

THAM HUB PHA KHAD
FROM THAM LOM RAENG

19/02/2020

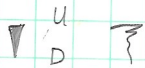
JUNCTIONS = (S)

Digrox = CAL


Book = SUSPEP


Statral =


CM0097B



 = mud or (M)


 = sand or (S)


 = stones


 = big boulder


V = stalactite

^ = stalact

 = calcite boss

 = calcite flow or cf

 = water/inlet / stream

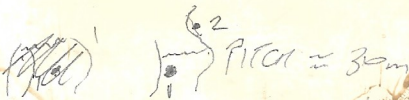
 = gours or gis

(1)

Chartwell

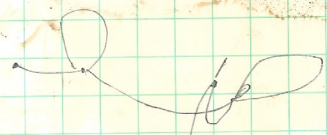
| Station | Distance | Compass | Climo | U | D | L | R |
|----------------|------------------|------------------|------------------|-------|-------|-------|-------|
| 1-2 | 2.33 | 260.1 | -16.1 | 1.77 | 1.22 | 0 | 3.04 |
| 2-3 | 30.00 | 241.3 | -74.8 | 2.92 | 29.79 | 1.3 | 0.0 |
| 3-4 | 3.15 | 317.4 | +05.5 | 10.8 | 0.0 | 3.66 | 10.8 |
| 4-5 | 10.89 | 320.2 | -1.5 | 18.02 | 1.11 | 13.6 | 18.07 |
| 5-6 | 4.46 | 6.2 | -7.4 | 21.13 | 8.0 | 26.32 | 12.5 |
| 6-7 | 54.77 | 229.3 | +14.3 | | | | |
| 6-8 | 19.24 | 114.8 | -2.5 | 21.54 | 1.49 | 6.38 | 20.2 |
| 8-9 | 28.47 | 0.4 | -6.2 | 13.02 | 1.5 | 26.34 | 0 |
| 9-10 | 11.52 | 23.4 | -25.8 | 10.34 | 4.4 | 0.67 | 0.96 |
| 6-21 | 53.73 | 228.7 | +13.1 | | | | |
| 71-72 | 1.62 | 304.8 | -54.0 | 11.76 | 1.57 | 0.0 | 3.0 |
| 7.2-73 | 2.96 | 207.2 | -9.14 | 0.87 | 0.0 | 1.12 | 0.45 |
| 7.3-74 | 4.43 | 235.4 | -63.2 | 0.0 | 1.43 | 0.73 | 1.02 |
| 7.4-75 | 19.27 | 208.4 | -1.2 | 6.18 | 6.27 | 1.08 | 0 |

Stn 1 = last stn of previous survey



② 19/2/2020 Tham Lam Rong - Tham Hub Pha Kho

1/2
2-3



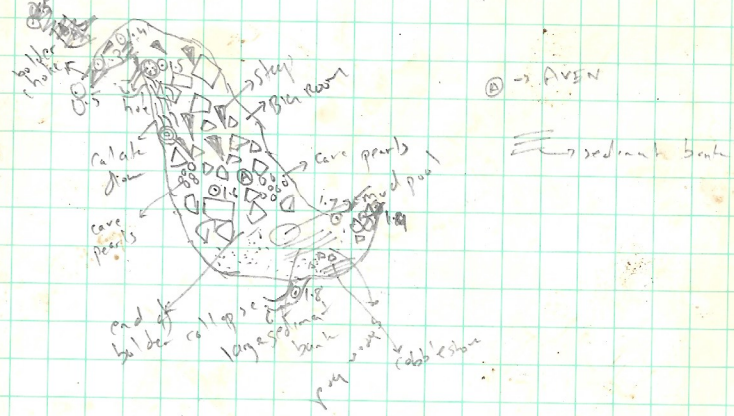
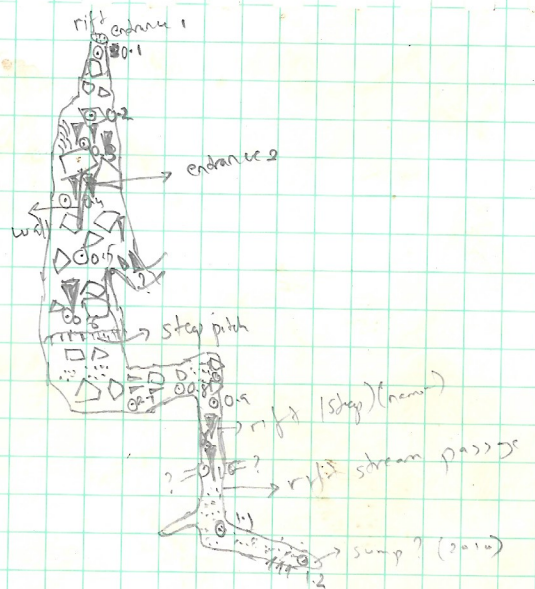
③ 19/2/2020 Tham Lam Rong - Tham Hub Pha Kho



Chartwell

④ 19/2/2020 Tham Lon Racy - Tham Hub Pha Khao

| | D | C | I | U | D | L | R |
|------------------|-------|-------|-------|-------|------|-------|-------|
| 0.1 - entrance 1 | 55.63 | 206.0 | +62.7 | | | | |
| 0.1 - 0.2 | 13.48 | 26.3 | -14.8 | 37.75 | 1.99 | 2.61 | 2.19 |
| 0.2 - 0.3 | 12.58 | 4.8 | -36.4 | 35.94 | 2.26 | 6.25 | 4.32 |
| 0.3 - entrance 2 | 58.01 | 137.3 | +85.5 | | | | |
| 0.3 - 0.4 | 9.47 | 356.8 | -40.2 | 47.98 | 3.79 | 4.8 | 7.20 |
| 0.4 - 0.5 | 8.95 | 306.3 | -48.1 | 7.66 | 2.94 | 7.83 | 0 |
| 0.5 - 0.6 | 10.58 | 74.7 | -37.1 | 4.17 | 1.34 | 1.41 | 5.5 |
| 0.6 - 0.7 | 19.67 | 138.8 | -46.3 | 7.55 | 2.42 | 3.36 | 3.95 |
| 0.7 - 0.8 | 5.57 | 37.7 | -24.4 | 7.44 | 2.37 | 9.17 | 2.27 |
| 0.8 - 0.9 | 6.80 | 57.3 | -12.4 | 3.27 | 1.54 | 8.94 | 2.24 |
| 0.9 - 1.0 | 9.61 | 108.1 | -67.4 | 10.92 | 4.8 | 5.23 | 1.35 |
| 1.0 - 1.1 | 5.04 | 92.9 | -16.0 | 5.35 | 2.07 | 1.02 | 0 |
| 1.1 - 1.2 | 13.03 | 14.1 | -5.2 | 3.85 | 1.33 | 1.22 | 1.59 |
| 1.2 | | | | 10.84 | 1.32 | 1.28 | 0 |
| 0.5 - 1.3 | 4.12 | 10.9 | +16.5 | | | | |
| 1.3 - 1.4 | 5.80 | 325.8 | +30.1 | | | | |
| 1.4 - 1.5 | 9.82 | 81.2 | +5.9 | 0.4 | 0.96 | 0.42 | 0.51 |
| 1.5 - hole | 32.42 | 166.1 | -46.7 | 17.99 | 3.34 | 0.6 | 8.57 |
| 1.5 - roof(?) | 42.19 | 168.1 | +46.1 | | | | |
| 1.5 - 1.6 | 45.24 | 17.0 | -36.4 | 16.32 | 0.4 | 19.97 | 7.62 |
| 1.6 - 1.7 | 74.72 | 20.1 | -16.9 | 38.92 | 0.0 | 26.52 | 13.73 |
| 1.6 - 1.8 | 74.7 | 20.6 | +71.0 | | | | |



⑤ 19/2/2020 Tham Lon Racy - Tham Hub Pha Khao

Chartwell

| Mg | P | C | I | U | D | L | R |
|-----------|-------|-------|-------|-------|------|------|-------|
| ① - 1.8 | 33.69 | 133.6 | +12.7 | | | | |
| ② - 1.9 | 19.46 | 6.1 | +1.4 | 17.15 | 1.57 | 0 | 15.89 |
| 1.9 - 2.0 | 10.74 | 23.7 | -13.5 | 8.99 | 1.28 | 3.56 | 0.87 |
| 2.0 - 2.1 | 30.29 | 17.1 | +3.3 | 2.08 | 1.24 | 2.63 | 1.49 |
| 2.1 - 5 | 19.75 | 30.0 | -9.5 | 11.72 | 1.00 | 4.87 | 8.55 |



⑥ 19/2/2020 Tham Lam Ray - Tham Heb Phu Khao

⑦ 19/2/2020 Tham Lam Ray - Tham Heb Phu Khao

Chartwell

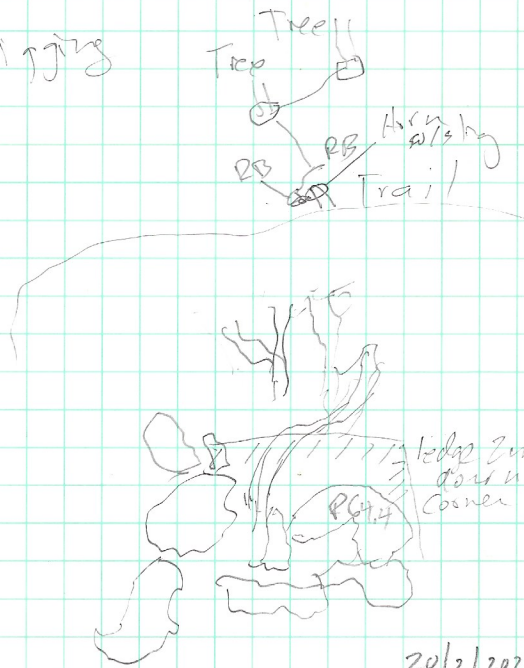
11.3/4.7 / 6.1/8.0

SURVEY POINT # ? 3 ?
 TO CASH AT BOTTOM OF ROPE
 4.32m 184.6° +12.2

| From | To | Dist | Bear | Climo | up | Down | Left | Right |
|------|--------------------------------------|-------|-------|-------|----------|-----------|------|-------|
| 2 | 3 ^{bottom} _{pitch} | 64.44 | 215.5 | -88.4 | sky | see alino | | |
| 2 | 1 | 1.42 | 112.1 | +59.7 | 0.25/sky | 64.44 | 4.23 | 0 |
| 1 | Over | 8.53 | 277.8 | +37.2 | sky | 1.93 | 1.75 | 0 |
| 3 | 4 | | | | | | | |

MAIN ENTRANCE SHAFT

Rigging



20/2/2020

THAM HUB PHA KHAD

BOTTOM OF CAVE

BOOK CAL
MALU
GEE

①

Chartwell

U D L R

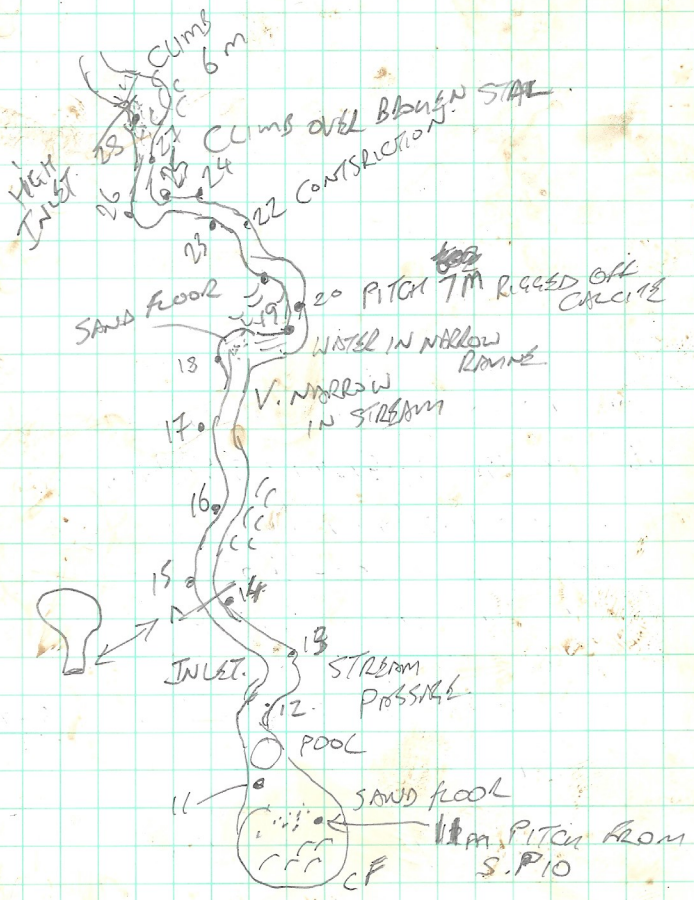
| | | | | | | | |
|-------|--------|--------|-------|------|------|------|------|
| 10-11 | 12.95m | 13.0° | -58.3 | 1.36 | 0.96 | 1.63 | 0.66 |
| 11-12 | 5.94m | 60.1° | -15.5 | 8.45 | 0.78 | 1.13 | 2.53 |
| 12-13 | 8.57 | 31.5° | -9.4 | 1.46 | 0.30 | 2.14 | 1.30 |
| 13-14 | 4.72 | 326.9° | -9.2 | 3.9 | 1.36 | 3.15 | 0.57 |
| 14-15 | 1.06 | 316.1° | 13.4 | 4.41 | 1.29 | 0.59 | 0.0 |
| 15-16 | 4.3m | 358.6° | -10.7 | 5.54 | 1.46 | 0 | 0.56 |
| 16-17 | 3.23m | 349.2° | 35.5 | 6.32 | 1.25 | 0 | 0.49 |
| 17-18 | 4.86m | 3.70° | -16.3 | 3.84 | 3.61 | 0 | 0.74 |
| 18-19 | 7.3m | 94.6° | 3.4 | 5.53 | 1.63 | 0 | 2.3m |
| 19-20 | 5.54m | 69.9° | -51.5 | 4.41 | 2.69 | 0 | 1.66 |
| 20-21 | 4.23m | 324.6° | -4.7 | 8.89 | 1.73 | 3.03 | 0.0 |
| 21-22 | 3.95 | 18.7° | -14.0 | 3.73 | 0.99 | 0.0 | 1.48 |
| 22-23 | 2.65m | 322.5° | 3.3° | 0.73 | 0.69 | 0.83 | 0.0 |
| 23-24 | 1.24m | 7.5° | 5.6° | 5.33 | 1.0 | 0.0 | 0.52 |
| 24-25 | 3.65m | 291.0° | -14.1 | 0.52 | 1.13 | 0.37 | 0.0 |
| 25-26 | 2.20 | 295.7° | 3.1 | 0.77 | 0.55 | 0.51 | 0.0 |
| 26-27 | 2.88 | 41.1° | 35.2 | 6.37 | 0.73 | 0.0 | 1.11 |
| 27-28 | 5.68 | 359.7° | -20.0 | 0.79 | 0.69 | 0.27 | 0.0 |

② TEAM HUB PHA KHAD

20/2/2020

③ TEAM HUB PHA KHAD

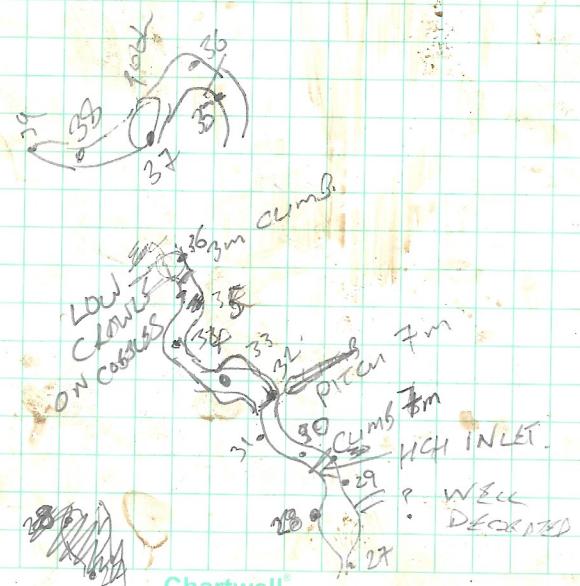
20/2/2020



Chartwell

28-29 3.88m / 53.6° / -5.5° / 7.72 / 1.26 / 1.29 / 1.93
 29-30 5.59m / 323.8° / -5.5° / 8.30 / 0.95 / 3.0 / 0.0
 30-31 5.53m / 286.3° / -49.5° / 12.72 / 6.60 / 1.72 / 1.27
 31-32 4.14m / 25.0° / -3.9° / 15.97 / 1.3 / 0.0 / 4.01
 32-33 8.92 / 308.0° / -56.9° / 5.81 / 2.85 / 3.12 / 1.40
 33-34 2.53 / 335.4° / -0.38 / 0.0 / 0.43 / 2.03 / 1.33
 34-35 3.28 / 53.5° / -0.4 / 1.04 / 0.27 / 0.50 / 1.09
 35-36 2.52 / 127.9° / -68.8° / 0.60 / 2.91 / 1.36 / 1.25
 36-37 4.07 / 250.9° / -0.15 / 3.19 / 0.56 / 3.50 / 0.0
 37-38 2.95 / 318.6° / -0.88.3 / 1.03 / 0.85 / 1.04 / 1.79
 38-39 2.36 / 13.0° / 22.0° / 0.30 / 1.20 / 1.0 / 1.50

⑤ THAM HUB PHA KHAO 20/2/2020



④ THAM HUB PHA KHAO 20/2/2020