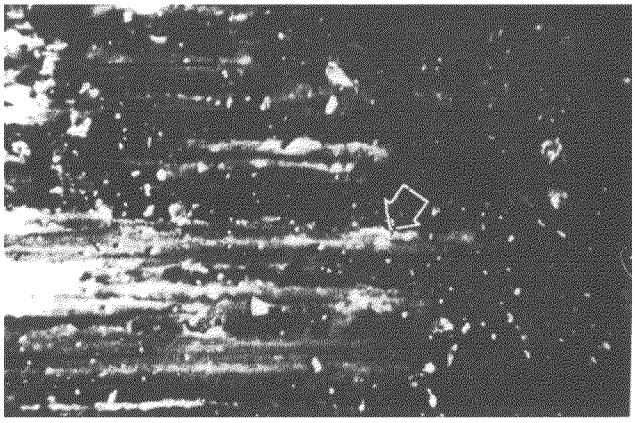

Figure 10. Photomicrograph of the sliding surface of a stable sliding (mesh) specimen (50 MPa confining pressure). The black arrow points to the downslip direction and the hollow white arrow to one of the characteristic wear grooves. The dark areas represent the original undeformed sliding surface.

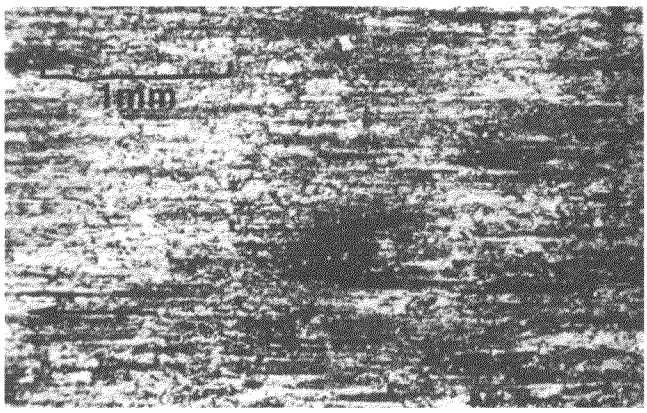

Figure 11. Photomicrograph of the sliding surface of a stick-slip (flare) specimen (50 MPa confining pressure). The black arrow points to the downslip direction. The entire surface is covered by fine grained gouge material.

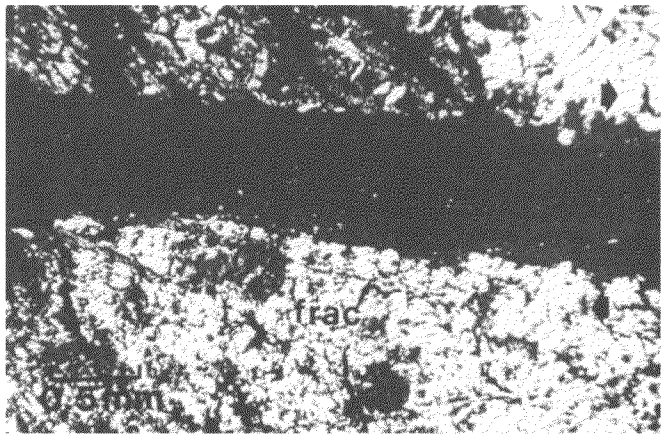

Figure 12. Photomicrograph (x-Nicols) showing a cross-sectional view of the sliding surface shown in Figure 10. The black arrows indicate the right lateral sense of shear. The dark band in the center is epoxy. Frac = fractures in the country rock produced during sliding.

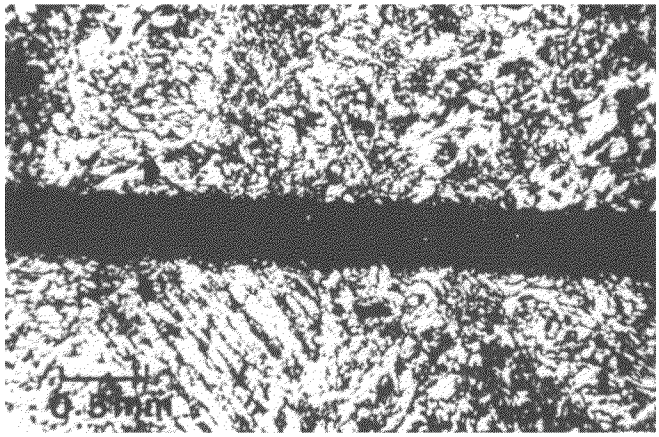

Figure 13. Photomicrograph (x-Nicols) showing a cross-sectional view of the sliding surface shown in Figure 11. The black arrows indicate a right lateral sense of shear. The dark band in the center is epoxy. Fractures, as these observed in Figure 12 are poorly developed.

Table 1. Serpentinite Compositions[1]

Block Number	Texture	Serpentine (%)	Enstatite (%)	Oxides (%)	Carbonate[2] (%)	Olivine (%)	Talc (%)	Sliding Mode at 50 MPa Pc	Approximate Location
1	mesh	65	19	16	-	traces[3]	-	stable	Km 101 + 800 CA-14
2	flare	81	1	15	2	-	traces	stick-slip	Km 87 CA-9
3	mesh	66	11	22	-	traces	-	stable	Lo de Concua
4	mesh	70	11	19	-	traces	-	stable	Km 108 - 14
5	flare	84	2	8	6	traces	traces	stick-slip	La Canoa

(1) Modal analyses based on 1000 pt. counts.

(2) undifferentiated

(3) traces equal less than 1%

Table 2. Static Coefficient of Friction $(\mu_s)^{(1)}$ for Blocks 1-5.

Block Number	Confining Pressure (MPa)	Differential Stress (MPa)	Normal Stress (MPa)	Shear Stress (MPa)	μ_s
1	50	122 - 115	90.1 - 87.3	57.3 - 54.0	.64 - .60
1	100	200 - 185	165.8 - 160.9	93.9 - 86.9	.57 - .54
2	25	105 --	59.5 --	49.3 --	.83 --
2	50	205 - 195	117.5 - 114.2	96.2 - 91.6	.82 - .80
2	75	275 - 265	165.5 - 162.2	130.5 - 124.4	.79 - .77
3	50	120 - 110	89.5 - 86.2	56.3 - 51.6	.63 - .60
3	100	220 - 210	172.4 - 169.1	103.3 - 98.6	.60 - .58
4	50	100 - 92	82.9 - 80.3	46.9 - 43.2	.56 - .53
4	100	165 - 155	154.3 - 151.0	77.5 - 72.8	.50 - .48
5	50	175 - 165	107.6 - 104.3	82.2 - 77.5	.76 - .74

(1) $$\mu_s = \frac{\tau}{\sigma_n} = \frac{\sigma d \sin\theta \cos\theta}{Pc + \sigma d \sin^2\theta}$$

where: σd = maximum differential stress

Pc = confining pressure

θ = 35°

τ = shear stress

σ_n = normal stress

Table 3. Compositions of Serpentinite[1]

Sample Number	Texture	Serpentine %	Enstatite %	Oxides %	Olivine %	Carbonate[2] %	talc %	Unknowns %	Approximate Location
MS-77-10	flare	89	4	5	-	1	1	-	JCT Rio Las Vacas Y Rio Platanos
MS-77-18	flare	66	4	29	-	1	-	-	2 Km North El Jute
MS-77-25	flare	80	2	16	-	-	traces[3]	1	La Canoa
MS-77-27	flare	79	-	15	-	traces	-	6	4 Km S. LaCanoa
MS-77-33	mesh	69	16	13	2	traces	-	-	Km 108 - CA-14
MS-77-34	intermediate[4]	75	1	22	-	traces	-	1	3 Km South SnAg Acasaguastlan
MS-77-36A	flare	79	5	16	-	-	-	-	North of Morazan
MS-77-38	intermediate	75	4	12	traces	-	-	9	Palo Amontonado
MS-77-40	mesh	67	19	12	2	-	-	-	Granados
MS-77-41	mesh	64	23	13	-	-	-	-	Lo de Concua
MS-77-42	flare	71	-	22	traces	-	-	7[5]	RR crossing El Rancho

(1) Modal analysis based on 700 pt. counts
(2) undifferentiated
(3) traces equal less than 1%
(4) texture between mesh & flare
(5) tremolite