

Geothermal prospects for Lunansholt in
Landssveit, Rangárvallasýslu

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GEOHERMAL PROSPECTS FOR LUNANSHOLT IN LANDSVEIT, RANGÁRVALLASÝSLU.

For warm water production at a fish farm at Lunansholt in Landsveit, two possibilities look favourable. The obvious one is harnessing the warm springs that are found at Lunansholt. The other is fetching the warm water to Hjallanes (or Skammbeinsstadir) which is at a distance of 3 km from Lunansholt.

Lunansholt.

The max. temperature of the warm springs has been measured 23°C and the discharge is according to crude measurements about 10 l/s of 18°C hot water. Circumstances look favourable and probably both temperature and discharge can be increased considerably by drilling shallow production wells (150-200 m deep). No chemical samples have been taken for geothermal investigation, so it is not possible to predict what temperatures can be reached with drillholes. Some local geological and geophysical investigations are necessary before production wells can be sited. Downhole pumping with lowering of the water table would be used for production to increase the discharge. One well would probably suffice at the start but another would be needed to reach full capacity.

Rough cost estimate:

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|---|---------------|--------------|-----------------|
| 1. Chemical samples | 1 sample at | 10,000 Ikr | 10,000.- Ikr |
| 2. Geological and geophysical work: | | | |
| Field work. | 2 men/day | - 2x10,000.- | 20,000.- Ikr |
| Interpretation: | 40 hours | 40x490.- | 19,600.- Ikr |
| 3. Research wells: | | | |
| 25 m wells | 10,000.-/well | 4x10,000.- | 40,000.- Ikr |
| 60 m well | 30,000/well | 1x30,000.- | 30,000.- Ikr |
| 4. Production wells: | | | |
| 200 m wells cased down to 75 m with diameter 6 1/2" cased down to 7" with | | | |
| at 650,000.-/well | | 2x650,000.- | 1,300,000.- Ikr |

Total: 1,419,600.- Ikr

Hjallanes-Skammbeinsstadir.

The warm springs at Hjallanes are located about 200 m west of the farm. The max. temperature in the springs is about 45°C. It is not possible to measure the discharge due to cold water flowing around the warm springs but it is certainly a few l/s. Circumstances are favourable for exploitation.

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tion. Chemical samples indicate that temperatures of 60-70°C can be reached. The field is likely to be sufficiently large for the planned production, 25-30 l/s of 60 l/s hot water, but to reach that down-hole pumping would have to be used in production wells.

Rough cost estimate:

The cost of exploration would be similar to Lunansholt except for the research wells which would probably not be needed.

Vindás or Skarð-Klofi.

These fields are about 6 km away from Lunansholt. The temperatures in the hot springs are about 55°C. However, local circumstances are not favourable, especially at Vindás, and also these warm springs appear to be too far away for economic exploitation.