

**RETENTION LICENCE 9/1997
REDPA**

**FINAL REPORT ON EXPLORATION
APRIL 2018**

**For
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ABSTRACT

RL 2/1997 was granted to Mineral Holdings Australia Pty Ltd on 8th May 1998 over an area of 3 sq km, 2Km south of Redpa and 6Km south east of Marrawah in North West Tasmania. The Licence is a flow on title from EL 31/1990 and covers exploration for Category 3 construction materials and Category 5 Industrial minerals and semi precious stones. The Licence has been extensively explored for Tertiary Limestone, Pre-Cambrian magnesian limestone and Pre-Cambrian dolomite. Evaluation work has included

- 23 hand samples
- 26 hammer drill holes for 257 metres (mostly in limestone)
- 7 shallow diamond drill holes (mostly testing dolomite)
- 10 shallow hammer holes (to test the Magnesian limestone)
- Several 250 tonne bulk samples for furnace testing.
- 9 backhoe pits to sample magnesian limestone in basement.

Some 6 million tonnes of high quality limestone are available within and around RL 9/1997 and the Licence formed an integral part of Mineral Holding's Pilbara of Carbonates project in North-West Tasmania.

The resource has been extensively marketed to a number of potential clients but with no firm response. It has therefore been decided to relinquish title to the Retention licence.

1.0 INTRODUCTION

RL 9/1997 was granted to Mineral Holdings Australia Pty Ltd on 8th May 1998 over an area of 3 sq km in North West Tasmania. The Licence is a flow on title from EL 31/1990 and covers exploration for Category 3 construction materials and 5 Industrial minerals and semi precious stones.

The Licence covers a series of remnant hills of Tertiary limestone which extends under thin basalt cover to the north and west towards the coast at Marrawah. Although Tertiary in age, the limestone is hard and compact and eminently suitable for use in vertical lime kilns.

The Licence is located in gently rolling pasture land adjacent to the Bass Highway about 30 km due west of Smithton. Access is by all weather roads Fairview and Kings road from the Bass Highway and by 4WD track joining Kings road to the Bass highway near the eastern boundary of the Licence.

2.0 PREVIOUS EXPLORATION

Threader (1997) outlines previous exploration at Redpa in an information sheet accompanying the application for Retention Licence 9/1997.

Exploration in 1991 and 1992 included rockchip sampling, hammer drilling and diamond drilling of the Tertiary limestone and the underlying Smithton dolomite. Boreholes No's 2 to 22 and DDH 2 to 7 were drilled in Tertiary limestone while the remaining boreholes were drilled to test the continuity of the limestone between outcrops. Of those boreholes No's DD1 and BH 1, 23, 24 and 26 were drilled into dolomite and BH 23 and 25 in magnesian limestone.

In 1994-5 two half tonne samples of dolomite were taken from outcrops in King's and Edward's properties. Half the material was shipped overseas for evaluation testing in the production of magnesium metal by a plasma process. The process itself was apparently unsuccessful and the tests were never carried out.

In 1995-6 10 shallow percussion holes were developed to test the dolomite bedrock in King's property. The evidence from mapping and drilling indicates that the dolomite is of the order of 100m thick and occurs in the trough of a south-easterly plunging fold. It is as far as is known restricted to the northeastern part of the licence.

In 1996-7 40kg rock chip samples of dolomite and limestone were sent overseas for assessment as a slagging agent in steel making. Nippon Steel reported very favourably on the tests. David Mitchell also conducted furnace tests on the Tertiary limestone reporting that in tests at 1150 and 1350 ° C the material remained hard with no tendency to crumble or powder and that it would maintain integrity in a shaft kiln.

A further 6 percussion drill holes were developed in the dolomite and dolomitic limestone basement rocks.

The drilling record to date is

| | | |
|---------|-------------------|------------|
| 1991-2, | 257 m percussion. | (26 holes) |
| | 70 m. diamond | (7 holes) |
| 1995-6, | 110 m. percussion | (10 holes) |
| 1996-7, | 91 m. percussion | (6 holes) |

In 2011 MHA developed 9 backhoe pits to sample magnesia enriched limestone along the upper contact of the Pre Cambrian Dolomite.

3.0 GEOLOGY

The Tertiary limestone was originally a wide spread sheet over the relatively flat Pre-Cambrian basement of dolomite and magnesian limestone. It now occurs as a series of low remnant hills around the edge of an extensive sheet of Tertiary basalt and extends under shallow basalt cover to the coast at Merrawah.

The limestone is white to pinkish in colour and is generally dense and compact in texture. There are occasional cavities and the limestone can be sugary immediately adjacent to the cavity. Thickness, from drilling, ranges from 1 to 18 metres and averages around 10 metres.

The limestone averages 54.02% CaO, 0.9% MgO, 0.66% SiO₂, 0.17% TiO₂, 0.28% Al₂O₃, 0.61% Fe₂O₃, 0.03% MnO₂, less than 0.01% alkalis, 0.096% P₂O₅, 0.595% S₀₃, and 45.11% LOI.

Some 6 million tones of high quality limestone is available in and around Redpa and more would be available under the thin basalt cover. The limestone resource is outcropping and has been extensively sampled and drilled. The resource would be classed as Inferred under the JORC Code.

The magnesian limestone and dolomite occur as subcrop through the Redpa Retention Licence. Both are hard and marballed and very fine grained, dense and massive in appearance. They are usually light grey in colour but some of the Magnesian limestones tend to be of lighter colour and this difference is believed to increase with depth. From the limited amount of shallow drilling it appears the dolomite predominates at Redpa but the true distribution is not yet clear.

The structure in the basement rocks appears to be a broad shallow syncline and at least 1000m of section is present. Any resource of dolomite or magnesian limestone would therefore quite large.

The dolomite ranges from 31 to 32% CaO, 18.8 to 19.5% MgO. Silica is generally below 0.2% although occasional spikes to 10% do occur. The silica content is a problem and the majority of the dolomite would be below specification for the Steel industry.

The Magnesian limestone contains 36 to 50% CaO, 5 to 16% MgO, 0.2 to 1.4% SiO₂, with all other oxides very low and Loss On Ignition 43.5 to 46.5%. The distribution appears very patchy and we can find no potential customers for material.

4.0 LIMESTONE RESOURCE

The ore resource for the limestone deposit has been calculated by three different methods.

1/. DRILL HOLES

16 RAB holes have been drilled into the limestone. Hole depths range from 4.5 to 15 metres . They total 154.2 metres and average 9.63 metres. Cavities were encountered in almost every hole especially on the contact with the underlying dolomite. They range from 1 to 7 metres and total 44.5 metres with an average of 28.9% of the total thickness of the limestone.

The area of the main Coffeys Hill to Michaels Hill outcrops over an area of 43.55 hectares which with an average thickness from the drill holes of 9.63 gives 4,193,865 cubic metres. With a limestone density of 2.55 this equates to 10.7 million tonnes.

There are 7 other small outliers of limestone total 659 000 tonnes. The great majority of that occurs on Edwards Hill but that is where his home is and it is very unlikely any of the outliers will ever be mined so I have not included them in any of the resource calculations.

The limestone outcrops show typical fluted weathering with numerous sink holes and dry gullies. At least 10% should be deducted from the total resource to cover this on top of the 28.9 % cavities. To round things off a total of 40% will be deducted leaving a **total of 6.4 Million tonnes of limestone.**

2/. MEASURING CONTOURS.

Contour intervals on the 1 to 25,000 maps are at 10 metre intervals and the geology outlines can be superimposed on them in the Government LIST MAP programme to provide a volume estimate. Using this method the initial resource is 10.2 million tonnes which with a 40% discount suggests a **Resource of 6.1 Million Tonnes of limestone.**

3/. SECTION METHOD

A series of section lines were drawn at 100 metre intervals across the Coffeys and Michaels Hill resource. The area of limestone on each section was calculated and projected half way between adjacent sections to get a volume and tonnage. Using this method and again deducting 40% **the resource is 5.9 million tonnes of limestone.** The three figures are remarkably close. The 6.4 million tonne figure from drill data is probably a little high as the drill holes were sited higher up the hill than necessary to provide a true average depth.

The drill, contour and section results are very close and we have simply averaged them to give a **RESOURCE OF 6.0 MILLION TONNES OF LIMESTONE.** Because of the amount of drilling and the completely outcropping nature of the resource **it could be classed as an Indicated resource under the JORC Code.**

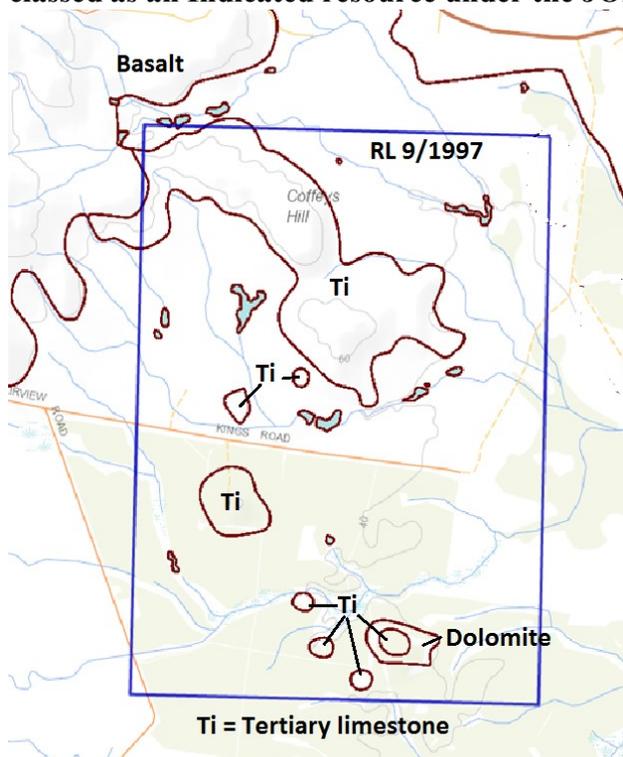


Fig 1 Area of the limestone resource at RL 9/1997 Redpa. Only the main Coffey's Hill area is included. The largest outlier is under the farmers homestead and the other outliers are too small and thin to be of any significance. Taken from Listmap.

The Tertiary Limestone does extend under cover along the northern edge of the basalt outside RL 9/1997 and sections of limestone were presented in the Final Report of EL 12/2008 by Mineral Holdings Australia P/L dated February 2017.

5.0 CURRENT AND FUTURE PROGRAM

MHA has made considerable efforts to interest major Australian and overseas groups in its carbonate holdings in North-west Tasmania and RL 9/1997 is an integral part of the “Pilbara of Carbonates program”. A major part of program is to interest those companies in the benefits of mining high purity materials that are cryptocrystalline in nature and therefore suitable for use in vertical kilns where it is possible to trap the CO₂ off gas. There would appear to be large commercial advantages once a CO₂ penalty or tax is introduced.

No firm response has been obtained and it has therefore been decided to relinquish title to the Retention licence.

6.0 ENVIRONMENT

There are no outstanding environmental issues.

7.0 REFERENCES

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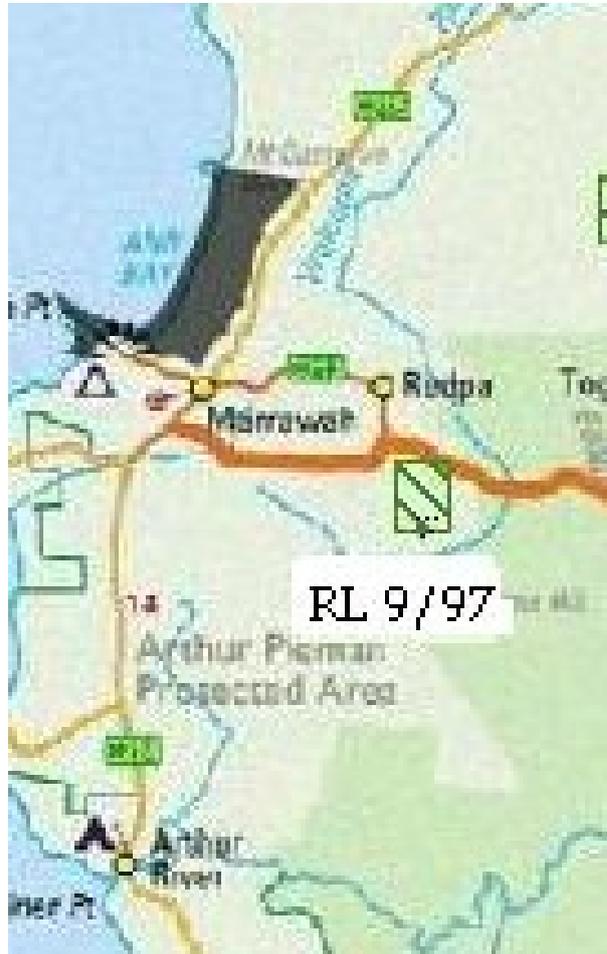
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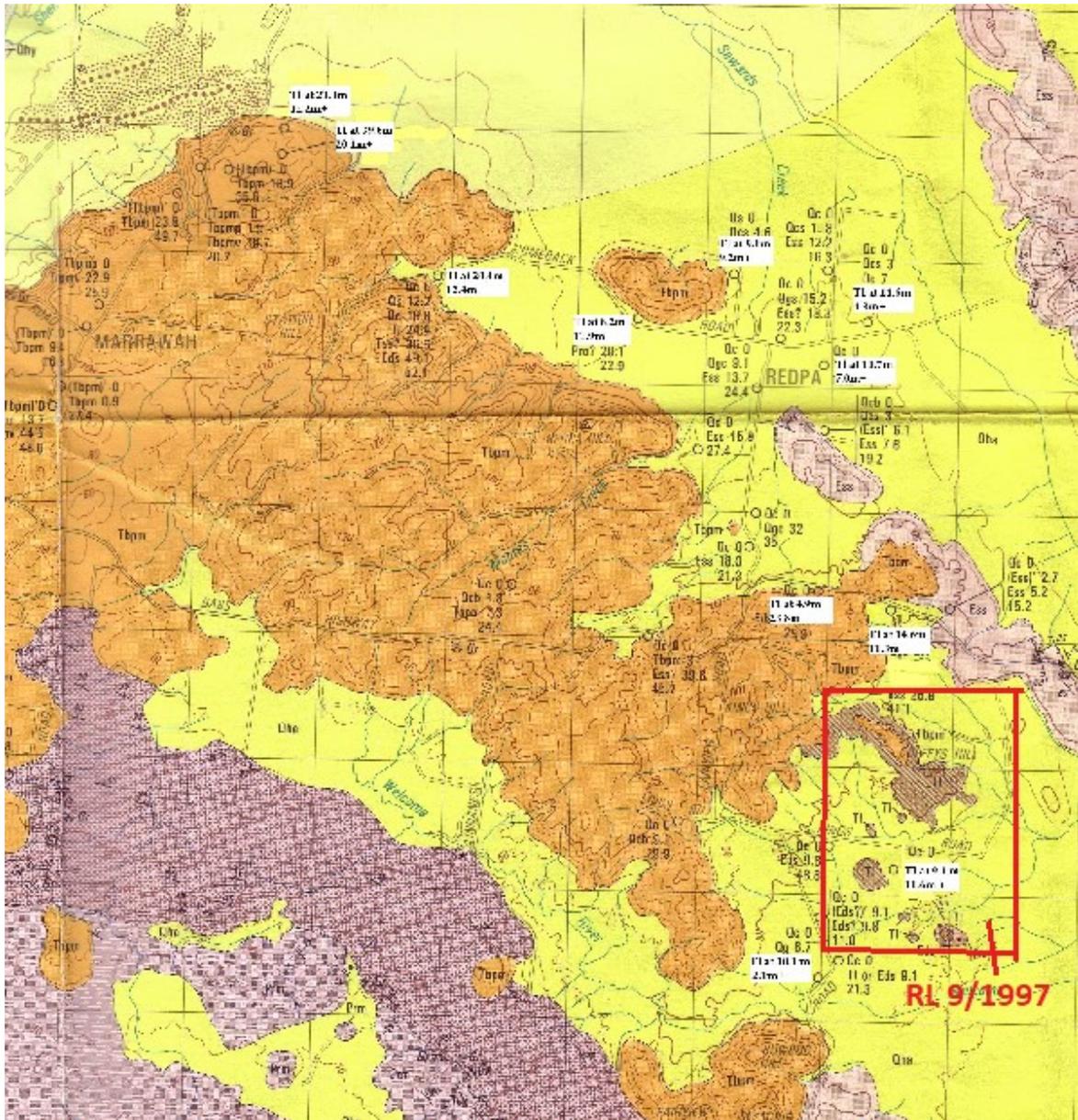
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8.0 KEYWORDS

Redpa, Merrawah, Limestone, Dolomite, Magnesian Limestone, Tertiary, Pre-Cambrian

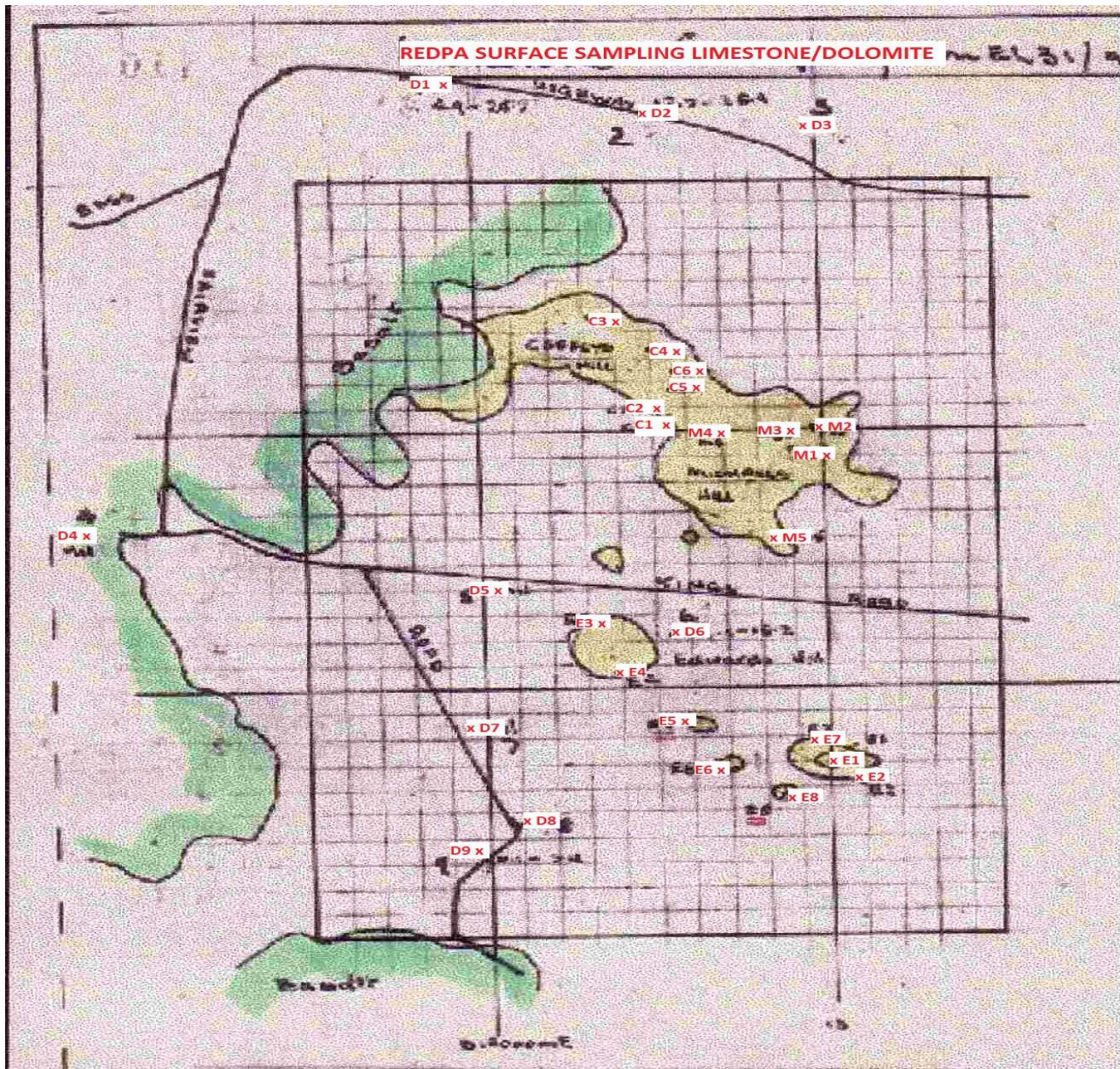


PLAN 1 . Location diagram RL9/97 Redpa.



PLAN 2, Geological plan Redpa area showing government drill holes with Tertiary limestone. Dark brown is Tertiary limestone light brown is basalt

APPENDIX 1 ROCK CHIP SAMPLING



Location of surface sampling at Redpa
 M1 to M5 Michaels Hill
 E1 to E8 Edwards Hill
 C1 to C6 Coffeys Hill
 D1 to 8 Government water bores.

Fig 2 Surface sampling sites Redpa. Full details of the samples and summaries of the water bores are provided in MHA's Annual Report for EL 31/90 (TCR 92-3349)

CHEMICAL ANALYSIS SURFACE SAMPLES

| <u>Sample</u> | <u>SiO2</u> | <u>TiO2</u> | <u>Al2O3</u> | <u>Fe2O3</u> | <u>MnO</u> | <u>MgO</u> | <u>CaO</u> | <u>K2O</u> | <u>P2O5</u> | <u>SO3</u> | <u>Na2O</u> | <u>LoI</u> | <u>Total</u> | <u>Moisture</u> |
|---------------|-------------|-------------|--------------|--------------|------------|------------|------------|------------|-------------|------------|-------------|------------|--------------|-----------------|
| M1A | 0.86 | 0.02 | 0.40 | 0.32 | 0.05 | 0.80 | 53.5 | 0.04 | 0.057 | 0.09 | 0.04 | 43.1 | 99.28 | 0.31 |
| M2 | 0.98 | 0.01 | 0.34 | 0.41 | 0.06 | 0.70 | 53.8 | 0.03 | 0.050 | 0.09 | 0.04 | 43.2 | 99.71 | 0.29 |
| M3 | 0.80 | 0.02 | 0.35 | 0.25 | 0.03 | 0.80 | 53.8 | 0.04 | 0.050 | 0.10 | 0.05 | 43.3 | 99.64 | 0.27 |
| M3A | 0.25 | <0.01 | 0.07 | 0.03 | <0.01 | 7.50 | 47.0 | 0.02 | 0.017 | 0.01 | 0.04 | 44.8 | 99.72 | 0.10 |
| M4 | 0.45 | <0.01 | 0.10 | 0.04 | 0.02 | 0.95 | 54.4 | 0.02 | 0.052 | 0.13 | 0.05 | 43.7 | 99.91 | 0.19 |
| M4A | 0.50 | <0.01 | 0.14 | 0.05 | <0.01 | 0.55 | 54.6 | 0.02 | 0.057 | 0.07 | 0.04 | 43.5 | 99.93 | 0.21 |
| M5 | 17.4 | 0.02 | 0.50 | 0.20 | 0.01 | 0.63 | 44.8 | 0.12 | 0.038 | 0.09 | 0.05 | 36.0 | 99.86 | 0.19 |
| M6 | 0.98 | 0.01 | 0.39 | 0.41 | 0.03 | 0.74 | 54.0 | 0.05 | 0.055 | 0.10 | 0.05 | 43.1 | 99.96 | 0.18 |
| E1 | 1.11 | 0.02 | 0.45 | 0.45 | <0.01 | 0.79 | 53.2 | 0.04 | 0.118 | 0.11 | 0.05 | 43.2 | 99.35 | 0.25 |
| E2 | 0.92 | <0.01 | 0.09 | 0.03 | <0.01 | 1.75 | 53.2 | <0.01 | 0.015 | 0.05 | 0.05 | 43.6 | 99.69 | 0.20 |
| C1 | 1.06 | 0.01 | 0.18 | 0.08 | 0.01 | 0.54 | 54.4 | 0.02 | 0.081 | 0.15 | 0.05 | 43.3 | 99.86 | 0.16 |
| C2A | 2.25 | 0.03 | 0.65 | 0.37 | 0.02 | 0.74 | 52.8 | 0.06 | 0.790 | 0.12 | 0.05 | 41.7 | 99.58 | 0.34 |
| C2B | 0.59 | <0.01 | 0.17 | 0.05 | <0.01 | 0.90 | 53.7 | 0.02 | 0.069 | 0.14 | 0.05 | 43.9 | 99.49 | 0.15 |
| C3 | 0.50 | <0.01 | 0.15 | 0.06 | 0.02 | 0.50 | 55.2 | <0.01 | 0.053 | 0.05 | | 43.4 | 99.9 | 0.19 |
| C4 | 0.57 | 0.01 | 0.21 | 0.10 | 0.01 | 1.05 | 54.1 | 0.01 | 0.052 | 0.13 | | 43.4 | 99.62 | 0.26 |
| C5 | 0.35 | <0.01 | 0.15 | 0.04 | <0.01 | 1.10 | 54.0 | 0.01 | 0.043 | 0.10 | 0.7 | 43.7 | 99.65 | 0.12 |
| C6 | 0.60 | 0.01 | 0.18 | 0.12 | 0.01 | 0.94 | 54.2 | 0.02 | 0.047 | 0.13 | 0.05 | 43.9 | 100.21 | 0.14 |
| E3 | 11.8 | 0.02 | 0.70 | 0.35 | 0.03 | 0.89 | 47.6 | 0.16 | 0.054 | 0.14 | 0.03 | 38.1 | 99.87 | 0.10 |
| E4 | 1.00 | <0.01 | 0.10 | 0.03 | <0.01 | 20.1 | 32.2 | 0.01 | <0.005 | 0.05 | 0.03 | 46.9 | 100.42 | 0.04 |
| E5 | 0.35 | 0.01 | 0.20 | 0.06 | <0.01 | 19.1 | 33.4 | 0.03 | <0.005 | 0.02 | 0.03 | 46.9 | 100.1 | 0.04 |
| E6 | 1.45 | 0.02 | 0.60 | 0.69 | 0.01 | 0.81 | 52.8 | 0.08 | 0.092 | 0.08 | 0.01 | 42.9 | 99.54 | 0.11 |
| E7 | 0.50 | <0.01 | 0.25 | 0.05 | <0.01 | 11.2 | 42.5 | 0.06 | 0.012 | 0.06 | 0.01 | 42.9 | 99.54 | 0.17 |
| E8 | 1.75 | <0.01 | 0.30 | 0.03 | <0.01 | 16.0 | 36.1 | 0.05 | 0.011 | 0.04 | 0.01 | 45.8 | 100.09 | 0.03 |

TABLE 1 Assays from surface sampling Redpa. Samples E 1 to E8 are to west of Resource Area.

APPENDIX 2 DRILL RESULTS

A/. HAMMER DRILL RESULTS (1992)

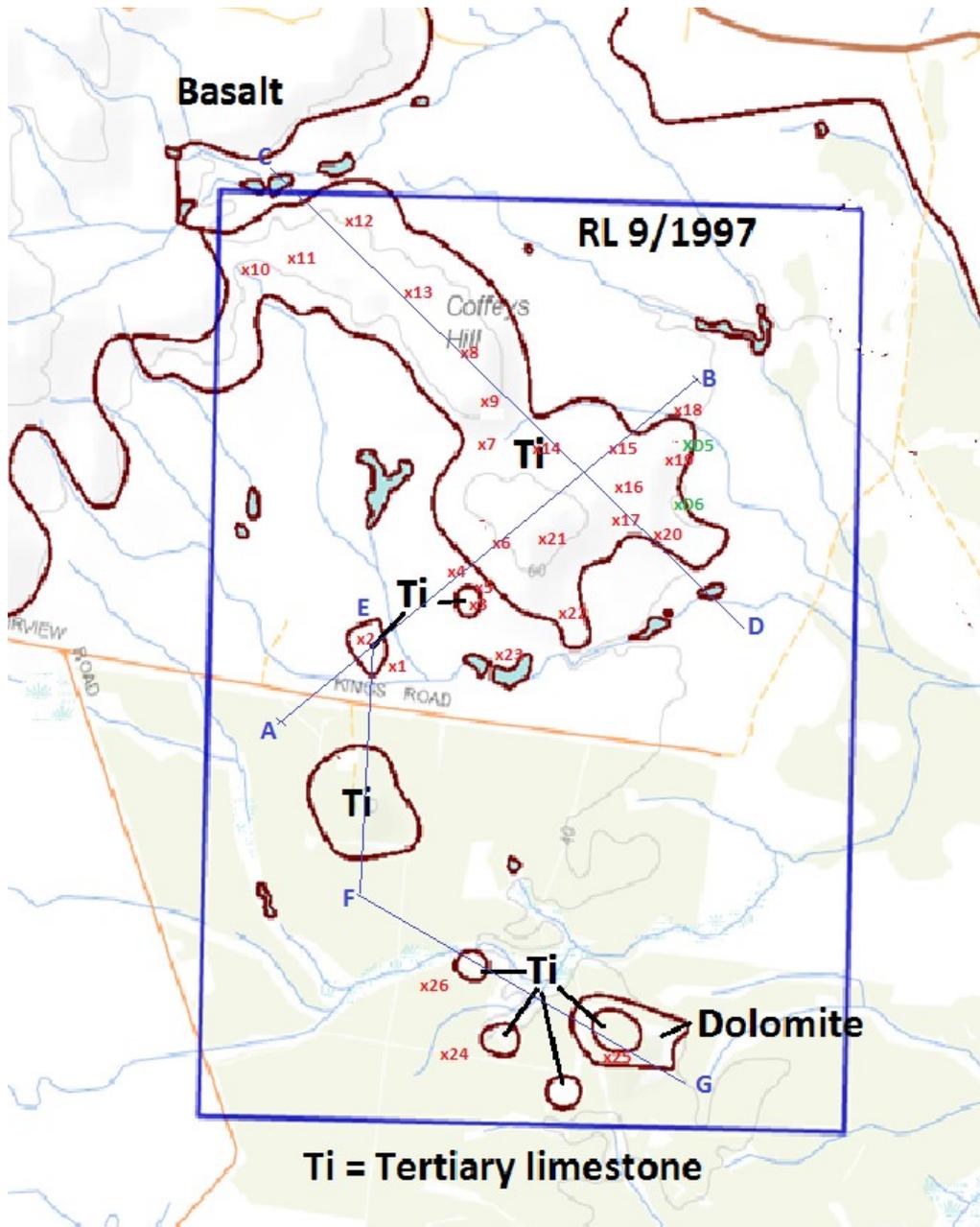


Fig 3 Location of Hammer drill holes Redpa limestone.16 of these holes fall within the resource area but holes 11 and 13 were within basalt and hole 9 was drilled in basement dolomite. Holes D5 and 6 were cored holes for dimension stone.

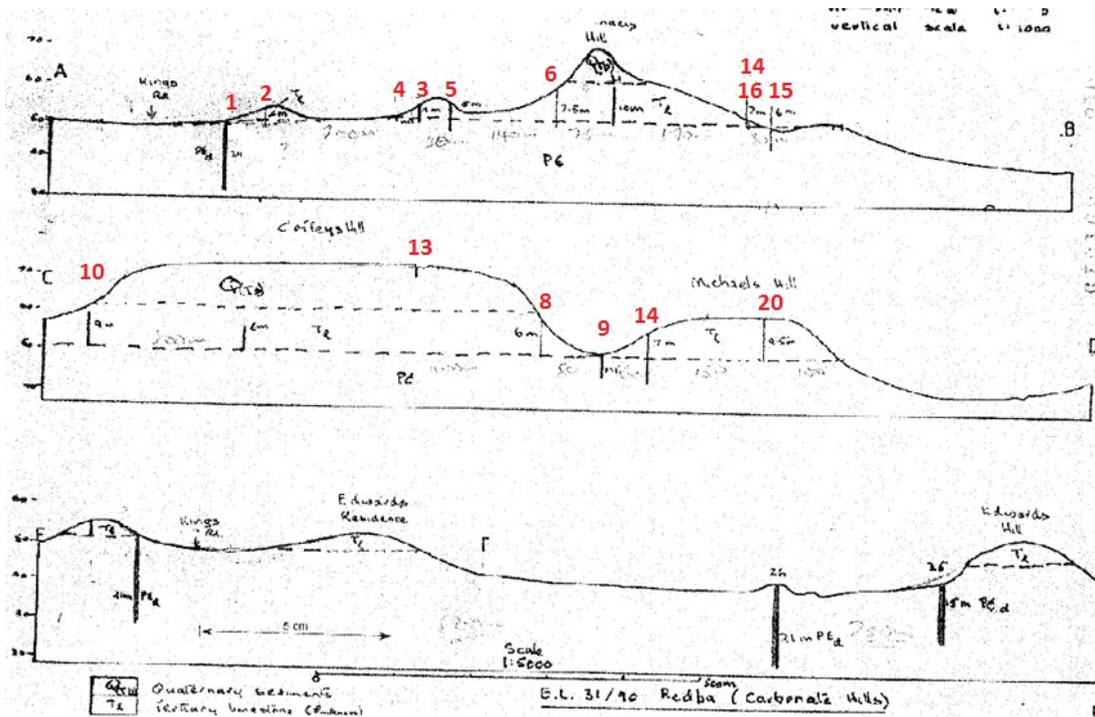


Fig 4. Sections through Redpa limestone deposit.

AMG COORDINATES OF BOREHOLES IN EI 31/90

| BH No. | metres E | metres N | BH No. | metres E | metres N |
|--------|----------|-----------|--------|----------|-----------|
| 1 | 312 400 | 5 463 440 | 14 | 770 | 3 920 |
| 2 | 400 | 490 | 15 | 880 | 930 |
| 3 | 640 | 550 | 16 | 880 | 900 |
| 4 | 600 | 540 | 17 | 880 | 850 |
| 5 | 610 | 610 | 18 | 920 | 970 |
| 6 | 700 | 720 | 19 | 930 | 950 |
| 7 | 690 | 860 | 20 | 900 | 770 |
| 8 | 630 | 4 010 | 21 | 810 | 730 |
| 9 | 660 | 3 930 | 22 | 770 | 620 |
| 10 | 180 | 4 300 | 23 | 730 | 470 |
| 11 | 300 | 300 | 24 | 750 | 2 650 |
| 12 | 440 | 350 | 25 | 312 690 | 5 462 930 |
| 13 | 610 | 130 | 26 | 750 | 700 |

Note these are old system coordinates.

LIMESTONES TABLE 1

MINERAL HOLDINGS
REDPA

MAJORS %

| NAME LOCATION | REG NO. | GEOLOGIST NO. | SiO2 | TiO2 | A12O3 | Total Fe as Fe2O3 | MnO | MgO | CaO | Na2O | K2O | P2O5 | SO3 | TOTAL | LOI | Colour |
|---------------|---------|---------------|------|------|-------|-------------------|------|------|-------|------|------|------|------|--------|-------|--------|
| | 910393 | 28/1 | 1.95 | 0.05 | 0.47 | 0.57 | 0.04 | 1.44 | 52.75 | 0.03 | 0.01 | 0.10 | 0.09 | 100.23 | 42.73 | Pink |
| | 394 | 3/2 | 1.49 | 0.04 | 0.51 | 0.52 | 0.04 | 1.00 | 53.64 | 0.06 | 0.02 | 0.10 | 0.07 | 100.48 | 42.99 | Pink |
| | 395 | 5/2 | 6.28 | 0.06 | 0.88 | 0.76 | 0.03 | 1.49 | 50.54 | 0.09 | 0.03 | 0.10 | 0.07 | 100.96 | 40.63 | Pink |
| | 396 | 6/2 | 1.74 | 0.05 | 0.53 | 0.42 | 0.03 | 1.20 | 53.49 | 0.09 | 0.02 | 0.09 | 0.15 | 100.72 | 42.92 | Pink |
| | 397 | 7/2 | 1.29 | 0.05 | 0.48 | 0.38 | 0.02 | 0.88 | 53.98 | 0.04 | 0.01 | 0.11 | 0.07 | 100.38 | 43.07 | Pink |
| | 398 | 8/2 | 1.27 | 0.05 | 0.49 | 0.39 | 0.03 | 0.89 | 53.93 | 0.08 | 0.02 | 0.10 | 0.07 | 100.46 | 43.14 | Pink |
| | 399 | 8/4 | 1.29 | 0.05 | 0.54 | 0.41 | 0.03 | 0.87 | 54.05 | 0.06 | 0.02 | 0.10 | 0.07 | 100.58 | 43.10 | Pink |
| | 400 | 10/2 | 1.20 | 0.03 | 0.41 | 0.30 | 0.03 | 0.92 | 53.94 | 0.05 | 0.02 | 0.10 | 0.09 | 100.31 | 43.23 | Pink |
| | 401 | 14/2 | 2.28 | 0.04 | 0.50 | 0.48 | 0.04 | 0.97 | 53.13 | 0.03 | 0.02 | 0.11 | 0.09 | 100.28 | 42.58 | Pink |
| | 402 | 15/2 | 1.56 | 0.04 | 0.55 | 0.52 | 0.04 | 1.04 | 53.14 | 0.02 | 0.01 | 0.10 | 0.09 | 100.11 | 42.90 | Pink |
| | 403 | 16/2 | 2.75 | 0.05 | 0.75 | 0.85 | 0.06 | 1.44 | 50.96 | 0.01 | 0.02 | 0.11 | 0.09 | 99.29 | 42.20 | Pink |
| | 404 | 17/2 | 1.22 | 0.03 | 0.54 | 0.54 | 0.04 | 1.07 | 53.56 | 0.03 | 0.01 | 0.11 | 0.10 | 100.33 | 43.07 | Pink |
| | 405 | 19/1 | 2.00 | 0.06 | 0.91 | 1.44 | 0.06 | 1.75 | 51.09 | 0.03 | 0.02 | 0.12 | 0.09 | 99.98 | 42.42 | Pink |
| | 406 | 20/2 | 1.05 | 0.04 | 0.40 | 0.34 | 0.03 | 0.79 | 53.93 | 0.02 | 0.01 | 0.10 | 0.06 | 100.03 | 43.26 | Pink |
| | 407 | 20/4 | 1.71 | 0.04 | 0.66 | 0.54 | 0.03 | 1.15 | 52.82 | 0.02 | 0.01 | 0.10 | 0.07 | 100.00 | 42.85 | Pink |
| | 408 | 21/2 | 0.90 | 0.03 | 0.33 | 0.34 | 0.02 | 0.86 | 54.45 | 0.03 | 0.01 | 0.09 | 0.07 | 100.54 | 43.42 | Pink |
| | 409 | 21/4 | 1.35 | 0.07 | 0.53 | 0.45 | 0.03 | 1.00 | 53.41 | 0.05 | 0.01 | 0.09 | 0.08 | 100.21 | 43.14 | Pink |
| | 410 | 22/2 | 1.33 | 0.05 | 0.57 | 0.96 | 0.05 | 0.89 | 53.15 | 0.13 | 0.02 | 0.10 | 0.10 | 100.22 | 42.88 | Pink |

Table 2. Assays from hammer drill holes Redpa Full drill logs are detailed in are provided in MHA's Annual Report for EL 31/90 (TCR 92-3349)

Table 3 Summary of hammer drill results.

| <u>BH No.</u> | <u>Limestone</u> | <u>Dolomite</u> | <u>Crimson Ck Fmn</u> | <u>Not on Outcrop</u> | <u>Thickness of cavity</u> | <u>Water Struck</u> | <u>Remarks</u> |
|---------------|------------------|-----------------|---------------------------|---------------------------|--------------------------------|-------------------------|--|
| 1 | | (21+) | | | | 12 | |
| 2 | 4 | | | | | | |
| 3 | 4 | | | | 6 | | |
| 4 | | | | 1 | | | |
| 5 | 6 | | | | 3 | | |
| 6 | 7.5 | | | | 1.5 | | |
| 7 | 10 | | | | 5 | | |
| 8 | 9 | | | | | | |
| 9 | | | | 5.5 | | | |
| 10 | 9 | | | | | | |
| 11 | | | | 5.5 | | | |
| 12 | 6 | | | | | | |
| 13 | | | | 3 | | | |
| 14 | 6 | | | | 7 | | |
| 15 | 7.5 | | | | 1.5 | | |
| 16 | 7 | | | | | | Drilled into Crimson Ck FMN at bottom of hole |
| 17 | 8.7 | | | | | | |
| 18 | | | 3 | | | | |
| 19 | 2.5 | | | | | | |
| 20 | 9.5 | | | | 2.5 | | |
| 21 | 10 | | | | | | |
| 22 | 7 | | | | | | Drilled into Crimson Ck FMN at bottom of hole |
| 23 | | | 6 | | | | |
| 24 | | (9+) | | | | 9 | |
| 25 | | (15+) | | | | 15 | |
| 26 | | (21+) | | | | | |
| av. 7.1m | | | | | | | |

All holes in limestone except nos 16 and 22 terminated in cavities. Where possible the hole was continued to bottom of cavity as indicated above.

B/. Diamond drilling (1992)

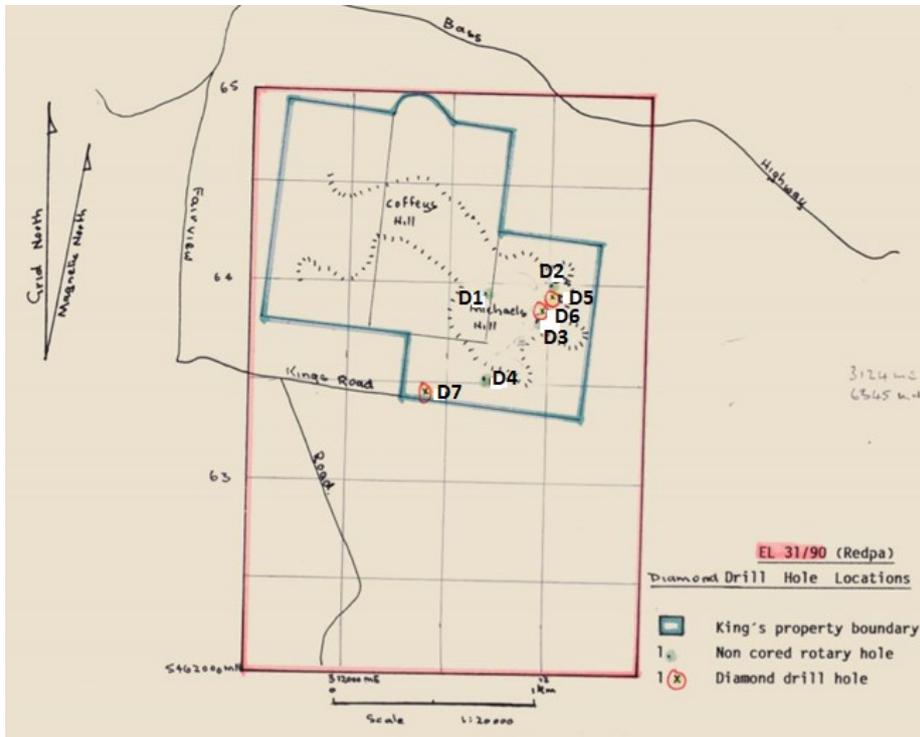


Fig. 4 Location of rotary and diamond drill holes developed in 1992.

Seven holes were drilled on Michaels hill but only those which were collared on outcropping limestone were cored. The remaining four holes were drilled close to outcrop remained in overburden to 10 metres. Holes 5 and 6 were drilled in limestone and hole 7 was drilled in Smithton Dolomite. The holes were developed to determine the suitability for the limestone and dolomite to be used as dimension stone.

Table 4 AMG Coordinates fore Diamond holes 1 to 7

| BH No. | metres E. | metres N |
|--------|-----------|-----------|
| DD 1 | 312 700 | 5 463 940 |
| 2 | 3 000 | 4 000 |
| 3 | 940 | 3 800 |
| 4 | 680 | 510 |
| 5 | 980 | 940 |
| 6 | 2 980 | 860 |
| 7 | 400 | 460 |

Table 5 Diamond drill logs holes D 5,6 and 7.

| DD No. | Depth (m) | | Thickness (m) | Core Recovery % | Core Lengths (mm) | Log |
|---|-----------|------|---------------|-----------------|--|---|
| | From | To | | | | |
| D5 | 0 | 1.5 | 1.5 | 97 | 260, 670, 50 ¹ , 410, 70 ² | Pink l.s. with numerous small cavities to 4.7m. Breaks 90° to core length probably fresh. 4.7-6.2 Slight iron staining. Angular joints below 5.9m 6.2-7.9 pink l.s. 7.9-11.5 mottled texture pink and brown honeycomb with increase in cavities below 8m. 11.5-12.2 brown honeycomb textured limestone. |
| | 1.5 | 3.0 | 1.5 | 93 | 430, 450, 245, 200, 75 ³ | |
| | 3.0 | 4.5 | 1.5 | 95 | 695, 130, 155, 300, 145 ⁴ | |
| | 4.8 | 6.0 | 1.5 | 96 | 320, 170, 30, 260, 155 ⁵ | |
| | 6.0 | 7.5 | 1.5 | 91 | 130, 60 ⁶ , 60, 50, 130, 80 | |
| | 7.5 | 9.0 | 1.5 | 95 | 260, 115 ⁷ , 30, 210, 75, 175, 245, 255 | |
| | 9.0 | 10.5 | 1.5 | 99 | 100 ⁸ , 35, 45, 130, 90, 50 | |
| | 10.5 | 11.1 | 0.6 | 93 | 145, 45, 40, 285, 35, 80, 135, 210, 100 ⁹ | |
| | 11.1 | 11.4 | 0.3 | nil | 50, 310, 525, 120 ¹⁰ , 110 | |
| | 11.4 | 12.0 | 0.6 | 70 | 165, 110, 105 | |
| | 12.0 | 12.2 | 0.2 | 70 | 200, 50, 30, 50, 30, 50, 165, 85. | |
| 12.2 | 14.9 | 2.7 | nil | Cavity (300mm) | | |
| D6 | 0 | 1.5 | 1.5 | 79 | 165 ¹¹ , 185, 185 | Pink l.s. to 1m followed by very broken core to cavity at 3.0-3.7. Relatively unweathered l.s. 3.7-5.9 with angular joints below 5m 5.9-10.5 brown honeycomb textured l.s. |
| | 1.5 | 3.0 | 1.5 | 30 | 30, 80, 30 | |
| | 3.0 | 3.7 | 0.7 | nil | Cavity | |
| | 3.7 | 4.5 | 0.8 | 100 | 110, 75 | |
| | 4.5 | 6.0 | 1.5 | 92 | 260, 150 ³ , 285 in 6 fragments, 440, 250 | |
| | 6.0 | 7.5 | 1.5 | 35 | 40, 12 fragments over 100mm, 100, 60, 30, 40, 30, 120, 120 ⁴ | |
| | 7.5 | 8.3 | 0.8 | 70 | 40, 70, 100, 60, 30, 40, 30, 80, 60, 55 ⁵ | |
| | 8.3 | 9.0 | 0.7 | nil | Cavity | |
| | 9.0 | 10.5 | 1.5 | 82 | 85, 50, 155, 20mm rubble, 125 ⁵ , 60, 115, 125, 200 ⁶ , 300. | |
| (Water absorption and density sample Nos indicated) | | | | | | |
| ⑦ | 10 | 8.0 | 8.0 | } 100 | Sample No. m | No. |
| | 8.0 | 10.5 | 2.5 | | 2.3 - 4.8 | 1 |
| | | | | | 4.8 - 7.2 | 2 |
| | | | | 7.2 - 10.5 | 3 | |
| (Stopped at target depth) | | | | | | |

C/. FOLLOW UP DRILLING 1993 to 1995

This drilling program was designed to evaluate the dolomite resource in the basement rocks in the northern section of the licence. Most of the boreholes had to be collared in overburden in order to cover a large enough area to define a minable resource of dolomite. Boreholes R6,R7& R8 were drilled in the main outcrop area and collared on outcrop. Thicknesses of dolomite in these holes were 4m.(cavity intersected), 14m.+ and 11m.(cavity intersected),respectively, Boreholes 1,2,3,4,5 & 9 were collared in overburden which consisted of 7-13m.of brown clay. Of these holes,only BH2 returned any sample which was magnesian limestone.The other holes "belled out" at the bedrock contact preventing sample return.Borehole 10 was drilled to a depth of 20m. on the eastern side of the licence where an area of around 1 ha. of magnesian limestone crops out.

| BH No. | metres E | metres N | BH no. | Metres E | Metres N |
|--------|----------|-----------|--------|----------|-----------|
| R 1 | 312 490 | 5 463 540 | R 11 | 312 850 | 5 462 460 |
| 2 | 540 | 580 | R 12 | 860 | 480 |
| 3 | 440 | 710 | R 13 | 313 050 | 5 463 770 |
| 4 | 650 | 680 | R 14 | 312 920 | 950 |
| 5 | 340 | 650 | R 15 | 920 | 820 |
| 6 | 350 | 540 | R 16 | 950 | 770 |
| 7 | 320 | 490 | | | |
| 8 | 360 | 460 | | | |
| 9 | 340 | 440 | | | |
| 10 | 313 | 710 | | | |

Table 6 Coordinates for holes R 1 to 16 (1995-1996)

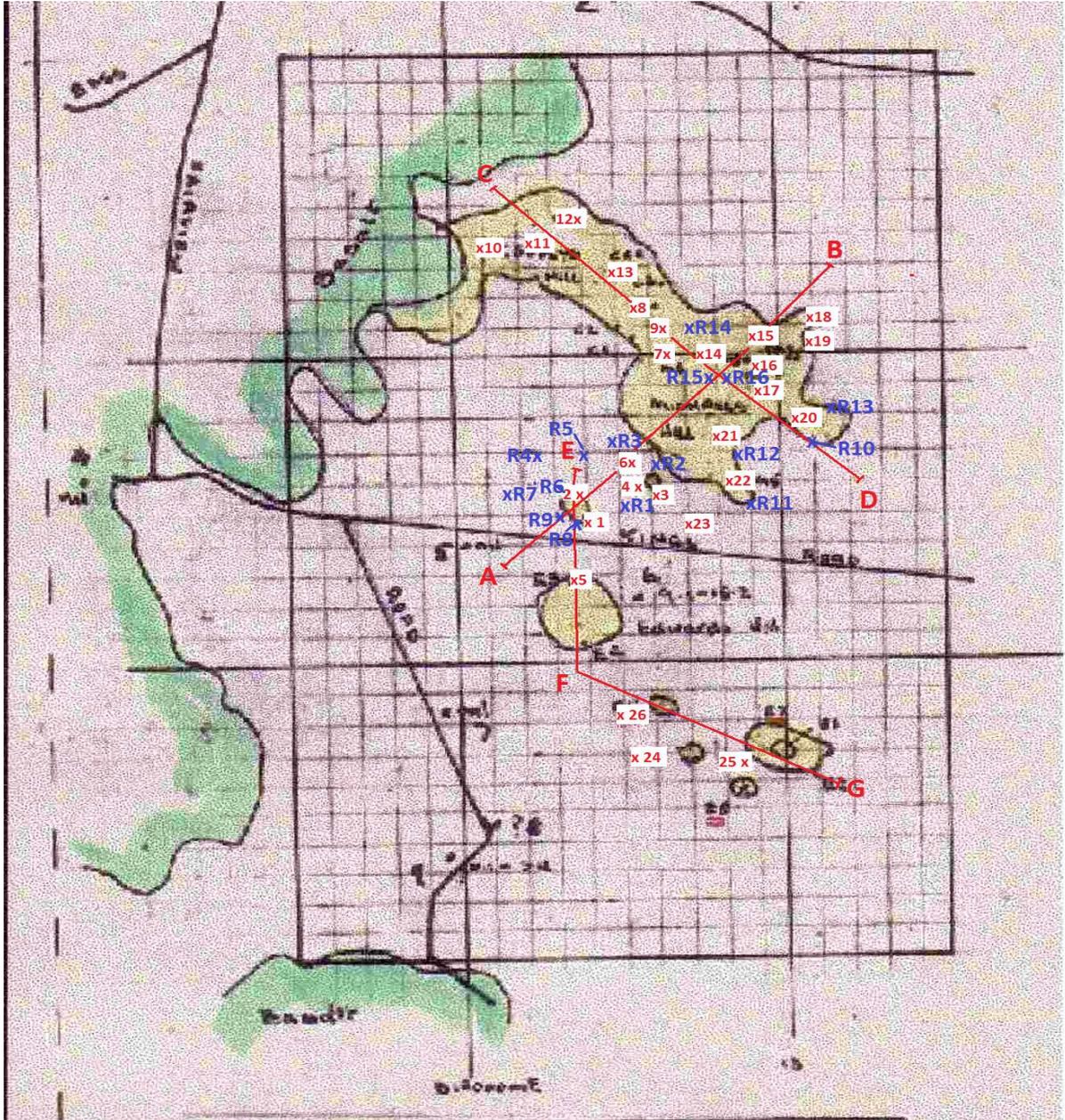


FIG 5 Location of Hammer drill and R series percussion holes 1 to 16

Table 7 Bore logs percussion holes 1 to 10

| EL31/90 (REDPA)-DRILLING LOGS-APRIL 1996 | | | | |
|--|-----------|-------|--------------|--|
| BH No | DEPTH (m) | | THICKNESS(m) | LOG |
| | From | To | | |
| R1 | 0 | 10.00 | 10.00 | Red-brown clay Hard bottom.Hole blew out at contact.No sample return. |
| | 10.00 | 13.00 | 3.00 | |
| R2 | 0 | 7.00 | 7.00 | Red brown clay Mostly dark grey (limestone) with fewer light grey (dolomite) rock chips. Struck water at 7m.PVC casing to 7m.Could not case bottom 2m.of overburden due to hole collapse.Poor sample recovery and all samples were contaminated.Washed samples have been prepared but not analysed. Sample No.s: 7-9m.(1),13-14m.(2),14-15m.(3),15-16m. (4),16-17m.(5),17-18m.(6),18-19m.(7),19-20m.(8). |
| | 7.00 | 20.00 | | |
| R3 | 0 | 6.00 | 6.00 | Red-brown clay Wet hole.No sample return.Hole aborted. |
| | 6.00 | 12.00 | 6.00 | |
| R4 | 0 | 13.50 | 13.50 | As above. |
| R5a | 0 | 6.00 | 6.00 | Red brown clay.Hole blew out at bedrock contact.Hole redrilled. |
| R5b | 0 | 6.00 | 6.00 | As above. Grey dolomite. Red brown clay. Hole aborted. |
| | 6.00 | 6.10 | 0.10 | |
| | 6.10 | 13.00 | 6.90 | |
| R6 | 0 | 1.00 | 1.00 | Discoloured grey dolomite. Grey dolomite Discoloured grey dolomite. Cavity. Hole aborted. Bh6 was collared in outcrop. Sample Nos.:1-2m.(1),2-3m.(2). |
| | 1.00 | 3.00 | 2.00 | |
| | 3.00 | 4.00 | 1.00 | |
| | 4.00 | 10.00 | 6.00 | |
| R7 | 0 | 4.00 | 4.00 | Light grey dolomite. Light brown sand. Light grey dolomite. Light brown dolomite.Hole aborted. BH7 was collared in outcrop Sample Nos.:0-14m.(1-14). |
| | 4.00 | 5.00 | 1.00 | |
| | 5.00 | 10.00 | 5.00 | |
| | 10.00 | 14.00 | 4.00 | |
| R8 | 0 | 2.00 | 2.00 | Light grey dolomite. Discoloured grey dolomite Clay (No sample). Discoloured grey dolomite Light grey dolomite. Discoloured grey dolomite. Cavity-Brown water. BH8 was collared in outcrop. Sample Nos.:0-3m.(1-3),5-10m(4-8). |
| | 2.00 | 3.00 | 1.00 | |
| | 3.00 | 5.00 | 2.00 | |
| | 5.00 | 6.00 | 1.00 | |
| | 6.00 | 9.00 | 3.00 | |
| | 9.00 | 10.00 | 1.00 | |
| R9 | 0 | 10.00 | 10.00 | Red brown clay.Some dolomite chips at bottom of hole.Hole aborted. |
| R10 | 0 | 20.00 | 20.00 | Mostly dark grey rock chips (limestone) with lesser amount of light grey rock chips(dolomite).BH R10 collared in outcrop angled at-60° in a direction of 020°M. Sample Nos.:0-20m.(1-20). |

Table 8 Assay data for hole R10 (only hole assayed in this program).

| PERCUSSION | CaO | MgO | SiO ₂ | Fe ₂ O ₃ | Al ₂ O ₃ | TiO ₂ | MnO | P ₂ O ₅ | Na ₂ O | K ₂ O |
|------------|------|------|------------------|--------------------------------|--------------------------------|------------------|-------|-------------------------------|-------------------|------------------|
| R 10 | | | | | | | | | | |
| 0 - 5 M | 47.8 | 6.5 | 1.00 | 0.12 | 0.20 | 0.02 | 0.04 | 0.02 | <0.1 | 0.04 |
| 5 - 10 M | 45.1 | 9.0 | 0.52 | 0.07 | 0.12 | 0.01 | <0.01 | 0.01 | <0.1 | 0.02 |
| 10-15 M | 49.7 | 5.5 | 0.55 | 0.03 | 0.06 | 0.01 | 0.02 | 0.01 | <0.1 | 0.01 |
| 15-20 M | 43.9 | 11.7 | 0.47 | 0.09 | 0.16 | 0.01 | 0.03 | 0.01 | <0.1 | 0.03 |

Table 9 Assay data holes R 10 to 16 and outcrop samples.

| ANALYSES OF DOLOMITIC LIMESTONE OUTCROPS AND BOREHOLE SAMPLES ON KING'S PROPERTY, EL 31/90 (REDPA) | | | | | | | | | | | | | | | |
|--|-------------|--------------------------------|------------------|------------------|--------------------------------|-------|-------|-------|--------|-------------------------------|------------------|-------------------|--------|---------|---|
| BH No. | OUTCROP No. | Al ₂ O ₃ | SiO ₂ | TiO ₂ | Fe ₂ O ₃ | MgO | CaO | LOI | MnO | P ₂ O ₅ | K ₂ O | Na ₂ O | S | CaO/MgO | LOG |
| 23 (1992) | 3-6m | 0.23 | 0.9 | 0.009 | 0.08 | 11.26 | 39.8 | 44.85 | 0.007 | 0.02 | 0.06 | <0.006 | <0.005 | 3.53 | |
| | | 0.46 | 1.43 | 0.04 | 0.047 | 4.77 | 49.44 | 43.67 | 0.02 | 0.06 | 0.01 | 0.05 | 0.025 | 10.36 | Still in DL at E.O.H. |
| | R11* | 0.14 | 0.4 | <0.005 | <0.05 | 12.13 | 39.8 | 45.2 | 0.003 | <0.02 | <0.06 | <0.006 | <0.005 | 3.28 | 4m clay, 1m stone, 1m clay.-Aborted. |
| | 3 | 0.21 | 0.8 | 0.007 | 0.07 | 3.68 | 47.6 | 43.58 | <0.006 | <0.02 | 0.07 | <0.006 | 0.007 | 12.93 | |
| | R12-1-5m. | 1.2 | 3.5 | 0.11 | 0.8 | 5.24 | 46.1 | 41.8 | 0.02 | <0.1 | 0.13 | 0.017 | <0.01 | 8.80 | Cavity at 5m. Lost air-Hole Aborted. |
| | 4 | 0.11 | 0.7 | <0.005 | 0.05 | 9.43 | 41.4 | 44.51 | <0.003 | <0.02 | <0.06 | <0.006 | <0.005 | 4.39 | |
| | 5 | 0.22 | 0.50 | 0.014 | 0.1 | 7.60 | 42.3 | 44.39 | 0.004 | <0.02 | 0.07 | 0.01 | <0.005 | 5.57 | |
| | R10-0-5m. | 0.2 | 1 | 0.02 | 0.12 | 6.50 | 47.8 | | 0.04 | 0.02 | 0.04 | <0.1 | | | Drilled at -60degr. |
| | 5-10m. | 0.12 | 0.52 | 0.01 | 0.07 | 9.00 | 45.1 | | <0.01 | 0.01 | 0.02 | 0.10 | | 9.00 | |
| | 10-15m. | 0.06 | 0.55 | 0.01 | 0.03 | 5.50 | 49.7 | | 0.02 | 0.01 | 0.01 | <0.1 | | 9.00 | |
| | 15-20m. | 0.16 | 0.47 | 0.01 | 0.09 | 11.70 | 43.9 | | 0.03 | 0.01 | 0.03 | <0.1 | | 3.75 | True depth: 17m |
| | | | | | mean | 8.10 | | | | | | | | | |
| | 6 | 0.29 | 1.1 | 0.009 | 0.07 | 10.06 | 39.6 | 44.42 | <0.003 | <0.02 | 0.1 | 0.017 | <0.005 | 3.90 | |
| | R13-1-6m. | 0.3 | 1.8 | 0.02 | 0.2 | 5.47 | 46.6 | 42.6 | <0.01 | <0.1 | <0.04 | 0.08 | <0.01 | 8.80 | Lost air. |
| | | | | | | | | | | | | | | | No sample return. |
| | 7 | 0.34 | 1 | 0.014 | 0.12 | 10.20 | 39 | 44.47 | 0.003 | <0.02 | 0.1 | <0.006 | <0.005 | 3.90 | |
| | 8 | 0.06 | 2.6 | 0.018 | <0.05 | 7.32 | 42.3 | 43.28 | <0.003 | <0.02 | <0.06 | <0.006 | <0.005 | 5.78 | |
| | R 15-1-5m. | 0.4 | 1.1 | 0.03 | 0.2 | 10.95 | 39.7 | 43.7 | 0.09 | <0.1 | 0.07 | 0.13 | <0.01 | 3.63 | Lost air. |
| | 5-10m. | 0.2 | 0.9 | 0.02 | 0.1 | 12.53 | 40.3 | 44.3 | <0.01 | <0.1 | <0.4 | 0.013 | <0.01 | 3.22 | No sample return. |
| | | | | | mean | 11.74 | | | | | | | | | |
| | 9 | 0.11 | <0.20 | 0.007 | <0.005 | 12.85 | 38.3 | 45.39 | <0.003 | <0.02 | 0.06 | 0.006 | <0.005 | 2.98 | |
| | R14B 1-5m | <0.1 | <0.53 | 0.02 | <0.08 | 11.53 | 39.8 | 44.5 | <0.01 | <0.1 | <0.04 | 0.017 | <0.01 | 3.45 | R14a Lost air at 5m. |
| | 5-10m. | 0.3 | <0.53 | 0.02 | 0.1 | 19.40 | 33.2 | 45.7 | <0.01 | <0.1 | <0.04 | 0.028 | <0.01 | 1.71 | R14b started 5m. from |
| | 10-15m. | 0.2 | <0.53 | 0.02 | 0.1 | 19.37 | 31.6 | 45.8 | <0.01 | <0.1 | <0.04 | 0.027 | <0.01 | 1.63 | R14a Struck water at |
| | 15-20m. | 0.1 | <0.53 | 0.02 | <0.08 | 20.79 | 31 | 45.8 | <0.01 | <0.1 | <0.04 | 0.29 | <0.01 | 1.53 | 5m. but did not lose |
| | | | | | mean | 17.77 | | | | | | | | | air pressure Hole, vert. |
| | R16-1-5m. | 0.2 | 0.7 | 0.01 | 0.1 | 6.02 | 45.9 | 43.4 | <0.01 | <0.1 | <0.4 | 0.012 | <0.01 | 7.62 | Dark grey Soft. |
| | 5-10m. | 0.1 | <0.53 | 0.02 | <0.08 | 9.64 | 43.3 | 44.1 | <0.01 | <0.1 | <0.4 | 0.012 | <0.01 | 4.49 | Light grey Hard. |
| | | | | | mean | 7.83 | | | | | | | | | Lost air aborted. |

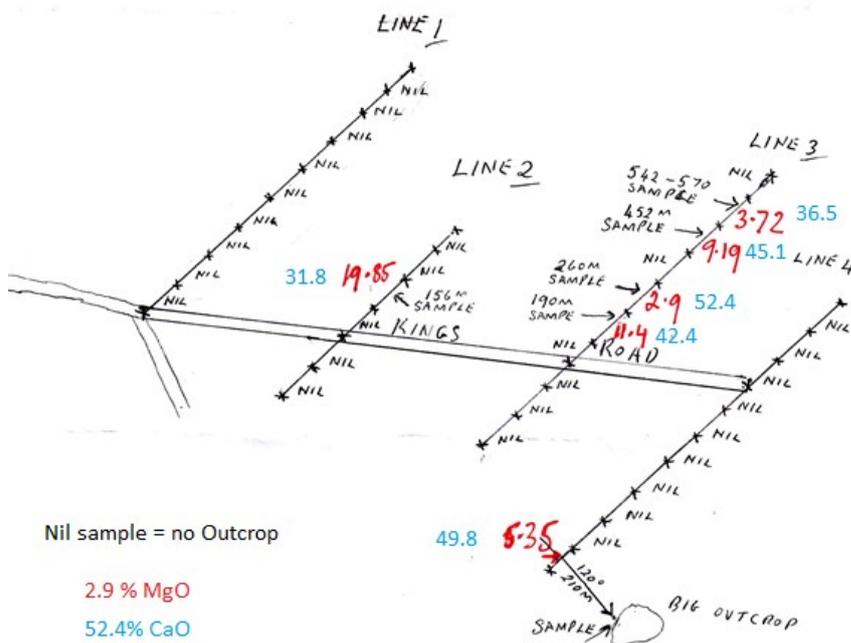
D/. PROSPECTING FOR MAGNESIAN LIMESTONE IN BASEMENT.

After an enquiry by Alcoa for carbonate with up to 10% MgO for trials in its Alumina plants MHA undertook a program of rock chip and back hoe sampling to outline any of this material in the basement at Redpa. Previous sampling did suggest a zone of low MgO carbonate immediately below the Crimson Creek Formation, north of the Tertiary Limestone outcrops.

The program was largely unsuccessful as most of the recent soil cover is greater than the 4 metre limit of the back hoe. Only 6 surface chip samples were collected and although 9

back hoe pits were dug only two could be bottomed, However 4 of the chip samples returned values of MgO below the 10% cut off suggesting that a bedrock drilling campaign may be able to outline sufficient low MgO material to be of interest to Alcoa.

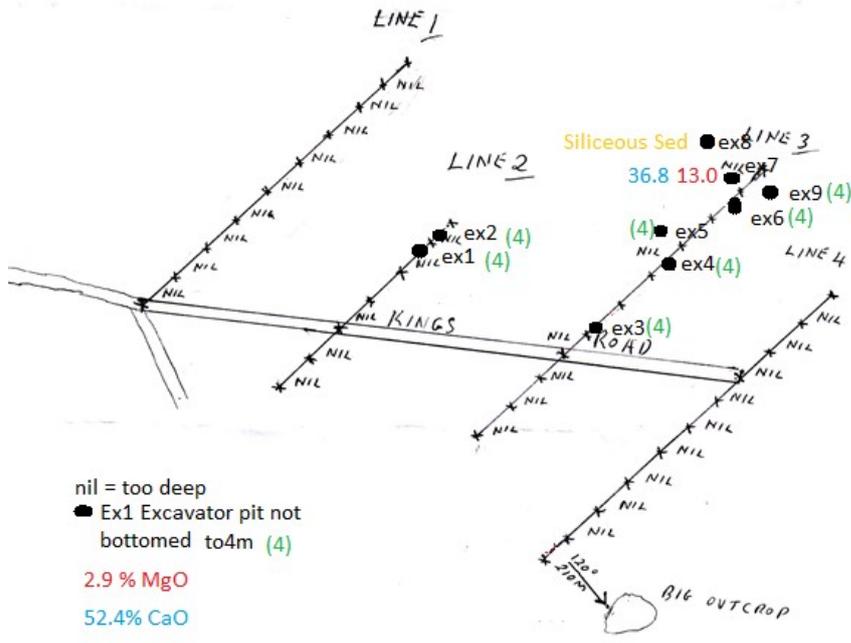
REDPA RL 9/1997 Rock chip samples Low MgO Carbonate



REDPA RL 9/1997 2011to 2012 SAMPLE LOCATIONS

| Sample Number ROCK CHIP | Easting | Northing | CaO% | MgO % | Fe% | SiO2% |
|-------------------------------------|------------|--------------|------|-------|------|-------|
| Line 2 156m north of Kings Road | 312,260 | 5,463,520 | 31.8 | 19.85 | 0.01 | 0.05 |
| Line 3 190m north of Kings Road | 312,920 | 5,463,500 | 42.4 | 11.4 | 0.03 | 0.88 |
| Line 3 260m north of Kings Road | 312,980 | 5,463,580 | 52.4 | 2.9 | 0.09 | 0.28 |
| Line 3 452m north of Kings Road | 313,100 | 5,463,590 | 45.1 | 9.19 | 0.03 | 0.19 |
| Line 3 542 - 570m north of Kings RD | 313,190 to | 5,463,760 to | | | | |
| | 313,230 | 5,463,800 | 35.5 | 3.72 | 0.01 | 1.42 |
| Line 4 650m South of Kings Road | 312,780 | 5,462,900 | 45.8 | 5.35 | 0.01 | 0.05 |

REDPA RL 9/1997
Back Hoe samples Low MgO Carbonate



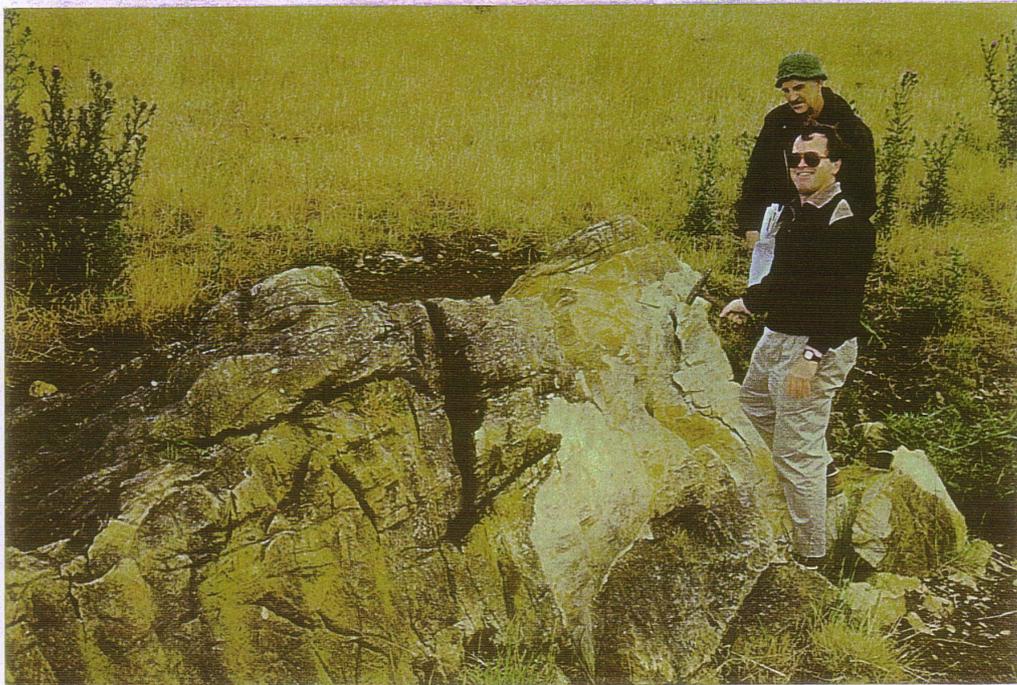
| EXCAVATOR PIT SAMPLES | | | | | | |
|-----------------------|---------|-----------|------|------|------|------|
| Excavator Pit 1 | 312,360 | 5,463,620 | NA | NA | NA | NA |
| Excavator pit 2 | 312,420 | 5,463,680 | NA | NA | NA | NA |
| Excavator pit 3 | 312,850 | 470 | NA | NA | NA | NA |
| Excavator Pit 4 | 313,060 | 610 | NA | NA | NA | NA |
| Excavator pit 5 | 313,070 | 700 | NA | NA | NA | NA |
| Excavator pit 6 | 313,190 | 710 | NA | NA | N | NA |
| Excavator pit 7 | 313,200 | 810 | 36.8 | 13 | 0.08 | 0.53 |
| Excavator pit 8 | 313,120 | 910 | 0.03 | 0.09 | 0.38 | 61.5 |
| Excavator pit 9 | 313,300 | 810 | NA | NA | NA | NA |
| | | | | | | |

NOTE Coordinates are old system off the Woolnorth 1:50,000 map sheet

**RETENTION LICENCE – RL 9/1997
HIGH GRADE PRE-CAMBRIAN
DOLOMITIC LIMESTONE – REDPA**



SURFACE OUTCROPS AT CARBONATE HILLS



SURFACE OUTCROP AT CARBONATE HILLS

**RETENTION LICENCE – RL 9/1997
HIGH GRADE TERTIARY
LIMESTONE – REDPA**



SURFACE OUTCROPS AT CARBONATE HILLS



SURFACE OUTCROPS AT CARBONATE HILLS