

6.6 In summary the mineable and recoverable reserves for Comstaff are as follows:-

	<u>Volume</u> (mil cu m)	<u>Grade</u> (g/cu m)	<u>Cassiterite Concentrates at 70% Sn</u> (tonnes)
Total reserves	6.5	215	1400
Deduct reserves in Lease 42M/77	1.3	261	340
Reserves available for mining	5.2	204	1060
Recoverable reserves at 90% metallurgical recovery	5.2	185	960

7. MINING AND ORE PROCESSING CONSIDERATION

7.1 Open-cut mining is considered suitable for exploiting the deposit, involving use of hydraulic backhoe excavators to excavate and load the ore at the mine face and trucks to transport the materials to the treatment plant. The reasons favouring the method are as follows:

- the deposit is comparatively small which would exclude consideration of employing the large capital and high capacity methods such as dredging or the continuous bucket wheel/conveyor belt system;
- the hydraulic excavators and trucks would have good manoeuvrability in operating within the restricted flat area in the valley;
- the natural water level in the area is high and there is always a danger of flooding during the wet seasons. These factors can seriously affect the mining operations particularly if the machines employed are less mobile and work on the bedrock floor. Hydraulic excavators with extended arms can overcome these problems to a large extent as they are capable of scooping up materials below their standing platform level (i.e. the present ground surface);
- the deposit is shallow and its depths of 2-3m are within easy reach of the hydraulic excavators working from the ground surface.

7.2 At this preliminary stage a mining rate of 60,000 cu m/mth is envisaged for the size of the deposit. To achieve this, 4 hydraulic crawler excavators and approximately 10 trucks will be required.