

**ATTACHMENT 2
UNIT 5**

**APPENDIX G
GROUNDWATER
PROTECTION STANDARDS (GPS)**

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GROUNDWATER PROTECTION STANDARDS: UNIT 5

Unit: µg/l Unless Otherwise Noted

Constituents	SW-846 Method	PQL (µg/l)	Back-ground (µg/l)	USEPA MCL (µg/l)	VDEQ ACL (µg/l)	EPA RSL (µg/l)	GPS (µg/l)
Antimony, total	6010, 6020	32	3	6			6
Arsenic, total	6010, 6020	10	1	50			50
Barium, total	6010, 6020	10	172.87	2,000			2,000
Beryllium, total	6010, 6020	1	0.7	4			4
Cadmium, total	6010, 6020	0.1	1.45	5			5
Chromium, total	6010, 6020	5	5	100			100
Cobalt, total	6010, 6020	7	7		4.7		7
Copper, total	6010, 6020	5	18	1,300*			1,300*
Lead, total	6010, 6020	15	10	15*			15*
Mercury, total	7470 A	2	0.9	2			2
Nickel, total	6010, 6020	10	106		300		300
Selenium, total	6010, 6020	10	1	50			50
Silver, total	6010, 6020	2	2.3		71		71
Thallium, total	6010,	1	2	2			2

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	6020					
Vanadium, total	6010, 6020	10	17		63	63
Zinc, total	6010, 6020	4930	75		4700	4700
Acetone	8260	10	89		12000	12000
Chloroform	8260	1	0.5	80 [#]		80 [#]
Dichlorodifluoromethane	8260	1	1		190	190
1,2-Dichloroethane	8260	1	0.1	5		5
Diethyl ether	8260	12	12		7300	7300
Methylene chloride	8260	1	0.7	5		5
Methyl ethyl ketone	8260	100	21.3		4900	4900
Toluene	8260	5	0.1	1,000		1,000
Trichloroethene	8260	1	0.8	5		5
Xylenes (total)	8260	1	0.1	10,000		10,000
Bis (2-ethylhexyl) phthalate	8270	10	10		4.8	10
Diethyl phthalate	8270	10	0.2		11000	11000
2,4-Dinitrotoluene	8270	10	0.18		0.2	10
2,6-Dinitrotoluene	8270	10	0.08		0.042	10
o-Nitroaniline; 2-	8270	10	10		150	150
p-Nitroaniline; 4-	8270	20	20		3.3	20
Nitrobenzene	8270	10	10		0.12	10

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NOTES:

EPA MCL: Maximum Contaminant Level of USEPA National Primary Drinking Water Regulations (April, 2002). * - Action Level. Subject to change without notice as directed by DEQ.

Background: Calculated using analytical data from First Quarter 1996 through First Quarter 1999 for upgradient well 5W8B.

DEQ ACL: VA DEQ Alternate Concentration Limit, Dec 2013. Subject to change without notice as directed by DEQ.

RSL: Developed by Oak Ridge National Laboratory under an Interagency Agreement with EPA (June 2011). Subject to change when it is updated.

- #: The MCL for total Trihalomethanes, including Bromodichloromethane, Bromoform, Dibromochloromethane, and Chloroform, is 80 gm/l.

For any monitoring event, if a GPS for a constituent in the table above is based on a PQL, the Permittee will perform verification of a detection (i.e. value greater than the Detection Limit) of such a constituent using low-level analytical methods, if such methods are standard methods that are routinely available from commercial laboratories. Furthermore, the low-level analytical method will be used only if the PQL achievable by that method is less than, or equal to, the ACL or RBC for the subject constituent. If the verification event confirms a quantifiable detection (i.e. value greater than the PQL) above the applicable ACL or RBC, a revised background concentration will be established using low-level analytical methods, if appropriate, and the GPS will be updated based on the new background concentration if warranted.