In 1922 Herbert Basedow undertook an expedition to assess possible oil deposits in the Victoria River district, south-west of Darwin in the Northern Territory. This exploration was on behalf of the Mararoa Gold Mining Company, which approved a fee of £1260.

Basedow left Adelaide by train on 25 May bound for Sydney, accompanied by Frank Feast and prospector Billy Williams. In Sydney they made last-minute purchases before boarding the SS Montoro on 1 June, arriving in Darwin 12 days later. Here Basedow took out miner’s rights in the names of Mararoa, Williams, Feast and Basedow. On 21 June they caught a train heading south to Emungalen, a railhead on the Katherine River. The party now included Johnny (Jack) Roden, a mechanic to maintain the expedition car, and Kit and David, Aboriginal men who were hired as assistants. Everything, including nine drums (30 gallons or 136.4 litres) of benzine for the car, was then transported a few kilometres west to Springvale station. Transport for the expedition also included a horse-drawn buggy and, at times, a smaller sulky.

The party set off for Manbullo station on 25 June, arriving there later that afternoon. The next day saw their first difficult creek crossing, which required the use of the special matting they had packed to give the car traction on wet or loose surfaces. Sometimes, horses had to be employed to pull the car up particularly challenging river banks. One such occasion was on a crossing of the King River on 27 June, described in Basedow’s diary:

All hands are hard at shovel-work and cord-roying the track in preparation of the car. Much of the loading has been carried across. Then I run the car down into the dreaded river and she takes the opposite ascent like a deer. At ¾ the height however she unfortunately skids off the cocoanut matting and buries her driving wheels deep into the loose deep sand. We jack her up and once more replace the matting, then pull her out of the hole with horses and again she ‘bites’ and in a few moments is on top of the opposite side.
Travelling via Willeroo and Delamere stations, they arrived at Victoria River Downs station on 7 July. Tom Graham, the station manager, made a shed available for the party’s use. Victoria River Downs was to be Basedow’s depot from where he would make excursions to the north, west and south. Not everyone went on these short trips and only necessary supplies were taken. The first was to Humbert River station and on to the 1000-square-mile block of land owned by the Mararoa Gold Mining Company to survey its potential for oil or other mineral deposits. Although Basedow recorded numerous outcrops of quartzite and limestone, no minerals of note were found.

As there were no doctors in the Victoria River Downs area, several people took advantage of Basedow’s visit to have their medical problems seen to. On returning from the Mararoa block, Basedow was asked to examine Graham’s young son, who was quite ill with a swelling on his neck that prevented his swallowing even liquids. Two days later Basedow operated, removing a ‘putrid, foul smelling abscess’. The boy recovered well but subsequently burst out crying whenever he saw Basedow.

The next excursion was to Wave Hill station via Pigeon Hole station. After a speedy examination of the region’s geology the party was heading back to Victoria River Downs when the car’s carburettor caught fire. Typically, Basedow’s diary entry was brief:

The car runs excellently and we fly along at a great pace, covering 32 miles [51.5 kilometres] in 1¼ hours. At Rams Creek, very stony and steep crossing, the petrol ran back into tank and ‘backfired’ setting fire to carburettor. Things looked hopeless but managed to extinguish flame, and find no harm done. Make Longreach at 9.30 p.m.

The party departed Victoria River Downs on 1 August on their way back to Darwin, but returned the following day as Feast was suffering from malaria and was too sick to travel. They set off again on 6 August. In a telegram sent from Katherine, Basedow informed the Mararoa Gold Mining Company that he had discovered nothing to suggest the presence of oil or minerals on its block:

Have returned from making the examination of Mararoa Oil Concession. The geological features of the district examined are ordovician, sandstone, Cambrian, and hard blue limestone. The beds dip at shallow angle, horizontal. The country is very rough and stony with table hills and precipitous ranges. I have discovered nothing to suggest the discovery of oil on your block. Further, there is nothing in the geological formation to indicate gold, copper, or rare minerals.