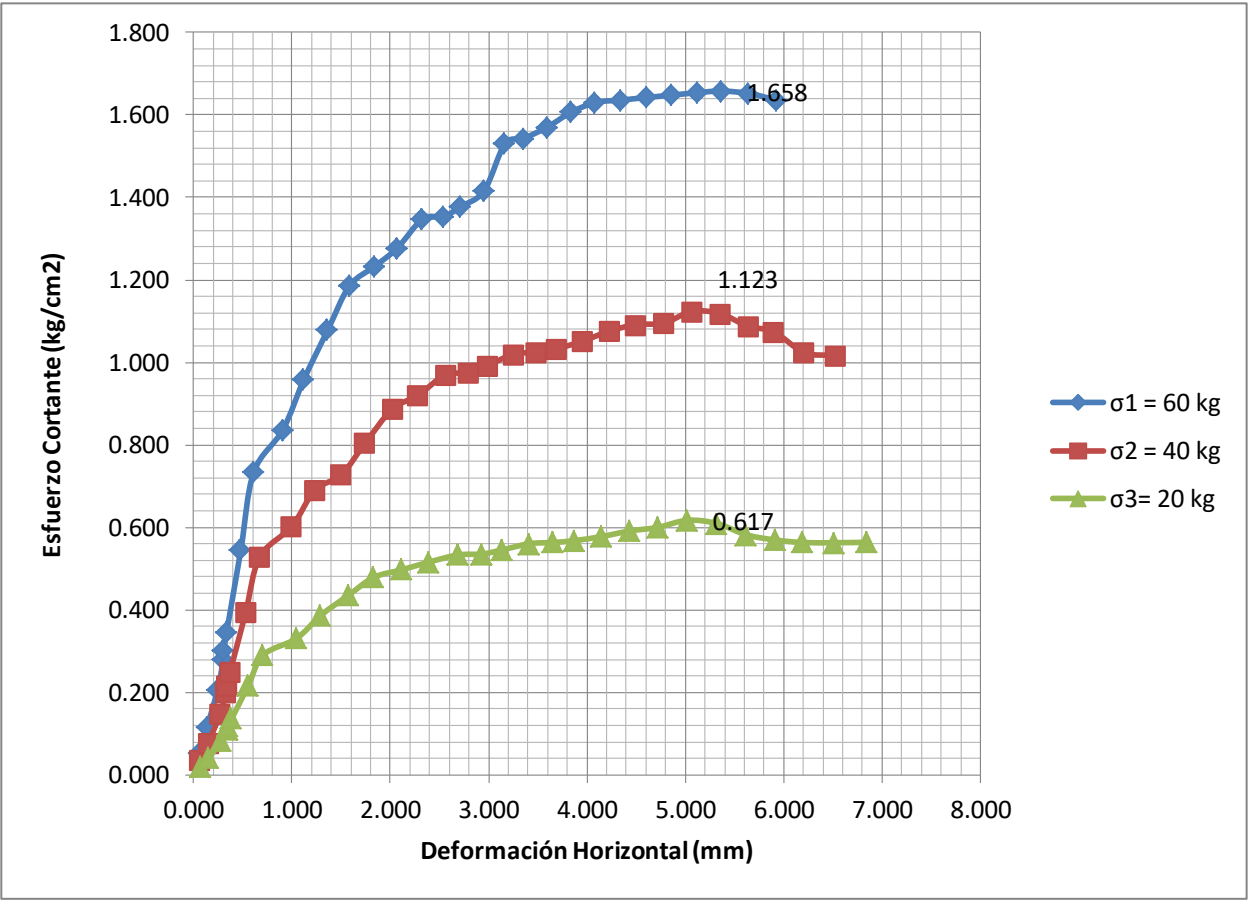
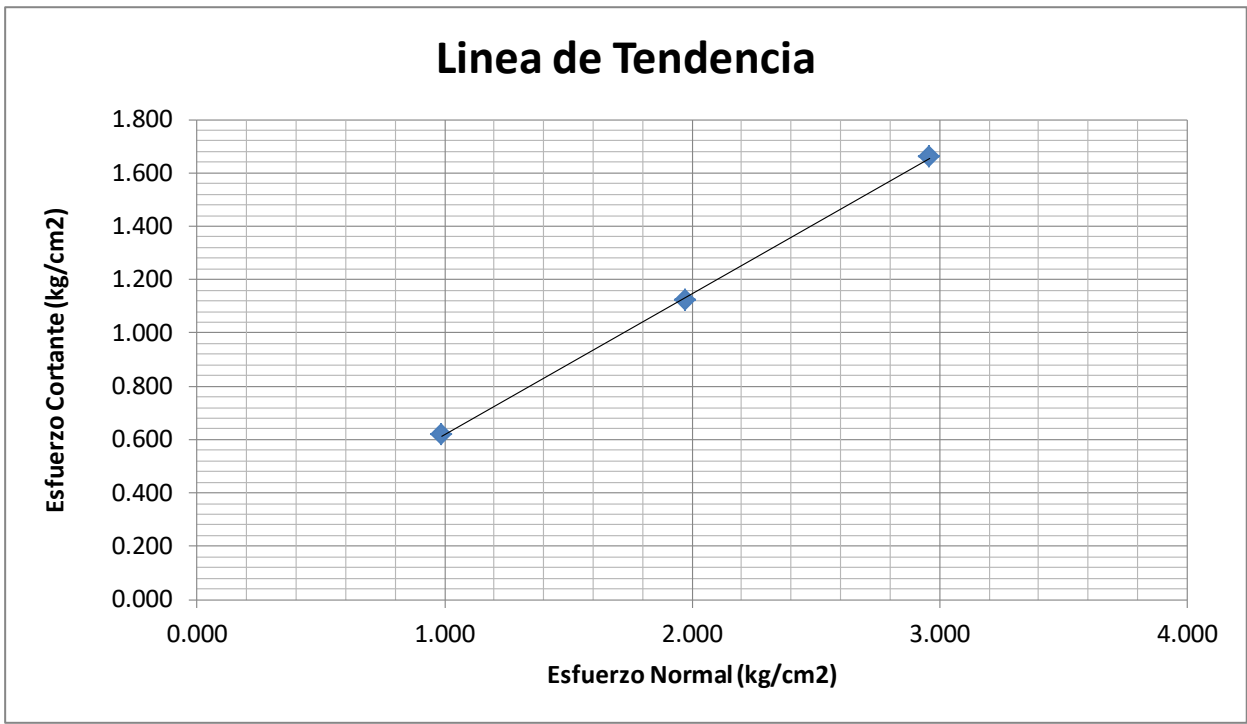


Anexo C. Corte directo

CALCULOS PRELIMINARES			
DIAMETRO DE LA CAJA:	2'	5.08	cm
AREA:	20.27	cm2	
ALTURA DE LA AREA DE CORTE:	2.5	cm	
VOLUMEN:	50.67	cm3	
MASA DEL SUELO:	130.3	g	
DENSIDAD DEL SUELO:	2.57	g/cm3	
VELOCIDAD DE DESPLAZAMIENTO:	3	mm/min	

Nº	Tiempo min	σ1 = 60 kg			σ2 = 40 kg			σ3= 20 kg		
		Deformacio n Horizontal mm	Carga kg	Esfuerzo kg/cm2	Deformacion Horizontal cm	Carga kg	Esfuerzo kg/cm2	Deformacio n Horizontal cm	Carga kg	Esfuerzo kg/cm2
1	0.50	0.062	1.086	0.054	0.068	0.727	0.036	0.072	0.400	0.020
2	1.00	0.138	2.363	0.117	0.152	1.582	0.078	0.159	0.870	0.043
3	1.50	0.246	4.189	0.207	0.271	3.016	0.149	0.284	1.658	0.082
4	2.00	0.302	5.657	0.279	0.332	4.073	0.201	0.349	2.239	0.110
5	2.50	0.304	6.096	0.301	0.334	4.389	0.217	0.351	2.413	0.119
6	3.00	0.336	6.994	0.345	0.370	5.036	0.248	0.388	2.768	0.137
7	3.50	0.482	11.080	0.547	0.530	7.978	0.394	0.557	4.386	0.216
8	4.00	0.612	14.867	0.734	0.673	10.704	0.528	0.707	5.885	0.290
9	4.50	0.908	16.952	0.836	0.999	12.205	0.602	1.049	6.710	0.331
10	5.00	1.122	19.426	0.958	1.234	13.987	0.690	1.296	7.846	0.387
11	5.50	1.366	21.873	1.079	1.503	14.748	0.728	1.578	8.834	0.436
12	6.00	1.586	24.026	1.185	1.745	16.299	0.804	1.832	9.704	0.479
13	6.50	1.838	24.970	1.232	2.022	17.978	0.887	2.123	10.085	0.498
14	7.00	2.072	25.886	1.277	2.279	18.638	0.920	2.393	10.456	0.516
15	7.50	2.328	27.303	1.347	2.561	19.658	0.970	2.689	10.807	0.533
16	8.00	2.542	27.425	1.353	2.796	19.745	0.974	2.936	10.855	0.536
17	8.50	2.714	27.920	1.378	2.985	20.102	0.992	3.135	11.051	0.545
18	9.00	2.954	28.696	1.416	3.249	20.661	1.019	3.412	11.359	0.560
19	9.50	3.168	31.027	1.531	3.485	20.775	1.025	3.659	11.422	0.564
20	10.00	3.354	31.268	1.543	3.689	20.937	1.033	3.874	11.510	0.568
21	10.50	3.594	31.821	1.570	3.953	21.307	1.051	4.151	11.714	0.578
22	11.00	3.842	32.565	1.607	4.226	21.805	1.076	4.438	11.988	0.591
23	11.50	4.087	33.038	1.630	4.496	22.122	1.091	4.721	12.162	0.600
24	12.00	4.347	33.159	1.636	4.781	22.203	1.095	5.021	12.510	0.617
25	12.50	4.606	33.284	1.642	5.067	22.768	1.123	5.320	12.352	0.609
26	13.00	4.866	33.403	1.648	5.352	22.666	1.118	5.620	11.796	0.582
27	13.50	5.125	33.522	1.654	5.638	22.046	1.088	5.920	11.540	0.569
28	14.00	5.365	33.603	1.658	5.901	21.768	1.074	6.196	11.417	0.563
29	14.50	5.644	33.483	1.652	6.209	20.755	1.024	6.519	11.410	0.563
30	15.00	5.930	33.159	1.636	6.523	20.605	1.017	6.849	11.427	0.564

Carga Kg	Esfuerzo Normal kg/cm2	Esfuerzo Cortante kg/cm2
60	2.960	1.658
40	1.974	1.123
20	0.987	0.617
Angulo de fricción interna (°)		27.80



CALCULOS PRELIMINARES			
DIAMETRO DE LA CAJA:	2'	5.08	cm
AREA:	20.27	cm2	
ALTURA DE LA AREA DE CORTE:	2.5	cm	
VOLUMEN:	50.67	cm3	
MASA DEL SUELO:	134.3	g	
DENSIDAD DEL SUELO:	2.65	g/cm3	
VELOCIDAD DE DESPLAZAMIENTO:	3	mm/min	

Nº	Tiempo min	σ1 = 60 kg			σ2 = 40 kg			σ3= 20 kg		
		Deformacio n Horizontal cm	Carga kg	Esfuerzo kg/cm2	Deformacion Horizontal cm	Carga kg	Esfuerzo kg/cm2	Deformacio n Horizontal cm	Carga kg	Esfuerzo kg/cm2
1	0.50	0.188	5.810	0.287	0.194	4.005	0.198	0.199	2.567	0.127
2	1.00	0.466	13.350	0.659	0.480	9.202	0.454	0.494	5.898	0.291
3	1.50	0.788	15.820	0.781	0.812	10.904	0.538	0.835	6.989	0.345
4	2.00	1.068	17.050	0.841	1.100	11.752	0.580	1.132	7.533	0.372
5	2.50	1.358	18.650	0.920	1.399	12.855	0.634	1.439	8.240	0.407
6	3.00	1.704	19.134	0.944	1.755	13.096	0.646	1.806	8.836	0.436
7	3.50	2.150	20.827	1.028	2.215	13.256	0.654	2.279	8.949	0.441
8	4.00	2.316	21.780	1.075	2.385	13.949	0.688	2.455	9.043	0.446
9	4.50	2.722	22.119	1.091	2.804	14.557	0.718	2.885	9.821	0.485
10	5.00	2.998	23.636	1.166	3.088	15.477	0.764	3.178	9.893	0.488
11	5.50	3.278	23.898	1.179	3.376	16.473	0.813	3.475	10.529	0.519
12	6.00	3.552	25.099	1.238	3.659	17.300	0.854	3.765	11.058	0.546
13	6.50	3.820	26.281	1.297	3.935	18.115	0.894	4.049	11.279	0.556
14	7.00	4.156	27.373	1.351	4.281	18.463	0.911	4.405	11.360	0.560
15	7.50	4.480	29.640	1.462	4.614	18.722	0.924	4.749	11.406	0.563
16	8.00	4.766	30.144	1.487	4.909	19.618	0.968	5.252	11.516	0.568
17	8.50	5.072	30.685	1.514	5.224	19.728	0.973	5.594	11.543	0.570
18	9.00	5.316	31.630	1.561	5.475	19.892	0.981	5.863	11.677	0.576
19	9.50	5.668	32.890	1.563	5.838	20.460	1.009	6.251	11.770	0.581
20	10.00	5.934	32.978	1.567	6.112	20.559	1.014	6.544	11.815	0.583
21	10.50	6.210	33.190	1.577	6.396	20.857	1.029	6.849	11.877	0.586
22	11.00	6.560	33.280	1.581	6.757	21.549	1.063	7.235	12.017	0.593
23	11.50	6.963	33.404	1.587	7.172	21.564	1.064	7.679	12.025	0.593
24	12.00	7.226	33.650	1.599	7.592	21.594	1.065	7.969	12.042	0.594
25	12.50	7.436	33.427	1.588	7.812	21.579	1.065	8.201	11.934	0.589
26	13.00	7.806	33.390	1.586	8.201	21.555	1.063	8.609	11.820	0.583
27	13.50	7.992	33.247	1.580	8.396	20.889	1.031	8.814	11.655	0.575
28	14.00	8.234	32.437	1.541	8.651	19.911	0.982	9.081	11.498	0.567
29	14.50	8.589	30.465	1.503	9.024	18.771	0.926	9.472	11.315	0.558
30	15.00	9.046	30.040	1.482	9.504	17.579	0.867	9.976	11.002	0.543

Carga Kg	Esfuerzo Normal kg/cm2	Esfuerzo Cortante kg/cm2
60	2.960	1.599
40	1.974	1.031
20	0.987	0.594
Angulo de fricción interna (°)		26.98

