

DRILLING RECORD

SCHEME— MERSEY FORTH WILMOT		POSITION	CO-ORDINATES	E	N	HOLE No 5905
LOCATION— FISHER PENSTOCK			ON LINE BM 3476 BM 3477	BEARING 0° 00'	AT CH.	
POSITION PLOTTED ON DRAWING No S426868 1/3		LEVEL	FROM STN. BM 3476	BEARING 179° 02'	DIST 79'	FILE No
DATES: (a) DRILLED: July 1962 (b) WATER TABLE			SURFACE	FORMATION	WATER TABLE	
METHOD USED: D.D. DIAMETER No 4— 8		INCL	2684			SHEET 1 OF 4 SHEETS
SITE REMARKS: Gently sloping area beyond the base of the main slope at peg L.D. 12			HOLE DRILLED	DEPRESSION ANG.	INCL BEARING	
		VERT. FORMATION	90°			

STANDARD LEVEL	DEPTH	CORE DRAWN	RECOVERY 0.2 0.4 0.6 0.8 1.0	GRAPHIC LOG Core Lengths	JOINTS	WATER	REMARKS
	0'						0'0"-12'0" No core, driller reports soft yellow clay
	5'						12'0"-80'3" Fragments of dolerite upto 12" some with rounded and weathered margins. Yellow clay present in part. Core loss attributed to soft clay. Driller reports dolerite boulders and clay. Grain size is generally medium with scattered coarse grained fragments.
	10'						
	15'				3"		
	20'						
	25'				5"		
	30'				12"		
	35'						
	40'						Talus
	45'				3"	Drilling Mud	
	50'						
	55'						Below 58' Driller reports hole caving
	60'				10"		
	65'						
	70'				2"		At 74' Hole cased At 75' Lost drilling mud, hole caving
	75'						
	80'				1"		80'3"-80'9" Fragments upto 1" of fine grained dolerite and yellowish brown mudstone; some mudstone fragments containing sub-rounded to angular quartz fragments upto 0.105" and softer fragments of a noncarbonate material.
	85'				2"		Permian Sediments Correlate of the Wallace River Group
	90'				1" two 2"		
	95'				6" one 12" 6" 1" 4"		80'9"-93'11" Fragments of mudstone as above with many less than 1". Some green
	100'				Unable to indicate		

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LOCATION - FISHER PENSTOCK			ON LINE ^{BM 3976} BM 3977	BEARING 0°00'	AT CH	
POSITION PLOTTED ON DRAWING No. S4268681/3		LEVEL	FROM STN. ^{BM} 3976	BEARING 179°02'	DIST 79'	FILE No.
DATES: (a) DRILLED: July 1962 (b) WATER TABLE			SURFACE	FORMATION	WATER TABLE	
METHOD USED: D.D. DIAMETER No 4 - B		INCL	2684'			SHEET 2 OF 4 SHEETS
SITE REMARKS: Gently sloping area beyond the base of the main slope at peg 4, D. 12.			HOLE DRILLED	DEPRESSION ANG. 90°	INCL BEARING	

STANDARD LEVEL	DEPTH	CORE DRAWN	RECOVERY 0.2 0.4 0.6 0.8 1.0	GRAPHIC LOG	JOINTS	WATER	REMARKS	
							F - Fossil	O - Open joints
	0							
	105							a matrix of soft yellowish brown clay. Material appears to have been disturbed by drilling, as one fragment completely encased in clay and others showed drilling marks. There are a few fragments of quartz.
	110							the mudstone fragments are light grey and have sandstone phases.
	115							At 89'6" 3" of greyish brown mudstone with brachiopod fossils. At 93'5", 3" of brownish grey mudstone with rounded to angular inclusions of quartz and softer non-carbonate material upto 0.2".
	120							
	125							
	130							
	135							
	140							93'11"-100' Brownish grey mudstone with sandy phases and inclusions of quartz and softer non-carbonate material upto 0.25". Scattered small brachiopod fossils upto 0.5". At 95'10" rounded mudstone pebble 1.5". At 97'4" chert pebble 2.0".
	145							
	150							Permian Sediments Correlate of the Wallace River Group
	155							
	160							100' - 118'4" Grey mudstone with fine sandy phases and/or zones with inclusions particularly in intervals 101'2"-101'10", 103'10"-105'3", 106'8"-108'7", 110'3"-115'0". At 104'8" is a harder pebble 1" long. Some of these zones have gradational boundaries.
	165							
	170							118'4" - 122'2" Grey sandy limestone with calcareous inclusions, some with brachiopod fossils upto 0.5"
	175							
	180							122'2" - 140' Brownish grey and grey mudstone as above; both clayey homogeneous zones and fine sandy zones with inclusions. These have gradational boundaries in part & have not been distinguished in detail
	185							
	190							
	195							140' - 141'11" Brownish grey sandy limestone as above. Fossils but no definite brachiopods detected.
	200							141'11" - 144'6" Mudstone as above, sandy type with inclusions

Mainly thin joints with similar spacing to core lengths.

Not indicated fully

Unable to indicate

Partial Mud Loss

Drilling Mud

Cavity

Unable to indicate

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SCHEME: MERSEY FORTH WILMOT	POSITION	CO-ORDINATES	E.	N.	HOLE No
LOCATION: FISHER PENSTOCK		ON LINE BM 3976 BM 3977	BEARING: 0°00'	AT CH	5905
POSITION PLOTTED ON DRAWING No. S426868 1/3	LEVEL	FROM STN. BM 3476	BEARING 179°02'	DIST: 79'	FILE No.
DATES: (a) DRILLED: July 1962 (b) WATER TABLE		SURFACE	FORMATION:	WATER TABLE:	
METHOD USED: D.D. DIAMETER No. 4 - B	INCL.	2684'			SHEET 3 OF 4 SHEETS
SITE REMARKS: Gently sloping area beyond the base of the main slope at peg L.D.12		HOLE DRILLED:	DEPRESSION ANG.:	INCL BEARING:	
		VERT. HOLE INCL	90°		

STANDARD LEVEL	DEPTH	CORE DRAWN	RECOVERY 0.2 0.4 0.6 0.8 1.0	GRAPHIC LOG	JOINTS	WATER	REMARKS
200							including quartz pebbles upto 0.4"
205							144'6"-153'0" Mainly grey clayey homogeneous mudstone with some sandy phases in part. Some scattered fine calcareous lenses and inclusions in part. \angle of bedding 70°.
210							153'6"-155'0" Yellowish brown weathered poorly sorted quartz sandstone with inclusions of quartz including chert upto 0.8"
215							155'0"-175'0" Browns grey med fine quartz sandstone with mica some clay zones which appear to be drilling mud filling open joints eg at 157'3", 160'2", 161'7", 162'4" & about 167'. Sorting becomes poor below 175'0". Driller reports core loss
220							due to soft sandstone + mud losses below 157'. The soft sandstone appears to be due to weathering + the mud loss to open joints
225							175'0"-178'0" Core shows 7" of dark grey clay derived in part from mudstone in part from drilling mud, 6" of grey sandstone bands black in part + poorly sorted with quartz fragments upto 0.2" (4 grit) in part, 5" of brown medium grained quartz sandstone with mica.
230							178'0"-183'0" 13' of brown medium grained quartz sandstone with mica as above.
235							183'0"-186'0" 2 fragments of quartz upto 1" with grind marks 4" of yellow clay derived in part at least from mudstone. Soft core appears to have been ground away by caved fragments in the bit. Driller reports cavity from 181"-186"
240							186'0"-191'0" 12" of hard sandstone fragments as above, some evidence of grinding
245							191'0"-191'0" Brown mudstone with tiny mica flakes on bedding planes. Angle of bedding 81°
250							191'0"-194'0" Brown fine sandstone with mica, banded black in part with fine mudstone layers
255							194'0"-194'4" Dark grey mudstone.
260							194'4"-197'4" Clay with fragments of brown sandstone, dark grey mudstone and quartz. Driller reports core loss due to soft sandstone.
265							197'4"-200'0" 15" of grey clay with mudstone + sandstone fragments, 5" of quartz sand + 4" of grey clay with sandstone, mudstone and quartz fragments, all of which may be sediment in the hole due to reaming.
270							200'0"-205'0" Brown medium quartz sandstone with inclusions of mudstone and quartz upto 0.3" soft + weathered for lower portion.
275							205'0"-205'0" Brown mudstone
280							205'0"-205'0" Dark grey clayey homogeneous mudstone with mica + a few sandy phases Angle of bedding 85°
285							212'5"-217'0" Brown medium quartz sandstone with chert pebbles upto 1.5" below 216'4".
290							217'0"-222'0" Sandstone as above and clay, with chert fragments above 221'8". Clay derived from either mudstone bands or drilling mud.
295							222'0"-229'4" Brown medium-coarse quartz sandstone with chert fragments upto 1" below 227'6"
300							229'4"-238'5" Dark grey sandy mudstone with a chert pebble 1" at 230'8". A few scattered inclusions of quartz and carbonate material upto 0.3"

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LOCATION— FISHER PENSTOCK		ON LINE BM 3976 BM 3977	BEARING 0°00'	AT CH:	5905
POSITION PLOTTED ON DRAWING No. S426868Y3	LEVEL	FROM STN. BM 3976	BEARING 179°02'	DIST 79'	FILE No.
DATES: (a) DRILLED: July 1962. (b) WATER TABLE		SURFACE	FORMATION:	WATER TABLE:	
METHOD USED: D.D. DIAMETER No. 4 - B	INCL	2684'			SHEET 4 OF 4 SHEETS
SITE REMARKS: Gently sloping area beyond the base of the main slope at peg L.P. 12		HOLE DRILLED:	DEPRESSION ANG.:	INCL BEARING:	
		VERT: 	90°		

STANDARD LEVEL	DEPTH	CORE DRAWN	RECOVERY	GRAPHIC LOG	JOINTS	WATER	REMARKS
	300		0.2 0.4 0.6 0.8 1.0				C-Carbonate
	305						238'5" - 256'6" Dark grey clayey homogeneous mudstone and darker mudstone inclusions. At 252'3" chert fragment 1'0" long L of bedding 71° - 79°
	310						256'6" - 268'0" As above, siltstone phases becoming more abundant. 259'0" - 263'0" scattered chert fragments upto 1'0" long } Permian Sediments
	315						268'0" - 318'1" As for above 256'6" scattered chert fragments upto 0.5" long. At 290'6" a chert fragment 2.0" long. At 301'0" and 313'6" fragments 1.5" long L of bedding 50° - 55° } Correlate of the Wallace River Group
	320						318'1" - 325'3" Grey sandy mudstone with chert and quartzite fragments mainly rounded upto 2.0" long
	325						325'3" - 346'4" Hard conglomerate with chert and quartzite fragments upto 8" at least; a few schist fragments. } Permian Sediments
	330						
	335						
	340						
	345						
	350						346'4" - 382'0" Light and dark grey banded quartzite with schist phases in part. } Precambrian Quartzite. Correlate of the Fisher Group.
	355						Recognisable cleavage throughout, represents compositional boundaries in part at least. Angle of intersection 0° - 10°. A few thin unweathered joints as indicated, some vein quartz in part.
	360						
	365						
	370						
	375						
	380						
	385						Hole Completed at 382'
	390						Logged by R. P. Mather
	395						
	400						