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APPENDICES

APPENDIX A1 FACTOR SCORE MATRIX OF GF

Case Summaries	Factor score F1	Factor score F2	Factor score F3	Factor score F4
1	-.53903	-.12495	-.33887	-.18908
2	-.65237	-.09287	-.41216	-.69810
3	.00721	-.32299	-.29941	1.08595
4	.23013	2.44825	.79865	.37797
5	.71398	3.68723	1.37721	.00382
6	.31398	2.37907	.80804	.47970
7	-.27707	1.90377	.59810	2.40655
8	.11742	-.32233	-.34499	.59334
9	-.48388	-.05649	-.29780	-.09660
10	-.41316	-.18073	-.32674	-.06624
11	-.48023	-.09233	-.36646	-.64564
12	-.49691	-.20978	-.35858	.14283
13	-.46012	-.10842	-.38285	-.01055
14	-.57274	-.11076	-.47421	-.76813
15	.32211	-.51796	-1.00626	1.98460
16	-.47961	-.19135	-.98233	-.15145
17	-.41906	-.23980	-1.22658	.14251
18	-.36684	-.30207	-1.01982	.53180
19	-.22776	-1.61333	3.48474	.27099
20	-.61447	-1.42323	3.35434	-.45522
21	-.42075	-1.11182	2.19866	-.17628
22	-.26448	-.32636	-.38212	.00437
23	-.30120	-.10515	-.16278	-.09502
24	-.47765	-.15314	-.27526	-.10110
25	.71422	.80569	-.03031	-2.35992
26	-.30476	-.17201	-.22752	-.04761
27	-.30120	-.20754	-.34201	.16387
28	.43150	-.34376	-.26848	-.06540
29	-.35797	-.19987	-.39197	.48891
30	-.34875	-.19322	-.40910	-.15750
31	2.95827	.02356	-.20911	-3.51556
32	4.89359	-1.36777	-.07608	2.00695
33	.26623	-.45014	-.26096	.35869
34	-.13769	.05533	-.25809	-.46204
35	-.24695	.29657	-.31427	-1.41920
36	-.22234	-.24422	-.24580	.18424
37	-.23033	-.22153	-.23758	.21937
38	.00584	-.27499	-.14863	.55133
39	-.48475	-.11108	-.28365	-.34469
40	-.39242	-.20746	-.25898	-.17247
Total	40	40	40	40

APPENDIX A2 STANDARDIZED VARIABLES OF GF

Case Summaries

	Case Number	Water	Electricity	A_1	A_2	A_3	A_4
1	1	-.44197	-.89347	-.25684	-.64116	-.35374	-.29055
2	2	-.44197	-.23893	-.36373	-.51059	-.48412	-.31734
3	3	-.32143	1.33553	-.40662	-.54108	-.17234	-.20581
4	4	-.16072	-.31315	2.13690	1.69978	2.96538	1.49158
5	5	-.36161	-.35848	4.99417	3.15420	3.48359	1.48799
6	6	-.28125	-.26642	1.10534	2.84348	3.03916	1.18420
7	7	-.48215	-.34802	.62283	-.06684	.89427	5.46185
8	8	.24108	.23531	-.14837	-.32709	-.63721	.03534
9	9	-.28125	-.27489	-.27024	-.34546	-.33217	-.24521
10	10	-.40179	-.37895	-.42497	-.51036	-.38695	-.18160
11	11	-.32143	-.32202	-.31116	-.41382	-.38817	-.29441
12	12	-.28125	-.26281	-.55758	-.62487	-.48586	-.02471
13	13	-.40179	-.31690	-.28485	-.42019	-.34303	-.26916
14	14	-.36161	-.30633	-.40667	-.53459	-.45224	-.26977
15	15	.04018	-.14912	-.24649	-.47902	-.26246	-.22366
16	16	-.32143	-.40493	-.27847	-.62065	-.37597	-.30810
17	17	-.32143	-.42980	-.29528	-.70999	-.29315	-.31294
18	18	-.36161	-.51390	-.33985	-.64500	-.40825	-.29235
19	19	-.40179	-.28743	-.08555	-.70999	-.57836	-.27313
20	20	-.40179	-.47650	-.36013	-.58245	-.57581	-.26827
21	21	-.28125	-.12422	-.43410	-.53855	-.56925	-.25579
22	22	-.28125	-.06805	-.55758	-.49460	-.31341	-.38499
23	23	-.12054	.02796	-.16901	-.25503	-.34158	-.38499
24	24	-.24108	-.14201	-.55758	-.27399	-.31745	-.38499
25	25	3.69649	.01830	-.55758	2.03450	1.07564	-.05149
26	26	-.28125	-.15713	-.33198	-.20058	-.40672	-.32283
27	27	-.12054	.10579	-.34623	-.51206	-.34776	-.16928
28	28	-.24108	-.10640	-.39331	-.27202	-.18379	.33399
29	29	-.36161	-.31821	-.34461	-.35907	-.35497	-.38499
30	30	-.32143	-.29476	-.41099	-.30834	-.32676	-.38499
31	31	4.05810	2.65900	1.73579	1.45478	.31954	-.38499
32	32	2.29022	5.12278	.76808	1.04841	1.14059	-.38499
33	33	.12054	.29716	-.18615	-.60231	-.28364	-.38499
34	34	-.40179	-.23891	-.42358	1.04371	-.59966	-.38499
35	35	-.36161	-.16142	-.35927	1.44803	-.55048	-.38499
36	36	-.28125	-.42716	-.21506	-.45179	-.36556	-.38499
37	37	-.20090	-.30240	-.25935	-.40969	-.35075	-.35125
38	38	.00000	-.15113	-.13443	-.35661	-.33681	-.26130
39	39	-.28125	-.42323	-.35905	-.37958	-.40339	-.29302
40	40	-.32143	-.34476	-.28642	-.62951	-.33638	-.27808
Total	N	40	40	40	40	40	40

APPENDIX A2 STANDARDIZED VARIABLES OF GF (Cont.)

Case Summaries

		Case Number	Alum	Clay	Defoamer	Emulsifier	Cato	Starch	Wet Strength
1		1	-.30588	-.43086	-.36119	.16206	-.28848	-.35774	-.37724
2		2	-.24608	-.45062	-1.30310	-.51906	-.30843	-.36076	-.44749
3		3	.24552	-.58450	1.05167	-.72355	-.28061	-.34877	-.37874
4		4	-.24842	-.43449	-.23965	-.63479	-.31426	-.34565	-.42657
5		5	-.16156	-.38771	-.42196	-.27820	-.32664	-.33838	-.41312
6		6	-.79251	-.36835	.71744	-.40059	-.32096	-.33526	-.44600
7		7	-.25778	-.97888	-.02697	-.05651	-.34033	-.34027	-.36529
8		8	.63769	.03611	.71744	-.39824	-.25512	-.30344	-.04693
9		9	-.20572	-.37964	-.31561	-.66764	-.32285	-.27530	-.35333
10		10	.16437	-.44658	-.39157	-.12493	-.32810	-.27690	-.48486
11		11	.44950	-.29899	-1.30310	-.55268	-.32577	-.30939	-.55660
12		12	-.18072	-.69297	-.10293	-.25123	-.30319	-.31128	-.36977
13		13	-.17735	-.40384	-.33081	-.43499	-.30625	-.31090	-.08430
14		14	-.34887	-.47804	-1.30310	-.02640	-.34427	-.35254	-.25618
15		15	.47070	-.08930	1.81127	-.17967	-.26896	-.33772	2.97969
16		16	-.28863	-.28165	-1.30310	-.53978	-.30173	-.35896	2.09039
17		17	-.15600	-.43166	-1.30310	-.49638	-.31382	-.36680	3.07385
18		18	-.24871	-.41997	-.36119	-.32942	-.30275	-.35963	2.40725
19		19	-.13597	.50227	.79340	-.23285	3.91083	3.83163	-.84357
20		20	-.52595	-.25141	-.27004	-.25435	3.72875	3.86733	-.84357
21		21	-.01973	-.43005	-.05735	-.22073	2.56612	2.44468	-.84357
22		22	.15062	-.06269	-.19408	-.31926	-.27435	-.23573	-.18593
23		23	-.48837	-.40303	.24649	-.18554	-.25891	-.26869	-.69112
24		24	-.58429	-.38650	.01861	-.50264	-.26969	-.27690	-.45497
25		25	-.23584	-.06793	-.19408	-.18045	-.24347	-.30570	-.40714
26		26	-.33557	-.05462	.09457	-.27703	-.26721	-.22100	-.42956
27		27	-.09854	-.91759	-.02697	-.02797	-.23823	-.16273	.06068
28		28	.35928	2.77300	-.17889	.12921	-.28003	-.25008	-.17696
29		29	-.45518	-.68934	.64148	-.05768	-.32649	-.26510	.16381
30		30	-.24315	-.01631	-.33081	-.30831	-.31280	-.23526	.06816
31		31	1.33225	2.80728	-1.30310	3.96490	-.11398	.03615	.73028
32		32	5.69581	4.07874	3.96854	4.25072	.29969	.35892	1.75111
33		33	-.37578	.55913	1.18840	.73839	-.24449	-.30636	-.35482
34		34	-.38557	-.23246	.04899	.43967	-.31557	-.33045	-.32643
35		35	-.50869	-.15100	-1.30310	.30477	-.32984	-.34131	-.21284
36		36	-.35765	.20628	.55033	.00840	-.31280	-.28871	-.48037
37		37	-.37665	-.12398	.61110	.05219	-.29372	-.28238	-.46692
38		38	-.12164	.42162	1.15801	-.22894	-.26401	-.23120	-.48037
39		39	-.42535	-.25101	-.37638	-.22737	-.31251	-.30268	-.57005
40		40	-.21362	.21153	-.31561	-.41310	-.29474	-.24479	-.55062
Total	N		40	40	40	40	40	40	40

APPENDIX A3 FACTOR SCORE MATRIX OF GB

Case Summaries		Case Number	Factor score F1	Factor score F2	Factor score F3	Factor score F4
1		1	1.46940	-.76961	.67393	-1.45339
2		2	2.91136	1.69375	.83393	2.99006
3		3	2.40771	-.76766	.07306	-.29521
4		4	1.59624	-.97847	.04840	-.17015
5		5	1.69811	-1.21121	-.17185	.70768
6		6	1.68546	-.97589	.56469	.09138
7		7	-.19117	.84142	.74924	-1.53841
8		8	-.27142	-.81150	-.37849	-.33464
9		9	-.64487	-.21245	1.07188	.42208
10		10	-1.31128	-.79190	3.28435	.91640
11		11	1.11077	1.73287	1.49789	-1.27473
12		12	-.68605	-.86377	1.19078	-.74002
13		13	-.40377	-.77010	.51643	-.22184
14		14	.39458	-1.73290	-2.49468	-1.37883
15		15	-.60249	-.80793	.91156	-.25228
16		16	-.21185	-1.00878	-.36469	-.07391
17		17	-.77139	-1.04613	1.51014	-.04868
18		18	-.87381	1.48968	-.35650	1.77730
19		19	-1.12847	1.99257	-.31612	-.37617
20		20	-.37280	.86801	-1.08794	.41950
21		21	-.89892	.99569	-.72341	1.10180
22		22	-.31727	-.53383	-.44859	.03450
23		23	1.01545	2.72700	-.28196	-2.83230
24		24	-.57779	-.01554	-.52739	.48557
25		25	-.27041	-.27260	-.36163	.56248
26		26	-.36733	-.63099	-.33882	.69143
27		27	-.16314	-.37414	-.55799	.83547
28		28	-.12698	-.60279	-1.96699	-.42575
29		29	.14967	.55754	-1.19368	.90711
30		30	.13725	.54205	-.94796	.64754
31		31	-.18877	-.15108	-.26913	-.04238
32		32	-.58549	-.07250	-.45026	.46621
33		33	-1.00657	.05363	.15303	-.71485
34		34	-.78544	.11351	.04549	-.55905
35		35	-.94718	.22649	-.29370	-.61418
36		36	-.33495	.03975	-.54594	.78476
37		37	-.41682	.29946	.32359	.02673
38		38	.14434	.96557	.65200	-.80537
39		39	-.26390	.26279	-.02266	.28416
Total	N		39	39	39	39

APPENDIX A4 STANDARDIZED VARIABLES OF GB

Case Summaries

		Case Number	Water	Electricity	A_3	A_4	A_5
1		1	.64827	.74944	-.69829	-.17592	1.20804
2		2	.52311	.75487	-.03534	-1.02230	3.43243
3		3	-.47818	2.16490	-.72004	-.70786	1.96121
4		4	-.22786	.92539	-.59715	-1.11639	1.14911
5		5	-.47818	-.20664	-.38805	-1.39111	1.18342
6		6	.14763	-.58088	-.70220	-1.14481	1.86696
7		7	.27279	1.97901	-.24073	1.49631	-.40778
8		8	-.10270	-.30882	-.50439	-.73363	-.59244
9		9	-.72850	-.64586	-.51099	.67034	-.24835
10		10	-.60334	-3.14529	-.05901	1.76115	-.68245
11		11	1.52440	2.13364	-.27187	1.25478	.39523
12		12	-.35302	-1.07165	-.18515	.98535	-.36056
13		13	-.47818	-.77905	-.26308	.69636	.01229
14		14	.27279	1.47093	-.75819	-3.12824	-2.54398
15		15	-.47818	-.55414	-.60340	-.09758	-.73391
16		16	-.35302	-.53967	-.48874	-.66246	-.10365
17		17	-.60334	-1.11221	-.70327	-.11063	-.83432
18		18	-.35302	-.08146	3.44452	.35073	.06900
19		19	.27279	1.27250	3.30802	1.47177	-.69123
20		20	.02246	.49224	1.61599	.06438	.09584
21		21	-.22786	-.69495	2.42632	.38638	-.11808
22		22	-.35302	-.53476	-.56418	-.41848	-.36207
23		23	5.40439	.97952	-.32882	.92833	1.05466
24		24	-.47818	-.50376	.10182	-.08363	.13207
25		25	-.60334	-.51565	.07957	-.58929	.25891
26		26	-.72850	-.57675	.21399	-.39271	-.45733
27		27	-.60334	-.76794	.07942	-.42836	-.70627
28		28	.02246	.18698	.01780	-1.52550	-.44078
29		29	-.10270	.03261	.51316	-.54725	-.05955
30		30	-.10270	.33567	-.43240	-.66776	-.21434
31		31	-.10270	-.17241	.06591	.21466	.72217
32		32	-.35302	-.37161	.13403	-.11863	-.60354
33		33	.02246	.06555	-.32120	1.14545	-.43836
34		34	-.10270	.19344	-.31993	.67873	-.28922
35		35	.14763	-.09696	-.33451	.97838	-.81625
36		36	-.60334	-.37897	-.47416	-.36068	-.46227
37		37	-.22786	-.34448	-.50093	1.24768	-.45844
38		38	.77343	.67930	-.45485	.61053	-.14099
39		39	-.22786	-.43206	-.53969	.48189	-.77519
Total	N		39	39	39	39	39

APPENDIX A4 STANDARDIZED VARIABLES OF GB (Cont.)

Case Summaries

	Case Number	Alum	Defoamer	Emulsifier	Cato	Starch	Wet strength
1	1	-.19639	-1.36084	-1.78098	1.42435	1.09710	-1.70931
2	2	-.10602	4.58033	.04749	3.74568	1.01528	-1.73192
3	3	-.70779	-.24687	-1.07814	1.33507	3.52921	-1.70366
4	4	-.55630	-.20708	-1.01450	.48689	2.11390	-1.70931
5	5	-.90420	-.29991	-.46259	.96982	2.79908	-1.70931
6	6	.26696	-1.36084	-.30893	1.59886	2.28271	-1.70931
7	7	1.06462	-.15404	-.11163	-.38970	-.41039	-.21183
8	8	-.23609	-.40601	-.70263	-.04069	-.44995	.69230
9	9	1.27619	.44273	-.21437	-.53174	-.39859	.55668
10	10	2.71637	.89362	-1.83463	-1.45297	-.47709	-.30225
11	11	1.45536	1.21190	-.35348	1.80177	-.38450	-1.74887
12	12	.80135	-1.36084	-1.20089	-.67784	-.44498	-.26269
13	13	-.38601	-.43253	-1.08269	-.81582	-.38637	-.16098
14	14	-2.14693	-.14078	-1.74552	.49906	-.40604	.32500
15	15	1.53058	-.37948	-.98540	-.14620	-.40397	.74881
16	16	-.60697	-.39275	-.98540	-.14620	-.40397	.74881
17	17	2.19400	-.23361	-1.21816	-.51956	-.44830	.46062
18	18	.73083	.68144	.49483	.05671	-.38823	1.72076
19	19	1.29186	-1.36084	1.53136	-.67784	-.17654	.81097
20	20	-.80809	-.07447	.98764	-.63725	-.28177	.44932
21	21	-.14780	-.43253	1.43862	-.62914	-.42510	.61319
22	22	-.37713	-.44579	.45301	-.46681	-.25007	.20068
23	23	-.79032	.49578	.82943	.89272	-.12994	-.16098
24	24	-.14310	-.43253	.88762	-.53580	-.26975	1.06526
25	25	-.08303	-.44579	.77851	-.66160	-.35592	-.18358
26	26	-.53802	.42947	-.85083	.04454	-.43670	.91834
27	27	-.98883	.57535	.32208	-.19896	-.37021	-.51133
28	28	-1.48351	-1.36084	.48210	.15411	-.34018	.95224
29	29	-1.15076	.61513	1.39952	.34891	-.13118	-.06491
30	30	-.35519	.72122	1.65502	.66545	-.17447	.47757
31	31	-.75585	-.35296	-.22801	-.68189	-.31283	.40411
32	32	-.34787	.44273	.41573	-.92945	-.32651	.56233
33	33	.02615	-.10099	-.39531	-1.31093	-.78592	1.48342
34	34	.25703	-.32644	.18660	-1.05931	-.78592	.89008
35	35	-.18698	-.31318	.58121	-1.01061	-.40811	1.36475
36	36	-.25071	.56208	1.27587	-.24360	-.44022	.29674
37	37	-.35205	.57535	.33026	-.18678	-.78592	-.09317
38	38	1.18477	-.11425	1.28041	.06889	-.24697	-1.21769
39	39	-.19012	.50904	1.17676	-.14214	-.40066	-.55089
Total N		39	39	39	39	39	39

APPENDIX A5 FACTOR SCORE MATRIX OF DP 450

Case Summaries

	Case Number	factor score F1	factor score F 2	factor score F3	factor score F4	factor score F5
1	3	.12355	1.87442	.79945	-.21117	.17344
2	4	-.02069	-.31826	.07779	-.46855	-.70839
3	14	.31173	-.90347	1.90172	-.75189	.16630
4	21	.34973	1.58665	-.87566	.00650	-.13822
5	26	-.05644	-.69014	-.88901	-.59902	-.11840
6	27	.01668	-.86695	-1.06683	-.41915	.56979
7	38	-.81754	-.88147	-.31623	-.50385	-.73712
8	39	2.02409	.42680	.68027	-.17983	.20885
9	45	-.51822	-.09088	-.78887	-.00337	.46419
10	49	.17952	-.48366	-.24904	-.04405	5.08224
11	50	.30971	-.86798	-.45472	-.18656	.78697
12	58	-.95237	-.78728	.67111	-.36136	2.36565
13	59	-.69993	-.71196	1.47249	-.41078	-.46893
14	64	.39905	.07718	-.66638	-.28600	1.22499
15	82	-1.30931	.37995	2.36277	-.34062	-.79584
16	83	-.41672	-.27816	-.79249	-.49153	-.33704
17	84	.99703	-1.27933	2.15426	-.44175	-1.09623
18	86	.90761	-.23189	.05944	-.53174	-.66969
19	87	.15440	-.69418	-.45987	-.59291	-.79281
20	88	1.36824	-.74869	-.07563	-.55454	-.67898
21	98	.26779	2.01199	-.51160	-.32095	.64654
22	99	-1.97373	1.33051	-1.23209	-.38697	-.37214
23	101	-.44465	.51142	2.71249	-.09245	.42679
24	102	-.09767	.96645	2.05043	-.17340	.44596
25	103	-.11765	83199	1.42819	-.14713	.07810
26	113	.19798	-.39196	-.11762	2.85079	-.49300
27	114	-.20489	-.23344	-.14131	4.29196	-.40077
28	120	-.17175	-.84215	-.14435	1.88770	1.04689
29	121	-.75072	-.63497	.49194	2.83909	-.42936
30	132	.49285	.59596	-.52738	-.13184	-.20920
31	133	-.73270	-.43595	-.06544	-.28679	-.75963
32	143	.23478	1.47561	-.80168	-.18531	-.40498
33	152	.04363	.78301	-.87257	-.38053	-.61729
34	153	-2.78568	.11567	-.88652	-.40676	-.40202
35	156	.60281	-1.55672	-.43662	-.40180	-.37838
36	157	-.29880	-1.88961	-.45190	-.52649	-.40946
37	161	.26471	-1.67402	-.77714	-.69239	-.50943
38	170	.95285	.56541	-.70925	.10391	-.20496
39	171	.65006	.27863	-.39026	-.17634	-.05947
40	172	.78126	-.42324	-.74428	-.33362	-.33873
41	175	-.39652	-.94156	-.47729	-.23537	-.29761
42	180	3.05531	1.63246	-.12318	.58887	-.31969
43	181	.08007	.70721	-.91600	-.10984	-.35181
44	191	.41819	.95416	.11573	-.06564	-.02145
45	192	-2.41764	1.75243	-.01690	-.13652	-.16567
Total N		45	45	45	45	45

APPENDIX A6 FACTOR SCORE MATRIX OF DP 400

Case Summaries		factor score	factor score	factor score	factor score	factor score	factor score
	Case Number	F1	F 2	F 3	F 4	F5	F6
1	1	.89340	.38592	-.68483	.73747	.98295	3.26146
2	2	-.45820	-1.07724	-.03683	.50695	-.45000	1.51412
3	10	-2.37493	.24386	.41862	.63353	.68026	1.18608
4	12	-.09776	-.53036	-.15851	-.56295	1.46512	-1.08002
5	13	-.50607	-.08779	-.09088	-.96631	2.40885	-1.04335
6	19	-.13304	-.88961	-.12188	.39309	1.61859	-1.19048
7	20	-1.71891	.26447	-.24755	-1.32518	-.56626	.58956
8	25	.39265	-.70238	-.26801	-1.05971	-.94536	-.31903
9	36	.23856	.66304	-.23044	-1.50108	-.23771	-.60597
10	37	-.23104	-.22978	-.25768	-1.11133	-.13096	-.54458
11	40	-.15050	1.43022	-.66646	.48734	-1.51103	-.29026
12	41	.42362	-.82671	-.41930	-.42702	-1.15211	-1.14990
13	47	-.41823	.30631	5.50975	.17116	-.34018	-.08106
14	48	-.52775	.17268	.50520	.81448	-.74298	.71198
15	65	.78597	-1.15482	.78328	1.50363	-.22897	-1.33695
16	71	-2.04957	3.56554	-.65488	-.42487	.39401	-.74312
17	72	-.36252	-.00283	-.31856	1.00665	-.19792	1.54172
18	81	-.19074	-1.09187	-.32522	.66729	2.41127	1.04591
19	85	-.21108	1.00004	-.21424	.37677	.02874	-.49786
20	91	.28111	-.84083	-.24588	-.25336	.00322	-.11203
21	92	.02161	-.31035	-.35550	1.23369	-.53429	-.14692
22	95	.44586	-1.07909	.05219	-.30920	1.04719	.46790
23	97	.11929	-.59444	-.46270	1.21383	-1.01658	-.75461
24	100	3.17340	2.54040	.62007	-.24650	1.37632	.85131
25	112	.21193	.35443	-.05123	-.51777	.10664	-.05899
26	119	-.58640	-.70009	-.09071	-.66975	.01470	.24820
27	125	1.32924	1.08105	-.26382	.88310	.62449	-1.76293
28	126	-.57559	-.61094	-.25582	.96325	.99335	-.87099
29	139	.13002	-.67708	.17551	-2.22638	-.24335	.09477
30	142	1.67234	.37458	-.27102	1.04783	-1.14988	-.04420
31	154	1.32350	-.42852	.06488	-2.26440	-.88993	1.00950
32	155	-.26524	-.34336	-.08913	-1.37835	-.68381	.17986
33	162	-.64324	.55090	-.36019	.55228	-1.28749	.61341
34	169	.93675	-.38663	-.28285	.32414	-.74230	.00437
35	176	-.43494	-.34224	-.26195	.51331	-.63467	.26745
36	182	-.44352	-.02648	-.44343	1.21438	-.46993	-.95433
Total	N	36	36	36	36	36	36

APPENDIX A7 FACTOR SCORE MATRIX OF DP 350

Case Summaries

	Case Number	factor score F 1	factor score F2	factor score F3	factor score F 4	factor score F5
1	5	-1.73508	.44370	-.11494	-.50537	.41124
2	9	.48621	-.36497	-.24577	.18915	4.10272
3	11	2.25108	.64592	.84300	3.13370	-.28974
4	22	-.64523	-1.37841	-.07644	.41269	-.13805
5	28	-1.84968	-.59705	-.70787	2.56600	1.00855
6	29	-.13517	-.82445	1.10067	-.72924	-.47815
7	30	.88412	-1.01708	.55282	1.68137	-1.40788
8	44	-.12977	-.43245	-.02453	-.68543	.07982
9	51	-.21833	-.21240	-.34272	.13718	1.17573
10	57	-.35574	.09939	.72797	1.48991	-.08216
11	63	-2.17359	-.21175	3.66136	-.21034	-.61310
12	70	2.90190	-.12790	2.32029	-1.30699	1.85750
13	73	.27856	.13606	-.08403	1.91474	.03486
14	74	.70531	-.66472	-.33429	-.76415	.08192
15	80	-.62911	-.61255	-.47940	.27333	-.40044
16	89	.76112	-.78311	-.83687	.31002	-.69175
17	93	.54045	2.00977	.14313	-.69941	-.87530
18	94	1.28338	-1.49349	-1.18202	-1.04164	-.31697
19	96	-.03153	-1.27448	1.47363	-.89237	.08623
20	104	-.60797	1.35517	.97038	-.43596	-.36282
21	117	-.00053	.72552	-.17146	-.00584	-.44549
22	118	.26398	.43418	-.81485	-.10489	-.29960
23	122	.21067	.81112	-.49920	.09517	-.01803
24	130	-1.28751	.73480	-.93598	-.34121	1.62279
25	131	-.33724	.64604	-.43122	-.03049	.50205
26	138	-.47145	-.81848	.51153	-.46705	-.48953
27	144	-.51857	1.24853	-.43200	-.43837	.03297
28	145	.01627	1.34319	-.68884	-.63222	.29677
29	158	-.14243	-1.78877	-1.11879	-.58950	-.61540
30	160	-.19406	-2.01059	-.95704	-.59295	-.58748
31	166	-.17216	.97890	.02644	-.17869	-.41977
32	167	-.08123	1.37041	-.34739	-.24720	-.34970
33	173	-.15844	-.01081	-.16547	-.48987	-.45375
34	183	1.15631	.89769	-.79837	-.51153	-1.24866
35	190	.13549	.74307	-.54171	-.30257	-.70938
Total N		35	35	35	35	35

APPENDIX A8 FACTOR SCORE MATRIX OF DP 310

Case Summaries

	Case Number	factor score F1	factor score F2	factor score F3	factor score F4	factor score F5	factor score F6
1	6	-.12714	-.32270	.73561	.31630	-.33280	.09084
2	7	-.00646	-.15699	-.03178	-.19797	-.95112	-.70121
3	8	-.31206	-.81583	.96465	.20269	.27300	-.34246
4	15	7.39669	-.11943	-.65454	.19180	.49979	-.05664
5	17	-.16741	-.40982	.07148	.01014	2.50253	-.03655
6	18	-.03744	-.15735	.42752	-.66246	2.18610	.01622
7	23	-.02298	-.36448	.50322	-.12052	-1.40540	.29329
8	31	-.22223	-.77856	.48202	.28946	1.26902	.28964
9	33	-.19934	.02809	-.01730	.36911	.33125	.33591
10	34	-.23240	.08147	-.56230	.44112	-.40659	-.18434
11	35	-.55332	-.28179	-1.43532	-.10753	1.52152	2.82433
12	42	-.32743	-.16439	1.16250	-.60809	-.41243	-.96565
13	43	-.19029	1.46718	-.29243	-.49465	.48312	-.77695
14	52	-.25902	-.06577	-.19922	.86408	-1.33865	.68727
15	53	-.16042	-.44888	.86620	.87427	-.29503	-.35125
16	54	.06506	.58993	.93472	.49939	1.37838	-1.24230
17	56	-.15655	-.55674	-.25676	.94506	.07980	.78144
18	60	-.06841	5.50798	-.63255	1.69093	-.72352	-.74533
19	61	-.19246	-.54495	-.07783	.80617	-.53626	.24720
20	62	-.35258	-.82030	-.98988	.58578	-.05449	.59771
21	66	-.06189	1.30595	.18950	.60577	.65094	2.62469
22	67	.47315	.45426	.65171	-.00963	-.89924	3.79414
23	78	-.50951	.54088	-.06601	1.29308	.00962	-1.19243
24	79	-.08412	-.13923	-.59774	.94834	.16075	-1.34450
25	90	-.00879	-.41888	.49458	1.29619	.19774	.23859
26	105	-.44885	-.34477	-.14105	-.09793	-.11197	2.46371
27	106	-.06769	-.72856	.16740	1.05496	.83648	-1.14742
28	107	-.20788	-.12357	-.29867	.83757	.54155	.36501
29	109	-.38804	1.13234	.26485	.45742	1.55625	1.38408
30	110	-.15751	-.41264	.07383	.62275	.06862	-1.15990
31	111	-.27478	-.11567	-.11629	-.26598	-.20510	-.22535
32	115	-.30305	-.09305	-.39371	2.45604	-.14273	-.90478
33	116	-.15206	-.39646	-.13211	2.33033	-.15174	-.91047
34	123	-.07511	-.58293	1.22828	.60493	-.28370	1.87369
35	127	.17651	1.38056	1.92205	.00847	1.18613	-.37834
36	128	-.20907	-.49180	.36536	.17258	2.12128	-.67302
37	129	-.45171	-.32232	-.22132	-1.91335	3.48728	-.73356
38	134	-.25923	-.20303	.08004	-1.89261	-.05329	-.94146
39	135	-.19711	-.52396	-.00537	-.24575	-.34685	-.21824
40	140	-.39001	.14726	-.59802	.17620	-.71331	.03317
41	141	-.37991	2.93231	-2.03473	-2.76679	.02441	-.14554
42	146	-.33335	-.87374	-2.25599	-.04677	-.69148	-.34483
43	147	.11921	-.27617	2.38970	-.25752	-1.12372	-.22933
44	148	.11645	.96710	.76706	-.58427	-1.28236	-.07446
45	150	.00789	-.53567	.16967	-.92350	-.92735	-.12248
46	151	-.01784	-.60503	-.01598	-1.41055	-1.09749	-.01599

APPENDIX A9 FACTOR SCORE MATRIX OF DP 310 (Cont.)

Case Summaries

		Case Number	factor score	factor score	factor score	factor score	factor score	factor score
			F1	F2	F3	F4	F5	F6
47		159	20270	.12142	2.27411	-.50573	-1.51737	-.24259
48		163	.19503	-.17908	1.31913	.19008	-.46723	-.45840
49		165	-.16103	-.56105	-.52632	-1.24605	-.99660	-.38138
50		174	-.33966	-.95624	-2.60206	.44636	-.52340	-.38172
51		177	-.09334	-1.07243	-1.85767	-.47130	-.54764	-.25160
52		178	.16769	-.07030	-1.82061	-.21472	-.67200	-.11290
53		179	.15101	-.44901	-1.78792	-.56210	-.26257	-.13974
54		184	.08144	-.26835	.22606	-.50733	-.45720	-.27171
55		185	-.05911	-.40084	.70874	-1.31576	-.45779	-.15892
56		186	.08754	.00561	.10844	-1.15654	-.48275	-.29209
57		187	-.13994	.21939	-.31490	.05865	-.10189	.08349
58		188	.01002	-.19631	.39882	-.54769	-.34958	-.32908
59		189	.10814	.46733	.98913	-2.51293	-.04292	.16050
Total	N		59	59	59	59	59	59

APPENDIX A10 FACTOR SCORE MATRIX OF DP 270

Case Summaries

		Case Number	factor score 1	factor score 2	factor score 3	factor score 4	factor score 5
1		16	.67249	.38146	.36177	2.81067	-.28301
2		24	-3.41404	.00201	-.50173	.15244	.32507
3		32	.65588	-.60632	-2.90442	.25707	.03423
4		46	1.13160	-.26474	.14208	.02489	-.58773
5		55	.01941	.71169	-.13275	-.66867	.59517
6		68	.01064	-.13372	-.35603	-.00722	2.73317
7		69	-.43371	1.09943	-.12327	-1.49957	-1.02100
8		75	.34886	1.67971	.67887	-.01776	-.15126
9		76	.59355	.97130	-.72100	-.16419	-.42808
10		77	-.15414	.13096	.21516	.12237	-1.37941
11		108	.60824	.55970	.99861	-.07497	1.76004
12		124	-.60159	.88732	.60902	.36336	-.87061
13		136	.01810	-.46836	-1.05505	.54646	-.18291
14		137	-.10296	-.35508	1.03761	.45051	.35688
15		149	.40570	-1.15561	1.17585	-1.49432	.05541
16		164	.64936	-.94393	-.37152	-1.42009	-.39048
17		168	-.40740	-2.49583	.94679	.61902	-.56547
Total	N		17	17	17	17	17

APPENDIX A11 STANDARDIZED VARIABLES OF DP 450

Case Summaries

	Case Number	Water	Electricity	A_6	A_7	A_8	A_9	A_1
1	3	-.64197	-.49923	.71365	-.47243	-.72799	-1.15780	1.37471
2	4	-.72334	-.31857	.32673	-.25098	-.72799	.52113	-.40407
3	14	-.72334	-.21569	.71365	-.25098	-.85447	.73777	-.50289
4	21	-.07233	-.11091	-.06019	-.02953	1.16927	-.88701	1.27588
5	26	-.56059	-.15922	.71365	-.25098	-.09557	1.00856	-.60171
6	27	-.31646	-.03458	-.44710	-.25098	-.34853	.95441	-.70053
7	38	-.47921	-.42282	-.83402	-.91534	.28389	.14202	-1.19463
8	39	-.39784	-.36390	1.87440	1.74210	.15740	.30450	.93001
9	45	-.07233	.32655	-.44710	.19193	-.09557	-.99533	-.89817
10	49	-.07233	.08425	.32673	-.25098	-.85447	1.06272	-.65112
11	50	.33455	1.07365	.32673	.41338	-.72799	.90025	-.74994
12	58	-.07233	-.06785	.32673	.41338	3.31950	.62945	-.35466
13	59	1.63656	1.03821	-.06019	.19193	.66334	-.07462	-.10760
14	64	-.31646	.10302	-.44710	-.47243	2.43411	-.45373	-.40407
15	82	-.72334	.92871	-.06019	.41338	.91631	-.94117	.13945
16	83	-.15371	-.63728	-.83402	-1.57970	-.22205	-.56205	-.70053
17	84	.66005	.55606	1.87440	-1.57970	.15740	.57529	-1.19463
18	86	-.31646	-.52171	.32673	1.07774	-.60150	.41281	-.15702
19	87	-.39784	-.33824	.32673	-.25098	-.60150	1.06272	-.60171
20	88	-.31646	-.32963	-.06019	-.02953	-.22205	.57529	-.70053
21	98	-.07233	-.52923	-.06019	-.02953	-.85447	-1.10364	1.67117
22	99	.25317	-.90414	-1.22094	-.91534	-.85447	-1.15780	.78178
23	101	-.23509	-.12532	-.06019	-1.57970	-.22205	-.83285	.63355
24	102	-.56059	-.18795	-.06019	1.96355	-.85447	-.34542	.73237
25	103	-.72334	-.64399	.32673	-.02953	-.85447	-1.15780	.43591
26	113	-.47921	-.50403	.32673	-.25098	-.34853	1.38768	-.55230
27	114	-.56059	-.15650	-.06019	.19193	-.47502	1.55016	-.60171
28	120	.33455	-.24996	2.64824	.19193	-.72799	1.60432	-.35466
29	121	-.72334	-.51274	-.06019	-.25098	1.04279	1.33352	-.40407
30	132	-.23509	-.08217	-.06019	.19193	-.85447	-.67037	.48532
31	133	.25317	.51101	.32673	-.25098	-.85447	.52113	-.55230
32	143	.09042	-.33716	.32673	-.25098	1.29576	-1.15780	1.57235
33	152	-.56059	-.47630	-.06019	-.02953	2.56060	-1.15780	.73237
34	153	.49730	-.27135	-.44710	-1.13679	.78982	-1.15780	-.00878
35	156	-.15371	-.54292	-1.60786	-.47243	-.85447	1.44184	-1.24404
36	157	-.07233	-.28340	-.83402	1.07774	-.85447	1.82095	-1.24404
37	161	-.07233	-1.55851	.32673	2.84936	-.85447	1.60432	-1.24404
38	170	-.23509	-.58163	-1.60786	-.25098	-.09557	-.50789	.33709
39	171	-.07233	-.43152	-1.60786	-.47243	.03092	-.12878	.28768
40	172	.57867	-.50784	-1.60786	-.25098	-.09557	-.56205	-.84876
41	175	-.31646	.37486	-1.60786	-.47243	.15740	-.50789	-1.24404
42	180	5.62399	4.44121	3.03515	3.51372	1.42224	-1.15780	3.25230
43	181	-.23509	3.49705	-.06019	-.02953	.03092	-1.15780	.78178
44	191	-.15371	-.39472	-.06019	-.02953	.15740	-1.15780	.78178
45	192	1.55519	.36643	-.83402	-1.13679	-.85447	-1.15780	2.01704
Total N		45	45	45	45	45	45	45

APPENDIX A11 STANDARDIZED VARIABLES OF DP 450 (Cont.)

Case Summaries

	Case Number	A_5	Clay	Emulsifier	Cato	Starch
1	3	-.02926	.74986	.68090	1.27524	-.71031
2	4	.80129	.96260	.67019	.40323	-.86037
3	14	-.85981	.55277	-.69255	1.50440	-.54585
4	21	-.30611	.67087	.80932	-.32889	-.31014
5	26	-.85981	.84215	.75224	-.37949	-.81869
6	27	-.85981	1.46707	-.69255	-1.06697	-.60724
7	38	-.85981	.50350	.35983	-.45687	-.91342
8	39	2.46240	1.39512	-.69255	1.02227	.45153
9	45	1.35500	.84919	.59528	-.51639	-.21768
10	49	-.85981	1.67355	1.15179	.20086	-.21313
11	50	1.63185	1.11120	.77365	.00443	-.80732
12	58	.24759	1.53433	1.05904	.54609	-.84142
13	59	-.85981	.90707	-.69255	.78418	-.63376
14	64	-.30611	.96808	1.54420	-.24259	-.99073
15	82	2.46240	.47690	1.97229	2.35557	-.73608
16	83	2.46240	-.08075	-.69255	-.90329	-1.26963
17	84	-.85981	1.58126	2.87127	2.59366	.11882
18	86	-.85981	.08193	-.69255	.08776	-.84976
19	87	-.85981	.05221	.65592	-.12652	-1.01195
20	88	-.58296	.42685	-.69255	-.09378	-1.22567
21	98	-.85981	.81087	-.69255	-.22473	-.57995
22	99	-.85981	-.65013	-.69255	-1.33483	-1.32268
23	101	-.58296	.83903	-.69255	1.96272	.40454
24	102	-.85981	.97355	.85213	2.02522	-.43747
25	103	.80129	.82886	-.69255	1.22464	-.09642
26	113	-.85981	-1.05606	-.19311	-.00152	-1.58491
27	114	-.43845	-1.05606	.14935	.01931	-1.58491
28	120	.56237	-1.05606	.08157	.22466	.95856
29	121	-.27926	-1.05606	.03877	.12050	.68875
30	132	.52444	-1.05606	-.69255	-.54020	1.84832
31	133	-.02926	.53713	3.18163	.53716	2.06583
32	143	.24759	-1.05606	-.69255	-.72174	.97523
33	152	-.85981	-1.05606	-.69255	-.98067	.66677
34	153	-.85981	-1.05606	-.69255	-1.35863	.60690
35	156	-.85981	-1.05606	-.69255	-1.00150	.59629
36	157	.52444	-1.05606	-.69255	-.95388	.75999
37	161	1.07814	-1.05606	-.69255	-.97174	.98736
38	170	.24759	-1.05606	-.69255	-.99852	1.43375
39	171	-.85981	-1.05606	-.69255	-.81400	.95174
40	172	-.02926	-1.05606	-.69255	-1.12947	.16429
41	175	.24759	-1.05606	-.69255	-1.03721	.98736
42	180	1.90870	-1.05606	-.69255	.42704	2.37126
43	181	-.02926	-1.05606	-.69255	-.61163	.31435
44	191	.24759	-1.05606	-.69255	-.06402	1.39434
45	192	-.58296	-1.05606	-.69255	-.45984	.42349
Total N		45	45	45	45	45

APPENDIX A11 STANDARDIZED VARIABLES OF DP 450 (Cont.)

Case Summaries

		Case Number	Color	Latex	Other	Alum
1		3	-.10045	-.08605	-.38528	.23700
2		4	-.11933	-.10836	-.32042	-.51483
3		14	.31352	.28760	-.38829	.25676
4		21	.03529	.03292	-.23476	.03701
5		26	-.06405	-.42066	-.29415	.19256
6		27	-.17192	-.12323	-.38309	.61230
7		38	-1.08392	-1.06572	-.37762	-.51483
8		39	2.24854	2.28970	-.10532	.22713
9		45	-.37509	-.40393	-.21260	.43082
10		49	-.00067	.07940	-.30428	4.91834
11		50	.48208	.44561	-.08835	.83328
12		58	-.70411	-.66419	-.34204	2.70730
13		59	-.29823	-.32028	-.26295	-.33088
14		64	-.08427	-.12137	-.35655	1.54561
15		82	-.84705	-.78874	-.36202	-.51483
16		83	-.63579	-.63444	-.54675	-.51483
17		84	.67445	.75048	.00688	-.51483
18		86	.71131	.71888	-.21780	-.51483
19		87	-.15349	-.13996	-.22272	-.51483
20		88	.87942	.87132	-.21834	-.51483
21		98	.00023	-.00425	-.63979	.53082
22		99	-2.11908	-2.06212	-.63651	-.51483
23		101	-.38318	-.40207	-.30674	.28145
24		102	.28295	-.12881	-.29470	.62094
25		103	.01686	.01619	-.31741	-.04571
26		113	-.09776	-.01541	2.99889	-.51483
27		114	-.25553	-.29797	4.21644	-.51483
28		120	.36476	.41773	2.11714	.85797
29		121	-.56162	-.51733	2.73508	-.51483
30		132	.57692	.55715	-.29415	-.51483
31		133	-.49061	-.53964	-.37598	-.51483
32		143	.18856	.19279	-.32973	-.51483
33		152	-.13506	-.10650	-.35518	-.51483
34		153	-2.39821	-2.30379	-.51254	-.51483
35		156	.17103	.21696	-.26870	-.51483
36		157	-.01415	-.01169	-.27992	-.51483
37		161	.68389	.71888	-.32973	-.51483
38		170	.53691	.57574	-.24215	-.51483
39		171	.21598	.21138	-.38419	-.27039
40		172	.32880	.32850	-.40143	-.51483
41		175	-.41464	-.39464	-.30701	-.51483
42		180	4.07614	4.16539	.67573	-.51483
43		181	.34274	.33222	-.02869	-.51483
44		191	.41106	.39542	-.25337	-.25681
45		192	-2.03323	-1.94315	-.56891	-.51483
Total	N		45	45	45	45

APPENDIX A12 STANDARDIZED VARIABLES OF DP 400

Case Summaries

	Case Number	Water	Electricity	A_6	A_7	A_8	A_9	A_1
1	1	1.23840	.92069	1.86113	2.00806	.92223	-1.03910	1.97139
2	2	-.47631	-.76038	2.81901	-.55412	-.11528	-1.03910	.50030
3	10	.75828	-1.21088	-1.01251	-.55412	-.33760	-.72164	-.45392
4	12	-.68207	-.26430	-.37393	-.18810	-.78225	.65403	-.49368
5	13	-.40772	.24281	-.05463	-.37111	-.78225	.86567	-.45392
6	19	-.68207	-.68926	-.05463	-.55412	.40348	-.24544	-.29488
7	20	-.40772	-.28543	-.05463	.36094	4.33121	1.39477	-.61295
8	25	-.75066	-.73237	-.05463	-.18810	-.33760	1.13022	-.77199
9	36	.14099	.46178	-.05463	-.37111	-.41171	1.50059	-.93103
10	37	-.61349	-.31090	-.05463	-.37111	.25526	1.13022	-.93103
11	40	.75828	.92069	-.05463	-.55412	-.18939	-.19253	-.01657
12	41	-.61349	-.76038	-.05463	.54395	-.78225	.75985	-.13584
13	47	.20958	.95218	.26466	-.37111	-.41171	-1.03910	.73886
14	48	-.20195	.00347	-.69322	-.55412	-.78225	-.82746	.42079
15	65	-.61349	-1.02399	-.05463	.72697	1.51510	-1.03910	-1.12982
16	71	1.99287	2.67925	.10501	-.37111	-.63404	.54821	-.53344
17	72	-.13337	-.20913	-.16319	-.37111	-.78225	-1.03910	-.01657
18	81	-.61349	-.95805	-.05463	-1.65220	-.78225	-.93328	1.21597
19	85	.20958	.57645	-.69322	-1.65220	-.78225	-.24544	-1.12982
20	91	-.68207	-.76505	-.37393	.54395	.10705	.33657	.65934
21	92	-.54490	-.29901	-.05463	-.18810	-.11528	-1.03910	1.17621
22	95	-.68207	-.85960	-.37393	.17793	1.14456	.12493	.46054
23	97	-.61349	-.75410	-.37393	-.55412	-.26350	-.88037	.42079
24	100	4.39347	3.08104	2.18042	3.47216	.77402	-.56291	2.68706
25	112	-.20195	.17415	.26466	-1.46919	-.18939	.86567	-.65271
26	119	-.75066	-.41597	-.05463	-.18810	-.33760	1.39477	-.53344
27	125	1.30699	2.11671	2.49971	1.45902	1.29278	-1.03910	1.81236
28	126	-.54490	-.34442	.26466	-.18810	.10705	-.93328	.54006
29	139	-.47631	-.61873	.58395	.17793	.10705	1.87096	-1.12982
30	142	.55252	.82428	.26466	.72697	1.14456	-1.03910	1.37501
31	154	-.06478	-.44644	-1.65110	1.45902	-.78225	2.02969	-1.12982
32	155	-.33913	-.52426	-1.01251	.17793	-.78225	1.23604	-1.12982
33	162	-.13337	.55133	-.37393	1.09299	-.78225	-.35126	-1.12982
34	169	-.13337	-.32371	-1.65110	-.37111	.03294	-.24544	.18223
35	176	-.54490	-.63307	-1.65110	-.92015	-.26350	-.35126	-1.12982
36	182	.34675	-.31539	-.05463	-.37111	-.70814	-1.03910	.57982
Total	N	36	36	36	36	36	36	36

APPENDIX A12 STANDARDIZED VARIABLES OF DP 400 (Cont.)

Case Summaries

		Case Number	A_5	Clay	Emulsifier	Cato	Starch
1		1	4.12553	2.53752	-.09268	2.08936	1.19649
2		2	1.30992	.42503	-.14557	.27868	-.47869
3		10	.56897	-.08131	-.06303	.34931	-.88062
4		12	-.76473	.62313	-.20167	.97535	-.51292
5		13	-.76473	.42339	-.13633	1.78437	-.47967
6		19	-.76473	.24995	-.15130	1.08450	-.44153
7		20	.27260	1.02097	-.20167	-.62345	-.21074
8		25	-.46835	.87055	-.15228	-.84818	-.64299
9		36	-.76473	.92397	-.15116	-.12262	-.96668
10		37	-.76473	.50394	-.20167	-.27030	-.77501
11		40	-.17197	.80725	-.15382	-.88028	-.17554
12		41	-.76473	.80807	-.15368	-1.04722	-.00733
13		47	.12441	1.35223	5.82805	-.37624	.04645
14		48	.71716	.98727	-.14389	-.44687	-.23421
15		65	-.76473	.81301	-.13312	-.38267	-.89040
16		71	-.76473	.30667	-.20167	.66072	-.38970
17		72	1.16173	.17268	-.20167	.07964	-.48358
18		81	1.16173	.73903	-.12444	2.21778	-.77012
19		85	-.76473	.12090	-.14780	.00259	-.90800
20		91	-.17197	.21132	-.14431	-.06483	-.84835
21		92	-.17197	.04035	-.15816	-.23499	-1.24050
22		95	.42079	.37736	-.20167	.75383	-.51683
23		97	-.61654	.20967	-.20167	-.85460	-.64983
24		100	1.90268	-.52682	-.02553	2.20815	2.46095
25		112	-.76473	-1.30359	-.18936	.18558	-1.84975
26		119	.38789	-1.30359	-.18222	-.27672	1.61798
27		125	-.76473	-1.30359	-.20167	1.00103	1.23365
28		126	-.76473	-1.30359	-.20167	.56120	.03276
29		139	-.32016	.42339	-.15270	-.35056	-.35939
30		142	.12441	-1.30359	-.20167	-.75828	1.07034
31		154	.12441	-1.30359	-.20167	-1.33937	.98526
32		155	-.46835	-1.30359	-.20167	-1.19490	1.05274
33		162	.12441	-1.30359	-.20167	-1.28801	.80532
34		169	-.02378	-1.30359	-.20167	-1.12106	2.04827
35		176	-.17197	-1.30359	-.20167	-1.17243	1.30113
36		182	-.76473	-1.30359	-.20167	-.57850	.86106
Total	N		36	36	36	36	36

APPENDIX A12 STANDARDIZED VARIABLES OF DP 400 (Cont.)

Case Summaries

		Case Number	Color	Latex	Other	Alum
1		1	1.37539	1.52566	-.15651	-.50330
2		2	-.11154	-.15356	-.28309	.28175
3		10	-1.95681	-1.93067	-.49712	1.03955
4		12	-.37134	-.38484	-.29191	-.19694
5		13	-.51797	-.48811	-.24433	-.27058
6		19	-.29450	-.29663	-.26050	-.22124
7		20	-1.27124	-1.24220	-.23184	-.50330
8		25	-.16852	-.16432	-.27942	-.45175
9		36	-.10527	-.10300	-.13649	-.31845
10		37	-.50255	-.49887	-.34721	-.50330
11		40	-.04724	-.09655	-.18132	-.50330
12		41	-.03078	-.04491	-.17874	-.50330
13		47	-.41211	-.39453	-.40049	4.29685
14		48	-.53548	-.57310	-.23588	1.92329
15		65	.05835	.37032	-.15321	1.99472
16		71	-1.08671	-1.07224	-.15743	-.50330
17		72	-.33266	-.34719	-.32186	-.14539
18		81	-.28117	-.30847	-.18977	-.50330
19		85	-.39695	-.40206	-.28622	-.05039
20		91	-.06214	-.08902	-.19803	-.50330
21		92	-.16538	-.14173	-.20465	-.25954
22		95	.12814	.16270	-.50135	.03062
23		97	-.23151	-.21811	-.50098	-.36558
24		100	3.93760	3.97618	.18079	1.61766
25		112	-.00046	-.02770	3.22549	-.50330
26		119	-.24928	-.28372	4.69668	-.50330
27		125	2.08919	1.98823	.06284	-.15054
28		126	-.31436	-.29879	-.26840	-.50330
29		139	-.15153	-.17508	-.29761	.04535
30		142	1.72615	1.71391	.07350	-.24333
31		154	.83462	.64033	-.15211	-.50330
32		155	-.33736	-.36763	-.31873	-.50330
33		162	-.34703	-.34827	-.19767	-.50330
34		169	.74706	.72639	-.22210	-.50330
35		176	-.48399	-.47951	-.31635	-.50330
36		182	-.13062	-.17292	-.22798	-.50330
Total	N		36	36	36	36

APPENDIX A13 STANDARDIZED VARIABLES OF DP 350

Case Summaries

	Case Number	Water	Electricity	A_6	A_7	A_8	A_9	A_1
1	5	-.55822	-.33715	.21781	-.59882	-.81574	-.05821	.46517
2	9	-.86213	2.22925	-.61335	-.10643	-.36535	-.91449	-1.24656
3	11	.04960	.94434	1.46456	.87836	-.81574	.10969	.81758
4	22	-.15301	-.40934	.63339	-.84502	.42282	1.95657	-.79346
5	28	.15090	.61765	.63339	-.35263	-.25276	.89321	-.89415
6	29	-.55822	-.67874	-.19777	.38597	-.47795	.72532	-1.24656
7	30	-.45692	-.77126	-.19777	.38597	-.25276	.94918	-1.34725
8	44	-.05171	-.14376	.21781	-.59882	-.81574	.38952	-.54173
9	51	.04960	.52291	-.19777	.38597	-.14016	.38952	-.54173
10	57	-.15301	-.17909	.21781	-.35263	2.33696	.05372	-.39070
11	63	-.35561	-.57525	.21781	-.59882	-.81574	.61338	-.64242
12	70	2.07565	3.15767	3.58402	2.10935	-.81574	1.56481	1.22034
13	73	.55611	.42516	-.26011	.13977	-.59055	.38952	.01206
14	74	-.15301	-.16963	-.39309	.13977	-.47795	.50145	-.54173
15	80	-.45692	-.86680	.21781	.13977	.64802	.44548	-.64242
16	89	-.15301	-.70884	-.19777	-.10643	-.81574	.94918	-.59208
17	93	-.76082	-.82683	-.19777	-.10643	.64802	-1.06560	1.82448
18	94	-.65952	-.76472	-.61335	-.35263	.19763	1.28498	-1.04518
19	96	-.25431	-.31108	.21781	-.35263	.87321	1.78867	-.49139
20	104	-.05171	-.11023	.21781	-.35263	-.70314	-1.06560	.66654
21	117	-.76082	-.88674	.21781	.13977	-.81574	-1.06560	1.06930
22	118	-.65952	-.63022	.63339	-.10643	-.70314	-.28208	.26379
23	122	-.45692	-.27433	1.04897	-.10643	-.25276	-1.06560	1.37137
24	130	.35350	1.15666	.63339	.63216	-.59055	-1.06560	.76723
25	131	-.05171	.38489	.21781	-.10643	-.81574	-1.06560	.91827
26	138	-.45692	-.63163	-.19777	.13977	-.81574	.72532	-.79346
27	144	.04960	-.30192	.21781	-.59882	.31023	-1.06560	1.22034
28	145	-.45692	-.21473	.21781	-.35263	.08503	-1.06560	1.06930
29	158	-.15301	-.76643	.63339	1.12456	-.81574	1.50884	-1.34725
30	160	-.25431	-.90939	.21781	1.61696	-.81574	1.84464	-1.34725
31	166	-.65952	-.81949	-1.86009	1.37076	-.81574	-1.06560	.61620
32	167	-.55822	-.50306	-.61335	2.10935	-.81574	-1.06560	1.11965
33	173	-.15301	-1.04802	-1.86009	-1.33742	.08503	-.39401	-.13897
34	183	-.15301	-.91573	-.19777	.13977	.08503	-1.06560	.61620
35	190	-.25431	-.60847	.21781	-.10643	-.47795	-1.06560	.46517
Total N		35	35	35	35	35	35	35

APPENDIX A13 STANDARDIZED VARIABLES OF DP 350 (Cont.)

Case Summaries

		Case Number	A_s	Alum	Clay	Emulsifier
1		5	2.02913	-.50982	.74853	-.14277
2		9	-.56855	-.05128	-.07986	-.02946
3		11	2.02913	.53231	2.41782	.19363
4		22	-.76837	-.03534	1.09307	-.02592
5		28	-.76837	-.50982	.82111	.15146
6		29	-.76837	.57155	.79525	-.14277
7		30	-.76837	.34228	.42902	.06422
8		44	-.76837	-.11381	1.38505	-.14277
9		51	-.76837	-.14078	1.04969	-.03847
10		57	-.76837	.40971	.58419	.08418
11		63	-.76837	1.66150	1.42342	-.14277
12		70	2.02913	2.74165	1.93897	-.14277
13		73	.03092	-.03657	1.08973	.09094
14		74	-.36873	-.11504	.14539	-.14277
15		80	3.22806	-.50982	.22297	-.03976
16		89	1.42967	-.50982	.15790	-.04459
17		93	.23074	-.09174	.22464	-.14277
18		94	-.16891	-.50982	.15540	-.14277
19		96	.83020	.92465	.42485	-.14277
20		104	.03092	.44772	.42819	-.14277
21		117	-.12634	-.50982	-1.18020	-.08708
22		118	.47072	-.50982	-1.18020	-.08418
23		122	.22874	-.50982	-1.18020	-.07967
24		130	.43056	-.50982	-1.18020	-.14277
25		131	.03092	-.50982	-1.18020	-.14277
26		138	-.36873	.12036	.43153	-.14277
27		144	.03092	-.50982	-1.18020	-.14277
28		145	-.56855	-.50982	-1.18020	-.14277
29		158	-.16891	-.50982	-1.18020	-.14277
30		160	.43056	-.50982	-1.18020	-.14277
31		166	-.16891	-.50982	-1.18020	-.14277
32		167	.03092	-.50982	-1.18020	-.14277
33		173	-.16891	-.50982	-1.18020	-.14277
34		183	-.76837	-.50982	-1.18020	-.14277
35		190	.23074	-.50982	-1.18020	-.14277
Total	N		35	35	35	35

APPENDIX A13 STANDARDIZED VARIABLES OF DP 350 (Cont.)

Case Summaries

		Case Number	Cato	Starch	Color	Latex	Other
1		5	.50052	-.59145	-.31927	-.31761	-.15671
2		9	.47202	-.68573	.06310	.07585	-.13621
3		11	.82110	.78324	.64853	.68349	-.07156
4		22	-.41848	-.48207	-.19405	-.20212	-.17210
5		28	-.01954	-.81962	-.31273	-.33036	-.18333
6		29	-.28313	-.93747	-.07840	-.06649	-.18087
7		30	.43284	-.77153	.13999	.14366	-.14999
8		44	-.51109	.25147	-.12163	-.12356	-.19099
9		51	-.58590	-1.07042	-.03357	-.02486	-.15424
10		57	-.46479	-.85073	-.03788	-.03359	-.18070
11		63	.47559	-.30765	-.39424	-.40422	-.15858
12		70	4.42231	1.13870	1.07269	1.07627	.07985
13		73	.74274	-.48396	.11781	.14031	-.15177
14		74	.21200	.03084	.06326	.08928	-.13995
15		80	-.26175	-.92616	-.04936	-.02084	-.16377
16		89	-.17626	-.96105	.09293	.11211	-.14395
17		93	.42572	-.92522	.05911	.06981	-.13587
18		94	.47202	-.81867	.08157	.10741	-.15115
19		96	.37941	-.12662	.01253	.01542	-.29587
20		104	1.75792	-.46982	-.10631	-.08932	-.14531
21		117	-.51109	-1.68139	.02705	.04496	1.65795
22		118	-.43273	-1.68139	-.01156	-.00606	.30561
23		122	-.13708	-.11907	.09213	.10069	1.23774
24		130	1.82203	1.90618	-.12306	-.11215	-.12209
25		131	.48271	3.04044	-.06532	-.08328	-.15399
26		138	.26543	.13455	-.13566	-.13632	-.15713
27		144	-1.36954	1.22261	-.17698	-.15982	-.20077
28		145	-1.00978	-.06722	-.10807	-.10006	-.14259
29		158	-.97060	.67292	-.08430	-.03359	-.16470
30		160	-1.33748	.55412	-.03150	-.02084	-.14352
31		166	-1.13801	.52112	-.06372	-.04299	-.15985
32		167	-1.10595	.75778	.02545	.06645	-.17423
33		173	-.93141	.00255	-.23441	-.21756	-.15696
34		183	-.95991	.84452	.09085	.12486	-.12311
35		190	-.41136	1.22355	-.09610	.00669	-.17517
Total	N		35	35	35	35	35

APPENDIX A14 STANDARDIZED VARIABLES OF DP 310

Case Summaries

	Case Number	Water	Electricity	A_6	A_7	A_8	A_9	A_1
1	6	-.65952	-.14376	-.61335	.63216	-.47795	.50145	-.23966
2	7	-.86213	.65913	.21781	.38597	-.02756	.55742	-.08863
3	8	-.86213	-.38517	-.19777	.87836	-.59055	.16565	-.44104
4	15	-.55822	-.42454	1.04897	-.59882	-.81574	-.50594	.66654
5	17	-.55822	-.38930	-.61335	.38597	.31023	.61338	-.23966
6	18	-.55822	-.02788	-.61335	.38597	.76061	1.95657	-1.34725
7	23	-.35561	-.76009	-.19777	.38597	-.02756	.55742	-.44104
8	31	-.76082	-.47709	.21781	.63216	-.25276	.22162	-1.34725
9	33	-.35561	-.20789	-.19777	.13977	.53542	1.62077	-1.34725
10	34	-.25431	-.39464	.21781	-.10643	.98581	1.90060	-1.34725
11	35	-.45692	-.65649	-.19777	-.35263	.08503	2.40430	-1.19621
12	42	-.25431	-.25802	.21781	1.12456	-.81574	-.61787	.81758
13	43	.35350	.58140	.21781	.13977	1.43619	.61338	-.59208
14	52	-.35561	-.35930	-.19777	.13977	-.81574	-.28208	-.23966
15	53	-.35561	-.65096	-.19777	.63216	.19763	-.89770	.06241
16	54	-.05171	.17860	-.19777	.87836	.42282	.72532	.21344
17	56	-.35561	-.75757	.21781	-.10643	2.78735	.44548	-.23966
18	60	1.46783	3.72206	-.19777	.13977	.31023	-.39401	.01206
19	61	-.45692	-.61270	-.19777	.13977	.87321	-1.06560	.66654
20	62	-.55822	-.81707	.21781	-.35263	1.66139	.16565	-.23966
21	66	.25220	.38841	.21781	.63216	-.81574	-1.06560	-.23966
22	67	-.15301	-.10117	-.15621	.63216	-.81574	.89321	-.29001
23	78	.04960	-.08597	.63339	.38597	.76061	-1.06560	-.54173
24	79	-.25431	-.73925	-.19777	-.10643	-.14016	.66935	-1.34725
25	90	-.35561	-.79854	-.19777	.38597	1.09840	1.45287	-.49139
26	105	-.45692	-.43934	-.19777	.38597	-.81574	-1.06560	.76723
27	106	-.55822	-.64381	-.61335	.38597	-.81574	-1.06560	.51551
28	107	-.35561	-.29557	-.19777	.38597	-.81574	-1.06560	1.22034
29	109	.04960	.91514	.21781	1.12456	-.81574	-1.06560	2.88172
30	110	-.45692	-.74116	-.19777	.38597	-.70314	1.06111	-.69277
31	111	-.45692	-.43370	-.61335	.13977	-.81574	-.84174	.26379
32	115	-.55822	-.34581	-.19777	.38597	-.81574	-.28208	.96861
33	116	-.65952	-.68438	-.19777	.38597	-.81574	.72532	-.18932
34	123	-.65952	-.70955	-.19777	.87836	-.36535	-.56191	-.64242
35	127	.04960	1.15646	-.19777	1.37076	1.88658	-1.06560	1.32103
36	128	-.55822	-.60253	-.19777	.63216	-.14016	-.89770	-.44104
37	129	-.55822	-.28571	.21781	.63216	-.47795	-1.06560	-.44104
38	134	-.25431	-.71569	-.19777	.38597	-.70314	1.11708	-.74311
39	135	-.35561	-.95670	.21781	.38597	-.14016	.38952	-.08863
40	140	-.25431	-.37309	-.61335	-.10643	-.14016	.38952	-.34035
41	141	1.06262	.85645	-1.44451	-1.09122	.19763	-.44997	-1.34725
42	146	-.65952	-1.06443	-.19777	-.84502	.19763	-1.06560	.66654
43	147	-.35561	-.54434	.21781	1.61696	.19763	-1.06560	.86792
44	148	.15090	.09353	-.19777	.63216	.87321	-1.06560	.81758

APPENDIX A14 STANDARDIZED VARIABLES OF DP 310 (Cont.)

Case Summaries

	Case Number	Water	Electricity	A_6	A_7	A_8	A_9	A_1
45	150	-.33847	-.46108	.82543	-.22882	.16873	1.44350	-.92769
46	151	-.55822	-.63384	-.19777	.13977	.98581	-1.06560	.56585
47	159	-.15301	-.82281	-.19777	1.37076	-.81574	1.22901	-1.34725
48	163	-.35561	-.74337	-.19777	.87836	-.81574	-.44997	-1.34725
49	165	-.55822	-.79432	-.19777	.13977	-.81574	-.95367	.56585
50	174	-.65952	-1.31027	-1.86009	-1.58362	.31023	-.67384	-.34035
51	177	-.55822	-1.69999	-1.86009	-1.33742	.08503	-.56191	-1.34725
52	178	-.76082	.14518	-1.86009	-1.33742	.42282	-.44997	-1.34725
53	179	-.45692	-.99375	-1.86009	-1.33742	.53542	-.56191	-1.34725
54	184	-.15301	-1.05053	-.19777	.38597	.64802	-1.06560	.86792
55	185	-.35561	-.79965	-.19777	.63216	.31023	-1.06560	.36448
56	186	-.25431	-.51494	-.19777	.38597	-.02756	-1.06560	.51551
57	187	-.15301	-.51696	-.19777	.38597	-.59055	-1.06560	1.16999
58	188	-.35561	-.73985	-.61335	.38597	-.81574	-1.06560	-.64242
59	189	-.15301	.10874	.21781	1.12456	-.02756	-1.06560	1.42172
Total	N	59	59	59	59	59	59	59

APPENDIX A14 STANDARDIZED VARIABLES OF DP 310 (Cont.)

Case Summaries

	Case Number	A_5	Alum	Clay	Emulsifier
1	6	1.22984	.13753	.06196	.01690
2	7	3.22806	-.06845	.51161	.07484
3	8	-.16891	-.07826	.26885	.07034
4	15	-.76837	-.03780	.63257	-.02624
5	17	-.76837	.04925	.16124	-.00467
6	18	-.76837	-.02186	.45989	-.02237
7	23	-.76837	-.04761	.59337	-.02881
8	31	1.22984	.32143	.61923	.06293
9	33	-.76837	.06397	.89119	-.03622
10	34	-.56855	-.22538	.66511	-.03718
11	35	-.76837	1.41507	.84280	.03074
12	42	.43056	-.50982	1.21236	-.14277
13	43	-.76837	-.50982	.96877	-.01980
14	52	-.76837	.20251	.94291	-.04362
15	53	-.76837	-.24255	.88868	-.01079
16	54	-.76837	-.50982	.96293	-.02012
17	56	-.76837	.16450	.54582	-.03171
18	60	-.76837	-.50982	.73518	-.04426
19	61	-.76837	.05661	.63091	.04362
20	62	-.76837	.10688	.59253	-.04137
21	66	1.62949	1.34028	.67595	-.02334
22	67	3.82752	1.99744	.50327	-.01916
23	78	2.22895	-.50982	.43903	-.03847
24	79	2.22895	-.50982	.37063	-.04298
25	90	-.36873	-.05619	.12536	-.14277
26	105	-.36873	1.11714	.60338	-.02817
27	106	.43056	-.50982	.67345	-.14277
28	107	.03092	.15347	.32808	-.14277
29	109	-.36873	.77139	.96960	-.14277
30	110	.03092	-.50982	.40233	-.04105
31	111	.00474	-.50982	.15456	-.14277
32	115	-.47983	-.50982	-1.18020	-.10124
33	116	-.23944	-.50982	-1.18020	-.08386
34	123	-.68924	.54948	-1.18020	-.08837
35	127	-.76837	-.50982	-1.18020	-.14277
36	128	-.36873	-.50982	-1.18020	-.14277
37	129	-.16891	-.50982	-1.18020	-.14277
38	134	.03092	-.50982	.72100	-.04491
39	135	-.36873	-.31120	.10284	-.14277
40	140	.23074	-.06845	.09116	-.03364
41	141	.03092	-.50982	-.07402	-.14277
42	146	-.76837	-.50982	-1.18020	-.14277
43	147	-.76837	-.50982	-1.18020	-.14277
44	148	-.76837	-.50982	-1.18020	-.14277

APPENDIX A14 STANDARDIZED VARIABLES OF DP 310 (Cont.)

Case Summaries

		Case Number	As	Alum	Clay	Emuls
45		150	-.76837	-.50982	-1.18020	-.14277
46		151	-.76837	-.50982	-1.18020	-.14277
47		159	-.36873	-.50982	-1.18020	-.14277
48		163	.63038	-.50982	-1.18020	-.14277
49		165	-.16891	-.50982	-1.18020	-.14277
50		174	-.16891	-.50982	-1.18020	-.14277
51		177	.23074	-.50982	-1.18020	-.14277
52		178	-.16891	-.50982	-1.18020	-.14277
53		179	-.16891	-.50982	-1.18020	-.14277
54		184	-.76837	-.50982	-1.18020	-.14277
55		185	-.76837	-.50982	-1.18020	-.14277
56		186	-.36873	-.50982	-1.18020	-.14277
57		187	-.36873	-.18492	-1.18020	-.14277
58		188	-.16891	-.50982	-1.18020	-.14277
59		189	-.16891	-.26707	-1.18020	-.14277
Total	N		59	59	59	59

APPENDIX A14 STANDARDIZED VARIABLES OF DP 310 (Cont.)

Case Summaries

	Case Number	Cato	Starch	Color	Latex	Other
1	6	-.37930	-.74513	-.19453	-.17996	-.16836
2	7	-.88867	-.72533	.11351	.11748	-.13910
3	8	.15144	-.74513	-.16262	-.15244	-.16496
4	15	.73918	-.82810	12.74373	12.58248	.92462
5	17	1.46583	-.46887	.08144	.09129	-.16802
6	18	1.43021	-.09267	.01907	.01408	-.14727
7	23	-.83524	-.34536	.09755	.09129	-.17678
8	31	.76055	-.92805	.03231	.03556	-.15416
9	33	.32598	-.74513	-.14731	-.14774	-.15917
10	34	-.21901	-.75456	-.15401	-.15311	-.19167
11	35	1.19512	-.91956	-.28753	-.28941	-.15560
12	42	-.43985	.12135	-.26727	-.28672	-.16275
13	43	.27255	-.06156	-.01188	-.21354	-.15917
14	52	-.81743	-.95445	-.00916	.00334	-.13442
15	53	-.21901	-.90825	.01987	-.07791	-.12124
16	54	.87453	-.78379	.29009	.28399	-.14148
17	56	.05527	-1.03082	-.18304	-.16989	-.12447
18	60	-.50041	-1.10436	-.02719	-.00942	-.16436
19	61	-.42561	-.99876	.00966	.03489	-.17483
20	62	-.11927	-.79039	-.18751	-.17929	-.16419
21	66	.40435	-.98179	.25468	.26989	-.14505
22	67	-.53247	-.95633	.19406	.99369	-.15177
23	78	-.41492	-1.07136	.05002	-1.24216	-.13612
24	79	-.31518	-.95162	.00727	.02146	-.13799
25	90	.07308	-1.02516	-.07074	-.06582	-.16862
26	105	-.06940	-.50565	-.17427	-.18332	-.17525
27	106	.13719	-.75079	.19965	.22692	-.13085
28	107	.05171	-.70742	.16343	.20342	-.17193
29	109	.91372	-.75550	.01253	.04832	-.14080
30	110	-.11215	-.78756	.06613	.09062	-.14922
31	111	-.64289	-.67630	.01269	.03422	12.69536
32	115	-.52534	-1.68139	.06964	.09868	2.12367
33	116	-.43273	-1.68139	.19326	.20342	2.03623
34	123	-.23326	-.50942	.04794	.04295	1.06115
35	127	.48271	.24487	.03167	.03019	-.07309
36	128	.90303	.10815	.04092	.05369	-.13434
37	129	1.67243	1.36498	-.01858	-.01614	-.18282
38	134	-.18695	.75401	-.14507	-.14102	-.15407
39	135	-.40780	.00444	.02928	.02012	-.16377
40	140	-.70344	-.43116	-.45231	-.44048	-.14233
41	141	-.55384	2.07684	-.66846	-.69360	-.28430
42	146	-1.05608	.23072	.11957	.12621	-.17100
43	147	-.88867	.34764	.12706	.13023	-.11936
44	148	-1.13445	.65501	.09069	.08458	-.13646
45	150	-.97060	.75872	.21097	.15843	-.14114

APPENDIX A14 STANDARDIZED VARIABLES OF DP 310 (Cont.)

Case Summaries

		Case Number	Cato	Starch	Color	Latex	Other
46		151	-1.10952	1.11984	.06916	.05973	-.17312
47		159	-1.01334	.43344	.06023	.06242	-.12685
48		163	-.61796	.10910	.28180	.29473	-.13995
49		165	-1.14514	.94352	.14637	.16918	-.14182
50		174	-1.12376	.06478	-.07983	-.68622	-.17270
51		177	-1.08102	.67387	-.22021	-.12826	-.17491
52		178	-1.03115	.53527	.09197	.24169	-.14267
53		179	-.82812	.76627	.14142	.16515	-.16300
54		184	-.71057	.54375	.27621	.28198	-.11936
55		185	-.66070	1.06327	.00471	.01945	-.11435
56		186	-.74619	.94352	.33811	.35718	-.10924
57		187	-.51466	.08647	.18561	.22222	-.10133
58		188	-.65358	.64558	.13999	.16381	-.13791
59		189	-.37930	1.65444	.34943	.37530	-.06348
Total	N		59	59	59	59	59

APPENDIX A15 STANDARDIZED VARIABLES OF DP 270

Case Summaries

		Case Number	Water	Electricity	A_6	A_7	A_8	A_9	A_1
1		16	-.65952	-.14517	-.19777	.38597	.87321	-.44997	.41482
2		24	2.68346	2.25381	2.29572	.63216	-.14016	.33355	-.44104
3		32	-.76082	-.65438	-.19777	.63216	.19763	2.18043	-1.34725
4		46	-.25431	-.38517	2.29572	.87836	-.81574	.89321	.91827
5		55	-.15301	.22914	-.61335	.13977	2.44956	.16565	.11275
6		68	-.05171	-.20527	-.36400	.38597	-.81574	.50145	.26379
7		69	.04960	.21938	-.65491	-.35263	.31023	-.17014	.01206
8		75	-.25431	-.85734	.27184	1.12456	-.70314	.16565	1.32103
9		76	-.35561	-.50790	3.54246	.63216	-.59055	.83725	-.08863
10		77	-.35561	-.35578	1.04897	1.12456	.42282	.05372	.31413
11		108	-.45692	-.39192	-.19777	.63216	-.81574	-.56191	1.27068
12		124	1.06262	.63718	-1.44451	-.35263	-.81574	-1.06560	.46517
13		136	-.15301	-.16530	-.19777	.63216	-.81574	.94918	-.13897
14		137	-.25431	.01843	.63339	.63216	-.47795	-.84174	.81758
15		149	-.45692	-.73895	-.19777	.63216	.42282	-1.06560	1.22034
16		164	-.65952	-.63495	-.19777	.63216	-.81574	-.28208	.11275
17		168	.45481	.44267	-.19777	.13977	-.81574	-1.06560	1.11965
Total	N		17	17	17	17	17	17	17

Case Summaries

		Case Number	A_5	Alum	Clay	Emulsifier
1		16	-.76837	-.05128	.57752	.08321
2		24	-.76837	-.10523	.75771	.05649
3		32	-.76837	-.19596	.40233	-.14277
4		46	-.76837	-.50982	2.08330	.02527
5		55	-.76837	.09707	.56500	.05682
6		68	2.22895	2.57000	1.23656	-.00467
7		69	1.03002	-.50982	.31640	.04973
8		75	-.76837	-.08316	.04862	.07162
9		76	.83020	-.50982	.05279	.06873
10		77	.43056	-.50982	.43987	-.02366
11		108	.03092	1.29001	.54582	-.03171
12		124	-.16891	-.50982	.36145	.05553
13		136	-.36873	.25400	1.61363	-.02302
14		137	-.36873	.42320	1.50518	-.02753
15		149	-.76837	-.50982	-1.18020	-.14277
16		164	.23074	-.50982	-1.18020	-.14277
17		168	.03092	-.50982	-1.18020	-.14277
Total	N		17	17	17	17

APPENDIX A15 STANDARDIZED VARIABLES OF DP 270 (Cont.)

Case Summaries

		Case Number	Cato	Starch	Color	Latex	Other
1		16	1.77929	-.52262	.31147	.29608	-.12098
2		24	.51121	-.36705	-.97968	-1.00045	-.28822
3		32	.34379	-.65933	.21927	.21953	-.14914
4		46	.53614	.04027	.61104	.61097	-.20817
5		55	.01608	-.95067	.08479	.07182	-.15807
6		68	.09089	-.46699	.07953	.09599	-.10822
7		69	-.85305	-.83565	-.14970	-.13632	-.16530
8		75	.47559	-.75550	.18864	.21013	-.14080
9		76	-.04091	-.59710	.19853	.20879	-.13042
10		77	.00540	-.63482	-.00167	-.00539	-.14284
11		108	.42216	-.54336	.33396	.39410	-.09019
12		124	.33311	-.51885	.03151	-.04501	-.23531
13		136	.81398	.07327	.14700	.13091	-.08330
14		137	.70356	-.16339	.07203	.03355	-.13918
15		149	-.97772	.67104	.22038	.22692	-.11452
16		164	-1.10952	.59750	.31386	.33119	-.12022
17		168	-.16202	1.74118	.12866	.12621	-.06748
Total	N		17	17	17	17	17

VITAE

Miss Klinpratoom Panyaping graduated with a Masters degree in a multidisciplinary field (Technology of Environmental Management) from Mahidol University with an educational scholarship from Mahidol University in 1984. Working in the environmental management field for more than ten years and being an Assistant Professor in environmental field allowed her to initiate several research projects and the study program in environmental engineering at RIT, Chiang Mai campus. She entered the International Postgraduate Program in Environmental Management at Chulalongkorn University under an educational scholarship in the year 2000 to begin her study toward a Doctoral degree in Environmental Management.