

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
Vertical Gradient Between Zone S1 and Zone S2				
MW-267A	OS	92.9	Downward	Downward
MW-267B		42.5		
MW-304A	OS	76.0	Upward	Upward
MW-304B		41.2		
MW-338A	OS	77.7	Upward	Upward
MW-338B		43.0		
MW-339A	OS	78.4	NA	Upward
MW-339B		43.6		
MW-340A	OS	79.0	Downward	Downward
MW-340B		44.0		
MW-353A	OS	87.0	Downward	Slightly Upward
MW-353B		58.0		
MW-257A	OS	71.2	Downward	Downward
MW-257B		46.2		
MW-213B	OS	93.5	Upward	Upward
MW-213C		58.7		
MW-214A	OS	94.2	Downward	Downward
MW-214B		66.5		
MW-201A	OS	90.2	Downward	Upward
MW-201B		67.5		
MW-201	OS	80.8	Downward	Equal
MW-201B		67.5		
MW-209A	OS	79.8	Downward	Downward
MW-209B		57.8		
MW-103A	OS	78.9	Upward	Upward
MW-103B		56.5		
MW-104A	OS	78.6	Upward	NA
MW-104B		58.1		
MW-105A	OS	85.0	Upward	Upward
MW-105B		54.6		
MW-106A	OS	81.58	Upward	Upward
MW-106B		58.11		
MW-108A	OS	81.1	Upward	Upward
MW-108B		58.0		
MW-144A	OS	76.6	Upward	Upward
MW-144B		55.8		
MW-171A	OS	63.3	Downward	Downward
MW-171B		48.2		
MW-145A	OS	68.8	Downward	Downward
MW-145B		61.4		
MW-384A	IA-1	106.2	Downward	Downward
MW-394B		44.6		
MW-387A	IA-1	90.7	Downward	Downward
MW-387B		55.7		
MW-388A	IA-1	90.9	Downward	Downward
MW-388B		51.0		
MW-390A	IA-1	88.9	Downward	Downward
MW-390B		65.9		
MW-357-SBR	IA-1	100.9	NA	NA
MW-357-S2		55.9		
MW-392A	IA-1	84.6	Downward	Downward
MW-392B		45.0		
MW-393A	IA-1	80.3	Downward	Downward
MW-393B		65.6		
MW-416A	IA-1	71.2	Downward	Downward
MW-416B		58.6		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-136	IA-1	94.5	Downward	Downward
MW-136B		63.2		
MW-226A	IA-2	99.5	Downward	Downward
MW-226B		69.5		
MW-342A	IA-2	97.7	Downward	Downward
MW-241B		57.7		
MW-341A	IA-2	94.3	Upward	Downward
MW-186-2		74.1		
MW-243A	IA-2	90.9	NA	Downward
MW-243B		53.5		
MW-343A	IA-2	95.2	Downward	Upward
MW-246B		56.7		
MW-39A	IA-3	97.8	Downward	Downward
MW-40A		69.5		
MW-38	IA-3	109.7	Downward	Downward
MW-41		49.7		
MW-225A	IA-3	91.7	Downward	Downward
MW-225B		77.2		
MW-440A	IA-3	91.4	Downward	Downward
MW-24C		62.1		
MW-439A	IA-3	90.0	Downward	Downward
MW-439B		64.9		
MW-191A	IA-3	100.3	Downward	Downward
MW-191B		62.8		
MW-189A	IA-3	100.4	Downward	Downward
MW-189B		77.4		
MW-38	IA-3	109.7	Downward	Downward
MW-40A		69.5		
MW-39A	IA-3	97.8	Downward	Downward
MW-41		49.7		
MW-426A	IA-4	81.1	Downward	Downward
MW-426B		56.8		
MW-371A	IA-4	90.4	Downward	Downward
MW-371B		71.8		
MW-427A	IA-4	81.4	Downward	Downward
MW-427B		57.0		
MW-428A	IA-4	81.3	Downward	Downward
MW-428B		56.7		
MW-2	IA-4	79.9	Downward	Downward
MW-2B		53.1		
MW-438A	IA-4	93.9	Downward	Downward
MW-438B		68.9		
MW-350A	IA-6	92.8	Downward	Downward
MW-350B		64.3		
MW-346A	IA-6	93.4	Downward	Downward
MW-346B		65.0		
MW-423A	IA-6	88.6	Downward	Downward
MW-423B		35.0		
MW-322A	IA-6	76.3	Downward	Downward
MW-422B		34.2		
MW-6A	IA-6	82.6	Upward	Downward
MW-50		57.8		
MW-317A	IA-6	94.3	Downward	Downward
MW-317B		63.9		
MW-447A	IA-6	93.5	Downward	Downward
MW-447B		63.3		
MW-94	IA-6	87.7	Downward	Downward
MW-22A		54.3		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-318A	IA-6	94.2	Downward	Downward
MW-318B		33.8		
MW-157	IA-6	88.3	NA	NA
MW-157B		63.3		
MW-6A	IA-6	82.6	Upward	Downward
MW-53		57.9		
MW-218	IA-7	83.2	Downward	Downward
MW-218B		52.7		
MW-288A	IA-7	75.8	Downward	Upward
MW-288B		48.8		
MW-406A	IA-7	70.3	Downward	Downward
MW-406B		37.7		
PZ-05	IA-7	87.8	Downward	Downward
MW-238B		54.3		
MW-292A	IA-7	74.7	Downward	Downward
MW-292B		46.4		
MW-417A	IA-7	85.4	Downward	Downward
MW-417B		43.1		
MW-373A	IA-7	90.1	Upward	Downward
MW-373B		55.9		
MW-125	IA-7	96.9	NA	NA
MW-125A		79.2		
MW-15A	IA-7	89.24	Upward	Upward
MW-15B		74.71		
MW-128	IA-7	95.4	Upward	Upward
MW-128B		72.8		
MW-7B	IA-9	89.4	Downward	Downward
MW-7C		71.8		
MW-152R	IA-9	96.6	Downward	Downward
MW-152BR		73.3		
MW-170AR	IA-9	96.3	Downward	Upward
MW-170BR		73.3		
MW-466A	IA-9	96.6	Downward	Downward
MW-297B		71.8		
MW-467A	IA-9	97.3	Downward	Downward
MW-298B		72.2		
MW-170R	IA-9	96.5	Downward	Upward
MW-170BR		73.3		
MW-21	IA-9	94.8	Downward	Downward
MW-252B		59.8		
MW-323A	IA-9	74.7	Downward	Downward
MW-323B		39.8		
53RI-MW4	IA-10	105.3	NA	NA
MW-16AW		72.1		
53RI-MW2	IA-10	103.8	Upward	Upward
MW-223B		66.1		
66RI-MW2	IA-10	99.6	Downward	Downward
MW-230B		65.3		
186RI-MW1	IA-10	101.7	Upward	Upward
MW-268B		62.2		
MW-274A	IA-10	100.7	Downward	Downward
MW-274B		57.3		
MW-259A	IA-10	100.9	Upward	Downward
MW-259B		67.3		
MW-285A	IA-10	104.0	Upward	Downward
MW-259B		67.3		
MW-229A	IA-10	108.7	Downward	Downward
MW-229B		71.8		
MW-44	IA-10	103.5	Downward	Downward
MW-44B		76.2		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-207A	IA-10	93.9	NA	Downward
MW-207B		61.1		
MW-287A		104.6		
MW-259B		67.3	Upward	Downward
MW-280A	IA-10	93.3	Downward	Downward
MW-280B		58.5		
MW-27	IA-10	92.8	Downward	Downward
MW-27B		58.2		
MW-275A	IA-10	86.2	Upward	Upward
MW-275B		55.4		
MW-126	IA-10	83.8		
MW-126B		48.8	Upward	Upward
MW-208A	IA-10	91.6	Upward	Equal
MW-208B		60.2		
MW-484A	IA-11	83.0	Downward	Downward
MW-484B		75.4		
MW-498A	IA-11	82.6	Upward	Upward
MW-498B		75.1		
MW-227A	IA-11	79.9	Downward	Downward
MW-227B		52.3		
MW-497A	IA-11	82.3	Downward	Downward
MW-497B		75.0		
MW-499A	IA-11	81.5	Upward	Upward
MW-499B		74.0		
MW-33A	IA-11	79.9	Downward	Upward
MW-75		60.0		
MW-33B	IA-11	72.0	Downward	Upward
MW-75		60.0		
MW-33	IA-11	73.2	Downward	Upward
MW-75		60.0		
MW-8A	IA-11	79.2	Downward	Downward
MW-8B		60.8		
MW-102	IA-11	85.3	Upward	Upward
MW-450B		42.5		
MW-101	IA-11	80.6	Upward	Upward
MW-99B		79.4		
MW-100	IA-11	86.4	Upward	Upward
MW-99B		54.0		
MW-99	IA-11	79.4	Upward	Downward
MW-99B		54.0		
MW-366A	IA-11	80.2	Upward	Upward
MW-366B		53.7		
MW-62	IA-11	78.2	Upward	Upward
MW-63		55.2		
MW-68	IA-11	86.1	Upward	Upward
MW-71		60.9		
MW-72	IA-11	80.1	Upward	Downward
MW-74		57.7		
MW-25	IA-11	85.8	Upward	Upward
MW-26A		43.5		
MW-60G	IA-12	90.0	Downward	Upward
MW-224B		75.9		
MW-80C	IA-12	89.7	Downward	Downward
MW-24B		62.1		
MW-266A	IA-12	77.1	Downward	Downward
MW-266B		44.9		
MW-237A	IA-12	100.4	Downward	Downward
MW-237B		53.8		
MW-435A	IA-12	92.9	Upward	Downward
MW-435B		67.9		
MW-60R	IA-12	93.6	Upward	Downward
MW-60-Z2R		62.9		
MW-60M	IA-12	91.0	Downward	Downward
MW-263B		63.5		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-383A	IA-12	90.8	Downward	Downward
MW-382B		62.9		
MW-379A	IA-12	90.7	Downward	Downward
MW-382B		62.9		
MW-380A	IA-12	90.0	Downward	Upward
MW-80-Z2R		62.8	Downward	Upward
MW-436A	IA-12	89.5	Downward	Downward
MW-436B		69.4		
MW-441A	IA-12	91.8	Downward	Downward
MW-441B		64.2		
MW-295A	IA-12	90.8	Downward	Downward
MW-295B		63.3		
MW-442A	IA-12	91.4	Downward	Downward
MW-442B		63.9		
MW-443A	IA-12	92.9	Downward	Downward
MW-443B		65.4		
MW-365A	IA-12	87.3	Upward	Upward
MW-365B		67.2		
MW-444A	IA-12	91.8	Downward	Downward
MW-444B		64.4		
MW-445A	IA-12	90.7	Downward	Downward
MW-445B		63.3		
MW-362A	IA-12	88.2	Downward	Downward
MW-362B		68.1		
MW-363A	IA-12	88.2	Downward	Downward
MW-363B		68.2		
MW-361A	IA-12	88.8	Downward	Downward
MW-361B		68.7		
MW-360A	IA-12	89.0	Upward	Downward
MW-360B		68.9		
MW-359A	IA-12	88.9	Downward	Downward
MW-359B		68.8		
MW-358A	IA-12	88.8	Downward	Downward
MW-358B		68.7		
MW-60A	IA-12	88.3	Downward	Downward
MW-60A-S2		51.2		
MW-232B	IA-12	77.4	Downward	Downward
MW-232C		48.2		
MW-272A	IA-12	82.8	Downward	Downward
MW-272B		61.3		
MW-375A	IA-12	79.4	Downward	Downward
MW-375B		61.4		
MW-271A	IA-12	86.0	Downward	Upward
MW-271B		50.3		
MW-61	IA-12	109.4	Downward	Downward
MW-61B		58.7		
MW-114A	IA-12	78.7	Downward	Downward
MW-114		68.2		
MW-142	IA-13	75.1	Downward	Downward
MW-142B		56.1		
MW-143	IA-13	75.3	Upward	Upward
MW-143B		53.1		
MW-276A	IA-13	80.5	Upward	Downward
MW-276B		54.8		
MW-131	IA-14	73.5	Downward	Downward
MW-131B		58.7		
MW-277A	IA-14	70.5	Upward	Downward
MW-277B		44.9		
MW-367A	IA-15	77.1	Upward	Upward
MW-367B		52.1		
MW-367A	IA-15	77.1	Upward	Upward
MW-367-S2		37.0		
MW-112	IA-15	82.2	Upward	Upward
MW-112B		45.9		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-124A	IA-15	60.7	Downward	Downward
MW-124B		52.6		
Vertical Gradient Between Zone S2 and Zone S3				
MW-214B	OS	66.5	Downward	Upward
MW-214C		31.9		
MW-209B	OS	57.8	Downward	Downward
MW-209C		12.8		
MW-104B	OS	58.1	Upward	Upward
MW-104C		7.6		
MW-171B	OS	48.2	Upward	Upward
MW-171C		13.4		
MW-267B	OS	42.5	Downward	Downward
MW-267C		6.9		
MW-236B	OS	64.6	Upward	Downward
MW-236C		48.1		
MW-478B	OS	32.7	Upward	Upward
MW-478C		-2.2		
MW-304B	OS	41.2	Upward	Upward
MW-304C		1.0		
MW-338B	OS	43.0	Downward	Downward
MW-338C		3.0		
MW-339B	OS	43.6	Downward	Upward
MW-339C		3.5		
MW-340B	OS	44.0	Downward	Downward
MW-340C		4.0		
MW-145B	OS	61.4	Downward	Downward
MW-145C		1.2		
MW-146B	OS	37.6	Downward	Downward
MW-146C		13.7		
MW-258B	OS	36.2	Downward	Downward
MW-258C		-9.7		
MW-353B	OS	58.0	Downward	Downward
MW-353C		12.2		
MW-201B	OS	67.5	Downward	Downward
MW-201C		21.5		
MW-394B	IA-1	44.6	Upward	Downward
MW-394C		11.4		
MW-387B	IA-1	55.7	Downward	Downward
MW-387C		-4.4		
MW-357-S2	IA-1	55.9	Upward	Downward
MW-357-S3		30.7		
MW-392B	IA-1	45.0	Downward	Downward
MW-392C		-5.1		
MW-393B	IA-1	65.6	Downward	Downward
MW-393C		-4.3		
MW-416B	IA-1	58.6	Downward	Downward
MW-416C		-1.5		
MW-136B	IA-1	63.2	Downward	Downward
MW-136C		13.2		
MW-226B	IA-2	69.5	Downward	Downward
MW-226C		29.4		
MW-186-2	IA-2	74.1	Downward	Slightly Upward
MW-186B		32.1		
MW-313B	IA-2	58.5	Slightly Upward	Upward
MW-311C		28.8		
MW-225B	IA-3	77.2	Downward	Downward
MW-225C		31.4		
MW-228B	IA-3	71.4	NA	Downward
MW-228C		31.4		
MW-24C	IA-3	62.1	Downward	Downward
MW-239C		36.6		
MW-260C	IA-3	67.3	Downward	Upward
MW-260-S3		16.7		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-371B	IA-4	71.8	Downward	Downward
MW-371C		1.9		
MW-428B	IA-4	56.7	Downward	Downward
MW-428C		1.8		
MW-2B	IA-4	53.1	Downward	Downward
MW-2C		0.5		
MW-351B	IA-4	58.3	Downward	Downward
MW-351C		22.9		
MW-53	IA-6	57.9	Upward	Upward
MW-54		32.9		
MW-50	IA-6	57.8	Downward	Upward
MW-56		32.7		
MW-22A	IA-6	54.3	NA	NA
MW-86		29.6		
MW-350B	IA-6	64.3	Downward	Downward
MW-350C		24.2		
MW-346B	IA-6	65.0	Downward	Downward
MW-346C		25.1		
MW-420B	IA-6	32.4	Upward	Downward
MW-420C		27.3		
MW-264B	IA-6	58.8	NA	Downward
MW-264C		4.5		
MW-424B	IA-6	35.1	Upward	Upward
MW-424C		26.7		
MW-422B	IA-6	34.2	Upward	Downward
MW-422C		25.1		
MW-321B	IA-6	32.3	Downward	Downward
MW-321C		37.3		
MW-317B	IA-6	63.9	Downward	Upward
MW-317C		39.1		
MW-251B	IA-6	61.2	Downward	Downward
MW-251C		31.0		
MW-218B	IA-7	52.7	Downward	Downward
MW-218C		22.8		
MW-253B	IA-7	58.0	Slightly Upward	Downward
MW-253C		23.0		
MW-377B	IA-7	50.2	Slightly Upward	Downward
MW-377C		22.2		
MW-378B	IA-7	60.4	NA	Upward
MW-378C		35.4		
MW-118	IA-7	59.7	Downward	Downward
MW-118C		18.9		
MW-238B	IA-7	54.3	Downward	Downward
MW-238C		23.6		
MW-417B	IA-7	43.1	Downward	Downward
MW-417C		-1.7		
MW-373B	IA-7	55.9	Downward	Downward
MW-373C		14.5		
MW-374B	IA-7	59.6	Downward	Downward
MW-374C		28.5		
MW-204B	IA-7	64.2	Downward	Upward
MW-204C		28.1		
MW-128B	IA-7	72.8	Upward	Downward
MW-128C		52.9		
MW-252B	IA-9	59.8	Upward	Upward
MW-252C		24.9		
MW-323B	IA-9	39.8	Downward	Downward
MW-323C		9.9		
MW-230B	IA-10	65.3	Upward	Downward
MW-230C		30.1		
MW-206B	IA-10	65.6	Downward	Downward
MW-206C		30.2		
MW-229B	IA-10	71.8	Downward	Upward
MW-229C		36.4		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-44B	IA-10	76.2	Downward	Downward
MW-44C		38.3		
MW-207B	IA-10	61.1	Downward	NA
MW-207C		24.2		
MW-273B	IA-10	66.8	Downward	Downward
MW-273C		15.6		
MW-280B	IA-10	58.5	Upward	Slightly Downward
MW-280C		28.5		
MW-274B	IA-10	57.3	Upward	Upward
MW-274C		26.6		
MW-268B	IA-10	62.2	Downward	Downward
MW-268C		28.2		
MW-259B	IA-10	67.3	Downward	Downward
MW-259C		0.2		
MW-479B	IA-10	70.5	Downward	Downward
MW-479C		0.6		
MW-27B	IA-10	58.2	Upward	Downward
MW-27C		27.9		
MW-482B	IA-10	57.9	Downward	Downward
MW-482C		13.3		
MW-347B	IA-10	39.4	Downward	Downward
MW-347C		24.3		
MW-319B	IA-10	51.9	Downward	Downward
MW-319C		22.4		
MW-348B	IA-10	44.5	Downward	Downward
MW-348C		4.3		
MW-349B	IA-10	36.5	Downward	Downward
MW-349C		1.3		
MW-275B	IA-10	55.4	Upward	Upward
MW-275C		20.8		
MW-126B	IA-10	48.8	Upward	Upward
MW-126C		18.8		
MW-483B	IA-10	47.5	Downward	Downward
MW-483C		22.2		
MW-70-1	IA-10	62.3	Downward	Downward
MW-70C		20.5		
MW-223B	IA-10	66.1	Downward	Upward
MW-223C		25.9		
MW-208B	IA-10	60.2	Downward	Downward
MW-208C		20.9		
MW-227B	IA-11	52.3	Upward	Downward
MW-227C		24.8		
MW-26A	IA-11	43.5	Downward	Equal
MW-25C		13.7		
MW-71	IA-11	60.9	Upward	Upward
MW-71C		30.2		
MW-74	IA-11	57.7	Upward	Upward
MW-74C		30.0		
MW-332B	IA-11	66.7	Downward	Downward
MW-332C		1.3		
MW-8B	IA-11	60.8	Downward	Downward
MW-8C		30.3		
MW-451B	IA-11	41.2	Downward	Downward
MW-303C		4.7		
MW-172C	IA-11	48.0	Upward	Upward
MW-172-S3		7.6		
MW-55B	IA-11	38.5	Upward	Upward
MW-55C		1.3		
MW-55	IA-11	70.7	Upward	Upward
MW-55C		1.3		
MW-99B	IA-11	54.0	Upward	Upward
MW-99C		19.3		
MW-366B	IA-11	53.7	Upward	Upward
MW-366C		13.8		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-231B	IA-12	70.0	Upward	Downward
MW-231C		45.6		
MW-266B	IA-12	44.9	Downward	Downward
MW-266C		19.9		
MW-237B	IA-12	53.8	Downward	Downward
MW-237C		11.0		
MW-265B	IA-12	65.2	Downward	Downward
MW-265C		15.3		
MW-224B	IA-12	75.9	Downward	Downward
MW-60G-S3		37.4		
MW-364B	IA-12	67.4	Downward	Downward
MW-113		32.7		
MW-363B	IA-12	68.2	Upward	Downward
MW-363C		43.4		
MW-364B	IA-12	67.4	Downward	Downward
MW-364C		41.7		
MW-60A-S2	IA-12	51.2	Downward	Upward
MW-60A-S3		21.4		
MW-272B	IA-12	61.3	Downward	Downward
MW-272C		31.6		
MW-375B	IA-12	61.4	Downward	Downward
MW-375C		-0.2		
MW-271B	IA-12	50.3	Downward	Downward
MW-271C		11.1		
MW-61B	IA-12	58.7	Downward	Downward
MW-61C		3.1		
MW-114	IA-12	68.2	Downward	Downward
DW-2B		16.2		
MW-376B	IA-12	60.4	Downward	Downward
MW-376C		15.5		
MW-376B	IA-12	60.4	Downward	Downward
MW-376-S3		35.5		
MW-3	IA-12	52.5	Downward	Downward
MW-3C		19.1		
MW-142B	IA-13	56.1	Downward	Upward
MW-142C		21.4		
MW-143B	IA-13	53.1	Downward	Downward
MW-143C		17.1		
MW-276B	IA-13	54.8	Downward	Downward
MW-276C		19.5		
MW-148A	IA-14	54.7	Downward	Downward
MW-148B		33.6		
MW-48	IA-14	45.6	Upward	Upward
MW-48B		18.5		
MW-131B	IA-14	58.7	Downward	Downward
MW-131C		16.4		
MW-277B	IA-14	44.9	Downward	Downward
MW-277C		8.3		
MW-124B	IA-15	52.6	Downward	Downward
MW-124C		1.0		
MW-367-S2	IA-15	37.0	Upward	Upward
MW-367-S3		6.8		
MW-367B	IA-15	52.1	Upward	Upward
MW-367C		22.1		
MW-337B	IA-15	63.7	Upward	Upward
MW-337C		16.8		
MW-112B	IA-15	45.9	Upward	Upward
MW-112C		11.6		
MW-336B	IA-15	66.0	Downward	Downward
MW-336C		24.0		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
Vertical Gradient Between Zone S3 and Zone D1				
MW-258C	OS	-9.7		
DW-24		-54.9	Downward	Downward
MW-215C	OS	13.4		
DW-11B		-1.9	Upward	Upward
MW-267C	OS	6.9		
DW-34A		-61.7	Downward	Downward
MW-304C	OS	1.0		
DW-47A		-28.7	Upward	Upward
MW-145C	OS	1.2		
DW-49A		-29.2	Downward	Downward
MW-353C	OS	12.2		
DW-64A		-109.7	Downward	Downward
MW-201C	OS	21.5		
DW-7A		-11.7	Downward	Downward
MW-201C	OS	21.5		
DW-7B		-64.3	Downward	Downward
MW-391C	IA-1	-5.4		
DW-67A		-103.0	Downward	Downward
MW-391-S3	IA-1	34.5		
DW-67A		-103.0	Downward	Downward
MW-136C	IA-1	13.2		
DW-68A		-92.0	Downward	Downward
DW-9A	IA-3	21.6		
DW-9B		-25.4	Downward	Downward
MW-260-S3	IA-3	16.7		
DW-36A		-44.8	Upward	Slightly Downward
MW-351C	IA-4	22.9		
DW-21A		-26.8	Downward	Downward
MW-264C	IA-6	4.5		
DW-26		-60.6	Downward	Downward
DW-3B	IA-7	17.6		
DW-3C		-86.3	Upward	Downward
MW-212C	IA-7	24.6		
DW-45A		-43.0	Downward	Downward
MW-218C	IA-7	22.8		
DW-43A		-27.2	Downward	Downward
MW-377C	IA-7	22.2		
DW-56A		-99.7	Downward	Downward
MW-378C	IA-7	35.4		
DW-57A		-103.1	Downward	Downward
MW-118C	IA-7	18.9		
DW-50B		-68.4	Upward	Upward
MW-270C	IA-7	35.4		
DW-37A		-61.7	Upward	Downward
MW-269C	IA-7	19.0		
DW-38A		-54.5	Slightly Upward	Equal
MW-463C	IA-7	8.5		
DW-62A		-21.7	Upward	Upward
MW-417C	IA-7	-1.7		
DW-62A		-21.7	Equal	Upward
MW-373C	IA-7	14.5		
DW-58A		-115.2	Slightly Downward	Downward
MW-374C	IA-7	28.5		
DW-59A		-109.2	Upward	Downward
DW-13A	IA-10	13.25		
DW-13B		-75.99	Downward	Downward
MW-273C	IA-10	15.6		
DW-33A		-43.0	Downward	Downward
MW-274C	IA-10	26.6		
DW-16A		-100.8	Downward	Downward
MW-268C	IA-10	28.2		
DW-35A		-28.6	Downward	Downward

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
MW-348C	IA-10	4.3	Downward	Downward
DW-13B		-76.0		
MW-301C	IA-11	1.8	Downward	Downward
DW-42A		-30.4		
MW-99C	IA-11	19.3	Downward	Upward
DW-51A		-36.0		
MW-366C	IA-11	13.8	Downward	Downward
DW-52A		-34.4		
MW-266C	IA-12	19.9	Downward	Downward
DW-32A		-49.1		
MW-273C	IA-12	15.6	Downward	Downward
DW-31A		-50.6		
MW-265C	IA-12	15.3	Downward	Downward
DW-30A		-64.8		
MW-364C	IA-12	4.5	Downward	Downward
DW-8A		-8.5		
MW-364C	IA-12	4.5	Downward	Downward
DW-8B		-74.8		
MW-272C	IA-12	31.6	Downward	Downward
DW-29A		-63.3		
MW-375C	IA-12	-0.2	Downward	Downward
DW-60A		-108.8		
MW-271C	IA-12	11.1	Downward	Downward
DW-28A		-44.4		
DW-2B	IA-12	16.2	Upward	Downward
DW-2-D1		-53.8		
MW-376-S3	IA-12	35.5	Downward	Downward
DW-61A		-31.6		
MW-376C	IA-12	15.5	Downward	Downward
DW-61A		-31.6		
MW-142C	IA-13	21.4	Upward	Upward
DW-53A		-40.8		
MW-143C	IA-13	17.1	Downward	Downward
DW-54A		-37.7		
MW-276C	IA-13	19.5	Downward	Downward
DW-39A		-89.7		
MW-149	IA-14	-15.9	Downward	Downward
DW-17C		-49.7		
MW-48B	IA-14	18.5	Downward	Downward
MW-48C		-21.9		
MW-367C	IA-15	15.5	Upward	Upward
DW-55A		-37.9		
MW-337C	IA-15	16.8	Upward	Upward
DW-25A		-48.3		
MW-112C	IA-15	11.6	Downward	Downward
DW-25-D1		-9.6		
Vertical Gradient Between Zone D1 and Zone D2				
DW-7B	OS	-64.3	Downward	Downward
DW-7C		-226.7		
DW-34A	OS	-28.6	Downward	Downward
DW-34B		-193.6		
DW-67A	IA-1	-103.0	Upward	Upward
DW-67B		-157.0		
DW-68A	IA-1	-92.0	Upward	Downward
DW-68B		-174.0		
DW-36A	IA-3	-44.8	Downward	Downward
DW-36B		-144.4		
DW-44A	IA-6	-36.4	Downward	Downward
DW-44B		-173.1		
DW-6B	IA-7	-1.6	Upward	Slightly Downward
DW-6C		-177.8		
DW-37A	IA-7	-61.7	Downward	Downward
DW-37B		-151.5		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
DW-50B	IA-7	-68.4	Downward	Downward
DW-50C		-168.6		
DW-38A	IA-7	-61.7	Downward	Downward
DW-38B		-151.5		
DW-3C	IA-7	-86.3	Downward	Downward
DW-3-D2		-167.7		
DW-14A	IA-10	-68.7	Downward	Downward
DW-14B		-126.3		
DW-33A	IA-10	-43.0	Downward	Downward
DW-33B		-162.1		
DW-16A	IA-10	-100.8	Downward	Downward
DW-16B		-182.0		
DW-35A	IA-10	-28.6	Downward	Downward
DW-35B		-193.6		
DW-13A	IA-10	13.3	Downward	Downward
DW-13-D2		-146.3		
DW-40A	IA-10	-48.1	Downward	Downward
DW-40B		-152.0		
DW-10B	IA-11	-27.4	Downward	Slightly Upward
DW-10C		-191.2		
DW-8B	IA-12	-74.8	Downward	Downward
DW-8C		-189.3		
DW-28A	IA-12	-44.4	Downward	Downward
DW-28B		-179.3		
DW-2-D1	IA-12	-53.8	Downward	Upward
DW-2-D2		-153.8		
DW-32A	IA-12	-49.1	Downward	Downward
DW-32B		-193.7		
DW-31A	IA-12	-50.6	Downward	Downward
DW-31B		-189.4		
DW-30A	IA-12	-64.8	Downward	Downward
DW-30B		-144.7		
DW-29A	IA-12	-63.3	Downward	Downward
DW-29B		-175.5		
DW-5B	IA-12	-12.9	Downward	Downward
DW-5C		-181.9		
DW-17C	IA-14	-49.7	Downward	Downward
DW-17D		-232.9		
DW-25-D1	IA-15	-9.6	Upward	Upward
DW-25B		-141.1		
Vertical Gradient Between Zone D2 and Zone D3				
DW-7C	OS	-226.7	Upward	Upward
DW-7D		-339.7		
DW-14B	IA-10	-126.3	Upward	Upward
DW-14C		-275.6		
DW-33B	IA-10	-162.1	Downward	Downward
DW-33C		-316.2		
DW-16B	IA-10	-182.0	Downward	Downward
DW-16C		-334.8		
DW-27B	IA-10	-188.4	Downward	Downward
DW-27C		-313.9		
DW-40B	IA-10	-152.0	Upward	Upward
DW-40C		-308.4		
DW-44B	IA-6	-173.1	Upward	Upward
DW-44C		-267.1		
DW-6C	IA-7	-177.8	Downward	Downward
DW-6D		-392.1		
DW-8C	IA-12	-189.3	Upward	Upward
DW-8D		-334.1		
DW-31B	IA-12	-189.4	Downward	Downward
DW-31C		-317.2		
DW-29B	IA-12	-175.5	Downward	Downward
DW-29C		-309.1		

**Table 5-1
Comparative Summary of Calculated Vertical Hydraulic Gradients
September 2016 and March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Q3 2016	Q1 2017
DW-2-D2	IA-12	-153.8	Downward	Downward
DW-2D		-304.3		
DW-39B	IA-13	-186.1	Upward	Upward
DW-39C		-394.0		
DW-25B	IA-15	-141.1	Downward	Downward
DW-25C		-342.9		
Vertical Gradient Between Zone D3 and Zone D4				
DW-25C	IA-15	-342.9	Downward	Downward
DW-25D		-478.6		

Notes

- | | |
|----------|--------------------------------------|
| Downward | - Downward groundwater flow in wells |
| Upward | - Upward groundwater flow in wells |

NA - Depth to water measurement not available due to well access or well not installed at the time.
OS - Off-Site location.

Note - cells designated as "NA", "Equal", "Slightly Upward", and "Slightly Downward" were not high

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
Vertical Gradient Between Zone S1 and Zone S2						
MW-267A	OS	92.9	9/28/16	125.61		
MW-267B		42.5	9/28/16	120.93	-0.093	Downward
MW-304A	OS	76.0	9/28/16	91.34		
MW-304B		41.2	9/28/16	91.99	0.019	Upward
MW-338A	OS	77.7	9/28/16	89.87		
MW-338B		43.0	9/28/16	91.21	0.039	Upward
MW-339A	OS	78.4	9/28/16	NA		
MW-339B		43.6	9/28/16	90.49	NA	NA
MW-340A	OS	79.0	9/28/16	88.09		
MW-340B		44.0	9/28/16	85.06	-0.087	Downward
MW-353A	OS	87.0	9/28/16	109.82		
MW-353B		58.0	9/28/16	109.11	-0.024	Downward
MW-257A	OS	71.2	9/28/16	87.24		
MW-257B		46.2	9/28/16	86.39	-0.034	Downward
MW-213B	OS	93.5	9/28/16	116.92		
MW-213C		58.7	9/28/16	118.52	0.046	Upward
MW-214A	OS	94.2	9/28/16	101.70		
MW-214B		66.5	9/28/16	101.00	-0.025	Downward
MW-201A	OS	90.2	9/28/16	111.04		
MW-201B		67.5	9/28/16	110.89	-0.007	Downward
MW-201	OS	80.8	9/28/16	110.98		
MW-201B		67.5	9/28/16	110.89	-0.007	Downward
MW-209A	OS	79.8	9/28/16	98.02		
MW-209B		57.8	9/28/16	97.51	-0.023	Downward
MW-103A	OS	78.9	9/28/16	93.70		
MW-103B		56.5	9/28/16	96.31	0.116	Upward
MW-104A	OS	78.6	9/28/16	92.59		
MW-104B		58.1	9/28/16	93.37	0.038	Upward
MW-105A	OS	85.0	9/28/16	95.95		
MW-105B		54.6	9/28/16	96.62	0.022	Upward
MW-106A	OS	81.58	9/28/16	92.11		
MW-106B		58.11	9/28/16	95.11	0.128	Upward
MW-108A	OS	81.1	9/28/16	90.78		
MW-108B		58.0	9/28/16	92.03	0.054	Upward
MW-144A	OS	76.6	9/28/16	91.54		
MW-144B		55.8	9/28/16	91.98	0.021	Upward
MW-171A	OS	63.3	9/28/16	89.20		
MW-171B		48.2	9/28/16	87.50	-0.113	Downward
MW-145A	OS	68.8	9/28/16	78.47		
MW-145B		61.4	9/28/16	78.33	-0.019	Downward
MW-384A	IA-1	106.2	9/28/16	115.19		
MW-394B		44.6	9/28/16	106.17	-0.147	Downward
MW-387A	IA-1	90.7	9/28/16	113.23		
MW-387B		55.7	9/28/16	111.09	-0.061	Downward
MW-388A	IA-1	90.9	9/28/16	113.40		
MW-388B		51.0	9/28/16	110.42	-0.075	Downward
MW-390A	IA-1	88.9	9/28/16	112.79		
MW-390B		65.9	9/28/16	111.58	-0.053	Downward
MW-357-SBR	IA-1	100.9	9/28/16	NA		
MW-357-S2		55.9	9/28/16	111.62	NA	NA
MW-392A	IA-1	84.6	9/28/16	110.79		
MW-392B		45.0	9/28/16	107.90	-0.073	Downward
MW-393A	IA-1	80.3	9/28/16	110.57		
MW-393B		65.6	9/28/16	107.73	-0.192	Downward

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-416A	IA-1	71.2	9/28/16	110.02	-0.101	Downward
MW-416B		58.6	9/28/16	108.75		
MW-136	IA-1	94.5	9/28/16	108.55	-0.057	Downward
MW-136B		63.2	9/28/16	106.77		
MW-226A	IA-2	99.5	9/28/16	109.71	-0.184	Downward
MW-226B		69.5	9/28/16	104.20		
MW-342A	IA-2	97.7	9/28/16	104.61	-0.010	Downward
MW-241B		57.7	9/28/16	104.22		
MW-341A	IA-2	94.3	9/28/16	104.63	0.019	Upward
MW-186-2		74.1	9/28/16	105.02		
MW-243A	IA-2	90.9	9/28/16	NA	NA	NA
MW-243B		53.5	9/28/16	103.79		
MW-343A	IA-2	95.2	9/28/16	104.61	-0.005	Downward
MW-246B		56.7	9/28/16	104.43		
MW-39A	IA-3	97.8	9/28/16	109.34	-0.031	Downward
MW-40A		69.5	9/28/16	108.45		
MW-38	IA-3	109.7	9/28/16	112.20	-0.119	Downward
MW-41		49.7	9/28/16	105.06		
MW-225A	IA-3	91.7	9/28/16	108.62	-0.080	Downward
MW-225B		77.2	9/28/16	107.45		
MW-440A	IA-3	91.4	9/28/16	106.84	-0.003	Downward
MW-24C		62.1	9/28/16	106.75		
MW-439A	IA-3	90.0	9/28/16	107.93	-0.043	Downward
MW-439B		64.9	9/28/16	106.85		
MW-191A	IA-3	100.3	9/28/16	110.38	-0.127	Downward
MW-191B		62.8	9/28/16	105.61		
MW-189A	IA-3	100.4	9/28/16	110.38	-0.209	Downward
MW-189B		77.4	9/28/16	105.58		
MW-38	IA-3	109.7	9/28/16	112.20	-0.093	Downward
MW-40A		69.5	9/28/16	108.45		
MW-39A	IA-3	97.8	9/28/16	109.34	-0.089	Downward
MW-41		49.7	9/28/16	105.06		
MW-426A	IA-4	81.1	9/28/16	111.81	-0.181	Downward
MW-426B		56.8	9/28/16	107.41		
MW-371A	IA-4	90.4	9/28/16	111.92	-0.126	Downward
MW-371B		71.8	9/28/16	109.58		
MW-427A	IA-4	81.4	9/28/16	110.28	-0.121	Downward
MW-427B		57.0	9/28/16	107.32		
MW-428A	IA-4	81.3	9/28/16	110.37	-0.161	Downward
MW-428B		56.7	9/28/16	106.40		
MW-2	IA-4	79.9	9/28/16	111.40	-0.241	Downward
MW-2B		53.1	9/28/16	104.94		
MW-438A	IA-4	93.9	9/28/16	107.99	-0.030	Downward
MW-438B		68.9	9/28/16	107.25		
MW-350A	IA-6	92.8	9/28/16	106.50	-0.093	Downward
MW-350B		64.3	9/28/16	103.84		
MW-346A	IA-6	93.4	9/28/16	106.67	-0.145	Downward
MW-346B		65.0	9/28/16	102.54		
MW-423A	IA-6	88.6	9/28/16	104.35	-0.018	Downward
MW-423B		35.0	9/28/16	103.36		
MW-322A	IA-6	76.3	9/28/16	104.24	-0.073	Downward
MW-422B		34.2	9/28/16	101.18		
MW-6A	IA-6	82.6	9/28/16	100.64	0.002	Upward
MW-50		57.8	9/28/16	100.70		
MW-317A	IA-6	94.3	9/28/16	102.97	-0.055	Downward
MW-317B		63.9	9/28/16	101.29		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-447A	IA-6	93.5	9/28/16	105.19	-0.112	Downward
MW-447B		63.3	9/28/16	101.80		
MW-94	IA-6	87.7	9/28/16	99.91	-0.012	Downward
MW-22A		54.3	9/28/16	99.52		
MW-318A	IA-6	94.2	9/28/16	106.56	-0.121	Downward
MW-318B		33.8	9/28/16	99.22		
MW-157	IA-6	88.3	9/28/16	NA	NA	NA
MW-157B		63.3	9/28/16	104.96		
MW-6A	IA-6	82.6	9/28/16	100.64	0.004	Upward
MW-53		57.9	9/28/16	100.75		
MW-218	IA-7	83.2	9/28/16	97.39	-0.006	Downward
MW-218B		52.7	9/28/16	97.21		
MW-288A	IA-7	75.8	9/28/16	99.36	-0.023	Downward
MW-288B		48.8	9/28/16	98.74		
MW-406A	IA-7	70.3	9/28/16	97.79	-0.018	Downward
MW-406B		37.7	9/28/16	97.20		
PZ-05	IA-7	87.8	9/28/16	96.07	-0.013	Downward
MW-238B		54.3	9/28/16	95.65		
MW-292A	IA-7	74.7	9/28/16	105.76	-0.336	Downward
MW-292B		46.4	9/28/16	96.25		
MW-417A	IA-7	85.4	9/28/16	102.29	-0.178	Downward
MW-417B		43.1	9/28/16	94.74		
MW-373A	IA-7	90.1	9/28/16	91.73	0.078	Upward
MW-373B		55.9	9/28/16	94.40		
MW-125	IA-7	96.9	9/28/16	NA	NA	NA
MW-125A		79.2	9/28/16	99.77		
MW-15A	IA-7	89.24	9/28/16	100.05	0.036	Upward
MW-15B		74.71	9/28/16	100.58		
MW-128	IA-7	95.4	9/28/16	102.31	0.088	Upward
MW-128B		72.8	9/28/16	104.30		
MW-7B	IA-9	89.4	9/28/16	97.84	-0.009	Downward
MW-7C		71.8	9/28/16	97.69		
MW-152R	IA-9	96.6	9/28/16	105.64	-0.074	Downward
MW-152BR		73.3	9/28/16	103.92		
MW-170AR	IA-9	96.3	9/28/16	105.70	-0.039	Downward
MW-170BR		73.3	9/28/16	104.80		
MW-466A	IA-9	96.6	9/28/16	105.61	-0.073	Downward
MW-297B		71.8	9/28/16	103.80		
MW-467A	IA-9	97.3	9/28/16	105.66	-0.074	Downward
MW-298B		72.2	9/28/16	103.80		
MW-170R	IA-9	96.5	9/28/16	105.69	-0.038	Downward
MW-170BR		73.3	9/28/16	104.80		
MW-21	IA-9	94.8	9/28/16	101.76	-0.003	Downward
MW-252B		59.8	9/28/16	101.65		
MW-323A	IA-9	74.7	9/28/16	99.84	-0.002	Downward
MW-323B		39.8	9/28/16	99.76		
53RI-MW4	IA-10	105.3	9/28/16	NA	NA	NA
MW-16AW		72.1	9/28/16	118.04		
53RI-MW2	IA-10	103.8	9/28/16	115.64	0.012	Upward
MW-223B		66.1	9/28/16	116.08		
66RI-MW2	IA-10	99.6	9/28/16	116.62	-0.002	Downward
MW-230B		65.3	9/28/16	116.56		
186RI-MW1	IA-10	101.7	9/28/16	114.74	0.037	Upward
MW-268B		62.2	9/28/16	116.19		
MW-274A	IA-10	100.7	9/28/16	123.25	-0.186	Downward
MW-274B		57.3	9/28/16	115.16		
MW-259A	IA-10	100.9	9/28/16	114.92		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-259B		67.3	9/28/16	115.08	0.005	Upward
MW-285A	IA-10	104.0	9/28/16	114.61		
MW-259B		67.3	9/28/16	115.08	0.013	Upward
MW-229A	IA-10	108.7	9/28/16	118.47		
MW-229B		71.8	9/28/16	117.75	-0.019	Downward
MW-44	IA-10	103.5	9/28/16	116.79		
MW-44B		76.2	9/28/16	113.87	-0.107	Downward
MW-207A	IA-10	93.9	9/28/16	NA		
MW-207B		61.1	9/28/16	105.69	NA	NA
MW-287A	IA-10	104.6	9/28/16	114.99		
MW-259B		67.3	9/28/16	115.08	0.002	Upward
MW-280A	IA-10	93.3	9/28/16	117.12		
MW-280B		58.5	9/28/16	117.10	-0.001	Downward
MW-27	IA-10	92.8	9/28/16	108.96		
MW-27B		58.2	9/28/16	107.62	-0.039	Downward
MW-275A	IA-10	86.2	9/28/16	98.80		
MW-275B		55.4	9/28/16	99.35	0.018	Upward
MW-126	IA-10	83.8	9/28/16	96.90		
MW-126B		48.8	9/28/16	97.43	0.015	Upward
MW-208A	IA-10	91.6	9/28/16	99.63		
MW-208B		60.2	9/28/16	99.76	0.004	Upward
MW-484A	IA-11	83.0	9/28/16	94.19		
MW-484B		75.4	9/28/16	93.81	-0.050	Downward
MW-498A	IA-11	82.6	9/28/16	92.78		
MW-498B		75.1	9/28/16	93.59	0.108	Upward
MW-227A	IA-11	79.9	9/28/16	95.04		
MW-227B		52.3	9/28/16	94.66	-0.014	Downward
MW-497A	IA-11	82.3	9/28/16	94.24		
MW-497B		75.0	9/28/16	93.72	-0.071	Downward
MW-499A	IA-11	81.5	9/28/16	93.04		
MW-499B		74.0	9/28/16	93.66	0.082	Upward
MW-33A	IA-11	79.9	9/28/16	93.43		
MW-75		60.0	9/28/16	93.32	-0.006	Downward
MW-33B	IA-11	72.0	9/28/16	94.15		
MW-75		60.0	9/28/16	93.32	-0.069	Downward
MW-33	IA-11	73.2	9/28/16	94.79		
MW-75		60.0	9/28/16	93.32	-0.111	Downward
MW-8A	IA-11	79.2	9/28/16	102.01		
MW-8B		60.8	9/28/16	94.31	-0.418	Downward
MW-102	IA-11	85.3	9/28/16	92.33		
MW-450B		42.5	9/28/16	93.22	0.021	Upward
MW-101	IA-11	80.6	9/28/16	92.08		
MW-99B		79.4	9/28/16	92.19	0.091	Upward
MW-100	IA-11	86.4	9/28/16	92.14		
MW-99B		54.0	9/28/16	92.19	0.002	Upward
MW-99	IA-11	79.4	9/28/16	92.17		
MW-99B		54.0	9/28/16	92.19	0.001	Upward
MW-366A	IA-11	80.2	9/28/16	91.66		
MW-366B		53.7	9/28/16	91.87	0.008	Upward
MW-62	IA-11	78.2	9/28/16	93.53		
MW-63		55.2	9/28/16	94.06	0.023	Upward
MW-68	IA-11	86.1	9/28/16	92.25		
MW-71		60.9	9/28/16	93.11	0.034	Upward
MW-72	IA-11	80.1	9/28/16	91.83		
MW-74		57.7	9/28/16	93.38	0.069	Upward
MW-25	IA-11	85.8	9/28/16	94.33		
MW-26A		43.5	9/28/16	95.09	0.018	Upward
MW-60G	IA-12	90.0	9/28/16	110.46		
MW-224B		75.9	9/28/16	110.36	-0.007	Downward
MW-80C	IA-12	89.7	9/28/16	109.68		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-24B		62.1	9/28/16	109.53	-0.005	Downward
MW-266A	IA-12	77.1	9/28/16	116.56		
MW-266B		44.9	9/28/16	116.50	-0.002	Downward
MW-237A	IA-12	100.4	9/28/16	115.42		
MW-237B		53.8	9/28/16	111.41	-0.086	Downward
MW-435A	IA-12	92.9	9/28/16	110.05		
MW-435B		67.9	9/28/16	110.12	0.003	Upward
MW-60R	IA-12	93.6	9/28/16	110.16		
MW-60-Z2R		62.9	9/28/16	110.38	0.007	Upward
MW-60M	IA-12	91.0	9/28/16	110.41		
MW-263B		63.5	9/28/16	110.13	-0.010	Downward
MW-383A	IA-12	90.8	9/28/16	109.95		
MW-382B		62.9	9/28/16	109.69	-0.009	Downward
MW-379A	IA-12	90.7	9/28/16	109.89		
MW-382B		62.9	9/28/16	109.69	-0.007	Downward
MW-380A	IA-12	90.0	9/28/16	109.86		
MW-80-Z2R		62.8	9/28/16	109.60	-0.010	Downward
MW-436A	IA-12	89.5	9/28/16	109.92		
MW-436B		69.4	9/28/16	109.70	-0.011	Downward
MW-441A	IA-12	91.8	9/28/16	110.91		
MW-441B		64.2	9/28/16	109.53	-0.050	Downward
MW-295A	IA-12	90.8	9/28/16	109.93		
MW-295B		63.3	9/28/16	109.57	-0.013	Downward
MW-442A	IA-12	91.4	9/28/16	109.75		
MW-442B		63.9	9/28/16	109.63	-0.004	Downward
MW-443A	IA-12	92.9	9/28/16	110.63		
MW-443B		65.4	9/28/16	109.54	-0.040	Downward
MW-365A	IA-12	87.3	9/28/16	109.36		
MW-365B		67.2	9/28/16	109.72	0.018	Upward
MW-444A	IA-12	91.8	9/28/16	109.94		
MW-444B		64.4	9/28/16	108.93	-0.037	Downward
MW-445A	IA-12	90.7	9/28/16	109.55		
MW-445B		63.3	9/28/16	108.96	-0.021	Downward
MW-362A	IA-12	88.2	9/28/16	109.74		
MW-362B		68.1	9/28/16	109.50	-0.012	Downward
MW-363A	IA-12	88.2	9/28/16	109.61		
MW-363B		68.2	9/28/16	102.52	-0.354	Downward
MW-361A	IA-12	88.8	9/28/16	109.63		
MW-361B		68.7	9/28/16	98.00	-0.579	Downward
MW-360A	IA-12	89.0	9/28/16	109.01		
MW-360B		68.9	9/28/16	109.55	0.027	Upward
MW-359A	IA-12	88.9	9/28/16	109.56		
MW-359B		68.8	9/28/16	109.09	-0.023	Downward
MW-358A	IA-12	88.8	9/28/16	109.58		
MW-358B		68.7	9/28/16	109.43	-0.007	Downward
MW-60A	IA-12	88.3	9/28/16	111.23		
MW-60A-S2		51.2	9/28/16	106.84	-0.118	Downward
MW-232B	IA-12	77.4	9/28/16	112.65		
MW-232C		48.2	9/28/16	108.04	-0.158	Downward
MW-272A	IA-12	82.8	9/28/16	113.09		
MW-272B		61.3	9/28/16	109.12	-0.185	Downward
MW-375A	IA-12	79.4	9/28/16	109.89		
MW-375B		61.4	9/28/16	108.97	-0.051	Downward
MW-271A	IA-12	86.0	9/28/16	108.77		
MW-271B		50.3	9/28/16	99.65	-0.256	Downward
MW-61	IA-12	109.4	9/28/16	128.48		
MW-61B		58.7	9/28/16	97.58	-0.608	Downward
MW-114A	IA-12	78.7	9/28/16	108.43		
MW-114		68.2	9/28/16	108.35	-0.008	Downward
MW-142	IA-13	75.1	9/28/16	92.19		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-142B		56.1	9/28/16	91.77	-0.022	Downward
MW-143	IA-13	75.3	9/28/16	91.59		
MW-143B		53.1	9/28/16	92.40	0.037	Upward
MW-276A	IA-13	80.5	9/28/16	93.41		
MW-276B		54.8	9/28/16	93.86	0.018	Upward
MW-131	IA-14	73.5	9/28/16	87.78		
MW-131B		58.7	9/28/16	86.73	-0.071	Downward
MW-277A	IA-14	70.5	9/28/16	77.02		
MW-277B		44.9	9/28/16	77.43	0.016	Upward
MW-367A	IA-15	77.1	9/28/16	88.50		
MW-367B		52.1	9/28/16	91.09	0.104	Upward
MW-367A	IA-15	77.1	9/28/16	88.50		
MW-367-S2		37.0	9/28/16	91.06	0.064	Upward
MW-112	IA-15	82.2	9/28/16	89.94		
MW-112B		45.9	9/28/16	91.72	0.049	Upward
MW-124A	IA-15	60.7	9/28/16	71.01		
MW-124B		52.6	9/28/16	68.15	-0.356	Downward
Vertical Gradient Between Zone S2 and Zone S3						
MW-214B	OS	66.5	9/28/16	101.00		
MW-214C		31.9	9/28/16	100.84	-0.005	Downward
MW-209B	OS	57.8	9/28/16	97.51		
MW-209C		12.8	9/28/16	97.48	-0.001	Downward
MW-104B	OS	58.1	9/28/16	93.37		
MW-104C		7.6	9/28/16	93.47	0.002	Upward
MW-171B	OS	48.2	9/28/16	87.50		
MW-171C		13.4	9/28/16	89.52	0.058	Upward
MW-267B	OS	42.5	9/28/16	120.93		
MW-267C		6.9	9/28/16	119.18	-0.049	Downward
MW-236B	OS	64.6	9/28/16	97.15		
MW-236C		48.1	9/28/16	98.55	0.085	Upward
MW-478B	OS	32.7	9/28/16	93.09		
MW-478C		-2.2	9/28/16	93.36	0.008	Upward
MW-304B	OS	41.2	9/28/16	91.99		
MW-304C		1.0	9/28/16	92.64	0.016	Upward
MW-338B	OS	43.0	9/28/16	91.21		
MW-338C		3.0	9/28/16	89.30	-0.048	Downward
MW-339B	OS	43.6	9/28/16	90.49		
MW-339C		3.5	9/28/16	90.29	-0.005	Downward
MW-340B	OS	44.0	9/28/16	85.06		
MW-340C		4.0	9/28/16	69.33	-0.393	Downward
MW-145B	OS	61.4	9/28/16	78.33		
MW-145C		1.2	9/28/16	68.82	-0.158	Downward
MW-146B	OS	37.6	9/28/16	68.24		
MW-146C		13.7	9/28/16	67.65	-0.025	Downward
MW-258B	OS	36.2	9/28/16	68.34		
MW-258C		-9.7	9/28/16	65.97	-0.052	Downward
MW-353B	OS	58.0	9/28/16	109.11		
MW-353C		12.2	9/28/16	98.11	-0.240	Downward
MW-201B	OS	67.5	9/28/16	110.89		
MW-201C		21.5	9/28/16	104.73	-0.134	Downward
MW-394B	IA-1	44.6	9/28/16	106.17		
MW-394C		11.4	9/28/16	112.44	0.189	Upward
MW-387B	IA-1	55.7	9/28/16	111.09		
MW-387C		-4.4	9/28/16	103.88	-0.120	Downward
MW-357-S2	IA-1	55.9	9/28/16	111.62		
MW-357-S3		30.7	9/28/16	112.87	0.050	Upward
MW-392B	IA-1	45.0	9/28/16	107.90		
MW-392C		-5.1	9/28/16	104.18	-0.074	Downward
MW-393B	IA-1	65.6	9/28/16	107.73		
MW-393C		-4.3	9/28/16	104.36	-0.048	Downward

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-416B	IA-1	58.6	9/28/16	108.75	-0.076	Downward
MW-416C		-1.5	9/28/16	104.16		
MW-136B	IA-1	63.2	9/28/16	106.77	-0.050	Downward
MW-136C		13.2	9/28/16	104.29		
MW-226B	IA-2	69.5	9/28/16	104.20	-0.002	Downward
MW-226C		29.4	9/28/16	104.11		
MW-186-2	IA-2	74.1	9/28/16	105.02	-0.013	Downward
MW-186B		32.1	9/28/16	104.47		
MW-313B	IA-2	58.5	9/28/16	103.99	0.0005	Slightly Upward
MW-311C		28.8	9/28/16	104.01		
MW-225B	IA-3	77.2	9/28/16	107.45	-0.039	Downward
MW-225C		31.4	9/28/16	105.67		
MW-228B	IA-3	71.4	9/28/16	NA	NA	NA
MW-228C		31.4	9/28/16	98.44		
MW-24C	IA-3	62.1	9/28/16	106.75	-0.022	Downward
MW-239C		36.6	9/28/16	106.20		
MW-260C	IA-3	67.3	9/28/16	98.48	-0.071	Downward
MW-260-S3		16.7	9/28/16	94.89		
MW-371B	IA-4	71.8	9/28/16	109.58	-0.100	Downward
MW-371C		1.9	9/28/16	102.57		
MW-428B	IA-4	56.7	9/28/16	106.40	-0.063	Downward
MW-428C		1.8	9/28/16	102.94		
MW-2B	IA-4	53.1	9/28/16	104.94	-0.027	Downward
MW-2C		0.5	9/28/16	103.51		
MW-351B	IA-4	58.3	9/28/16	105.45	-0.030	Downward
MW-351C		22.9	9/28/16	104.38		
MW-53	IA-6	57.9	9/28/16	100.75	0.046	Upward
MW-54		32.9	9/28/16	101.91		
MW-50	IA-6	57.8	9/28/16	100.70	-0.010	Downward
MW-56		32.7	9/28/16	100.44		
MW-22A	IA-6	54.3	9/28/16	99.52	NA	NA
MW-86		29.6	9/28/16	NA		
MW-350B	IA-6	64.3	9/28/16	103.84	-0.061	Downward
MW-350C		24.2	9/28/16	101.39		
MW-346B	IA-6	65.0	9/28/16	102.54	-0.040	Downward
MW-346C		25.1	9/28/16	100.93		
MW-420B	IA-6	32.4	9/28/16	101.87	0.083	Upward
MW-420C		27.3	9/28/16	102.29		
MW-264B	IA-6	58.8	9/28/16	NA	NA	NA
MW-264C		4.5	9/28/16	101.35		
MW-424B	IA-6	35.1	9/28/16	101.60	0.036	Upward
MW-424C		26.7	9/28/16	101.90		
MW-422B	IA-6	34.2	9/28/16	101.18	0.001	Upward
MW-422C		25.1	9/28/16	101.19		
MW-321B	IA-6	32.3	9/28/16	100.65	-0.628	Downward
MW-321C		37.3	9/28/16	103.77		
MW-317B	IA-6	63.9	9/28/16	101.29	-0.025	Downward
MW-317C		39.1	9/28/16	100.67		
MW-251B	IA-6	61.2	9/28/16	104.07	-0.052	Downward
MW-251C		31.0	9/28/16	102.50		
MW-218B	IA-7	52.7	9/28/16	97.21	-0.037	Downward
MW-218C		22.8	9/28/16	96.10		
MW-253B	IA-7	58.0	9/28/16	100.64	0.0003	Slightly Upward
MW-253C		23.0	9/28/16	100.65		
MW-377B	IA-7	50.2	9/28/16	95.61	0.0004	Slightly Upward
MW-377C		22.2	9/28/16	95.62		
MW-378B	IA-7	60.4	9/28/16	NA	NA	NA
MW-378C		35.4	9/28/16	95.62		
MW-118	IA-7	59.7	9/28/16	95.12	-0.010	Downward
MW-118C		18.9	9/28/16	94.72		
MW-238B	IA-7	54.3	9/28/16	95.65		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-238C		23.6	9/28/16	95.28	-0.012	Downward
MW-417B	IA-7	43.1	9/28/16	94.74		
MW-417C		-1.7	9/28/16	94.49	-0.006	Downward
MW-373B	IA-7	55.9	9/28/16	94.40		
MW-373C		14.5	9/28/16	94.29	-0.003	Downward
MW-374B	IA-7	59.6	9/28/16	94.56		
MW-374C		28.5	9/28/16	94.24	-0.010	Downward
MW-204B	IA-7	64.2	9/28/16	98.56		
MW-204C		28.1	9/28/16	98.11	-0.012	Downward
MW-128B	IA-7	72.8	9/28/16	104.30		
MW-128C		52.9	9/28/16	104.47	0.009	Upward
MW-252B	IA-9	59.8	9/28/16	101.65		
MW-252C		24.9	9/28/16	102.27	0.018	Upward
MW-323B	IA-9	39.8	9/28/16	99.76		
MW-323C		9.9	9/28/16	99.19	-0.019	Downward
MW-230B	IA-10	65.3	9/28/16	116.56		
MW-230C		30.1	9/28/16	117.27	0.020	Upward
MW-206B	IA-10	65.6	9/28/16	116.98		
MW-206C		30.2	9/28/16	116.94	-0.001	Downward
MW-229B	IA-10	71.8	9/28/16	117.75		
MW-229C		36.4	9/28/16	117.30	-0.013	Downward
MW-44B	IA-10	76.2	9/28/16	113.87		
MW-44C		38.3	9/28/16	110.62	-0.086	Downward
MW-207B	IA-10	61.1	9/28/16	105.69		
MW-207C		24.2	9/28/16	104.34	-0.037	Downward
MW-273B	IA-10	66.8	9/28/16	117.27		
MW-273C		15.6	9/28/16	117.21	-0.001	Downward
MW-280B	IA-10	58.5	9/28/16	117.10		
MW-280C		28.5	9/28/16	117.12	0.001	Upward
MW-274B	IA-10	57.3	9/28/16	115.16		
MW-274C		26.6	9/28/16	119.11	0.128	Upward
MW-268B	IA-10	62.2	9/28/16	116.19		
MW-268C		28.2	9/28/16	116.17	-0.001	Downward
MW-259B	IA-10	67.3	9/28/16	115.08		
MW-259C		0.2	9/28/16	110.65	-0.066	Downward
MW-479B	IA-10	70.5	9/28/16	109.13		
MW-479C		0.6	9/28/16	103.85	-0.076	Downward
MW-27B	IA-10	58.2	9/28/16	107.62		
MW-27C		27.9	9/28/16	107.73	0.004	Upward
MW-482B	IA-10	57.9	9/28/16	106.33		
MW-482C		13.3	9/28/16	105.19	-0.026	Downward
MW-347B	IA-10	39.4	9/28/16	101.59		
MW-347C		24.3	9/28/16	100.63	-0.064	Downward
MW-319B	IA-10	51.9	9/28/16	100.20		
MW-319C		22.4	9/28/16	98.56	-0.056	Downward
MW-348B	IA-10	44.5	9/28/16	101.44		
MW-348C		4.3	9/28/16	100.09	-0.034	Downward
MW-349B	IA-10	36.5	9/28/16	99.64		
MW-349C		1.3	9/28/16	99.54	-0.003	Downward
MW-275B	IA-10	55.4	9/28/16	99.35		
MW-275C		20.8	9/28/16	99.46	0.003	Upward
MW-126B	IA-10	48.8	9/28/16	97.43		
MW-126C		18.8	9/28/16	97.78	0.012	Upward
MW-483B	IA-10	47.5	9/28/16	104.95		
MW-483C		22.2	9/28/16	104.10	-0.034	Downward
MW-70-1	IA-10	62.3	9/28/16	105.38		
MW-70C		20.5	9/28/16	103.04	-0.056	Downward
MW-223B	IA-10	66.1	9/28/16	116.08		
MW-223C		25.9	9/28/16	115.89	-0.005	Downward
MW-208B	IA-10	60.2	9/28/16	99.76		
MW-208C		20.9	9/28/16	99.71	-0.001	Downward

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-227B	IA-11	52.3	9/28/16	94.66	0.001	Upward
MW-227C		24.8	9/28/16	94.69		
MW-26A	IA-11	43.5	9/28/16	95.09	-0.008	Downward
MW-25C		13.7	9/28/16	94.85		
MW-71	IA-11	60.9	9/28/16	93.11	0.014	Upward
MW-71C		30.2	9/28/16	93.55		
MW-74	IA-11	57.7	9/28/16	93.38	0.004	Upward
MW-74C		30.0	9/28/16	93.49		
MW-332B	IA-11	66.7	9/28/16	93.89	-0.001	Downward
MW-332C		1.3	9/28/16	93.82		
MW-8B	IA-11	60.8	9/28/16	94.31	-0.005	Downward
MW-8C		30.3	9/28/16	94.15		
MW-451B	IA-11	41.2	9/28/16	93.16	-0.004	Downward
MW-303C		4.7	9/28/16	93.03		
MW-172C	IA-11	48.0	9/28/16	93.19	0.025	Upward
MW-172-S3		7.6	9/28/16	94.21		
MW-55B	IA-11	38.5	9/28/16	92.60	0.002	Upward
MW-55C		1.3	9/28/16	92.69		
MW-55	IA-11	70.7	9/28/16	92.45	0.003	Upward
MW-55C		1.3	9/28/16	92.69		
MW-99B	IA-11	54.0	9/28/16	92.19	0.020	Upward
MW-99C		19.3	9/28/16	92.88		
MW-366B	IA-11	53.7	9/28/16	91.87	0.024	Upward
MW-366C		13.8	9/28/16	92.82		
MW-231B	IA-12	70.0	9/28/16	106.01	0.050	Upward
MW-231C		45.6	9/28/16	107.24		
MW-266B	IA-12	44.9	9/28/16	116.50	-0.102	Downward
MW-266C		19.9	9/28/16	113.95		
MW-237B	IA-12	53.8	9/28/16	111.41	-0.129	Downward
MW-237C		11.0	9/28/16	105.88		
MW-265B	IA-12	65.2	9/28/16	110.20	-0.094	Downward
MW-265C		15.3	9/28/16	105.53		
MW-224B	IA-12	75.9	9/28/16	110.36	-0.016	Downward
MW-60G-S3		37.4	9/28/16	109.74		
MW-364B	IA-12	67.4	9/28/16	109.46	-0.022	Downward
MW-113		32.7	9/28/16	108.69		
MW-363B	IA-12	68.2	9/28/16	102.52	0.171	Upward
MW-363C		43.4	9/28/16	106.76		
MW-364B	IA-12	67.4	9/28/16	109.46	-0.011	Downward
MW-364C		41.7	9/28/16	109.17		
MW-60A-S2	IA-12	51.2	9/28/16	106.84	-0.046	Downward
MW-60A-S3		21.4	9/28/16	105.48		
MW-272B	IA-12	61.3	9/28/16	109.12	-0.002	Downward
MW-272C		31.6	9/28/16	109.06		
MW-375B	IA-12	61.4	9/28/16	108.97	-0.176	Downward
MW-375C		-0.2	9/28/16	98.15		
MW-271B	IA-12	50.3	9/28/16	99.65	-0.091	Downward
MW-271C		11.1	9/28/16	96.08		
MW-61B	IA-12	58.7	9/28/16	97.58	-0.040	Downward
MW-61C		3.1	9/28/16	95.37		
MW-114	IA-12	68.2	9/28/16	108.35	-0.253	Downward
DW-2B		16.2	9/28/16	95.20		
MW-376B	IA-12	60.4	9/28/16	106.87	-0.248	Downward
MW-376C		15.5	9/28/16	95.71		
MW-376B	IA-12	60.4	9/28/16	106.87	-0.426	Downward
MW-376-S3		35.5	9/28/16	96.26		
MW-3	IA-12	52.5	9/28/16	106.49	-0.339	Downward
MW-3C		19.1	9/28/16	95.16		
MW-142B	IA-13	56.1	9/28/16	91.77	0.048	Downward
MW-142C		21.4	9/28/16	93.45		
MW-143B	IA-13	53.1	9/28/16	92.40		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-143C		17.1	9/28/16	91.93	-0.013	Downward
MW-276B	IA-13	54.8	9/28/16	93.86		
MW-276C		19.5	9/28/16	75.91	-0.507	Downward
MW-148A	IA-14	54.7	9/28/16	65.59		
MW-148B		33.6	9/28/16	64.69	-0.043	Downward
MW-48	IA-14	45.6	9/28/16	58.26		
MW-48B		18.5	9/28/16	59.23	0.036	Upward
MW-131B	IA-14	58.7	9/28/16	86.73		
MW-131C		16.4	9/28/16	76.84	-0.234	Downward
MW-277B	IA-14	44.9	9/28/16	77.43		
MW-277C		8.3	9/28/16	68.65	-0.240	Downward
MW-124B	IA-15	52.6	9/28/16	68.15		
MW-124C		1.0	9/28/16	66.76	-0.027	Downward
MW-367-S2	IA-15	37.0	9/28/16	91.06		
MW-367-S3		6.8	9/28/16	91.46	0.013	Upward
MW-367B	IA-15	52.1	9/28/16	91.09		
MW-367C		22.1	9/28/16	92.28	0.040	Upward
MW-337B	IA-15	63.7	9/28/16	91.10		
MW-337C		16.8	9/28/16	92.02	0.020	Upward
MW-112B	IA-15	45.9	9/28/16	91.72		
MW-112C		11.6	9/28/16	92.19	0.014	Upward
MW-336B	IA-15	66.0	9/28/16	90.85		
MW-336C		24.0	9/28/16	86.08	-0.113	Downward
Vertical Gradient Between Zone S3 and Zone D1						
MW-258C	OS	-9.7	9/28/16	65.97		
DW-24		-54.9	9/28/16	58.83	-0.158	Downward
MW-215C	OS	13.4	9/28/16	93.20		
DW-11B		-1.9	9/28/16	93.44	0.016	Upward
MW-267C	OS	6.9	9/28/16	119.18		
DW-34A		-61.7	9/28/16	117.28	-0.028	Downward
MW-304C	OS	1.0	9/28/16	92.64		
DW-47A		-28.7	9/28/16	92.95	0.010	Upward
MW-145C	OS	1.2	9/28/16	68.82		
DW-49A		-29.2	9/28/16	68.61	-0.007	Downward
MW-353C	OS	12.2	9/28/16	98.11		
DW-64A		-109.7	9/28/16	95.09	-0.025	Downward
MW-201C	OS	21.5	9/28/16	104.73		
DW-7A		-11.7	9/28/16	102.06	-0.080	Downward
MW-201C	OS	21.5	9/28/16	104.73		
DW-7B		-64.3	9/28/16	100.20	-0.053	Downward
MW-391C	IA-1	-5.4	9/28/16	104.13		
DW-67A		-103.0	9/28/16	96.33	-0.080	Downward
MW-391-S3	IA-1	34.5	9/28/16	107.15		
DW-67A		-103.0	9/28/16	96.33	-0.079	Downward
MW-136C	IA-1	13.2	9/28/16	104.29		
DW-68A		-92.0	9/28/16	96.00	-0.079	Downward
DW-9A	IA-3	21.6	9/28/16	100.67		
DW-9B		-25.4	9/28/16	97.10	-0.076	Downward
MW-260-S3	IA-3	16.7	9/28/16	94.89		
DW-36A		-44.8	9/28/16	94.96	0.001	Upward
MW-351C	IA-4	22.9	9/28/16	104.38		
DW-21A		-26.8	9/28/16	101.42	-0.060	Downward
MW-264C	IA-6	4.5	9/28/16	101.35		
DW-26		-60.6	9/28/16	95.98	-0.082	Downward
DW-3B	IA-7	17.6	9/28/16	94.25		
DW-3C		-86.3	9/28/16	94.42	0.002	Upward
MW-212C	IA-7	24.6	9/28/16	100.78		
DW-45A		-43.0	9/28/16	96.67	-0.061	Downward
MW-218C	IA-7	22.8	9/28/16	96.10		
DW-43A		-27.2	9/28/16	94.79	-0.026	Downward
MW-377C	IA-7	22.2	9/28/16	95.62		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
DW-56A		-99.7	9/28/16	92.23	-0.028	Downward
MW-378C	IA-7	35.4	9/28/16	95.62		
DW-57A		-103.1	9/28/16	86.95	-0.063	Downward
MW-118C	IA-7	18.9	9/28/16	94.72		
DW-50B		-68.4	9/28/16	94.78	0.001	Upward
MW-270C	IA-7	35.4	9/28/16	94.67		
DW-37A		-61.7	9/28/16	100.54	0.060	Upward
MW-269C	IA-7	19.0	9/28/16	94.26		
DW-38A		-54.5	9/28/16	94.28	0.000	Slightly Upward
MW-463C	IA-7	8.5	9/28/16	94.46		
DW-62A		-21.7	9/28/16	94.49	0.001	Upward
MW-417C	IA-7	-1.7	9/28/16	94.49		
DW-62A		-21.7	9/28/16	94.49	0.0000	Equal
MW-373C	IA-7	14.5	9/28/16	94.29		
DW-58A		-115.2	9/28/16	94.26	-0.0002	Slightly Downward
MW-374C	IA-7	28.5	9/28/16	94.24		
DW-59A		-109.2	9/28/16	94.43	0.001	Upward
DW-13A	IA-10	13.25	9/28/16	100.02		
DW-13B		-75.99	9/28/16	95.32	-0.053	Downward
MW-273C	IA-10	15.6	9/28/16	117.21		
DW-33A		-43.0	9/28/16	110.03	-0.123	Downward
MW-274C	IA-10	26.6	9/28/16	119.11		
DW-16A		-100.8	9/28/16	103.70	-0.121	Downward
MW-268C	IA-10	28.2	9/28/16	116.17		
DW-35A		-28.6	9/28/16	110.14	-0.106	Downward
MW-348C	IA-10	4.3	9/28/16	100.09		
DW-13B		-76.0	9/28/16	95.32	-0.059	Downward
MW-301C	IA-11	1.8	9/28/16	93.75		
DW-42A		-30.4	9/28/16	93.42	-0.010	Downward
MW-99C	IA-11	19.3	9/28/16	92.88		
DW-51A		-36.0	9/28/16	92.83	-0.001	Downward
MW-366C	IA-11	13.8	9/28/16	92.82		
DW-52A		-34.4	9/28/16	92.60	-0.005	Downward
MW-266C	IA-12	19.9	9/28/16	113.95		
DW-32A		-49.1	9/28/16	104.08	-0.143	Downward
MW-273C	IA-12	15.6	9/28/16	117.21		
DW-31A		-50.6	9/28/16	103.33	-0.210	Downward
MW-265C	IA-12	15.3	9/28/16	105.53		
DW-30A		-64.8	9/28/16	98.23	-0.091	Downward
MW-364C	IA-12	4.5	9/28/16	109.17		
DW-8A		-8.5	9/28/16	102.66	-0.500	Downward
MW-364C	IA-12	4.5	9/28/16	109.17		
DW-8B		-74.8	9/28/16	96.45	-0.160	Downward
MW-272C	IA-12	31.6	9/28/16	109.06		
DW-29A		-63.3	9/28/16	96.60	-0.131	Downward
MW-375C	IA-12	-0.2	9/28/16	98.15		
DW-60A		-108.8	9/28/16	95.08	-0.028	Downward
MW-271C	IA-12	11.1	9/28/16	96.08		
DW-28A		-44.4	9/28/16	95.36	-0.013	Downward
DW-2B	IA-12	16.2	9/28/16	95.20		
DW-2-D1		-53.8	9/28/16	96.66	0.021	Upward
MW-376-S3	IA-12	35.5	9/28/16	96.26		
DW-61A		-31.6	9/28/16	95.16	-0.016	Downward
MW-376C	IA-12	15.5	9/28/16	95.71		
DW-61A		-31.6	9/28/16	95.16	-0.012	Downward
MW-142C	IA-13	21.4	9/28/16	93.45		
DW-53A		-40.8	9/28/16	93.50	0.001	Upward
MW-143C	IA-13	17.1	9/28/16	91.93		
DW-54A		-37.7	9/28/16	87.30	-0.084	Downward
MW-276C	IA-13	19.5	9/28/16	75.91		
DW-39A		-89.7	9/28/16	61.66	-0.131	Downward

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-149	IA-14	-15.9	9/28/16	61.80	-0.097	Downward
DW-17C		-49.7	9/28/16	58.53		
MW-48B	IA-14	18.5	9/28/16	59.23	-0.032	Downward
MW-48C		-21.9	9/28/16	57.95		
MW-367C	IA-15	15.5	9/28/16	92.28	0.012	Upward
DW-55A		-37.9	9/28/16	92.91		
MW-337C	IA-15	16.8	9/28/16	92.02	0.009	Upward
DW-25A		-48.3	9/28/16	92.61		
MW-112C	IA-15	11.6	9/28/16	92.19	-1.080	Downward
DW-25-D1		-9.6	9/28/16	69.30		
Vertical Gradient Between Zone D1 and Zone D2						
DW-7B	OS	-64.3	9/28/16	100.20	-0.025	Downward
DW-7C		-226.7	9/28/16	96.20		
DW-34A	OS	-28.6	9/28/16	117.28	-0.056	Downward
DW-34B		-193.6	9/28/16	108.12		
DW-67A	IA-1	-103.0	9/28/16	96.33	0.001	Upward
DW-67B		-157.0	9/28/16	96.40		
DW-68A	IA-1	-92.0	9/28/16	96.00	0.001	Upward
DW-68B		-174.0	9/28/16	96.05		
DW-36A	IA-3	-44.8	9/28/16	94.96	-0.002	Downward
DW-36B		-144.4	9/28/16	94.72		
DW-44A	IA-6	-36.4	9/28/16	100.01	-0.034	Downward
DW-44B		-173.1	9/28/16	95.41		
DW-6B	IA-7	-1.6	9/28/16	94.70	0.003	Upward
DW-6C		-177.8	9/28/16	95.20		
DW-37A	IA-7	-61.7	9/28/16	100.54	-0.066	Downward
DW-37B		-151.5	9/28/16	94.58		
DW-50B	IA-7	-68.4	9/28/16	94.78	-0.002	Downward
DW-50C		-168.6	9/28/16	94.53		
DW-38A	IA-7	-61.7	9/28/16	94.28	-0.328	Downward
DW-38B		-151.5	9/28/16	64.78		
DW-3C	IA-7	-86.3	9/28/16	94.42	-0.397	Downward
DW-3-D2		-167.7	9/28/16	62.09		
DW-14A	IA-10	-68.7	9/28/16	103.43	-0.125	Downward
DW-14B		-126.3	9/28/16	96.21		
DW-33A	IA-10	-43.0	9/28/16	110.03	-0.060	Downward
DW-33B		-162.1	9/28/16	102.86		
DW-16A	IA-10	-100.8	9/28/16	103.70	-0.016	Downward
DW-16B		-182.0	9/28/16	102.38		
DW-35A	IA-10	-28.6	9/28/16	110.14	-0.044	Downward
DW-35B		-193.6	9/28/16	102.81		
DW-13A	IA-10	13.3	9/28/16	100.02	-0.030	Downward
DW-13-D2		-146.3	9/28/16	95.26		
DW-40A	IA-10	-48.1	9/28/16	96.06	-0.023	Downward
DW-40B		-152.0	9/28/16	93.65		
DW-10B	IA-11	-27.4	9/28/16	94.12	-0.003	Downward
DW-10C		-191.2	9/28/16	93.68		
DW-8B	IA-12	-74.8	9/28/16	96.45	-0.001	Downward
DW-8C		-189.3	9/28/16	96.34		
DW-28A	IA-12	-44.4	9/28/16	95.36	-0.003	Downward
DW-28B		-179.3	9/28/16	94.91		
DW-2-D1	IA-12	-53.8	9/28/16	96.66	-0.016	Downward
DW-2-D2		-153.8	9/28/16	95.03		
DW-32A	IA-12	-49.1	9/28/16	104.08	-0.053	Downward
DW-32B		-193.7	9/28/16	96.38		
DW-31A	IA-12	-50.6	9/28/16	103.33	-1.638	Downward
DW-31B		-189.4	9/28/16	-124.01		
DW-30A	IA-12	-64.8	9/28/16	98.23	-0.016	Downward
DW-30B		-144.7	9/28/16	96.96		
DW-29A	IA-12	-63.3	9/28/16	96.60	-0.015	Downward
DW-29B		-175.5	9/28/16	94.90		

Table 5-1A
Calculated Vertical Hydraulic Gradients
September 2016
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
DW-5B	IA-12	-12.9	9/28/16	98.21	-0.019	Downward
DW-5C		-181.9	9/28/16	94.92		
DW-17C	IA-14	-49.7	9/28/16	58.53	-0.035	Downward
DW-17D		-232.9	9/28/16	52.11		
DW-25-D1	IA-15	-9.6	9/28/16	69.30	0.151	Upward
DW-25B		-141.1	9/28/16	89.11		
Vertical Gradient Between Zone D2 and Zone D3						
DW-7C	OS	-226.7	9/28/16	96.20	0.007	Upward
DW-7D		-339.7	9/28/16	96.97		
DW-14B	IA-10	-126.3	9/28/16	96.21	0.003	Upward
DW-14C		-275.6	9/28/16	96.62		
DW-33B	IA-10	-162.1	9/28/16	102.86	-0.604	Downward
DW-33C		-316.2	9/28/16	9.73		
DW-16B	IA-10	-182.0	9/28/16	102.38	-1.070	Downward
DW-16C		-334.8	9/28/16	-61.13		
DW-27B	IA-10	-188.4	9/28/16	99.49	-0.021	Downward
DW-27C		-313.9	9/28/16	96.80		
DW-40B	IA-10	-152.0	9/28/16	93.65	0.034	Upward
DW-40C		-308.4	9/28/16	99.00		
DW-44B	IA-6	-173.1	9/28/16	95.41	0.051	Upward
DW-44C		-267.1	9/28/16	100.17		
DW-6C	IA-7	-177.8	9/28/16	95.20	-0.002	Downward
DW-6D		-392.1	9/28/16	94.78		
DW-8C	IA-12	-189.3	9/28/16	96.34	0.022	Upward
DW-8D		-334.1	9/28/16	99.50		
DW-31B	IA-12	-189.4	9/28/16	-124.01	-0.688	Downward
DW-31C		-317.2	9/28/16	-211.89		
DW-29B	IA-12	-175.5	9/28/16	94.90	-0.009	Downward
DW-29C		-309.1	9/28/16	93.64		
DW-2-D2	IA-12	-153.8	9/28/16	95.03	-0.009	Downward
DW-2D		-304.3	9/28/16	93.72		
DW-39B	IA-13	-186.1	9/28/16	53.49	0.038	Upward
DW-39C		-394.0	9/28/16	61.46		
DW-25B	IA-15	-141.1	9/28/16	89.11	-0.035	Downward
DW-25C		-342.9	9/28/16	82.11		
Vertical Gradient Between Zone D3 and Zone D4						
DW-25C	IA-15	-342.9	9/28/16	77.24	-0.100	Downward
DW-25D		-478.6	9/28/16	63.69		

Notes:

Downward - Downward flow of groundwater

Upward - Upward flow of groundwater

Equal - no flow (static)

Vertical hydraulic gradients were calculated for each well pair as follows:

$$\frac{\text{Deep Well Groundwater Elev. (ft)} - \text{Shallow Well Groundwater Elev. (ft)}}{\text{Deep Total Depth to Center of Screen (ft amsl)} - \text{Shallow Depth to Center of Screen (ft amsl)}} = \text{Vertical Hydraulic Gradient (ft/ft)}^*$$

* This formula is being used in lieu of Todd (1980) to better address the Site specific geologic/hydrogeologic conditions as they relate to groundwater elevation and/or well screen length variation across the hydrostratigraphic zones.

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
Vertical Gradient Between Zone S1 and Zone S2						
MW-267A	OS	92.9	2/28/17	127.81	-0.116	Downward
MW-267B		42.5	2/28/17	121.95		
MW-304A	OS	76.0	2/28/17	91.95	0.024	Upward
MW-304B		41.2	2/28/17	92.77		
MW-338A	OS	77.7	2/28/17	89.96	0.045	Upward
MW-338B		43.0	2/28/17	91.52		
MW-339A	OS	78.4	2/28/17	89.69	0.040	Upward
MW-339B		43.6	2/28/17	91.07		
MW-340A	OS	79.0	2/28/17	89.05	-0.094	Downward
MW-340B		44.0	2/28/17	85.77		
MW-353A	OS	87.0	2/28/17	113.38	0.0003	Slightly Upward
MW-353B		58.0	2/28/17	113.39		
MW-257A	OS	71.2	2/28/17	87.52	-0.013	Downward
MW-257B		46.2	2/28/17	87.19		
MW-213B	OS	93.5	2/28/17	118.13	0.060	Upward
MW-213C		58.7	2/28/17	120.20		
MW-214A	OS	94.2	2/28/17	102.05	-0.018	Downward
MW-214B		66.5	2/28/17	101.54		
MW-201A	OS	90.2	2/28/17	112.71	0.015	Upward
MW-201B		67.5	2/28/17	113.06		
MW-201	OS	80.8	2/28/17	113.06	0.000	Equal
MW-201B		67.5	2/28/17	113.06		
MW-209A	OS	79.8	2/28/17	99.02	-0.031	Downward
MW-209B		57.8	2/28/17	98.33		
MW-103A	OS	78.9	2/28/17	93.65	0.132	Upward
MW-103B		56.5	2/28/17	96.61		
MW-104A	OS	78.6	2/28/17	NA	NA	NA
MW-104B		58.1	2/28/17	92.74		
MW-105A	OS	85.0	2/28/17	97.33	0.004	Upward
MW-105B		54.6	2/28/17	97.45		
MW-106A	OS	81.58	2/28/17	92.40	0.097	Upward
MW-106B		58.11	2/28/17	94.68		
MW-108A	OS	81.1	2/28/17	90.94	0.075	Upward
MW-108B		58.0	2/28/17	92.67		
MW-144A	OS	76.6	2/28/17	92.45	0.005	Upward
MW-144B		55.8	2/28/17	92.55		
MW-171A	OS	63.3	2/28/17	89.55	-0.087	Downward
MW-171B		48.2	2/28/17	88.24		
MW-145A	OS	68.8	2/28/17	79.53	-0.035	Downward
MW-145B		61.4	2/28/17	79.27		
MW-384A	IA-1	106.2	2/28/17	116.44	-0.045	Downward
MW-394B		44.6	2/28/17	113.69		
MW-387A	IA-1	90.7	2/28/17	114.35	-0.057	Downward
MW-387B		55.7	2/28/17	112.34		
MW-388A	IA-1	90.9	2/28/17	114.46	-0.130	Downward
MW-388B		51.0	2/28/17	109.26		
MW-390A	IA-1	88.9	2/28/17	114.05	-0.070	Downward
MW-390B		65.9	2/28/17	112.44		
MW-357-SBR	IA-1	100.9	2/28/17	NA	NA	NA
MW-357-S2		55.9	2/28/17	112.05		
MW-392A	IA-1	84.6	2/28/17	112.10	-0.059	Downward
MW-392B		45.0	2/28/17	109.76		
MW-393A	IA-1	80.3	2/28/17	111.57	-0.193	Downward
MW-393B		65.6	2/28/17	108.72		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-416A	IA-1	71.2	2/28/17	111.01	-0.109	Downward
MW-416B		58.6	2/28/17	109.64		
MW-136	IA-1	94.5	2/28/17	109.71	-0.054	Downward
MW-136B		63.2	2/28/17	108.03		
MW-226A	IA-2	99.5	2/28/17	110.82	-0.164	Downward
MW-226B		69.5	2/28/17	105.89		
MW-342A	IA-2	97.7	2/28/17	105.56	-0.009	Downward
MW-241B		57.7	2/28/17	105.19		
MW-341A	IA-2	94.3	2/28/17	105.57	-0.003	Downward
MW-186-2		74.1	2/28/17	105.50		
MW-243A	IA-2	90.9	2/28/17	106.84	-0.049	Downward
MW-243B		53.5	2/28/17	105.01		
MW-343A	IA-2	95.2	2/28/17	105.55	0.001	Upward
MW-246B		56.7	2/28/17	105.59		
MW-39A	IA-3	97.8	2/28/17	110.90	-0.038	Downward
MW-40A		69.5	2/28/17	109.83		
MW-38	IA-3	109.7	2/28/17	112.94	-0.081	Downward
MW-41		49.7	2/28/17	108.09		
MW-225A	IA-3	91.7	2/28/17	110.62	-0.109	Downward
MW-225B		77.2	2/28/17	109.03		
MW-440A	IA-3	91.4	2/28/17	109.44	-0.039	Downward
MW-24C		62.1	2/28/17	108.29		
MW-439A	IA-3	90.0	2/28/17	110.24	-0.046	Downward
MW-439B		64.9	2/28/17	109.07		
MW-191A	IA-3	100.3	2/28/17	112.48	-0.103	Downward
MW-191B	IA-3	62.8	2/28/17	108.63		
MW-189A	IA-3	100.4	2/28/17	112.16	-0.153	Downward
MW-189B		77.4	2/28/17	108.64		
MW-38	IA-3	109.7	2/28/17	112.94	-0.077	Downward
MW-40A		69.5	2/28/17	109.83		
MW-39A	IA-3	97.8	2/28/17	110.90	-0.058	Downward
MW-41		49.7	2/28/17	108.09		
MW-426A	IA-4	81.1	2/28/17	112.41	-0.134	Downward
MW-426B		56.8	2/28/17	109.15		
MW-371A	IA-4	90.4	2/28/17	113.50	-0.166	Downward
MW-371B		71.8	2/28/17	110.41		
MW-427A	IA-4	81.4	2/28/17	110.82	-0.095	Downward
MW-427B		57.0	2/28/17	108.51		
MW-428A	IA-4	81.3	2/28/17	110.35	-0.106	Downward
MW-428B		56.7	2/28/17	107.74		
MW-2	IA-4	79.9	2/28/17	114.66	-0.279	Downward
MW-2B		53.1	2/28/17	107.16		
MW-438A	IA-4	93.9	2/28/17	110.09	-0.103	Downward
MW-438B		68.9	2/28/17	107.50		
MW-350A	IA-6	92.8	2/28/17	107.29	-0.069	Downward
MW-350B		64.3	2/28/17	105.33		
MW-346A	IA-6	93.4	2/28/17	106.24	-0.075	Downward
MW-346B		65.0	2/28/17	104.10		
MW-423A	IA-6	88.6	2/28/17	106.31	-0.039	Downward
MW-423B		35.0	2/28/17	104.21		
MW-322A	IA-6	76.3	2/28/17	106.00	-0.086	Downward
MW-422B		34.2	2/28/17	102.39		
MW-6A	IA-6	82.6	2/28/17	102.29	-0.025	Downward
MW-50		57.8	2/28/17	101.68		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-317A	IA-6	94.3	2/28/17	104.46		
MW-317B		63.9	2/28/17	102.37	-0.069	Downward
MW-447A	IA-6	93.5	2/28/17	105.73		
MW-447B		63.3	2/28/17	103.64	-0.069	Downward
MW-94	IA-6	87.7	2/28/17	101.18		
MW-22A		54.3	2/28/17	100.54	-0.019	Downward
MW-318A	IA-6	94.2	2/28/17	105.90		
MW-318B		33.8	2/28/17	103.99	-0.032	Downward
MW-157	IA-6	88.3	2/28/17	NA		
MW-157B		63.3	2/28/17	105.67	NA	NA
MW-6A	IA-6	82.6	2/28/17	102.29		
MW-53		57.9	2/28/17	101.90	-0.016	Downward
MW-218	IA-7	83.2	2/28/17	99.19		
MW-218B		52.7	2/28/17	98.73	-0.015	Downward
MW-288A	IA-7	75.8	2/28/17	100.40		
MW-288B		48.8	2/28/17	100.60	0.007	Upward
MW-406A	IA-7	70.3	2/28/17	99.65		
MW-406B		37.7	2/28/17	98.70	-0.029	Downward
PZ-05	IA-7	87.8	2/28/17	97.83		
MW-238B		54.3	2/28/17	96.56	-0.038	Downward
MW-292A	IA-7	74.7	2/28/17	98.38		
MW-292B		46.4	2/28/17	98.04	-0.012	Downward
MW-417A	IA-7	85.4	2/28/17	104.94		
MW-417B		43.1	2/28/17	96.60	-0.197	Downward
MW-373A	IA-7	90.1	2/28/17	104.15		
MW-373B		55.9	2/28/17	96.26	-0.231	Downward
MW-125	IA-7	96.9	2/28/17	NA		
MW-125A		79.2	2/28/17	100.43	NA	NA
MW-15A	IA-7	89.24	2/28/17	101.67		
MW-15B		74.71	2/28/17	102.26	0.041	Upward
MW-128	IA-7	95.4	2/28/17	102.34		
MW-128B		72.8	2/28/17	107.78	0.241	Upward
MW-7B	IA-9	89.4	2/28/17	98.96		
MW-7C		71.8	2/28/17	98.69	-0.015	Downward
MW-152R	IA-9	96.6	2/28/17	106.22		
MW-152BR		73.3	2/28/17	105.09	-0.049	Downward
MW-170AR	IA-9	96.3	2/28/17	106.27		
MW-170BR		73.3	2/28/17	106.34	0.003	Upward
MW-466A	IA-9	96.6	2/28/17	106.23		
MW-297B		71.8	2/28/17	105.13	-0.044	Downward
MW-467A	IA-9	97.3	2/28/17	106.84		
MW-298B		72.2	2/28/17	104.96	-0.075	Downward
MW-170R	IA-9	96.5	2/28/17	106.25		
MW-170BR		73.3	2/28/17	106.34	0.004	Upward
MW-21	IA-9	94.8	2/28/17	104.07		
MW-252B		59.8	2/28/17	102.48	-0.045	Downward
MW-323A	IA-9	74.7	2/28/17	100.62		
MW-323B		39.8	2/28/17	100.41	-0.006	Downward
53RI-MW4	IA-10	105.3	2/28/17	NA		
MW-16AW		72.1	2/28/17	NA	NA	NA
53RI-MW2	IA-10	103.8	2/28/17	115.42		
MW-223B		66.1	2/28/17	116.21	0.021	Upward
66RI-MW2	IA-10	99.6	2/28/17	117.53		
MW-230B		65.3	2/28/17	117.50	-0.001	Downward
186RI-MW1	IA-10	101.7	2/28/17	114.86		
MW-268B		62.2	2/28/17	117.14	0.058	Upward

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-274A	IA-10	100.7	2/28/17	124.60		
MW-274B		57.3	2/28/17	116.66	-0.183	Downward
MW-259A	IA-10	100.9	2/28/17	116.44		
MW-259B		67.3	2/28/17	115.76	-0.020	Downward
MW-285A	IA-10	104.0	2/28/17	115.82		
MW-259B		67.3	2/28/17	115.76	-0.002	Downward
MW-229A	IA-10	108.7	2/28/17	119.51		
MW-229B		71.8	2/28/17	118.00	-0.041	Downward
MW-44	IA-10	103.5	2/28/17	118.18		
MW-44B		76.2	2/28/17	114.52	-0.134	Downward
MW-207A	IA-10	93.9	2/28/17	108.35		
MW-207B		61.1	2/28/17	106.62	-0.053	Downward
MW-287A	IA-10	104.6	2/28/17	116.09		
MW-259B		67.3	2/28/17	115.76	-0.009	Downward
MW-280A	IA-10	93.3	2/28/17	118.08		
MW-280B		58.5	2/28/17	118.05	-0.001	Downward
MW-27	IA-10	92.8	2/28/17	109.81		
MW-27B		58.2	2/28/17	109.10	-0.021	Downward
MW-275A	IA-10	86.2	2/28/17	99.78		
MW-275B		55.4	2/28/17	100.38	0.019	Upward
MW-126	IA-10	83.8	2/28/17	97.46		
MW-126B		48.8	2/28/17	98.19	0.021	Upward
MW-208A	IA-10	91.6	2/28/17	100.87		
MW-208B		60.2	2/28/17	100.87	0.000	Equal
MW-484A	IA-11	83.0	2/28/17	95.30		
MW-484B		75.4	2/28/17	95.11	-0.025	Downward
MW-498A	IA-11	82.6	2/28/17	93.28		
MW-498B		75.1	2/28/17	94.14	0.115	Upward
MW-227A	IA-11	79.9	2/28/17	96.85		
MW-227B		52.3	2/28/17	96.07	-0.028	Downward
MW-497A	IA-11	82.3	2/28/17	95.37		
MW-497B		75.0	2/28/17	95.01	-0.049	Downward
MW-499A	IA-11	81.5	2/28/17	93.34		
MW-499B		74.0	2/28/17	94.65	0.173	Upward
MW-33A	IA-11	79.9	2/28/17	94.00		
MW-75		60.0	2/28/17	94.67	0.034	Upward
MW-33B	IA-11	72.0	2/28/17	93.94		
MW-75		60.0	2/28/17	94.67	0.061	Upward
MW-33	IA-11	73.2	2/28/17	94.39		
MW-75		60.0	2/28/17	94.67	0.021	Upward
MW-8A	IA-11	79.2	2/28/17	104.66		
MW-8B		60.8	2/28/17	96.00	-0.470	Downward
MW-102	IA-11	85.3	2/28/17	92.77		
MW-450B		42.5	2/28/17	93.74	0.023	Upward
MW-101	IA-11	80.6	2/28/17	92.82		
MW-99B		79.4	2/28/17	92.89	0.058	Upward
MW-100	IA-11	86.4	2/28/17	92.67		
MW-99B		54.0	2/28/17	92.89	0.007	Upward
MW-99	IA-11	79.4	2/28/17	93.07		
MW-99B		54.0	2/28/17	92.89	-0.007	Downward
MW-366A	IA-11	80.2	2/28/17	92.24		
MW-366B		53.7	2/28/17	92.65	0.015	Upward
MW-62	IA-11	78.2	2/28/17	95.12		
MW-63		55.2	2/28/17	95.17	0.002	Upward
MW-68	IA-11	86.1	2/28/17	92.05		
MW-71		60.9	2/28/17	93.35	0.052	Upward
MW-72	IA-11	80.1	2/28/17	94.75		
MW-74		57.7	2/28/17	94.11	-0.029	Downward
MW-25	IA-11	85.8	2/28/17	95.05		
MW-26A		43.5	2/28/17	95.77	0.017	Upward

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-60G	IA-12	90.0	2/28/17	112.28	0.006	Upward
MW-224B		75.9	2/28/17	112.37		
MW-80C	IA-12	89.7	2/28/17	111.65	-0.001	Downward
MW-24B		62.1	2/28/17	111.63		
MW-266A	IA-12	77.1	2/28/17	117.39	-0.048	Downward
MW-266B		44.9	2/28/17	115.85		
MW-237A	IA-12	100.4	2/28/17	116.69	-0.091	Downward
MW-237B		53.8	2/28/17	112.44		
MW-435A	IA-12	92.9	2/28/17	112.19	-0.022	Downward
MW-435B		67.9	2/28/17	111.65		
MW-60R	IA-12	93.6	2/28/17	112.43	-0.003	Downward
MW-60-Z2R		62.9	2/28/17	112.33		
MW-60M	IA-12	91.0	2/28/17	112.94	-0.025	Downward
MW-263B		63.5	2/28/17	112.26		
MW-383A	IA-12	90.8	2/28/17	112.37	-0.039	Downward
MW-382B		62.9	2/28/17	111.27		
MW-379A	IA-12	90.7	2/28/17	113.22	-0.070	Downward
MW-382B		62.9	2/28/17	111.27		
MW-380A	IA-12	90.0	2/28/17	112.41	0.127	Upward
MW-80-Z2R		62.8	2/28/17	115.87		
MW-436A	IA-12	89.5	2/28/17	113.30	-0.058	Downward
MW-436B		69.4	2/28/17	112.13		
MW-441A	IA-12	91.8	2/28/17	113.85	-0.061	Downward
MW-441B		64.2	2/28/17	112.16		
MW-295A	IA-12	90.8	2/28/17	113.57	-0.081	Downward
MW-295B		63.3	2/28/17	111.35		
MW-442A	IA-12	91.4	2/28/17	113.51	-0.053	Downward
MW-442B		63.9	2/28/17	112.05		
MW-443A	IA-12	92.9	2/28/17	114.29	-0.069	Downward
MW-443B		65.4	2/28/17	112.39		
MW-365A	IA-12	87.3	2/28/17	105.73	0.119	Upward
MW-365B		67.2	2/28/17	108.11		
MW-444A	IA-12	91.8	2/28/17	111.80	-0.014	Downward
MW-444B		64.4	2/28/17	111.42		
MW-445A	IA-12	90.7	2/28/17	112.37	-0.054	Downward
MW-445B		63.3	2/28/17	110.89		
MW-362A	IA-12	88.2	2/28/17	113.31	-0.051	Downward
MW-362B		68.1	2/28/17	112.29		
MW-363A	IA-12	88.2	2/28/17	112.46	-0.083	Downward
MW-363B		68.2	2/28/17	110.80		
MW-361A	IA-12	88.8	2/28/17	111.45	-0.073	Downward
MW-361B		68.7	2/28/17	109.98		
MW-360A	IA-12	89.0	2/28/17	111.43	-0.010	Downward
MW-360B		68.9	2/28/17	111.22		
MW-359A	IA-12	88.9	2/28/17	111.92	-0.028	Downward
MW-359B		68.8	2/28/17	111.36		
MW-358A	IA-12	88.8	2/28/17	111.61	-0.011	Downward
MW-358B		68.7	2/28/17	111.39		
MW-60A	IA-12	88.3	2/28/17	113.67	-0.108	Downward
MW-60A-S2		51.2	2/28/17	109.68		
MW-232B	IA-12	77.4	2/28/17	115.17	-0.187	Downward
MW-232C		48.2	2/28/17	109.72		
MW-272A	IA-12	82.8	2/28/17	115.26	-0.114	Downward
MW-272B		61.3	2/28/17	112.81		
MW-375A	IA-12	79.4	2/28/17	113.12	-0.023	Downward
MW-375B		61.4	2/28/17	112.71		
MW-271A	IA-12	86.0	2/28/17	112.19	-0.094	Upward
MW-271B		50.3	2/28/17	108.84		
MW-61	IA-12	109.4	2/28/17	129.54	-0.581	Downward
MW-61B		58.7	2/28/17	100.05		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-114A	IA-12	78.7	2/28/17	112.16	-0.020	Downward
MW-114		68.2	2/28/17	111.95		
MW-142	IA-13	75.1	2/28/17	92.47	-0.001	Downward
MW-142B		56.1	2/28/17	92.46		
MW-143	IA-13	75.3	2/28/17	92.42	0.040	Upward
MW-143B		53.1	2/28/17	93.31		
MW-276A	IA-13	80.5	2/28/17	96.01	-0.007	Downward
MW-276B		54.8	2/28/17	95.83		
MW-131	IA-14	73.5	2/28/17	89.04	-0.080	Downward
MW-131B		58.7	2/28/17	87.86		
MW-277A	IA-14	70.5	2/28/17	79.39	-0.058	Downward
MW-277B		44.9	2/28/17	77.91		
MW-367A	IA-15	77.1	2/28/17	88.62	0.124	Upward
MW-367B		52.1	2/28/17	91.70		
MW-367A	IA-15	77.1	2/28/17	88.62	0.077	Upward
MW-367-S2		37.0	2/28/17	91.70		
MW-112	IA-15	82.2	2/28/17	90.04	0.046	Upward
MW-112B		45.9	2/28/17	91.70		
MW-124A	IA-15	60.7	2/28/17	71.25	-0.291	Downward
MW-124B		52.6	2/28/17	68.91		
Vertical Gradient Between Zone S2 and Zone S3						
MW-214B	OS	66.5	12/15/15	101.54	0.029	Upward
MW-214C		31.9	12/15/15	102.55		
MW-209B	OS	57.8	12/15/15	98.33	-0.002	Downward
MW-209C		12.8	12/15/15	98.26		
MW-104B	OS	58.1	12/15/15	92.74	0.031	Upward
MW-104C		7.6	12/15/15	94.32		
MW-171B	OS	48.2	12/15/15	88.24	0.054	Upward
MW-171C		13.4	12/15/15	90.10		
MW-267B	OS	42.5	12/15/15	121.95	-0.046	Downward
MW-267C		6.9	12/15/15	120.30		
MW-236B	OS	64.6	12/15/15	99.43	-0.059	Downward
MW-236C		48.1	12/15/15	98.45		
MW-478B	OS	32.7	12/15/15	93.93	0.008	Upward
MW-478C		-2.2	12/15/15	94.22		
MW-304B	OS	41.2	12/15/15	92.77	0.020	Upward
MW-304C		1.0	12/15/15	93.57		
MW-338B	OS	43.0	12/15/15	91.52	-0.010	Downward
MW-338C		3.0	12/15/15	91.13		
MW-339B	OS	43.6	12/15/15	91.07	0.001	Upward
MW-339C		3.5	12/15/15	91.10		
MW-340B	OS	44.0	12/15/15	85.77	-0.388	Downward
MW-340C		4.0	12/15/15	70.24		
MW-145B	OS	61.4	12/15/15	79.27	-0.158	Downward
MW-145C		1.2	12/15/15	69.73		
MW-146B	OS	37.6	12/15/15	69.45	-0.014	Downward
MW-146C		13.7	12/15/15	69.12		
MW-258B	OS	36.2	12/15/15	72.23	-0.054	Downward
MW-258C		-9.7	12/15/15	69.74		
MW-353B	OS	58.0	12/15/15	113.39	-0.285	Downward
MW-353C		12.2	12/15/15	100.32		
MW-201B	OS	67.5	12/15/15	113.06	-0.134	Downward
MW-201C		21.5	12/15/15	106.90		
MW-394B	IA-1	44.6	12/15/15	113.69	-0.221	Downward
MW-394C		11.4	12/15/15	106.35		
MW-387B	IA-1	55.7	12/15/15	112.34	-0.124	Downward
MW-387C		-4.4	12/15/15	104.88		
MW-357-S2	IA-1	55.9	12/15/15	112.05	-0.187	Downward
MW-357-S3		30.7	12/15/15	107.32		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-392B	IA-1	45.0	12/15/15	109.76	-0.089	Downward
MW-392C		-5.1	12/15/15	105.30		
MW-393B	IA-1	65.6	12/15/15	108.72	-0.047	Downward
MW-393C		-4.3	12/15/15	105.47		
MW-416B	IA-1	58.6	12/15/15	109.64	-0.080	Downward
MW-416C		-1.5	12/15/15	104.82		
MW-136B	IA-1	63.2	12/15/15	108.03	-0.063	Downward
MW-136C		13.2	12/15/15	104.87		
MW-226B	IA-2	69.5	12/15/15	105.89	-0.022	Downward
MW-226C		29.4	12/15/15	105.00		
MW-186-2	IA-2	74.1	12/15/15	105.50	0.0005	Slightly Upward
MW-186B		32.1	12/15/15	105.52		
MW-313B	IA-2	58.5	12/15/15	105.04	0.003	Upward
MW-311C		28.8	12/15/15	105.15		
MW-225B	IA-3	77.2	12/15/15	109.03	-0.050	Downward
MW-225C		31.4	12/15/15	106.74		
MW-228B	IA-3	71.4	12/15/15	108.99	-0.193	Downward
MW-228C		31.4	12/15/15	101.26		
MW-24C	IA-3	62.1	12/15/15	108.29	-0.107	Downward
MW-239C		36.6	12/15/15	105.58		
MW-260C	IA-3	67.3	12/15/15	95.93	0.012	Upward
MW-260-S3		16.7	12/15/15	96.54		
MW-371B	IA-4	71.8	12/15/15	110.41	-0.090	Downward
MW-371C		1.9	12/15/15	104.09		
MW-428B	IA-4	56.7	12/15/15	107.74	-0.066	Downward
MW-428C		1.8	12/15/15	104.14		
MW-2B	IA-4	53.1	12/15/15	107.16	-0.046	Downward
MW-2C		0.5	12/15/15	104.76		
MW-351B	IA-4	58.3	12/15/15	106.92	-0.030	Downward
MW-351C		22.9	12/15/15	105.84		
MW-53	IA-6	57.9	12/15/15	101.90	0.006	Upward
MW-54		32.9	12/15/15	102.05		
MW-50	IA-6	57.8	12/15/15	101.68	0.007	Upward
MW-56		32.7	12/15/15	101.86		
MW-22A	IA-6	54.3	12/15/15	100.54	NA	NA
MW-86		29.6	12/15/15	NA		
MW-350B	IA-6	64.3	12/15/15	105.33	-0.047	Downward
MW-350C		24.2	12/15/15	103.46		
MW-346B	IA-6	65.0	12/15/15	104.10	-0.022	Downward
MW-346C		25.1	12/15/15	103.21		
MW-420B	IA-6	32.4	12/15/15	103.30	-0.030	Downward
MW-420C		27.3	12/15/15	103.15		
MW-264B	IA-6	58.8	12/15/15	102.64	-0.009	Downward
MW-264C		4.5	12/15/15	102.13		
MW-424B	IA-6	35.1	12/15/15	102.59	0.042	Upward
MW-424C		26.7	12/15/15	102.94		
MW-422B	IA-6	34.2	12/15/15	102.39	-0.008	Downward
MW-422C		25.1	12/15/15	102.32		
MW-321B	IA-6	32.3	12/15/15	101.94	-0.101	Downward
MW-321C		37.3	12/15/15	102.44		
MW-317B	IA-6	63.9	12/15/15	102.37	0.014	Upward
MW-317C		39.1	12/15/15	102.71		
MW-251B	IA-6	61.2	12/15/15	105.22	-0.066	Downward
MW-251C		31.0	12/15/15	103.24		
MW-218B	IA-7	52.7	12/15/15	98.73	-0.035	Downward
MW-218C		22.8	12/15/15	97.69		
MW-253B	IA-7	58.0	12/15/15	103.96	-0.056	Downward
MW-253C		23.0	12/15/15	102.00		
MW-377B	IA-7	50.2	12/15/15	97.65	-0.010	Downward
MW-377C		22.2	12/15/15	97.38		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-378B	IA-7	60.4	12/15/15	96.86	0.008	Upward
MW-378C		35.4	12/15/15	97.06		
MW-118	IA-7	59.7	12/15/15	96.99	-0.014	Downward
MW-118C		18.9	12/15/15	96.42		
MW-238B	IA-7	54.3	12/15/15	96.56	-0.014	Downward
MW-238C		23.6	12/15/15	96.13		
MW-417B	IA-7	43.1	12/15/15	96.60	-0.010	Downward
MW-417C		-1.7	12/15/15	96.16		
MW-373B	IA-7	55.9	12/15/15	96.26	-0.005	Downward
MW-373C		14.5	12/15/15	96.04		
MW-374B	IA-7	59.6	12/15/15	96.53	-0.021	Downward
MW-374C		28.5	12/15/15	95.89		
MW-204B	IA-7	64.2	12/15/15	99.96	0.010	Upward
MW-204C		28.1	12/15/15	100.33		
MW-128B	IA-7	72.8	12/15/15	107.78	-0.040	Downward
MW-128C		52.9	12/15/15	106.99		
MW-252B	IA-9	59.8	12/15/15	102.48	0.024	Upward
MW-252C		24.9	12/15/15	103.33		
MW-323B	IA-9	39.8	12/15/15	100.41	-0.009	Downward
MW-323C		9.9	12/15/15	100.15		
MW-230B	IA-10	65.3	12/15/15	117.50	-0.008	Downward
MW-230C		30.1	12/15/15	117.23		
MW-206B	IA-10	65.6	12/15/15	118.49	-0.024	Downward
MW-206C		30.2	12/15/15	117.64		
MW-229B	IA-10	71.8	12/15/15	118.00	0.010	Upward
MW-229C		36.4	12/15/15	118.36		
MW-44B	IA-10	76.2	12/15/15	114.52	-0.084	Downward
MW-44C		38.3	12/15/15	111.34		
MW-207B	IA-10	61.1	12/15/15	106.62	NA	NA
MW-207C		24.2	12/15/15	NA		
MW-273B	IA-10	66.8	12/15/15	118.18	-0.014	Downward
MW-273C		15.6	12/15/15	117.47		
MW-280B	IA-10	58.5	12/15/15	118.05	-0.0003	Slightly Downward
MW-280C		28.5	12/15/15	118.04		
MW-274B	IA-10	57.3	12/15/15	116.66	0.051	Upward
MW-274C		26.6	12/15/15	118.22		
MW-268B	IA-10	62.2	12/15/15	117.14	-0.007	Downward
MW-268C		28.2	12/15/15	116.89		
MW-259B	IA-10	67.3	12/15/15	115.76	-0.063	Downward
MW-259C		0.2	12/15/15	111.55		
MW-479B	IA-10	70.5	12/15/15	109.65	-0.067	Downward
MW-479C		0.6	12/15/15	104.95		
MW-27B	IA-10	58.2	12/15/15	109.10	-0.021	Downward
MW-27C		27.9	12/15/15	108.46		
MW-482B	IA-10	57.9	12/15/15	106.94	-0.026	Downward
MW-482C		13.3	12/15/15	105.78		
MW-347B	IA-10	39.4	12/15/15	102.59	-0.056	Downward
MW-347C		24.3	12/15/15	101.74		
MW-319B	IA-10	51.9	12/15/15	101.23	-0.032	Downward
MW-319C		22.4	12/15/15	100.28		
MW-348B	IA-10	44.5	12/15/15	102.44	-0.030	Downward
MW-348C		4.3	12/15/15	101.23		
MW-349B	IA-10	36.5	12/15/15	100.67	-0.003	Downward
MW-349C		1.3	12/15/15	100.57		
MW-275B	IA-10	55.4	12/15/15	100.38	0.004	Upward
MW-275C		20.8	12/15/15	100.52		
MW-126B	IA-10	48.8	12/15/15	98.19	0.014	Upward
MW-126C		18.8	12/15/15	98.62		
MW-483B	IA-10	47.5	12/15/15	105.77	-0.039	Downward
MW-483C		22.2	12/15/15	104.78		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-70-1	IA-10	62.3	12/15/15	105.79	-0.038	Downward
MW-70C		20.5	12/15/15	104.19		
MW-223B	IA-10	66.1	12/15/15	116.21	0.001	Upward
MW-223C		25.9	12/15/15	116.25		
MW-208B	IA-10	60.2	12/15/15	100.87	-0.002	Downward
MW-208C		20.9	12/15/15	100.79		
MW-227B	IA-11	52.3	12/15/15	96.07	-0.025	Downward
MW-227C		24.8	12/15/15	95.37		
MW-26A	IA-11	43.5	12/15/15	95.77	0.000	Equal
MW-25C		13.7	12/15/15	95.77		
MW-71	IA-11	60.9	12/15/15	93.35	0.038	Upward
MW-71C		30.2	12/15/15	94.52		
MW-74	IA-11	57.7	12/15/15	94.11	0.005	Upward
MW-74C		30.0	12/15/15	94.25		
MW-332B	IA-11	66.7	12/15/15	95.17	-0.004	Downward
MW-332C		1.3	12/15/15	94.92		
MW-8B	IA-11	60.8	12/15/15	96.00	-0.008	Downward
MW-8C		30.3	12/15/15	95.76		
MW-451B	IA-11	41.2	12/15/15	94.24	-0.002	Downward
MW-303C		4.7	12/15/15	94.18		
MW-172C	IA-11	48.0	12/15/15	94.53	0.031	Upward
MW-172-S3		7.6	12/15/15	95.80		
MW-55B	IA-11	38.5	12/15/15	93.49	0.008	Upward
MW-55C		1.3	12/15/15	93.80		
MW-55	IA-11	70.7	12/15/15	93.07	0.011	Upward
MW-55C		1.3	12/15/15	93.80		
MW-99B	IA-11	54.0	12/15/15	92.89	0.011	Upward
MW-99C		19.3	12/15/15	93.27		
MW-366B	IA-11	53.7	12/15/15	92.65	0.028	Upward
MW-366C		13.8	12/15/15	93.78		
MW-231B	IA-12	70.0	12/15/15	108.43	-0.024	Downward
MW-231C		45.6	12/15/15	107.85		
MW-266B	IA-12	44.9	12/15/15	115.85	-0.073	Downward
MW-266C		19.9	12/15/15	114.03		
MW-237B	IA-12	53.8	12/15/15	112.44	-0.132	Downward
MW-237C		11.0	12/15/15	106.77		
MW-265B	IA-12	65.2	12/15/15	112.06	-0.093	Downward
MW-265C		15.3	12/15/15	107.42		
MW-224B	IA-12	75.9	12/15/15	112.37	-0.015	Downward
MW-60G-S3		37.4	12/15/15	111.78		
MW-364B	IA-12	67.4	12/15/15	112.93	-0.068	Downward
MW-113		32.7	12/15/15	110.57		
MW-363B	IA-12	68.2	12/15/15	110.80	-0.009	Downward
MW-363C		43.4	12/15/15	110.57		
MW-364B	IA-12	67.4	12/15/15	112.93	-0.051	Downward
MW-364C		41.7	12/15/15	111.62		
MW-60A-S2	IA-12	51.2	12/15/15	109.68	0.085	Upward
MW-60A-S3		21.4	12/15/15	112.21		
MW-272B	IA-12	61.3	12/15/15	112.81	-0.002	Downward
MW-272C		31.6	12/15/15	112.75		
MW-375B	IA-12	61.4	12/15/15	112.71	-0.170	Downward
MW-375C		-0.2	12/15/15	102.26		
MW-271B	IA-12	50.3	12/15/15	108.84	-0.277	Downward
MW-271C		11.1	12/15/15	97.96		
MW-61B	IA-12	58.7	12/15/15	100.05	-0.052	Downward
MW-61C		3.1	12/15/15	97.18		
MW-114	IA-12	68.2	12/15/15	111.95	-0.293	Downward
DW-2B		16.2	12/15/15	96.71		
MW-376B	IA-12	60.4	12/15/15	108.71	-0.250	Downward
MW-376C		15.5	12/15/15	97.49		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-376B	IA-12	60.4	12/15/15	108.71	-0.418	Downward
MW-376-S3		35.5	12/15/15	98.30		
MW-3	IA-12	52.5	12/15/15	110.05	-0.410	Downward
MW-3C		19.1	12/15/15	96.34		
MW-142B	IA-13	56.1	12/15/15	92.46	0.064	Upward
MW-142C		21.4	12/15/15	94.69		
MW-143B	IA-13	53.1	12/15/15	93.31	-0.037	Downward
MW-143C		17.1	12/15/15	91.97		
MW-276B	IA-13	54.8	12/15/15	95.83	-0.534	Downward
MW-276C		19.5	12/15/15	76.93		
MW-148A	IA-14	54.7	12/15/15	65.64	-0.015	Downward
MW-148B		33.6	12/15/15	65.33		
MW-48	IA-14	45.6	12/15/15	58.70	0.054	Upward
MW-48B		18.5	12/15/15	60.15		
MW-131B	IA-14	58.7	12/15/15	87.86	-0.236	Downward
MW-131C		16.4	12/15/15	77.89		
MW-277B	IA-14	44.9	12/15/15	77.91	-0.212	Downward
MW-277C		8.3	12/15/15	70.13		
MW-124B	IA-15	52.6	12/15/15	68.91	-0.028	Downward
MW-124C		1.0	12/15/15	67.47		
MW-367-S2	IA-15	37.0	12/15/15	91.70	0.022	Upward
MW-367-S3		6.8	12/15/15	92.35		
MW-367B	IA-15	52.1	12/15/15	91.70	0.049	Upward
MW-367C		22.1	12/15/15	93.17		
MW-337B	IA-15	63.7	12/15/15	91.65	0.028	Upward
MW-337C		16.8	12/15/15	92.98		
MW-112B	IA-15	45.9	12/15/15	91.70	0.033	Upward
MW-112C		11.6	12/15/15	92.82		
MW-336B	IA-15	66.0	12/15/15	91.39	-0.109	Downward
MW-336C		24.0	12/15/15	86.79		
Vertical Gradient Between Zone S3 and Zone D1						
MW-258C	OS	-9.7	12/15/15	69.74	-0.191	Downward
DW-24		-54.9	12/15/15	61.11		
MW-215C	OS	13.4	12/15/15	93.93	0.041	Upward
DW-11B		-1.9	12/15/15	94.56		
MW-267C	OS	6.9	12/15/15	120.30	-0.031	Downward
DW-34A		-61.7	12/15/15	118.18		
MW-304C	OS	1.0	12/15/15	93.57	0.006	Upward
DW-47A		-28.7	12/15/15	93.75		
MW-145C	OS	1.2	12/15/15	69.73	-0.022	Downward
DW-49A		-29.2	12/15/15	69.05		
MW-353C	OS	12.2	12/15/15	100.32	-0.028	Downward
DW-64A		-109.7	12/15/15	96.88		
MW-201C	OS	21.5	12/15/15	106.90	-0.089	Downward
DW-7A		-11.7	12/15/15	103.96		
MW-201C	OS	21.5	12/15/15	106.90	-0.054	Downward
DW-7B		-64.3	12/15/15	102.27		
MW-391C	IA-1	-5.4	12/15/15	105.15	-0.079	Downward
DW-67A		-103.0	12/15/15	97.47		
MW-391-S3	IA-1	34.5	12/15/15	107.94	-0.076	Downward
DW-67A		-103.0	12/15/15	97.47		
MW-136C	IA-1	13.2	12/15/15	104.87	-0.072	Downward
DW-68A		-92.0	12/15/15	97.34		
DW-9A	IA-3	21.6	12/15/15	102.52	-0.078	Downward
DW-9B		-25.4	12/15/15	98.85		
MW-260-S3	IA-3	16.7	12/15/15	96.54	-0.0002	Slightly Downward
DW-36A		-44.8	12/15/15	96.53		
MW-351C	IA-4	22.9	12/15/15	105.84	-0.049	Downward
DW-21A		-26.8	12/15/15	103.40		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-264C	IA-6	4.5	12/15/15	102.13		
DW-26		-60.6	12/15/15	96.50	-0.086	Downward
DW-3B	IA-7	17.6	12/15/15	95.91		
DW-3C		-86.3	12/15/15	95.77	-0.001	Downward
MW-212C	IA-7	24.6	12/15/15	102.60		
DW-45A		-43.0	12/15/15	98.40	-0.062	Downward
MW-218C	IA-7	22.8	12/15/15	97.69		
DW-43A		-27.2	12/15/15	96.04	-0.033	Downward
MW-377C	IA-7	22.2	12/15/15	97.38		
DW-56A		-99.7	12/15/15	96.70	-0.006	Downward
MW-378C	IA-7	35.4	12/15/15	97.06		
DW-57A		-103.1	12/15/15	95.64	-0.010	Downward
MW-118C	IA-7	18.9	12/15/15	96.42		
DW-50B		-68.4	12/15/15	96.63	0.002	Upward
MW-270C	IA-7	35.4	12/15/15	96.52		
DW-37A		-61.7	12/15/15	96.38	-0.001	Downward
MW-269C	IA-7	19.0	12/15/15	96.11		
DW-38A		-54.5	12/15/15	96.11	0.000	Equal
MW-463C	IA-7	8.5	12/15/15	96.18		
DW-62A		-21.7	12/15/15	96.20	0.001	Upward
MW-417C	IA-7	-1.7	12/15/15	96.16		
DW-62A		-21.7	12/15/15	96.20	0.002	Upward
MW-373C	IA-7	14.5	12/15/15	96.04		
DW-58A		-115.2	12/15/15	95.91	-0.001	Downward
MW-374C	IA-7	28.5	12/15/15	95.89		
DW-59A		-109.2	12/15/15	95.78	-0.001	Downward
DW-13A	IA-10	13.25	12/15/15	101.12		
DW-13B		-75.99	12/15/15	96.50	-0.052	Downward
MW-273C	IA-10	15.6	12/15/15	117.47		
DW-33A		-43.0	12/15/15	111.03	-0.110	Downward
MW-274C	IA-10	26.6	12/15/15	118.22		
DW-16A		-100.8	12/15/15	104.90	-0.105	Downward
MW-268C	IA-10	28.2	12/15/15	116.89		
DW-35A		-28.6	12/15/15	111.00	-0.104	Downward
MW-348C	IA-10	4.3	12/15/15	101.23		
DW-13B		-76.0	12/15/15	96.50	-0.059	Downward
MW-301C	IA-11	1.8	12/15/15	94.81		
DW-42A		-30.4	12/15/15	94.41	-0.012	Downward
MW-99C	IA-11	19.3	12/15/15	93.27		
DW-51A		-36.0	12/15/15	93.80	0.010	Upward
MW-366C	IA-11	13.8	12/15/15	93.78		
DW-52A		-34.4	12/15/15	93.64	-0.003	Downward
MW-266C	IA-12	19.9	12/15/15	114.03		
DW-32A		-49.1	12/15/15	105.09	-0.130	Downward
MW-273C	IA-12	15.6	12/15/15	117.47		
DW-31A		-50.6	12/15/15	104.24	-0.200	Downward
MW-265C	IA-12	15.3	12/15/15	107.42		
DW-30A		-64.8	12/15/15	100.23	-0.090	Downward
MW-364C	IA-12	4.5	12/15/15	111.62		
DW-8A		-8.5	12/15/15	103.71	-0.607	Downward
MW-364C	IA-12	4.5	12/15/15	111.62		
DW-8B		-74.8	12/15/15	98.13	-0.170	Downward
MW-272C	IA-12	31.6	12/15/15	112.75		
DW-29A		-63.3	12/15/15	97.13	-0.165	Downward
MW-375C	IA-12	-0.2	12/15/15	102.26		
DW-60A		-108.8	12/15/15	96.66	-0.052	Downward
MW-271C	IA-12	11.1	12/15/15	97.96		
DW-28A		-44.4	12/15/15	97.08	-0.016	Downward
DW-2B	IA-12	16.2	12/15/15	96.71		
DW-2-D1		-53.8	12/15/15	96.08	-0.009	Downward

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
MW-376-S3	IA-12	35.5	12/15/15	98.30	-0.024	Downward
DW-61A		-31.6	12/15/15	96.70		
MW-376C	IA-12	15.5	12/15/15	97.49	-0.017	Downward
DW-61A		-31.6	12/15/15	96.70		
MW-142C	IA-13	21.4	12/15/15	94.69	0.002	Upward
DW-53A		-40.8	12/15/15	94.82		
MW-143C	IA-13	17.1	12/15/15	91.97	-0.070	Downward
DW-54A		-37.7	12/15/15	88.13		
MW-276C	IA-13	19.5	12/15/15	76.93	-0.129	Downward
DW-39A		-89.7	12/15/15	62.87		
MW-149	IA-14	-15.9	12/15/15	63.16	-0.112	Downward
DW-17C		-49.7	12/15/15	59.37		
MW-48B	IA-14	18.5	12/15/15	60.15	-0.050	Downward
MW-48C		-21.9	12/15/15	58.13		
MW-367C	IA-15	15.5	12/15/15	93.17	0.017	Upward
DW-55A		-37.9	12/15/15	94.06		
MW-337C	IA-15	16.8	12/15/15	92.98	0.012	Upward
DW-25A		-48.3	12/15/15	93.79		
MW-112C	IA-15	11.6	12/15/15	92.82	-1.076	Downward
DW-25-D1		-9.6	12/15/15	70.03		
Vertical Gradient Between Zone D1 and Zone D2						
DW-7B	OS	-64.3	12/15/15	102.27	-0.027	Downward
DW-7C		-226.7	12/15/15	97.95		
DW-34A	OS	-28.6	12/15/15	118.18	-0.056	Downward
DW-34B		-193.6	12/15/15	108.92		
DW-67A	IA-1	-103.0	12/15/15	97.47	0.003	Upward
DW-67B		-157.0	12/15/15	97.61		
DW-68A	IA-1	-92.0	12/15/15	97.34	-0.001	Downward
DW-68B		-174.0	12/15/15	97.26		
DW-36A	IA-3	-44.8	12/15/15	96.53	-0.013	Downward
DW-36B		-144.4	12/15/15	95.23		
DW-44A	IA-6	-36.4	12/15/15	100.85	-0.026	Downward
DW-44B		-173.1	12/15/15	97.31		
DW-6B	IA-7	-1.6	12/15/15	96.46	-0.0002	Slightly Downward
DW-6C		-177.8	12/15/15	96.42		
DW-37A	IA-7	-61.7	12/15/15	96.38	-0.001	Downward
DW-37B		-151.5	12/15/15	96.29		
DW-50B	IA-7	-68.4	12/15/15	96.63	-0.005	Downward
DW-50C		-168.6	12/15/15	96.17		
DW-38A	IA-7	-61.7	12/15/15	96.11	-0.336	Downward
DW-38B		-151.5	12/15/15	65.94		
DW-3C	IA-7	-86.3	12/15/15	95.77	-0.400	Downward
DW-3-D2		-167.7	12/15/15	63.17		
DW-14A	IA-10	-68.7	12/15/15	104.60	-0.122	Downward
DW-14B		-126.3	12/15/15	97.58		
DW-33A	IA-10	-43.0	12/15/15	111.03	-0.056	Downward
DW-33B		-162.1	12/15/15	104.33		
DW-16A	IA-10	-100.8	12/15/15	104.90	-0.016	Downward
DW-16B		-182.0	12/15/15	103.62		
DW-35A	IA-10	-28.6	12/15/15	111.00	-0.041	Downward
DW-35B		-193.6	12/15/15	104.23		
DW-13A	IA-10	13.3	12/15/15	101.12	-0.030	Downward
DW-13-D2		-146.3	12/15/15	96.39		
DW-40A	IA-10	-48.1	12/15/15	103.78	-0.088	Downward
DW-40B		-152.0	12/15/15	94.64		
DW-10B	IA-11	-27.4	12/15/15	95.22	0.0002	Slightly Upward
DW-10C		-191.2	12/15/15	95.26		
DW-8B	IA-12	-74.8	12/15/15	98.13	-0.002	Downward
DW-8C		-189.3	12/15/15	97.89		
DW-28A	IA-12	-44.4	12/15/15	97.08	-0.005	Downward
DW-28B		-179.3	12/15/15	96.40		

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
DW-2-D1	IA-12	-53.8	12/15/15	96.08	0.003	Upward
DW-2-D2		-153.8	12/15/15	96.40		
DW-32A	IA-12	-49.1	12/15/15	105.09	-0.047	Downward
DW-32B		-193.7	12/15/15	98.25		
DW-31A	IA-12	-50.6	12/15/15	104.24	-1.611	Downward
DW-31B		-189.4	12/15/15	-119.43		
DW-30A	IA-12	-64.8	12/15/15	100.23	-0.018	Downward
DW-30B		-144.7	12/15/15	98.78		
DW-29A	IA-12	-63.3	12/15/15	97.13	-0.005	Downward
DW-29B		-175.5	12/15/15	96.58		
DW-5B	IA-12	-12.9	12/15/15	100.60	-0.024	Downward
DW-5C		-181.9	12/15/15	96.47		
DW-17C	IA-14	-49.7	12/15/15	59.37	-0.036	Downward
DW-17D		-232.9	12/15/15	52.81		
DW-25-D1	IA-15	-9.6	12/15/15	70.03	0.149	Upward
DW-25B		-141.1	12/15/15	89.65		
Vertical Gradient Between Zone D2 and Zone D3						
DW-7C	OS	-226.7	12/15/15	97.95	0.008	Upward
DW-7D		-339.7	12/15/15	98.90		
DW-14B	IA-10	-126.3	12/15/15	97.58	0.004	Upward
DW-14C		-275.6	12/15/15	98.15		
DW-33B	IA-10	-162.1	12/15/15	104.33	-0.546	Downward
DW-33C		-316.2	12/15/15	20.10		
DW-16B	IA-10	-182.0	12/15/15	103.62	-0.905	Downward
DW-16C		-334.8	12/15/15	-34.67		
DW-27B	IA-10	-188.4	12/15/15	100.56	-0.018	Downward
DW-27C		-313.9	12/15/15	98.24		
DW-40B	IA-10	-152.0	12/15/15	94.64	0.037	Upward
DW-40C		-308.4	12/15/15	100.40		
DW-44B	IA-6	-173.1	12/15/15	97.31	0.059	Upward
DW-44C		-267.1	12/15/15	102.86		
DW-6C	IA-7	-177.8	12/15/15	96.42	-0.003	Downward
DW-6D		-392.1	12/15/15	95.75		
DW-8C	IA-12	-189.3	12/15/15	97.89	0.040	Upward
DW-8D		-334.1	12/15/15	103.71		
DW-31B	IA-12	-189.4	12/15/15	-119.43	-0.690	Downward
DW-31C		-317.2	12/15/15	-207.58		
DW-29B	IA-12	-175.5	12/15/15	96.58	-0.010	Downward
DW-29C		-309.1	12/15/15	95.27		
DW-2-D2	IA-12	-153.8	12/15/15	96.40	-0.008	Downward
DW-2D		-304.3	12/15/15	95.20		
DW-39B	IA-13	-186.1	12/15/15	55.02	0.032	Upward
DW-39C		-394.0	12/15/15	61.76		
DW-25B	IA-15	-141.1	12/15/15	89.65	-0.037	Downward
DW-25C		-342.9	12/15/15	82.27		
Vertical Gradient Between Zone D3 and Zone D4						
DW-25C	IA-15	-342.9	12/15/15	82.27	-0.141	Downward
DW-25D		-478.6	12/15/15	63.13		

Notes:
Downward - Downward flow of groundwater
Upward - Upward flow of groundwater
Equal - no flow (static)

Table 5-1B
Calculated Vertical Hydraulic Gradients
March 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
<p>Vertical hydraulic gradients were calculated for each well pair as follows:</p> $\frac{\text{Deep Well Groundwater Elev. (ft)} - \text{Shallow Well Groundwater Elev. (ft)}}{\text{Deep Total Depth to Center of Screen (ft amsl)} - \text{Shallow Depth to Center of Screen (ft amsl)}} = \text{Vertical Hydraulic Gradient (ft/ft)}^*$ <p>* This formula is being used in lieu of Todd (1980) to better address the Site specific geologic/hydrogeologic conditions as they relate to groundwater elevation and/or well screen length variation across the hydrostratigraphic zones.</p>						

**Table 5-2
Calculated Vertical Hydraulic Gradients
IA-10 / Windsor Place - January 2017
Hoffmann-La Roche Inc. - Nutley, New Jersey**

Well ID	Location	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
Vertical Gradient Between Zone S1 and Zone S2						
MW-44	IA-10 (West of Windsor Place)	113.5	1/27/17	117.79	-0.130	Downward
MW-44B		86.2	1/27/17	114.25		
MW-45		102.2	1/27/17	113.16	-0.013	Slightly Downward
MW-501B		82.3	1/27/17	112.90		
MW-474A	OS (Windsor Place)	99.0	1/27/17	107.55	0.160	Upward
MW-474B		79.0	1/27/17	110.75		
MW-487A		99.4	1/27/17	108.23	0.117	Upward
MW-487B		79.5	1/27/17	110.55		
MW-488A		99.9	1/27/17	107.45	0.159	Upward
MW-488B		80.0	1/27/17	110.62		
MW-472S	IA-10	108.1	1/27/17	109.59	-0.0493	Slightly Downward
MW-27B	(East of Windsor Place)	68.2	1/27/17	107.62		
Vertical Gradient Between Zone S2 and Zone S3*						
MW-44B	IA-10	86.2	1/27/17	114.25	-0.113	Downward
MW-44C	(West of Windsor Place)	58.3	1/27/17	111.11		
MW-27B	IA-10 (East of Windsor Place)	68.2	1/27/17	107.62	0.020	Slightly Upward
MW-27C		37.9	1/27/17	108.23		
MW-479B		80.5	1/27/17	109.46	-0.069	Slightly Downward
MW-479C		10.6	1/27/17	104.62		
MW-481B		63.3	1/27/17	107.30	-0.025	Slightly Downward
MW-481C		28.7	1/27/17	106.43		
MW-482B	67.9	1/27/17	106.55	-0.028	Slightly Downward	
MW-482C	33.3	1/27/17	105.59			

Notes:

Downward - Downward flow of groundwater

Upward - Upward flow of groundwater

Equal - no flow (static)

* Vertical gradient calculations between Zones S2 and S3 could not be completed as there are no Zone S3 monitoring wells in Windsor Place.

Vertical hydraulic gradients were calculated for each well pair as follows:
$\frac{\text{Deep Well Groundwater Elev. (ft)} - \text{Shallow Well Groundwater Elev. (ft)}}{\text{Deep Total Depth to Center of Screen (ft amsl)} - \text{Shallow Depth to Center of Screen (ft amsl)}} = \text{Vertical Hydraulic Gradient (ft/ft)}^*$
* This formula is being used in lieu of Todd (1980) to better address the Site specific geologic/hydrogeologic conditions as they relate to groundwater elevation and/or well screen length variation across the hydrostratigraphic zones.