

GEOLOGICAL LOGS AND PHOTOGRAPHS OF BORING

GPS Coordinate Points of Boreholes

<i>El Berrinche</i>			
Borehole #	GPS		Estimated Elevation
	X	Y	
B-1	476,895	1,559,722	984.50
W-1	476,881	1,559,724	985.00
B-2	476,976	1,559,671	975.60
W-2	476,967	1,559,671	975.60
B-3	477,190	1,559,637	942.40
B-4	477,231	1,559,637	929.50
B-5	477,230	1,559,568	928.10
B-6	477,097	1,559,492	965.10
B-7	477,218	1,559,492	933.09
B-8	477,189	1,559,436	939.70
B-9	477,215	1,559,877	940.60
C-1	477,266	1,559,493	917.90
C-2a	477,322	1,559,490	922.40
C-2b	477,312	1,559,490	922.40
C-3	477,267	1,559,637	925.00
C-4	477,267	1,559,855	926.50

<i>El Reparto</i>			
Borehole #	GPS		Estimated Elevation
	X	Y	
R-1	479,684	1,561,030	985.00
R-2	479,669	1,560,887	962.50
R-3	479,669	1,560,794	950.00
R-4	479,648	1,560,690	940.00
R-5	479,638	1,560,589	932.00
R-6	479,650	1,560,512	920.00

GEOLOGICAL LOG OF CORE DRILL

Project: JICA Study Team: Landslide Protection Page: 1 / 3
Core Drill #: Y-9 Site Location: Upper terrace near mountainside Ref. #: B-1
Elevation: 984.50 Inclination (Angle with respect to Horizontal): Vertical (90°)
Log Elaborated by: Ing. Raul Flores Peñaiba Date: November 17, 2001



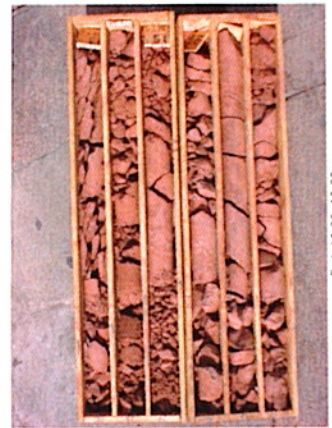
B-1 0.00-09.00m

0.00~9.00m
Detritus



B-1 09.00-12.00m

9.00~
F. Rio Chiquito
10.00~10.50m
shear zone



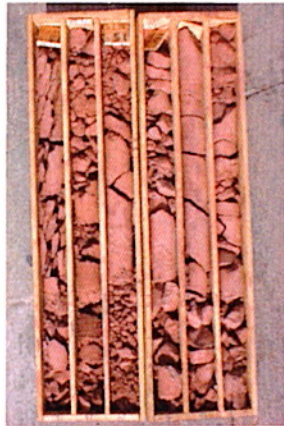
B-1 12.00-14.00m

13.00~14.40m
shear

WATER CONTENT END OF DRILLING	ELEVATION (M)	DRILL DEPTH (M)	GRAPHIC LOG	CLASSIFICATION AND PHYSICAL CONDITION (COLOR)
	984.50	0.00		
	983.50	1.00		
	982.50	2.00		
	981.50	3.00		
	980.50	4.00		
4.58	979.50	5.00		Detritus; area of rhyolite boulders with small lenses of clay
5.50	978.50	6.00	
	977.50	7.00		Detritus; area of rhyolite boulders > 1.0 m
	976.50	8.00		
	975.50	9.00		Clay lens with detritus material of gravels and pebbles
	974.50	10.00		
	973.50	11.00		
	972.50	12.00		Rock contact composed of lutite (shale) or sandstone due to small particles of quartz present on core, red color with white bands of gypsum with depth
	971.50	13.00		
	970.50	14.00		
	969.50	15.00		

GEOLOGICAL LOG OF CORE DRILL

Project: JICA Study Team: Landslide Protection **Page:** 2 / 3
Core Drill #: Y-9 **Site Location:** Upper terrace near mountainside **Ref. #:** B-1
Elevation: 984.50 **Inclination (Angle with respect to Horizontal):** Vertical (90°)
Log Elaborated by: Irig. Raul Flores Peñaiba **Date:** November 17, 2001



B-1 12 00-18 00m

19.00~21.00m
shear



B-1 18 00-24 00m

24.50~ m
Hard Rock

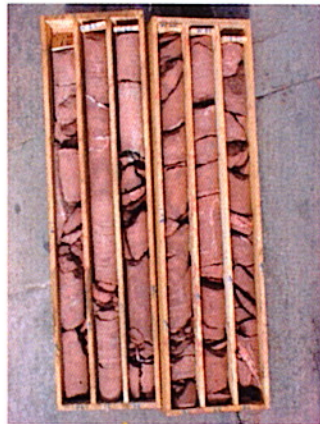


B-1 24 00-30 00m

WATER CONTENT END OF DRILLING	ELEVATION (M)	DRILL DEPTH (M)	GRAPHIC LOG	CLASSIFICATION AND PHYSICAL CONDITION (COLOR)
	969.50	15.00	[Graphic Log]	Rock composed of lutite (shale) or sandstone due to small particles of quartz present on core, red color with white bands of gypsum with depth
	953.50	16.00	[Graphic Log]	
	952.50	17.00	[Graphic Log]	
	951.50	18.00	[Graphic Log]	
	950.50	19.00	[Graphic Log]	
	949.50	20.00	[Graphic Log]	
	948.50	21.00	[Graphic Log]	
	947.50	22.00	[Graphic Log]	
	946.50	23.00	[Graphic Log]	
	945.50	24.00	[Graphic Log]	
	944.50	25.00	[Graphic Log]	
	943.50	26.00	[Graphic Log]	
	942.50	27.00	[Graphic Log]	
	941.50	28.00	[Graphic Log]	
	940.50	29.00	[Graphic Log]	
	939.50	30.00	[Graphic Log]	

GEOLOGICAL LOG OF CORE DRILL

Project: JICA Study Team: Landslide Protection **Page:** 3 / 3
Core Drill #: Y-9 **Site Location:** Upper Terrace near mountainside **Ref. #:** B-1
Elevation: 984.50 **Inclination (Angle with respect to Horizontal):** Vertical (90°)
Log Elaborated by: Ing. Raul Flores Peñalba **Date:** November 17, 2001

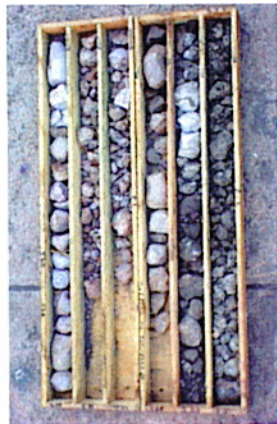


38.50~39.00m
shear

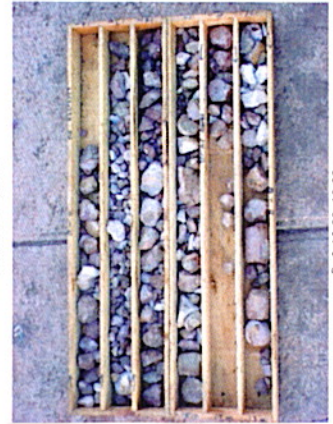
WATER CONTENT END OF DRILLING	ELEVATION (M)	DRILL DEPTH (M)	GRAPHIC LOG	CLASSIFICATION AND PHYSICAL CONDITION (COLOR)
	939.50	30.00	[Graphic Log Pattern]	Rock composed of lutite (shale) or sandstone due to small particles of quartz present on core, red color with white bands of gypsum with depth
	908.50	31.00	[Graphic Log Pattern]	
	907.50	32.00	[Graphic Log Pattern]	
	906.50	33.00	[Graphic Log Pattern]	
	905.50	34.00	[Graphic Log Pattern]	
	904.50	35.00	[Graphic Log Pattern]	
	903.50	36.00	[Graphic Log Pattern]	
	902.50	37.00	[Graphic Log Pattern]	
	901.50	38.00	[Graphic Log Pattern]	
	900.50	39.00	[Graphic Log Pattern]	
	899.50	40.00	[Graphic Log Pattern]	Bottom of Borehole

GEOLOGICAL LOG OF CORE DRILL

Project: JICA Study Team: Landslide Protection **Page:** 1 / 4
Core Drill #: O-4 **Site Location:** Upper Terrace near El Pervenir **Ref. #:** B-2
Elevation: 975.60 **Inclination (Angle with respect to Horizontal):** Vertical (90°)
Log Elaborated by: Ing. Raul Flores Peñalba **Date:** November 05, 2001



2.00~26.00m
Detritus



WATER CONTENT END OF DRILLING	ELEVATION (M)	DRILL DEPTH (M)	GRAPHIC LOG	CLASSIFICATION AND PHYSICAL CONDITION (COLOR)
	975.60	0.00		
	974.60	1.00		Topsoil with organic contamination, clayey matrix
	973.60	2.00		
	972.60	3.00		
	971.60	4.00		
	970.60	5.00		
	969.60	6.00		
	968.60	7.00		
	967.60	8.00		
NOV.5	966.60	9.00		Detritus; area of rhyolite boulders with small lenses of clay
9.80	965.60	10.00		
	964.60	11.00		
	963.60	12.00		
	962.60	13.00		
	961.60	14.00		
	960.60	15.00		