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# C.R.A. EXPLORATION PTY. LIMITED
## DRILL CORE LOG

SHEET No. 1/4

TENEMENT NAME TENTH LEGION No. 53M/75

PLAN – MAP REFERENCE TAS h 2

CO-ORDINATES 4989.62 N / 5100.10 E AZIMUTH 180° GRID DRILLERS PARRY COMMENCED 17.3.82 DEPTH 119 m. HOLE No. TLC 11

RL COLLAR 252.82 INCLINATION -55° DRILL TYPE BOYLES 37 COMPLETED 24.3.82 CASING LEFT — DPO No(s) 30136, 30135, 30137

| DEPTH From (M) | DEPTH To (M) | Core Rec. (M) | Core Size | Graphic Log | CORE DESCRIPTION | SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization | Sample No. | From (M) | To (M) | Rec (M) | ASSAY VALUES (Analysed by ANALABS) Cu | Pb | Zn | Ag | As | Sn | W | Au |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | TRICONE DRILLED TO 3m - NO CORE TO 4m. | | | | | | | | | | | | | |
| 0 | 6.5 | 3.1 | | | 4.0 – SILTSTONES AND SHALES | | GRIND | SAMPLES | | | | | | | | | | |
| 5 | 9.5 | 3.0 | | ss/sh | 4.0 – 8.0 - dark grey to almost black | 4.0 - 6.4 pyrite 2-3%, as thin veinlets | 973818 | 4.0 | 6.4 | 2.4 | 105 | 20 | 185 | <0.5 | 15 | <4 | 64 | |
| 5 | 12.5 | 3.0 | | | F.gr thinly bedded siltstones and shales with | and stringers and finely disseminated | 819 | 6.4 | 9.3 | 2.9 | 60 | 15 | 230 | 1.0 | 23 | <4 | <4 | |
| 5 | 15.5 | 1.3 | | | minor white bands to 15cm thick. Extensively | minor qtz-epidote veining | 820 | 9.3 | 11.8 | 2.5 | 100 | 30 | 205 | 1.0 | 20 | <4 | 10 | |
| 5 | 18.5 | 0.2 | | | brecciated and disrupted intervals alternating with | 6.4 – 8.0 Totally brecciated - weak | 821 | 11.8 | 13.8 | 1.9 | 80 | 35 | 220 | 1.5 | 34 | <4 | 13 | |
| 5 | 27.5 | 0 | | | well bedded, less disturbed intervals. Gradually | qtz veining with f.gr. dissem py 3-5%. | | | | | | | | | | | | |
| 5 | 30.5 | 2.5 | | | becomes lighter in colour and more | | | | | | | | | | | | | |
| 5 | 33.5 | 3.1 | | | bleached after 6.4m. 6.0 bedding 65° | | | | | | | | | | | | | |
| 5 | 36.5 | 3.0 | | ss/qs | 8.0 – 13.2 Pale browns + 10.0 Bedding 40° | 8.0 – 13.2 originally 3-5% pyrite | | | | | | | | | | | | |
| 5 | 39.5 | 3.0 | | | greys - bleached + weathered, extensively | now totally leached away. | | | | | | | | | | | | |
| 5 | 42.5 | 3.0 | | | fractured + broken, with limonite films | | | | | | | | | | | | | |
| 5 | 45.5 | 3.0 | | | along jointing. Slightly more sandy textured | | SLUDGE | SAMPLES | | | | | | | | | | |
| 5 | 50.0 | 4.7 | | | and quartzose, with some intervals of | | 973471 | 18.0 | 21.0 | | 90 | 45 | 700 | 1.0 | 150 | <4 | 16 | <0.005 |
| | | | | | segregated grey qtz and pale green-grey | | 472 | 21.0 | 24.0 | | 95 | 50 | 900 | 0.5 | 170 | 11 | 15 | <0.005 |
| | | | | | sericitic material. | | 473 | 24.0 | 27.0 | | 90 | 50 | 850 | 1.0 | 140 | 8 | 19 | <0.005 |
| | | | | | 13.7 – 28.5 LOST CORE ZONE | | GRIND | SAMPLES. | | | | | | | | | | |
| | | | | ss/qs | 28.5 – 32.6 Mottled buff + dark grey/ | 28.5 - qtz, pyrite veins and | 822 | 28.5 | 30.7 | 2.5 | 60 | 25 | 45 | 1.0 | 38 | <4 | 11 | |
| | | | | | light brown metamorphosed siltstones | segregations/sweat outs. Py 2-3% | 823 | 30.7 | 32.6 | 1.8 | 60 | 65 | 65 | 1.0 | 74 | <4 | 36 | |
| | | | | | + quartzites - mostly converted to qtz- | Minor serpentine films along joints. | | | | | | | | | | | | |
| | | | | | sericite rock. | | | | | | | | | | | | | |
| | | | | | Contact 43°? | | | | | | | | | | | | | |
| | | | | Css | 32.6 – 33.6 CALC SILICATE SKARN | Cut | 973474 | 32.6 | 33.6 | 1.0 | <5 | 10 | 10 | 1.0 | 6 | <4 | <4 | |
| | | | | | White massive crystalline aggregate of | | | | | | | | | | | | | |
| | | | | | tremolite - poorly banded/foliated | | Grinds ↓ | | | | | | | | | | | |
| | | | | qS/ss | 33.6 – 49.0 Contact 50° QTZ - SERICITE ALTERED SEDIMENTS. | | 824 | 33.6 | 36.5 | 2.9 | 60 | 30 | 85 | <0.5 | 23 | <4 | 11 | |
| | | | | | Mostly pinkish brown (sericite rich) | 33.6 – 37.9 pyrite 3-5% as blebs | 825 | 36.5 | 39.4 | 2.9 | 90 | 20 | 50 | 0.5 | 30 | <4 | 22 | |
| | | | | | and grey (qtz rich) laminated f.gr. | with qtz and finely disseminated. | 826 | 39.4 | 42.3 | 2.9 | 85 | 40 | 40 | 1.0 | 45 | <4 | 6 | |
| | | | | | qtzites and sandy siltstones. After | 37.9 – 49.0 pyrite 3-5%, po 1-3% as | 827 | 42.3 | 45.3 | 2.8 | 60 | 30 | 40 | 1.0 | 31 | <4 | <4 | |
| | | | | | 37.9m, more dark grey → black shales | dissem. blebs to 2mm. | 828 | 45.3 | 48.2 | 2.9 | 40 | 35 | 65 | <0.5 | 33 | <4 | 10 | |
| | | | | | (hornfelsed), which have resisted | | 829 | 48.2 | 49.0 | 0.8 | 40 | 35 | 100 | <0.5 | 41 | <4 | <4 | |
| | | | | | segregation to qtz/sericite 40.0 Bedding 45° | | | | | | | | | | | | | |

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# C.R.A. EXPLORATION PTY. LIMITED
## DRILL CORE LOG

SHEET No. 2/4

TENEMENT NAME TENTH LEGION No. 4.58 M/75

PLAN – MAP REFERENCE

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. TLC 11

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

| DEPTH From (M) | DEPTH To (M) | Core Rec. (M) | Core Size | Graphic Log | CORE DESCRIPTION | SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization | Sample No. | From (M) | To (M) | Rec (M) | ASSAY VALUES (Analysed by ANALABS) Cu | Pb | Zn | Ag | As | Sn | W | Au |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Contact 30° ; Banding 65° | | | | | | | | | | | | | |
| 0 | 53.0 | 2.8 | | | 49.0–50.8 CALC SILICATE / DOLOMITE. | | CUT SAMPLES | | | | | | | | | | | |
| 3.0 | 56.0 | 3.0 | | | 49.0–49.4 Cst/Css – green and grey diopside | 49.0–49.4 Po 7% as irregular blebs | 973475 | 49.0 | 49.4 | 0.4 | 135 | 15 | 350 | 1.5 | 11 | 34 | <4 | |
| 6.0 | 59.0 | 3.0 | | | tremolite rock, mottled, minor pink Mn silicates | 49.4–50.2 Finely diossem banded | 476 | 49.4 | 50.2 | 0.8 | 45 | 25 | 2400 | <0.5 | 31 | 64 | <4 | |
| 9.0 | 62.0 | 3.1 | | | 49.4–50.2 Dol – heavily altered and impregnated | magnetite 10–20%; pyrite 10%; sp | 477 | 50.2 | 50.8 | 0.6 | 10 | 35 | 80 | <0.5 | 44 | 7 | <4 | |
| 12.0 | 65.0 | 3.1 | | | with banded f.gr. mag and dissem. py. | 2% for 20 cm in centre of zone | | | | | | | | | | | | |
| 15.0 | 68.0 | 3.0 | | | 50.2–50.8 Cst/Css – bone coloured | 50.2–50.8 patches of Mn carbonate | | | | | | | | | | | | |
| | | | | | tremolite rock, f.gr. with epidote clots | in last 20 cm of interval. | | | | | | | | | | | | |
| | | | | | and sericite / diopside intercalations – sediment rich? | | | | | | | | | | | | | |
| | | | | | Contact brecciated | | GRIND SAMPLES | | | | | | | | | | | |
| | | | | b/sh/ss | 50.8–56.1 BLACK SHALE / GREY SILTSTONE | 50.8 – | 973830 | 50.8 | 53.5 | 2.9 | 80 | 30 | 225 | <0.5 | 43 | <4 | 73 | |
| | | | | | Massive dark grey hornfelsed shale | | 831 | 53.5 | 56.1 | 2.6 | 85 | 40 | 60 | <0.5 | 68 | <4 | 22 | |
| | | | | | brecciated, with minor clasts grey | | | | | | | | | | | | | |
| | | | | | siltstone (chert?). Patches to 30 cm | | | | | | | | | | | | | |
| | | | | | are pale grey – metasomatised to Cst. | | | | | | | | | | | | | |
| | | | | | Contact Broken. | | CUT SAMPLES | | | | | | | | | | | |
| | | | | | 56.1–60.1 CALC SILICATE SKARN | 56.1–56.85 py 1-2%, minor epidote | 973478 | 56.1 | 56.85 | 0.75 | 50 | 25 | 45 | <0.5 | 65 | 9 | <4 | |
| | | | | | Fine grained mottled grey/bone/green | 56.85–57.0 po 10–15%, mag 10–15% | 479 | 56.85 | 57.0 | 0.15 | 1350 | 20 | 60 | <0.5 | 12 | <4 | 6 | |
| | | | | | tremolite/diopside rock, extensively | py 5%. | 480 | 57.0 | 58.3 | 1.3 | 45 | 20 | 40 | 1.5 | 18 | 14 | <4 | |
| | | | | | deformed and brecciated, with zones | 57.0–58.3 minor epidote, Mn silicates | 481 | 58.3 | 58.6 | 0.3 | 270 | 20 | 55 | 0.5 | 41 | <4 | <4 | |
| | | | | | up to 0.4m of recrystallised / or | 58.3–58.6 py/marcasite 20%, po 2-3% | 482 | 58.6 | 59.6 | 1.0 | 350 | 20 | 30 | 0.5 | 33 | <4 | <4 | |
| | | | | | serpentinised material which carries fine | 58.6–59.6 po 8–15%, py 3–15%, mag 10% | 483 | 59.6 | 60.1 | 0.5 | 65 | 75 | 180 | 0.5 | 210 | <4 | <4 | <0.005 |
| | | | | | grained magnetite and sulphides. | 59.6–60.1 py 1%, minor epidote. | | | | | | | | | | | | |
| | | | | | Contact 40° | | GRIND SAMPLES | | | | | | | | | | | |
| | | | | ss/bsh | 60.1–63.8 SILTSTONES / SHALES | | 973832 | 60.1 | 62.8 | 2.7 | 70 | 30 | 80 | 0.5 | 57 | <4 | 28 | |
| | | | | | As above, 50.8–56.1. Slightly more | | 833 | 62.8 | 65.7 | 2.6 | 50 | 60 | 95 | <0.5 | 25 | <4 | 32 | |
| | | | | | metasomatism – rock is harder and has | | | | | | | | | | | | | |
| | | | | | more pale grey (tremolite?) patches. | | | | | | | | | | | | | |
| | | | | | Contact 30° | | CUT SAMPLES | | | | | | | | | | | |
| | | | | qs | 63.8–67.4 QTZ-SERICITE SEDIMENTS | 63.8–67.4 pale grey | 973484 | 65.7 | 67.4 | 1.5 | 35 | 10 | 50 | 0.5 | 59 | <4 | <4 | |
| | | | | | Sericite rich highly hornfelsed shale | | | | | | | | | | | | | |
| | | | | | rock – little segregated qtz. | | | | | | | | | | | | | |

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**C.R.A. EXPLORATION PTY. LIMITED**

# DRILL CORE LOG

SHEET No. 3/4

TENEMENT NAME TENTH LEGION No. 53M/75

PLAN – MAP REFERENCE

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. TLC 11

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

| DEPTH From (M) | DEPTH To(M) | Core Rec. (M) | Core Size | Graphic Log | CORE DESCRIPTION | SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization | Sample No. | From (M) | To (M) | Rec (M) | ASSAY VALUES (Analysed by .....) Cu | Pb | Zn | Ag | As | Sn | W | Au |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8·0 | 71·0 | 3·1 | | Dol | Contact 70° 67·4 – 89·0 DOLOMITE | 67·4 – 67·8 pyrite 3-5% mag 3-5% | 973485 | 67·4 | 68·8 | 1·4 | 10 | 10 | 30 | 1·0 | 7 | <4 | <4 | |
| 1 0 | 74·0 | 3·0 | | | Recrystallised massive grey dolomite, | 67·8 – 68·4 py 2-3%, mag 2-3% disem. | 486 | 68·8 | 69·5 | 0·7 | 5 | 15 | 20 | <0·5 | 7 | <4 | <4 | |
| 4·0 | 77·0 | 3·0 | | | in places with heavily disseminated | 68·4 – 69·5 mag dissem 15-20%, py 1-2% | 487 | 69·5 | 70·2 | 0·7 | 5 | 10 | 15 | 0·5 | 6 | <4 | <4 | |
| 7·0 | 80·0 | 3·0 | | | magnetite, also small lenses serpentinite/magnetite | 69·5 – 70·2 White calcite, mag 1-2% | 488 | 70·2 | 70·8 | 0·6 | 20 | 20 | 65 | 1·0 | 69 | <4 | 49 | |
| 0·0 | 83·0 | 3·0 | | S | 70·2 – 70·8 Dark green serpentinite with | 70·2 – 70·8 mag 5-7%. | 489 | 70·8 | 71·2 | 0·6 | 15 | 20 | 70 | 1·0 | 31 | <4 | 7 | |
| 3·0 | 86·0 | 3·0 | | Dol | bands of ? vesuvianite or ?idocrase. | | 490 | 71·2 | 72·7 | 1·5 | 5 | 20 | 20 | <0·5 | 41 | <4 | <4 | |
| 6·0 | 89·0 | 3·0 | | | 70·8 – pale grey dolomite marble | 70·8 – 76·3 mag 3-5%, associated with | 491 | 72·7 | 74·1 | 1·5 | 5 | 20 | 20 | <0·5 | 140 | <4 | <4 | <0·005 |
| 9·0 | 92·0 | 3·0 | | | with irregular thin films + bands of serpentine. | thin serpentinite veining. | 492 | 74·1 | 75·6 | 1·4 | 5 | 20 | 15 | 0·5 | 12 | <4 | 4 | |
| 2·0 | 95·0 | 3·0 | | | | | 493 | 75·6 | 76·3 | 0·8 | 5 | 30 | 20 | <0·5 | 12 | <4 | 5 | |
| | | | | | | 76·3 – 76·7 Serpentine 80%, mag 10% | 494 | 76·3 | 76·7 | 0·4 | <5 | 15 | 20 | <0·5 | 27 | <4 | 7 | |
| | | | | | | 76·7 – 77·1 Unusual pale pinkish green talc | 495 | 76·7 | 77·1 | 0·4 | <5 | 25 | 40 | 0·5 | 19 | <4 | 6 | |
| | | | | | | + serpentine. | 496 | 77·1 | 77·6 | 0·5 | 5 | 15 | 35 | <0·5 | 11 | <4 | <4 | |
| | | | | | | 77·1 – 78·2 Breccia zone – cemented with | 497 | 77·6 | 78·3 | 0·7 | 10 | 5 | 20 | 1·0 | 7 | <4 | <4 | |
| | | | | | | v. pale green talcy serpentine. mag 1% | 498 | 78·3 | 79·7 | 1·4 | 5 | 10 | 10 | 1·0 | 4 | <4 | <4 | |
| | | | | | | 78·3 – 83·3 Mag 7-12%, finely dissem. | 499 | 79·7 | 81·2 | 1·5 | <5 | 10 | 20 | <0·5 | 3 | <4 | <4 | |
| | | | | | | throughout. py 1-2% as blebs to 1mm. | 500 | 81·2 | 82·6 | 1·4 | 5 | 10 | 20 | <0·5 | 4 | <4 | <4 | |
| | | | | | | 83·3 – 86·2 py 2-5%, also po | 501 | 82·6 | 83·3 | 0·7 | 10 | 10 | 20 | 0·5 | 4 | <4 | <4 | |
| | | | | | | and mag 3-5%. | 502 | 83·3 | 83·85 | 0·55 | 5 | 15 | 70 | 0·5 | 24 | <4 | <4 | |
| | | | | | | 86·2 – 89·0 mag 2-3%, py 1-2% | 503 | 83·85 | 84·75 | 0·9 | 15 | 30 | 55 | 1·5 | 18 | <4 | <4 | |
| | | | | | | | 504 | 84·75 | 86·2 | 1·45 | 10 | 10 | 20 | 1·0 | 12 | <4 | <4 | |
| | | | | | | | 505 | 86·2 | 87·6 | 1·4 | 10 | 15 | 35 | 1·5 | 12 | <4 | <4 | |
| | | | | | Contact irregular. | | 506 | 87·6 | 89·0 | 1·4 | 20 | 15 | 180 | <0·5 | 10 | <4 | <4 | |
| | | | | Css | 89·0 – 91·7 CALC SILICATE SKARN | 89·0 – 89·5 py 1%, mag 2-3%. | 507 | 89·0 | 89·5 | 0·5 | 55 | 25 | 435 | 0·5 | 60 | 14 | <4 | |
| | | | | | Pale green, grey + brown mottled | with serp | 508 | 89·5 | 90·0 | 0·5 | 10 | 35 | 60 | 1·0 | 11 | 7 | <4 | |
| | | | | | Cst + Css rock, with thin (to 0·2m) | 89·5 – 91·7 trace pyrite, minor epidote | 509 | 90·0 | 91·1 | 1·1 | 60 | 85 | 150 | 1·0 | 29 | 62 | <4 | |
| | | | | | serpentine bands. Totally brecciated | | 510 | 91·1 | 91·6 | 0·5 | 15 | 30 | 70 | 1·5 | 33 | 86 | <4 | |
| | | | | | and metasomatised – multiple phases | | | | | | | | | | | | | |
| | | | | | Gradual change over 10cm. | | 511 | 91·6 | 92·7 | 1·1 | 135 | 40 | 120 | 1·5 | 87 | 16 | 10 | |
| | | | | bsh | 91·7 – 92·7 HORNFELSED BLACK SHALE | 91·7 – 92·7 mag 3-5%, py 5-7% | | | | | | | | | | | | |
| | | | | | Black and hard, with brownish patches | , strong trace ? sp. | | | | | | | | | | | | |
| | | | | | & ?idocrase and thin serpentinite veining | | | | | | | | | | | | | |

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**C.R.A. EXPLORATION PTY. LIMITED**

# DRILL CORE LOG

SHEET No. 4/4

TENEMENT NAME TENTH LEGION No 53M/75

PLAN – MAP REFERENCE

CO-ORDINATES ..... AZIMUTH ..... DRILLERS ..... COMMENCED ..... DEPTH ..... HOLE No. T.L.C. 11

RL COLLAR ..... INCLINATION ..... DRILL TYPE ..... COMPLETED ..... CASING LEFT ..... DPO No(s) .....

| DEPTH From (M) | DEPTH To(M) | Core Rec. (M) | Core Size | Graphic Log | CORE DESCRIPTION | SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization | Sample No. | From (M) | To (M) | Rec (M) | ASSAY VALUES (Analysed by ANALABS) Cu | Pb | Zn | Ag | As | Sn | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Contact 55°. | | | | | | | | | | | | |
| 95.0 | 98.0 | 3.0 | NQ | Gss | 92.7–95.9 CALC SILICATE SKARN | 92.7–93.1 finely diseem mag 2-3%, py 1-2% | 512 | 92.7 | 93.1 | 0.4 | 145 | 25 | 115 | 1.0 | 13 | 69 | <4 |
| 98.0 | 101.0 | 3.0 | | | Mostly fine grained buff coloured Cst | 93.1–93.35 py 3-5%, mag 2-3% | 513 | 93.1 | 93.35 | 0.25 | 50 | 20 | 120 | 1.0 | 33 | 4 | <4 |
| 101.0 | 104.0 | 3.0 | | | that has been recrystallised to varying | 93.35–93.9 Minor epidote 1-2-5% | 514 | 93.35 | 93.9 | 0.55 | 10 | 45 | 270 | 1.0 | 6 | 228 | <4 |
| 104.0 | 107.0 | 3.0 | | | degrees. 93.1–93.35 black hornfels as above | 93.9–95.0 patches fgr Mn silicates | 515 | 93.9 | 95.0 | 1.1 | 10 | 15 | 50 | 1.0 | 4 | 123 | <4 |
| 107.0 | 110.0 | 3.0 | | | Gradual change over approx 1m. – Poorly brecciated fabric. | | GRIND | SAMPLES | | | | | | | | | |
| 110.0 | 113.0 | 3.0 | | qs | 95.9 – 119.0 ALTERED SEDIMENTS | 95.9–119.0 trace pyrite, epidote % | 973834 | 95.0 | 98.0 | 3.0 | 35 | 20 | 45 | <0.5 | 9 | 24 | 4 |
| 113.0 | 116.0 | 3.0 | | | pale pinkish brown sericitic (clay rich) | associated with qtz remobilisation. | 835 | 98.0 | 101.0 | 3.0 | 15 | 15 | 40 | <0.5 | 13 | <4 | 13 |
| 116.0 | 119.0 | 2.8 | | | material with lenses and bands of | | 836 | 101.0 | 104.0 | 3.0 | 20 | 5 | 30 | <0.5 | 7 | <4 | 12 |
| | | | | | grey segregated quartz up to 5cm | | 837 | 104.0 | 107.0 | 3.0 | 40 | 10 | 30 | <0.5 | 4 | <4 | 17 |
| | | | | | thick, but mostly 3–9 mm. | | 838 | 107.0 | 110.0 | 3.0 | 160 | 10 | 160 | <0.5 | 4 | <4 | 255 |
| | | | | | Some pinkish-grey 100.0 Bedding 55° | | 839 | 110.0 | 113.0 | 3.0 | 20 | 10 | 40 | <0.5 | 7 | <4 | 19 |
| | | | | | massive quartzite beds 108.5 Bedding 55° | | 840 | 113.0 | 116.0 | 3.0 | 45 | 20 | 180 | <0.5 | 6 | <4 | 13 |
| | | | | | up to 1.m thick. | | 841 | 116.0 | 119.0 | 2.8 | 30 | 25 | 120 | <0.5 | 31 | <4 | 6 |
| | | | | | END OF HOLE 119 m. | | | | | | | | | | | | |