COMPOSITE WELL LOG

PLANET : HEATHFIELD N°1 WELL

4700'–7500'

BIT TYPES & REMARKS

8¾" REED YT3-J
REED HF 7/8
8¾" REED
2½°
8¾" REED YBI-J
2°
REED HF 7/8
8¾" REED YBI-J
4¼°
8¾" REED YBI-J (Re-Run)
4°
3¾°
REED HF 7/8
8¾" REED YT3-J
4°
REED HF 7/8
8¾" REED YBI-J
4°
8¾" REED YT3-J
4½°
3½°
8¾" REED YT3-J
3°
REED HF 7/8
8¾" REED YT3
3°
8¾" REED YT3
3°
8¾" REED YT3
REED HF 7/8

DRILLING RATE (Min / Ft.)
3·5 4 4·5 5 5·5 6 6·5 7 7·5 8 8·5 9 9·5 10 10·5 11 11·5

DEVIATION

CASING AND PLUGS

CORE Recovery and Dip

13 Rec 8'6"
14 Rec 10' Dip 20°
14 Rec 10' Dip 20°
15 Rec 10' Dip 10°
16 Rec 9' Dip 10°
17 Rec 10' 10"
18 Rec 7' Dip 5°
19

DRILL STEM TEST

D.S.T. NO.3.
5608'–5643'.
I.S.I. – 20 mins
V.O. – 40 mins
F.S.I. – 20 mins
Rec. 10' mud.
IHP – 2915 psi
ISIP – 45 psi
IFP – 0 psi
FFP – 0 psi
FSIP – 0 psi
FHP – 2859 psi

MUD GAS DETECTION
0 10 20 30 40

DEPTH
4700
4800
4900
5000
5100
5200
5300
5400
5500
5600
5700
5800
5900
6000
6100
6200
6300
6400
6500
6600
6700
6800
6900
7000
7100
7200
7300
7400
7500

POROSITY

LITHOLOGY %of cuttings

WELL SYMBOLS

SPONTANEOUS POTENTIAL
– 10 +
millivolts

INTERPRETED LITHOLOGY

RESISTIVITY ohms – m^2/m
0 AM_1 = 16" 200
0 200
0 AM_2 = 64" 20

RESISTIVITY ohms – m^2/m
0 20
0 AO = 18' 8" 200

MICROCALIPER
Hole diameter in inches
8 9 10 11 12 13 14 15 16

MICROLOG Resistivity – ohms – m^2/m
10
0 Micro Inverse 1" x 1" 20
10
0 Micro Normal 2" 20

RUN 4.
RUN 4.
RUN 4.
7 8 9 10 11 12 13 14 15"

LITHOLOGIC DESCRIPTION

STRATIGRAPHIC COLUMN

5036'–5604' SILTSTONES, MUDSTONES, SANDSTONES and SHALES (UNIT VI)

Siltstones: Medium grey to occasionally light grey and dark grey and occasionally light brown to dark brown. Micaceous, argillaceous, slightly feldspathic in places, contains fairly common carbonaceous flecks. Traces of gypsum, pyrite and mudstone pellets and pebbles.
Mudstones: Medium grey to medium brown to greenish grey, generally silty, micaceous and containing minor carbonaceous specks and flecks.
Sandstones: Light grey to very light grey, fine grained to very fine grained, commonly, slightly to moderately calcareous, kaolinitic, consists of fairly sorted, sub-angular, occasionally sub-rounded light grey quartz, minor white feldspars, minor green and brown reworked mudstone grains, pellets and very minor dark grey carbonaceous shale fragments, common coaly and carbonaceous grains and flecks, common traces of biotite and muscovite, trace chlorite; light brown clay inclusions, dark grey chert grains and rare green quartzite grains, in a kaolinitic, calcareous matrix.
Shale: Black, dark brown to dark grey, medium brown. Carbonaceous, containing coally inclusions, plant fragments. Slightly silty in places, slightly fissile.
Coal seam present at 5430' consisting of impure black shales, some bright with conchoidal fracture. Gross thickness about 5'. Traces of coal and gypsum are present throughout. Rare traces of biotite and calcite.
Traces of ferruginous, calcareous and sideritic siltstone and mudstone between 5210' and 5400'.

5604'–7500' INTERBEDDED SILTSTONES, SANDSTONES, SHALES and MUDSTONES. (UNIT VII)

The siltstones, generally medium grey, varying locally to light grey, brown, dark brown or greenish grey. The presence of common carbonaceous material in the form of flecks and specks and some laminations as a characteristic feature. Siltstones are argillaceous, micaceous and occasionally sandy. Rare traces present of gypsum and calcite.
Sandstones are light grey, very light grey, whitish grey, medium grey, light brown, fine grained, occasionally very fine grained, medium grained, rarely coarse grained, hard to moderately soft. The harder variety is calcareous, softer variety is kaolinitic to calcareous.
The sandstone is brittle, friable in places, constituent grains in these are recovered loose in the cuttings.
In these instances, grains up to and including granule size, of clear, fresh angular quartz as well as rounded, frosted, are common as well as a few small pebbles of quartz.
Where consolidated, the sandstone consists of fairly to occasionally poorly sorted, sub-angular, light grey, white, clear, occasionally pink quartz, minor white feldspars, black coally grains; carbonaceous flecks and grains, muscovite, biotite, dark grey shale grains, green and brown lithic fragments. Traces present of green mudstone grains and pellets, fine green indeterminate specks, red and orange specks, chlorite, rare quartzite and phyllite grains, rare pyrite and siderite, traces plant resin, brown clay inclusions and very rare garnets. These above constituents are in a kaolinitic to calcareous matrix.
Below 7200' the sandstones are silicified in a few places.
Mudstones: medium grey, brown, greenish grey, green, silty, finely micaceous in places, and contain minor amounts of carbonaceous specks and flecks. Mudstones grade to shale near the base of the unit.
Shale: dark grey, dark brown, black, commonly carbonaceous, some coaly laminations. Where mudstone grades into shale, the shale is medium grey in places, and slightly silty.
Shale is slightly micaceous in places, contains some plant fragments.
Coal seams: Impure seams of black, shaley, dull coal with minor bright coal with conchoidal fracture present at 6280'–83' (3'), 6692'–95' (3') and 6715'–18' (3').
Traces are present throughout of gypsum and coal. Gypsum traces decrease downwards. A few traces of white crystaline calcite (fracture filling) also present. Rare traces of pyrite, siderite, dark brown ferruginous shale and brown ferruginous, calcareous siltstone also present.

STRATIGRAPHIC COLUMN

LOWER CRETACEOUS GROUP
MERINO