

**PROGRESS REPORT ON E.L. 'S 13/68 & 14/68**

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**MICROFILMED**

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NATONE AREA - EL 14/68 & EL 13/68

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|-------------|-----|----|------|-----------|
| DATA        | S&A | CG | CC&M | D.S.M.E   |
| RECEIVED    |     |    |      | Registrar |
| 11 APR 1968 |     |    |      | E & IL    |
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| 11 APR 1968 |     |    |      |           |

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Progress Report on Drilling.

The Natone Area, on private property of Messrs. Rutherford and Shepherd, adjacent to the Burnie Road and almost 10 miles from that port, was selected for drilling because of interesting magnetic anomalies found by the Bureau of Mineral Resources during a survey some years ago. These anomalies lie to the west of some old trenches which show low grade haematite.

The most westerley of these anomalies is the largest and most regular and it was decided to drill this first. The geophysical opinion was that there was probably an overburden of about 200'. When drilling was ready to commence at the end of the rainy season, it was found that the selected sites were covered with water. A vertical hole was put down first, adjacent to the selected site, to test the overburden. When this was completed at 315', the site selected for the inclined hole was still too wet, so the second hole was sited to intersect a smaller anomaly to the east. This hole was completed at 600' and the drill then moved to test the original site. Unfortunately although the water had dried out, the farmer had ploughed and set a crop, so a hole was sited on the edge of the crop to intersect the anomaly in the opposite direction. To site this hole at the base of a steep hill, the angle of boring was steepened to 70°.

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Results (See Drilling Logs)No. 1 Bore (Vertical)

This showed an overburden of about 200 ft. of clay, sand and basalt boulders, followed by beds of limestone, dolomite and siltstone impregnated with pyrrhotite and lesser pyrite. A chip sample between 295' and 315' showed a trace of copper. It would appear that the anomaly may have been caused by pyrrhotite and not magnetite.

No. 2 Bore

This was commenced at an angle of 60° but flattened considerably. Near the surface was iron sand and some haematite boulders, then to 75 feet a white and yellow clay. Red and brown iron clay with some haematite boulders continued to 134 feet and then to 221 feet hard but broken good grade haematite with some clay bands. This section averaged 67% HCL soluble iron, but it should be remembered that core recovery here was only about 50% so it is reasonable to suppose that with clay loss the percentage of iron is actually lower. From 221 to 265, lower grade limonite, limonitic mudstone and finally iron sand, averaged 47% Fe, but again core recovery was bad. From here to the end of the hole beds of tremolite, actinolite rock, limestone and quartzite were intersected. In places were heavy impregnations of pyrrhotite with some pyrite - sometimes up to several inches of almost pure pyrrhotite. It was hoped that this limestone pyrrhotite association would be indicative of tin, but none was found on assay and only a trace of gold and up to 0.3% copper.

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No. 3 Bore

It was decided to go ahead with the third hole to test the original anomaly even though this might be due to pyrrhotite for two reasons:

1. The pyrrhotite may contain minerals of economic significance.
2. There may be haematite on the hanging wall as in Bore 2.

It is assumed that the formation causing the anomaly is near vertical with perhaps a slight tendency to dip to the north. As the bore had to be sited on the south side close to the edge of the anomaly it was put in at 70° and the expected depth of the bore is 500 to 600 feet.

Iron Potential

In No. 2 hole, supposing the iron formation is near vertical, then the true width is about 125 feet averaging 53% Fe. This figure, due to core loss, may be high. The haematite is hard but it is very broken and mixed with iron clay and sand and should be easy to mine by open cut. Overburden should be slight and of friable material. Silica is the only real impurity; titanium, phosphorous are negligible and sulphur only appears in the foot-wall. Although the ore is mainly haematite, some magnetite (a few percent) is present and in places the haematite has altered to limonite. The evidence of broken and oxidised material suggests

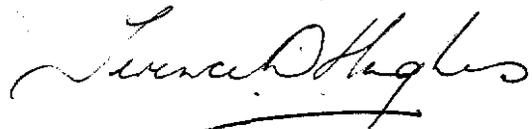
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a large fault zone.

It is too early to talk of reserves with only one hole into the iron, but the anomaly is about 400 feet on length and the width where drilled is about 120 feet.

Recommendations

After No. 3 Bore is finished, it is recommended that the plant be moved to the No. 1 site at Blythe River on EL 13/68. If this hole shows interesting results, then a second hole should be drilled here. If not, then the drill should be moved back to test the length of the iron formation. Bores should be sited 200 feet on each side of No. 2 Bore, and one should be vertical to test the overburden. Another anomaly to the north of No. 2 Bore should also be tested.



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9th April, 1969.

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BORE N° 2 NATONE  
EL. 13/68 TASMANIA

