

DRILL LOG

SHEET NO. 1 OF 7

SITE		Damsite I-C		HOLE NO.		SK-309														
LATITUDE		7374.26		LONGITUDE		6882.2														
DATE		May 17 - Sep. 4, 1989		ELEVATION		674.07m														
ANGLE				DIRECTION																
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	WATER LEVEL	CORE RECOVERY %	R.O.D %	WATER PRESSURE TEST							
											0 50 100 0	0 50 100	0 10 20 30 40 50	N Value Luqon Value K Value : cm/sec						
1		0.75	673.32	Quaternary	Talus deposit			Brown soil and limestone fragments.												
2		2.50	671.57								Chalky limestone block, white, with green clay.									
3																				
4	17/5 (9.99)																			
5		5.05	669.02																	
6	18/5 (8.10)																			
7				Gornesl formation	Marl															
8		7.30	668.17								Highly weathered rocks. Brown to brownish yellow, very soft. Joint: 10-20deg.									
9										C-D										
10	23/5 (12.19)										10.90-10.10m: Sandstone.									
11		10.50	663.87							C-0111										
12		11.57	662.57																	
13	24/5 (13.59)									DIV										
14																				
15																				
16		15.30	658.17							D111										
17		15.40	657.87								Gray and soft, with 10-30deg. joints.									
18	25/5 (17.60)									C111										
19		17.50	658.27							C11										
20		19.60	655.47				C-011	Highly to moderately weathered rock. Very soft. Brown to yellowish brown. 21.30-21.40m: sandstone. Joint: 10-20deg.												
21		21.60	653.47																	
22	26/5 (19.48)						C-0111													
23																				
24	27/5 (18.59)							Sandstone, moderately hard.												
25		24.55	649.52				C-011	Highly to moderately weathered rock. Very soft. Brown to yellowish brown. Joint: 10-20deg.												
26		25.50	648.87					Sandstone, moderately hard.												
27	29/5 (22.10)						DV	Highly to moderately weathered rock. Very soft. Brown to yellowish brown. Joints: 10-20deg.												
28		28.20	645.07				C-DV													
29		28.50	643.57																	
30							C-011													

R.O.D to Rock Quality Designation. R.O.D = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100.
 LUQON VALUE is 1/psi/m under injection water pressure of 10kg/cm².
 #DEPTH and ELEVATION are in meter.
 #DIAMETER is in millimeter.

DRILL LOG




SHEET NO. 2 OF 7

SITE		Damsite I-C		HOLE NO.		SK-309														
LATITUDE		7374.20		LONGITUDE		6882.2														
ELEVATION		674.07m		DEPTH		190.80m														
DATE		May 17 - Sep. 4, 1989		ANGLE																
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST							
31	30/5 (31.02)	31.15	642.92				C-011	Fresh soft rock. Grey. Joints: 10-20 (bedding) 6 80-90deg. (34.10-35.00m).												
32		31.50	642.57																	
33																				
34	31/5 (34.19)							43.15m 5cm bituminous (black). Slaking is seen in the following sections: 36.00-36.90m 38.45-38.65m 40.35-40.65m 41.25-41.65m 45.40-45.60m	MC. 116											
35																				
36																				
37							Cal I													
38																				
39	1/5 (39.29)																			
40																				
41	2/5 (41.29)																			
42																				
43	5/5 (42.49)	42.25	631.75				Cal													
44		44.00	630.02				Cal II													
45																				
46	6/5 (45.49)	45.80	628.41				Cal	Fresh soft rock. Grey. Joint: 10-15deg. (bedding). Slaking is seen in the following sections: 45.80-46.00m 47.80-48.05m 50.00-51.00m 52.30-53.10m 55.00-55.40m												
47																				
48	7/5 (48.19)	48.00	626.02				Cal I													
49							Cal II													
50		50.00	624.02																	
51																				
52	8/5 (51.29)						Cal													
53																				
54		54.00	620.02				Cal I													
55		55.00	619.02				Cal II													
56																				
57	9/5 (57.29)						Cal													
58		58.10	615.02																	
59																				
60	10/5 (60.00)	60.00	614.02				Cal I													

R.Q.D. is Rock Quality Designation. R.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100%
 LUFGON VALUE is l/min/a under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in (m)meter

DRILL LOG

SHEET NO. 3 OF 7

SITE		Damsite I-C		HOLE NO.		SK-309												
LATITUDE		7374.28		LONGITUDE		6682.2												
DATE		May 17 - Sep. 4, 1989		ELEVATION		674.07m												
ANGLE				DIRECTION														
				SLOPE														
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST					
											(m)	(m)	N Value Lugeon Value K Value : cm/sec					
											0 50 100	0 50 100	0 10 20 30 40 50					
61	12/6 61.00						CII	Fresh soft rock. Grey.										
62		65.20	611.87				CI	Joint: 10-15deg. (bedding) & 90deg. (60.25-60.9m)										
63		69.00	611.07				CI	65.05-65.90m. With many cracks.										
64								Slaking: 60.30-61.00m 68.70-69.03m										
65	13/6 65.00						CII											
66		66.40	607.67				CI											
67							CI											
68	14/6 68.00	68.00	606.97				CII											
69							CI											
70	15/6 70.00	70.00	602.97				CII											
71							CI											
72							CI											
73							CI											
74							CI											
75	16/6 75.00	75.00	599.31				CIII	Fresh soft rock. Grey.	HC-101									
76							CII	Joint: 10deg. (bedding) & 85-90deg. (65.0-66.0m)										
77							CI	Slaking is seen in the following sections: 82.80-83.15m 87.20-88.00m 88.40-89.00m 89.90-90.00m.										
78	17/6 78.00	78.00	596.07				CI											
79							CI											
80							CI											
81							CI											
82	19/6 82.00	82.15	591.92				CII											
83							CI											
84							CI											
85							CI											
86							CI											
87	20/6 87.00	87.20	586.67				CI											
88		87.50	585.97				CI											
89							CIII											
90		90.00	581.07				CIII											

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 LUKEON VALUE is 1/min/m under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter

DRILL LOG




SHEET NO. 4 OF 7

SITE		Damsite I-C		HOLE NO.		SK-309																										
LATITUDE		7374.28		LONGITUDE		6882.2																										
DATE		May 17 - Sep. 4, 1989		ELEVATION		674.87m																										
DEPTH				DEPTH		190.80m																										
ANGLE				DIRECTION																												
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %		R.Q.D. X		WATER PRESSURE TEST																	
											0	50	100	0	50	100	N Value	Lugeon Value	K Value : cm/sec	0	10	20	30	40	50							
91	21/8 (61.50)	30.00	583.12				CII	Fresh soft rock. Grey. Joint: 10deg. (bedding) & 70deg. 194.5-95.0m)																								
92	22/8 (62.00)	32.50	581.17				CI	97.40-97.80m: Dark grey, slightly bituminous.																								
93																																
94	23/8 (65.00)	35.00	577.87				CII	Slaking is seen in the following sections: 90.90-91.80m 93.15-93.20m 93.45-93.50m 95.00-95.20m 97.40-97.80m 98.80-98.90m 104.55-105.20m	MC.101																							
95																																
96																																
97	24/8 (67.00)	37.50	576.52				CI-II																									
98																																
99																																
100	25/8 (69.50)	40.00	574.87				CIII																									
101																																
102																																
103																																
104																																
105																																
106																																
107																																
108	26/8 (72.00)	42.50	571.22				CI																									
109																																
110								Fresh soft rock. Grey. Joint: 5-10deg. (bedding) & 30-40deg. (117.3-118.0m, crackly).	DB101																							
111																																
112	29/8 (112.00)	45.00	568.82				CII	Slaking: 114.20-114.50m 118.35-118.55m.																								
113																																
114																																
115	30/8 (115.00)	47.50	562.92				CIII																									
116																																
117																																
118	1/7 (118.00)	49.00	559.77																													
119																																
120	3/7 (120.00)	50.00	554.92				CIV																									

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 LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm2
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 5 OF 7

SITE		Damsite I-C				HOLE NO.	SK-309											
LATITUDE		7374.28		LONGITUDE		6882.2		ELEVATION		674.07m								
DATE		May 17 - Sep. 4, 1989				DEPTH		190.80m										
ANGLE				DIRECTION				SLOPE										
SCALE (m)	DATE	DEPTH	ELEVATION	BIOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST					
											0 50 100	0 50 100	N Value Lucon Value K Value : cm/sec					
121		121.45	532.62				CII	120.00m to 150.00m: Fresh soft rock. Grey.										
122								Joint: 5-10deg. (bedding) & 60deg. (1-44.40-144.50m; with slickenside & calcite).										
123							CI	140.00-140.30m: Bituminous.										
124								Black coal:										
125	4/7 (125.00)	125.50	530.51					140.25-140.30m 143.25-143.30m 145.00-145.05m										Upper Depth: 125.00 Lower Depth: 125.00 Lucon Value: 0.00 K Value: 0.00000
126																		
127	5/7 (127.50)						C											
128																		
129																		
130		130.00	529.67				CI											
131	6/7 (130.00)	130.00	529.17				CIII											
132																		
133							CI											
134																		
135	7/7 (135.00)	135.00	529.07					Slaking in 120.00m to 150.00m	GB101									
136								125.00-125.30m										
137								126.50-126.99m										
138	17/7 (138.00)							127.30-127.50m										
139								128.20-128.40m										
140	12/7 (140.00)							128.00-129.00m										
141								130.85-130.95m										
142		142.45	531.67					134.90-135.00m										
143	19/7 (143.00)	143.00	531.07					153.20-135.50m										
144								139.50-139.60m										
145	20/7 (145.00)	145.00	529.91					141.30-141.50m										
146		145.75	529.30					143.40-143.80m										
147		146.60	527.47					145.00-145.25m										
148	21/7 (147.00)	147.00	525.27					146.30-146.60m										
149								149.20-149.50m										
150	24/7 (150.00)	150.00	524.07															

R.Q.D. is Rock Quality Designation, R.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100%
 LUCON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 6 OF 7

SITE		Dansite I-C		HOLE NO.		SK-309											
LATITUDE		7374.28		LONGITUDE		6882.2											
DATE		May 17 - Sep. 4, 1989		ELEVATION		674.07m											
ANGLE				DIRECTION													
				SLOPE													
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST				
											0 50 100	0 50 100	N Value Luqon Value K Value : cm/sec				
											0 10 20 30 40 50						
151		150.50	523.17	Gornel formation	Mpl		0-EIII	Fresh soft rock. Grey. Joint: 5-10deg. (bedding) & 60deg. (150.75-150.90m; with clay).	DB101								
152	25/7 (152.00)						0-EIII	Slaking: 152.40-152.60m 153.30-153.70m									
153				Matrix of Emank Ophiolitic Melange	Schist			Cores are dark grey sandy materials only. 154.70m to 168.40m Matrix of Ophiolitic Melange.									
154	26/7 (156.00)	154.20	519.37					Greenish gray, clayey.									
155	21/7 (156.00)	156.00	518.07					Gray-reddish brown, clayey									
156	31/7 (157.00)							Reddish brown, clayey.									
157	1/8 (158.20)	158.20	518.82					Brown, partly reddish brown, clayey.									
158	2/8 (158.80)	158.80	514.17					161.90-161.95m: sandy and hard.									
159	3/8 (161.18)							Conglomerate. Gray, moderately hard.									
160	4/8 (163.20)	163.20	510.87					Dark gray to brown, clayey.									
161	5/8 (164.60)																
162	7/8 (165.20)																
163	8/8 (169.10)	169.10	505.57	Matrix formation	Limestone		D-E	Blocks in Melange. Cores are almost fragments. Many irregular openings are seen, filled by sandy-clayey, brown- greenish gray materials.									
164	9/8 (169.30)																
165	10/8 (171.20)																
166	11/8 (171.80)																
167	14/8 (173.60)																
168	15/8 (175.20)																
169	175.00	498.27															
170	176.20	497.72															
171	16/8 (177.30)																
172																	
173																	
174																	
175																	
176																	
177																	
178																	
179																	
180		180.00	494.07				A-BIII	Hard rock. Joint: 10-30deg. rarely 60 & 90deg., brown stained. 175.85-176.40m: Solution, filled by brown clay.									

R.Q.D. is Rock Quality Designation. R.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100
 LUQON VALUE is 1/10th under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 7 OF 7

SITE		Damsite I-C		HOLE NO.		SK-309								
LATITUDE		7374.28		LONGITUDE		6882.2								
DATE		May 17 - Sep. 4, 1989		ELEVATION		674.07m								
ANGLE				SLOPE										
DEPTH (m)	ELEVATION (m)	ROCK TYPE	ROCK CLASS	DESCRIPTION	BIT & DIAMETER (mm)	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST						
DATE	AGE	COLUMN SECTION			GROUND WATER LEVEL	(m)	(m)	N Value	Lugeon Value	K Value : cm/sec				
181	182.20	Limestone Nedine formation	A-III	Hard rock. Joint: 10-30deg. rarely 60 & 90deg., brown stained.	DB101									
182			A-III	Cracky sections: 180.60-180.85m 181.95-182.45m 183.01-183.85m 185.30-186.00m 187.85-190.80m										
183	183.85		A-III											
184	184.55		A-III	189.80-190.50m: Solution, filled by brown clay.										
185	185.30		A-III											
186	186.30		A-III											
187	186.10		A-III											
188	186.92		IV											
189	188.20													
190	189.80													
191														
192														
193														
194														
195														
196														
197														
198														
199														
200														
201														
202														
203														
204														
205														
206														
207														
208														
209														
210														

R.Q.D. is Rock Quality Designation. R.Q.D. = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100%
 SLUGFON VALUE is l/min/m under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter

DRILL LOG

SHEET NO. 1 OF 6

SITE		Damsite I-C		HOLE NO.		SK-310				
LATITUDE		0555		LONGITUDE		6705				
ELEVATION		520.00m		DEPTH		169.75m				
DATE		Jan. 24 - Mar. 9, 1990		ANGLE						
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	DESCRIPTION	BIT & DIAMETER	CORE RECOVERY %	R.O.D. %	WATER PRESSURE TEST
										Y Value Logon Value X Value : cm/sec
1	24/1 (1.25)	0.50	519.50		Ab	Fresh rock, light gray. Joints: 20-45deg., rarely 70-80deg. with a little oxidation.				
2					AbIV	0-0.90m & 1.55-2.85m: Cores are fragments.				
3	25/1 (3.75)					2.55-3.75m: 00deg. open joints.				
4		4.50	515.00			12.20-12.60m: Small solution along vertical joint is seen.				
5					AbIII					
6										
7										
8	26/1 (8.50)				AbIII					
9										
10										
11										
12	27/1 (12.50)	11.00	508.20		AbIV	Fresh rock, light gray. Joints: 20-45deg., rarely 70-80deg. with a little oxidation.				
13		12.50	507.40			Solution: Very rare.	06.86			
14						12.90-13.00m: Small solution along 70deg. joint.				
15		15.50	504.40			70deg.-vertical joints are seen in the following sections: 18.60-18.90m 19.90-20.90m 22.00-23.00m				
16					AbIII					
17										
18	28/1 (18.50)				AbIII					
19										
20										
21										
22		22.00	498.00		Ab-III					
23										
24	30/1 (24.50)	21.50	495.20		Ab-bII	Fresh rock, light gray. Joints: 20-45deg., rarely 70-80deg. with a little oxidation.				
25						Solution is very rare.				
26						24.60-25.20m & 28.90-30.00m: 60deg.-vertical joints are seen.				
27		27.00	492.40		Ab-III					
28										
29										
30		30.00	490.20							

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 REDUCTION VALUE is 1/cm/min under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter

DRILL LOG

SHEET NO. 2 OF 6

SITE		Damsite I-C		HOLE NO.		SK-310													
LATITUDE		0555		LONGITUDE		6705													
DATE		Jan. 24 - Mar. 9, 1990		ELEVATION		520.00m													
ANGLE				DEPTH		169.75m													
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	SECTION	CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST						
31	31/1 (31.00)	31.00	489.00					Fresh rock, light gray. Joints: 20-45deg., rarely 70-80deg., with a little oxidation. Solution: Very rare. 30.00-31.00m: 60-90deg. joints are seen.											
32								Fresh rock, light gray.											
33								Joints: 20-45deg., rarely 70-80deg., with a little oxidation.											
34								Solution: Very rare.											
35								70deg.-vertical joints are seen in the following sections:											
36		36.00	481.00					34.40-35.00m											
37	1/2 (37.00)							42.10-42.80m											
38		38.00	481.00					45.00-45.40m											
39																			
40																			
41																			
42	3/2 (42.00)																		
43		43.00	477.00																
44																			
45	3/2 (45.00)	45.00	475.00						09.06										
46																			
47																			
48																			
49																			
50	5/2 (50.00)																		
51																			
52																			
53		53.00	467.10																
54																			
55	6/2 (55.00)	55.00	455.00																
56								Fresh rock, light gray. Joints: 70-80deg., with thin green clay. No oxidation is seen.											
57																			
58		58.00	452.00																
59																			
60	7/2 (60.00)	60.00	450.00																

R.Q.D. is Rock Quality Designation, R.Q.D. = (total length of cylindrical cores longer than 10 cm / total drill length) x 100
 *LUGEON VALUE is 1/min/m under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter.
 *DIAMETER is in millimeter

DRILL LOG

SHEET NO. 3 OF 6

SITE		Damsite 1-C			HOLE NO.		SK-310												
LATITUDE		8555		LONGITUDE		6785		ELEVATION		520.00m									
DATE		Jan. 24 - Mar. 9, 1990			DEPTH		169.75m												
ANGLE				DIRECTION				SLOPE											
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST						
											(m)	(m)	N Value Luqon Value K Value : cm/sec						
											0 50 100	0 50 100	0	10	20	30	40	50	
61								Fresh rock, light gray. Joints: 5-30deg., partly filled by thin green clay. No oxidation.											
62																			
63																			
64																			
65	8/2 85.00	65.00	456.00				AaIII												
66								Fresh rock, light gray. Joints: 50-70deg., rarely 10-20deg. & vertical. Partly filled by thin green clay. No oxidation.											
67																			
68																			
69																			
70	9/2 79.00	70.00	450.00																
71																			
72	10/2 72.00																		
73																			
74							AaIV												
75									08.85										
76																			
77																			
78		78.00	442.00																
79							AaIII												
80	12/2 82.00	80.00	430.00																
81																			
82																			
83							AaIV												
84																			
85	13/2 85.00	85.00	425.00																
86							AaIII	Fresh rock, light gray. Joints: 10-20deg., rarely 60-80deg. Partly filled by thin green clay.											
87		86.00	433.00				AaIV	No oxidation.											
88	14/2 87.50	87.50	429.50																
89							AaIII												
90		90.00	430.00																

R.Q.D. is Rock Quality Designation. R.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100%
 LUQON VALUE is 1/min under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 4 OF 6

SITE			Damsite I-C		HOLE NO.		SK-310																												
LATITUDE			0555		LONGITUDE		6785																												
DATE			Jan. 24 - Mar. 9, 1990		ELEVATION		520.00m																												
ANGLE					DIRECTION				DEPTH		169.75m																								
SCALE (m)			DATE		DEPTH		ELEVATION		GEOLOGICAL AGE		ROCK TYPE		COLUMN SECTION		ROCK CLASS		DESCRIPTION		BIT #		DIAMETER		WATER LEVEL		CORE RECOVERY %		R.Q.D %		WATER PRESSURE TEST						
91		15/2		93.00						AaIII				Fresh rock, light gray. No oxidation.																					
92														100.70m: 30deg. joint, filled by 3cm green clay.																					
93														101.20m: 40deg. joint, filled by 1cm green clay.																					
94																																			
95				95.00		425.00								101.45-101.60m: Small solution cavities along 45deg. joint, filled by green clay.																		Upper Depth: 95.00 Lower Depth: 96.00 Logon Value: 0.00 k Value: 0.000000			
96																																			
97																																			
98				98.00		422.00																													
99																																			
100		15/2		100.00		420.00																													
101																																			
102				101.60		418.40																													
103		17/2		102.00										Fresh rock, light gray. Joints: 10-30deg., rarely 60-80deg. Partly filled by thin green clay. No oxidation.																					
104																																			
105																																			
106		19/2		106.00		412.00																													
107																																			
108																																			
109																																			
110																																			
111				111.21		609.50																													
112																																			
113		20/2		113.00										Fresh rock, light gray. Joints: 30-40deg., partly filled by thin green clay.																					
114																																			
115																																			
116																																			
117																																			
118																																			
119																																			
120		21/2		120.00		400.00																													

R.Q.D is Rock Quality Designation. R.Q.D. = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100
 LOGON VALUE is 1/cm under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter

DRILL LOG

SHEET NO. 5 OF 6

SITE		Qansite I-C			HOLE NO.		SK-310												
LATITUDE		8555		LONGITUDE		6785		ELEVATION	520.00m										
DATE		Jan. 24 - Mar. 9, 1990			DEPTH		169.75m												
ANGLE				DIRECTION				SLOPE											
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	SIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST						
											0 50 100	0 50 100	N Value Luqson Value K Value : cm/sec						
											0 50 100	0 50 100	0	10	20	30	40	50	
121								Fresh rock, light gray. Joints: 10-20deg., partly filled by thin green clay.											
122								123.20m: 60deg. joint, with thin reddish brown clay.											
123								128.30m: 40deg. joint, with thin reddish brown clay.											
124																			
125	22/2 (125.00)						Aa-bIII	131.25m: 20deg. joint, with thin reddish brown clay.											
126								133.15m: 40deg. joint, with 0.3cm thick reddish brown clay.											
127																			
128																			
129																			
130	23/2 (130.00)	132.00	350.00																
131																			
132							Aa-bIV												
133	24/2 (133.00)	131.10	386.65																
134								Fresh rock, light gray. No oxidation. Joints: 5-30deg., rarely 60-70deg. Partly filled by thin green clay.	08.86										
135																			
136																			
137							AaIV												
138	25/2 (138.00)																		
139																			
140		142.00	303.00																
141																			
142																			
143	27/2 (143.00)																		
144							AaIII												
145																			
146																			
147																			
148	28/2 (148.00)	148.00	372.00																
149							AaII												
150	2/3 (150.00)	150.00	378.00																

R.Q.D. is Rock Quality Designation, R.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100
 LUQSON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG



SHEET NO. 6 OF 6

SITE		Oansite I-C		HOLE NO.		SK-310												
LATITUDE		8555		LONGITUDE		6785												
ELEVATION		520.00m		DATE		Jan. 24 - Mar. 9, 1990												
DEPTH		169.75m		ANGLE														
DIRECTION				SLOPE														
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	H. Q. D. %	WATER PRESSURE TEST					
											0 50 100	0 100	N Value Lucon Value K Value : cm/sec					
151							AaIII	Fresh rock, light gray. No oxidation.										
152							AaII											
153																		
154																		
155	3/3 (155.02)	155.00	253.00		Limestone													Upper Depth : 150.00 Lower Depth : 155.00 Lucon Value : 0.00 K Value : 0.000000
156																		
157																		
158																		
159																		
160	5/3 (156.02)								08.86									Upper Depth : 155.00 Lower Depth : 156.00 Lucon Value : 0.00 K Value : 0.000000
161																		
162		161.01	253.17															
163	6/3 (159.15)	159.15	253.15		Claystone		C-DaVI	Claystone, dark brown, with schistosity parts.										
164		159.15	253.15		Claystone		EaVI	Sandstone, dark brown.										
165		159.15	253.15		Schist		C-DaVI	Claystone, dark gray-black.										
166	7/3 (158.01)	158.01	254.81		Schist		EaVI	Sandstone, gray.										
167		158.01	254.81		Claystone		CaVI	Claystone, reddish brown, with limestone fragments.										
168		158.01	254.81		Schist		DaVI	Schist, green clayey.										
169	8/3 (159.75)	159.75	254.85		Claystone		BaVI	Schist, dark gray-black, clayey.										
170								Reddish brown, partly green. Hard. Contain some limestone fragments.										
171																		
172																		
173																		
174																		
175																		
176																		
177																		
178																		
179																		
180																		

H.Q.D. is Rock Quality Designation. H.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100
 LUCON VALUE is l/min/m under injection water pressure of (0.5kg/cm²)
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 1 OF 15

SITE		Dam site I-C		HOLE NO.		SK-313														
LATITUDE		8720.74		LONGITUDE		7216.38														
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION		729.65m														
ANGLE				DIRECTION																
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.O.D %	WATER PRESSURE TEST							
1		0.50	729.15	Archaic	Top soil			Highly weathered rock. Cores; 50% of total length are fragments.												
2								Joints: 50-70deg., stained brown, with clay.												
3	2/10 (3.00)																			
4																				
5	3/10 (5.00)	5.00	724.65					Highly weathered rock. Cores; 50% of total length are fragments.												
6								Joints: 10-30 & 90deg., stained brown, with clay.												
7								Solution: Many but small irregularly.												
8	4/10 (8.50)						AcIV	9.60-10.20m: Cave, 2-3cm wide, with calcite.												
9																				
10	5/10 (10.00)	9.50	720.15					Highly weathered rock. Cores; 50% of total length are fragments.												
11								Joints: 10-30, rarely 60-90deg., stained brown, with thin clay.												
12								Solution: Many but small irregularly.												
13								Cores are mostly fragments, with solution and clay.												
14	7/10 (14.00)	14.10	715.55					Highly weathered rock. Cores are partly fragments.												
15								Joints: 30-40deg., rarely 60deg., stained brown, with thin clay.												
16								Solution: Many but small irregularly.												
17								Slightly weathered rock.												
18								Joints: 10-30deg., stained brown partly.												
19								Solution is rare.												
20																				
21	11/10 (21.00)	21.25	709.25				AbIV	Slightly weathered rock.												
22								Joints: 10-20 & 45deg., stained brown.												
23	12/10 (23.00)							Solution is rare.												
24								21.15-22.00m: 90deg. joint, brown stained.												
25								24.10-24.80m: 70-80deg. joint & cave with clay (1-3cc).												
26	13/10 (23.00)	25.00	721.65					Slightly weathered rock.												
27								Joints: 10-20 & 50-60deg., stained brown.												
28	14/10 (27.00)	27.00	722.65				AbIII	Solution is rare.												
29								29.40-29.90m: Solution (1-3cc) along 80deg. joint, with clay & calcite.												
30	16/10 (29.00)	29.00	720.65				AbIV	Solution is rare.												
31								29.00m: 50deg. joint, with thin clay.												
32	18/10 (29.00)	30.00	698.65				Ab-ClV													

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 LUUGEON VALUE is l/min/a under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG



SHEET NO. 2 OF 15

SITE		HOLE NO.													
Donsite I-C		5K-313													
LATITUDE		LONGITUDE		ELEVATION											
0720.74		7216.38		729.65m											
DATE				DEPTH											
Oct. 2, 1989 - May 31, 1990				425.00m											
ANGLE		DIRECTION		SLOPE											
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BLT & DIAMETER	SPACING	WATER LEVEL	CORE RECOVERY %	R.O.D. %	WATER PRESSURE TEST	
															N Value Lugon Value K Value : cm/sec
31		31.00	698.65					Slightly weathered rock. Joints: 10-30deg. & 50deg., stained brown. Solution is rare.							Upper Depth: 31.00 Lower Depth: 31.00 Lugon Value: 35.00 K Value: 0.000000
32	17/10 (13.69)							Slightly weathered rock. Joints: 40-60deg., stained brown. Solution is rare.	19/10 (12.69)						Upper Depth: 31.00 Lower Depth: 31.00 Lugon Value: 35.00 K Value: 0.000000
33								31.10-31.20 & 33.00-33.10m: 60deg. joint, with clay.							Upper Depth: 31.00 Lower Depth: 31.00 Lugon Value: 35.00 K Value: 0.000000
34							Ab-c1V	33.70-35.00m: Cave (10c) along 50deg. joint, with clay and calcite.							Upper Depth: 33.00 Lower Depth: 35.00 Lugon Value: 18.50 K Value: 0.000000
35	18/10 (10.69)								20/10 (16.49)						Upper Depth: 33.00 Lower Depth: 35.00 Lugon Value: 18.50 K Value: 0.000000
36									21/10 (16.59)						Upper Depth: 35.00 Lower Depth: 37.00 Lugon Value: 17.00 K Value: 0.000000
37									26/10 (17.79)						Upper Depth: 35.00 Lower Depth: 37.00 Lugon Value: 17.00 K Value: 0.000000
38	19/10 (18.59)	38.00	691.15				Ab-c1I								Upper Depth: 37.00 Lower Depth: 37.00 Lugon Value: 0.00 K Value: 0.000000
39		39.00	690.65					Slightly weathered rock. Joints: 50-70, rarely 30deg., stained brown.							Upper Depth: 37.00 Lower Depth: 37.00 Lugon Value: 0.00 K Value: 0.000000
40									24/10 (10.79)						Upper Depth: 39.50 Lower Depth: 41.00 Lugon Value: 13.00 K Value: 0.000000
41	20/10 (11.69)						Ac-III	39.00-40.50m: Many solutions (1-3cm) irregularly, with clay & calcite. 41.40-41.60m: Opening (2-3cm) 41.80-42.00m: Old cave, filled by hard clay completely.	28/10 (11.50)						Upper Depth: 39.50 Lower Depth: 41.00 Lugon Value: 13.00 K Value: 0.000000
42		42.00	687.65						4/11 (12.49)						Upper Depth: 41.00 Lower Depth: 43.00 Lugon Value: 0.00 K Value: 0.000000
43	21/10 (13.69)	43.00	686.65					Slightly weathered rock. Joints: 50-70, rarely 30deg., stained brown.	27/10 (13.49)						Upper Depth: 41.00 Lower Depth: 43.00 Lugon Value: 0.00 K Value: 0.000000
44								42.90-43.20m: Solution (1-2cm) along 60deg. joint, with clay.							Upper Depth: 43.00 Lower Depth: 45.00 Lugon Value: 0.00 K Value: 0.000000
45	23/10 (15.69)							45.50-47.00m: Solution (1-2cm) along 60-90deg. joint, filled by green clay.	35/10 (15.30)						Upper Depth: 43.00 Lower Depth: 45.00 Lugon Value: 0.00 K Value: 0.000000
46									31/10 (16.59)						Upper Depth: 45.00 Lower Depth: 47.00 Lugon Value: 11.00 K Value: 0.000000
47	24/10 (17.69)	47.00	682.65						2/11 (17.79)						Upper Depth: 45.00 Lower Depth: 47.00 Lugon Value: 11.00 K Value: 0.000000
48								Many solutions (3-10cm) along 60-90deg. joints, filled completely by green-brown clay & rock fragments, partly calcite.							Upper Depth: 47.00 Lower Depth: 49.00 Lugon Value: 0.00 K Value: 0.000000
49	25/10 (19.69)								1/11 (19.59)						Upper Depth: 47.00 Lower Depth: 49.00 Lugon Value: 0.00 K Value: 0.000000
50		49.00	680.65						8/11 (19.69)						Upper Depth: 49.00 Lower Depth: 51.00 Lugon Value: 0.00 K Value: 0.000000
51	26/10 (21.69)						Ac-IV	52.30-52.40m: Solution (1-2cm), with calcite, partly open.	3/11 (21.90)						Upper Depth: 49.00 Lower Depth: 51.00 Lugon Value: 0.00 K Value: 0.000000
52								53.00-54.50m: Cave, filled by very hard brown sandy clay & rock fragments.	11/11 (22.69)						Upper Depth: 51.00 Lower Depth: 51.00 Lugon Value: 4.00 K Value: 0.000000
53	27/10 (23.69)														Upper Depth: 51.00 Lower Depth: 51.00 Lugon Value: 4.00 K Value: 0.000000
54															Upper Depth: 53.00 Lower Depth: 55.00 Lugon Value: 2.00 K Value: 0.000000
55	28/10 (25.69)	53.50	679.15					Many solutions along joints.							Upper Depth: 53.00 Lower Depth: 55.00 Lugon Value: 2.00 K Value: 0.000000
56								54.50-55.00m: Cave, filled loosely by green clay & fragments.							Upper Depth: 55.00 Lower Depth: 55.00 Lugon Value: 25.10 K Value: 0.000000
57		57.00	672.65					55.00-57.00m: Many small solutions (1-3cm) along 60deg. joints, with green-brown clay.							Upper Depth: 55.00 Lower Depth: 55.00 Lugon Value: 25.10 K Value: 0.000000
58								57.00-61.00m: Many solutions along joints.							Upper Depth: 55.00 Lower Depth: 55.00 Lugon Value: 25.10 K Value: 0.000000
59	30/10 (27.69)							59.00-61.00m: Cave along vertical joint (more than 10cm wide), filled by hard brown clay & fragments, partly open (1-2cm).							Upper Depth: 57.00 Lower Depth: 59.00 Lugon Value: 0.00 K Value: 0.000000
60															Upper Depth: 59.00 Lower Depth: 59.00 Lugon Value: 5.00 K Value: 0.000000

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 LUGON VALUE is 1/min under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG




SHEET NO. 3 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313			
LATITUDE		0720.74		LONGITUDE		7216.38			
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION		729.65m			
ANGLE				DIRECTION					
SCALE (m)		DEPTH		ELEVATION		GEOLOGICAL AGE			
DATE		ROCK TYPE		COLUMN SECTION		ROCK CLASS			
DESCRIPTION		BIT & DIAMETER		CORE RECOVERY %		R.O.D. %			
WATER PRESSURE TEST		N Value		Lugeon Value		K Value: ca/sec			
		0 50 100 0 50 100		0 10 20 30 40 50					
61	31/10 161.00	61.00	668.65	Ac-dIV	Slightly weathered rock. Joints: 20-30deg., rarely 70deg., stained brown.	61/11 161.00	100%	100%	Upper Depth: 61.00 Lower Depth: 61.00 Lugeon Value: 4.00 K Value: 0.000000
62					62.00-63.20m: Cave (5-10cm), filled by green clay completely.				Upper Depth: 61.00 Lower Depth: 61.00 Lugeon Value: 4.00 K Value: 0.000000
63		63.50	666.65	Ac-dIII	63.20-65.00m: Fresh rock. Solution is very rare.				Upper Depth: 63.00 Lower Depth: 63.00 Lugeon Value: 11.00 K Value: 0.000000
64									
65	17/11 165.00	65.00	664.65	Ac-dIV	Slightly weathered rock. Joints: 30-40deg., rarely 70deg., stained brown partly. Solution is very rare.	65/11 165.00	100%	100%	Upper Depth: 65.00 Lower Depth: 65.00 Lugeon Value: 4.00 K Value: 0.000000
66									
67	27/11 167.00			Ac-dIV	Slightly weathered rock. Joints: 40-50deg., rarely 70-80deg., stained brown.	67/11 167.00	100%	100%	Upper Depth: 67.00 Lower Depth: 67.00 Lugeon Value: 4.50 K Value: 0.000000
68									
69	3/11 169.00	69.70	662.30	Ac-dIV	Slightly weathered rock. Joints: 40-50deg., rarely 70-80deg., stained brown.	69/11 169.00	100%	100%	Upper Depth: 69.00 Lower Depth: 69.00 Lugeon Value: 3.30 K Value: 0.000000
70									
71	4/11 171.00			Ac-dIV	Slightly weathered rock. Joints: 40-50deg., rarely 70-80deg., stained brown.	71/11 171.00	100%	100%	Upper Depth: 69.00 Lower Depth: 71.00 Lugeon Value: 4.50 K Value: 0.000000
72					69.70-70.30m: Vertical joint.				
73	6/11 173.00	73.00	656.65	Ac-dIV	70.70-71.10m: Cave, filled completely by green-brown clay.	73/11 173.00	100%	100%	Upper Depth: 71.00 Lower Depth: 73.00 Lugeon Value: 4.50 K Value: 0.000000
74					71.50-72.10m: Cave along 50deg. joint, filled by clay & calcite completely.				
75	7/11 175.00	75.00	654.65	Ac-III	Slightly weathered rock. Joints: 30-40deg., rarely 60-70deg., stained brown.	75/11 175.00	100%	100%	Upper Depth: 73.00 Lower Depth: 75.00 Lugeon Value: 0.50 K Value: 0.000000
76					Very small solutions are seen irregularly.				
77	8/11 177.00			Ac-IV	76.60-77.00m: Cores are fragments.	77/11 177.00	100%	100%	Upper Depth: 75.00 Lower Depth: 77.00 Lugeon Value: 4.40 K Value: 0.000000
78					77.80-78.00m & 80.30-81.00m: Solutions along 60-70deg. joints. Ice open.				
79	9/11 179.00			Ac-IV	Slightly weathered rock. Joints: 30-40deg., rarely 70-90deg., stained brown.	79/11 179.00	100%	100%	Upper Depth: 77.00 Lower Depth: 79.00 Lugeon Value: 4.50 K Value: 0.000000
80									
81	10/11 181.00	81.00	648.65	Ac-IV	Slightly weathered rock. Joints: 30-40deg., rarely 70-90deg., stained brown.	81/11 181.00	100%	100%	Upper Depth: 79.00 Lower Depth: 81.00 Lugeon Value: 0.80 K Value: 0.000000
82					81.00-83.70m: Many solutions (1-3cm) irregularly, 1-3 cm open, partly filled by green clay.				
83	11/11 183.00	83.00	646.65	Ac-III	83.70-85.00m: Fresh rock, without solution.	83/11 183.00	100%	100%	Upper Depth: 81.00 Lower Depth: 83.00 Lugeon Value: 11.00 K Value: 0.000000
84									
85	13/11 185.00	85.00	644.65	Ac-III	Slightly weathered rock. Joints: 30-40deg., rarely 70-90deg., stained brown.	85/11 185.00	100%	100%	Upper Depth: 83.00 Lower Depth: 85.00 Lugeon Value: 1.00 K Value: 0.000000
86					85.00-86.50m: Many openings (1-2cm) irregularly, partly filled by clay & calcite.				
87	14/11 187.00	87.00	642.65	Ac-III	86.20-86.50m: Ice clay along vertical joint.	87/11 187.00	100%	100%	Upper Depth: 85.00 Lower Depth: 87.00 Lugeon Value: 55.00 K Value: 0.000000
88									GP=0
89				Ac-IV	Slightly weathered rock. Joints: 30-40deg., rarely 70-90deg., stained brown.				
90					88.50-89.20m: Fresh, with seal opening along vertical joint.				
					89.20-90.00m: Very seal opening along 70deg. joint.				

R.O.D. is Rock Quality Designation. R.O.D. (total length of cylindrical cores longer than 10 cm / total drill length) x 100%
 LUAGON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO. 4 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313													
LATITUDE		8720.74		LONGITUDE		7216.38													
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION		729.65m													
ANGLE				DIRECTION															
SCALE (m)				SLOPE															
DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY % (m)	R.O.D % (m)	WATER PRESSURE TEST							
												H Value Lugon Value K Value: cm/sec 0 10 20 30 40 50							
16/11 (89.25)	91					AbIV	Slightly weathered rock. Joints: 30-80deg., rarely 70-90deg., stained brown rarely.												
16/11 (89.00)	92	92.00	637.65				90.00-92.00m: with very small opening along 70deg. joint.												
17/11 (89.00)	93	93.10	636.55				Slightly weathered rock. Joints: 40-50deg., rarely 90deg., stained brown rarely.												
17/11 (89.00)	94						With very small solution rarely.												
17/11 (89.00)	95						95.00-97.00m: Vertical joint, brown stained.												
18/11 (87.00)	97	97.00	632.65			AbIII	Slightly weathered rock. Joints: 30-50deg., rarely 90deg., stained brown rarely.												
18/11 (87.00)	98						With very small solution rarely.												
18/11 (87.00)	99						95.00-97.00m: Vertical joint, brown stained.												
20/11 (100.00)	100						Slightly weathered rock. Joints: 30-50deg., rarely 90deg., stained brown rarely.												
20/11 (100.00)	101						With very small solution rarely.												
20/11 (100.00)	102	102.00	627.65			AbIV	100.00-100.40m: 1-2cm openings irregularly.												
20/11 (100.00)	103						101.20-101.50m: 1-2cm solutions, partly open, along 80deg. joint.												
21/11 (102.00)	104	104.00	625.65			AbIV	Slightly weathered rock. Joints: 30-50deg., rarely 90deg., stained brown rarely.												
21/11 (102.00)	105						With very small solution rarely.												
21/11 (102.00)	106	106.40	621.30			AbIII	103.50-104.00m: Solution (0.5-1cm) along vertical joint, filled by clay & calcite.												
21/11 (102.00)	107	107.00	622.65				Slightly weathered rock. Joints: 30-40deg., rarely 10 & 70-80deg., stained brown, partly clay & calcite.												
21/11 (102.00)	108						With many small solutions (1-3cm) along joints.												
21/11 (102.00)	109	109.00	619.65			AbIV	Slightly weathered rock. Joints: 30-40deg., rarely 10 & 70-80deg., stained brown, partly clay & calcite.												
21/11 (102.00)	110						With many small solutions (1-3cm) along joints.												
25/11 (112.00)	112	112.00	612.65			AbIV	Slightly weathered rock. Joints: 30-40deg., rarely 10 & 70-80deg., stained brown, partly clay & calcite.												
25/11 (112.00)	113						With many small solutions (1-3cm) along joints.												
27/11 (114.00)	114	114.00	615.65				Slightly weathered rock. Joints: 30-30deg., rarely 50 & 90deg., stained brown rarely.												
27/11 (114.00)	115						No solution in general.												
20/11 (115.00)	117	115.85	612.65																
20/11 (115.00)	118																		
29/11 (119.00)	119	119.00	609.65			AbIII													
29/11 (119.00)	120	120.00	608.65																

R.O.D is Rock Quality Designation, R.O.D = (total length of cylindrical cores longer than 10 cm / total drill length) x 100
 LUGON VALUE is 1/oin/a under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO. 5 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313								
LATITUDE		0720.74		LONGITUDE		7216.38								
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION		729.65m								
ANGLE				DIRECTION										
SCALE (m)				SLOPE										
DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R. Q. D.	WATER PRESSURE TEST		
												N Value	Lugeon Value	X Value : cm/sec
2/12 (121.50)	121	609.19				AbIII	Slightly weathered rock. Joints: 10-30deg., rarely 50 & 90deg., stained brown rarely. No solution in general. 121.00-121.50m: 1-2cm opening, partly filled by clay & calcite.	4 1/2 (120.50)		100				
	122	607.75				AbIV	Slightly weathered rock. Joints: 20-30deg., rarely 70deg., stained brown partly. Very small solutions are rarely seen.	6 1/2 (122.70)		100				
4/12 (124.00)	124	605.65				AbIII		10 1/2 (124.00)		100				
5/12 (126.60)	126	602.21				AbIII		10 1/2 (126.15)		100				
6/12 (129.00)	129	600.15				AbIV		13 1/2 (127.20)		100				
6/12 (129.00)	129	600.15				AbIV		16 1/2 (129.10)		100				
7/12 (132.00)	132					AbIII		08.118		100				
8/12 (134.00)	134	598.65				AbIII	Slightly weathered rock. Joints: 20-40deg., rarely 70deg., stained brown partly. 133.50-134.20m: Small solutions along joints, partly open. 130.10-130.60m: 0.5-1cm opening along 70deg. joint, brown. 141.50-142.00m: 1-2cm open along 90deg. joint.	6 1/2 (133.50)		100				
9/12 (138.00)	138					AbIV		5 1/2 (137.85)		100				
11/12 (139.00)	139					AbIV		24 1/2 (139.50)		100				
14/12 (142.00)	142	597.60				AbIV		26 1/2 (141.15)		100				
15/12 (144.00)	144	595.45				AbIII	Slightly weathered rock. Joints: 30-40deg., rarely 90deg., stained brown partly. Many small solutions (1-2cm) along joints, partly open, generally filled by green clay & calcite.	27 1/2 (143.00)		100				
18/12 (147.00)	147	592.05				AbIII		19 1/2 (146.10)		100				
19/12 (148.00)	148	591.00				AbIV	Slightly weathered rock. Joints: 30 & 50deg., stained brown partly. With very small solutions rarely.	08.101		100				
	149					AbIII	147.70-148.50m: Old cave, filled by hard clay & fragments, partly open (0.5cm).	26 1/2 (149.75)		100				

R. Q. D. is Rock Quality Designation. R. Q. D. = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100
 LUAGON VALUE is l/min/m under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG




SHEET NO. 6 OF 15

SITE		Damsite I-C				HOLE NO.	SK-313										
LATITUDE		8720.74		LONGITUDE		7216.38		ELEVATION	729.65m								
DATE		Oct. 2, 1989 - May 31, 1990				DEPTH		425.00m									
ANGLE				DIRECTION		SLOPE											
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D %	WATER PRESSURE TEST				
														N Value	Lugeon Value	K Value: cm/sec	
151	26/12 (152.30)						AbIII	Slightly weathered rock. Joints: 10-30deg. & 50deg. stained brown partly.	26/1 (152.42)								
152								151.00-152.00m: Many small openings (0.5-1cm) irregularly.									
153	26/12 (153.00)	153.00	578.65				AbIV	152.00-154.20m: Vertical joint, generally filled by clay, partly open (0.5cm in max.).							Upper Depth: 150.00 Lower Depth: 153.00 Lugeon Value: 1.30 K Value: 0.00000		GP=0
154		154.20	575.45														
155	27/12 (155.20)	154.75	574.50				AbIII	Slightly weathered rock. Joints: 10-30deg. & 50deg. stained brown partly.	12/1 (156.20)								
156								154.40-154.75m: 1-2cm opening along 40deg. joint.									
157								158.00-160.00m: Open joint, 60-90deg., brown stained.							Upper Depth: 153.00 Lower Depth: 158.00 Lugeon Value: 4.20 K Value: 0.00000		
158	28/12 (158.00)	153.85	570.85				AbIV										
159																	
160	29/12 (159.00)	150.00	568.60					Fresh rock. Joints: 30-40deg., rarely 50-70deg. Oxidation is very rare. No solution.	30/12 (159.20)								
161																	
162																	
163	30/12 (163.00)								15/1 (162.50)						Upper Depth: 150.00 Lower Depth: 163.00 Lugeon Value: 10.00 K Value: 0.00000		GP=0
164																	
165	3/1 (165.00)	165.00	564.60				AbIII		08.101								
166																	
167									13/1 (167.00)								
168	4/1 (168.00)								8/1 (168.50)						Upper Depth: 163.00 Lower Depth: 168.00 Lugeon Value: 6.70 K Value: 0.00000		
169																	
170									19/1 (169.50)								
171	5/1 (171.00)	171.00	559.60														
172	6/1 (172.00)																
173	8/1 (173.00)	173.00	556.60				AbIV	173.80-174.00m: 0.1-0.2cm opening along 60deg. joint.							Upper Depth: 158.00 Lower Depth: 173.00 Lugeon Value: 0.40 K Value: 0.00000		
174																	
175		174.80	561.00														
176	10/1 (176.00)																
177																	
178	11/1 (178.00)						AbIII								Upper Depth: 173.00 Lower Depth: 178.00 Lugeon Value: 0.90 K Value: 0.00000		
179																	
180		180.00	549.60												Upper Depth: 178.00 Lower Depth: 180.00 Lugeon Value: 0.10 K Value: 0.00000		

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 LUGEON VALUE is l/min/psi under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

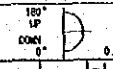
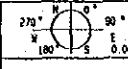

SHEET NO. 7 OF 15

SITE		Damsite I-C				HOLE NO.		SK-313												
LATITUDE		0720.74		LONGITUDE		7216.38		ELEVATION		729.65m										
DATE		Oct. 2, 1989 - May 31, 1990				DEPTH		425.00m												
ANGLE				DIRECTION				SLOPE												
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST							
											(m)	(m)	N Value Lugeon Value K Value : cm/sec							
											0 50 100	0 50 100	0	10	20	30	40	50		
181	12/1 (181.00)							Fresh rock. Joints: 20-40deg. & 60deg. Oxidation is very rare. No solution is seen in general.												
182																				
183	13/1 (183.00)	182.80	546.85				AbIII	Fresh rock. Joints: 30-50deg., rarely 70deg. Oxidation is very rare. No solution in general.											Upper Depth: 180.00 Lower Depth: 183.00 Lugeon Value: 0.00 K Value: 0.00000	
184																				
185								185.50-185.60m & 194.00-194.50m: Very small solution (0.1-0.2cm) along 40deg. joint, filled by brown clay.												
186	15/1 (186.00)	186.00	543.85				AbIV													
187																				
188	16/1 (188.00)	188.00	541.85				AbIV													
189	17/1 (189.00)						AbIII													
190																				
191	18/1 (191.00)	191.00	538.85				AbIV													
192																				
193																				
194	19/1 (194.00)	194.00	535.85				AbIV												Upper Depth: 189.00 Lower Depth: 194.00 Lugeon Value: 0.00 K Value: 0.00000	
195		195.00	534.85				AbIV													
196								Fresh rock. Joints: 30-40deg., rarely 60-70deg. Oxidation is very rare. No solution is seen.	08.101											
197	20/1 (197.00)	197.00	532.85				AbIII													
198																				
199		199.00	530.85				AbIV												Upper Depth: 194.00 Lower Depth: 199.00 Lugeon Value: 0.00 K Value: 0.00000	
200																				
201							AbIII													
202	22/1 (202.00)	202.00	527.85				AbIII													
203																				
204							AbIII												Upper Depth: 199.00 Lower Depth: 204.00 Lugeon Value: 0.00 K Value: 0.00000	
205		205.00	524.85																	
206									2/3 (206.00)											
207																				
208	24/1 (208.00)						AbIII		6/3 (208.00)										Upper Depth: 205.00 Lower Depth: 208.00 Lugeon Value: 0.00 K Value: 0.00000	
209									21/2 (209.00)											
210		210.00	519.85						25/2 (210.00)										Upper Depth: 205.00 Lower Depth: 210.00 Lugeon Value: 0.00 K Value: 0.00000	

R.Q.D. is Rock Quality Designation. R.Q.D. = (total length of cylindrical cores longer than 10 cm / total drill length) x 100
 LUGEON VALUE is l/min/a under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 8 OF 15

SITE		Dansite I-C				HOLE NO.	SK-313							
LATITUDE		8720.74		LONGITUDE		7216.38		ELEVATION		729.65m				
DATE		Oct. 2, 1989 - May 31, 1990				DEPTH		425.00m						
ANGLE				DIRECTION				SLOPE						
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST	
											0 50 100 0 50 100	0 10 20 30 40 50	N Value Luqon Value K Value : cm/sec	
211	25/1 (211.99)	211.45	518.25					Fresh rock. Joints: 30-40deg., rarely 60-70deg. Dilatation is very rare. No solution.	11/3 (211.38)		100	100	Upper Depth : 210.00 Lower Depth : 211.68 Luqon Value : 1.10 K Value : 0.000000	
212								Fresh rock. Joints: 40-50deg., rarely 60-70deg. brown stained rarely.	20/2 (213.19)		100	100		
213								No solution in general, rarely 0.1-0.2cm openings along joints.	5/2 (215.60)		100	100		
214									2/3 (216.49)		100	100		
215											100	100		
216											100	100		
217	26/1 (217.99)										100	100	Upper Depth : 211.00 Lower Depth : 217.50 Luqon Value : 0.50 K Value : 0.000000	
218							AbIII				100	100		
219											100	100		
220	27/1 (220.99)										100	100		
221											100	100		
222											100	100		
223											100	100		
224											100	100		
225									00.101		100	100		
226	28/1 (226.00)	226.00	513.65		Medire Formation				10/3 (227.90) (227.25)		100	100		
227											100	100		
228		227.50	502.15					About 50% of cores are fragments due to 80-90deg. joint, brown stained, partly open (0.1-0.5cm), filled by clay.	12/3 (228.40)		100	100	Upper Depth : 223.00 Lower Depth : 229.00 Luqon Value : 1.40 K Value : 0.000000	
229	30/1 (229.00)	229.30	502.35					Fresh rock. Joints: 10-30deg., rarely 60-70 & 90deg. brown stained rarely. No solution in general. 229.00-229.70m: With very small solutions. 230.90m: 1-2cm opening. 232.00-235.50 & 235.90-236.20m: Very small solutions are seen irregularly.			100	100	GP=0	
230											100	100		
231							AbIV				100	100		
232											100	100		
233											100	100		
234											100	100		
235	31/1 (235.00)										100	100	Upper Depth : 229.00 Lower Depth : 235.00 Luqon Value : 2.50 K Value : 0.000000	
236											100	100		
237											100	100		
238											100	100		
239											100	100		
240		240.00	499.55								100	100	Upper Depth : 235.00 Lower Depth : 240.00 Luqon Value : 1.00 K Value : 0.000000 GP=0	

R.Q.D. is Rock Quality Designation, R.Q.D. = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100
 LUQON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO. 9 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313								
LATITUDE		8720.74		LONGITUDE		7216.38								
ELEVATION		729.65m		DEPTH		425.00m								
DATE		Oct. 2, 1989 - May 31, 1990												
ANGLE				DIRECTION		SLOPE								
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST	
														N Value Luqon Value K Value : cm/sec
241	1/2 (241.00)	241.00	488.65				AbIII	Fresh rock. Joints: 30-50deg., rarely 60deg. thinly brown stained partly. No solution in general.						GP=0
242								249.50-249.70m: 20cm opening, without core sample.						
243							AbIV							
244														
245														
247	2/2 (247.00)	247.00	492.65											Upper Depth : 247.00 Lower Depth : 247.00 Luqon Value : 0.00 K Value : 0.000000
248														
249														
250														
251														
252														
253	5/2 (253.00)						AbIII							GP=0
254														
255														
256	6/2 (256.00)													
257														
258		258.00	471.65											
259	1/2 (259.00)	259.00	470.65				AbIII	Fresh rock. Joints: 30-50deg., with thin clay. No oxidation is seen.						Upper Depth : 259.00 Lower Depth : 259.00 Luqon Value : 0.00 K Value : 0.000000
260														
261														
262	8/2 (262.00)	262.00	467.65				AbII	Fresh rock. Joints: 70-80deg. No oxidation.						
263														
264														
265	9/2 (265.00)	265.00	461.65											
266														
267														
268	10/2 (268.00)	268.00	451.65				AbIII	Fresh rock. Joints: 10-20deg., rarely 60-90deg., with thin green clay partly. No oxidation is seen. 266.70-267.70m: 0.3cm thick green clay in 80deg. joint.						Upper Depth : 268.00 Lower Depth : 270.00 Luqon Value : 0.00 K Value : 0.000000
269														
270		270.00	450.65											

R.Q.D. is Rock Quality Designation. R.Q.D. = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100%

LUQON VALUE is 1/min/a under injection water pressure of 10kg/cm²

DEPTH and ELEVATION are in meter

DIAMETER is in millimeter

GP: Gauge pressure

DRILL LOG

SHEET NO. 10 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313	
LATITUDE		0720.74		LONGITUDE		7216.38	
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION		729.65m	
ANGLE				DIRECTION			
SCALE (m)				CORE REC-OVERY %		R.Q.D %	
DATE				M (m)		M (m)	
DEPTH				0 50 100.0		0 50 100	
ELEVATION				H Value		Lugeon Value	
GEOLOGICAL AGE				K Value : cm/sec			
ROCK TYPE				Upper Depth : 270.00		Lower Depth : 271.00	
COLUMN SECTION				Lugeon Value : 0.00		K Value : 0.000000	
ROCK CLASS				Upper Depth : 271.00		Lower Depth : 272.00	
DESCRIPTION				Lugeon Value : 0.00		K Value : 0.000000	
BIT S.				Upper Depth : 272.00		Lower Depth : 273.00	
DIAMETER				Lugeon Value : 0.00		K Value : 0.000000	
GROUND				Upper Depth : 273.00		Lower Depth : 274.00	
WATER LEVEL				Lugeon Value : 0.00		K Value : 0.000000	
271							
272							
273							
274	12/2 (274.00)	274.00	455.65				
275							
276							
277	13/2 (277.00)	277.00	452.65				
278							
279							
280							
281							
282							
283	14/2 (283.00)	283.00	455.65				
284							
285							
286	15/2 (286.00)						
287							
288							
289	19/2 (289.00)						
290							
291							
292	20/2 (292.00)	292.00	437.65				
293							
294							
295	22/2 (295.00)						
296		296.00	431.25				
297							
298		298.00	431.65				
299							
300		299.00	429.65				

R.Q.D is Rock Quality Designation. R.Q.D = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100
 LUGEON VALUE is 1/min/a under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG



SHEET NO. 11 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313								
LATITUDE		8720.74		LONGITUDE		7216.38								
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION		729.65m								
ANGLE				DIRECTION										
SCALE (m)	DATE	DEPTH	ELEVATION	BIOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE REC-OVERY % (m)	R.Q.D % (m)	WATER PRESSURE TEST N Value Lugeon Value K Value : cm/sec	
301	23/2 (201.00)	301.00	428.65				Aa-b1V	Fresh rock. Joints: 10-30deg., partly stained brown & with thin green-brown clay.	08.101		0-100%	0-100%	Upper Depth: 301.00 Lower Depth: 301.00 Lugeon Value: 0.00 K Value: 0.000000	
307	26/2 (202.00)	307.25	422.40					Solution cavity. Partly filled by clay, calcite & gravel.			0-100%	0-100%	Upper Depth: 307.00 Lower Depth: 307.00 Lugeon Value: 0.00 K Value: 0.000000	
313	26/2 (213.00)	313.00	432.80					Fresh rock. Joints: 30-40deg., partly filled by thin green-reddish brown clay.			0-100%	0-100%	Upper Depth: 307.00 Lower Depth: 313.00 Lugeon Value: 0.00 K Value: 0.000000	
316	1/3 (216.00)				Nadine formation Limestone		Aa-b111				0-100%	0-100%	GP=0	
319	2/3 (219.00)										0-100%	0-100%	Upper Depth: 313.00 Lower Depth: 319.00 Lugeon Value: 0.00 K Value: 0.000000	
324	5/3 (224.00)	324.25	426.50					Fresh rock. With some old solution cavities which are filled completely by clay and calcite. Hard and strong.	08.05		0-100%	0-100%	Upper Depth: 319.00 Lower Depth: 325.00 Lugeon Value: 0.00 K Value: 0.000000	
326								Joints: 30-40deg., partly filled by thin green-reddish brown clay.			0-100%	0-100%		
329	6/3 (229.00)										0-100%	0-100%	Upper Depth: 325.00 Lower Depth: 329.00 Lugeon Value: 0.00 K Value: 0.000000	
330	9/3 (229.70)	330.00	420.60								0-100%	0-100%	Upper Depth: 325.00 Lower Depth: 330.00 Lugeon Value: 0.00 K Value: 0.000000	

R.Q.D is Rock Quality Designation. R.Q.D. = (total length of cylindrical cores longer than 10 cm / total drill length) x 100
 LUGEON VALUE is l/min/psi under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter.
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO.12 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313				
LATITUDE		0720.74		LONGITUDE		7216.38				
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION		729.65m				
ANGLE				DIRECTION						
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	DESCRIPTION	BIT & DIAMETER	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST
								0 50 100 0 50 100	0 10 20 30 40 50	
331	10/3 (321.62)					Fresh rock. Joints: 20-40deg., partly filled by thin green clay. Old cavities filled completely by hard clay and calcite are seen partly.				Upper Depth: 330.00 Lower Depth: 331.00 Lugeon Value: 0.00 K Value: 0.000000
332	12/3 (322.62)									
333						343.00-344.55m: Cores are mostly fragments due to 80deg. vertical joint and solution cavities.				
334										
335	13/3 (325.62)									
336										
337	14/3 (327.62)									Upper Depth: 331.00 Lower Depth: 337.00 Lugeon Value: 0.00 K Value: 0.000000
338	15/3 (328.20)									
339										
340	15/3 (340.00)									
341	17/3 (341.50)									
342										
343	19/3 (343.00)									Upper Depth: 337.00 Lower Depth: 343.00 Lugeon Value: 0.00 K Value: 0.000000
344										
345		245.20	361.45				DB.86			
346	20/3 (346.00)					Fresh rock. 20-40deg. joints, partly filled by thin green and reddish brown clay.				
347						353.20-353.75m: Vertical joint, partly with thin green clay.				
348										
349	21/3 (349.00)	349.00	360.65			353.75-353.85m: 70deg. joint, filled by 1.0cm calcite.				Upper Depth: 349.00 Lower Depth: 349.00 Lugeon Value: 0.00 K Value: 0.000000
350	22/3 (350.00)	349.50	360.15							
351										
352	24/3 (351.00)	351.00	357.65							
353										
354		353.05	375.00							
355	25/3 (355.00)					Fresh rock. Joints: 20-40deg., filled by thin green and reddish brown clay. Tight condition.				Upper Depth: 349.00 Lower Depth: 355.00 Lugeon Value: 0.00 K Value: 0.000000
356						355.30m: 3.0cm cave.				
357										
358		359.00	371.65							
359										
360		360.00	370.65							Upper Depth: 355.00 Lower Depth: 360.00 Lugeon Value: 0.00 K Value: 0.000000

R.Q.D. is Rock Quality Designation. R.Q.D. = (Total length of cylindrical cores longer than 10 cm / Total drill length) x 100
 LUGEON VALUE is 1/min under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO.13 OF 15

SITE		Damsite I-C		HOLE NO.		SK-313		
LATITUDE		8720.74		LONGITUDE		7216.38		
ELEVATION		729.65m		DEPTH		425.00m		
DATE		Oct. 2, 1989 - May 31, 1990		ANGLE				
SCALE (m)		DATE		DEPTH		ELEVATION		
GEOLOGICAL AGE		ROCK TYPE		COLUMN SECTION		ROCK CLASS		
DESCRIPTION		BIT & DIAMETER		GROUND WATER LEVEL		CORE RECOVERY %		
R.O.D. %		WATER PRESSURE TEST		N Value		Luqon Value		
K Value		ca/sec		0 10 20 30 40 50		0 50 100 50 100		
361	27/3 (861.00)							Upper Depth: 366.00 Lower Depth: 361.00 Luqon Value: 0.30 K Value: 0.00000
362								
363								
364	28/3 (854.00)							
365								
366								
367	30/3 (847.00)	367.00	362.65					Upper Depth: 361.00 Lower Depth: 361.00 Luqon Value: 4.40 K Value: 0.000000
368								
369								
370	3/4 (840.00)	370.00	358.05					
371								
372	4/4 (833.00)							Upper Depth: 367.00 Lower Depth: 373.00 Luqon Value: 0.50 K Value: 0.00000
373	5/4 (826.00)							
374								
375	6/4 (819.00)	374.50	355.95					
376	7/4 (812.00)	375.25	353.95					
377								
378	8/4 (805.00)							Upper Depth: 373.00 Lower Depth: 379.00 Luqon Value: 0.50 K Value: 0.00000
379								
380								
381	10/4 (798.00)							
382	11/4 (791.00)							
383								
384								
385	12/4 (784.00)							Upper Depth: 379.00 Lower Depth: 385.00 Luqon Value: 0.50 K Value: 0.00000
386								
387		386.00	383.00					
388								
389	13/4 (777.00)	388.00	381.00					
390	14/4 (770.00)							Upper Depth: 385.00 Lower Depth: 391.00 Luqon Value: 0.50 K Value: 0.00000

R.O.D. is Rock Quality Designation. R.O.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100%
 LUQON VALUE is 1/min/m under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter

DRILL LOG

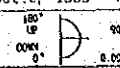
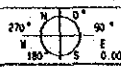
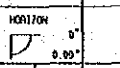
SHEET NO.14 OF 15

SITE		Damsite I-C		HOLE NO.	SK-313									
LATITUDE		8720.74		LONGITUDE	7216.39									
DATE		Oct. 2, 1989 - May 31, 1990		ELEVATION	729.65m									
ANGLE				DIRECTION										
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D %	WATER PRESSURE TEST	
											0 50 100 0 50 100	0 10 20 30 40 50	H Value Logon Value K Value : cm/sec.	
391	15/4 (191.00)	391.00	338.65				AaII	Fresh rock. Joints: 10-30deg., rarely 60-70deg., partly filled by thin green and reddish brown clay. Extremely light.					Upper Depth : 390.00 Lower Depth : 391.00 Logon Value : 0.00000 K Value : 0.00000	
394	17/4 (194.00)													
396	18/4 (196.00)													
397	19/4 (197.00)						AaIII							Upper Depth : 391.00 Lower Depth : 397.00 Logon Value : 0.00000 K Value : 0.00000
400	20/4 (200.00)													
401	30/4 (201.00)													
403	1/5 (203.00)	403.00	326.65							DB.86				Upper Depth : 397.00 Lower Depth : 403.00 Logon Value : 0.00000 K Value : 0.00000
405	3/5 (205.00)						AaII							
407	4/5 (207.00)	407.00	322.65											Upper Depth : 403.00 Lower Depth : 407.00 Logon Value : 0.00000 K Value : 0.00000
409	5/5 (209.00)													
411							AaIII							
412	8/5 (212.00)													
413	9/5 (213.00)													
415	17/5 (215.00)	415.00	314.65										Upper Depth : 409.00 Lower Depth : 415.00 Logon Value : 0.00000 K Value : 0.00000	
416	21/5 (216.00)						AaII							
417														
418	26/5 (217.00)	417.75	311.65						DB.76					
419							AaIII							
420	28/5 (220.00)	420.00	309.65										Upper Depth : 416.00 Lower Depth : 420.00 Logon Value : 0.00000 K Value : 0.00000	

R.Q.D is Rock Quality Designation. R.Q.D=(Total) length of cylindrical cores longer than 10 cm/(Total drill length) x 100%
 LOGON VALUE is 1/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG


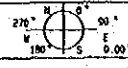
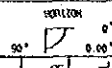
SHEET NO.15 OF 15

SITE		Damsite I-C				HOLE NO.		SK-313											
LATITUDE		8720.74		LONGITUDE		7216.38		ELEVATION											
DATE		Oct. 2, 1989 - May 31, 1990				DEPTH		425.00m											
ANGLE				DIRECTION				SLOPE											
HORIZON																			
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D %	WATER PRESSURE TEST						
											0 50 100	0 50 100	0 10 20 30 40 50						
421																			
422	29/5 (422.00)				Nadre formation		Aa11		08.76										
423																			
424																			
425	31/5 (425.00)	425.00	424.80																
426																			
427																			
428																			
429																			
430																			
431																			
432																			
433																			
434																			
435																			
436																			
437																			
438																			
439																			
440																			
441																			
442																			
443																			
444																			
445																			
446																			
447																			
448																			
449																			
450																			

R.Q.D is Rock Quality Designation, R.Q.D = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100
 MUGEN VALUE is 1/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 1 OF 16

SITE		Damsite I-C				HOLE NO.		SK-314												
LATITUDE		7124.12		LONGITUDE		7414.95		ELEVATION		726.73m										
DATE		Oct. 16, 1989 - May 31, 1990				DEPTH		450.35m												
ANGLE				DIRECTION				SLOPE												
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST							
													H Value	Lugeon Value	K Value : cm/sec					
1								Non-core drilling.												
2																				
3	15/10 (13.00)																			
4																				
5																				
6	17/10 (16.00)																			
7																				
8																				
9	18/10 (19.00)																			
10																				
11																				
12																				
13																				
14	20/10 (14.00)																			
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23	21/10 (23.00)																			
24																				
25																				
26																				
27																				
28																				
29																				
30																				

R.Q.D. is Rock Quality Designation. R.Q.D. = (Total length of cylindric cores longer than 10 cm / Total drill length) x 100
 FLUXION VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 2 OF 16

SITE		Dam site I-C		HOLE NO.		SK-314													
LATITUDE		7124.12		LONGITUDE		7414.95													
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m													
ANGLE				DIRECTION															
				SLOPE															
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BLT S	DIAMETER (mm)	WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST					
														N Value	Lugeon Value	K Value	cm/sec		
														0	10	20	30	40	50
31								Non-core drilling.											
32																			
33																			
34																			
35	23/10 (35.69)																		
36																			
37																			
38																			
39																			
40																			
41																			
42																			
43																			
44																			
45	24/10 (35.30)																		
46																			
47																			
48																			
49																			
50																			
51																			
52																			
53	25/10 (33.69)																		
54																			
55																			
56																			
57																			
58																			
59																			
60																			

R.Q.D. is Rock Quality Designation. R.Q.D. = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100%
 LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG


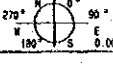

SHEET NO. 3 OF 16

SITE			Damsite I-C				HOLE NO.		SK-314														
LATITUDE			7124.12		LONGITUDE		7414.95		ELEVATION			726.73m											
DATE			Oct. 16, 1989 - May 31, 1990				DEPTH			450.35m													
ANGLE					DIRECTION		SLOPE																
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT S	DIAMETER	GROUND	WATER LEVEL	CORE RECOVERY %		R.Q.D. %		WATER PRESSURE TEST						
													0	50	100	0	100	0	10	20	30	40	50
61								Non-core drilling.															
62	25/10 62.00																						
63																							
64																							
65	27/10 65.00																						
66																							
67																							
68																							
69	28/10 69.00																						
70																							
71																							
72																							
73	30/10 73.00																						
74																							
75																							
76	31/10 76.00																						
77																							
78																							
79																							
80	1/11 80.00																						
81																							
82																							
83																							
84																							
85	2/11 85.00																						
86																							
87																							
88																							
89	2/11 89.00																						
90																							

R.Q.D. is Rock Quality Designation, R.Q.D. = (Total length of cylindrical cores longer than 10 cm / Total drill length) x 100%
 LUDEON VALUE is l/min/a under injection water pressure at 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter

DRILL LOG


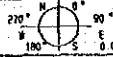

SHEET NO. 4 OF 16

SITE		Ransite 1-C				HOLE NO.		SK-314											
LATITUDE		7124.12		LONGITUDE		7414.95		ELEVATION		726.73m									
DATE		Oct. 16, 1989 - May 31, 1990				DEPTH		450.35m											
ANGLE				DIRECTION				SLOPE											
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	SIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST						
											0 50 100	0 50 100	N Value lugon Value K Value : cm/sec 0 10 20 30 40 50						
91	6/11 (91.79)							Non-core drilling.											
92																			
93																			
94																			
95	7/11 (95.29)																		
96																			
97																			
98	8/11 (98.59)																		
99																			
100																			
101																			
102																			
103	9/11 (103.50)																		
104																			
105																			
106																			
107	10/11 (107.50)																		
108																			
109																			
110	11/11 (109.09)																		
111																			
112																			
113	12/11 (113.19)																		
114																			
115																			
116																			
117																			
118	13/11 (118.09)																		
119																			
120		120.00	688.73																

R.Q.D. is Rock Quality Designation. R.Q.D. = (Total length of cylindrical cores longer than 10 cm / (Total drill length) x 100)
 KLUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in water
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 5 OF 16

SITE		Damsite I-C				HOLE NO.		SK-314																		
LATITUDE		7124.12		LONGITUDE		7414.95		ELEVATION		726.73m																
DATE		Oct. 16, 1989 - May 31, 1990				DEPTH		450.35m																		
ANGLE				DIRECTION				SLOPE																		
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R. Q. D. %	WATER PRESSURE TEST													
121								Non-core drilling.		23/1 (121.15)																
122																										
123																										
124																										
125	15/11 (124.80)																									
126																										
127																										
128																										
129																										
130																										
131	15/11 (131.80)																									
132																										
133																										
134	17/11 (133.80)																									
135																										
136																										
137	16/11 (137.60)																									
138																										
139																										
140																										
141																										
142																										
143	21/11 (143.20)																									
144																										
145																										
146	22/11 (146.20)																									
147																										
148																										
149																										
150		150.00	576.73																							

R. Q. D. is Rock Quality Designation. R. Q. D. (Total length of cylindrical cores longer than 10 cm / Total drill length) x 100
 LUENGER VALUE is 1/min under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG


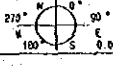

SHEET NO. 6 OF 16

SITE		Damsite I-C				HOLE NO.	SK-314												
LATITUDE		7124.12		LONGITUDE		7414.95		ELEVATION	726.73m										
DATE		Oct. 16, 1989 - May 31, 1990				DEPTH		450.35m											
ANGLE				DIRECTION		SLOPE													
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE REC-OVERY %	R. Q. D. %	WATER PRESSURE TEST						
											(m)	(m)	N Value Lugeon Value K Value : cm/sec						
											0 50 100	0 50 100	0	10	20	30	40	50	
151	23/11 (197.63)							Non-core drilling.											
152																			
153																			
154																			
155	24/11 (195.70)																		
156																			
157																			
158																			
159																			
160	25/11 (162.83)																		
161																			
162																			
163																			
164																			
165	27/11 (155.98)																		
166																			
167																			
168																			
169	28/11 (163.52)																		
170																			
171																			
172	29/11 (122.09)																		
173																			
174																			
175	30/11 (173.20)																		
176																			
177	1/12 (122.52)																		
178																			
179	2/12 (123.20)																		
180		180.00	526.73																

R. Q. D. is Rock Quality Designation. R. Q. D. = (total length of cylindric cores longer than 10 cm / total drill length) x 100
 LUKEON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 7 OF 16

SITE		Damsite I-C			HOLE NO.		SK-314											
LATITUDE		7124.12		LONGITUDE		7414.95		ELEVATION		726.73m								
DATE		Oct. 16, 1989 - May 31, 1990						DEPTH		450.35m								
ANGLE				DIRECTION				SLOPE										
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.O.D. %	WATER PRESSURE TEST					
											0 50 100 0	0 50 100	N Value Luqon Value X Value : cm/sec 0 10 20 30 40 50					
181								Non-core drilling.										
182	4/12 (182.20)																	
183																		
184																		
185																		
186																		
187																		
188	6/12 (188.20)																	
189																		
190	7/12 (190.20)																	
191																		
192	8/12 (192.50)																	
193																		
194																		
195	9/12 (194.50)																	
196																		
197	11/12 (195.50)																	
198																		
199	12/12 (199.60)																	
200																		
201	13/12 (201.20)																	
202	14/12 (202.60)	202.60	521.12															
203								202.60-203.60m: Dark gray. 203.60-205.60m: Silty brown, partly gray, with some limestone fragments. 205.00-205.60m: Brown.										
204	15/12 (203.60)																	
205	18/12 (205.60)	205.60	521.13															
206	19/12 (202.70)							Sandstone. Gray, soft and friable. Fine-medium grained										
207																		
208	20/12 (208.15)	208.15	519.60															
209	21/12 (202.50)							Brown, partly reddish brown.										
210		210.00	518.72															

R.O.D. is Rock Quality Designation, R.O.D. (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100%
 LUQON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

DRILL LOG

SHEET NO. 8 OF 16

SITE		Damsite I-C		HOLE NO.		SK-314															
LATITUDE		7124.12		LONGITUDE		7414.95															
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m															
ANGLE				SLOPE																	
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST									
												N Value Luqueon Value K Value : cm/sec									
												0	50	100	0	10	20	30	40	50	
211	22/12 (211.05)		211.72	515.03	Matrix of Eocene Ophiolitic Melange	Clay	Brown-reddish brown.	6/2 (212.70)	DB.101												
212							D-Ea					Brown, partly contain limestone fragments (5cm in max.).									
213	27/12 (212.02)												Limestone, light gray, hard.	6/3 (214.22)							
214	25/12 (214.25)		214.45	512.20			Clay					Ea	Clay, brown.	20/2 (215.20)							
215			214.02	511.82			Limestone					Aa	Limestone, light gray, hard.	7/2 (215.20)							
216	26/12 (215.71)		215.65	511.00			Clay					Ea	Brown.	10/2 (215.20)							
217			215.50	510.22			Limestone					Aa	Limestone, light gray, hard.	6/2 (215.20)							
218	27/12 (218.15)		218.12	508.50			Clay					D-Ea	Silty clay, brown.	8/2 (218.20)							
219	26/12 (218.15)		218.12	507.50								Aa	Limestone, fragments with clay.	7/2 (218.20)							
220	25/12 (220.00)		220.00	505.00			Matrix formation					Limestone	Slightly weathered rock. Light gray-beige, hard. Joints: 20-30deg., rarely 70deg., brown stained.	7/2 (219.20)	25/1 (221.15)						
221					AaIV	219.15-220.15m: 20-40deg. joints, with thin green clay.															
222			222.50	504.13	AaIII	220.15-220.60m: Cores are mostly fragments.															
223	30/12 (222.10)		222.15	503.61	AaII	220.60-221.50m: 40-60deg. joints, with thin green clay.															
224			223.80	502.91	AaV	221.50-222.40m: 70deg. joint, with thin green clay.															
225	5/1 (221.80)		224.80	501.81	Aa	222.40-223.80m: Cores are mostly fragments.															
226					AbIII	223.80-225.60m: 60-70deg. joints, with thin clay, brown stained.															
227	5/1 (227.30)		227.15	498.63	AaIII	225.60-229.60m: 70deg. joint, brown stained.															
228			228.00	498.71	AaII	230.00-230.40m: Cores are almost fragments.															
229					AaIII	230.50-231.10m: Vertical joint, brown stained.															
230																					
231	5/1 (231.00)		231.90	495.72	Matrix formation	Limestone	Moderately-slightly weathered rock, conglomeratic. Gray-dark gray, hard. Joints: 20-30deg., rarely 50-60deg., brown stained.	DB.86			<p>Upper Depth: 229.00 Lower Depth: 228.00 Luqueon Value: 0.00 K Value: 0.00000</p>										
232							Ab-cIII					232.25-232.70m: Small solution cavities (few in max.), brown stained.									
233	10/1 (233.60)		233.60	493.73																	
234							Ab-cII														
235			235.60	491.74																	
236	11/1 (235.71)		235.70	490.00									Moderately-slightly weathered rock, hard, light gray-beige.								
237													236.20-236.40m: 40deg. joint, brown stained, with thin clay.								
238													236.75-237.00m: 70deg. joint, brown stained, with thin clay.								
239	12/1 (239.01)		239.00	487.33			Ab-cIII														
240			240.00	486.73			Ab-cII														

R.Q.D. is Rock Quality Designation. R.Q.D. (total) length of cylindrical cores longer than 10 cm / (total drill length) x 100
 LUQUEON VALUE is l/min/m under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter

DRILL LOG

SHEET NO. 9 OF 16

SITE		Damsite I-C		HOLE NO.		SK-314	
LATITUDE		7124.12		LONGITUDE		7414.95	
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m	
ANGLE				DIRECTION			
SCALE (m)		DATE		DEPTH		ELEVATION	
GEOLOGICAL AGE		ROCK TYPE		COLUMN SECTION		ROCK CLASS	
DESCRIPTION		BIT & DIAMETER		CORE RECOVERY %		R.Q.D. %	
WATER PRESSURE TEST		N Value		Lugeon Value		K Value : cm/sec	
241	15/1 [241.00]						
242		242.10	481.63				
243	16/1 [243.00]	243.00	481.73				
244							
245							
246	19/1 [246.30]						
247							
248	19/1 [248.00]	248.00	478.77				
249		249.25	477.30				
250							
251							
252		252.90	474.83				
253	27/1 [253.00]	253.00	473.73				
254		254.15	472.63				
255	24/1 [254.90]						
256		256.50	471.15				
257	26/1 [257.75]						
258	27/1 [258.00]	258.10	469.63				
259							
260	29/1 [259.90]						
261		260.90	458.83				
262							
263	30/1 [263.00]						
264		263.50	453.23				
265	5/2 [265.20]						
266							
267							
268	6/2 [268.00]						
269							
270		270.00	456.73				

R.Q.D. is Rock Quality Designation, R.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100
 LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm2
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO.10 OF 16

SITE		Damsite I-C		HOLE NO.		SK-314									
LATITUDE		7124.12		LONGITUDE		7414.95									
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m									
DEPTH				DEPTH		450.35m									
ANGLE				DIRECTION											
SLOPE				HORIZON											
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER (GROUND)	WATER LEVEL	CORE RECOVERY %	R.O.D. %	WATER PRESSURE TEST		
271		271.25	455.48				Ab-clv	Moderately-slightly weathered rock. Hard. light gray-beige. Joints: 10-30deg., brown stained. Small solution is seen along joints irregularly.							
272		272.15	454.58					271.75-272.15m Cores are mostly fragments. 272.60-272.65m Solution, with calcite. 277.65m Solution cavity, 10cm wide, partly filled by calcite.						Upper Depth: 270.00 Lower Depth: 273.00 Lugeon Value: 7.80 K Value: 0.000029	GP=0
273	9/2 (273.00)														
274							Ab-clv								
275															
276	9/2 (275.00)	275.00	450.73				Ab-clv								
277															
278	10/2 (278.00)	278.00	448.73					Moderately-slightly weathered rock. Joints: 10-30deg., brown stained, stained brown, partly with thin clay & calcite.							
279								278.50-278.55m Solution along joint, with calcite. 281.50-281.80m 80deg. joint, stained brown, with thin calcite. 282.50-282.70m Vertical joint, stained brown, with thin clay & calcite.							Upper Depth: 273.00 Lower Depth: 278.00 Lugeon Value: 0.50 K Value: 0.000020
280															
281															
282															
283	12/2 (283.00)	283.00	447.73					Moderately-slightly weathered rock. Joints: 10-40deg., brown stained.							
284								Vertical joints: 285.10-285.70m 286.05-286.45m	08.86						
285															
286	12/2 (286.00)							Moderately-slightly weathered rock. Joints: 10-20deg., rarely 70-80deg., stained brown, partly filled by thin clay & calcite.							
287															
288	14/2 (288.00)							Cores are fragments in the following sections: 289.10-289.50m 289.80-290.50m 291.10-291.80m 292.83-293.25m Vertical joint, with 0.4cm green clay & calcite.							GP=0
289															
290	15/2 (290.00)														
291															
292							Ab-clv								
293	16/2 (293.00)														
294		293.50	433.23					Moderately-slightly weathered rock. Joints: 40-50deg., rarely 70-80deg., brown stained, partly filled by thin clay & calcite.							
295															
296	19/2 (295.00)							294.50-295.00m Solution (1cm in max. width) along 40-50deg. joint. 296.10-296.50m & 297.50-298.00m 80-90deg. joints, with 0.3-0.5cm clay & calcite.							
297															
298	20/2 (298.00)														
299															
300		300.00	428.23												GP=0

M.D.D is Rock Quality Designation. R.O.D. (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100.
 LUGESON VALUE is 1/min under injection water pressure of 10kg/cm²
 *DEPTH and ELEVATION are in meter
 *DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG


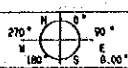

SHEET NO. 11 OF 16

SITE		Damsite 1-C		HOLE NO.		SK-314						
LATITUDE		7124.12		LONGITUDE		7414.95						
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m						
ANGLE				DIRECTION								
SCALE (m)		DEPTH	ELEVATION	ROCK TYPE	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.O.D. %	WATER PRESSURE TEST	
									0 50 100	0 50 100	N Value Lugem Value K Value: cm/sec	
301	21/2 (229.89)			Nadine formation Limestone	Ab-civ	Moderately slightly weathered rock. Joints: 40-50deg., rarely 80-90deg., brown stained, partly filled by thin clay & calcite.					Upper Depth: 300.00 Lower Depth: 303.00 Lugem Value: 7.50 K Value: 0.000000	GP=0
303	22/2 (229.89)				Ab-civ	Moderately slightly weathered rock. Joints: 20-40deg., partly with thin clay & calcite. Brown stained.						
304	23/2 (229.89)	304.00	422.73		Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
305	24/2 (225.50)				Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
306		306.50	419.87		Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
307	26/2 (229.89)				Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
308					Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
309					Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
310					Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
311					Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
312					Ab-civ	Moderately slightly weathered rock. Joints: 50-70deg., brown stained.						
313	27/2 (213.00)	313.00	412.73		Ab-civ	Moderately slightly weathered rock. Joints: 20-40deg., rarely 70-80deg., Solution: 314.00-315.10m; with clay & calcite. 317.35-317.50m along 70deg. joint. 317.60-318.00m. Cores are mostly fragments.		09.86				
314					Ab-civ	Moderately slightly weathered rock. Joints: 20-40deg., rarely 70-80deg., Solution: 314.00-315.10m; with clay & calcite. 317.35-317.50m along 70deg. joint. 317.60-318.00m. Cores are mostly fragments.						
315	20/2 (115.00)				Ab-civ	Moderately slightly weathered rock. Joints: 20-40deg., rarely 70-80deg., Solution: 314.00-315.10m; with clay & calcite. 317.35-317.50m along 70deg. joint. 317.60-318.00m. Cores are mostly fragments.						
316					Ab-civ	Moderately slightly weathered rock. Joints: 20-40deg., rarely 70-80deg., Solution: 314.00-315.10m; with clay & calcite. 317.35-317.50m along 70deg. joint. 317.60-318.00m. Cores are mostly fragments.						
317	1/3 (119.00)	318.00	408.73	Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
318				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
319				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
320		320.55	405.10	Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
321				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
322				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
323	2/3 (223.00)	323.00	401.73	Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
324				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
325		325.70	401.83	Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
326				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
327				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
328	5/3 (220.00)			Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
329				Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							
330		330.00	396.73	Ab-civ	Moderately slightly weathered rock. Joints: 30-60deg., brown stained.							

R.O.D. is Rock Quality Designation. R.O.D. = (total length of cylindrical cores longer than 10 cm / total drill length) x 100%
 LUGEM VALUE is l/min/a under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO.12 OF 16

SITE		Damsite I-C		HOLE NO.		SK-314												
LATITUDE		7124.12		LONGITUDE		7414.95												
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m												
ANGLE				DIRECTION														
				SLOPE														
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D %	WATER PRESSURE TEST					
											(m)	(m)	N Value	Lugeon Value	X Value : cm/sec			
331	6/3 (331.00)	331.00	325.73				Ab-cIII	Moderately-slightly weathered rock. 330.25-330.65m Cores are mostly fragments due to solution cavities.										
332																		
333	7/3 (332.00)	332.00	324.51					Moderately-slightly weathered rock. Many solution cavities, 2-3cm in max. width.										GP=0
334																		
335																		
336		335.50	321.21															
337																		
338	8/3 (338.00)	338.00	309.72				Ab-cIII	Moderately-slightly weathered rock. Joints: 60-70deg., with thin clay.										
339																		
340		339.00	305.93															
341	9/3 (341.00)	341.00	305.13					Moderately-slightly weathered rock. Small solution cavities are seen. 341.00-341.50m Cores are fragments due to solution & vertical joint.	08.86									
342																		
343	15/3 (343.00)	343.00	303.71					Moderately-slightly weathered rock. Many solution cavities, filled by clay, calcite & gravel. 344.65-345.60m Loose filling materials (clay & gravel).										
344																		
345	17/3 (345.50)																	
346																		
347																		
348	19/3 (348.00)	348.00	308.72					Moderately-slightly weathered rock. Joints: 50-70deg., with thin reddish brown clay. 350.30-350.80m Small solution cavities.										
349																		
350																		
351																		
352	20/3 (352.10)																	
353	21/3 (353.00)	353.00	307.72															
354																		
355																		
356	26/3 (356.50)								08.76									
357																		
358	27/3 (358.00)																	GP=0
359																		
360		360.00	306.72															

R.Q.D is Rock Quality Designation. R.Q.D. (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100%
 LUAGON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO.13 OF 16

SITE		Oamsite I-C		HOLE NO.		SK-314								
LATITUDE		7124.12		LONGITUDE		7414.95								
ELEVATION		726.73m		DEPTH		450.35m								
DATE		Oct. 16, 1989 - May 31, 1990		ANGLE										
DIRECTION				SLOPE										
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	GROUND WATER LEVEL	CORE RECOVERY %	R.Q.D %	WATER PRESSURE TEST	
														N Value Luqon Value K Value: cm/sec
361	26/3 (261.00)	361.00	368.73		Nadire formation Limestone	[Brick pattern]	Ab-cIV		DB 76	[Well diagram]	[Core recovery chart]	[R.Q.D chart]	[Water pressure test chart]	GP=0
362				Ab-cIII										
363	29/3 (363.00)	363.00	363.73											
364														
365				Ab-cIV										
366	30/3 (366.78)													
367														
368	31/3 (368.49)	368.49	358.33											
369		369.50	361.23											
370				Ab-cIII			Solution cavity. Filled by gravels, boulders and clay. Filled materials are well compacted.							
371	3/4 (371.49)	371.49	358.33											
372				Ab-cI										
373	4/4 (373.00)	373.00	353.73											
374		374.50	352.83											
375		374.25	352.40											
376	5/4 (376.00)	376.00	350.73											
377		376.50	350.23											
378	6/4 (378.00)	378.00	344.73											
379				Ab-cI										
380	7/4 (380.00)	380.00	346.73											
381				Ab-cIII										
382		381.00	344.83											
383	9/4 (383.00)	383.00	341.23											
384				Ab-cIV	Moderately-slightly weathered rock. 383.00-383.80m: Solution cave, filled by gravels and clay, well compacted. 383.80-385.90m: Small caves along joints.									
385														
386	10/4 (386.00)	386.00	340.93											
387				Ab-cV	Solution cavity. Filled by gravels, boulders and clay, well compacted.									
388	11/4 (388.00) (388.00)													
389	12/4 (389.00)	389.00	337.40											
390		390.50	337.23											
390		391.00	336.73											

R.Q.D is Rock Quality Designation, R.Q.D=(Total length of cylindrical cores longer than 10 cm)/(total drill length) x 100%
 LUQON VALUE is 1/min/m under injection water pressure of 10kg/cm²



DEPTH and ELEVATION are in meter

DIAMETER is in millimeter

GP: Gauge pressure

DRILL LOG

SHEET NO.14 OF 16

SITE		Damsite I-C		HOLE NO.		SK-314	
LATITUDE		7124.12		LONGITUDE		7414.95	
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m	
ANGLE				DIRECTION			
SCALE (m)		DEPTH		ELEVATION		SLOPE	
DATE		SEASON		ROCK TYPE		WATER LEVEL	
DEPTH		ELEVATION		ROCK CLASS		CORE RECOVERY %	
ELEVATION		ROCK CLASS		DESCRIPTION		R.Q.D. %	
ROCK TYPE		ROCK CLASS		DESCRIPTION		WATER PRESSURE TEST	
COLUMN SECTION		ROCK CLASS		DESCRIPTION		N Value	
ROCK CLASS		ROCK CLASS		DESCRIPTION		Lugeon Value	
DESCRIPTION		ROCK CLASS		DESCRIPTION		K Value : cm/sec	
DESCRIPTION		ROCK CLASS		DESCRIPTION		0 10 20 30 40 50	
391		390.65	326.00	Ab-cIV	Moderately-slightly weathered rock. Small caves are seen along irregular joints.		
392		392.05	311.68	Ab-cV			
393	16/A (193.89)				Moderately-slightly weathered rock. Joints: 20-50deg., rarely 80-90deg. Partly filled by thin calcite.		
394	17/A (194.69)				400.93-401.63m: Vertical joint, filled by calcite.		
395							
396							
397				Ab-cIV			
398	18/A (195.49)						Upper Depth : 393.00 Lower Depth : 393.00 Lugeon Value : 3.50 K Value : 0.000000
399	19/A (196.29)						
400							
401							
402							
403	20/A (197.09)	402.60	374.33		Moderately-slightly weathered rock. 402.40-406.00m & 406.80-407.75m. Cores are mostly fragments due to many irregular joints.		GP=0
404		403.00	352.73				
405	1/5 (197.89)			Ab-cV	410.75-411.10m: Gravels with clay, cave.	DR.76	
406		406.00	329.73				
407		406.80	319.93	Ab-cIII			
408				Ab-cIV			
409	7/5 (198.69)	407.75	318.96				Upper Depth : 403.00 Lower Depth : 406.00 Lugeon Value : 7.40 K Value : 0.000000
410				Ab-cV			GP=0
411	5/5 (199.09)	408.00	317.06				
412							
413	7/5 (199.49)	411.10	315.63		Moderately-slightly weathered rock. Joints: 30-60deg., rarely 10-30deg. Partly filled by thin clay and/or calcite.		Upper Depth : 408.00 Lower Depth : 413.00 Lugeon Value : 6.80 K Value : 0.000000
414							GP=0
415	9/5 (199.89)			Ab-cIV			
416							
417							
418	10/5 (200.29)						Upper Depth : 413.00 Lower Depth : 418.00 Lugeon Value : 7.70 K Value : 0.000000
419	11/5 (200.69)						GP=0
420		420.00	306.73				Upper Depth : 418.00 Lower Depth : 420.00 Lugeon Value : 7.60 K Value : 0.000000

R.Q.D is Rock Quality Designation. R.Q.D.=(total length of cylindrical cores longer than 10 cm / total drill length) x 100
 LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

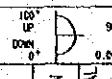
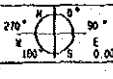
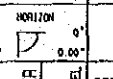
SHEET NO.15 OF 16

SITE		Damsite I-C		HOLE NO.		SK-314								
LATITUDE		7124.12		LONGITUDE		7414.95								
DATE		Oct. 16, 1989 - May 31, 1990		ELEVATION		726.73m								
DEPTH		450.35m												
ANGLE				DIRECTION										
SLOPE				HORIZON										
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER (mm)	WATER LEVEL	CORE RECOVERY %	R.Q.D. %	WATER PRESSURE TEST N Value Lugeon Value K Value : cm/sec	
421	12/5 (123.15)						Ab-clv	Moderately-slightly weathered rock. Joints: 30-60deg., filled by thin clay and/or calcite.						
422														
423	14/5 (123.00)	423.00	303.72				Ab-clv							Upper Depth : 429.00 Lower Depth : 423.00 Lugeon Value : 7.50 K Value : 0.000000 GP=0
424							Ab-clv							
425														
426	15/5 (126.00)	426.00	309.72				Ab-clv							
427														
428	16/5 (128.00)	428.00	298.72				Ab-clv							Upper Depth : 429.00 Lower Depth : 428.00 Lugeon Value : 0.50 K Value : 0.000000
429														
430	17/5 (131.00)													
431														
432														
433	18/5 (133.00)	433.00	292.50				Ab-clv	Solution cavity. Filled by gravels and clay, well compacted.						Upper Depth : 429.00 Lower Depth : 433.00 Lugeon Value : 1.10 K Value : 0.000000
434														
435								Moderately-slightly weathered rock.	Ø8.76					
436	22/5 (135.00)													
437														
438	23/5 (130.00)	438.00	280.72				Ab-clv	Fresh rock. No oxidation is seen. Joints: 30-60deg., partly filled by thin gray clay.						Upper Depth : 439.00 Lower Depth : 438.00 Lugeon Value : 0.50 K Value : 0.000000
439	24/5 (139.25)	439.25	207.40				Ab-clv							
440														
441							Ab-clv							
442	25/5 (142.00)	442.00	281.40				Ab-clv							Upper Depth : 439.00 Lower Depth : 442.00 Lugeon Value : 0.50 K Value : 0.000000
443	26/5 (143.00)	443.00	203.20				Ab-clv							Upper Depth : 439.00 Lower Depth : 443.00 Lugeon Value : 0.50 K Value : 0.000000
444							Ab-clv							
445														
446	28/5 (145.00)	445.50	201.20				Ab-clv							
447														
448	29/5 (148.00)	448.00	205.12				Ab-clv	Moderately-slightly weathered rock. 448.00-448.70m. Cores are mostly fragments due to vertical joint.						Upper Depth : 448.00 Lower Depth : 448.00 Lugeon Value : 0.50 K Value : 0.000000
449														
450		450.00	218.20											

R.Q.D. is Rock Quality Designation. R.Q.D. = (Total length of cylindrical cores longer than 10 cm) / (Total drill length) x 100%
 LUGEON VALUE is l/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter
 GP: Gauge pressure

DRILL LOG

SHEET NO.16 OF 16

SITE		Damsite I-C				HOLE NO.		SK-314												
LATITUDE		7124.12		LONGITUDE		7414.95		ELEVATION		726.73m										
DATE		Oct. 16, 1989 - May 31, 1990				DEPTH		450.35m												
ANGLE				DIRECTION				SLOPE												
SCALE (m)	DATE	DEPTH	ELEVATION	GEOLOGICAL AGE	ROCK TYPE	COLUMN SECTION	ROCK CLASS	DESCRIPTION	BIT & DIAMETER	WATER LEVEL	CORE REC-	R. Q. D.	WATER PRESSURE TEST							
											OVERY %	X	N Value	Lugeon Value	K Value : cm/sec	0	10	20	30	40
150	23	50	276.23						DB-76		0	0	0	0	0	0	0	0	0	0
451																				
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R. Q. D is Rock Quality Designation, R. Q. D = (total length of cylindrical cores longer than 10 cm) / (total drill length) x 100
 LUKEON VALUE is 1/min/m under injection water pressure of 10kg/cm²
 DEPTH and ELEVATION are in meter
 DIAMETER is in millimeter

