Clermont Project (Queensland)

克莱蒙项目（昆士兰）

Overview

The Clermont Project is situated around the town of Clermont in central Queensland. Diatreme is exploring for porphyry and stratabound bulk tonnage copper/gold deposits along with mesothermal gold deposits. The project area covers numerous prospects including the Rosevale Project and the former Peak Downs Copper Mine.

克莱蒙项目位于昆士兰中部的克莱蒙镇周围。本公司正在此地勘探斑岩型和层控大吨位型铜金矿以及中温热液型金矿。该项目区域还覆盖了许多有前景的项目，包括 Rosevale 项目和昔日的 Peak Downs 铜矿。

The Peak Downs Copper Mine was worked between 1863 to 1877, with 17 000 tonnes of copper (100 000 tonnes ore grading 17% copper) reported to have been produced from the mining and smelting operations on site. The Peak Downs mine workings lie within the Bathampton Metamorphics.

Peak Downs 铜矿开采于 1863 年到 1877 年之间，据报道该矿从现场的开采和冶炼作业生产出 1.7 万吨铜（10 万吨品位为 17%的铜）。Peak Downs 矿井位于巴斯普顿变质岩系内。

Previous gold mining activity in the region included mining of placers in Permian conglomerates and from Tertiary and Cainozoic alluvial deposits. Gold was discovered in gullies to the south of Clermont township in 1861 and by 1862 mining extended from McDonalds Flat in the southeast to Hurley's Lead in the northwest. The main centres of alluvial mining were in the area adjacent to the Clermont township. Between 1877 and 1901, recorded gold production amounted to 5 458 kg from deep leads and other alluvial sources and only 308 kg from quartz lodes. Production from the Clermont Goldfield during the period 1862 to 1901 is documented as 8 200 kg of gold.

之前在该地区的金矿开采活动包括了在二叠纪砾岩的沙积矿床开采以及从第三纪和新生界的冲积矿床的开采。在 1861 年，在克莱蒙乡镇以南的沟壑中发现了黄金。1862 年，开采活动从东南部的 McDonalds 平原延伸到西北部的 Hurley's 矿脉。冲积矿开采的主要中心所在地区毗邻克莱蒙城镇。在 1877 年和 1901 年间，有记录的黄金生产总计 5458 千克来自于深埋的冲积矿床和其他冲积源，只有 308 千克来自于石英矿脉。在 1862 年到 1901 年间，记录显示有 8200 千克黄金产于克莱蒙金矿区。

Mining activity declined after 1910 and by the 1920s had almost ceased. In 1931 a new lead, discovered at Miclere, sparked a revival of mining, which continued through to the mid 1950s. During the 1980s and early 1990s small to medium-scale alluvial mining was carried out at McDonalds Flat, Bathampton, and Expedition Creek. Total gold production for the Clermont area to 1993 is estimated to be about 14 000 kg.

1910 年之后开采活动开始缩减，到了 20 年代采矿活动几乎停止。在 1931 年，在 Miclere 发现了一个新的矿脉，引发了采矿业复苏，并一直持续到 50 年代中期。从 80 年代到 90 年代早期，在 McDonalds 平原、巴斯普顿和 Expedition 溪进行了小到中型的冲积矿床开采。直到 1993 年，在克莱蒙地区的总计矿产量估计为 1.4 万千克。

Three main targets are under investigation by Diatreme:

本公司调查研究的三个主要目标：

1. Rosevale Project (gold, copper-molybdenum);

Rosevale 项目（金矿、铜钼矿）；

2. Mesothermal gold reefs; and

中温热液型黄金礁

3. Peak Downs copper mine.

Peak Downs 铜矿

Rosevale Project

The Rosevale Porphyry Corridor (RPC) has the potential to host a large buried porphyry copper - gold - molybdenum mineralised system. This prospect was discovered by Diatreme in 2008 and work has included deep diamond core drilling which has assisted in identifying porphyry related copper/molybdenum and breccia hosted silver/lead/zinc/gold mineralisation.

Rosevale 斑岩走廊(RPC)有潜力含有一个大型的掩埋的斑岩铜-金-钼矿化系统。本公司在 2008 年发现了该前景，并开始实施深度的金刚石岩心钻探以协助确认斑岩型铜/钼矿和角砾岩型银/铅/锌/金矿化。

Recent exploration over Clermont has resulted in an improved understanding of the geology and mineralisation of the Rosevale Porphyry Corridor. This work has highlighted drill-ready porphyry copper targets.

近期于克莱蒙项目的勘探得出了对该地区的地质情况和 Rosevale 斑岩走廊矿化更进一步的了解。这项工作突出了准备钻探的斑岩铜目标。

At the Gollan Prospect toward the northern end of the Rosevale Porphyry Corridor, Diatreme has defined from drilling a wide zone of haematite-bearing propylitic alteration caused by the intrusives, located in a zone of abundant secondary carbonate copper on surface. The geological setting is reminiscent of the high grade Ridgeway deposit at Cadia NSW.

在 Rosevale 斑岩走廊最北端的 Gollan 前景，本公司通过对一大片含赤铁矿区域的钻探明确了由侵入岩引起的青盘化位于一个地表拥有大量次生碳酸铜的区域。该地质环境让人想起高品位的 Ridgeway 矿，该矿山位于新南威尔士州 Cadia 地区。

Exploration in 2012 resulted in the discovery of the Savannah Prospect to the southeast of the Rosevale Porphyry Corridor. Mapping and rock chip results from Savannah have return significant results of up to 25ppm gold, 80ppm silver, 1.8% copper, 1.4% lead, and 1.4% zinc over a strike length of 1.4km.

2012 年的勘探发现了位于 Rosevale 斑岩走廊东南部的 Savannah 前景。来自于 Savannah 的映射和岩屑结果反馈出重大成果，在一段走向长度为 1.4 千米的区域含有多达百万分之二十五的黄金、百万分之八十的银、1.8%的铜、1.4%的铅和 1.4%的锌。

Gold

金矿

A number of structural trends are known within the tenement area and the Anakie Metamorphics Inlier generally but the most significant of these are the faults and shear zones that have associated silicification with gold mineralisation. Gold mineralisation in the Clermont area occurs in a number of geological environments. Quartz reefs in the Anakie Metamorphics sequence are known to contain gold mineralisation and deposits of this type have given rise to some historical gold production.

已知在矿区和安纳基变质岩系内露层内普遍地存在一系列结构性趋势，但其中最重要的是混有硅化和金矿化的断层和剪碎带。在克莱蒙区的金矿化发生于许多地质环境中。安纳基变质岩系序列内的石英群礁众所周知含有金矿化，并且该类型的沉积已经带来了几次历史上的黄金生产。

Most of the past exploration on the known gold bearing quartz vein systems within the Anakie Metamorphics has shown these to be small. These veins are the likely source of at least some of the alluvial gold deposits in the Clermont area. However the amount of alluvial gold in some areas at Clermont is not in accordance with the known gold bearing quartz vein and shear occurrences. This is the case immediately south of Clermont where there is no significant known source for the amount of gold that was mined from the Wild Cat and other leads in this area. This suggests that, either there are undiscovered gold bearing quartz veins in this area, or another hard rock source exists for the gold. It is the potential for an alternative hard rock source for the gold found in some of these alluvial deposits near Clermont that has driven gold exploration in the district.

大部分过去的在已知含金石英脉系统上（安纳基变质岩系内）的勘探显示出这些系统较小。这些矿脉至少是克莱蒙地区一些沙金矿床的可能来源。然而，在克莱蒙一些地区的沙金总量与已知的含金矿脉和切断埋藏不相符。同样，紧挨克莱蒙的南部地区关于从 Wild Cat 和其他矿脉开采的黄金总量没有显著的已知来源。这表明在该地区存在未被发现的含金矿脉或者其他含有黄金的硬岩源。很有可能因为一种可供替代的含金硬岩源（被发现于克莱蒙附近的一些冲积矿床中）推动了该地区的黄金勘探。

Peak Downs

Peak Downs 铜矿

Copper was mined at the Peak Downs Copper Mine following its discovery in 1862 and during the period to 1877, 17,000 tonnes of copper (100,000 tonnes @ 17% copper) is reported to have been produced from the mining and smelting operations on site. The Peak Downs mine workings are situated 6km south of Clermont with Diatreme's tenement and copper mineralisation appears to be of massive sulphide type hosted in a volcanic rock. Mineralisation principally consists of pyrite and chalcopyrite associated with a narrow banded zone of siliceous iron formation.

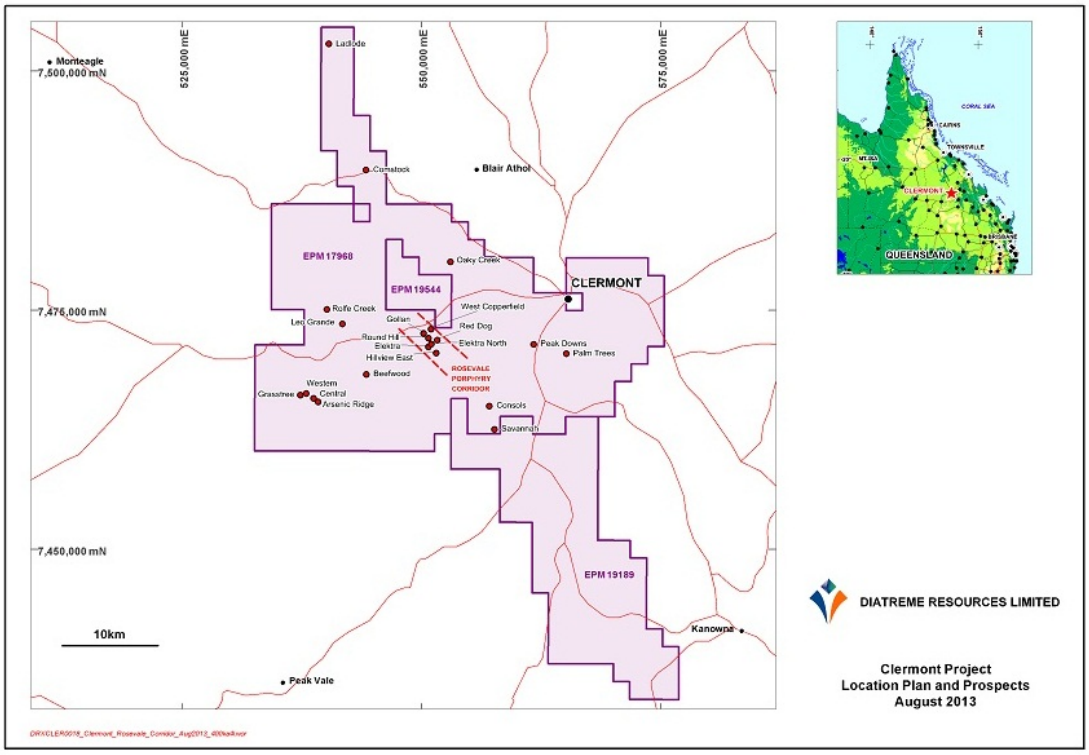
自从 1862 年 Peak Downs 铜矿被发现到 1877 年这段期间，铜一直被开采，据报道已经有 1.7 万吨铜（1 万吨品位为 17%的铜矿）产于现场的采矿和冶炼作业。Peak Downs 矿区位于克莱蒙南部 6 公里本公司矿权内，该铜矿化似乎是包含在火山岩内的块状硫化物型。该矿化主要由黄铁矿和带有窄带状硅质铁的黄铜矿组成。

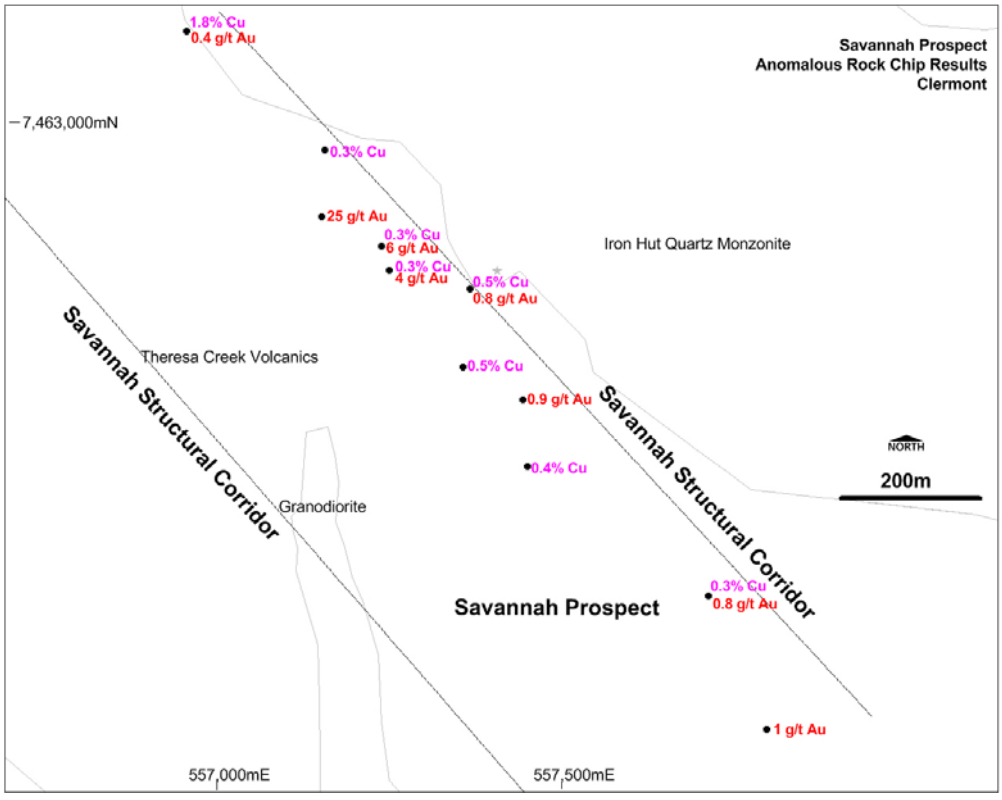
A number of historic resource estimates have been estimated for Peak Downs that require further work to be JORC compliant. These estimates indicate Peak Downs contains approximately 30,000 tonnes of copper close to surface that would be capable of being mined and processed by a conventional heap leach solvent extraction - electrowinning (HL SX-EW) mining operation. Further drilling and bulk sample test work is required for the resource to be JORC compliant and for feasibility studies to be carried out. Copper has been mined historically from many smaller underground mining operations throughout the Clermont tenement and these have been the subjected to numerous exploration programmes to date over the Clermont tenements.

若干历史资源预测预计 Peak Downs 需要进一步努力以服从 JORC 标准。这些预测指出 Peak Downs 含有大约 3 万吨接近地表的铜，这些铜可以通过传统的堆浸萃取- 电解冶金法 (HL SX-EW) 采矿作业进行开采和处理。为了使该资源服从 JORC 标准并开展可行性研究，需要进一步的钻探和大样测试。过去，在克莱蒙矿区内，已经有多次较小的地下采矿作业开采出铜，这些采矿作业从属于迄今为止在克莱蒙矿权的众多勘探项目。

Further exploration is warranted over Clermont particularly over the Rosevale Porphyry Corridor, and Peak Downs for copper, Savannah for gold and base metals and at the Palm Trees Prospect (near the historic McDonalds Flat mines) for gold.

在克莱蒙地区的进一步勘探被保证实施，特别是在 Rosevale 斑岩走廊和 Peak Downs 关于铜的勘探、在 Savannah 关于金和基本金属的勘探以及在 Palm Trees 前景（靠近历史上有名的 McDonalds 平原的矿山）关于金的勘探。




Savannah Prospect
Anomalous Rock Chip Results
Clermont
7,463,000mN
1.8% Cu
0.4 g/t Au
0.3% Cu
25 g/t Au
0.3% Cu
6 g/t Au
0.3% Cu
4 g/t Au
0.5% Cu
0.8 g/t Au
Iron Hut Quartz Monzonite
Theresa Creek Volcanics
0.5% Cu
0.9 g/t Au
0.4% Cu
Granodiorite
Savannah Structural Corridor
Savannah Structural Corridor
NORTH
200m
Savannah Prospect
0.3% Cu
0.8 g/t Au
1 g/t Au
557,000mE
557,500mE