

**ATTACHMENT 3  
UNIT 16**

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



**Appendix G to Attachment 3**  
**GROUNDWATER PROTECTION STANDARDS: UNIT 16**

Unit: µg/l Unless Otherwise Noted

Constituents/Parameters	864 Methods	PQL	Back-ground	EPA MCL	ACL RSL	GPS
Arsenic, total	6010/6020	10	1	10		10
Barium, total	6010/6020	10	175.4	2000		2000
Beryllium, total	6010/6020	1	0.7	4		4
Cadmium, total	6010/6020	1	0.2	5		5
Chromium, total	6010/6020	5	6.2	100		100
Cobalt, total	6010/6020	5	5		4.7	5
Copper, total	6010/6020	5	13	1300*		1300*
Lead, total	6010/6020	15	10	15*		15 Formatted: Highlight
Mercury, total	7470	2	0.2	2		2
Nickel, total	6010/6020	10	16		300	300
Vanadium, total	6010/6020	10	151		63	151
Zinc, total	6010/6020	1930	51		4700	470 Formatted: Highlight
Benzene	8260	1	1	5		5
2-Butanone; Methyl ethyl ketone (MEK)	8260	10	1.1		4900	4900
Carbon tetrachloride	8260	1	0.2	5		5
Chloroethane	8260	1	20.7		21000	21000
Dichlorodifluoromethane	8260	1	46.5		190	190
1,1-Dichloroethane;	8260	1	9.5		0.15	9.5
1,1-Dichloroethene	8260	1	1	7		7
Diethyl ether	8260	12.5	75.5		7300/RSL	7300
Dimethyl ether;	8260	12.5	17			17
Ethylbenzene; Phenylethane	8260	1	0.1	700		700
Methylene chloride	8260	1	13.95	5		13.95
Tetrachloroethene (PCE)	8260	1	0.7	5		5
Chloromethane	8260	1	0.3		190	190
Toluene	8260	1	0.1	1000		1000
1,1,1-Trichloroethane; Methylchloroform;	8260	1	9.2	200		200
Trichloroethene	8260	1	0.1	5		5

Trichlorofluoromethane	8260	1	11.3		1000	1000
Trifluorotrchloroethane (1,1,2-Trichloro-1,2,2-Trifluoroethane)	8260	1	1.2		59000/RSL	59000
<u>Tetrahydrofuran</u>	<u>8260</u>	<u>25</u>	<u>25</u>		<u>3,400/RSL</u>	<u>3,400</u>
Xylenes (total); 1,3-, 1,2-, & 1,4-Dimethylbenzene	8260	3	0.2	10000		1000
Diethyl phthalate	8270	5	5		11000	11000
2,4-Dinitrotoluene	8270	10	10		0.2	10
2,6-Dinitrotoluene	8270	10	10		0.042	10

**Commented [JF1]:** Revised 12-13-2016 from 25 ug/l to 3,400 ug/l. This was a typographical error. See DEQ correspondence dated July 19, 2016 concurring with RFAAP proposed background concentration and GPS.

NOTES:

**EPA MCL:** Maximum Contaminant Level of USEPA National Primary Drinking Water Regulations (web: <http://water.epa.gov/drink/contaminants/index.cfm#Primary>; June 2, 2010). \* - Action Level. Subject to change without notice as directed by DEQ.

**Background:** Calculated using analytical data from 1996 through 1998 for upgradient well 16C1.

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

**RSL:** RSL are developed by Oak Ridge National Laboratory under an Interagency Agreement with EPA (June 2011). See web site "Mid-Atlantic Risk Assessment" at <http://www.epa.gov/reg3hwmd/risk/human/index.htm> Subject to change without notice as directed by DEQ.

For any monitoring event, if a GPS for a constituent in the table above is based on 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.