



**PRELIMINARY DETERMINATION**  
(Pursuant to Section 44 of the *Environmental Management Act*)

I have made a Preliminary Determination that the site identified in Schedule A of this document is not a contaminated site.

This Preliminary Determination is qualified by the requirements and conditions specified in Schedule B.

The site does not have concentrations of the substances specified in Schedule C that exceed the applicable standards and criteria prescribed in the Contaminated Sites Regulation for determining whether a site is a contaminated site.

I have issued this Preliminary Determination based on a review of relevant information including the documents listed in Schedule D. I, however, make no representation or warranty as to the accuracy or completeness of that information.

This is to advise that I will consider submissions received 35 days after delivery of this Preliminary Determination before a Final Determination is made.

In accordance with the *Environmental Management Act*, I will notify persons with an interest in the subject site once a Final Determination is made.

This Preliminary Determination should not be construed as an assurance that there are no hazards present at the site.

January 7, 2019  
Date Issued

J.A. Brooke  
For Director, *Environmental Management Act*

## Schedule A

The site covered by this Preliminary Determination is located at 6363 72<sup>nd</sup> Street, Delta, British Columbia which is more particularly known and described as:

Lot 1, District Lots 12 and 13, Township 6, New Westminster District, Plan EPP12047,

PID: 029-300-118

The approximate centre of the site using the NAD (North American Datum) 1983 convention is:

Latitude:     49°  07'  10.2"  
Longitude:   123°  01'  28.2"

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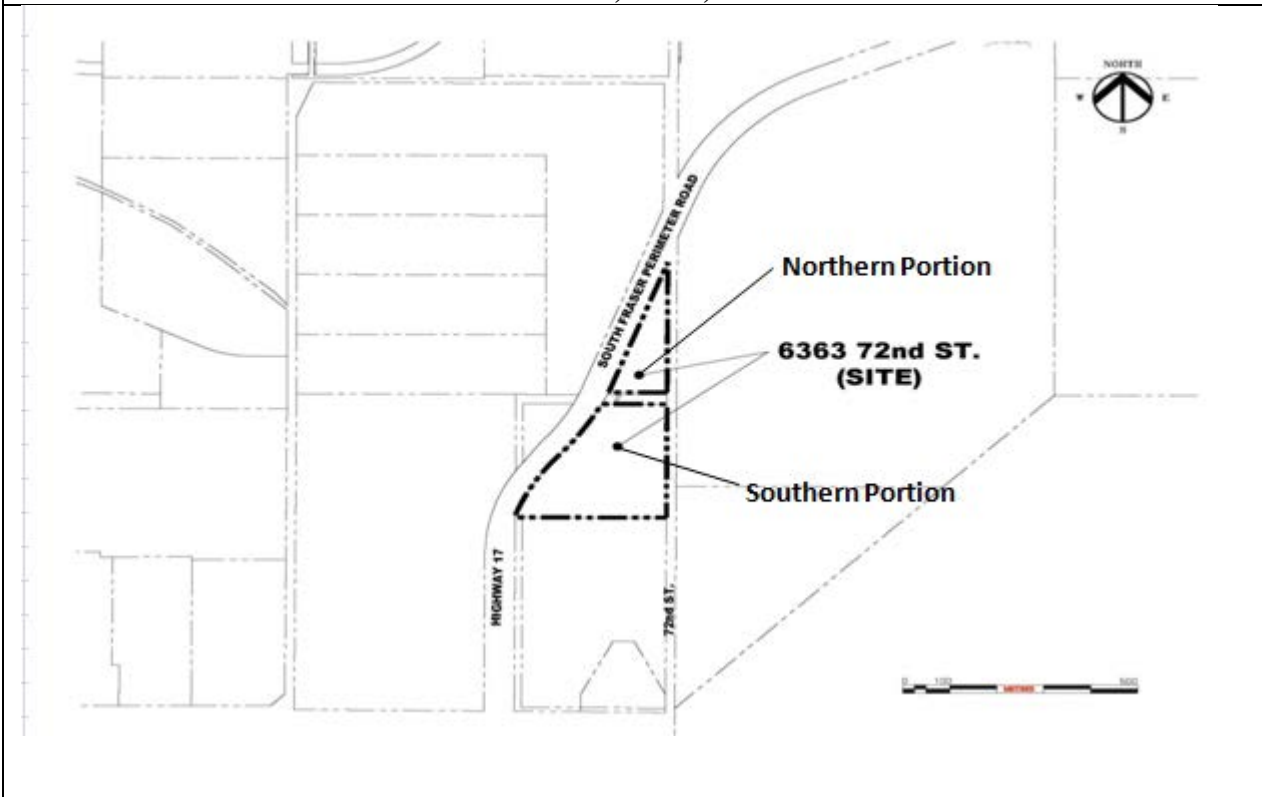
Date Issued



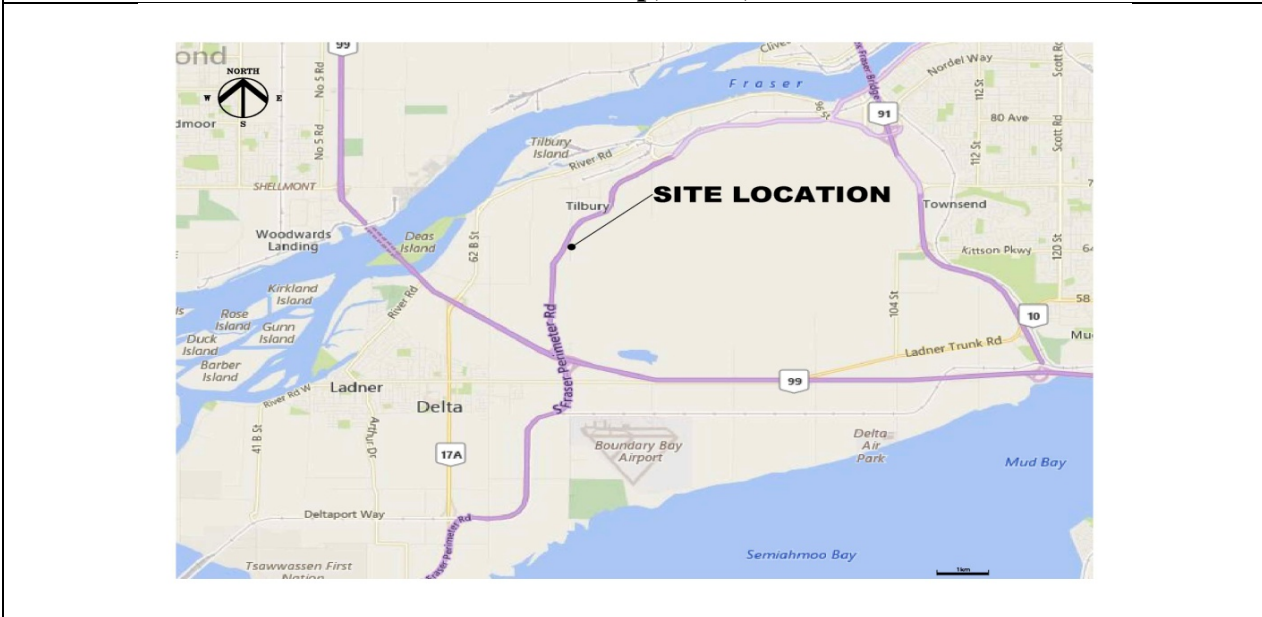
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### Site Plan, Delta, BC



### Location Map, Delta, BC



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## Schedule B

### Requirements and Conditions

1. Any changes in land use must be promptly identified by the responsible person in a written submission to the Director. An application for an amendment or new Determination of Contaminated Site may be necessary. The uses to which this condition applies are described in Schedule C and in the site investigation documents listed in Schedule D.

The documents listed in Schedule D indicate that vapour attenuation factors were applied to meet the Contaminated Sites Regulation numerical standards at the site. These vapour attenuation factors were selected based on assumptions about the structures, locations and depths of buildings existing or expected at the site. These assumptions include the following:

- (a) Current and future outdoor use only; and
- (b) The base of the current building at the Site is not slab on grade and there will be no future building change or development at the Site.

Any inconsistencies that arise between the structures, locations and depths of proposed or constructed buildings at the site and the range of structures, locations and depths of buildings assumed in the selection of vapour attenuation factors in the documents listed in Schedule D must be promptly identified by the responsible person in a written submission to the Director. An application for an amendment or new Determination of Contaminated Site may be necessary.

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## Schedule C

### Substances and Uses

#### Northern portion of the site

#### *Substances evaluated in soil for agricultural land soil use:*

To meet numerical standards prescribed for defining whether a site is contaminated:

acenaphthene	83-32-9	isopropylbenze	92-82-8
aluminum	7429-90-5	lead	7439-92-1
anthracene	120-12-7	LEPHs	NA
antimony	7440-36-0	lithium	7439-93-2
arsenic	7440-38-2	manganese	7439-96-5
barium	7440-39-3	mercury	7439-97-6
benz(a)anthracene	56-55-3	methyl tert-butyl ether	1634-04-4
benzene	71-43-2	methylnaphthalene, 1-	90-12-0
benzo(a)pyrene	50-32-8	methylnaphthalene, 2-	91-57-6
benzo(b+j)fluoranthenes	205-99-2	molybdenum	7439-98-7
benzo(b)fluoranthene	205-99-2	naphthalene	91-20-3
benzo(j)fluoranthene	205-82-3	nitrate (as N)	14797-55-8
benzo(k)fluoranthene	207-08-9	nitrite (as N)	14797-65-0
beryllium	7440-41-7	nickel	7440-02-0
boron	7440-42-8	phenanthrene	85-01-8
butadiene, 1,3-	106-99-0	pyrene	129-00-0
cadmium	7440-43-9	quinoline	91-22-5
chloride ion	16887-00-6	selenium	7782-49-2
chloronaphthalene, 2-	91-58-7	sodium ion	17341-25-2
chromium	7440-47-3	silver	7440-22-4
chrysene	218-01-9	strontium	7440-24-6
cobalt	7440-48-4	styrene	100-42-5
copper	7440-50-8	thallium	7440-28-0
dibenz(a,h)anthracene	53-70-3	tin	7440-31-5
dibromoethane, 1,2-	106-93-4	toluene	108-88-3
dichloroethane, 1,2-	107-06-2	trimethylbenzene, 1,3,5-	108-67-8
ethylbenzene	100-41-4	tungsten	7440-33-7
fluoranthene	206-44-0	uranium	7440-61-1



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fluorene	86-73-7	vanadium	7440-62-2
HEPHs	NA	VPHs	NA
indeno(1,2,3-cd)pyrene	193-39-5	xylenes	1330-20-7
iron	7439-89-6	zinc	7440-66-6

***Substances evaluated in vapour for agricultural land vapour use:***

To meet numerical standards prescribed for defining whether a site is contaminated:

ammonia (as N)	7664-41-7	naphthalene	91-20-3
benzene	71-43-2	n-decane	124-18-5
butadiene, 1,3-	106-99-0	n-hexane	110-54-3
dibromoethane, 1,2-	106-93-4	toluene	108-88-3
dichloroethane, 1,2-	107-06-2	trimethylbenzene, 1,2,4-	95-63-6
ethylbenzene	100-41-4	trimethylbenzene, 1,3,5-	108-67-8
isopropylbenzene	98-82-8	VPHv	NA
methylcyclohexane	108-87-2	xylenes, total	1330-20-7
methyl tert-butyl ether	1634-04-4		

***Substances evaluated in water for freshwater aquatic life water use:***

To meet numerical standards prescribed for defining whether a site is contaminated:

acenaphthene	83-32-9	fluoranthene	206-44-0
acridine	92-26-2	fluorene	86-73-7
ammonia, total (as N)	7664-41-7	lead	7439-92-1
anthracene	120-12-7	LEPHw	NA
antimony	7440-36-0	methyl tert-butyl ether	1634-04-4
arsenic	7440-38-2	mercury	7439-97-6
barium	7440-39-3	molybdenum	7439-98-7
benzene	71-43-2	naphthalene	91-20-3
benzo(a)pyrene	50-32-8	nickel	7440-02-0
benzo(a)anthracene	56-55-3	nitrate (as N)	14797-55-8
beryllium	7440-41-7	nitrite (as N)	14797-65-0
boron	7440-42-8	phenanthrene	85-01-8
cadmium	7440-43-9	pyrene	129-00-0
carbon tetrachloride	56-23-5	quinoline	91-22-5
chlorobenzene	108-90-7	salinity	NA



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chloroform	67-66-3	selenium	7782-49-2
chloride ion	16887-006	silver	7440-22-4
chromium	7440-47-3	tetrachloroethylene	127-18-4
chrysene	218-01-9	thallium	7440-28-0
cobalt	7440-48-4	titanium	7440-32-6
copper	7440-50-8	toluene	108-88-3
dichlorobenzene, 1,2-	95-50-1	trichloroethylene	79-01-06
dichlorobenzene, 1,3-	541-73-1	uranium	7440-61-1
dichlorobenzene, 1,4-	106-46-7	VHw <sub>6-10</sub>	NA
dichloroethane, 1,2-	107-06-2	VPHw	NA
dichloromethane	75-09-2	xylenes, total	1330-20-7
EPHw <sub>10-19</sub>	NA	zinc	7440-66-6
ethylbenzene	100-41-4		

***Substances evaluated in water for drinking water use:***

To meet numerical standards prescribed for defining whether a site is contaminated:

acenaphthene	83-32-9	naphthalene	91-20-3
aluminum	7429-90-5	ethylbenzene	100-41-4
anthracene	120-12-7	fluoranthene	206-44-0
antimony	7440-36-0	fluorene	86-73-7
arsenic	7440-38-2	isopropylbenzene	92-82-8
barium	7440-39-3	lead	7439-92-1
benz(a)anthracene	56-55-3	lithium	7439-93-2
benzene	71-43-2	methyl tert-butyl ether	1634-04-4
benzo(a)pyrene	50-32-8	methylnaphthalene, 1-	90-12-0
benzo(b)fluoranthenes	205-99-2	methylnaphthalene, 2-	91-57-6
benzo(j)fluoranthenes	205-82-3	mercury	7439-97-6
beryllium	7440-41-7	molybdenum	7439-98-7
boron	7440-42-8	nickel	7440-02-0
bromodichloromethane [BDCM]	75-27-4	nitrate (as N)	14797-55-8
bromoform	75-25-2	nitrite (as N)	14797-65-0
butadiene, 1,3-	106-99-0	n-Propylbenzene	103-65-1
cadmium	7440-43-9	pyrene	129-00-0
carbon tetrachloride	108-90-7	quinoline	91-22-5
chlorobenzene	56-23-5	selenium	7782-49-2
chloride ion	16887-006	silver	7440.22



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chloroform	67-66-3	sodium ion	17341-25-2
chromium	7440-47-3	strontium	7440-24-6
chrysene	218-01-9	tetrachloroethane, 1,1,1,2-	630-20-6
cobalt	7440-48-4	tetrachloroethane, 1,1,2,2-	79-34-5
copper	7440-50-8	tetrachloroethylene	127-18-4
dibenz(a,h)anthracene	53-70-3	tin	7440-31-5
dibromochloromethane [DBCM]	124-48-1	toluene	108-88-3
dibromoethane, 1,2-	106-93-4	trichloroethane, 1,1,1-	71-55-6
dichlorobenzene, 1,2-	95-50-1	trichloroethane, 1,1,2-	79-00-5
dichlorobenzene, 1,4-	106-46-7	trichloroethylene	79-01-06
dichloroethane, 1,1-	75-34-3	trichlorofluoromethane	75-69-4
dichloroethane, 1,2-	107-06-2	1,3,5-Trimethylbenzene	108-67-8
dichloroethylene, 1,1-	75-35-4	tungsten	7440-33-7
dichloroethylene, 1,2-cis-	156-59-2	uranium	7440-61-1
dichloroethylene, 1,2-trans-	156-60-5	vanadium	7440-62-2
dichloromethane	75-09-2	VHw <sub>6-10</sub>	NA
dichloropropane, 1,2-	78-87-5	vinyl chloride	75-01-4
dichloropropene, 1,3-	542-75-6	xylenes, total	1330-20-7
EPHw <sub>10-19</sub>	NA	zinc	7440-66-6

To meet local background concentrations:

arsenic	7440-38-2	lithium	7439-93-2
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***Substances evaluated in water for irrigation water use:***

To meet numerical standards prescribed for defining whether a site is contaminated:

aluminum	7429-90-5	lead	7439-92-1
arsenic	7440-38-2	lithium	7439-93-2
barium	7440-39-3	mercury	7439-97-6
beryllium	7440-41-7	molybdenum	7439-98-7
boron	7440-42-8	nickel	7440-02-0
cadmium	7440-43-9	selenium	7782-49-2
chloride ion	16887-006	uranium	7440-61-1
chromium	7440-47-3	vanadium	7440-62-2
cobalt	7440-48-4	VHw <sub>6-10</sub>	NA
copper	7440-50-8	zinc	7440-66-6
EPHw <sub>10-19</sub>	NA		



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## Southern portion of the site

### *Substances evaluated in soil for agricultural land soil use:*

To meet numerical standards prescribed for defining whether a site is contaminated:

acenaphthene	83-32-9	LEPHs	NA
aluminum	7429-90-5	lithium	7439-93-2
anthracene	120-12-7	manganese	7439-96-5
antimony	7440-36-0	mercury	7439-97-6
arsenic	7440-38-2	methyl tert-butyl ether	1634-04-4
barium	7440-39-3	methylnaphthalene, 1-	90-12-0
benz(a)anthracene	56-55-3	methylnaphthalene, 2-	91-57-6
benzene	71-43-2	molybdenum	7439-98-7
benzo(a)pyrene	50-32-8	naphthalene	91-20-3
benzo(b+j)fluoranthenes	205-99-2	nitrate (as N)	14797-55-8
benzo(b)fluoranthene	205-99-2	nitrite (as N)	14797-65-0
benzo(j)fluoranthene	205-82-3	nickel	7440-02-0
benzo(k)fluoranthene	207-08-9	phenanthrene	85-01-8
beryllium	7440-41-7	pyrene	129-00-0
boron	7440-42-8	quinoline	91-22-5
cadmium	7440-43-9	selenium	7782-49-2
chloride ion	16887-00-6	sodium ion	17341-25-2
chromium	7440-47-3	silver	7440-22-4
chrysene	218-01-9	strontium	7440-24-6
cobalt	7440-48-4	styrene	100-42-5
copper	7440-50-8	thallium	7440-28-0
dibenz(a,h)anthracene	53-70-3	tin	7440-31-5
ethylbenzene	100-41-4	toluene	108-88-3
fluoranthene	206-44-0	tungsten	7440-33-7
fluorene	86-73-7	uranium	7440-61-1
HEPHs	NA	vanadium	7440-62-2
indeno(1,2,3-cd)pyrene	193-39-5	VPHs	NA
iron	7439-89-6	xylenes	1330-20-7
lead	7439-92-1	zinc	7440-66-6



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***Substances evaluated in vapour for agricultural land vapour use:***

To meet numerical standards prescribed for defining whether a site is contaminated:

ammonia (as N)	7664-41-7	naphthalene	91-20-3
benzene	71-43-2	toluene	108-88-3
ethylbenzene	100-41-4	VPHv	NA
methyl tert-butyl ether	1634-04-4	xylenes, total	1330-20-7

***Substances evaluated in water for freshwater aquatic life water use:***

To meet numerical standards prescribed for defining whether a site is contaminated:

acenaphthene	83-32-9	LEPHw	NA
acridine	92-26-2	methyl tert-butyl ether	1634-04-4
ammonia, total (as N)	7664-41-7	mercury	7439-97-6
anthracene	120-12-7	molybdenum	7439-98-7
antimony	7440-36-0	naphthalene	91-20-3
arsenic	7440-38-2	nickel	7440-02-0
barium	7440-39-3	nitrate (as N)	14797-55-8
benzene	71-43-2	nitrite (as N)	14797-65-0
benzo(a)pyrene	50-32-8	phenanthrene	85-01-8
benzo(a)anthracene	56-55-3	pyrene	129-00-0
beryllium	7440-41-7	quinoline	91-22-5
boron	7440-42-8	selenium	7782-49-2
cadmium	7440-43-9	silver	7440-22-4
chromium	7440-47-3	thallium	7440-28-0
chrysene	218-01-9	titanium	7440-32-6
cobalt	7440-48-4	toluene	108-88-3
copper	7440-50-8	uranium	7440-61-1
EPHw <sub>10-19</sub>	NA	VHw6-10	NA
ethylbenzene	100-41-4	VPHw	NA
fluoranthene	206-44-0	xylenes, total	1330-20-7
fluorene	86-73-7	zinc	7440-66-6
lead	7439-92-1		



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***Substances evaluated in water for drinking water use:***

To meet numerical standards prescribed for defining whether a site is contaminated:

acenaphthene	83-32-9	lead	7439-92-1
aluminum	7429-90-5	lithium	7439-93-2
anthracene	120-12-7	methyl tert-butyl ether	1634-04-4
antimony	7440-36-0	methylnaphthalene, 1-	90-12-0
arsenic	7440-38-2	methylnaphthalene, 2-	91-57-6
barium	7440-39-3	mercury	7439-97-6
benz(a)anthracene	56-55-3	molybdenum	7439-98-7
benzene	71-43-2	nickel	7440-02-0
benzo(a)pyrene	50-32-8	nitrate (as N)	14797-55-8
benzo(b)fluoranthenes	205-99-2	nitrite (as N)	14797-65-0
benzo(j)fluoranthenes	205-82-3	pyrene	129-00-0
beryllium	7440-41-7	quinoline	91-22-5
boron	7440-42-8	selenium	7782-49-2
cadmium	7440-43-9	sodium ion	17341-25-2
chromium	7440-47-3	strontium	7440-24-6
chrysene	218-01-9	tin	7440-31-5
cobalt	7440-48-4	toluene	108-88-3
copper	7440-50-8	phenol	108-95-2
dibenz(a,h)anthracene	53-70-3	tungsten	7440-33-7
EPHw10-19	NA	uranium	7440-61-1
naphthalene	91-20-3	vanadium	7440-62-2
ethylbenzene	100-41-4	VHw6-10	NA
fluoranthene	206-44-0	xylenes, total	1330-20-7
fluorene	86-73-7	zinc	7440-66-6

To meet local background concentrations:

arsenic	7440-38-2	lithium	7439-93-2
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*Substances evaluated in water for irrigation water use:*

To meet numerical standards prescribed for defining whether a site is contaminated:

aluminum	7429-90-5	lead	7439-92-1
arsenic	7440-38-2	lithium	7439-93-2
barium	7440-39-3	mercury	7439-97-6
beryllium	7440-41-7	molybdenum	7439-98-7
boron	7440-42-8	nickel	7440-02-0
cadmium	7440-43-9	selenium	7782-49-2
chromium	7440-47-3	uranium	7440-61-1
cobalt	7440-48-4	vanadium	7440-62-2
copper	7440-50-8	VHw <sub>6-10</sub>	NA
EPHw <sub>10-19</sub>	NA	zinc	7440-66-6

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## Schedule D

### Documents

- *Summary of Site Condition, 6363 72<sup>nd</sup> Street, Delta BC*, prepared by Alan Walker, SNC-Lavalin Inc., dated November 9, 2018;
- *Stage 1 and 2 Preliminary Site Investigation Delta Agri Management Properties, Delta, BC*, prepared by SNC-Lavalin Inc., dated November 5, 2018;
- *Letter: Application for Local Background Groundwater Quality Determination for Dissolved Arsenic and Lithium Concentrations in Groundwater, 6363, 6850 and 6860 72nd Street, Delta, British Columbia*, prepared by Lavinia Zanini for Director, Environmental Management Act (ENV), dated June 26, 2018;|
- *Letter: Addendum to Request for Groundwater Background Release – Local Background Groundwater Quality Determination Using ENV Protocol 9 Release for 6363, 6850 and 6860 72nd Street, Delta, BC*, prepared by SNC-Lavalin Inc., dated June 11, 2018;
- *Email: Site 21420 – P9 application for 6363, 6850 and 6860 72nd Street, Delta, BC*, prepared by SNC-Lavalin Inc. dated May 7, 2018; and
- *Letter: Release for Groundwater Background Release – Local Background Quality Determination Using ENV Protocol 9 Release 6363, 6850 and 6860 72nd Street, Delta, BC*, prepared by SNC-Lavalin Inc., dated February 5, 2018.

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