

Table 8. Concentrations of Perchlorate in Groundwater Samples Collected from Study Area Vertical Profile Borings, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-100	46-51	9/15/2006	< 10
VP-100	55-60	9/15/2006	< 5
VP-100	75-80	9/13/2006	< 4
VP-100	105-110	9/14/2006	< 4
VP-100 (REP)	105-110	9/14/2006	< 4
VP-100	125-130	9/12/2006	< 4
VP-100	145-150	9/13/2006	< 4
VP-100	160-165	9/11/2006	< 4
VP-100	180-185	9/12/2006	< 4
VP-100	190-195	9/12/2006	< 4
VP-100	200-205	9/8/2006	< 4
VP-100	210-215	9/11/2006	< 4
VP-100	220-225	9/11/2006	< 4
VP-100	230-235	9/7/2006	< 4
VP-100 (REP)	230-235	9/8/2006	< 4
VP-100	240-245	9/8/2006	< 4
VP-100	250-255	9/7/2006	< 4
VP-100	270-275	9/7/2006	< 4
VP-100	290-295	9/6/2006	< 4
VP-100	310-315	9/6/2006	< 4
VP-100	330-335	9/5/2006	4.3
VP-100 (REP)	330-335	9/5/2006	4.2
VP-100	350-355	9/5/2006	< 4
VP-100	371-376	9/1/2006	< 4
VP-100	394-399	9/1/2006	4.7
VP-101	60	6/27/2006	< 10 J
VP-101	80	6/27/2006	< 10 J
VP-101	100	6/28/2006	< 10 J
VP-101	120	6/28/2006	< 10 J
VP-101	140	6/28/2006	< 10 J
VP-101	167	6/29/2006	< 10
VP-101	320	7/6/2006	< 10
VP-101	340	7/6/2006	< 10
VP-101	360	7/7/2006	11
VP-101	387	7/10/2006	3 J
VP-101	400	7/10/2006	< 10
VP-101	420	7/11/2006	6.2
VP-101	440	7/11/2006	< 10
VP-101	460	7/11/2006	< 10
VP-101	480	7/12/2006	< 0.32
VP-101	507	7/13/2006	< 1
VP-102	45-50	10/13/2006	< 5
VP-102	65-70	10/13/2006	0.68 J
VP-102 (REP)	65-70	10/13/2006	< 5
VP-102	85-90	10/13/2006	1.2
VP-102	105-110	10/12/2006	0.77 J
VP-102	125-130	10/12/2006	3.3
VP-102	135-140	10/11/2006	1.6
VP-102	150-155	10/11/2006	3.4
VP-102	160-165	10/11/2006	1.5
VP-102	170-175	10/10/2006	1.7
VP-102	180-185	10/10/2006	< 1
VP-102	190-195	10/6/2006	< 1
VP-102	200-205	10/6/2006	0.67 J
VP-102	220-225	10/5/2006	0.76 J
VP-102	240-245	10/5/2006	0.4 J

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Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-102	250-255	10/4/2006	0.46 J
VP-102 (REP)	250-255	10/4/2006	0.41 J
VP-102	260-265	10/4/2006	1.3
VP-102	270-275	10/3/2006	0.59 J
VP-102	280-285	10/3/2006	0.71 J
VP-102	290-295	10/2/2006	0.65 J
VP-102	300-305	9/29/2006	< 1
VP-102	310-315	9/29/2006	< 1
VP-102	325-330	9/28/2006	< 1
VP-102 (REP)	325-330	9/28/2006	< 1
VP-102	345-350	9/28/2006	< 1
VP-102	365-370	9/27/2006	0.98 J
VP-102	370-375	10/3/2006	0.59 J
VP-102	380-385	10/3/2006	0.71 J
VP-103	60	10/10/2006	< 10
VP-103	80	10/10/2006	< 10
VP-103	100	10/10/2006	2.2 J
VP-103	120	10/10/2006	< 20
VP-103	140	10/11/2006	< 10
VP-103	165	10/11/2006	< 10
VP-103	185	10/11/2006	0.93 J
VP-103	200	10/12/2006	< 20
VP-103	220	10/12/2006	< 20
VP-103	240	10/12/2006	< 20
VP-103	260	10/12/2006	< 2
VP-103	320	10/16/2006	< 2
VP-103	345	10/16/2006	< 10
VP-103 (REP)	345	10/16/2006	< 10
VP-103	360	10/17/2006	< 1
VP-103	380	10/17/2006	< 1
VP-103	420	10/18/2006	< 5
VP-103	440	10/18/2006	< 5
VP-103	460	10/18/2006	< 10
VP-103	480	10/18/2006	< 20
VP-103	500	10/19/2006	< 20
VP-103	525	10/19/2006	< 10
VP-103	545	10/20/2006	6.9
VP-103	560	10/20/2006	< 10
VP-103	580	10/23/2006	< 10
VP-103	600	10/23/2006	< 10
VP-103	620	10/23/2006	< 5
VP-103	640	10/24/2006	3.7 J
VP-103 (REP)	640	10/24/2006	< 10
VP-103	660	10/24/2006	6 J
VP-104	40	8/7/2006	< 4
VP-104	60	7/28/2006	< 4
VP-104	80	7/28/2006	< 4
VP-104	100	7/31/2006	< 4
VP-104	120	7/31/2006	< 4
VP-104	140	7/31/2006	< 4
VP-104 (REP)	140	7/31/2006	< 4
VP-104	160	7/31/2006	< 4
VP-104	180	8/1/2006	< 4
VP-104	200	8/1/2006	< 4
VP-104	220	8/1/2006	< 4
VP-104	240	8/1/2006	< 4

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Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-104	260	8/2/2006	< 4
VP-104	280	8/2/2006	< 4
VP-104	300	8/2/2006	< 4
VP-104	320	8/3/2006	< 4
VP-104	340	8/3/2006	< 4
VP-104	360	8/3/2006	< 4
VP-104	380	8/7/2006	< 4
VP-104	400	8/7/2006	< 4
VP-104	420	8/7/2006	< 4
VP-104	460	8/8/2006	< 4
VP-104	480	8/8/2006	< 4
VP-104	500	8/8/2006	< 4
VP-104	520	8/14/2006	< 4
VP-104	540	8/14/2006	< 4
VP-104	560	8/14/2006	< 4
VP-104	740	8/22/2006	< 4
VP-104	820	8/24/2006	< 4
VP-104	840	8/24/2006	< 4
VP-104	860	8/25/2006	< 4
VP-104	880	8/25/2006	< 4
VP-105	45-50	8/2/2006	< 4
VP-105	55-60	8/2/2006	< 4
VP-105	65-70	8/2/2006	< 4
VP-105	75-80	8/2/2006	< 4
VP-105	85-90	8/1/2006	< 4
VP-105	95-100	8/1/2006	< 4
VP-105	102-107	8/1/2006	< 4
VP-105	115-120	7/31/2006	< 4
VP-105	125-130	7/31/2006	< 4
VP-105	135-140	7/31/2006	< 4
VP-105	145-150	7/28/2006	< 4
VP-105	155-160	7/28/2006	< 4
VP-105	165-170	7/28/2006	< 4
VP-107	45-50	7/25/2006	< 4
VP-107	55-60	7/25/2006	< 4
VP-107	65-70	7/25/2006	< 4
VP-107	75-80	7/25/2006	< 4
VP-107	85-90	7/25/2006	< 4
VP-107	95-100	7/21/2006	< 4
VP-107	105-110	7/21/2006	< 4
VP-107	119-124	7/21/2006	< 4
VP-107	135-140	7/20/2006	< 4
VP-107	148-153	7/20/2006	< 4
VP-107	165-170	7/20/2006	< 4
VP-108	45-50	7/13/2006	< 1
VP-108	55-60	7/13/2006	1.6
VP-108	65-70	7/13/2006	1.7
VP-108	75-80	7/13/2006	1.2
VP-108	85-90	7/13/2006	1.2
VP-108	95-100	7/13/2006	1.2
VP-108	105-110	7/13/2006	1.3
VP-108	115-120	7/13/2006	1.4
VP-108	125-130	7/13/2006	1.6
VP-108	135-140	7/13/2006	1.4
VP-108	145-150	7/13/2006	1.3
VP-108 (REP)	145-150	7/13/2006	1.3

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Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-109	44-49	2/5/2007	9.4
VP-109	55-60	2/5/2007	0.79 J
VP-109	65-70	2/5/2007	1
VP-109	75-80	2/5/2007	1.1
VP-109	85-90	2/2/2007	1.1
VP-109	95-100	2/2/2007	0.43 J
VP-109	105-110	2/2/2007	0.84 J
VP-109	115-120	2/1/2007	0.4 J
VP-109	125-130	2/1/2007	< 1
VP-109	135-140	1/31/2007	0.68 J
VP-109	145-150	1/31/2007	0.36 J
VP-109	155-160	1/31/2007	0.5 J
VP-109	165-170	1/30/2007	0.77 J
VP-109	175-180	1/30/2007	0.51 DJ
VP-109	185-190	1/30/2007	0.62 J
VP-109	195-200	1/29/2007	0.85 J
VP-109	205-210	1/29/2007	0.38 J
VP-109	215-220	1/26/2007	< 1
VP-109	225-230	1/25/2007	< 1
VP-109	235-240	1/25/2007	< 1
VP-109 (REP)	235-240	1/25/2007	< 1
VP-109	247-252	1/24/2007	0.57 J
VP-109	255-260	1/24/2007	0.73 J
VP-109	265-270	1/23/2007	< 2
VP-109	275-280	1/23/2007	< 2
VP-109	288-293	1/22/2007	< 1
VP-110	40-45	2/22/2007	< 1
VP-110 (REP)	40-45	2/22/2007	< 1
VP-110	50-55	2/22/2007	< 1
VP-110	60-65	2/21/2007	< 1
VP-110	70-75	2/21/2007	< 1
VP-110	80-80	2/21/2007	< 1
VP-110	90-95	2/21/2007	< 1
VP-110	100-105	2/21/2007	< 1
VP-110	110-115	2/20/2007	0.69 J
VP-110	120-125	2/20/2007	0.95 J
VP-110	140-145	2/20/2007	0.59 J
VP-110	150-155	2/20/2007	1.3
VP-110	160-165	2/20/2007	1.2
VP-110	170-175	2/16/2007	1.4
VP-110	180-185	2/16/2007	0.78 J
VP-110 (REP)	180-185	2/16/2007	0.93 J
VP-110	190-195	2/16/2007	0.71 J
VP-110	200-205	2/13/2007	0.91 J
VP-110	210-215	2/13/2007	1
VP-110	220-225	2/13/2007	1
VP-110	230-235	2/9/2007	1.6
VP-110	240-245	2/9/2007	1.9
VP-110	250-255	2/7/2007	2.5
VP-110	260-265	2/7/2007	2.2
VP-110	270-275	2/7/2007	1.7
VP-110	283-288	2/6/2007	1.4
VP-110	295-300	2/6/2007	0.97 J
VP-110	315-320	2/6/2007	1.6
VP-110	325-330	2/5/2007	1.3
VP-110	333-338	2/5/2007	3.9

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Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-110	344-349	2/1/2007	3
VP-110	352-357	2/1/2007	1.8
VP-110	352-367	2/1/2007	1.6
VP-110	362-367	1/31/2007	2.9
VP-110	372-377	1/31/2007	1.3
VP-110	382-387	1/30/2007	1.4
VP-111	50-51	4/17/2007	0.84
VP-111	70-71	4/17/2007	1.7
VP-111	91-91	4/17/2007	1.1
VP-111	111-111	4/17/2007	1.3
VP-111	131-131	4/18/2007	2.1
VP-111	151-151	4/18/2007	2
VP-111	171-171	4/18/2007	1.9
VP-111 (REP)	171-171	4/18/2007	2
VP-111	191-191	4/19/2007	1.9
VP-111	211-211	4/19/2007	1.4
VP-111	231-231	4/19/2007	1.5
VP-111	251-251	4/19/2007	1.1
VP-111	271-271	4/20/2007	1.1
VP-111	291-291	4/20/2007	0.9
VP-111	311-311	4/20/2007	2
VP-111	331-331	4/20/2007	2.4
VP-111	351-351	4/23/2007	2.4
VP-111	371-371	4/23/2007	2.6
VP-111	391-391	4/24/2007	1.8
VP-111	411-411	4/24/2007	2.2
VP-111	431-431	4/24/2007	3.6
VP-111	451-451	4/24/2007	1.8
VP-111	471-471	4/25/2007	1.4
VP-111	491-491	4/25/2007	4.1
VP-111	511-511	4/25/2007	4.8
VP-111	531-531	4/26/2007	6.2
VP-111	551-551	4/26/2007	1.6
VP-111 (REP)	551-551	4/26/2007	1.6
VP-111	571-571	4/27/2007	4.1
VP-111	591-591	4/27/2007	2.6
VP-111	616-616	4/30/2007	2
VP-111	631-631	5/1/2007	< 0.2
VP-112	60-60	5/23/2007	0.48
VP-112	80-80	5/23/2007	3
VP-112	100-100	5/23/2007	0.93
VP-112	120-120	5/24/2007	3.7
VP-112	140-140	5/24/2007	0.86
VP-112	165-165	5/24/2007	1.1
VP-112	185-185	5/30/2007	1.2
VP-112	200-200	5/30/2007	2.6
VP-112	220-220	5/31/2007	3.4
VP-112	240-240	5/31/2007	3.5
VP-112 (REP)	240-240	5/31/2007	3.5
VP-112	260-260	5/31/2007	3.3
VP-112	280-280	5/31/2007	0.93
VP-112	300-300	6/1/2007	0.75
VP-112	320-320	6/1/2007	0.73
VP-112	340-340	6/1/2007	0.78
VP-112	360-360	6/4/2007	0.98
VP-112	380-380	6/4/2007	0.74

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Sample Location	Sample Depth (ft bls)	Sample Date	Concentration (ug/L)
VP-112	410-410	6/5/2007	0.76
VP-112	420-420	6/6/2007	0.91
VP-112	440-440	6/6/2007	0.78
VP-112	470-470	6/7/2007	1.7
VP-112 (REP)	470-470	6/7/2007	1.5
VP-112	480-480	6/7/2007	1.2
VP-112	500-500	6/7/2007	1.5
VP-112	520-520	6/7/2007	1.9
VP-112	545-545	6/8/2007	3.8
VP-112	560-560	6/8/2007	3
VP-112	580-580	6/8/2007	5.3
VP-112	600-600	6/11/2007	5.2
VP-112	620-620	6/13/2007	1.9
VP-112	660-660	6/14/2007	0.9
VP-112	680-680	6/14/2007	0.2
VP-112	700-700	6/14/2007	< 0.2

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).
2. Samples analyzed for perchlorate using USEPA Method 314.0.
3. Nassau County Department of Health has adopted a guidance value of 18 ug/L for perchlorate.

Bold value indicates detection.

RI/FS	Remedial Investigation/Feasibility Study
USEPA	United States Environmental Protection Agency
ug/L	Micrograms per liter
J	Value is estimated
D	Value from a secondary dilution
ft bls	Feet below land surface
REP	Field replicate