

APPENDIX 3

Atlantic RBCA Version 4.0

ATLANTIC CANADA TIER I

RISK-BASED SCREENING LEVEL (RBSL) TABLES

ATLANTIC PARTNERSHIP IN RBCA IMPLEMENTATION

July 2021

					Co	ompound of C	oncern		
l and Lleo	Groundwater Use	Soil Type					Modi	fied TPH (TPH-E	BTEX)
Land Use	Groundwater Use	Son Type	Benzene	Toluene	Ethyl- benzene	Xylene	Gasoline	Diesel/ No. 2 Fuel Oil	No. 6 Oil/ Lube Oil
	Potable	Coarse Grained	0.021	0.35	0.043	0.73	75	320	1,800
Agricultural	Fotable	Fine Grained	0.094	0.74	0.089	1.5	1,900	4,700	10,000
Agricultural	Non Potabla	Coarse Grained	0.021	47	60	4.9	75	320	1,800
	Non-Folable	Fine Grained	0.49	900	2,000	120	10,000	8,600	10,000
	Potable	Coarse Grained	0.021	0.35	0.043	0.73	75	320	1,800
Residential	Fotable	Fine Grained	0.094	0.74	0.089	1.5	1,900	4,700	10,000
	Non-Potable	Coarse Grained	0.021	47	60	4.9	75	320	1,800
	Non-Potable	Fine Grained	0.49	900	2,000	120	10,000	8,600	10,000
	Non-Potable Potable	Coarse Grained	0.042	0.35	0.043	0.73	940	1,800	10,000
Commorcial	Folable	Fine Grained	0.094	0.74	0.089	1.5	1900	4,700	10,000
Commercial	Non-Potable	Coarse Grained	0.52	1,400	3,100	60	2000	10,000	10,000
	Non-Fotable	Fine Grained	6.9	1,400	3,100	1,800	10,000	10,000	10,000
	Potable	Coarse Grained	0.042	0.35	0.043	0.73	940	1,800	10,000
Industrial	Fotable	Fine Grained	0.094	0.74	0.089	1.5	1,900	4,700	10,000
Industrial	Non-Potable	Coarse Grained	0.52	4,700	10,000	60	2000	10,000	10,000
	Non-rotable	Fine Grained	6.9	4,700	10,000	6,300	10,000	10,000	10,000
Residual Satu	uration (RES)	Coarse Grained	890	450	240	340	TBD	TBD	TBD
		Fine Grained	1000	480	250	360	TBD	TBD	TBD

TABLE 5a - TIER I RISK BASED SCREENING LEVELS FOR SOIL (mg/kg)

Notes:

1. Upper Concentration Limit (UCL) of 10,000 mg/kg is applied to any calculated soil concentration that is >RES or exceeds 10,000 mg/kg.

2. RES values for TPH to be determined (TBD).

3. The numbers in this table are based on the protection of human health. While these concentrations may not be physically realistic in the environment, it remains that the models indicate that chemicals present in the soil at concentrations below these values do not present a potential concern for human health if exposure occurs through the specified pathway.

4. Concentrations >RES are considered an indicator of the potential presence of free product. If site concentrations are >RES, the presence of free product must be specifically addressed by the Site Professional.

To apply the RBSL values in the Tier I Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual hydrocarbons must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

	Groundwater				Co	ompound of C	oncern		
Receptor	Groundwater	Soil Type			Ethyl-		Mod	ified TPH (TPH-B	TEX)
•	Use		Benzene	Toluene	benzene	Xylene	Gasoline	Diesel/ No. 2 Fuel Oil	No. 6 Oil/ Lube Oil
	Potablo	Coarse Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
Agricultural	1 Otable	Fine Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
Agricultural	Nen Detable	Coarse Grained	0.53	20	20	20	20	20	20
	Non-Potable	Fine Grained	2.7	20	20	20	20	20	20
	Potoblo	Coarse Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
Residential -	Folable	Fine Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
Residential	Non-Potable	Coarse Grained	0.53	20	20	20	20	20	20
	Non-Potable	Fine Grained	2.7	20	20	20	20	20	20
	Potoblo	Coarse Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
Commercial	Folable	Fine Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
Commercial	Non Potoblo	Coarse Grained	6.3	20	20	20	20	20	20
	Non-Polable	Fine Grained	20	20	20	20	20	20	20
	Potoblo	Coarse Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
la due faiel	Folable	Fine Grained	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
industrial	Non-Potable	Coarse Grained	6.3	20	20	20	20	20	20
	Non-Potable	Fine Grained	20	20	20	20	20	20	20
	Solubility (SOL)		1,780	515	150	160	TBD	TBD	TBD

TABLE 5b - TIER I RISK BASED SCREENING LEVELS FOR GROUNDWATER (mg/L)

Notes:

1. Upper Concentration Limit (UCL) of 20 mg/L is applied to any calculated concentration that is >SOL or exceeds 20 mg/L.

2. SOL values for TPH to be determined (TBD).

3. The numbers in this table are based on the protection of human health. While these concentrations may not be physically realistic in the environment, it remains that the models indicate that chemicals present in the groundwater at concentrations below these values do not present a potential concern for human health if exposure occurs through the specified pathway.

4. Concentrations >SOL are considered an indicator of the potential presence of free product. If site concentrations are >SOL, the presence of free product must be specifically addressed by the Site Professional.

	То	apply the	RBSL	values in	n the	Tier	Soil a	and (Groundwater	Tables,	the followi	ng mai	ndatory	/ criteria mus	t be satisfied.
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a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual hydrocarbons must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.



APPENDIX 4

Atlantic RBCA Version 4.0

ATLANTIC CANADA TIER II

PATHWAY-SPECIFIC SCREENING LEVEL (PSSL) TABLES

ATLANTIC PARTNERSHIP IN RBCA IMPLEMENTATION

July 2021

TABLE 6a - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR SOIL - PHCs (mg/kg)

						Cor	npound of Con	cern				
Recentor	Groundwater	Soil Type	Exposure Pathway			Etherd		Modi	fied TPH (TPH-E	STEX)		
Receptor	Use	oon type		Benzene	Toluene	benzene	Xylene	Gasoline	Diesel/No. 2 Fuel Oil	No. 6 Oil/ Lube Oil		
		Coarso	Indoor Air *	0.021	47	60	4.9	75	320	1,800		
		Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
	Potable	Graineu	Soil Leaching	0.042	0.35	0.043	0.73	940	1,800	15,000		
_	i otable		Indoor Air *	0.49	>RES	>RES	120	>RES	>RES	>RES		
ıra		Fine Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
nlt I			Soil Leaching	0.094	0.74	0.089	1.5	1,900	4700	>RES		
ric		Coarse	Indoor Air *	0.021	47	60	4.9	75	320	1,800		
Agi		Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
	Non-Potable —	Oramea	Soil Leaching		Not Applicable for Non-Potable Scenarios							
			Indoor Air *	0.49	>RES	>RES	120	>RES	>RES	>RES		
		Fine Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
	Fine Grain		Soil Leaching			Not Applicab	le for Non-Pota	ble Scenarios				
		Coarse	Indoor Air *	0.021	47	60	4.9	75	320	1,800		
		Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
	Potable	Oramea	Soil Leaching	0.042	0.35	0.043	0.73	940	1,800	15,000		
_	I Otable		Indoor Air *	0.49	>RES	>RES	120	>RES	>RES	>RES		
tia		Fine Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
len			Soil Leaching	0.094	0.74	0.089	1.5	1900	4700	>RES		
sic		Coarse	Indoor Air *	0.021	47	60	4.9	75	320	1,800		
Re		Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
	Non-Potable	Gramou	Soil Leaching			Not Applicab	le for Non-Pota	ble Scenarios				
	Non-Potable		Indoor Air *	0.49	>RES	>RES	120	>RES	>RES	>RES		
		Fine Grained	Soil Ingestion	180	900	2,000	1,200	15,000	8,600	14,000		
			Soil Leaching			Not Applicab	le for Non-Pota	ble Scenarios				
Re	sidual Saturation	Coar	se Grained	890	450	240	340	TBD	TBD	TBD		
		Fin	e Grained	1000	480	250	360	TBD	TBD	TBD		

Notes:

1. * 10 X Adjustment Factor (AF) has been applied.

2. RES values for TPH to be determined (TBD).

3. The numbers in this table are based on the protection of human health. While these concentrations may not be physically realistic in the environment, it remains that the models indicate that chemicals present in the soil at concentrations below these values do not present a potential concern for human health if exposure occurs through the specified pathway.

4. Concentrations >RES are considered an indicator of the potential presence of free product. If site concentrations are >RES, the presence of free product must be specifically addressed by the Site Professional.

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual hydrocarbons must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

TABLE 6a - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR SOIL - PHCs (mg/kg)

						Cor	npound of Con	cern				
Recentor	Groundwater	Soil Type	Exposure Pathway					Modi	fied TPH (TPH-E	BTEX)		
Receptor	Use	oon rype		Benzene	Toluene	Ethyl- benzene	Xylene	Gasoline	Diesel/No. 2 Fuel Oil	No. 6 Oil/ Lube Oil		
		Coarso	Indoor Air *	0.52	>RES	>RES	60	2000	32,000	>RES		
		Grained	Soil Ingestion	980	1,400	3,100	1,800	22,000	13,000	21,000		
	Potable	Graineu	Soil Leaching	0.042	0.35	0.043	0.73	940	1,800	15,000		
_	Fotable		Indoor Air *	6.9	>RES	>RES	>RES	>RES	>RES	>RES		
cia		Fine Grained	Soil Ingestion	980	1,400	3,100	1,800	22,000	13,000	21,000		
ler			Soil Leaching	0.094	0.74	0.089	1.5	1900	4,700	>RES		
มน		Coarso	Indoor Air *	0.52	>RES	>RES	60	2000	32,000	>RES		
So		Grained	Soil Ingestion	980	1,400	3,100	1,800	22,000	13,000	21,000		
Ŭ	Non-Potable =	Graineu	Soil Leaching	Not Applicable for Non-Potable Scenarios								
Non-Potable		Indoor Air *	6.9	>RES	>RES	>RES	>RES	>RES	>RES			
		Fine Grained	Soil Ingestion	980	1,400	3,100	1,800	22,000	13,000	21,000		
	Fille G		Soil Leaching			Not Applicab	le for Non-Pota	ble Scenarios				
		Coarse	Indoor Air *	0.52	>RES	>RES	60	2000	32,000	>RES		
		Grained	Soil Ingestion	980	4,700	11,000	6,300	77,000	47,000	74,000		
	Potable	Graineu	Soil Leaching	0.042	0.35	0.043	0.73	940	1,800	15,000		
	Fotable		Indoor Air *	6.9	>RES	>RES	>RES	>RES	>RES	>RES		
a		Fine Grained	Soil Ingestion	980	4,700	11,000	6,300	77,000	47,000	74,000		
stri			Soil Leaching	0.094	0.74	0.089	1.5	1900	4,700	>RES		
np		Coarse	Indoor Air *	0.52	>RES	>RES	60	2000	32,000	>RES		
<u> </u>		Grained	Soil Ingestion	980	4,700	11,000	6,300	77,000	47,000	74,000		
	- Non Botchio	Graineu	Soil Leaching			Not Applicab	le for Non-Pota	ble Scenarios				
	Non-Folable		Indoor Air *	6.9	>RES	>RES	>RES	>RES	>RES	>RES		
		Fine Grained	Soil Ingestion	980	4,700	11,000	6,300	77,000	47,000	74,000		
			Soil Leaching			Not Applicab	le for Non-Pota	ble Scenarios				
Re	sidual Saturation	Coar	se Grained	890	450	240	340	TBD	TBD	TBD		
		Fine	e Grained	1000	480	250	360	TBD	TBD	TBD		

Notes:

1. * 10 X Adjustment Factor (AF) has been applied.

2. RES values for TPH to be determined (TBD).

3. The numbers in this table are based on the protection of human health. While these concentrations may not be physically realistic in the environment, it remains that the models indicate that chemicals present in the soil at concentrations below these values do not present a potential concern for human health if exposure occurs through the specified pathway.

4. Concentrations >RES are considered an indicator of the potential presence of free product. If site concentrations are >RES, the presence of free product must be specifically addressed by the Site Professional.

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual hydrocarbons must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

						C	Compound of	Concern		
	Groundwater		Exposure					Mod	ified TPH (TPH-B	TEX)
Receptor	Use	Soil Type	Pathway	Benzene	Toluene	Ethyl- benzene	Xylene	Gasoline	Diesel/ No. 2 Fuel Oil	No. 6 Oil/ Lube Oil
		Coarse	Indoor Air *	0.53	>SOL	>SOL	38	>SOL	>SOL	>SOL
_	Dotabla	Grained	Ingestion	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
Iral	Polable	Fine	Indoor Air *	2.7	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
ultu		Grained	Ingestion	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
ict		Coarse	Indoor Air *	0.53	>SOL	>SOL	38	>SOL	>SOL	>SOL
∧gı	Non Dotoblo	Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
	Non-Polable	Fine	Indoor Air *	2.7	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
		Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
		Coarse	Indoor Air *	0.53	>SOL	>SOL	38	>SOL	>SOL	>SOL
	Potablo	Grained	Ingestion	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
tial	Folable	Fine	Indoor Air *	2.7	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
eni		Grained	Ingestion	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
sid		Coarse	Indoor Air *	0.53	>SOL	>SOL	38	>SOL	>SOL	>SOL
Re	Non Botabla	Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
	Non-Polable	Fine	Indoor Air *	2.7	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
		Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
		Solubility'		1780	515	150	160	TBD	TBD	TBD

TABLE 6b - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR GROUNDWATER - PHCs (mg/L)

Notes:

1. * 10 X Adjustment Factor (AF) has been applied.

2. SOL values for TPH to be determined (TBD).

3. The numbers in this table are based on the protection of human health. While these concentrations may not be physically realistic in the environment, it remains that the models indicate that chemicals present in the groundwater at concentrations below these values do not present a potential concern for human health if exposure occurs through the specified pathway.

4. Concentrations >SOL are considered an indicator of the potential presence of free product. If site concentrations are >SOL, the presence of free product must be specifically addressed by the Site Professional.

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual hydrocarbons must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

						C	Compound of	Concern		
	Groundwater		Exposure					Mod	ified TPH (TPH-B	TEX)
Receptor	Use	Soil Type	Pathway	Benzene	Toluene	Ethyl- benzene	Xylene	Gasoline	Diesel/ No. 2 Fuel Oil	No. 6 Oil/ Lube Oil
		Coarse	Indoor Air *	6.3	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
_	Potabla	Grained	Ingestion	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
cia	Folable	Fine	Indoor Air *	32	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
Jero		Grained	Ingestion	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
nn		Coarse	Indoor Air *	6.3	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
Cor	Non Potabla	Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
•	NOI-FOLADIC	Fine	Indoor Air *	32	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
		Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
		Coarse	Indoor Air *	6.3	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
	Potabla	Grained	Ingestion	0.0005	0.024	0.0016	0.02	4.4	3.2	7.8
al	Folable	Fine	Indoor Air *	32	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
stri		Grained	Ingestion	0.005	0.024	0.0016	0.02	4.4	3.2	7.8
inp		Coarse	Indoor Air *	6.3	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
Ч	Non-Potable	Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
	NOII-FOLADIE	Fine	Indoor Air *	32	>SOL	>SOL	>SOL	>SOL	>SOL	>SOL
		Grained	Ingestion			Not Applic	able for Non-	Potable Scena	arios	
		Solubility'		1780	515	150	160	TBD	TBD	TBD

TABLE 6b - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR GROUNDWATER - PHCs (mg/L)

Notes:

1. * 10 X Adjustment Factor (AF) has been applied.

2. SOL values for TPH to be determined (TBD).

3. The numbers in this table are based on the protection of human health. While these concentrations may not be physically realistic in the environment, it remains that the models indicate that chemicals present in the groundwater at concentrations below these values do not present a potential concern for human health if exposure occurs through the specified pathway.

4. Concentrations >SOL are considered an indicator of the potential presence of free product. If site concentrations are >SOL, the presence of free product must be specifically addressed by the Site Professional.

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual hydrocarbons must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

TABLE 6c - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR SOIL (mg/kg) - CVOCs

		Soil Type		Compound of Concern								
Receptor	Groundwater Use		pil Type Exposure Pathway	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride			
		Coarse	Indoor Air	0.016	0.00081	0.019	0.02	0.039	0.00031			
		Grained	Soil Ingestion	170	54	74	740	110	31			
	Potable		Soil Leaching	0.27	0.061	0.42	0.58	0.17	0.021			
	Fotable		Indoor Air	0.39	0.020	0.52	0.56	0.93	0.0087			
		Fine Grained	Soil Ingestion	170	54	74	740	110	31			
			Soil Leaching	0.57	0.13	1.0	1.4	0.38	0.060			
		Coarse	Indoor Air	0.016	0.00081	0.019	0.02	0.039	0.00031			
-		Grained	Soil Ingestion	170	54	74	740	110	31			
ura	Non-Potable		Soil Leaching			N	ot Applicable for Nor	-Potable Scenarios				
sult		Fine Grained	Indoor Air	0.39	0.020	0.52	0.56	0.93	0.0087			
gric			Soil Ingestion	170	54	74	740	110	31			
Ą			Soil Leaching			N	ot Applicable for Nor	-Potable Scenarios				
		Coarse	Indoor Air	0.016	0.00081	0.019	0.02	0.039	0.00031			
		Grained	Soil Ingestion	170	54	74	740	110	31			
	Potable		Soil Leaching	0.27	0.061	0.42	0.58	0.17	0.021			
			Indoor Air	0.39	0.020	0.52	0.56	0.93	0.0087			
		Fine Grained	Soil Ingestion	170	54	74	740	110	31			
			Soil Leaching	0.57	0.13	1.0	1.4	0.38	0.060			
		Coarse	Indoor Air	0.016	0.00081	0.019	0.02	0.039	0.00031			
-		Grained	Soil Ingestion	170	54	74	740	110	31			
ntia	Non-Potable		Soil Leaching		0.000	N	ot Applicable for Nor	1-Potable Scenarios	0.0007			
dei			Indoor Air	0.39	0.020	0.52	0.56	0.93	0.0087			
esi		Fine Grained	Soil Ingestion	170	54	74	740	110	31			
Ř			Soil Leaching			N	ot Applicable for Nor	n-Potable Scenarios				

Notes:

1. In the absence of Tier I RBSL, the site professional shall apply the most conservative guideline applicable to the site.

2. Grey/Italics - The derived guidelines are not currently attainable by current laboratory methods. For sites where CVOCs are identified as a contaminant of potential concern and where the indoor air guidelines are not achievable for the CVOC parameters (parent and associated daughter products), soil vapour, sub-slab or indoor air testing is required to assess the potential for unacceptable risks. In this case the extent of chlorinated solvent impacts shall be delineated through soil vapour and groundwater data or another means deemed appropriate by the Site Professional and

Provincial Regulator. Refer to guidance document for further guidance.

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater (i.e. light or dense)

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free liquid phase product.

d. Residual impacts must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

TABLE 6c - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR SOIL (mg/kg) - CVOCs

		Soil Type Coarse In			Compound of Concern								
Receptor	Groundwater Use		Exposure Pathway	Tetrachloroethene	Trichlor oethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride				
		Coarse	Indoor Air	0.2	0.01	0.24	0.25	0.49	0.0079				
		Grained	Soil Ingestion	270	82	110	1100	170	170				
	Potable		Soil Leaching	0.27	0.061	0.42	0.58	0.17	0.021				
	1 otable		Indoor Air	2.9	0.14	3.8	4.1	6.6	0.12				
		Fine Grained	Soil Ingestion	270	82	110	1100	170	170				
			Soil Leaching	0.57	0.13	1.0	1.4	0.38	0.060				
		Coarse	Indoor Air	0.2	0.01	0.24	0.25	0.49	0.0079				
<u> </u>		Grained	Soil Ingestion	270	82	110	1100	170	170				
rcia	Non-Potable		Soil Leaching			N	ot Applicable for Non	-Potable Scenarios					
me		Fine Grained	Indoor Air	2.9	0.14	3.8	4.1	6.6	0.12				
шо О			Soil Ingestion	270	82	110	1100	170	170				
ŭ			Soil Leaching			N	ot Applicable for Non	-Potable Scenarios					
		Coarse	Indoor Air	0.2	0.01	0.24	0.25	0.49	0.016				
		Grained	Soil Ingestion	920	280	390	3900	590	340				
	Potable		Soil Leaching	0.27	0.061	0.42	0.58	0.17	0.021				
			Indoor Air	2.9	0.14	3.8	4.1	6.6	0.24				
ial		Fine Grained	Soil Ingestion	920	280	390	3900	590	340				
Istr			Soil Leaching	0.57	0.13	1.0	1.4	0.38	0.060				
ndt		Coarse	Indoor Air	0.2	0.01	0.24	0.25	0.49	0.016				
=		Grained	Soil Ingestion	920	280	390	3900	590	340				
	Non-Potable		Soil Leaching			N N	ot Applicable for Non	-Potable Scenarios	0.01				
		Fine Oneine I	Indoor Air	2.9	0.14	3.8	4.1	6.6	0.24				
		Fine Grained	Soil Ingestion	920	280	390	3900	590	340				
	S	Soil Leaching			N	ot Applicable for Non	-Potable Scenarios						

Notes:

1. In the absense of Tier I RBSL, the site professional is to apply the most conservative guideline applicable to the site.

2. Grey/Italics - The derived guidelines are not currently attainable by current laboratory methods. For sites where CVOCs are identified as a contaminant of potential concern and where the indoor air guidelines are not achievable for the CVOC parameters (parent and associated daughter products), soil vapour, sub-slab or indoor air testing is required to assess the potential for unacceptable risks. In this case the extent of chlorinated solvent impacts shall be delineated through soil vapour and groundwater data or another means deemed appropriate by the Site Professional and

Provincial Regulator. Refer to guidance document for further guidance.

g. The inhalation URF of 0.0088 (mg/m3)-1is for lifetime exposure and is therefore used for derivation of agricultural, residential, and commercial indoor air values. The Inhalation URF of 0.00044 (mg/m3)-1 is for adult exposure and is used in derivation of industrial indoor air values.

h. The oral slope factor of 0.48 (mg.kg-d)-1 is for continuous lifetime exposure and is therefore used for derivation of agricultural, residential, and commercial indoor air values. The oral slope factor of 0.24 (mg.kg-d)-1 id for for adult exposure and is used in derivation of industrial indoor air values.

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual impacts must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

TABLE 6d - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR GROUNDWATER (mg/L) - CVOCs

					Compound of Concern								
Receptor	Groundwater Use	Soil Type	Exposure Pathway	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride				
		Coarse	Indoor Air	0.21	0.019	0.77	0.82	0.95	0.0086				
	Potable	Grained	Ingestion	0.01	0.005	0.07	0.1	0.014	0.002				
	rotable	Fine Grained	Indoor Air	1.00	0.092	3.9	4.1	4.6	0.041				
			Ingestion	0.01	0.005	0.07	0.1	0.014	0.002				
a		Coarse	Indoor Air	0.21	0.019	0.77	0.82	0.94	0.0085				
litu.	Non Potoblo	Grained	Ingestion			1	Not Applicable for Non-	Potable Scenarios					
rict	NOII-FOLADIE	Fine Grained	Indoor Air	1.00	0.092	3.9	4.1	4.6	0.041				
Agi			Ingestion			ľ	Not Applicable for Non-	Potable Scenarios					
		Coarse	Indoor Air	0.21	0.019	0.77	0.82	0.95	0.0086				
	Potabla	Grained	Ingestion	0.01	0.005	0.07	0.1	0.014	0.002				
	Potable	Fine Grained	Indoor Air	1.00	0.092	3.9	4.1	4.6	0.041				
			Ingestion	0.01	0.005	0.07	0.1	0.014	0.002				
a		Coarse	Indoor Air	0.21	0.019	0.77	0.82	0.95	0.0086				
ent	Non-Potable	Grained	Ingestion			1	Not Applicable for Non-	Potable Scenarios					
sid		Fine Grained	Indoor Air	1.00	0.092	3.9	4.1	4.6	0.041				
Re			Ingestion			1	Not Applicable for Non-	Potable Scenarios					

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater (i.e, light or dense)

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free phase product.

d. Residual impacts must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

TABLE 6d - TIER II PATHWAY SPECIFIC SCREENING LEVELS FOR GROUNDWATER (mg/L) - CVOCs

				Compound of Concern								
Receptor	Groundwater Use	Soil Type	Exposure Pathway	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride			
		Coarse	Indoor Air	1.2	0.11	4.6	4.9	5.6	0.099			
	Potable	Grained	Ingestion	0.01	0.005	0.07	0.1	0.014	0.002			
	1 otable	Fine	Indoor Air	5.9	0.54	23	25	27	0.47			
		Grained	Ingestion	0.01	0.005	0.07	0.1	0.014	0.002			
tial		Coarse	Indoor Air	1.2	0.11	4.6	4.9	5.6	0.099			
ero	Non-Botable	Grained	Ingestion			1	lot Applicable for Non-I	Potable Scenarios				
E C	Non-Polable	Fine	Indoor Air	5.9	0.54	23	25	27	0.47			
ပိ		Grained	Ingestion			1	lot Applicable for Non-	Potable Scenarios				
		Coarse	Indoor Air	1.2	0.11	4.6	4.9	5.6	0.200			
	Potable	Grained	Ingestion	0.01	0.005	0.07	0.1	0.014	0.002			
	Fotable	Fine	Indoor Air	5.9	0.54	23	25	27	0.94			
		Grained	Ingestion	0.01	0.005	0.07	0.1	0.014	0.002			
_		Coarse	Indoor Air	1.2	0.11	4.6	4.9	5.6	0.200			
tria	Non-Potable	Grained	Ingestion			١	lot Applicable for Non-	Potable Scenarios				
Inst	Non-rotable	Fine	Indoor Air	5.9	0.54	23	25	27	0.94			
Indu		Grained In	Ingestion			Not Applicable for Non-Potable Scenarios						

To apply the PSSL values in the Tier II Soil and Groundwater Tables, the following mandatory criteria must be satisfied.

a. Non-aqueous phase liquids must not be present in groundwater.

b. Potable water must be free of objectionable taste and odour.

c. Soils must not contain liquid and/or free petroleum product.

d. Residual impacts must not create objectionable odours or explosive conditions in indoor or outdoor air.

e. Surface soils must not be stained.

f. The site characteristics and exposure scenarios must be compatible with the Atlantic RBCA default values.

g. The inhalation URF of 0.0088 (mg/m3)-1is for lifetime exposure and is therefore used for derivation of agricultural, residential, and commercial indoor air values. The Inhalation URF of 0.00044 (mg/m3)-1 is for adult exposure and is used in derivation of industrial indoor air values.