

GEOLOGICAL DESCRIPTIONS

MT. WINTER NO. 2 CUTTINGS

GEOLOGICAL DESCRIPTIONS PANCONTINENTAL PETROLEUM LTD.

SHALLOW CORE PROGRAMME 1985 OP 178

LINE: GE 21 WELL: SP 154 (MT. WINTER #2)

INTERVAL

DESCRIPTION.

0-5m.

SILTY FERRUGINOUS SAND; MEDIUM-DARK ORANGE BROWN, V. SILTY I/P. UNCONSOLIDATED, MOD-POORLY SORTED, ANG-SUB ROUNDED. SURFICIAL.

5-10m

SILTY FERRUGINOUS SAND: AS ABOVE. SURFICIAL.

10-15m

SILTY FERRUGINOUS SAND: AS ABOVE W/- TRACE WHITE - PALE PINK + PALE YELLOW SILCRETE/CLAYEY SANDSTONE. SURFICIAL.

15-20m

SANDSTONE: WHITE - PALE + MEDIUM ORANGE BROWN, V. FINE - FINE + OCC MEDIUM GRAINED, MODERATELY TO WELL SORTED, SUB ANG - SUB ROUNDED, V. POORLY CONSOLIDATED. SLI TR SILTY MATRIX.

20-25m

SANDSTONE; V. PALE ORANGE - PALE ORANGE OTHERWISE AS ABOVE.

25-30m

SANDSTONE: AS ABOVE - BEDDING MOD CONSOL I/P.

INTERVAL	DESCRIPTION
30-35m	SANDSTONE; V. PALE YELLOWISH ORANGE TO PALE ORANGE, V. FINE-FINE + OCC MEDIUM GRAINED, PREDOM FRIABLE, TRACE MICA (MUSCOVITE). TRACE DARK LITHIC / MINERAL FLECKS. WEATHERED BED ROCK?
35-40m	SANDSTONE: PALE PINKISH YELLOW AS ABOVE.
40-45m	SANDSTONE; V. PALE GREYISH + PINKISH YELLOW, EXTREMELY FINE-FINE + OCC MED GRAINED, MOD WELL CEMENTED w/ SILICA I/P. SUB ANG-SUB ROUNDED, OCC RED BROWN GRAIN COATINGS, TRACE CLAY MATRIX. MOD-WELL SORTED. POOR VIS $\phi$ .
45-50m	SANDSTONE; WHITE - PALE + MED PINK, TRACE PALE YELLOW, MOD HARD, FINE - OCC COARSE GRAINED MOD SORT, CLAY + FERRUG MATRIX I/P, TR LIMONITIC, TR BLACK LITHIC / MIN FLECKS. WEATHERED BED ROCK. NON CALC OR DOL. POOR VIS $\phi$ . NO SHOWS.
50-55m	50% SANDSTONE; WHITE - PALE GREY + PALE BUFF GREY. EXTREMELY FINE GRAINED. V. WELL CEMENTED w/ SILICA, WELL SORTED. CHERTY TEXTURE (GRANULAR) I/P. V. HARD, TIGHT VISUAL POROSITY NO SHOWS. CONT.

INTERVAL	DESCRIPTION.
50-55m CONT.	50% SHALE/CLAYSTONE; BUFF GREY, YELLOWISH GREY, HARD - occ FIRM, MICACEOUS, SILICEOUS, BLOCKY GRADES TO SILTSTONE + EXTREMELY FINE SANDSTONE AS ABOVE.
55-60m.	60% SANDSTONE: PALE - occ MEDIUM GREY, SILICEOUS, V. HARD, MOD SORT, SUB ROUNDED, V. WELL CEMENTED w/- SILICA. TRACE PYRITE DISSEMINATIONS. TR COARSE BLACK BITUMINOUS (GOLSWITE?) ROUNDED GRAINS. TRACE <u>VERY</u> DULL PALE YELLOW MINERAL? FLUORESCENCE IN 50% OF SAMPLE. <sup>NO CUT</sup> V. SLI CALC I/P, POSSIBLE TRACE CHERTY FRAGMENTS. TIGHT - TRACE POROSITY. 40% SHALE/SILTSTONE; MED GREY, SOFT - FIRM, FISSILE - SUB FISSILE, SILICEOUS I/P. TR PYRITIC + TR CALC.
60-63m.	30% SANDSTONE; AS ABOVE - NO SHOWS. 40% SHALE; MEDIUM GREY, MOD HARD, FISSILE, GRADES TO SILTSTONE. 30% SILTSTONE; GRADES TO SHALE + SANDSTONE AS ABOVE. TR DOLOMITE; PALE - MED GREY, V. HARD, CRYPTO- <sup>XCLINE</sup> FINELY MICROCROSIC. SILTY + TR SANDY. GIVES V. DULL PALE YELL MIN FLU.

## INTERVAL

## DESCRIPTION

63-66 m

50% SILTSTONE; PALE-MEDIUM GREY,  
SOFT-FIRM - MOD HARD, BLOCKY-SUB FISS,  
SLI TR DOLOMITIC, TR SAND GRAINS, TR  
MICROMIC, RARE TR PYRITE. GRADES TO  
V. FN SS + SHALE.

20% SANDSTONE; AS ABOVE MOD -  
V. DOLOMITIC, TRACE V. DULL PALE  
YELLOW MINERAL FLUORESCENCE. GRADES  
TO TRACE SANDY DOLOMITE.  
30% SHALE; AS ABOVE.

66-69 m  
~~70-75 m~~

50% SILTSTONE; A/A. MOD DOL.  
20% SANDSTONE; A/A. V. DOL.  
30% SHALE; A/A.

69-72 m

50% SILTSTONE; A/A. MOD DOL.  
20% SANDSTONE; A/A. V. DOL.  
30% SHALE; A/A.

72-75 m

30% SILTSTONE; AS ABOVE OCC V. DARK BROWN/  
BLACK CARBONACEOUS FLECKS. GRADES TO SAND + SHALE.  
20% SANDSTONE; A/A. V. DOLOMITIC, EXT FN. TITE.  
30% SHALE; PL-MED GREY, FIRM, FISSILE,  
MICRO MICACEOUS, TRACE SLI DOLOMITIC, RARE TR  
BLACK CARBONACEOUS FLECKS.  
20% CLAYSTONE; PALE-MED YELLOW, V. SOFT,  
PLASTIC /P, NON CALC

INTERVAL	DESCRIPTION
75-78m	40% SILTSTONE: A/A. 30% SHALE: A/A. 30% SANDSTONE: A/A. V. DOLOMITIC. HEAVY TR CLAYSTONE: A/A. NO SHO.
78-81m.	30% SILTSTONE: A/A. MOD-V. DOLOMITIC 30% SHALE: A/A. MOD-V. DOLOMITIC. 30% SANDSTONE: A/A. V. DOLOMITIC. <del>HEAVY</del> 10% CLAYSTONE; V. PALE BUFF YELLOW, GREYISH YELLOW, SOFT, PLASTIC 1/P. HEAVY TRACE: <u>DOLOMITE</u> ; EXT PALE-MED GREY MOTTLED, MICRO XLINE - MICRO SUCROSIC, FINE PYRITE DISSEMINATIONS, TR MINERAL FLUORESCENCE
81-84m	40% SHALE; AS ABOVE. TR DK BRN BITITE MINA. 60% CLAYSTONE; PALE YELLOW/BUFF, GREYISH + BUFF ORANGE, SOFT-FIRM, MOTTLED. NON CARB OR DOL. TR V. PALE GREENISH GREY. TR SANDSTONE V. DOLOMITIC A/A.
84-87m.	40% SHALE : AS ABOVE 20% SILTSTONE : AS ABOVE. 40% CLAYSTONE: AS ABOVE.

INTERVAL	DESCRIPTION
87 - 90m	40% CLAYSTONE; BUFF - PL. YELLOW + V. PALE GREEN, SOFT + PLASTIC, MOTTLED. 20% SANDSTONE; V. PALE GREY - PALE GREY, V. DOLOMITIC, ABUND CARBONACEOUS FLECKS. EXTREMELY FINE GRAINED, V. HARD. TIGHT $\phi$ , NO SHOWS. TR PYRITIC. 40% SHALE; PALE - MEDIUM GREY, FIRM - MOD HARD, FISSILE - OCC BLOCKY, SU - MOD DOLOMITIC, SU TR SANDY + SILTY, TR CARBONACEOUS FLECKS.
90 - 93m.	30% CLAYSTONE: A/A. GRADES TO SILTSTONE. 20% SANDSTONE: A/A. GDES TO DOLomite. 50% SHALE: A/A.
93 - 96m.	40% SILTY SHALE: AS ABOVE. 10% CLAYSTONE; AS ABOVE 30% SILTSTONE; V. PALE GREYISH GREEN, FIRM, BLOCKY - SUBFISS, MICROMIC, NON CALC OR DOL. 10% SANDSTONE: A/A. 10% DOLomite: A/A.
96 - 99m	SEE OVER.

INTERVAL	DESCRIPTION
96m → 99m	30% SANDSTONE; WHITE - PALE + MEDIUM GR, EXT FINE - FINE GRAINED, SILICEOUS + DOLOMITIC, WELL SORTED, V. HARD, TR PYRITE DISSEMINATIONS, SUB ROUNDED, TRACE - POOR VISUAL $\phi$ IN CLEANER AGGREGATES TIGHT $\phi$ IN SILTY/DOLOMITIC SAND. TRACE DK BROWN/BLACK CARBONACEOUS FLECKS. NO SHOWS.
	70% SILTSTONE; 2 TYPES.
	A) <del>BLK</del> MEDIUM GREY, HARD, BLOCKY - SUB FISSILE, MIC, CARB, SLI - MOD DOLOMITIC
	B) PALE BUFF GREY, PALE GREY GREEN, YELLOWISH ORANGE, PALE - MED PINK, MULTICOLOURED, SOFT - FIRM, MOTTLED, TR SANDY, NON CARC/ROZ
99 - 102m	20% SANDSTONE: AS ABOVE. 80% SILTSTONE: AS ABOVE - PREDOM TYPE A
102 - 105m.	30% SANDSTONE: AS ABOVE. 70% SILTSTONE: AS ABOVE - PREDOM TYPE A.
105 - 108m	20% SANDSTONE; AS ABOVE 80% SILTSTONE: AS ABOVE. PREDOM TYPE A
108 - 111m.	20% SANDSTONE: AS ABOVE. 80% SILTSTONE: AS ABOVE.



INTERVAL

DESCRIPTION.

111m → 114m

SILTSTONE: PALE-MEDIUM + occ DARK GREY,  
 FIRM-MOD HARD, BRITTLE, MICROMIC, V. SLI  
 DOLOMITIC I/P, TR FINELY PYRITIC, TR SANDY,  
 TR CARBONACEOUS FLECKS  
 OCC PALE GREEN, & YELLOWISH ORANGE, SOFT-  
 FIRM, NONCALC OR DOZ, MICROMIC (CAVINGS?)

114-117m

SILTSTONE: AS ABOVE.  
 RARE TRACE SANDSTONE: AS ABOVE.

117-120m.

SILTSTONE: AS ABOVE.  
 RARE TRACE SANDSTONE: AS ABOVE. NO SHOWS.

120-123m.

80% SILTSTONE: AS ABOVE  
 20% SANDSTONE: V. PALE-MEDIUM GREY,  
 OCC BROWNISH GREY, EXTREMELY FINE-FINE  
 GRAINED, V. HARD + SILICEOUS, SLI-MOD  
 DOLOMITIC, WELL SORTED, SUB ROUND. GRADES  
 TO SILTSTONE A/A. MOD CARBONACEOUS. TITE-TR Ø.  
 TR PYRITIC. NO SHOWS.

123-126m .

80% SILTSTONE; AS ABOVE.  
 20% SANDSTONE; AS ABOVE.

126-129m .

70% SILTSTONE: AS ABOVE.  
 30% SANDSTONE: AS ABOVE - OCC V. PYRITIC.  
 TR CRYSTALLINE CALCITE - VEINING?

INTERVAL

DESCRIPTION.

129-132 m.

60% SILTSTONE; MEDIUM - OCC DARK  
GREY, BLOCKY-SUB FISSILE, HARD, BRITTLE,  
SLI SANDY, TR CARBONACEOUS, SLI-MOD  
PYRITIC, GRADES TO V. FINE SILY SANDSTONE.  
40% SANDSTONE; WHITE - PALE + MEDIUM  
GREY, BROWNISH GREY, V. HARD + SILICEOUS  
EXTREMELY FINE - FINE GRAINED, NON CALC  
- V. SLI TR DOLOMITIC, IP. OCC V. PYRITIC,  
ABUND DK BROWN CARBONACEOUS FLECKS,  
(PHOSPHATIC?) WELL SORTED, SUB ROUNDED.  
TRACE ONLY  $\phi$ , NO SHOWS.