 354	12	<10

.../ 6

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451 0033

Results in ppm

SAMPLE	Nb	Ta
MF 355	16	<10
MF 356	10	<10
MF 357	12	<10
MF 358	10	<10
MF 359	16	<10
MF 426	16	<10
MF 427	10	<10
MF 428	9	10
MF 429	10	<10
MF 430	8	<10
MF 431	8	<10
MF 432	8	<10
MF 433	7	<10
MF 434	8	<10
MF 435	10	<10
MF 436	10	<10
MF 437	8	<10
MF 438	8	<10
MF 439	8	<10
MF 440	10	<10
MF 441	9	<10
MF 442	8	<10
MF 201	55	15
MF 202	10	<10
MF 203	16	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451

Results in ppm

0034

SAMPLE	Nb	Ta
MF 204	16	<10
MF 205	14	<10
MF 206	20	<10
MF 207	16	<10
MF 208	85	<10
MF 209	10	<10
MF 210	14	<10
MF 211	12	<10
MF 212	7	<10
MF 213	8	<10
MF 214	9	<10
MF 215	9	<10
MF 216	10	<10
MF 217	10	<10
MF 218	10	<10
MF 219	10	<10
MF 220	16	<10
MF 221	14	<10
MF 222	10	<10
MF 223	10	<10
MF 224	18	<10
MF 225	20	<10
MF 226	32	10
MF 304	9	<10
MF 338	24	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451 0035

Results in ppm

	SAMPLE	Nb	Ta
A	MF 339	40	<10
	MF 340	34	<10
	MF 341	34	10
	MF 342	6	<10
	MF 343	8	<10
TRANSECT	MF 344	16	<10
	MF 345	30	<10
	MF 346	26	<10
	MF 347	38	<10
	MF 348	14	<10
A'	MF 349	34	10
	MF 411	55	10
	MF 412	26	<10
B'	MF 413	32	<10
	MF 414	10	<10
	MF 415	5	<10
	MF 416	16	<10
	MF 417	22	<10
	MF 418	9	<10
TRANSECT	MF 419	12	<10
	MF 420	32	<10
	MF 421	12	<10
	MF 422	20	<10
	MF 423	10	<10
B	MF 424	22	<10

ROCKDALE
18 JUN 1981
HILL P/L.

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451

0036

Results in ppm

SAMPLE	Nb	Ta
MF 370	10	<10
MF 371	7	<10
MF 372	10	<10
MF 373	10	<10
MF 374	10	<10
MF-572B	4	<10
MF 478	14	<10
MF 479	14	<10
MF 480	14	<10
MF 481	14	<10
MF 482	12	<10
MF 483	14	<10
MF 484	10	<10
MF 485	10	<10
MF 486	10	<10
MF 487	10	<10
MF 488	14	<10
MF 489	60	<10
MF 490	18	<10
MF 491	20	10
MF 492	16	10
MF 493	9	<10
MF 494	14	<10
MF 495	14	<10
MF 496	9	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

0037

JOB COM810451

Results in ppm

SAMPLE	Nb	Ta
MF 497	8	10
MF 498	12	<10
MF 499	10	<10
MF 500	10	<10
MF 501	12	<10
MF 502	12	<10
MF 503	12	<10
MF 551	95	<10
MF 552	16	<10
MF 553	70	<10
MF 554	95	10
* MF-555A	670	120
MF-555B	4	10
MF 556	34	<10
MF 425	48	<10
MF 682	24	<10
MF 683	14	<10
MF 684	12	<10
MF 685	14	<10
MF 686	18	<10
MF 687	9	<10
MF 688	12	<10
MF 689	10	<10
MF 690	12	10
MF 691	10	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810451 0038

Results in ppm

SAMPLE	Nb	Ta
MF 692	10	<10
MF 693	10	<10
MF 694	8	<10
MF 695	7	<10
MF 696	10	<10
MF 697	8	<10
MF 698	10	<10
MF 699	9	<10
MF 700	10	<10
MF 701	8	<10
MF 702	9	<10
MF 703	10	<10
MF 704	10	<10
MF 705	18	<10
MF 706	12	<10
MF 707	7	<10
MF 708	9	<10
MF 709	10	<10
MF 710	60	30
MF 711	24	10
MF 712	55	30
MF 713	12	<10
MF 714	42	10
MF 715	44	15
MF 806	12	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

0039

JOB COM810451

Results in ppm

SAMPLE	Nb	Ta
MF 807	20	<10
MF 808	10	<10
MF 809	14	<10
MF 810	16	<10
MF 811	180	125
MF 812	520	800
MF 813	12	<10
MF 814	85	95
MF 815	450	510
MF 816	34	10

Conglomerate

Method of Analysis : Nb Ta : XRF1

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

0040

JOB COM810451

Results in ppm

SAMPLE	Sn	Mo	W	Th	Zr
MF 682	130	3	10	16	28 ✓
MF 683	6	3	<10	6	18
MF 684	4	2	<10	6	20
MF 685	4	2	10	8	26
MF 686	8	3	10	12	50 ✓
MF 687	4	2	10	4	20
MF 688	4	3	<10	10	20
MF 689	6	2	<10	8	28
MF 690	6	2	<10	6	26
MF 691	<4	2	10	6	22
MF 692	<4	3	<10	6	24
MF 693	4	2	<10	<4	22
MF 694	4	2	<10	<4	14
MF 695	4	2	<10	6	8
MF 696	8	<2	10	10	28
MF 697	<4	<2	<10	<4	14
MF 698	<4	2	<10	6	20
MF 699	4	<2	<10	4	20
MF 700	4	3	<10	6	28
MF 701	<4	2	<10	10	14
MF 702	<4	2	<10	6	18
MF 703	<4	2	<10	8	24
MF 704	<4	2	10	4	18
MF 705	4	2	<10	6	36
MF 706	8	2	<10	14	55 ✓

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT 0041

JOB COM810451

Results in ppm

SAMPLE	Sn	Mo	W	Th	Zr
MF 707	6	2	<10	8	36
MF 708	4	2	<10	6	34
MF 709	4	2	10	10	26
MF 710	22	2	20	80	110
MF 711	4	2	<10	24	65
MF 712	34	3	20	75	55
MF 713	4	2	<10	4	32
MF 714	32	2	25	42	70
MF 715	36	2	15	70	85
MF 806	6	2	<10	8	46
MF 807	10	<2	10	26	130
MF 808	4	2	<10	10	60
MF 809	12	<2	<10	18	60
MF 810	4	<2	10	26	110
MF 811	195	<2	50	150	100
MF 812	2450	<2	125	140	60
MF 813	6	2	<10	10	36
MF 814	165	3	30	80	65
MF 815	1050	4	145	220	110
MF 816	12	<2	15	50	70

Method of Analysis : Sn Mo W Th Zr : XRFI

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810482

0042

Results in ppm

SAMPLE	Nb	Ta
MF 716	10	<10
MF 717	12	10
MF 718	14	<10
MF 719	24	<10
MF 720	10	<10
MF 721	10	10
MF 722	9	<10
MF 723	12	<10
MF 724	10	<10
MF 725	12	<10
MF 726	12	<10
MF 727	12	<10
MF 728	12	<10
MF 729	9	<10
MF 730	18	<10
MF 731	12	<10
MF 754	8	<10
MF 755	16	<10
MF 756	42	<10
MF 757	34	<10
MF 758	28	10
MF 759	9	<10
MF 760	38	<10
MF 761	[illegible]	[illegible]
MF 762	28	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810482

Results in ppm

0043

SAMPLE	Nb	Ta
MF 763	34	<10
MF 764	8	<10
MF 765	7	<10
MF 766	42	<10
MF 767	16	<10
MF 768	5	<10
MF 769	50	<10
MF 770	30	<10
MF 771	9	10
MF 772	8	<10
MF 773	20	<10
MF 774	16	<10
MF 775	10	<10
MF 776	14	<10
MF 777	12	<10
MF 778	8	<10
MF 779	24	10
MF 781	12	<10
MF 782	14	<10
MF 783	9	<10
MF 784	38	<10
MF 785	18	<10
MF 786	12	<10
MF 787	14	<10
MF 788A	26	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT 0044

JOB COM810482

Results in ppm

SAMPLE	Nb	Ta
MF 788B	18	<10
MF 789	14	<10
MF 790	14	<10
MF 791	20	<10
MF 792	36	<10
MF 793	30	<10
MF 794	9	<10
MF 795	8	<10
MF 796	16	10
MF 797	22	<10
MF 798	9	<10
MF 799	8	<10
MF 800	9	<10
MF 801	8	<10
MF 802	44	10
MF 803	9	<10
MF 804	12	<10
MF 805	8	<10
MF 377	44	<10
MF 378A	12	<10
MF 378B	34	<10
MF 379A	14	<10
MF 379B	20	15
MF 380	50	85
MF 381	30	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810482

Results in ppm

0045

SAMPLE	Nb	Ta
MF 382	22	10
MF 383	22	10
MF 384	22	<10
MF 385	16	<10
MF 386	18	<10
MF 387	12	10
MF 388	20	10
MF 389	34	<10
MF 390	18	<10
MF 391	16	10
MF 392A	7	<10
MF 392B	12	<10
MF 393	26	<10
MF 394	26	<10
MF 740	24	<10
MF 741	7	<10
MF 742	3	<10
MF 743	75	15
MF 744	2	<10
MF 745	3	<10
MF 746	16	<10
MF 747	4	<10
MF 748	6	<10
MF 749	7	<10
MF 750	2	<10

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810482

Results in ppm

0046

SAMPLE	Nb	Ta
MF 751	4	<10
MF 752	4	<10
MF 753	14	<10

Method of Analysis : Ta Nb : XRFI

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM 810059

0047

Results in ppm

SAMPLE	Ta	Nb
MF 2	10	<4
3	<10	20
4	15	<4
5	<10	20
6	<10	10
7	15	4
8	15	4
9	<10	12
10	<10	16
1	<10	8
2	Samples returned to Client	
3	" "	"
4	" "	"
5	" "	"
6	" "	"
7	" "	"
8	" "	"
9	" "	"
20	" "	"
1	" "	"
2	" "	"
23	<10	18
4	<10	22
5	<10	14
6	10	18
7	<10	18
8	<10	24
9	<10	18
MF 30	<10	12

TAKEN OUTSIDE OUR AREA

ROCKDALE
18 JUN 1981
HILL P/L.

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM 810059 0046

Results in ppm

SAMPLE	Ta	Nb
MF 31	15	12
2	10	4
3	10	16
4	<10	20
5	<10	<4
6	<10	8
7	<10	14
8	30	6
9	<10	12
40	15	22
1	15	10
2	10	20
3	20	14
4	<10	14
5	<10	30
6	<10	18
7	<10	12
8	10	10
9	<10	26
50	<10	12
1	10	14
2	10	14
3	<10	16
4	15	28
5	10	20
6	10	18
7	<10	4
8	<10	24
MF 59	10	12

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM 810059

0049

Results in ppm

SAMPLE	Ta	Nb
MF 60	<10	6
1	<10	14
2	<10	8
3	<10	10
4	15	14
5	<10	16
6	<10	12
7	<10	10
8	10	30
9	<10	18
70	<10	22
1	10	16
2	<10	10
3	10	24
4	<10	6
5	<10	16
6	<10	14
7	10	12
8	<10	<4
9	<10	28
80	<10	22
1	<10	14
2	<10	22
3	20	16
4	15	18
5	<10	14
6	<10	6
7	10	10
MF 88	<10	16

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM 810059

0059

Results in ppm

SAMPLE	Ta	Nb
MF 89	<10	4
90	20	24
1	<10	34
2	<10	12
3	<10	10
4	<10	22
5	15	6
6	<10	16
7	<10	16
8	<10	20
9	<10	6
100	<10	20
1	<10	16
2	<10	14
3	<10	10
4	<10	10
5	10	16
6	20	20
7	10	10
8	10	18
9	10	10
110	10	<4
1	10	8
2	<10	10
3	<10	14
4	<10	12
5	<10	28
6	<10	14
MF117	<10	4

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

0051

JOB COM 810059

Results in ppm

SAMPLE	Ta	Nb
MF118	<10	12
9	<10	18
20	10	20
1	<10	20
2	<10	20
3	<10	18
4	<10	<4
5	<10	10
6	10	16
7	<10	16
8	<10	20
9	10	20
30	20	12
1	15	10
2	15	12
3	<10	<4
4	<10	26
5	15	4
6	<10	14
7	<10	16
8	<10	20
9	15	18
40	<10	16
1	<10	6
2	<10	26
3	<10	36
4	<10	22
5	15	8
MF146	15	26

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM 810059 0052

Results in ppm

SAMPLE	Ta	Nb
MF147	10	32
8	15	16
9	<10	12
151	15	20
2	<10	14
3	<10	<4
4	<10	14
5	<10	8
6	<10	14
7	<10	6
8	15	6
9	25	14
60	20	24
1	10	8
2	10	8
3	<10	20
4	10	24
5	<10	18
6	10	24
7	15	12
8	<10	6
9	<10	8
70	<10	18
1	10	8
2	<10	8
3	<10	24
4	<10	10
5	<10	8
MF176	10	18

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM 810059 0055

Results in ppm

SAMPLE	Ta	Nb
MF177	<10	6
8	<10	6
9	<10	20
80	15	20
1	<10	6
2	10	50
3	20	40
4	10	20
5	20	12
6	20	32
7	<10	28
8	<10	60
9	30	36
90	<10	38
1	<10	24
2	20	26
3	20	30
4	<10	34
5	<10	50
MF196	<10	30

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Method of Analysis - XRF 1

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810493

Results in ppm

0054

SAMPLE	Ta	Nb	Sn	W	Th	Zr	Mo
MF 315	<10	10	12	15	10	90	8
MF 316	<10	10	14	15	12	90	10
MF 317	<10	14	14	<10	16	90	6
MF 318	45	175	30	60	<4	<4	4
MF 319	<10	2	6	<10	<4	<4	4
MF 320	<10	26	90	65	24	12	4
MF 321	<10	6	8	10	4	6	4
MF 322	15	145	12	50	12	<4	4
MF 323A	10	26	6	<10	8	4	<4
MF 324A	10	22	6	<10	<4	<4	6
MF 325	<10	8	20	10	16	110	4
MF 326	<10	12	<4	10	18	36	4
MF 327	<10	36	65	40	30	20	4
MF 328	<10	2	<4	<10	<4	<4	4
MF 329	10	38	10	15	6	4	4
MF 330	<10	50	12	20	10	22	4
MF 323B	<10	34	4	20	6	<4	4
MF 324B	<10	34	46	35	18	22	6
MF 331	<10	24	4	10	4	4	4
MF 332	<10	3	<4	<10	4	<4	4
MF 334	10	26	8	10	10	10	4
MF 335	<10	20	6	10	<4	28	<4
MF 336	20	135	10	<10	70	90	<4
MF 337	<10	5	<4	<10	8	<4	4
MF 815B	<10	14	16	10	10	42	105

Method of Analysis : Ta Nb Sn W Th Zr Mo : XRF1

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COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810493

Results in ppm

SAMPLE	Nb	Ta
MF 504	14	<10
MF 505	10	<10
MF 506	8	<10
MF 507	18	<10
MF 508	10	<10
MF 509	22	<10
MF 510	9	<10
MF 511	8	<10
MF 512	7	<10
MF 513	10	<10
MF 514	12	<10
MF 515	12	<10
MF 516	12	<10
MF 517	7	<10
MF 518	9	<10
MF 519	16	<10
MF 520	7	<10
MF 521	7	<10
MF 522	8	<10
MF 523	9	<10
MF 524	9	<10
MF 525	9	<10
MF 526	10	<10
MF 527	9	<10
MF 528	8	<10

.../ 3

COMLABS Pty Ltd
COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

JOB COM810493

0056

Results in ppm

SAMPLE	Nb	Ta
MF 529	10	<10
MF 530	8	<10
MF 531	8	10
MF 532	7	<10

Method of Analysis : Nb Ta : XRFI

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COMPUTERISED ANALYTICAL LABORATORIES

ANALYTICAL REPORT

0057

JOB COM810493

Results in ppm

SAMPLE	U	La	Y	V	Ce	Nd
MF 815B	22	50	20	170	90	<20

Method of Analysis : U La Y Ce Nd : XRF1
V : AAS3

Pontifex & Associates Pty. Ltd.

TEL. 332 6744
A.H. 31 3816

26 KENSINGTON ROAD, ROSE PARK
SOUTH AUSTRALIA

P.O. BOX 91, NORWOOD
SOUTH AUSTRALIA 5067

MINERALOGICAL REPORT NO. 3277 0058

8th May, 1981

TO: The Chief Geologist,
Rockdale Hill Exploration,
4 ~~Montrose~~ Rosemont Road,
NORWOOD S.A. 5067

YOUR REFERENCE: Samples personally delivered

MATERIAL AND IDENTIFICATION: Mineral sample MF 743
Porous ironstone sample MF 815

WORK REQUESTED: Microscopic examination, identification and comment on genesis as appropriate

SAMPLES & SECTIONS: Returned to you with this report

PONTIFEX & ASSOCIATES PTY. LTD.

MF 815 : superficial 'lateritic' limonite-rich caprock : composed of exotic supergene limonite cementing residual weathering products, quartz, muscovite, felspar, accessory ilmenite and hematite, probably derived from a muscovite-granite

In hand specimen, and under binocular microscope, this sample is seen to consist of a very irregularly cellular mass of secondary iron oxide (limonite) incorporating abundant small to coarse fragments of quartz, muscovite, and felspar. These mineral fragments are randomly disposed and quite unsorted.

In view of the predominance of the limonite, which is opaque, the sample was examined in polished section, under reflected light, with the aim of identifying diagnostic textures which may allow an interpretation of genesis.

In polished section the limonite is seen to form a random highly irregular framework. Textures within the limonite are irregularly colloform, patchy and layered, all characteristic of a migratory/accretionary accumulation of exotic material. Minor exotic manganese oxides are intergrown with the limonite.

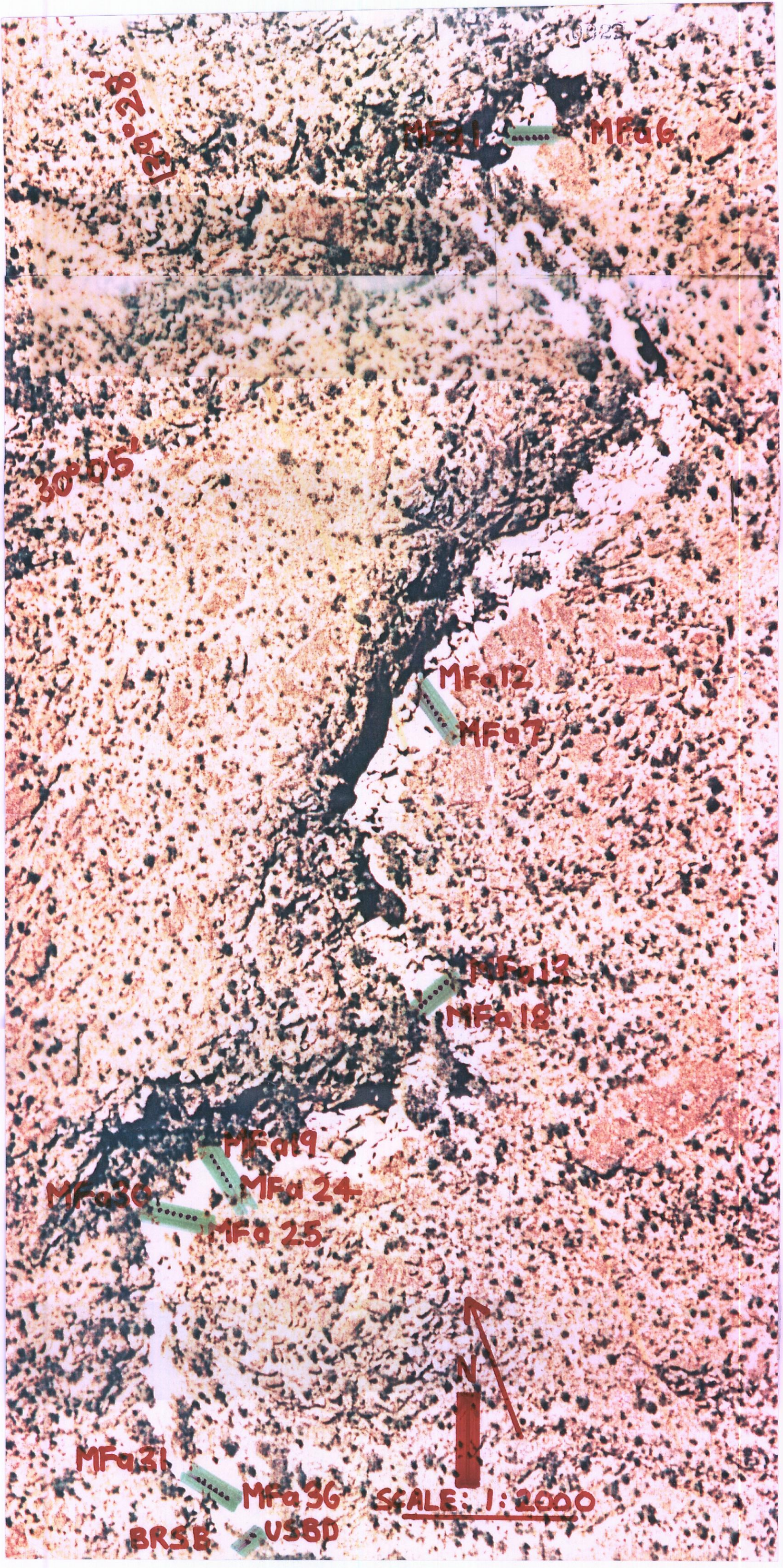
This material acts as a cement (or matrix), to a loose-packed, unsorted aggregate of fine to coarse mineral fragments, quartz, felspar and muscovite. Almost certainly these are residual products derived by the weathering of a muscovite granite. The limonite cement is a superficial material, and may be loosely regarded as lateritic.

..../

MF 815 contd.

The microscopy cannot objectively establish whether these iron-cemented residual weathering products occur immediately over the parent granite (as a caprock), or whether they have been transported from their source and cemented at a location separate from that source. The former suggestion seems most likely, but if transport has taken place it is only over a very short distance.

Accessory, discrete grains of ilmenite, rutile and hematite, together form about 2% of the whole rock. These are randomly scattered through the limonite cement/matrix; they range in size from 0.1 to (rarely) 0.5 mm, and no doubt were original accessory minerals in the coarse muscovite granite. They now occur in this rock as residual weathering products, together with the far more abundant rock-forming minerals.


-82°27'30"
30°05'
MFa1
MFa6
MFa12
MFa7
MFa13
MFa18
MFa19
MFa24
MFa36
MFa25
N
MFa31
MFa36
BRSB
USBD
SCALE: 1:2000