Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	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					
ART-MW-1	107.5	6/2/14	109.52		
MW-308B	77.1	6/2/14	103.88	-0.186	Downward
ART-MW-2	109.3	6/2/14	110.43		
ART-MW-6	86.2	6/2/14	106.33	-0.177	Downward
ART-MW-3	108.4	6/2/14	110.64		
MW-246B	77.2	6/2/14	105.85	-0.154	Downward
ART-MW-3	108.4	3/17/14	110.64		
ART-MW-6	86.2	3/17/14	106.33	-0.194	Downward
53RI-MW-2	112.2	6/2/14	115.92		
MW-223B	76.5	6/2/14	115.98	0.002	Upward
53RI-MW4	115.7	6/2/14	120.69		
MW-16AW	90.8	6/2/14	120.16	-0.021	Downward
MW-7B	99.7	6/2/14	99.7		
MW-7C	87.2	6/2/14	99.32	-0.030	Downward
MW-8W	125.7	6/2/14	127.84		
MW-7W	81.5	6/2/14	130.73	0.065	Upward
MW-10W	119.4	6/2/14	126.74		
MW-9W	85.1	6/2/14	126.55	-0.006	Downward
MW-14A	103.3	6/2/14	106.58		
MW-252B	70.1	6/2/14	101.73	-0.146	Downward
MW-25	96.0	6/2/14	95.45		
MW-26A	63.9	6/2/14	96.3	0.026	Upward
MW-38	115.1	6/2/14	113.05		
MW-41	70.0	6/2/14	110.2	-0.063	Downward
MW-39A	103.1	6/2/14	111.79		
MW-40A	89.8	6/2/14	110.72	-0.080	Downward
MW-44	113.2	6/2/14	118.79		
MW-44B	86.5	6/2/14	115.49	-0.124	Downward
MW-60	109.1	6/2/14	112.56		
MW-60-Z2	83.2	6/2/14	112.46	-0.004	Downward
MW-60A	103.8	6/2/14	114.45		
MW-60A-S2	61.6	6/2/14	111.31	-0.074	Downward
MW-60G	105.4	6/2/14	112.47		
MW-224B	89.3	6/2/14	112.5	0.002	Upward
MW-60M	106.4	6/2/14	112.36		
MW-263B	83.7	6/2/14	112.3	-0.003	Downward
MW-60O	106.1	6/2/14	112.29		
MW-234B	78.8	6/2/14	112.22	-0.003	Downward
MW-61	124.9	6/2/14	129.69		
MW-61B	69.0	6/2/14	103.22	-0.474	Downward
MW-62	83.5	6/2/14	95.58		
MW-63	65.5	6/2/14	95.51	-0.004	Downward
MW-68	88.4	6/2/14	90.43		
MW-71	71.3	6/2/14	93.54	0.182	Upward
MW-72	85.5	6/2/14	93.68		
MW-74	68.0	6/2/14	94.38	0.040	Upward
MW-80	109.2	6/2/14	112.02		
MW-80-Z2	83.1	6/2/14	111.98	-0.002	Downward
MW-80C	105.3	6/2/14	111.93		
MW-24B	82.7	6/2/14	111.84	-0.004	Downward
MW-90	91.3	6/2/14	99.10		
MW-78	75.9	6/2/14	100.51	0.092	Upward
MW-91	101.5	6/2/14	99		
MW-82	74.7	6/2/14	100.34	0.050	Upward
MW-92	95.1	6/2/14	100.58		
MW-84	73.4	6/2/14	100.55	-0.001	Downward
MW-93	101.2	6/2/14	99.11		
MW-87	75.6	6/2/14	100.12	0.039	Upward

Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	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-94	98.2	6/2/14	100.92		
MW-22A	74.8	6/2/14	100.75	-0.007	Downward
MW-103A	89.7	6/2/14	93.45		
MW-103B	67.2	6/2/14	97.22	0.168	Upward
MW-104A	90.4	6/2/14	91.23		
MW-104B	68.8	6/2/14	92.45	0.056	Upward
MW-105A	90.4	6/2/14	97.80		
MW-105B	65.0	6/2/14	98.49	0.027	Upward
MW-106A	87.2	6/2/14	90.42		
MW-106B	68.8	6/2/14	95.56	0.279	Upward
MW-108A	86.5	6/2/14	90.05		
MW-108B	68.4	6/2/14	93.52	0.192	Upward
MW-124A	71.0	6/2/14	72.59		
MW-124B	63.1	6/2/14	71.22	-0.173	Downward
MW-125	107.4	6/2/14	104.28		
MW-125A	89.6	6/2/14	102.02	-0.127	Downward
MW-126	94.1	6/2/14	97.59		
MW-126B	59.1	6/2/14	98.41	0.023	Upward
MW-128	105.7	6/2/14	102.4		
MW-128B	83.2	6/2/14	106.98	0.204	Upward
MW-131	84.0	6/2/14	89.15		
MW-131B	69.0	6/2/14	88.21	-0.063	Downward
MW-143	85.7	6/2/14	93.37		
MW-143B	63.4	6/2/14	94.89	0.068	Upward
MW-144A	87.0	6/2/14	92.39		
MW-144B	66.3	6/2/14	93.5	0.054	Upward
MW-145A	79.2	6/2/14	79.41		
MW-145B	66.8	6/2/14	79.54	0.010	Upward
MW-153	106.4	6/2/14	107.91		
MW-300B	81.1	6/2/14	106.93	-0.039	Downward
MW-154A	93.0	6/2/14	106.87		
MW-154B	81.4	6/2/14	106.85	-0.002	Downward
MW-167A	105.4	6/2/14	107.68		
MW-167B	85.4	6/2/14	106.34	-0.067	Downward
MW-168A	105.0	6/2/14	107.37		
MW-168B	85.1	6/2/14	103.93	-0.173	Downward
MW-169A	105.2	6/2/14	107.44		
MW-169B	85.1	6/2/14	105.75	-0.084	Downward
MW-170A	104.9	6/2/14	107.82		
MW-170B	84.3	6/2/14	107.5	-0.016	Downward
MW-171A	73.6	6/2/14	86.65		
MW-171B	58.5	6/2/14	87.22	0.038	Upward
MW-186A	105.7	6/2/14	110.38		
MW-186-2	84.6	6/2/14	106.36	-0.191	Downward
MW-201A	105.6	6/2/14	112.72		
MW-201	91.1	6/2/14	113.22	0.034	Upward
MW-207A	104.3	6/2/14	110.81		
MW-207B	71.5	6/2/14	108.2	-0.080	Downward
MW-208A	101.9	6/2/14	102.86		
MW-208B	70.5	6/2/14	101.68	-0.038	Downward
MW-209A	90.3	6/2/14	99.64		
MW-209B	68.2	6/2/14	98.69	-0.043	Downward
MW-213B	103.8	6/2/14	122.72		
MW-213C	79.2	6/2/14	120.37	-0.096	Downward
MW-214A	99.6	6/2/14	103.82		
MW-214B	76.8	6/2/14	103.81	-0.0004	Slight Downward
MW-217	107.5	6/2/14	108.49		
MW-217B	82.2	6/2/14	108.31	-0.007	Downward
MW-218	96.6	6/2/14	100.38		
MW-218B	63.0	6/2/14	99.89	-0.015	Downward

Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	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-226A	109.9	6/2/14	112.78		
MW-226B	79.9	6/2/14	107.39	-0.180	Downward ▼
MW-227A	90.3	6/2/14	98.44		
MW-227B	62.6	6/2/14	98.07	-0.013	Downward ▼
MW-229A	119.1	6/2/14	120.53		
MW-229B	82.3	6/2/14	119.72	-0.022	Downward ▼
MW-237A	111.0	6/2/14	117.12		
MW-237B	64.2	6/2/14	112.53	-0.098	Downward ▼
MW-243A	101.4	6/2/14	107.97		
MW-243B	73.9	6/2/14	103.59	-0.159	Downward ▼
MW-253A	95.3	6/2/14	103.25		
MW-253B	68.4	6/2/14	103.04	-0.008	Downward ▼
MW-257A	81.5	6/2/14	87.98		
MW-257B	56.5	6/2/14	87.4	-0.023	Downward ▼
MW-259A	111.3	6/2/14	116.19		
MW-259B	77.6	6/2/14	116.36	0.005	Upward ▲
MW-266A	87.4	6/2/14	118.34		
MW-266B	55.2	6/2/14	117.69	-0.020	Downward ▼
MW-267A	103.3	6/2/14	130.85		
MW-267B	53.0	6/2/14	123.63	-0.144	Downward ▼
MW-271A	96.2	6/2/14	116.28		
MW-271B	60.7	6/2/14	105.35	-0.308	Downward ▼
MW-272A	93.2	6/2/14	117.46		
MW-272B	71.8	6/2/14	116.02	-0.067	Downward ▼
MW-274A	116.0	6/2/14	125.35		
MW-274B	67.7	6/2/14	120.17	-0.107	Downward ▼
MW-275A	96.5	6/2/14	100.21		
MW-275B	65.9	6/2/14	100.8	0.019	Upward ▲
MW-276A	90.8	6/2/14	97.88		
MW-276B	65.2	6/2/14	98.25	0.014	Upward ▲
MW-277A	81.0	6/2/14	80.32		
MW-277B	55.3	6/2/14	79.9	-0.016	Downward ▼
MW-278A	84.3	6/2/14	85.4		
MW-278B	55.1	6/2/14	74.42	-0.376	Downward ▼
MW-280A	103.7	6/2/14	118.95		
MW-280B	68.9	6/2/14	119.02	0.002	Upward ▲
MW-288A	91.3	6/2/14	100.43		
MW-288B	69.3	6/2/14	101.61	0.054	Upward ▲
MW-292A	90.1	6/2/14	99.87		
MW-292B	66.8	6/2/14	99.62	-0.011	Downward ▼
MW-295A	106.2	6/2/14	112.45		
MW-295B	83.7	6/2/14	112.14	-0.014	Downward ▼
Vertical Gradient Between Zone S2 and Zone S3					
MW-104B	68.8	6/2/14	92.45		
MW-104C	27.9	6/2/14	94.91	0.060	Upward ▲
MW-124B	63.1	6/2/14	71.22		
MW-124C	21.0	6/2/14	70	-0.029	Downward ▼
MW-126B	59.1	6/2/14	98.41		
MW-126C	29.1	6/2/14	98.9	0.016	Upward ▲
MW-128B	83.2	6/2/14	106.98		
MW-128C	63.3	6/2/14	108.83	0.093	Upward ▲
MW-131B	69.0	6/2/14	88.21		
MW-131C	26.7	6/2/14	79.34	-0.210	Downward ▼
MW-148A	65.1	6/2/14	65.67		
MW-148B	45.1	6/2/14	65.74	0.003	Upward ▲
MW-171B	59.5	6/2/14	87.22		
MW-171C	33.7	6/2/14	88.51	0.050	Upward ▲
MW-186-2	84.6	6/2/14	106.36		
MW-186B	42.5	6/2/14	103.82	-0.060	Downward ▼

Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
Vertical Gradient Between Zone S2 and Zone S3					
MW-204B	74.6	6/2/14	101.68		
MW-204C	48.6	6/2/14	101.36	-0.012	Downward
MW-206B	75.9	6/2/14	118.79		
MW-206C	50.5	6/2/14	118.33	-0.018	Downward
MW-207B	71.5	6/2/14	108.2		
MW-207C	44.5	6/2/14	107.05	-0.043	Downward
MW-208B	70.5	6/2/14	101.68		
MW-208C	41.2	6/2/14	101.1	-0.020	Downward
MW-209B	68.2	6/2/14	98.69		
MW-209C	33.2	6/2/14	98.61	-0.002	Downward
MW-214B	76.8	6/2/14	103.81		
MW-214C	52.1	6/2/14	102.97	-0.034	Downward
MW-218B	63.0	6/2/14	99.89		
MW-218C	33.2	6/2/14	99.63	-0.009	Downward
MW-223B	76.5	6/2/14	115.98		
MW-223C	46.2	6/2/14	115.89	-0.003	Downward
MW-225B	87.7	6/2/14	109.73		
MW-225C	52.0	6/2/14	108.07	-0.046	Downward
MW-226B	79.9	6/2/14	107.39		
MW-226C	49.7	6/2/14	105.24	-0.071	Downward
MW-227B	62.6	6/2/14	98.07		
MW-227C	35.1	6/2/14	97.21	-0.031	Downward
MW-228B	82.0	6/2/14	111.42		
MW-228C	51.9	6/2/14	103.62	-0.259	Downward
MW-229B	82.3	6/2/14	119.72		
MW-229C	56.7	6/2/14	119.27	-0.018	Downward
MW-230B	75.5	6/2/14	118.18		
MW-230C	50.5	6/2/14	117.63	-0.022	Downward
MW-231B	81.0	6/2/14	108.24		
MW-231C	55.9	6/2/14	107.7	-0.022	Downward
MW-234B	78.8	6/2/14	112.22		
MW-233C	63.7	6/2/14	111.81	-0.027	Downward
MW-237B	64.2	6/2/14	112.53		
MW-237C	21.3	6/2/14	105.21	-0.171	Downward
MW-251B	71.5	6/2/14	106.01		
MW-251C	41.4	6/2/14	103.45	-0.085	Downward
MW-252B	70.1	6/2/14	101.73		
MW-252C	45.2	6/2/14	102.11	0.015	Upward
MW-253B	68.4	6/2/14	103.04		
MW-253C	43.3	6/2/14	102.3	-0.029	Downward
MW-259B	111.3	6/2/14	116.36		
MW-259C	77.6	6/2/14	110.31	-0.180	Downward
MW-264B	69.4	6/2/14	100.94		
MW-264C	24.9	6/2/14	101.64	0.016	Upward
MW-265B	75.6	6/2/14	112.47		
MW-265C	25.7	6/2/14	108.46	-0.080	Downward
MW-266B	55.2	6/2/14	117.69		
MW-266C	30.3	6/2/14	114.12	-0.143	Downward
MW-267B	53.0	6/2/14	123.63		
MW-267C	17.2	6/2/14	121.72	-0.053	Downward
MW-268B	72.7	6/2/14	116.9		
MW-268C	38.5	6/2/14	116.7	-0.006	Downward
MW-271B	60.7	6/2/14	105.35		
MW-271C	21.4	6/2/14	101.16	-0.107	Downward
MW-272B	71.8	6/2/14	116.02		
MW-272C	41.9	6/2/14	115.91	-0.004	Downward
MW-273B	77.1	6/2/14	119.12		
MW-273C	25.8	6/2/14	118.85	-0.005	Downward
MW-274B	67.7	6/2/14	120.17		
MW-274C	36.9	6/2/14	119.45	-0.023	Downward

Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
Vertical Gradient Between Zone S2 and Zone S3					
MW-275B	67.7	6/2/14	100.8		
MW-275C	36.9	6/2/14	100.71	-0.003	Downward
MW-276B	65.2	6/2/14	98.25		
MW-276C	29.8	6/2/14	78.65	-0.554	Downward
MW-277B	55.3	6/2/14	79.9		
MW-277C	18.7	6/2/14	70.88	-0.246	Downward
MW-280B	68.9	6/2/14	119.02		
MW-280C	39.9	6/2/14	119.04	0.001	Upward
MW-1N	63.9	6/2/14	64.08		
MW-4N	47.3	6/2/14	62.98	-0.066	Downward
MW-5N	61.1	6/2/14	64.83		
MW-13N	22.4	6/2/14	67.59	0.071	Upward
MW-24B	82.7	6/2/14	111.84		
MW-113	53.0	6/2/14	107.82	-0.135	Downward
MW-44B	86.5	6/2/14	115.49		
MW-44C	57.3	6/2/14	111.95	-0.121	Downward
MW-48	56.1	6/2/14	59.01		
MW-48B	28.8	6/2/14	61.1	0.077	Upward
MW-50	78.3	6/2/14	101.77		
MW-56	53.2	6/2/14	100.35	-0.057	Downward
MW-53	78.4	6/2/14	101.32		
MW-54	53.4	6/2/14	100.82	-0.020	Downward
MW-61B	69.0	6/2/14	103.22		
MW-61C	13.6	6/2/14	99.98	-0.058	Downward
MW-60A-S2	61.6	6/2/14	111.31		
MW-60A-S3	31.9	6/2/14	110.83	-0.016	Downward
MW-76	77.0	6/2/14	100.4		
MW-77	52.0	6/2/14	100.42	0.001	Upward
MW-78	75.9	6/2/14	100.51		
MW-79	50.5	6/2/14	100.53	0.001	Upward
MW-87	75.6	6/2/14	100.12		
MW-88	49.6	6/2/14	100.65	0.020	Upward
MW-82	74.7	6/2/14	100.34		
MW-83	49.6	6/2/14	100.62	0.011	Upward
MW-22A	74.8	6/2/14	100.75		
MW-86	50.1	6/2/14	100.68	-0.003	Downward
MW-84	73.4	6/2/14	100.55		
MW-85	48.3	6/2/14	100.68	0.005	Upward
DW-13A	23.6	6/2/14	101.20		
DW-13B	-65.6	6/2/14	98.38	-0.032	Downward
MW-26A	63.9	6/2/14	96.30		
MW-25C	34.1	6/2/14	96.21	-0.003	Downward
Vertical Gradient Between Zone S3 and Zone D1					
DW-2B	26.6	6/2/14	99.64		
DW-2-D1	-28.4	6/2/14	100.32	0.012	Upward
DW-3B	28.1	6/2/14	98.56		
DW-3C	-75.9	6/2/14	97.84	-0.007	Downward
DW-9A	31.9	6/2/14	103.95		
DW-9B	-15.1	6/2/14	101.01	-0.063	Downward
MW-48B	28.8	6/2/14	61.1		
MW-48C	-1.5	6/2/14	60.58	-0.017	Downward
MW-215C	33.8	6/2/14	95.75		
DW-11B	8.5	6/2/14	96.59	0.033	Upward
MW-237C	21.3	6/2/14	105.21		
DW-31A	-40.2	6/2/14	105.09	-0.002	Downward
MW-258C	15.6	6/2/14	73.43		
DW-24	-29.6	6/2/14	61.35	-0.267	Downward

Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
Vertical Gradient Between Zone S3 and Zone D1					
MW-260-S3	32.2	6/2/14	99.26		
DW-36A	-34.5	6/2/14	98.56	-0.010	Downward
MW-264C	24.9	6/2/14	101.64		
DW-26	-50.1	6/2/14	100.87	-0.010	Downward
MW-265C	25.7	6/2/14	108.46		
DW-30A	-54.4	6/2/14	102.52	-0.074	Downward
MW-266C	30.3	6/2/14	114.12		
DW-32A	-38.7	6/2/14	105.44	-0.126	Downward
MW-269C	29.5	6/2/14	98.81		
DW-38A	-29.2	6/2/14	98.98	0.003	Upward
MW-270C	29.7	6/2/14	99.19		
DW-37A	-36.3	6/2/14	99.49	0.005	Upward
MW-271C	21.4	6/2/14	101.16		
DW-28A	-52.7	6/2/14	99.87	-0.017	Downward
MW-272C	41.9	6/2/14	115.91		
DW-29A	-52.7	6/2/14	99.94	-0.169	Downward
MW-273C	25.8	6/2/14	118.85		
DW-33A	-32.8	6/2/14	111.42	-0.127	Downward
Vertical Gradient Between Zone D1 and Zone D2					
DW-2-D1	-28.4	6/2/14	100.32		
DW-2-D2	-128.4	6/2/14	100.59	0.003	Upward
DW-5B	-2.4	6/2/14	102.31		
DW-5C	-171.5	6/2/14	99.25	-0.018	Downward
DW-6B	8.8	6/2/14	99.2		
DW-6C	-167.4	6/2/14	99.3	0.001	Upward
DW-7B	-48.8	6/2/14	104.49		
DW-7C	-216.2	6/2/14	100.4	-0.024	Downward
DW-8B	-64.4	6/2/14	100.38		
DW-8C	-179.0	6/2/14	100.41	0.0003	Slight Upward
DW-10B	-17.1	6/2/14	96.09		
DW-10C	-180.9	6/2/14	96.37	0.002	Upward
DW-12A	-7.5	6/2/14	104.02		
DW-12B	-65.0	6/2/14	99.09	-0.086	Downward
DW-13B	-65.6	6/2/14	98.38		
DW-13-D2	-136.0	6/2/14	98.34	-0.001	Downward
DW-14A	-58.3	6/2/14	104.97		
DW-14B	-115.9	6/2/14	98.98	-0.104	Downward
DW-25A	-38.0	6/2/14	95.87		
DW-25B	-115.7	6/2/14	91.62	-0.055	Downward
DW-27A	-31.7	6/2/14	106.33		
DW-27B	-163.0	6/2/14	101.63	-0.036	Downward
DW-28A	-34.1	6/2/14	99.87		
DW-28B	-163.9	6/2/14	99.16	-0.005	Downward
DW-29A	-52.7	6/2/14	99.94		
DW-29B	-149.7	6/2/14	99.36	-0.006	Downward
DW-30A	-54.4	6/2/14	102.52		
DW-30B	-134.4	6/2/14	101.14	-0.017	Downward
Vertical Gradient Between Zone D1 and Zone D2					
DW-31A	-40.2	6/2/14	105.09		
DW-31B	-179.0	6/2/14	-176.49	-2.029	Downward
DW-32A	-38.7	6/2/14	105.44		
DW-32B	-168.2	6/2/14	99.02	-0.050	Downward
DW-33A	-32.8	6/2/14	111.42		
DW-33B	-151.8	6/2/14	104.42	-0.059	Downward
DW-34A	-46.4	6/2/14	119.45		
DW-34B	-133.6	6/2/14	109.67	-0.112	Downward
DW-35A	-18.3	6/2/14	112.13		
DW-35B	-173.2	6/2/14	103.99	-0.053	Downward

Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction
Vertical Gradient Between Zone D1 and Zone D2					
DW-36A	-34.5	6/2/14	98.56		
DW-36B	-134.0	6/2/14	98.87	0.003	Upward
DW-37A	-36.3	6/2/14	99.49		
DW-37B	-141.2	6/2/14	99.03	-0.004	Downward
DW-38A	-29.2	6/2/14	98.98		
DW-38B	-107.6	6/2/14	69.4	-0.377	Downward
DW-40A	-37.5	6/2/14	79.87		
DW-40B	-141.6	6/2/14	97.16	0.166	Upward
MW-20W-4	-0.1	6/2/14	119.27		
MW-20W-6	-102.1	6/2/14	108.16	-0.109	Downward
MW-20W-5	-88.6	6/2/14	109.85		
MW-20W-7	-120.1	6/2/14	105.04	-0.153	Downward
Vertical Gradient Between Zone D2 and Zone D3					
DW-2-D2	-128.4	6/2/14	100.59		
DW-2D	-278.9	6/2/14	97.37	-0.021	Downward
DW-6C	-167.4	6/2/14	99.3		
DW-6D	-366.7	6/2/14	98.31	-0.005	Downward
DW-7C	-216.2	6/2/14	100.4		
DW-7D	-314.2	6/2/14	102.43	0.021	Upward
DW-8C	-179.0	6/2/14	100.41		
DW-8D	-318.7	6/2/14	103.19	0.020	Upward
DW-14B	-115.9	6/2/14	98.98		
DW-14C	-260.3	6/2/14	101.23	0.016	Upward
DW-15B	-178.5	6/2/14	-101.01		
DW-15C	-331.7	6/2/14	102.93	1.331	Upward
DW-27B	-163.0	6/2/14	101.63		
DW-27C	-288.6	6/2/14	101.12	-0.004	Downward
DW-29B	-149.7	6/2/14	99.36		
DW-29C	-298.8	6/2/14	98.1	-0.008	Downward
DW-33B	-151.8	6/2/14	104.42		
DW-33C	-290.7	6/2/14	-20.16	-0.897	Downward
DW-40B	-141.6	6/2/14	97.16		
DW-40C	-283.1	6/2/14	-32.68	-0.918	Downward

Table 5-1
Summary of Calculated Vertical Hydraulic Gradients
2Q2014 (June 2014)
Hoffmann-La Roche Inc. - Nutley, New Jersey

Well ID	Depth to Center of Screen (feet amsl)	Measurement Date	Groundwater Elevation (feet amsl)	Vertical Hydraulic Gradient (-/+)	Flow Direction

Note:
Positive values indicate upward gradients and negative values indicate downward gradients

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

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

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