

RECIPIENTE 21 - RAP				
Tamiz	Prec. + Pmuestra (Gr)	Prec. (Gr)	Pmuestra (Gr)	%retenido
1/2"	562	255	307	10,35
3/8"	518	262	256	8,63
1/4"	839	377	462	15,57
No. 4	597	331	266	8,97
No. 10	755	73	682	22,99
No. 40	711	80	631	21,27
No. 200	414	77	337	11,36
Pasa 200	63	37	26	0,88
Total			2967	100,00

peso total muestra=

%acumulado	% pasa
10,35	89,65
18,98	81,02
34,55	65,45
43,51	56,49
66,50	33,50
87,77	12,23
99,12	0,88
100,00	0,00

8,97
8,10
6,55
5,65
3,35
1,22
0,09
0,00

RECIPIENTE 22 - RAP			
Tamiz	Prec. + Pmuestra (Gr)	Prec. (Gr)	Pmuestra (Gr)
1/2"	675	255	420
3/8"	693	262	431
1/4"	901	377	524
No. 4	587	331	256
No. 10	624	73	551
No. 40	585	80	505
No. 200	303	77	226
Pasa 200	48	37	11
Total			2924

2967

peso total m

%retenido	%acumulado	% pasa
14,16	14,16	85,84
14,53	28,68	71,32
17,66	46,34	53,66
8,63	54,97	45,03
18,57	73,54	26,46
17,02	90,56	9,44
7,62	98,18	1,82
0,37	98,55	1,45
98,55		

RECIP		
Tamiz	Prec. + Pmuestra (Gr)	Prec. (Gr)
1/2"	1019	255
3/8"	760	262
1/4"	914	377
No. 4	551	332
No. 10	506	74
No. 40	404	81
No. 200	220	77
Pasa 200	45	37
Total	4419	1495

muestra=

2923

MUESTRA 114 - RAP			
Pmuestra (Gr)	%retenido	%acumulado	% pasa
764	25,75	25,75	74,25
498	16,78	42,53	57,47
537	18,10	60,63	39,37
219	7,38	68,01	31,99
432	14,56	82,57	17,43
323	10,89	93,46	6,54
143	4,82	98,28	1,72
8	0,27	98,55	1,45
2924	98,55		

Tamiz	Prec. + Pmuestra (Gr)
1/2"	682
3/8"	620
1/4"	629
No. 4	795
No. 10	650
No. 40	679
No. 200	324
Pasa 200	50
Total	4429

peso total muestra= 2925

RECIPIENTE 114 - RAP				
Prec. (Gr)	Pmuestra (Gr)	%retenido	%acumulado	% pasa
255	427	14,39	14,39	85,61
262	358	12,07	26,46	73,54
377	252	8,49	34,95	65,05
331	464	15,64	50,59	49,41
73	577	19,45	70,04	29,96
80	599	20,19	90,23	9,77
77	247	8,32	98,55	1,45
37	13	0,44	98,99	1,01
1492	2937	98,99		

peso total muestra= 2937

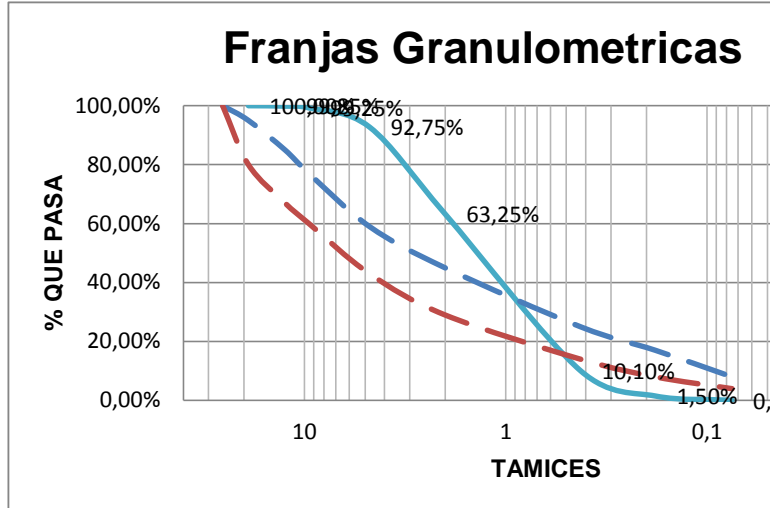
RECIPIENTE 21 - CRL (30-ene-2014)						
	Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)	%retenido	%acumulado
19	3/4					
12,5	1/2	383	380	3	0,15	0,15
9,5	3/8	399	387	12	0,60	0,75
4,75	#4	507	377	130	6,50	7,25
2	#10	976	386	590	29,50	36,75
0,425	#40	1325	262	1063	53,15	89,90
0,18	#80	427	255	172	8,60	98,50
0,075	#200	78	49	29	1,45	99,95
	Pasa 200	402	401	1	0,05	100,00
	Total			2000	100,00	

RECIPIENTE 21 - CRL (06-feb-2014)						
	Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)	%retenido	%acumulado
	3/4					
	1/2	44	42	2	0,10	0,10
	3/8	45	37	8	0,40	0,50
	#4	88	41	47	2,35	2,85
	#10	667	250	417	20,85	23,70
	#40	1581	261	1320	66,00	89,70
	#80	424	254	170	8,50	98,20
	#200	415	380	35	1,75	99,95
	Pasa 200	402	401	1	0,05	100,00
	Total			2000	100,00	

RECIPIENTE 21 - CRL (06-feb-2014)						
	Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)	%retenido	%acumulado
	3/4					
	1/2	46	42	4	0,20	0,20
	3/8	40	37	3	0,15	0,35
	#4	121	41	80	4,00	4,35
	#10	754	250	504	25,20	29,55
	#40	1474	261	1213	60,65	90,20
	#80	415	254	161	8,05	98,25
	#200	414	380	34	1,70	99,95
	Pasa 200	409	408	1	0,05	100,00
	Total			2000	100,00	

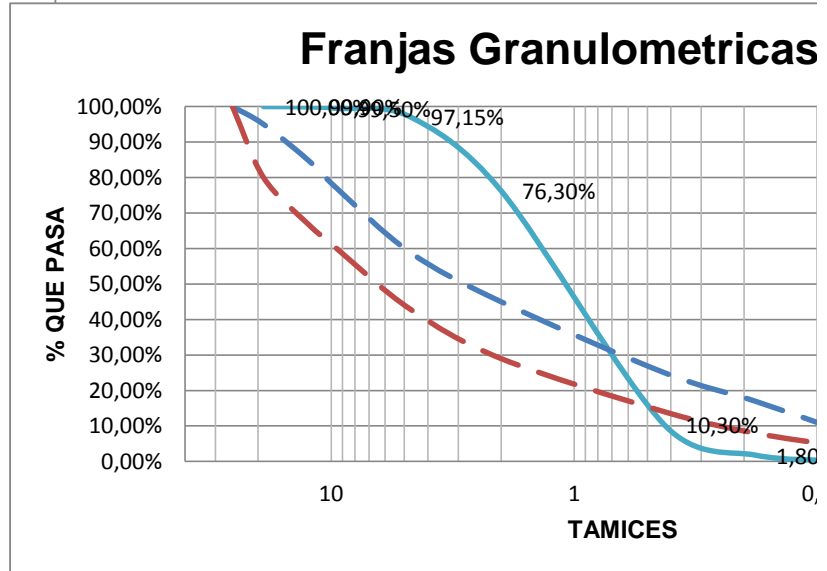
% pasa
100
99,85
99,25
92,75
63,25
10,10
1,50
0,05
0,00

100,00%	10,00%
99,85%	9,99%
99,25%	9,93%
92,75%	9,28%
63,25%	6,33%
10,10%	1,01%
1,50%	0,15%
0,05%	0,00%
0,00%	



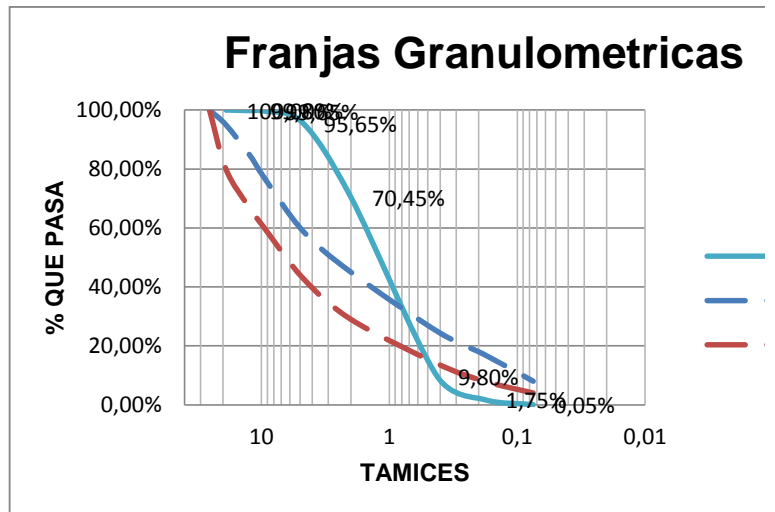
% pasa
100
99,90
99,50
97,15
76,30
10,30
1,80
0,05
0,00

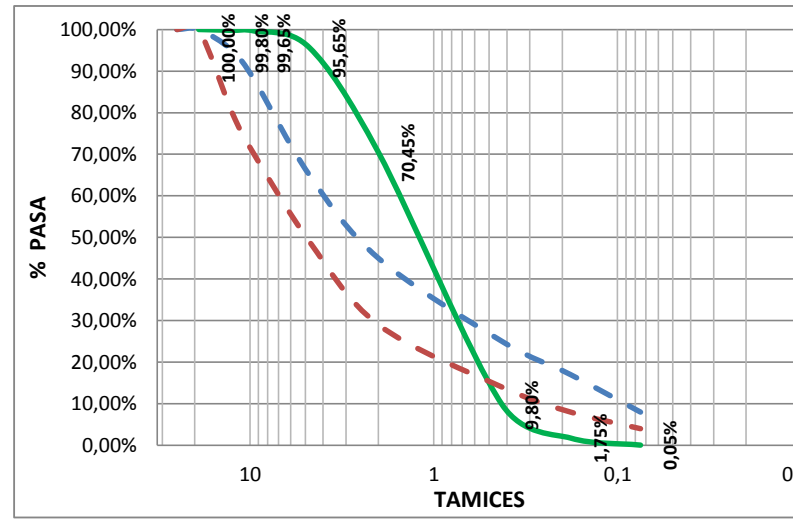
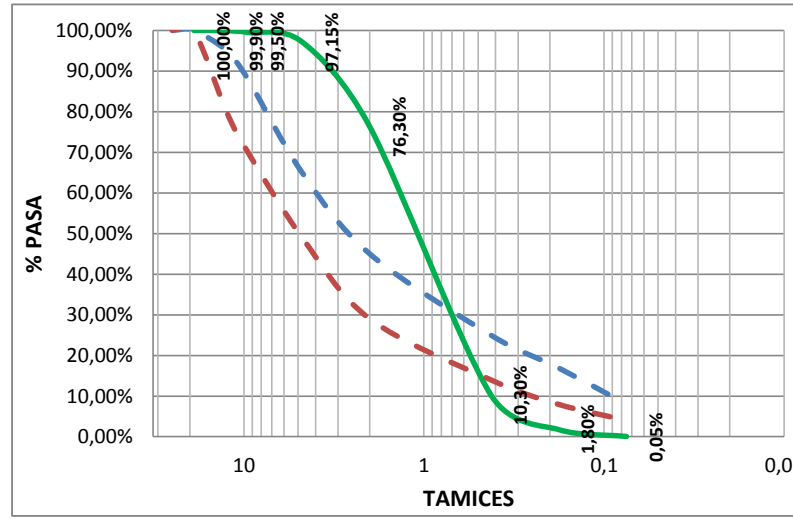
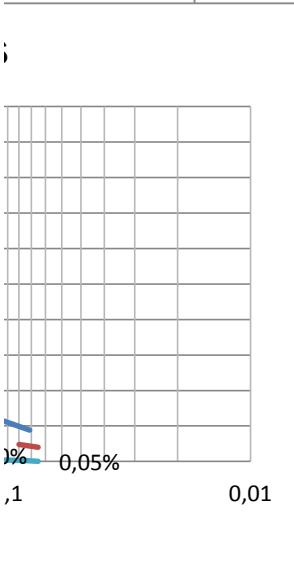
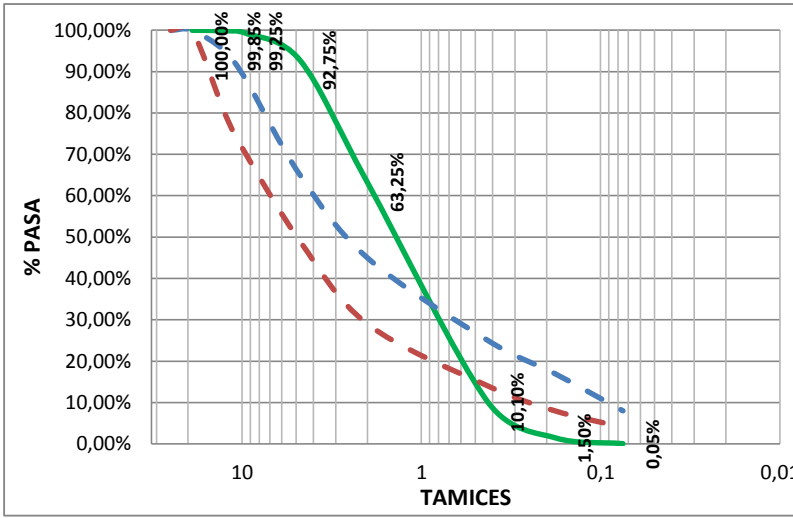
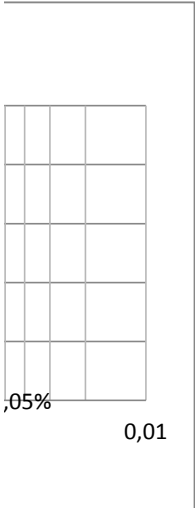
100,00%	
99,90%	
99,50%	
97,15%	
76,30%	
10,30%	
1,80%	
0,05%	
0,00%	



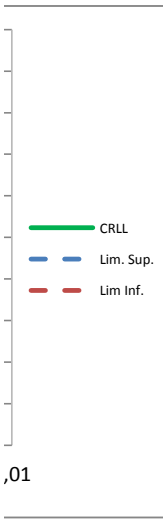
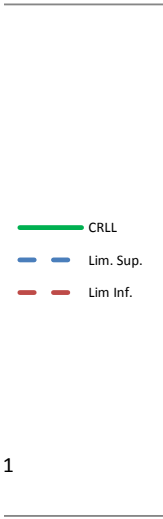
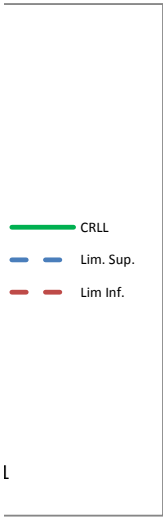
% pasa
100
99,80
99,65
95,65
70,45
9,80
1,75
0,05
0,00

100,00%	
99,80%	
99,65%	
95,65%	
70,45%	
9,80%	
1,75%	
0,05%	
0,00%	



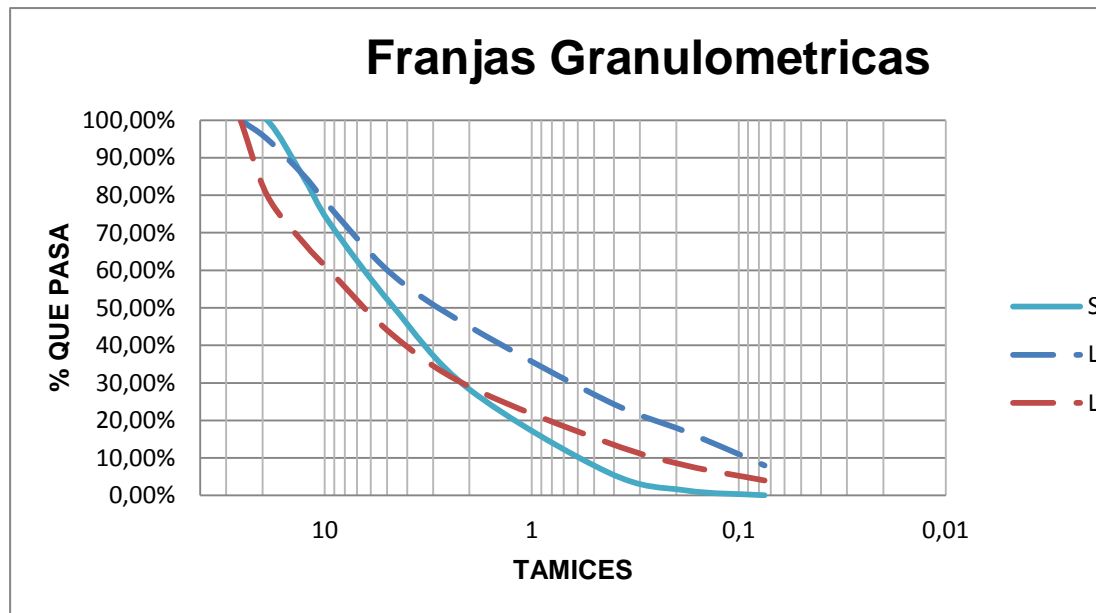


- CRLL
- Limite Superior
- Limite Inferior

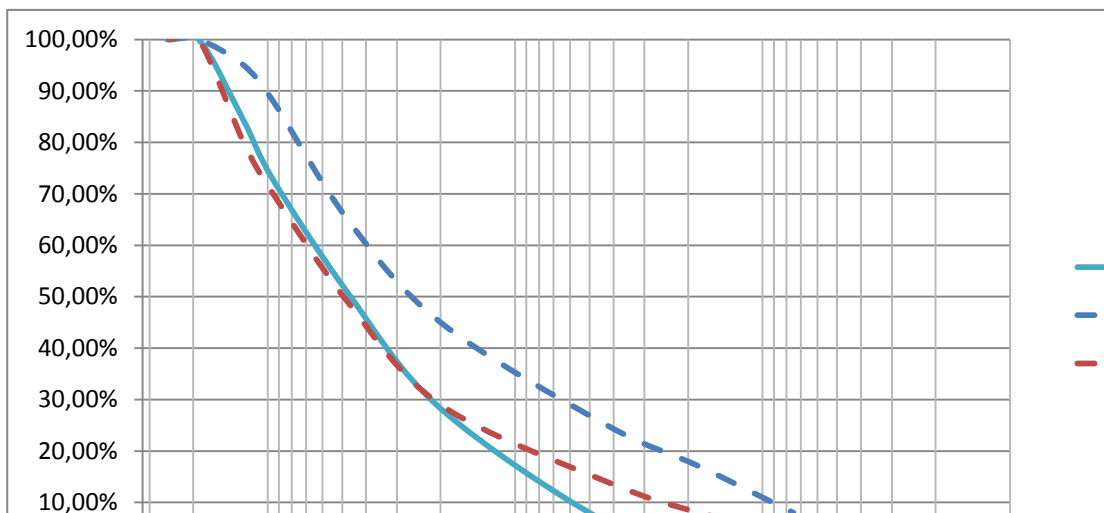


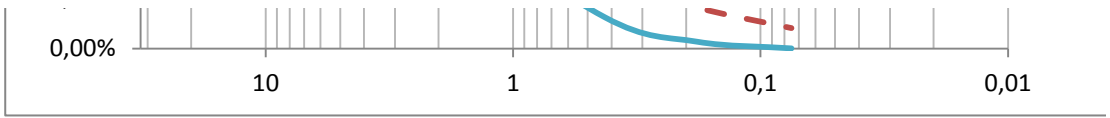
RECIPIENTE 21 - RAP (19-feb-2014)						
	Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)	%retenido	%acumulado
25,5	1"					
19	3/4"	255	113		0,00	0,00
12,5	1/2"	407	114	293	0,16	0,16
9,5	3/8"	332	118	214	0,12	0,27
4,75	No. 4	521	114	407	0,22	0,49
2	No. 10	531	112	419	0,23	0,72
0,425	No. 40	522	110	412	0,22	0,94
0,18	No. 80	200	112	88	0,05	0,99
0,075	No. 200	136	112	24	0,01	1,00
	Pasa 200	400	399	1	0,00	
	Total			1858	1,00	

MDC-1



MDC-2



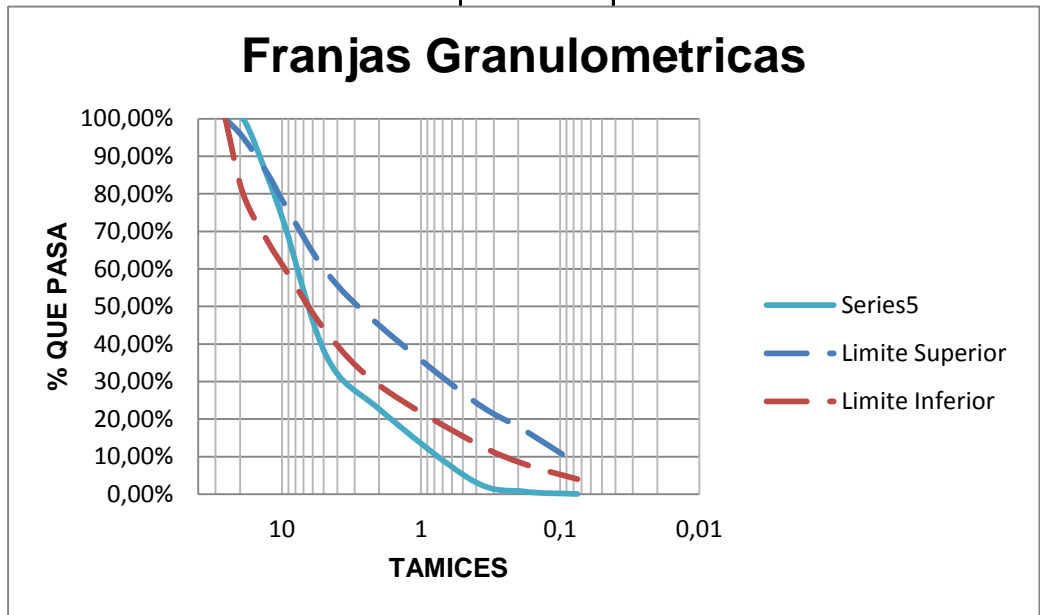


% pasa
100,00%
100,00%
84,23%
72,71%
50,81%
28,26%
6,08%
1,35%
0,05%
0,00%

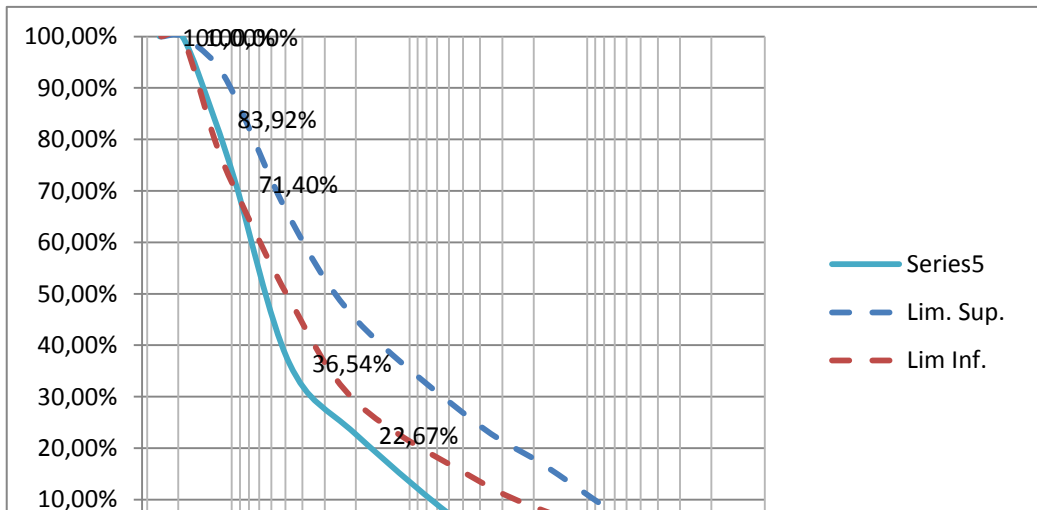
90,00%
90,00%
75,81%
65,44%
45,73%
25,43%
5,47%
1,21%
0,05%
0,05%

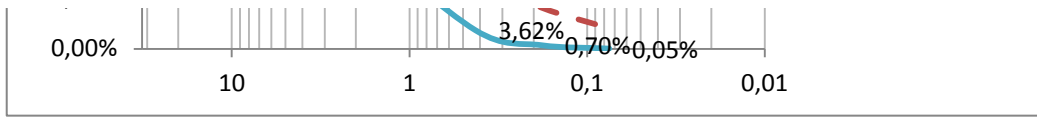
RECIPIENTE 22 - RAP (19-FEB-2014)						
Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)	%retenido	%acumulado	% pasa
1"						100,00%
3/4"	0	0	0	0,00	0,00	100,00%
1/2"	412	114	298	0,16	0,16	83,92%
3/8"	350	118	232	0,13	0,29	71,40%
No. 4	760	114	646	0,35	0,63	36,54%
No. 10	369	112	257	0,14	0,77	22,67%
No. 40	463	110	353	0,19	0,96	3,62%
No. 80	166	112	54	0,03	0,99	0,70%
No. 200	124	112	12	0,01	1,00	0,05%
Pasa 200	370	369	1	0,00	1	0,00%
Total			1853	1,00		

Series5
limite Superior
limite Inferior

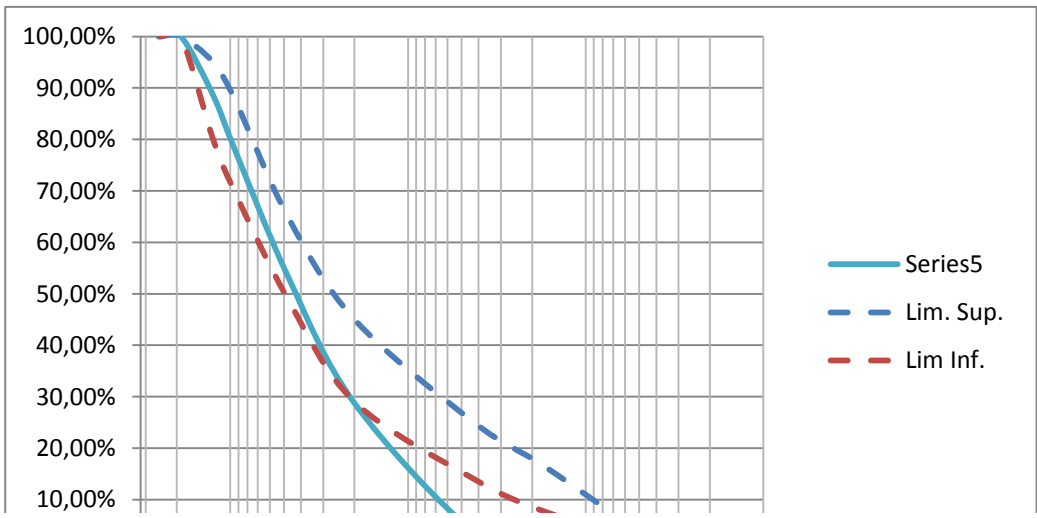
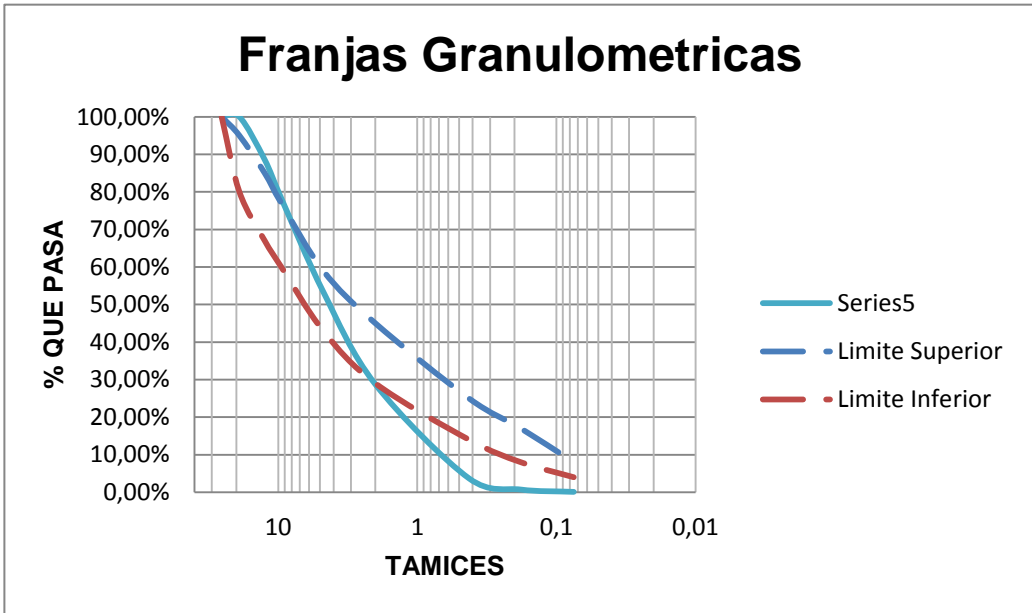


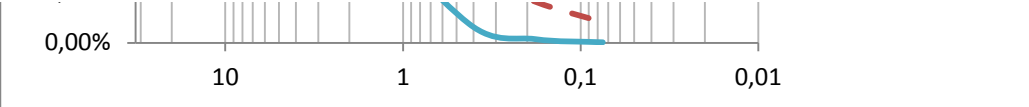
Series5
Lim. Sup.
Lim Inf.





RECIPIENTE 114 - RAP (20-FEB-2014)						
Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)	%retenido	%acumulado	% pasa
1"						100,00%
3/4"	172	114		0,00%	0,00	100,00%
1/2"	328	106	222	11,43%	0,11	88,57%
3/8"	312	112	200	10,30%	0,22	78,27%
No. 4	594	112	482	24,82%	0,47	53,45%
No. 10	590	110	480	24,72%	0,71	28,73%
No. 40	598	112	486	25,03%	0,96	3,71%
No. 80	248	190	58	2,99%	0,99	0,72%
No. 200	128	116	12	0,62%	1,00	0,10%
Pasa 200	402	400	2	0,10%	1,00	0,00%
Total			1942	1,00		





EXTRACCION DE A.C. (18-feb-2014)					
ELEMENTOS	PESO INICIAL (gr)	PESO SECO AL HORNO (gr)	PESO MUESTRA (gr)	PESO DE AC (gr)	% de AC
filtro	13,3	15,3	2	27	2,24
muestra	1204	1288	1175		
recipiente		113			

EXTRACCION DE A.C. (19-feb-2014)					
ELEMENTOS	PESO INICIAL (gr)	PESO SECO AL HORNO (gr)	PESO MUESTRA (gr)	PESO DE AC (gr)	% de AC
filtro	13,4	17,1	3,7	124,3	10,21
muestra	1217	1204	1089		
recipiente		115			

EXTRACCION DE A.C. (20-feb-2014)					
ELEMENTOS	PESO INICIAL (gr)	PESO SECO AL HORNO (gr)	PESO MUESTRA (gr)	PESO DE AC (gr)	% de AC
filtro	13	16,3	3,3	124,7	10,49
muestra	1189	1176	1061		
recipiente		115			

EXTRACCION DE A.C. (20-feb-2014)					
ELEMENTOS	PESO INICIAL (gr)	PESO SECO AL HORNO (gr)	PESO MUESTRA (gr)	PESO DE AC (gr)	% de AC
filtro	13,7	18,1	4,4	111,6	9,22
muestra	1210	1208	1094		
recipiente		114			

EXTRACCION DE A.C. (25-feb-2014)					
ELEMENTOS	PESO INICIAL (gr)	PESO SECO AL HORNO (gr)	PESO MUESTRA (gr)	PESO DE AC (gr)	% de AC
filtro	13	17,6	4,6	114,3	9,20
muestra	1243	1313,6	1124,1		
recipiente		189,5			

EXTRACCION DE A.C. (25-feb-2014)					
ELEMENTOS	PESO INICIAL (gr)	PESO SECO AL HORNO (gr)	PESO MUESTRA (gr)	PESO DE AC (gr)	% de AC
filtro	13,4	15,2	1,8	107,3	9,63
muestra	1113,8	1193,4	1004,7		
recipiente		188,7			

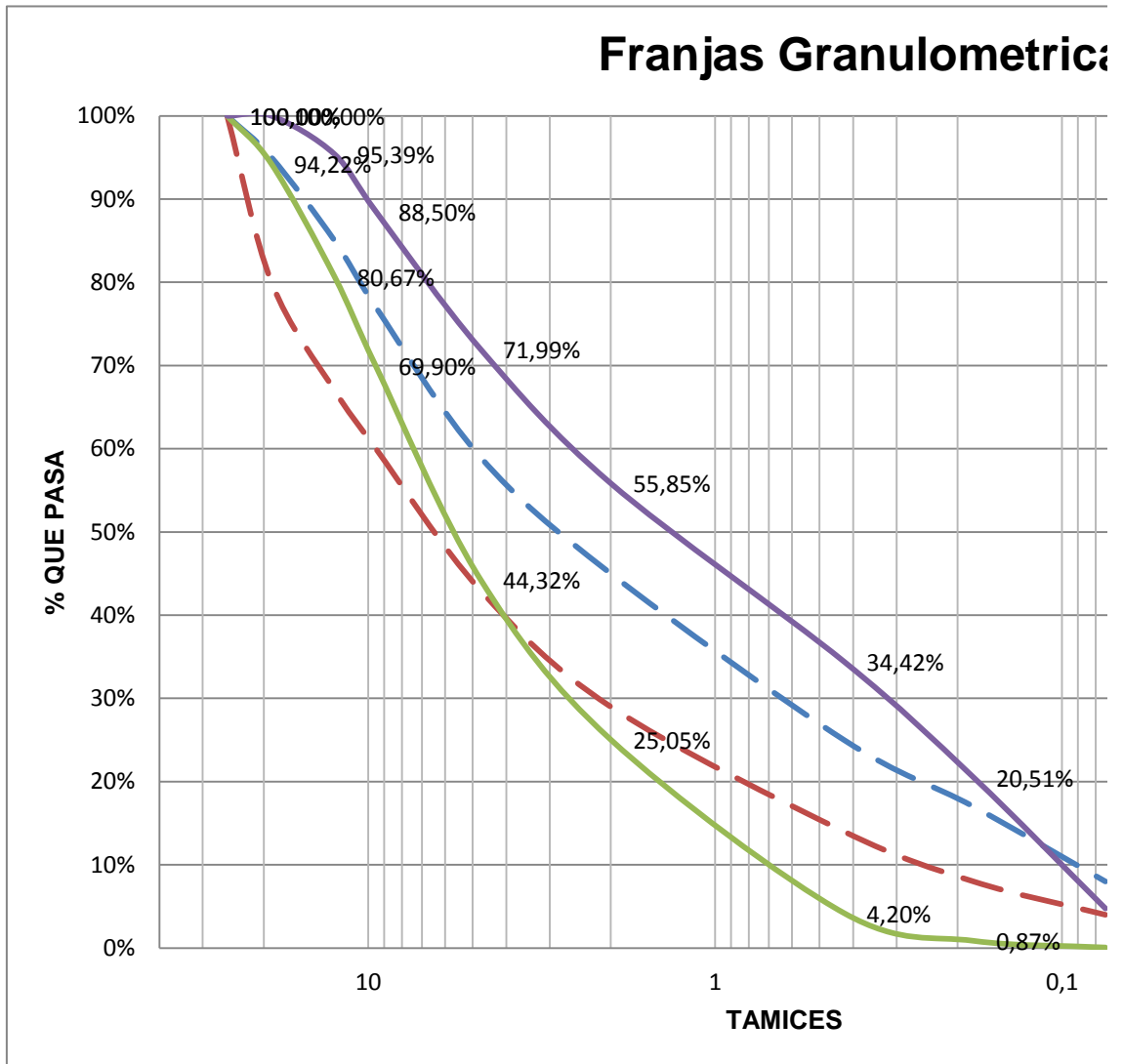
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9,97486182

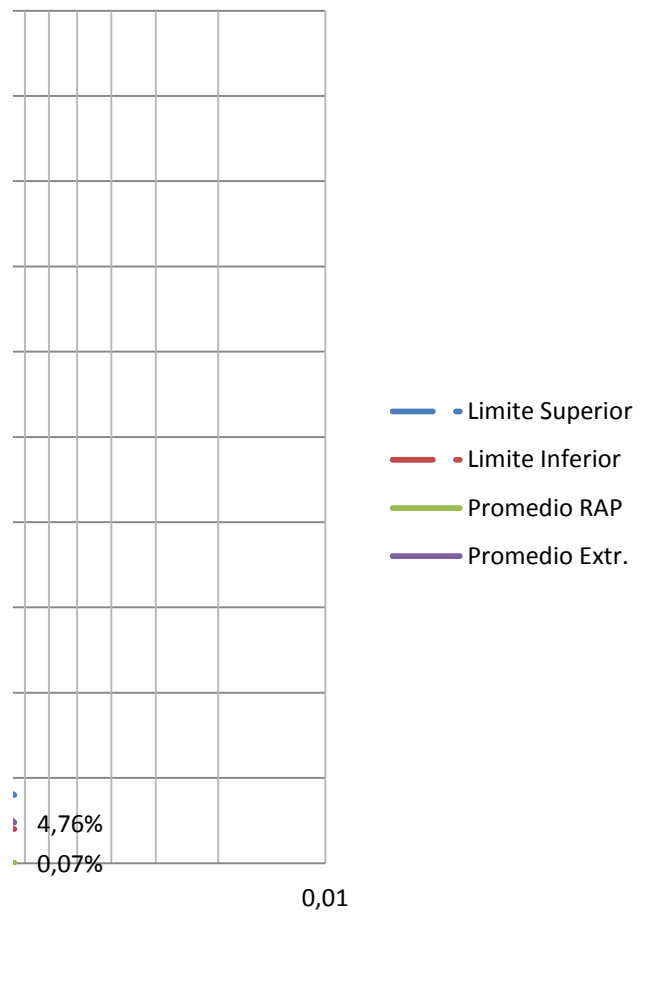
9,75

8,50

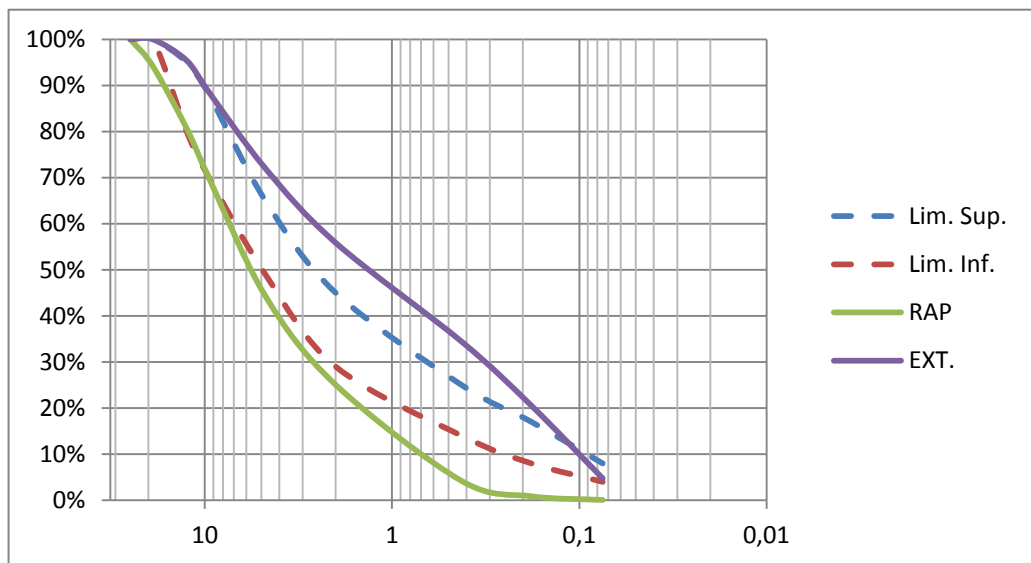
MDC -1					
	Tamices	Limite Superior	Limite Inferior	RAP	EXTRACCION
1"	25,5	100%	100,00%	100,00%	100,00%
3/4"	19	95%	80,00%	94,22%	100,00%
1/2"	12,5	85%	67,00%	80,67%	95,39%
3/8"	9,5	77%	60,00%	69,90%	88,50%
No. 4	4,75	59%	43,00%	44,32%	71,99%
No. 10	2	45%	29,00%	25,05%	55,85%
No. 40	0,425	25%	14,00%	4,20%	34,42%
No. 80	0,18	17%	8,00%	0,87%	20,51%
No. 200	0,075	8%	4,00%	0,07%	4,76%



as



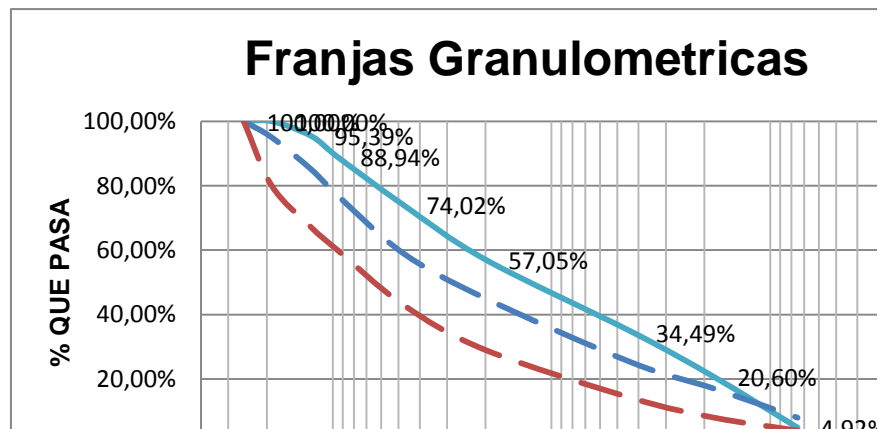
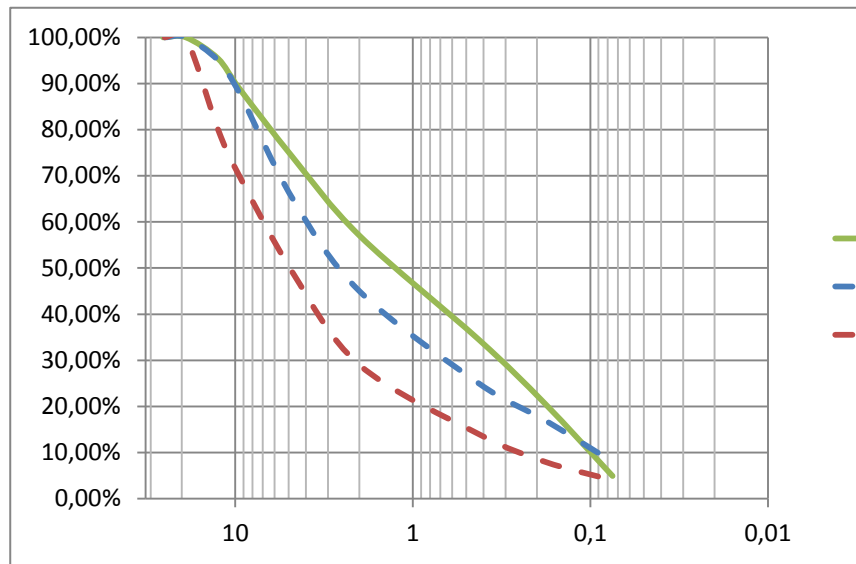
MDC -2					
Tamices en "	Tamices (mm)	Limite Superior	Limite Inferior	RAP	EXTRACCION
1"	25	100%	100%	100,00%	100,00%
3/4"	19	100%	100,00%	94,22%	100,00%
1/2"	12,5	95%	80,00%	80,67%	95,39%
3/8"	9,5	88%	70,00%	69,90%	88,50%
No. 4	4,75	65%	49,00%	44,32%	71,99%
No. 10	2	45%	29,00%	25,05%	55,85%
No. 40	0,425	25%	14,00%	4,20%	34,42%
No. 80	0,18	17%	8,00%	0,87%	20,51%
No. 200	0,075	8%	4,00%	0,07%	4,76%



TIPO DE MEZCLA		TAMIZ (mm/U.S. Standard)								
		3,75	25,5	19	12,5	9,5	4,75	2	0,425	0,18
		1 1/2"	1"	3/4"	1/2"	3/8"	No. 4	No. 10	No. 40	No. 80
		% PASA								
Densa	MDC-1		100	80 - 95	67 - 85	60 - 77	43 - 59	29 - 45	14 - 25	8 - 7
	MDC-2			100	80 - 95	70 - 80	49 - 65	29 - 45	14 - 25	8 - 7
	MDC-3					100	65 - 87	43 - 61	16 - 29	3 - 7
Semidensa	MSC-1		100	80 - 95	65 - 80	55 - 70	40 - 55	24 - 38	9 - 20	6 - 12
	MSC-2			100	80 - 95	65 - 80	40 - 55	24 - 38	9 - 20	6 - 12
Gruesa	MGC-0	100	75 - 95	65 - 85	47 - 67	40 - 60	28 - 46	17 - 32	7 - 17	4 - 11
	MGC-1		100	75 - 95	55 - 75	40 - 60	28 - 46	17 - 32	7 - 17	4 - 11
Alto módulo	MAM		100	80 - 95	65 - 80	55 - 70	40 - 55	24 - 38	10 - 20	8 - 14

0,075
No. 200
4 - 7
4 - 7
4 - 7
3 - 7
3 - 7
2 - 6
2 - 6
6 - 9

EXTRACCION DE AC DEL RAP (28-FEB-201)					
	Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)	%retenido
25,5	1"				
19	3/4"	0	0	0	0,00%
12,5	1/2"	201,5	112,3	89,2	4,61%
9,5	3/8"	237,8	113,1	124,7	6,45%
4,75	No. 4	404,9	116,4	288,5	14,92%
2	No. 10	444,5	116,2	328,3	16,97%
0,425	No. 40	550,1	113,8	436,3	22,56%
0,18	No. 80	381	112,3	268,7	13,89%
0,075	No. 200	416,2	113	303,2	15,68%
	Pasa 200	494,2	399	95,2	4,92%
	Total			1934,1	1,00



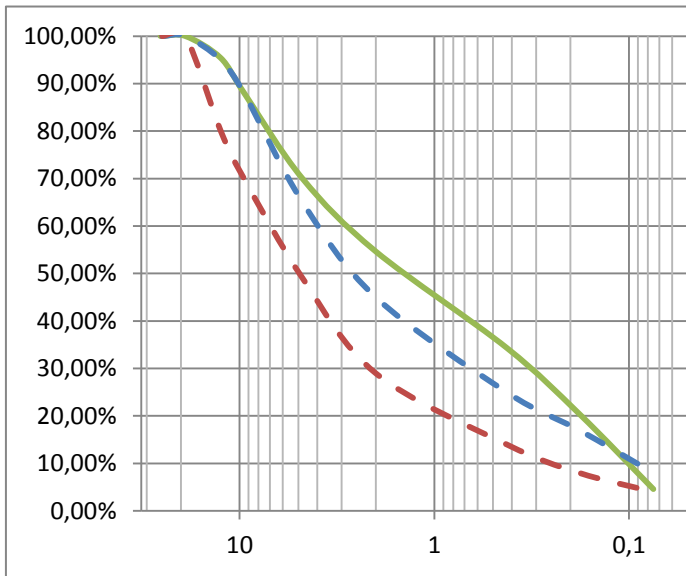
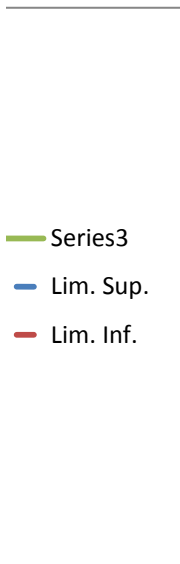


4)

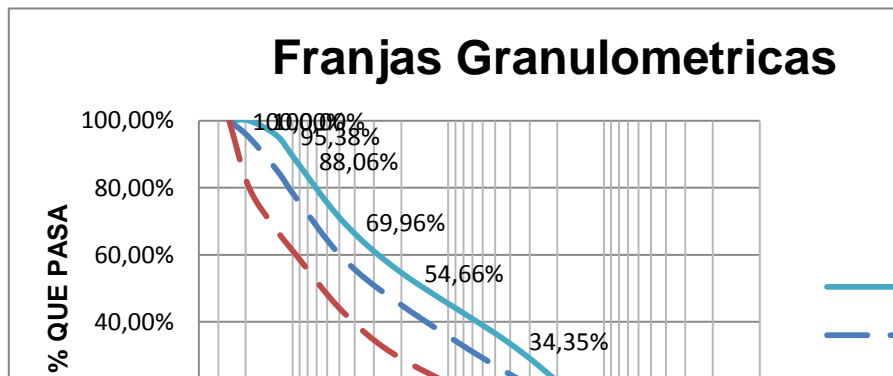
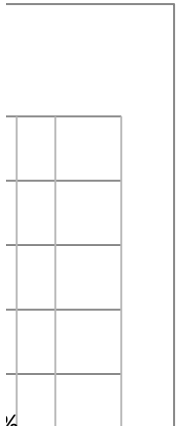
%acumulado	% pasa
	100,00%
0,00	100,00%
0,05	95,39%
0,11	88,94%
0,26	74,02%
0,43	57,05%
0,66	34,49%
0,79	20,60%
0,95	4,92%
1,00	0,00%

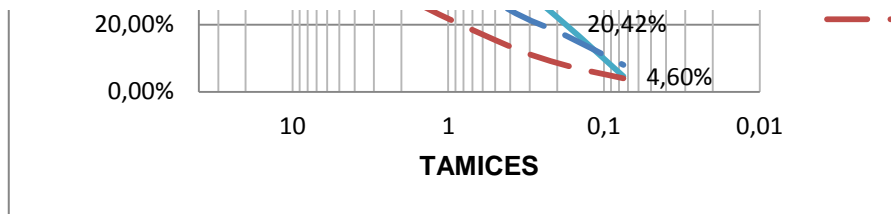
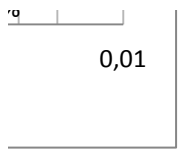
EXTRACCION DE AC DEL RAF			
Tamiz	W Reci. + W muestra (Gr)	W Reci. (Gr)	W Muestra (Gr)
1"			
3/4"	0	0	0
1/2"	524,9	390,5	134,4
3/8"	403,3	190,2	213,1
No. 4	724,8	197,8	527
No. 10	633,8	188,2	445,6
No. 40	777,3	186,1	591,2
No. 80	593,8	188,4	405,4
No. 200	652,1	191,3	460,8
Pasa 200	532,8	399	133,8
Total			2911,3

MDC-2



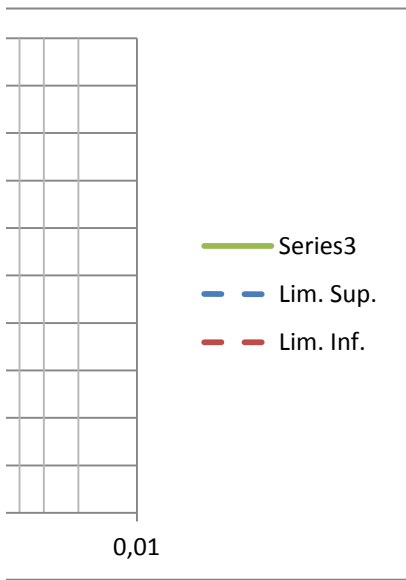
MDC-1






▷ (03-MAR-2014)

%retenido	%acumulado	% pasa
		100,00%
0,00%	0,00	100,00%
4,62%	0,05	95,38%
7,32%	0,12	88,06%
18,10%	0,30	69,96%
15,31%	0,45	54,66%
20,31%	0,66	34,35%
13,93%	0,80	20,42%
15,83%	0,95	4,60%
4,60%	1,00	0,00%
1,00		



Series5
 Limite Superior

Limite Inferior



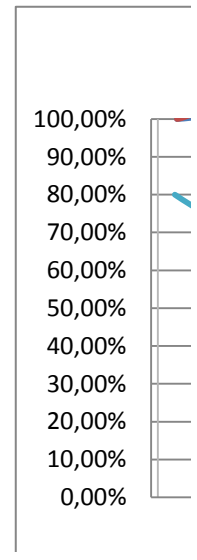
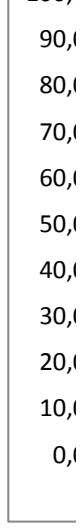
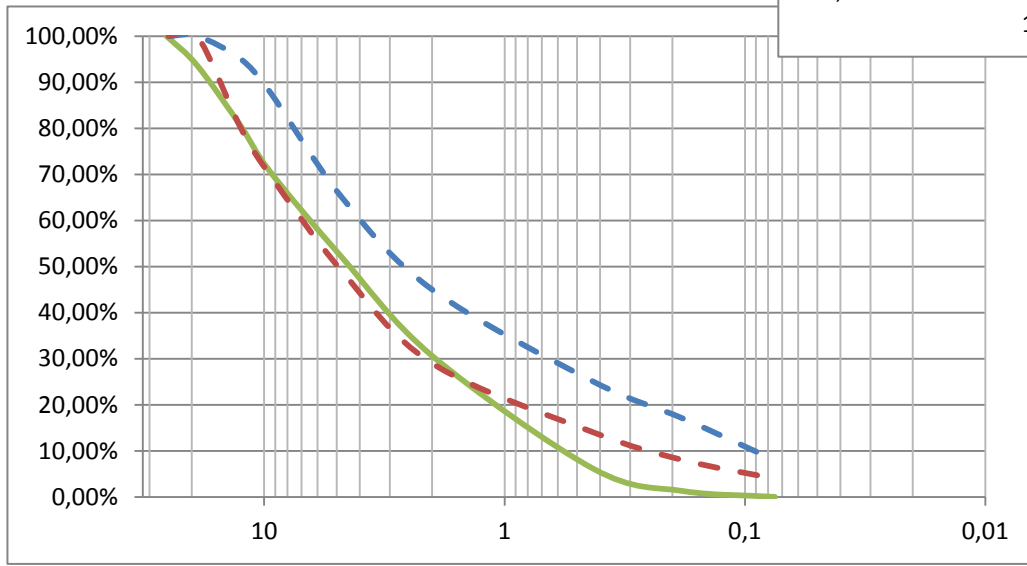
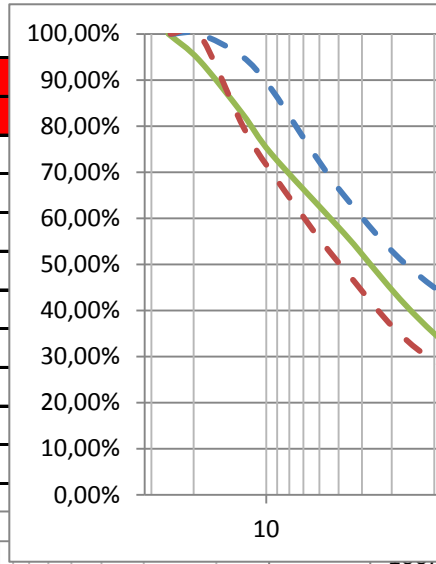
	CRL			
	1	2	3	Promedio
25,5	100,00%	100,00%	100,00%	100,00%
19	100,00%	100,00%	100,00%	100,00%
12,5	99,85%	99,90%	99,80%	99,85%
9,5	99,25%	99,50%	99,65%	99,47%
4,75	92,75%	97,15%	95,65%	95,18%
2	63,25%	76,30%	70,45%	70,00%
0,425	10,10%	10,30%	9,80%	10,07%
0,18	1,50%	1,80%	1,75%	1,68%
0,075	0,05%	0,05%	0,05%	0,05%

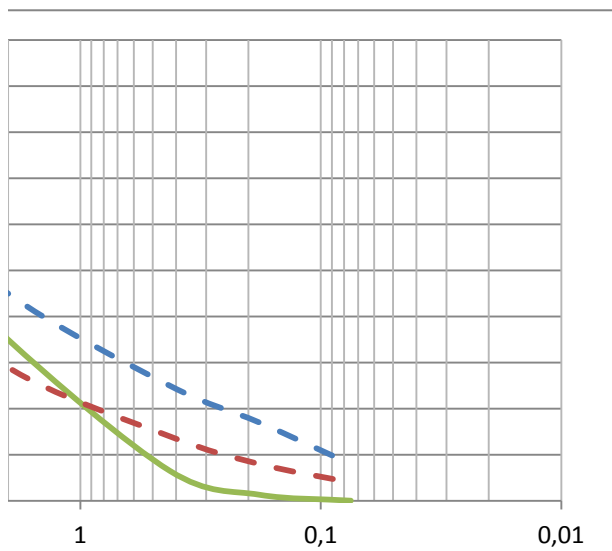
RAP			
1	2	3	Promedio
100,00%	100,00%	100,00%	100,00%
92,90%	92,65%	97,10%	94,22%
78,25%	77,75%	86,00%	80,67%
67,55%	66,15%	76,00%	69,90%
47,20%	33,85%	51,90%	44,32%
26,25%	21,00%	27,90%	25,05%
5,65%	3,35%	3,60%	4,20%
1,25%	0,65%	0,70%	0,87%
0,05%	0,05%	0,10%	0,07%

EXTRACCIÓN RA	
1	2
100,00%	100,00%
100,00%	100,00%
95,39%	95,38%
88,94%	88,06%
74,02%	69,96%
57,05%	54,66%
34,49%	34,35%
20,60%	20,42%
4,92%	4,60%

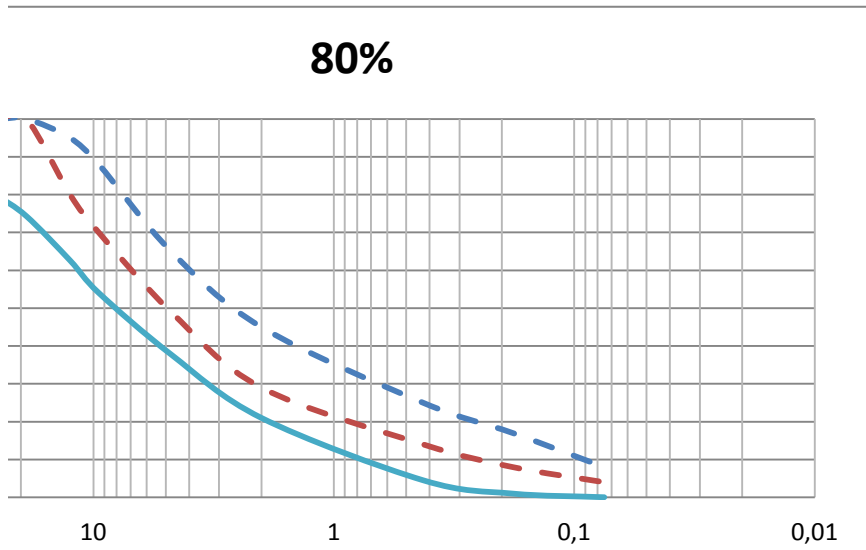
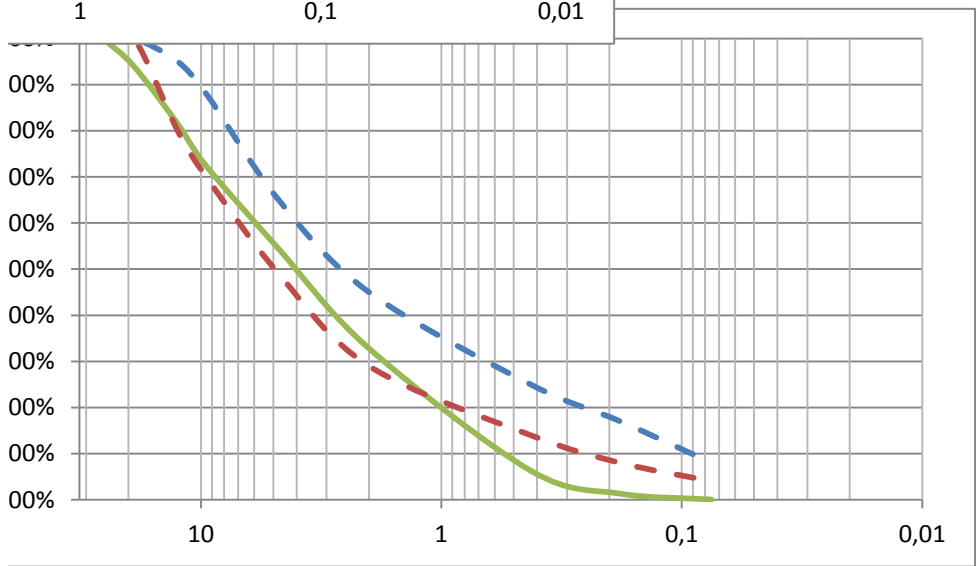
uP
Promedio
100,00%
100,00%
95,39%
88,50%
71,99%
55,85%
34,42%
20,51%
4,76%

	CRL			
	Promedio	10%	15%	20%
25,5	100,00%	10,00%	15,00%	20,00%
19	100,00%	10,00%	15,00%	20,00%
12,5	99,85%	9,99%	14,98%	19,97%
9,5	99,47%	9,95%	14,92%	19,89%
4,75	95,18%	9,52%	14,28%	19,04%
2	70,00%	7,00%	10,50%	14,00%
0,425	10,07%	1,01%	1,51%	2,01%
0,18	1,68%	0,17%	0,25%	0,34%
0,075	0,05%	0,01%	0,01%	0,01%



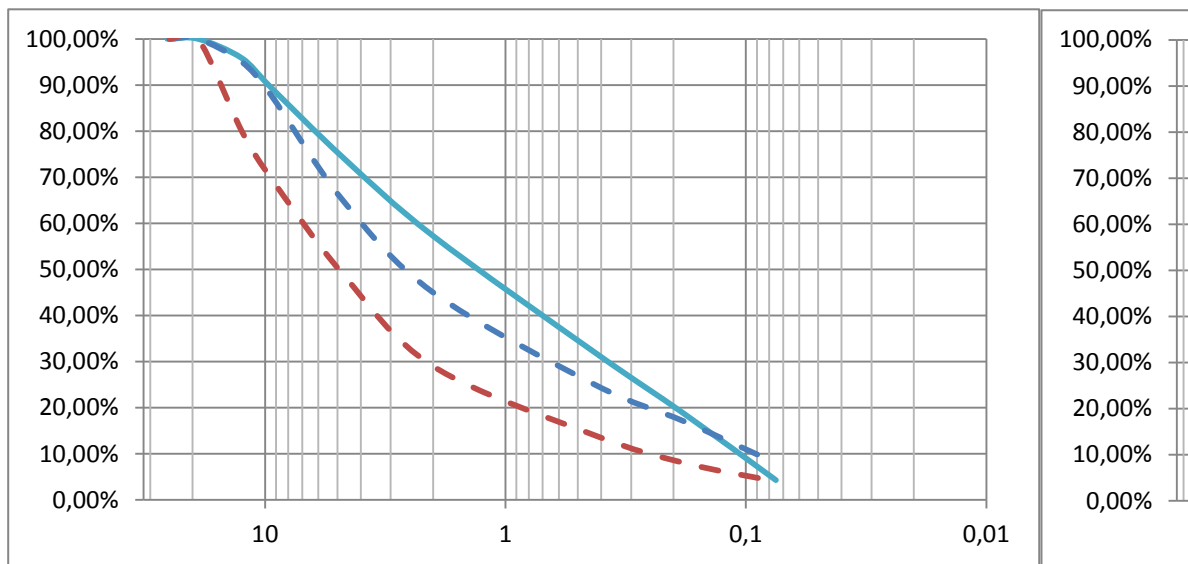


RAP + CRLL		
	2,00	3,00
100%	100,00%	100,00%
99%	93,97%	94,32%
98%	81,49%	82,57%
97%	72,34%	73,93%
96%	54,40%	56,80%
95%	32,81%	35,00%
94%	6,31%	6,53%
93%	1,32%	1,34%
92%	0,05%	0,05%



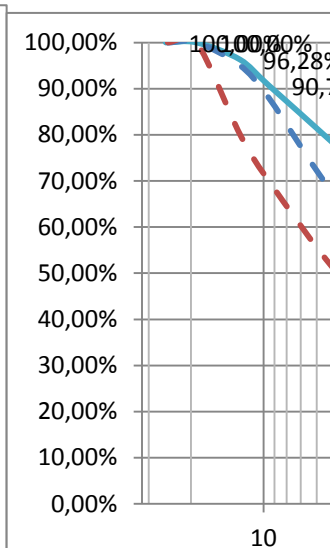
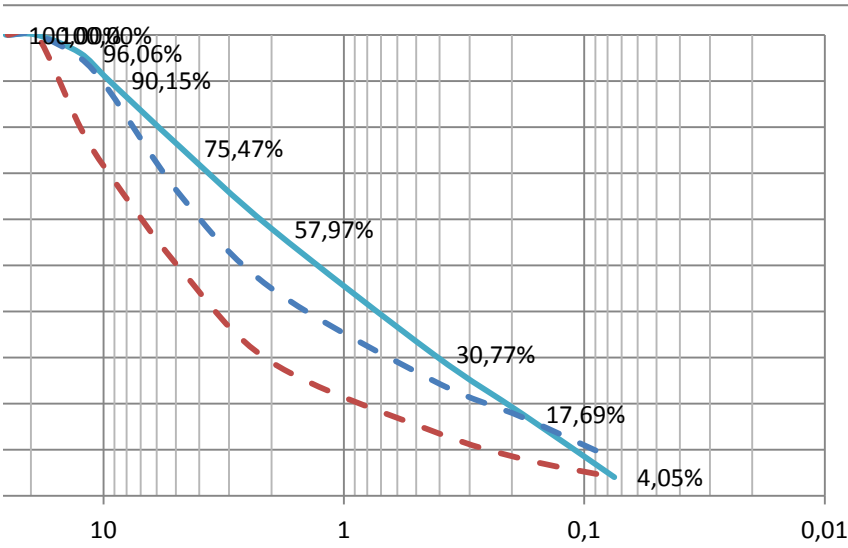
	CRLI			
	Promedio	10%	15%	20%
25,5	100,00%	10,00%	15,00%	20,00%
19	100,00%	10,00%	15,00%	20,00%
12,5	99,85%	9,99%	14,98%	19,97%
9,5	99,47%	9,95%	14,92%	19,89%
4,75	95,18%	9,52%	14,28%	19,04%
2	70,00%	7,00%	10,50%	14,00%
0,425	10,07%	1,01%	1,51%	2,01%
0,18	1,68%	0,17%	0,25%	0,34%
0,075	0,05%	0,01%	0,01%	0,01%

Promedio
100,00%
100,00%
95,39%
88,50%
71,99%
55,85%
34,42%
20,51%
4,76%

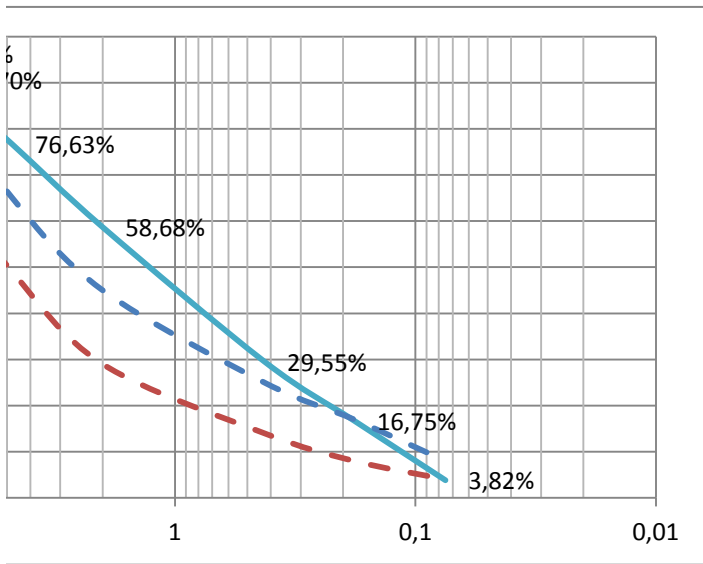


EXT. RAP		
90%	85%	80%
90,00%	85,00%	80,00%
90,00%	85,00%	80,00%
85,85%	81,08%	76,31%
79,65%	75,23%	70,80%
64,79%	61,19%	57,59%
50,27%	47,47%	44,68%
30,98%	29,26%	27,54%
18,46%	17,43%	16,41%
4,28%	4,05%	3,81%

EXTR. RAP + CRLL		
1	2,00	3,00
100,00%	100,00%	100,00%
100,00%	100,00%	100,00%
95,83%	96,06%	96,28%
89,60%	90,15%	90,70%
74,31%	75,47%	76,63%
57,27%	57,97%	58,68%
31,98%	30,77%	29,55%
18,63%	17,69%	16,75%
4,29%	4,05%	3,82%



0



Briqueta	G Bulk	G especifica teorica maxima	% vacios
0	2,155	2,356249682	8,5
1	2,157		8,4
2	2,184		7,3

8,09935816

DOSIFICACION DE LOS MATERIALES	
Gravas	43%
Arenas Gruesas	37,50%
Arenas finas	13,50%
Llenante	6%

Coeficientes RAP	Coeficientes RAP
36,12%	0,0050%
31,50%	9,995%
11,34%	
5,04%	

Porcentajes de los materiales	
RAP	84%
CRL	10%
Llenante	6%

Llenante
6%

Cantidad de Material (Gr)	
RAP	
Gravas	433,44
Arenas Gruesas	378
Arenas Finas	136,08
Llenante	60,48
CRL	
Arenas finas	119,94
Llenante	0,06
Llenante	
Llenante	72

1200

1200