

CORE RECOVERY LOG

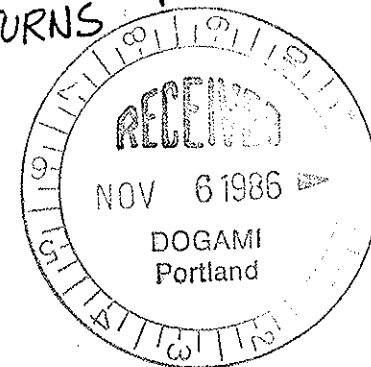
 HOLE CTGH-1

 FIELD CASCADES/
CLACKAMAS

 GEOLOGIST (S) GOODWIN/MCDANNEL

 DATE JUNE 22, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT/RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
527'-534'	1/1	7'/7.8'	112%	includes 4" slough, full circulation partial returns/circulation recovered core lost from Run #2, lose returns water level @ ~ 20' static water level remains near top of hole - LCM added intermittently, mud visc. varied - NO RETURNS 6 1/2 feet lost 1 foot of slough recovered following Bit Run 5 feet of rubble and ash lost 1' of " " " "
534'-536'	2/1	2'/1.2'	58%	
536'-539 1/2'	3/1 1/2	3 1/2'/4.3'	124%	
539 1/2'-539 3/4'	4/2	2+ 1/4"	~200%	
539 3/4'-545.5'	5/2 1/2	5.75'/5.75'	100%	
545.5'-556'	6/3 1/4	10.5'/10.5'	100%	
556'-562'	7/4	6'/6'	100%	
562'-571'	8/5	9'/9'	100%	
571'-579'	9/5	8' 1/2'	19%	
579'-587'	10/6	8'/8'	100%	
587'-588'	11/6 1/2	1'/1.25'	125%	
588'-588.5'	12/7	6"/4"	67%	
588.5'-594.5'	13/7	6'/7'	117%	
594.5'-597.5'	14/7 1/2	3'/3'	100%	
597.5'-603'	15/8	5 1/2'/5 1/2'	100%	
603'-610.5'	16/8 1/2	7 1/2'/2 1/2'	33%	
610.5'-615'	17/9	4 1/2'/3 1/2'	78%	
615'-616'	18/9	1'/9"	75%	



CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEE/GOODWIN
 DATE JUNE 23, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT/RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
616' - 626'	19/9,10	10'/10'	100%	H ₂ O level remains at top of hole (rocks in hole)
626' - 636'	20/10,11	10'/10'	100%	most of rock is dense, well-consolidated
636' - 646'	21/11,12	10'/10'	100%	
646' - 656'	22/12,13	10'/9'	90%	Lost 1' of rubble
656' - 663'	23/13,14	7'/6'	85%	Loss ~ 1'
663' - 670'	24/14	7'/4'	57%	Loss ~ 3' in rubble/corner @ bottom of hole
670' - 675'	25/14	5'/2'	40%	Loss ~ 3' (in rubble...)

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) McDANNEL/GOODWIN
 DATE JUNE 24, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT/RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
675'-683'	26/15	8'/1'	1' - 13%	7' Rubble/cinders washed away
683'-689'	27/15	6'/4½'	75%	½' " " " " at top of interval
689'-694'	28/15,16	5'/5'	100%	
694'-696'	29/16	2'/2'	100+%	6" Cindery Slough at start of interval
696'-703'	30/16,17	7'/7'	100+%	Cinder Slough Recovered at beginning of run
703'-709'	31/17	6'/5.2'	86%	
709'-715'	32/17,18	6'/3.5'	60%	MRTS read 69°, 70°; Mud In: 61°; Air: 43°
715'-719'	33/18	4'/3.3'	80%	cindery/scoriaceous slough 719'-723'
719'-723'	34/18	4'/1'	25%	
723'-733'	35/18	10'/2'	20%	
733'-743'	36/19	10'/10'	100%	
743'-746'	37/20	3'/3.75'	125%	~3" slough
746'-756'	38/20,21	10'/10'	100%	
756'-766.5'	39/21,22	10.5'/10.5'	100%	
766.5'-774'	40/22,23	7.5'/6.5'	87%	lost ~1' ash & cinders
774'-784.5'	41/23	10.5'/5.5'	52%	lost ~5' ash & cinders and scoria

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADE/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JUNE 25, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT/RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
784.5' - 788.5'	42/23,24	4' / 2½'	63%	½' slough also recovered at start of run
788.5' - 792.5'	(43)/24	4' / 2½'	63%	Core Returns V. Fractured/Rubbly 788.5' to
792.5' - 795'	44/24	2½' / 1½'	60%	
795' - 799'	45/24	4' / 2'	50%	
799' - 806'	46/24,25	7' / 7'	100%	
806' - 814'	47/25,26	8' / 8'	100%	
814' - 815'	48/26	1' / 1'	100%	v. rubbly
815' - 825'	49/26,27	10' / 10'	100%	
825' - 835'	50/27,28	10' / 7½'	75%	unconsol. sandy matrix washing @ bottom hole
835' - 840'	51/28,29	5' / 3½'	70%	" " " " " "
840' - 844'	52/29	4' / 3½'	88%	" " " "
844' - 846.5'	53/29	2½' / 2'	80%	" " " "
846.5' - 848'	54/29	1½' / 3¼'	50%	" " " "
848' - 854'	55/29,30	6' / 5'	83%	" " " "
854' - 859'	56/30	5' / 1'	20%	" " " " mismatch-dropped
859' - 864'	57/30,31	5' / 5'	100%	Core during retrieval @ 859', Change Bit #2 → #3

CORE RECOVERY LOG

 HOLE CTG H-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JUNE 26, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT / RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
864'-866.5'	58/31	2.5'/2.0'	80%	
866.5'-867'	59/31	0.5'/0.4'	80%	
867'-871.5'	59/31	4.5'/0.5'	11%	blocky & fractured - minor mud from above hole? regained ^(w/1/2') some of lost intervals when rods tripped top 6" is slough from higher in hole
871.5'-874'	60/31	2.5'/0.25'	10%	
874'-876.5'	61/31	2.5'/2.5'	100%	
876.5'-878'	62/32	1.5'/1.5'	100%	
878'-880'	63/32,33	2'/2'	100%	remains very fractured, broken
880'-888'	64/33,34	8'/8'	100%	↓
888'-898.5'	65/34	10.5'/9'	86%	1 1/2 feet lost at clayey bottom
898.5'-908.5'	66/34,35	10'/10'	100%	
908.5'-913'	67/35	4.5'/4.5'	100%	
913'-918'	68/36	5'/8'	100%	3' slough consisting of dacite & clay recovered when pulled 15' off bottom, 45 min. required to core thru slough
918'-922'	69/36,37	4'/4'	100%	
922'-932'	70/37,38	10'/10'	100%	
932'-934.5'	71/38	2.5'/2'2"	86%	
934.5'-940'	72/38,39	5.5'/5.5'	100%	

CORE RECOVERY LOG

HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) McDANNEL/GOODWIN
DATE JUNE 27, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT/RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
940'-944.5'	73/39	4.5'/2'	45%	Rubble, fractured, clayey ← washed away?
944.5'-947'	74/39	2.5'/1.9	75%	
947'-953.5'	75/39,40	6.5'/4.8'	75%	
953.5'-962.5'	76/40,41	9'/9'	100%	
962.5'-968'	77/41,42	5.5'/5'	91%+	2' slough recovered after Bit Run, Add Bit#3
968'-977½'	78/42,43	9.5'/10'	100%+	6" slough recovered
977½'-987'	79/43,44	9.5'/9.5'	100%+	Mtr. slough at every interval
987'-997'	80/44,45	10'/10'	100%+	
997'-1007'	81/45,46	10'/10'	100%+	
1007'-1017'	82/46,47	10'/10'	100%+	
1017'-1027'	83/47,48	10'/10'	100%+	
1027'-1037'	84/48,49	10'/10'	100%+	
1037'-1047'	85/49,50	10'/10'	100%+	
1047'-1057'	86/50,51	10'/10'	100%+	
1057'-1067'	87/51,52,53	10'/10'	100%+	

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) McDANNEL/GOODWIN
 DATE JUNE 28, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT/RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
1067'-1073'	88/53	6'/6'	100%	
1073'-1083'	89/53,54,55	10'/10'	100%	
1083'-1093'	90/55,56	10'/10'	100%	
1093'-1103'	91/56,57	10'/10'	100%	
1103'-1113'	92/57,58	10'/10'	100%	
1113'-1123'	93/58,59	10'/10'	100%	
1123'-1131'	94/59,60	8'/6.5'	81%	
1131'-1141'	95/60,61	10'/10'+	100%+	
1141'-1151'	96/61,62	10'/10'	100%	
1151'-1161'	97/62,63	10'/10'	100%	
1161'-1171'	98/63,64	10'/10'	100%	
1171'-1180'	99/64,65	10'/10'	100%	
1180'-1190'	100/65,66	10'/10'	100%	
1190'-1200'	101/66,67	10'/10'	100%	
1200'-1210'	102/67,68	10'/10'	100%	
1210'-1220'	103/68,69	10'/10'	100%	
1220'-1230'	104/69,70	10'/10'	100%	

Rock type changes from DIORITE/DACITE to
 Ashy Lahar @ ~ 1110'

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) McDANNEL/GOODWIN
 DATE JUNE 29, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE FOOTAGE CUT/RECOVERED	AMOUNT RECOVERED (%)	COMMENTS
1230' - 1240.5'	105/70,71	10.5'/10.5'	100%	
1240.5' - 1250.5'	106/71,72	10'/10'	100%	
1250.5' - 1261'	107/72,73	10.5'/10.5'	100%	
1261' - 1271'	108/74,75	10'/10'	100%	
1271' - 1276'	109/75,	5' / 4½'	90%	
1276' - 1286'	110/75,76	10' / 10½'	100%	recovered loss of previous run
1286' - 1296'	111/76,77	10' / 10'	100%	
1296' - 1306'	112/77,78	10' / 10'	100%	
1306' - 1316'	113/78,79, 80	10' / 10'	100%	
1316' - 1324'	114/80	8' / 7'	88%	
1324' - 1331'	115/80,81	7' / 7'	100%	recovered loss of previous run
1331' - 1338'	116/81,82	7' / 5½'	80%	clays + rubble washed away
1338' - 1348'	117/82,83	10' / 10'	100%	
1348' - 1356'	118/83,84	8' / 8'	100%	
1356' - 1366'	119/84,85	10' / 10'	100%	
1366' - 1376'	120/85,86	10' / 10'	100%	
1376' - 1386'	121/86,87	10' / 10'	100%	

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) GOODWIN/MCDANIEL
 DATE 7/1/86

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
1386' - 1396'	122/87,88, 89	10'/10'	100%	rock is generally very fractured w/ high clay content.
1396' - 1406'	123/89,90	10'/10'	100%	
1406' - 1414'	124/90,91	8'/8'	100%	
1414' - 1423'	125/91,92	9'/9'	100%	
1423' - 1433'	126/92,93	10'/10'	100%	
1433' - 1443'	127/93,94	10'/10'	100%	
1443' - 1453'	128/94,95	10'/10'	100%	
1453' - 1461'	129/95,96	8'/7½'	94%	
1461' - 1471'	130/96,97	10'/10'	100%	
1471' - 1481'	131/97,98	10'/10'	100%	
1481' - 1491'	132/98,99	10'/10'	100%	
1491' - 1501½'	133/99,100	10.5/10.2	~100%	
1501½' - 1512'	134/100,101	10.5/10.2	~100%	
1512' - 1522'	135/102,103	10'/10'	100%	
1522' - 1532'	136/103,104	10'/10'	100%	

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) A. McDANNEL / D. GOODWIN
 DATE JULY 2, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
1532' - 1537'	137/104	5'/5'	100%	
1537' - 1547'	138/104, 105	10'/10'	100%	
1547' - 1557'	139/105, 106	10'/8'	80%	Dropped 2 feet of core from barrel
1557' - 1565'	140/106, 107	8'/10'	120%	Recovered 2 feet of core dropped on previous run.
1565' - 1575'	141/107, 108, 109	10'/10'	100%	
1575' - 1585'	142/109,110	10'/10'	100%	
1585' - 1595'	143/110,111	10'/10'	100%	
1595' - 1605'	144/111,112	10'/10'	100%	
1605' - 1615'	145/112,113	10'/10'	100%	
1615' - 1619'	146/113	4'/4'	100%	
1619' - 1629'	147/113,114	10'/10'	100%	
1629' - 1639'	148/114,115	10'/10'	100%	
1639' - 1649'	149/116,117	10'/10'	100%	

CORE RECOVERY LOG

 HOLE CT64-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) GOODWIN/MCDANIEL
 DATE JULY 3, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
1649' - 1659'	150/117,118	10'/10'	100%	
1659' - 1669'	151/118,119	10'/10'	100%	
1669' - 1679'	152/119,120	10'/10'	100%	
1679' - 1689'	153/120,121	10'/10'	100%	
1689' - 1697'	154/121,122	8'/8'	100%	
1697' - 1698'	155/122	1'/6"	50%	Rubble w/ vertical fracture wedging core in tube
1698' - 1708'	156/122,123	10'/10'	100%	
1708' - 1711'	157/123	3'/3'	100%	
1711' - 1716'	158/124	5'/5'	100%	
1716' - 1719'	159/124	3'/3'	100%	
1719' - 1721'	160/124,	2'/2'	100%	very fractured core causing short runs
1721 - 1725	161/125,	4'/4'	100%	
1725 - 1727	162/125,	2'/2'	100%	
1727 - 1734	163/125,126	7'/7'	100%	
1734 - 1742	164/126,127	8'/8'	100%	

CORE RECOVERY LOG

 HOLE CTGH#1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JULY 4, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
1742' - 1751'	165/127,128	9' / 9'	100%	Rock fractured @ 45° every 1"-4" causing wedging of fragments in inner tube and short runs
1751' - 1756'	166/128,129	5' / 5'	100%	
1756' - 1761'	167/129	5' / 5'	100%	
1761' - 1762'	168/129	1' / 4"	33%	
1762' - 1765'	169/129,130	3' / 3'	100%	
1765' - 1766'	170/130	1' / 2"	17%	
1766' - 1775'	171/130	9' / ^{0' before POH} 4' after POH	0% / 40%	1775' Trip rods to recover core in outer barrel, core was dropped/lost because tube hadn't properly latched before start of run
1775' - 1779'	172/130	4' / 3.2	75%	1779' Trip rods - tube mislatched (after being pulled to recover slough material below 560', replacement tube didn't properly latch... this wasn't recognized until rods drilled to bottom and 4' of hole cored) Core recovery (75%) includes minor slough.
1779' - 1788'	173/131	9' / 9'	100%	
1788' - 1798'	174/132	10' / 10'	100%	
1798' - 1808'	175/133,134	10' / 10'	100%	
1808' - 1818'	176/134,135	10' / 10'	100%	
1818' - 1828'	177/135,136	10' / 8'	80%	
1828' - 1836'	178/136,137	8' / 10'	125%	Recovered loss of previous run
1836' - 1846'	179/137,138	10' / 10'	100%	
1846' - 1856'	180/138,139	10' / 10'	100%	
1856' - 1866'	181/139,140	10' / 10'	100%	

CORE RECOVERY LOG

 HOLE CTGH 1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JULY 7, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
1866' - 1876'	182/140,141	10'/10'	100%	
1876' - 1886'	183/141,142	10'/10'	100%	
1886' - 1896'	184/142,143	10'/10'	100%	
1896' - 1906'	185/143,144	10'/10'	100%	
1906' - 1915'	186/144,145	9'/9'	100%	
1915' - 1917'	187/145	2'/2'	100%	Vertical fractures causing wedging of rocks in tubing
1917' - 1927'	188/145,146	10'/10'	100%	
1927' - 1929'	189/146,147	2'/2'	100%	
1929' - 1939'	190/147,148	10'/10'	100%	
1939' - 1943'	191/148	4' / 3½'	88%	
1943' - 1946'	192/148	3'/3'	100%	brecciated core at 1946'
1946' - 1956'	193/149	10'/10'	100%	
1956' - 1966'	194/150,151	10'/10'	100%	
1966' - 1976'	195/151,152	10'/10'	100%	
1976' - 1981'	196/152	5'/5'	100%	
1981' - 1991'	197/152, 153	10'/10'	100%	1986'-1990'-rubbly
1991' - 1998'	198/153, 154	7'/7'	100%	50% of interval rubbly

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JULY 8, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
1998' - 2006'	199/154,155	8' / 8'	100%	1998'-2001' - rubbly
2006' - 2010'	200/155	4' / 4'	100%	entire interval rubbly
2010' - 2013'	201/156	3' / 3'	100%	"
2013' - 2016'	202/156	3' / 3'	100%	"
2016' - 2021'	203/156, 157	5' / 5'	100%	"
2021' - 2025'	204/157	4' / 3½'	88%	"
2025' - 2030'	205/157	5' / 4¾'	95%	"
2030' - 2037'	206/158	7' / 5¼'	75%	"
2037' - 2043'	207/158, 159	7' / 7'	100%	
2043' - 2053'	208/159, 160	10' / 10'	100%	
2053' - 2063'	209/160, 161	10' / 10'	100%	
2063' - 2073'	210/161, 162	10' / 10'	100%	
2073' - 2083'	211/162, 163	10' / 10'	100%	
2083' - 2093'	212/163, 164	10' / 10'	100%	17' piece of unfractured core... Wow!
2093' - 2103'	213/164, 165	10' / 10'	100%	2 breaks in 10' - v. scarce frags.
2103' - 2113'	214/165, 166	10' / 10'	100%	@2111' vent fracture in cinderly B.A. takes drop in pump pres
2113' - 2120'	215/166, 167	7' / 7'	100%	
2120' - 2130'	216/167, 168	10' / 10'	100%	

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) GOODWIN/MCDANNEL
 DATE JULY 10, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT <i>CUT / RETURN</i>	AMOUNT RECOVERED (%)	COMMENTS
2130' - 2140'	217/168, 169	10' / 10'	100%	v. few fractures ↓
2140' - 2150.5'	218/169, 170	10.5' / 10.5'	100%	
2150.5' - 2161'	219/170, 171	10.5' / 10.5'	100%	
2161' - 2171'	220/172, 173	10' / 10'	100%	
2171' - 2181'	221/173, 174	10' / 10'	100%	
2181' - 2191'	222/174, 175	10' / 10'	100%	
2191' - 2201.5'	223/175, 176	10½' / 10½'	100%	
2201.5' - 2212'	224/176, 177	10½' / 10½'	100%	
2212' - 2222½'	225/177, 178	10½' / 10½'	100%	
2222½' - 2233'	226/178, 179	10½' / 10½'	100%	
2233' - 2243'	227/179, 180	10' / 10'	100%	
2243' - 2253'	228/180, 181	10' / 10'	100%	
2253' - 2263'	229/181, 182	10' / 10'	100%	
2263' - 2267'	230/182, 183	4' / 4'	≤ 100%	v. rubbly - lost intraclast clays
2267' - 2277'	231/183, 184	10' / 10'	100%	
2277' - 2286'	232/184,	9' / 8½'	94%	
2286' - 2291'	233/185,	5' / 5'	100%	

CORE RECOVERY LOG

 HOLE CTGH1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JULY 12, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT <i>Cut/Recovered</i>	AMOUNT RECOVERED (%)	COMMENTS
2291' - 2296'	234/186, 186	5' / 5'	100%	intermittent rubble intervals
2296' - 2306'	235/186, 187	10' / 10'	100%	
2306' - 2316'	236/187, 188	10' / 10'	100%	
2316' - 2326'	237/188, 189	10' / 10'	100%	
2326' - 2336'	238/189, 190	10' / 10'	100%	
2336' - 2342'	239/190, 191	6' / 5 1/2'	92%	
2342' - 2352'	240/191, 192	10' / 9 1/2'	95%	
2352' - 2362'	241/192, 193	10' / 10'	100%	
2362' - 2368'	242/193, 194	6' / 6' +	100%	
2368' - 2375'	243/194, 195	7' / 7'	100%	
2375' - 2385'	244/195, 196	10' / 10'	100%	
2385' - 2395'	245/196, 197	10' / 10'	100%	
2395' - 2405'	246/197, 198	10' / 10'	100%	
2405' - 2415'	247/198, 199	10' / 10'	100%	
2415' - 2425'	248/199, 200	10' / 10'	100%	
2425' - 2434'	249/200, 201	9' / 9'	100%	
2434' - 2444'	250/201, 202	10' / 10'	100%	
2444' - 2446'	251/202	2' / 2'	100%	

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) GOODWIN/MCDANIEL
 DATE JULY 14, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT <i>CUT / RECOVERED</i>	AMOUNT RECOVERED (%)	COMMENTS
2446' - 2456'	252/202, 203	10' / 10'	100%	
2456' - 2466'	253/203, 204	10' / 10'	100%	
2466' - 2476'	254/204, 205	10' / 10'	100%	
2476' - 2486'	255/205, 206	10' / 10'	100%	
2486' - 2495'	256/207,	9' / 9'	100%	
2495' - 2505'	257/208, 209	10' / 10'	100%	
2505' - 2515'	258/209, 210	10' / 10'	100%	
2515' - 2525'	259/210, 211	10' / 10'	100%	
2525' - 2535'	260/211, 212	10' / 10'	100%	
2535' - 2544'	261/212, 213	9' / 9'	100%	
2544' - 2553'	262/213, 214	9' / 9'	100%	
2553' - 2562'	263/214, 215	9' / 9'	100%	
2562' - 2570'	264/215, 216	8' / 8'	100%	
2570' - 2574'	265/216	4' / 4'	100%	
2574' - 2584'	266/216, 217	10' / 10'	100%	
2584' - 2594'	267/217, 218	10' / 10'	100%	
2594' - 2603'	268/218, 219	9' / 10' +	100%	
2603' - 2613'	269/219, 220	10' / 10'	100%	
2613' - 2623'	270/220, 221	10' / 10'	100%	
2623' - 2633'	271/221, 222	10' / 10'	100%	

adjusting footage to reflect accurate BH depth

CORE RECOVERY LOG

 HOLE CTGH 1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANIEL/GOODWIN
 DATE JULY 17, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
2633' - 2643'	272/222,223	10'/10'	100%	
2643' - 2653'	273/223,224	10'/10'	100%	
2653' - 2663'	274/224,225	10'/10'	100%	
2663' - 2673'	275/225,226	10'/10'	100%	
2673' - 2683'	276/226,227 228	10'/10'	100%	
2683' - 2693'	277/228,229	10'/10'	100%	
2693' - 2703'	278/229,230	10'/10'	100%	
2703' - 2713'	279/230,231	10'/10'	100%	
2713' - 2723'	280/231,232	10'/10'	100%	
2723' - 2733'	281/232,233	10'/10'	100%	
2733' - 2743'	282/233,234	10'/10'	100%	
2743' - 2753'	283/234,235	10'/10'	100%	
2753' - 2762'	284/235,236	9'/9'	100%	
2762' - 2772'	285/237,236	10'/10'	100%	
2772' - 2782'	286/238,237	10'/10'	100%	
2782' - 2792'	287/238,239	10'/10'	100%	
2792' - 2802'	288/239,240	10'/10'	100%	
2802' - 2809'	289/240,241	7'/7'	100%	

CORE RECOVERY LOG

 HOLE CTGH 1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JULY 18, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
2809' - 2816'	290/241, 242	7' 7"	100%	rock has splintery fracture @ 20° (subvertical) causing wedging in the inner tube & shorter runs
2816' - 2823'	291/242	7' 7"	100%	
2823' - 2831'	292/243	8' 8"	100%	
2831' - 2841'	293/243, 244	10' 10"	100%	
2841' - 2851'	294/244, 245	10' 9"	90%	dropped 1' core
2851' - 2860'	295/245, 246	9' 10"	110%	recovered core (from above run)
2860' - 2870'	296/246,	10' 10"	100%	
2870' - 2880'	297/248	10' 10"	100%	
2880' - 2890'	298/249, 250	10' 10"	100%	
2890' - 2900'	299/250, 251	10' 6.5"	65%	dropped 3.5' core
2900' - 2907'	300/251	7' 10"	140%	retrieved 10' core & moved core block <u>2900'</u> to correct position
2907' - 2916'	301/251, 252	9' 9"	100%	
2916' - 2923'	302/252, 253	7' 7"	100%	
2923' - 2933'	303/253, 254	10' 10"	100%	
2933' - 2942'	304/254, 255	9' 9"	100%	
2942' - 2951'	305/255, 256	9' 9"	100%	
2951' - 2961'	306/256, 257	10' 10"	100%	
2961' - 2970'	307/257, 258	9' 8"	89%	dropped core - rock is fractured.

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) GOODWIN/MCDANIEL
 DATE JULY 20, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
2970' - 2980'	308/258, 259	10' / 6.5'	65%	dropped core → may ^(also) be some problem grinding it up inside barrel when drilling
2980' - 2988'	309/259, 260	8' / 10.5'	131%	
2988' - 2998'	310/260, 261	10' / 10'	100%	← moved core block ^{2.800"} 2+'; to correct for core recovered from last run #308
2998' - 3008'	311/261, 262	10' / 10'	100%	
3008' - 3018'	312/262, 263	10' / 10'	100%	
3018' - 3028'	313/263, 264	10' / 10'	100%	
3028' - 3038'	314/265, 266	10' / 10'	100%	
3038' - 3048.5'	315/266, 267	10.5' / 10.5'	100%	+ 0.5 to catch up w/ actual drilled depth (core barrel is 2" > 10' on each run)
3048.5' - 3059'	316/267, 268	10.5' / 10.5'	100%	
3059' - 3069'	317/268, 269	10' / 10'	100%	v. rubbly
3069' - 3079'	318/269, 270	10' / 10'	100%	" towards base of interval
3079' - 3089'	319/270, 271	10' / 10'	100%	
3089' - 3099'	320/271, 272	10' / 10'	100%	
3099' - 3109'	321/272, 273	10' / 10'	100%	
3109' - 3119'	322/273, 274	10' / 10'	100%	
3119' - 3129'	323/274, 275	10' / 10'	100%	

CORE RECOVERY LOG

 HOLE CT64-1 FIELD CASCADES/CLACKANAS GEOLOGIST(S) MCDANNEL, GOODWIN
 DATE JULY 22, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
3129' - 3139'	324/275, 276	10'/10'	100%	
3139' - 3149'	325/276, 277	10'/10'	100%	
3149' - 3159'	326/277, 278	10'/10'	100%	
3159' - 3169'	327/278, 279, 280	10'/10'	100%	
3169' - 3179'	328/280, 281	10'/10'	100%	
3179' - 3189'	329/281, 282	10'/10'	100%	
3189' - 3199'	330/282, 283	10'/10'	100%	
3199' - 3209'	331/283, 284	10'/10'	100%	
3209' - 3219'	332/284, 285	10'/10'	100%	
3219' - 3229'	333/285, 286	10'/10'	100%	
3229' - 3239'	334/286, 287	10'/10'	100%	
3239' - 3249'	335/287, 288	10'/10'	100%	
3249' - 3259'	336/288, 289	10'/10'	100%	
3259' - 3269.5'	337/289, 290	10.5'/10.5'	100%	
3269.5' - 3280'	338/290, 291, 292	10.5'/10.5'	100%	
3280' - 3290'	339/292, 293	10'/10'	100%	
3290' - 3300'	340/293, 294	10'/10'	100%	
3300' - 3310'	341/294, 295	10'/10'	100%	
3310' - 3320'	342/295, 296	10'/10'	100%	

CORE RECOVERY LOG

 HOLE CTGH1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) McDANNEL/GOODWIN
 DATE JULY 25, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
3320' - 3330'	343/296,297	10'/10'	100%	
3330' - 3340'	344/297,298	10'/10'	100%	
3340' - 3350'	345/298,299	10'/10'	100%	
3350' - 3360'	346/299,300	10'/10'	100%	
3360' - 3370'	347/300,301	10'/10'	100%	
3370' - 3380'	348/301,302	10'/10'	100%	
3380' - 3390'	349/302,303	10'/10'	100%	
3390' - 3400'	350/303,304	10'/10'	100%	
3400' - 3410½'	351/304,305	10½'/10½'	100%	
3410½' - 3421'	352/305,306	10½'/10½'	100%	
3421' - 3431'	353/307,308	10'/10'	100%	
3431' - 3441'	354/308,309	10'/10'	100%	
3441' - 3451'	355/309,310	10'/10'	100%	
3451' - 3461'	356/310,311	10'/10'	100%	
3461' - 3471'	357/311,312	10'/10'	100%	
3471' - 3481'	358/312,313	10'/10'	100%	
3481' - 3491'	359/313,314	10'/10'	100%	
3491' - 3501½'	360/314,315	10½'/10½'	100%	
3501½' - 3512'	361/315,316	10'/10'	100%	

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JULY 26, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
3512' - 3522'	362/316,317	10'/10'	100%	
3522' - 3532'	363/317,318	10'/10'	100%	
3532' - 3542'	364/318,319	10'/10'	100%	
3542' - 3552'	365/319,320	10'/10'	100%	
3552' - 3562'	366/320,321	10'/10'	100%	
3562' - 3572'	367/321,322	10'/10'	100%	
3572' - 3582'	368/322,323, 324	10'/10'	100%	
3582' - 3592½'	369/324,325	10½'/10½'	100%	
3592½' - 3603'	370/325,326	10½'/10½'	100%	
3603' - 3613'	371/326,327	10'/10'	100%	
3613' - 3621'	372/327,328	10'/10'	100%	
3621' - 3631'	373/328,329	10'/10'	100%	
3631' - 3641'	374/329,330	10'/10'	100%	
3641' - 3651'	375/330,331	10'/10'	100%	
3651' - 3661'	376/331,332	10'/10'	100%	
3661' - 3671'	377/332,333	10'/10'	100%	
3671' - 3681'	378/333,334	10'/10'	100%	
3681' - 3691'	379/334,335	10'/10'	100%	

CORE RECOVERY LOG

 HOLE CTGH 1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE JULY 28, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
3691' - 3701'	380/335,336	10'/10'	100%	
3701' - 3711'	381/336,337	10'/10'	100%	
3711' - 3721'	382/337,338	10'/10'	100%	
3721' - 3725'	383/338,	2'/2'	100%	
3725' - 3733'	384/338,339	10'/10'	100%	
3733' - 3743'	385/340,341	10'/10'	100%	
3743' - 3753'	386/341,342	10'/10'	100%	
3753' - 3763'	387/342,343	10'/10'	100%	
3763' - 3773'	388/343,344	10'/10'	100%	
3773' - 3783'	389/344,345	10'/10'	100%	
3783' - 3793'	390/345,346	10'/10'	100%	
3793' - 3801'	391/346,347	8'/8'	100%	
3801' - 3811'	392/347,348	10'/10'	100%	
3811' - 3821'	393/348,349	10'/10'	100%	
3821' - 3831'	394/349,350	10'/10'	100%	
3831' - 3841'	395/350,351	10'/10'	100%	
3841' - 3851'	396/351,352	10'/10'	100%	
3851' - 3861'	397/352,353	10'/10'	100%	
3861' - 3871'	398/354	10'/10'	100%	

CORE RECOVERY LOG

 HOLE CTGH-1 FIELD CASCADES/CLACKANAS GEOLOGIST(S) GOODWIN, McDANNEL
 DATE JULY 31, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
3871' - 3881'	399/355, 356	10'/10'	100%	
3881' - 3891'	400/356, 357	10'/10'	100%	
3891' - 3901'	401/357,358	10'/10'	100%	
3901' - 3911'	402/358,359	10'/10'	100%	
3911' - 3921'	403/359,360	10'/10'	100%	
3921' - 3931½'	404/360,361	10½'/10½'	100%	
3931½' - 3942'	405/361,362	10½'/10½'	100%	
3942' - 3952'	406/362,363	10'/10'	100%	
3952' - 3962'	407/363,364	10'/10'	100%	
3962' - 3972'	408/364,365	10'/10'	100%	
3972' - 3982'	409/365,366	10'/10'	100%	
3982' - 3992'	410/367,368	10'/10'	100%	
3992' - 4002'	411/368,369	10'/10'	100%	
4002' - 4012'	412/369,370	10'/10'	100%	
4012' - 4022'	413/370,371	10'/10'	100%	
4022' - 4032'	414/371,372	10'/10'	100%	
4032' - 4042'	415/372,373	10'/10'	100%	
4042' - 4052'	416/373,374	10'/10'	100%	

CORE RECOVERY LOG

 HOLE CTGH-1

 FIELD CASCADES/CLACKAWAS GEOLOGIST(S) MCDANIEL/GOODWIN

 DATE AUG. 2, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
4052' - 4062'	417/374,375	10' / 10'	100%	
4062' - 4072.5'	418/375,376	10.5' / 10.5'	100%	
4072.5' - 4083'	419/376,377	10.5' / 10.5'	100%	
4083' - 4093'	420/377,378	10' / 10'	100%	
4093' - 4103'	421/378,379	10' / 10'	100%	
4103' - 4113'	422/379,380 381	10' / 10'	100%	
4113' - 4123'	423/381,382	10' / 10'	100%	
4123' - 4133'	424/382,383	10' / 10'	100%	
4133' - 4143'	425/383,384	10' / 10'	100%	
4143' - 4153'	426/384,385	10' / 10'	100%	
4153' - 4163'	427/385,386	10' / 10'	100%	
4163' - 4173'	428/386,387	10' / 10'	100%	
4173' - 4183'	429/387,388	10' / 10'	100%	
4183' - 4193'	430/388,389	10' / 10'	100%	
4193' - 4203'	431/389,390	10' / 10'	100%	

CORE RECOVERY LOG

 HOLE CT64-1 FIELD CASCADES/CLACKANAS GEOLOGIST(S) GOODWIN/MCDANIEL
 DATE AUG. 4, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
4203' - 4206'	432/390,	3' / 2'	66%	DROPPED CORE?
4206' - 4216'	433/390, 391	10' / 10'	100%	DRILLING w/NX ROD
4216' - 4226'	434/391, 392	10' / 10'	100%	
4226' - 4236'	435/392, 393, 394	10' / 10'	100%	
4236' - 4246'	436/394, 395	10' / 10'	100%	
4246' - 4256'	437/395, 396	10' / 10'	100%	
4256' - 4266'	438/396, 397	10' / 10'	100%	
4266' - 4276'	439/397, 398	10' / 10'	100%	
4276' - 4286'	440/398, 399	10' / 10'	100%	
4286' - 4296'	441/399, 400	10' / 10'	100%	
4296' - 4303'	442/400, 401	7' / 10'	143%	
4303' - 4313'	443/401, 402	10' / 10'	100%	Adjusted feature to reflect accurately T.D., all NX core markers off ^{maybe} by a systematic error of 0.3' / 10' run(?) beginning @ 4206'
4313' - 4323'	444/402, 403	10' / 10'	100%	
4323' - 4333'	445/403, 404	10' / 10'	100%	
4333' - 4343'	446/404, 405	10' / 10'	100%	
4343' - 4353'	447/405, 406	10' / 10'	100%	
4353' - 4363'	448/406, 407	10' / 10'	100%	
4363' - 4373'	449/407, 408	10' / 10'	100%	

CORE RECOVERY LOG

 HOLE CTGH1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MCDANNEL/GOODWIN
 DATE August 13, 1986

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT <i>CUT / RECOVERED</i>	AMOUNT RECOVERED (%)	COMMENTS
4373' - 4383'	450/408,409	10' / 10' * (7')	100%	*lost 3' of core (pulled off stick left in hole) recovered 3' lost in last run (moved core block to correct position)
4383' - 4390'	451/409,410	7' / 6 1/2' (9 1/2')	93%	
4390' - 4400'	452/410,411	10' / 10'	100%	
4400' - 4410'	453/411,412	10' / 10'	100%	
4410' - 4420'	454/412,413	10' / 10'	100%	
4420' - 4430'	455/413,414	10' / 10'	100%	
4430' - 4440'	456/414,415	10' / 10'	100%	
4440' - 4450'	457/415,416	10' / 10'	100%	
4450' - 4460'	458/416,417	10' / 10'	100%	
4460' - 4470'	459/417,418	10' / 10'	100%	
4470' - 4480'	460/418,419	10' / 10'	100%	
4480' - 4490'	461/419,420 421	10' / 10'	100%	
4490' - 4500'	462/421,422	10' / 10'	100%	
4500' - 4510'	463/422,423	10' / 10'	100%	
4510' - 4520'	464/423,424	10' / 10'	100%	
4520' - 4530'	465/424,425	10' / 10'	100%	
4530' - 4540'	466/425,426	10' / 10'	100%	
4540' - 4550'	467/426,427	10' / 10'	100%	
4550' - 4560'	468/427,428	10' / 10'	100%	

CORE RECOVERY LOG

 HOLE CTGH1 FIELD CASCADES/CLACKAMAS GEOLOGIST(S) MEDANNEL/GOODWIN
 DATE 8/15/86

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
4560' - 4570'	469/428, 429	10'/10'	100%	
4570' - 4580'	470/429, 430	10'/10'	100%	
4580' - 4590'	471/430, 431	10'/10'	100%	
4590' - 4600'	472/431, 432	10'/10'	100%	
4600' - 4610'	473/432, 433	10'/10'	100%	
4610' - 4620'	474/433, 434	10'/10'	100%	
4620' - 4630'	475/434, 435	10'/10'	100%	
4630' - 4640'	476/435, 436	10'/10'	100%	
4640' - 4650'	477/436, 437	10'/10'	100%	
4650' - 4660'	478/437, 438	10'/10'	100%	
4660' - 4670'	479/438, 439	10'/10'	100%	
4670' - 4680'	480/439, 440	10'/10'	100%	
4680' - 4690'	481/440, 441	10'/10'	100%	
4690' - 4700'	482/441, 442, 443	10'/10'	100%	
4700' - 4710'	483/443, 444	10'/10'	100%	
4710' - 4720'	484/444, 445	10'/10'	100%	
4720' - 4730'	485/445, 446	10'/10'	100%	
4730' - 4740'	486/446, 447	10'/10'	100%	

CORE RECOVERY LOG

HOLE CTGH-1 FIELD CASCADES/CLACKANAS GEOLOGIST(S) GOODWIN/MCDANNEL
DATE 8/17/86

DEPTH INTERVAL CORED (ft)	RUN/BOX NUMBER	CORE BARREL MEASUREMENT	AMOUNT RECOVERED (%)	COMMENTS
4740' - 4750'	487/447, 448	10' / 10'	100%	
4750' - 4760'	488/448, 449	10' / 10'	100%	
4760' - 4770'	489/449, 450	10' / 10'	100%	
4770' - 4780'	490/450, 451	10' / 10'	100%	
4780' - 4790'	491/451, 452	10' / 10'	100%	
4790' - 4800'	492/452, 453	10' / 10'	100%	
4800'				