

DRILLING RECORD

AREA: MARSEY FORTH POWER DEVELOPMENT		CO-ORDINATES:	E:	N:	HOLE No.
LOCATION: CETHANA D.S.		ON LINE: HAB02 HAB49	BEARING: 0°00'	AT CH:	5430
GEOLOGICAL PLAN: A12390 A11153 SURVEY PLAN: S41208911		AT STN: HAB49	BEARING: 219°37'	DIST: 420'	FILE No.
DATES (a) DRILLED: July - Aug. 64		SURFACE	COLLAR	WATER TABLE	LEVEL
(b) WATER TABLE:		731			
METHOD: D.S. DIAMETER: 1X, NMLC		HOLE DRILLED	ANGLE FROM HORIZONTAL	DIRECTION	SHEET
SITE REMARKS: Site excavated in 2' talus overlying weathered conglomerate high on right bank.		VERT/HOR/1X	90°		

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY %	GRAPHIC LOG	JOINTS No Per Foot	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
0-15'										0-15' Hard, grey, weathered quartz conglomerate. Joints open and weathered or cemented. Rock broken up due to open joints at some horizons. Occasional quartz veins present.
10-20'										15'-17'8" Purple quartz conglomerate much veined by quartz & showing occ. joints. Rock much weathered with limonite filling its & round pebbles.
20-32'										17'8"-72'6" light grey, weathered, jointed quartz conglomerate with occasional patches of quartzite. Quartz veins common. Joints generally open and weathered, occasionally recemented.
29-39'										
39-52'										
50'-60'										
59'-69'										
68'11"-80'8"										68'11"-80'8" Rock fragmented. Conglomerate fragments down to 72'6", quartzite fragments below. Much core loss - represents fault zone. Probably bedding plane shear with
69'-79'										72'6" - 187'5" Grey to slightly purple well jointed quartzite with occasional quartz veins. Joints show less weathering below 83' but are still open. Rhyolites common; rock becomes more grey below.
71'4"										71'4" Slightly sheared rock
71'6"										71'6" Joints fresh & weathered but iron seen to be oxidized.
72'6"										72'6" Sheared rock, surfaces & chlorite
77'4"										77'4" Rock flens along vertical joint. Sheared rock along 45° joint.

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AREA MERSEY FORTH POWER DEVELOPMENT		CO-ORDINATES:	E:	N:	HOLE No.
LOCATION: CETHAMA D.S.		ON LINE:	BEARING:	AT CH:	5430
GEOLOGICAL PLAN: A11153 A12390		SURVEY PLAN:	AT STN:	BEARING:	FILE No.
DATES (a) DRILLED July - Aug '64		(b) WATER TABLE:	SURFACE	COLLAR	WATER TABLE
METHOD: D.D.		DIAMETER: 7X, 1 1/2" I.D., 6X.	LEVEL:		
SITE REMARKS: <i>Site excavated in 2' talus overlying weathered conglomerate high on right bank</i>		HOLE DRILLED	ANGLE FROM HORIZONTAL	DIRECTION	SHEET 2 OF 4 SHEETS
		VERT: 100'	90°		

DEPTH	CORE DRAWN	CORE LENGTH	RECOVERY	GRAPHIC LOG	JOINTS No Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
10.0'									
10.5'									<p>103'6" deepest weathered joint. Below joints are generally fresh although not tight. Rock uniformly grey below 107' becomes much closer jointed below 109'. 108' sheared along 45° joint. 112.5" - 116' could well represent lowest shear plane (E of engineers). 119' slightly sheared surfaces 121 35° plane showing shearing & chlorite 129 - 131 Vertical joint shows pyrite & rock flour. 135'6" thin breccia & pyrite along 40° plane 137'6" 2" quartz vein</p>
110'					5			103'-113' 100 p.s.i. 10 gals/min.	
115'								110 p.s.i. 18 gpm.	
120'								12.5 p.s.i. 2 gpm.	
130'								150 p.s.i. 10 gpm.	
140'								150 p.s.i. 20 gpm.	
145'								150 p.s.i. 20 gpm.	
150'					3-4			150 p.s.i. 20 gpm.	
155'								150 p.s.i. 20 gpm.	
160'					3			150 p.s.i. 20 gpm.	
165'								150 p.s.i. 20 gpm.	
170'								150 p.s.i. 20 gpm.	
175'								150 p.s.i. 20 gpm.	
180'								150 p.s.i. 20 gpm.	
185'								150 p.s.i. 20 gpm.	
190'								150 p.s.i. 20 gpm.	
195'								150 p.s.i. 20 gpm.	
200'								150 p.s.i. 20 gpm.	

5" - 5" frag. - 5" fragments 1-3"
 3-12" frag. 3-12" fragments 1-3"
 2-4" frag. 2-4" fragments 1-3"
 3-12" 3-12" fragments 1-3"
 Max. 6" usually 1-3" occ. frag.

187'5" - 209' { Lower Conglomerate Or.
 Grey - red - purple conglomerate, strongly jointed with much recrystallization often obscuring the pebbles. Joints usually tight but occasionally open. Matrix appears to be finely cemented quartz, usually green-grey in colour. Occasional quartz veins seen.

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AREA: MERSEY FORTH POWER DEVELOPMENT	CO-ORDINATES: E: _____ N: _____	HOLE No. 5430
LOCATION: CETHANA I.S.	ON LINE: _____ BEARING: _____ AT CH: _____	FILE No. _____
GEOLOGICAL PLAN: A11153 SURVEY PLAN: A12390	AT STN: _____ BEARING: _____ DIST: _____	
DATES (a) DRILLED: July - Aug. '64 (b) WATER TABLE: _____	SURFACE: _____ COLLAR: _____ WATER TABLE: _____	SHEET 3 OF 4 SHEETS
METHOD: D.S. DIAMETER: NX, NMLC, BX	HOLE DRILLED: _____ ANGLE FROM HORIZONTAL: 90° DIRECTION: _____	

SITE REMARKS: *Site excavated in 2' talus overlying weathered conglomerate high on right bank.*

DEPTH	CORE DRAWN	CORE LENGTH	RECOVERY %	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
20'0"			100						
20'5"			100		4				
21'0"			100						209'-222' Conglomerate as above but grey in colour.
21'5"			100		2-3				
22'0"			100						
22'5"			100		2-3				222'-236' Conglomerate as above but purple in colour and weathered as at 225' and 233'
23'0"			100						
23'5"			100						
24'0"			100		2				236' Conglomerate as at 209'-245'
24'5"			100						245'-261' Purple - dark grey conglomerate. Joints fresh, generally tight or filled. Pyrites common, occasional quartz vein
25'0"			100						
25'5"			100						
26'0"			100		2-3				261'-320' light to dark grey quartz conglom-erate, also occasionally purple - becomes light grey towards base of hole. Matrix becomes more prominent lower down, being rather green in colour suggesting comminuted quartz/chlorite. Joints generally tight occasionally open and weathered. Pyrites common, quartz veins present.
26'5"			100						
27'0"			100						
27'5"			100						
28'0"			100						
28'5"			100						
29'0"			100						
29'5"			100						
30'0"			100						

150 p.s.i. 21 150 p.s.i. 22 90 p.m. 110 - 236'
 150 p.s.i. 21 150 p.s.i. 22 90 p.m. 110 - 244'
 150 p.s.i. 20 90 p.m. 110 - 254'
 150 p.s.i. 22 90 p.m. 110 - 254'
 150 p.s.i. 20 90 p.m. 110 - 278'
 150 p.s.i. 22 90 p.m. 110 - 289'

No water return
 No water
 No water

DRILLING RECORD

AREA: **MERSEY FORTH POWER DEVELOPMENT**
 LOCATION: **CETHANA S.S.**
 GEOLOGICAL PLAN: **A11153** SURVEY PLAN:
A12390
 DATES (a) DRILLED: **July - Aug. '64** (b) WATER TABLE:
 METHOD: **S.S.** DIAMETER: **NX, NMLC, BX.**

CO-ORDINATES: E: N:
 ON LINE: BEARING: AT CH. **5430**
 AT STN: BEARING: DIST:
 SURFACE COLLAR WATER TABLE

SITE REMARKS: **Site excavated in 2' talus overlying weathered conglomerate high on right bank.**

HOLE DRILLED ANGLE FROM HORIZONTAL: **90°** DIRECTION:
 VERT/HOR/INC SHEET **44** OF **44** SHEETS

DEPTH	CORE DRAWN	CORE LENGTH	CASING	RECOVERY	GRAPHIC LOG	JOINTS No. Per Foot.	FLUID RETURN	GROUND WATER	WATER PRESSURE TESTS LEAKAGE	REMARKS
30'0"										
30'5"										
31'0"	5" - frag. Gneiss	2" - frag.								
31'5"	2-8"									
32'0"	1"									
32'5"										
33'0"										
33'5"										
34'0"										
34'5"										
35'0"										
35'5"										
36'0"										
36'5"										
37'0"										
37'5"										
38'0"										
38'5"										
39'0"										
39'5"										
40'0"										

No water return.
 150 p.s.i. 24 g.p.m. 110' - 320'.
 23 g.p.m. 110' - 305'.

Hole completed 320'
 Logged by G.E. Rawlings
 17/9/64.
 Additions to page 142. 8/9/65.