

Exposure Block Expansion Summary																	
#	Cast Date	Coarse Aggregate	Fine Aggregate	Cement Type	Alkali content (%)	Admixtures	Expansions (%) Age in days below										
1	07/13/01	C10	F6	CM 3	1.25	None	0.0309%	0.0622%	0.0988%	0.1422%	0.1663%	0.2115%	0.2308%	0.2650%	0.3361%	0.3791%	0.3982%
							27	60	117	210	305	357	434	513	732	1215	1429
2	07/18/01	C7	F6	CM 3	1.25	None	0.0107%	0.0167%	0.0248%	0.0341%	0.0523%	0.0838%	0.1220%	0.1408%	0.1976%	0.2558%	0.3013%
							25	58	115	208	303	355	432	511	769	1213	1427
3	07/18/01	C8	F6	CM 3	1.25	None	-0.0043%	-0.0081%	-0.0074%	-0.0038%	-0.0071%	-0.0006%	0.0050%	0.0124%	0.0552%	0.1386%	0.1677%
							25	58	115	208	303	355	432	511	769	1213	1420
4	07/25/01	C6	F1	CM 3	1.25	None	0.0381%	0.1182%	0.2187%	0.2921%	0.3346%	0.4457%	0.5244%	0.6312%	0.7424%	0.9608%	1.0674%
							23	51	109	201	296	348	425	504	762	1206	1421
5	07/25/01	C2	F6	CM 3	1.25	None	-0.0103%	0.0024%	0.0076%	0.0224%	0.0434%	0.0905%	0.1234%	0.1539%	0.1879%	0.2272%	0.2609%
							23	51	109	201	296	348	425	504	762	1057	1427
6	08/03/01	C9	F6	CM 3	1.25	None	-0.0053%	-0.0062%	-0.0048%	-0.0038%	-0.0044%	0.0086%	0.0410%	0.0710%	0.1257%	0.1618%	0.1864%
							14	42	100	192	287	339	416	495	754	1048	1412
7	08/03/01	C4	F6	CM 3	1.25	None	-0.0041%	-0.0013%	-0.0014%	0.0043%	-0.0047%	-0.0019%	-0.0016%	0.0074%	0.0097%	0.0348%	0.0697%
							14	42	100	193	287	339	416	495	754	1048	1412
8	08/03/01	C3	F6	CM 3	1.25	None	-0.0035%	-0.0045%	-0.0037%	0.0068%	-0.0047%	0.0006%	0.0036%	0.0118%	0.0313%	0.0573%	0.0849%
							14	42	100	193	287	339	416	495	753	1048	1412
9	08/17/01	C6	F7	CM 3	1.25	None	0.0010%	0.0070%	0.0157%	0.0095%	0.0209%	0.0809%	0.1592%	0.4010%	0.6455%	0.6973%	0.9064%
							28	86	179	273	325	402	481	749	989	1134	1397
10	08/17/01	C6	F7	CM 3	1.25	10% MK	0.0004%	0.0028%	0.0102%	0.0049%	0.0081%	0.0100%	0.0143%	0.0152%	0.0219%	0.0201%	
							28	86	217	273	325	410	481	749	1001	1134	
11	08/17/01	C6	F7	CM 3	1.25	15% UFFA	0.0012%	0.0048%	0.0123%	0.0061%	0.0079%	0.0088%	0.0134%	0.0135%	0.0188%	0.0216%	0.0295%
							28	86	217	273	325	410	481	749	1001	1134	1435
12	08/20/01	C6	F2	CM 3	1.25	None	-0.0033%	0.0115%	0.0003%	0.0054%	0.0080%	0.0258%	0.1631%	0.4559%	0.6886%		
							83	214	270	322	407	478	746	1031	1395		
13	08/20/01	C6	F7	CM 3	1.25	20% FA2	0.0003%	0.0114%	0.0042%	0.0065%	0.0073%	0.0134%	0.0110%	0.0161%	0.0159%		
							83	214	270	322	407	478	746	998	1395		
14	08/20/01	C6	F7	CM 3	1.25	40% Slag	0.0064%	0.0105%	0.0033%	0.0092%	0.0091%	0.0135%	0.0052%	0.0128%	0.0192%		
							83	214	270	322	407	478	746	998	1395		
15	08/22/01	C6	F7	CM 3	1.25	75% Lithium Nitrate	0.0074%	0.0162%	0.0086%	0.0128%	0.0105%	0.0195%	0.0121%	0.0196%	0.0212%		
							81	212	268	320	405	476	744	996	1393		
16	08/29/01	C6	F7	CM 3	1.25	40% FA4	0.0061%	0.0120%	0.0062%	0.0096%	0.0105%	0.0208%	0.0175%	0.0285%	0.0247%		
							74	205	261	313	398	516	737	977	1122		
17	09/05/01	C6	F7	CM 3	1.25	35% FA4 & 5% SF	0.0040%	0.0053%	-0.0027%	-0.0010%	-0.0027%	0.0050%	-0.0053%	0.0078%	-0.0039%		

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							67	198	254	306	391	509	730	970	1115		
18	09/05/01	C6	F7	CM 3	1.25	30% FA4 and 5% UFFA	0.0072%	0.0129%	0.0037%	0.0076%	0.0086%	0.0173%	0.0159%	0.0213%	0.0216%		
							67	198	254	306	391	509	728	982	1115		
19	09/12/01	C6	F1	CM 1	0.52	None	0.0046%	0.0141%	0.0044%	0.0083%	0.0054%	0.0466%	0.0945%	0.3546%	0.6685%	0.8844%	
							60	191	247	299	384	502	561	786	963	1250	
20	09/12/01	C6	F1	CM 3	0.95	None	0.0155%	0.0322%	0.0275%	0.2015%	0.3473%	0.5229%	0.5816%	0.7355%	0.9169%	1.1017%	
							60	191	247	299	384	502	561	776	963	1250	
21	09/19/01	C6	F7	CM 3	0.95	None	0.0029%	0.0067%	-0.0051%	-0.0026%	-0.0052%	0.0131%	0.0683%	0.5492%			
							53	184	243	292	377	601	968	1364			
22	09/26/01	C6	F7	CM 1	0.52	None	-0.0016%	-0.0030%	-0.0097%	-0.0091%	-0.0161%	-0.0081%	-0.0038%	-0.0021%			
							46	184	236	285	370	594	961	1357			
23	10/10/01	C6	F6	CM 3	0.95	None	0.0042%	0.0032%	0.0076%	0.0047%	-0.0035%	-0.0023%	-0.0007%	-0.0037%	-0.0051%	0.0001%	0.0026%
							32	124	163	170	219	222	271	348	356	371	1371
24	10/15/01	C6	F7	CM 3	1.25	35% Slag & 5% SF	0.0064%	0.0095%	0.0106%	0.0117%	0.0168%	0.0171%	0.0178%	0.0138%			
							27	165	217	266	366	575	942	1338			
25	10/18/01	C6	F7	CM 3	1.25	20% FA2 & 5% SF	0.0042%	0.0041%	0.0027%	0.0090%	0.0077%	0.0111%	0.0088%	0.0077%			
							25	163	215	264	364	573	940	1336			

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26	11/08/01	C6	F7	CM 3	1.25	30% FA4 & 75% Lithium Nitrate	0.0041%	0.0170%	0.0168%	0.0195%	0.0260%	0.0312%	0.0369%	0.0463%			
							3	141	193	242	342	551	918	1314			
27	01/30/02	C1	F6	CM 3	1.25	None	0.0009%	0.0004%	0.0025%	0.0154%	0.0630%	0.1793%	0.1755%				
							58	110	159	259	468	835	1231				
28	01/30/02	C5	F6	CM 3	1.25	None	0.0071%	0.0025%	0.0041%	0.0089%	0.0176%	0.0673%	0.1015%				
							58	110	159	259	497	868	1232				
29	02/08/02	C6	F3	CM 3	1.25	None	0.0045%	0.0089%	0.0122%	0.0243%	0.0475%	0.2169%	0.3656%				
							49	101	150	250	478	860	1223				
30	02/13/02	C6	F5	CM 3	1.25	None	0.0166%	0.0195%	0.0226%	0.0263%	0.0422%	0.1006%					
							93	145	245	483	855	1218					
31	02/13/02	C6	F4	CM 3	1.25	None	0.0107%	0.0172%	0.0310%	0.0475%	0.2109%	0.3940%					
							93	145	245	483	855	1218					
32	05/22/02	C10	F6	CM 3	0.95	None	-0.0045%	0.0034%	0.0072%	0.0084%	0.0132%						
							47	147	385	786	1147						
33	05/22/02	C7	F6	CM 3	0.95	None	-0.0061%	-0.0012%	0.0214%	0.1256%	0.1603%						
							47	147	385	791	1147						
34	06/03/02	C8	F6	CM 3	0.95	None	0.0055%	0.0080%	0.0085%	0.0270%	0.0613%						
							33	133	408	777	1133						
35	06/17/02	C11	F6	CM 3	1.25	None	-0.0014%	0.0024%	0.0016%	0.0346%	0.2258%						
							20	120	395	764	1120						
36	06/17/02	C9	F7	CM 3	1.25	None	-0.0016%	0.0079%	0.0508%	0.1919%	0.0762%						
							20	120	395	764	1120						
37	06/26/02	C10	F6	CM 3	1.25	None	0.0743%	0.1556%	0.2563%	0.2793%							
							112	387	756	1112							
38	06/26/02	C10	F6	CM 3	0.95	None	0.0054%	0.0026%	0.0124%	0.0116%							
							112	387	756	1112							
39	07/02/02	C6	F7	CM 3	1.25	30% FA4	0.0146%	0.0206%	0.0985%	0.1933%							
							106	381	761	1116							
40	07/02/02	C6	F7	CM 3	1.25	35% FA4	-0.0011%	0.0012%	0.0145%	0.0405%							
							106	381	761	1116							
41	07/10/02	C6	F1	CM 3	1.25	None	0.2993%	0.5528%	0.9434%	1.20%							
							98	373	753	1108							
42	07/10/02	C6	F1	CM 3	0.95	None	0.0441%	0.3617%	0.7122%	0.9161%							

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							98	373	753	1108							
43	08/13/02	F11*	F11	CM 3	1.25	None	0.0059%	0.0084%	0.0565%	0.2074%							
		*Omaha Coarse (limestone and fine)					64	226	719	1064							
44	08/20/02	C6	F7	CM 3	1.25	100% Lithium Nitrate	0.0059%	0.0068%	0.0109%	0.0106%							
							57	219	712	1029							
45	08/20/02	C6	F7	CM 3	1.25	50% Lithium Nitrate	0.0063%	0.0077%	0.0126%	-0.0490%							
							57	219	712	1039							
46	09/04/02	C6	F1	CM 3	1.25	100% Lithium Nitrate	0.0040%	0.0067%	0.0101%	0.0109%							
							42	204	697	1014							
47	09/04/02	C6	F1	CM 3	1.25	75% Lithium Nitrate	0.0086%	0.0122%	0.0203%	0.0269%							
							42	204	697	1042							
48	09/10/02	C6	F1	CM 3	1.25	50% Lithium Nitrate	0.0079%	0.0137%	0.0848%	0.2603%							
							36	198	691	1036							
49	09/10/02	C10	F6	CM 3	1.25	50% Lithium Nitrate	0.0001%	-0.0020%	0.0503%	0.2243%							
							36	198	691	1036							
50	09/25/02	C15	F6	CM 3	1.25	None	0.0020%	-0.0035%	0.1700%	0.0505%							
							21	183	662	1021							

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51	09/25/02	C12	F6	CM 3	1.25	None	0.0036%	-0.0041%	0.0017%	0.1016%						
							21	183	662	1031						
52	11/13/02	C10	F6	CM 3	1.25	100% Lithium Nitrate	0.0000%	0.0025%	0.0115%							
							134	611	982							
53	11/13/02	C10	F6	CM 3	1.25	75% Lithium Nitrate	-0.0023%	0.0028%	0.0076%							
							134	611	982							
54	02/04/03	C7	F6	CM 3	0.95	50% Lithium Nitrate	-0.0016%	0.0243%	0.0771%							
							51	528	899							
55	02/04/03	C7	F6	CM 1	0.52	50% Lithium Nitrate	-0.0009%	-0.0071%	-0.0079%							
							51	528	899							
56	02/18/03	C6	F1	CM 3	0.95	50% Lithium Nitrate	0.0050%	0.0109%	0.0253%							
							36	513	884							
57	02/18/03	C6	F1	CM 1	0.52	50% Lithium Nitrate	-0.0013%	-0.0027%	0.0002%							
							36	513	884							
58	03/28/03	C10	F6	CM 1	0.52	75% Lithium Nitrate	-0.0137%	-0.0218%	-0.0228%							
							334	595	837							
59	03/28/03	C10	F6	CM 3	0.95	75% Lithium Nitrate	-0.0050%	-0.0061%	-0.0090%							
							335	595	837							
60	05/15/03	C17	F6	CM 3	1.25	None	0.0018%	0.0864%	0.1641%							
							286	498	799							
61	05/15/03	C17	F6	CM 3	0.95	None	0.0124%	0.0211%	0.0256%							
							286	498	799							
62	05/15/03	C13	F6	CM 3	1.25	None	0.0042%	0.00%	0.0026%							
							281	476	493							
63	05/15/03	C13	F6	CM 3	0.95	None	0.0031%	0.0133	0.0046%							
							281	542	794							
64	05/22/03	C11	F6	CM 3	0.95	None	0.0202%	0.0362%								

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							336	632									
65	05/27/03	C12	F6	CM 3	0.95	None	0.0064%	0.0305%									
							336	628									
66	05/27/03	C12	F6	CM 3	1.25	None	-0.0063%	0.0061%									
							336	632									
67	05/29/03	C16	F6	CM 3	1.25	None	0.0095%	0.0108%									
							330	626									
68	05/29/03	C16	F6	CM 3	0.95	None	-0.0032%	-0.0006%									
							330	626									
69	06/03/03	C15	F6	CM 3	0.95	None	0.0087%	0.0144%									
							325	621									
70	06/03/03	F11*	F11	CM 3	0.95	None	-0.0047%	-0.0005%									
		*Omaha Coarse (limestone and fine)					325	621									
71	06/05/03	C4	F6	CM 3	0.95	None	0.0642%	0.1648%									
							323	619									
72	06/05/03	C15	F6	CM 3	1.25	None	-0.0010%	0.0232%									
							323	619									
73	06/17/03	C6	F3	CM 3	0.95	None	0.0010%	0.0138%									
							310	606									
74	06/17/03	C6	F5	CM 3	0.95	None	-0.0051%	-0.0019%									
							310	606									
75	06/24/03	C8	F6	CM 3	1.25	Air Entrained	-0.0030%	0.0201%									
							308	604									

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76	06/24/03	C7	F6	CM 3	1.25	Air Entrained	0.0138%	0.0855%									
							303	599									
77	07/08/03	C17	F6	CM 3	1.25	Air Entrained	0.0002%	0.0041%									
							289	585									
78	07/08/03	C16	F6	CM 3	1.25	Air Entrained	0.0003%	0.0663%									
							289	585									
79	07/10/03	C6	F7	CM 3	1.25	Air Entrained	0.0124%	0.1698%									
							288	584									
80	07/10/03	C6	F4	CM 3	0.95	None	0.0011%	0.0068%	0.0336%								
							117	288	584								
81	07/15/03	C14	F6	CM 3	0.95	None	-0.0036%	0.0065%	0.1159%								
							111	282	578								
82	07/15/03	C14	F6	CM 3	1.25	None	0.0166%	0.0335%	0.1535%								
							111	282	578								
83	07/17/03	C14	F6	CM 3	1.25	Air Entrained	0.0064%	0.0261%	0.1338%								
							110	281	577								
84	07/17/03	C10	F6	CM 3	1.25	Air Entrained	0.0687%	0.1383%	0.2255%								
							110	281	577								
85	07/22/03	C9	F7	CM 3	1.25	Air Entrained	0.0036%	0.0051%									
							284	571									
86	07/22/03	C1	F6	CM 3	0.95	None	0.0108%	0.0243%									
							284	571									
87	07/24/03	C5	F6	CM 3	0.95	None	0.0020%	0.0095%									
							283	570									
88	07/24/03	C3	F6	CM 3	0.95	None	0.0048%	0.0073%									
							283	571									
89	10/15/03	C13	F6	CM 3	1.25	Air Entrained	0.0016%	0.0005%									
							197	484									
90	10/15/03	C9	F6	CM 3	0.89		0.0022%	0.0037%									
							193	480									
98	01/06/04	C10	F6	CM 3	1.25	Air Entrained	0.0196%	0.2699%	0.2815%								
							126	441	526								

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99	01/06/04	C10	F6	CM 3	1.25	30 % FA1 - ICAR - Air Entrained	0.0027%	0.0051%	-0.0486%								
							126	441	526								
100	01/06/04	C10	F6	CM 3	1.25	20% FA2 - ICAR Air Entrained	-0.0007%	0.0086%	0.0071%								
							126	441	526								

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101	01/06/04	C10	F6	CM 3	1.25	30% FA2 - ICAR Air Entrained	-0.0025%	-0.0041%									
							126	441									
102	01/08/04	C10	F6	CM 3	1.25	5% SF - Air Entrained	-0.0023%	0.0480%	0.0743%								
							125	439	524								
103	01/08/04	C10	F6	CM 3	1.25	20% FA2 - ICAR & 5% SF - Air Entrained	-0.0066%	-0.0032%	-0.0075%								
							125	439	524								
104	01/08/04	C10	F6	CM 3	1.25	40% FA4 - ICAR Air Entrained	-0.0200%	0.0364%	0.0639%								
							125	439	524								
105	01/09/04	C10	F6	CM 3	1.25	25% FA4 - ICAR & 5% SF - Air Entrained	-0.0133%	-0.0050%	-0.0047%								
							125	439	524								
106	01/13/04	C7	F6	CM 3	1.25	Air Entrained	-0.0063%	0.0574%	0.0783%								
							120	434	519								
107	01/13/04	C7	F6	CM 3	1.25	25% FA3 - ICAR Air Entrained	-0.0080%	0.0223%	0.0333%								
							120	434	519								
108	01/13/04	C7	F6	CM 3	1.25	50% FA3 - ICAR air Entrained	-0.0017%	0.0141%	0.0212%								
							120	434	519								
109	01/13/04	C7	F6	CM 3	1.25	25% FA3 - ICAR & 5% SF - Air Entrained	-0.0082%	-0.0098%	-0.0074%								
							120	434	519								
110	01/15/04	C7	F6	CM 3	1.25	5% SF - Air Entrained	0.0015%	0.0220%									

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							118	516									
111	01/15/04	C7	F6	CM 3	1.25	25% FA4 - ICAR Air Entrained	-0.0058%	-0.0047%									
							118	516									
112	01/15/04	C7	F6	CM 3	1.25	40% FA4 - ICAR Air Entrained	-0.0149%	-0.0126%									
							118	516									
113	01/15/04	C10	F6	CM 3	1.25	15% FA1 - ICAR & 5% SF - Air Entrained	-0.0031%	-0.0065%									
							118	508									
114	06/02/04	C6	F7	CM 3	1.25	Control - Air Entrained	0.0635%										
							377										
115	06/02/04	C6	F7	CM 3	1.25	5% SF - Air Entrained	-0.0071%										
							377										
116	06/02/04	C6	F7	CM 3	1.25	25% FA4 - ICAR- Air Entrained	0.0191%										
							376										
117	06/02/04	C6	F7	CM 3	1.25	40% FA4 - ICAR Air Entrained	0.0382%										
							376										
119	06/30/04	C6	F7	CM 3	1.25	40% FA6 - ICAR Air Entrained	0.0183%										
							349										
120	06/30/04	C6	F7	CM 3	1.25	25% FA6 - ICAR & 5% SF - Air Entrained	0.0046%										
							349										

Exposure Block Expansion Summary																	
#	Cast Date	Coarse Aggregate	Fine Aggregate	Cement Type	Alkali content (%)	Admixtures	Expansions (%) Age in days below										
121		CANMET	F1	CANMET	1.25	From CANMETIC - 51 Air Entrained	0.1187%										
							228										
122		C7	CANMET	CANMET	1.25	From CANMET - IC52 - Air Entrained	-0.0005%										
							228										
123		C8	CANMET	CANMET	1.25	From CANMET - IC53 - Air Entrained											
124		C6	F1	CM 3	1.25	Cast at UT/Sent to CANMET	Exchange Blocks Sent to CANMET										
125		C7	F6	CM 3	1.25	Cast at UT/Sent to CANMET											
126		C8	F6	CM 3	1.25	Cast at UT/Sent to CANMET											