

# Ministry of Environment and Climate Change Strategy

### CERTIFICATE OF COMPLIANCE

(Pursuant to Section 53 of the Environmental Management Act)

**THIS IS TO CERTIFY** that as of the date indicated below, the site identified in Schedule A of this Certificate of Compliance has been satisfactorily remediated to meet the applicable Contaminated Sites Regulation remediation standards.

This Certificate of Compliance is qualified by the requirements and conditions specified in Schedule B.

The substances for which remediation has been satisfactorily completed and for which this Certificate of Compliance is valid are listed in Schedule C.

I have issued this Certificate of Compliance 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.

A Director may rescind this Certificate of Compliance if requirements and conditions imposed in the Certificate of Compliance are not complied with or any fees payable under Part 4 of the Act or regulations are outstanding.

This Certificate of Compliance should not be construed as an assurance that there are no hazards present at the site.

The substances to which this Certificate of Compliance applies migrated to the site from a neighbouring source. It should not be assumed that this Certificate of Compliance certifies the remediation of all contaminants at the site.

February 15, 2018
Date Issued

Peter Kickham For Director, Environmental Management Act

### Schedule A

The site covered by this Certificate of Compliance is located on the Trans-Canada Highway, Duncan, British Columbia which is more particularly known and described as:

ALL THAT PART of road (Trans-Canada Highway) situated in the City of Duncan, B.C. as shown within the heavy outline on a Sketch Plan prepared by Golder Associates Ltd., Figure No. 1 dated May 2, 2017, said Part more particularly described as follows:

Commencing at the south east corner of property identification number 003-654-796 (Lot 1, Section 18, Range 6, Quamichan District, Plan 19936);

Thence 115°46'28", a distance of 16.26 metres to the south west corner of the affected parcel;

Thence 115°46'28", a distance of 30.12 metres;

Thence 187°40'45", a distance of 9.13 metres;

Thence 314°48'50", a distance of 10.75 metres;

Thence 6°14'48", a distance of 8.68 metres;

Thence 294°49'4", a distance of 7.06 metres;

Thence 295°22'7", a distance of 8.94 metres;

Thence 200°31'34", a distance of 19.53 metres more or less to the south west corner of the affected parcel.

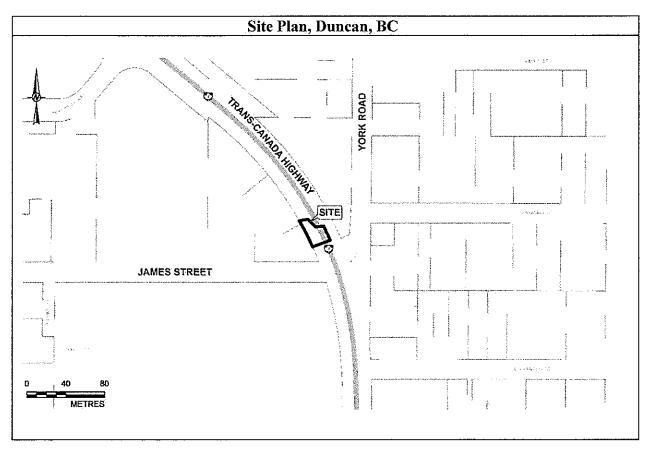
The approximate centre of the site using the NAD (North American Datum) 1983 convention is:

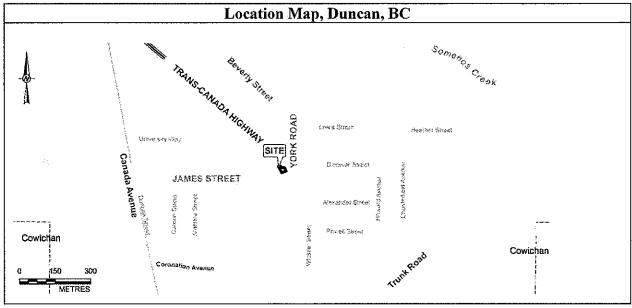
Latitude: 48° 46' 57.00" Longitude: 123° 41' 58.00"

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#### Schedule B

### Requirements and Conditions

1. Any changes in land, vapour, or water uses must be promptly identified by the responsible persons in a written submission to the Director. An application for an amendment or new Certificate of Compliance 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 Contaminated Sites Regulation numerical and risk-based standards at and adjacent to the site. These vapour attenuation factors were selected based on assumptions about the structures, locations and depths of buildings expected at and adjacent to the site. These assumptions include the following:

(a) The Site will continue to be used as part of the Trans-Canada Highway.

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 persons in a written submission to the Director. An application for an amendment or new Certificate of Compliance may be necessary.

- 2. The principal risk controls which must be present or implemented and must be maintained at the site include the following:
  - (a) Groundwater from the Site will not be used as drinking water
- 3. If requested by the Director, the responsible person must provide a signed statement indicating whether the principal risk controls listed in clause 2 of this Schedule have been and continue to be met. This may include providing a signed statement by an Approved Professional.

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### Schedule C

### Substances and Uses

## Substances remediated in soil for industrial land soil use:

To meet numerical remediation standards:

• LEPHs.

To meet risk-based remediation standards:

- VPHs
- Benzene, ethylbenzene, toluene, xylene.

Substances remediated in vapour for industrial land vapour:

To meet numerical remediation standards:

• Hexane, methyl cyclohexane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, xylenes, mixture.

To meet risk-based remediation standards:

• Benzene and VPHv.

Substances remediated in water for drinking water use:

To meet numerical remediation standards:

- Lead,
- Toluene, xylenes (total),
- Benzo[a]pyrene.

To meet risk-based remediation standards:

- Arsenic,
- Benzene, ethylbenzene.

Substances remediated in water for freshwater aquatic life water use:

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# To meet numerical remediation standards:

- Cadmium, chromium,
- Benzene, ethylbenzene, toluene,
- Pyrene.

## To meet risk-based remediation standards:

- VPHw and LEPHw,
- Naphthalene.

# Substances remediated in water for irrigation water use:

## To meet numerical remediation standards:

Chromium.

# Substances remediated in water for no specified water use:

# To meet numerical remediation standards:

• VHwc6-C10.

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# Schedule D

# **Documents**

Document Title	Author / Company	Date
Summary of Site Condition	Jim Laidlaw, Groundstar Projects Ltd. and Patricia Miller, TAM Environmental Ltd.	October 26, 2017
Updated 0.5 km BC Ministry of Environment Site Registry Search, Former Service Station, 5832 Trans- Canada Highway, Duncan, BC	Erin O'Brien and Dawn Flotten, Golder	October 26, 2017
Off-site Communication Records – 5832 Trans- Canada Highway, Duncan, BC	Erin O'Brien and Dawn Flotten, Golder	October 18, 2017
Detailed Quantitative Human Health and Ecological Risk Assessment for the Former Duncan Esso Service Station, 5832 Trans-Canada Highway, Duncan, BC	Jennifer Cook and Christine Thomas, Golder	October 13, 2017
Additional Requests for Clarification – Review of Documents in Support of Certificate of Compliance, Former Service Station, 5832 Trans-Canada Highway, Duncan, BC	Erin O'Brien and Dawn Flotten, Golder	October 10, 2017
Additional Requests for Clarification – Review of Documents in Support of Certificate of Compliance, Former Service Station, 5832 Trans-Canada Highway, Duncan, BC	Jim Laidlaw, Groundstar Projects Ltd.	September 28, 2017
Re: Protocol 6 Approval Application for the use of a site-specific Vapour Attenuation Factor – 5832 Trans-Canada Highway, Duncan BC. (file 26250/8770; Site 8770)	Heather Osachoff, BC MoE	September 15, 2017
Email correspondence (response) providing additional information on the soil vapour modeling conducted using the Johnson and Ettinger model	Erin O'Brien, Golder	August 21, 2017
Email correspondence requesting "further clarification on the applicability of the Johnson and Ettinger model at the site"	Sydney Love, BC MoE	August 16, 2017
Review of Documents in Support of Certificate of Compliance, Former Service Station, 5832 Trans- Canada Highway, Duncan, BC	Erin O'Brien and Dawn Flotten, Golder	July 31, 2017
Protocol 6 Preapproval, 5832 Trans-Canada Highway, Duncan, BC (Site Registry ID: 8770)	Mark Newman and Dawn Flotten, Golder	June 12, 2017

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Comments and Questions (Spreadsheet) as part of the	Jim Laidlaw, Groundstar	April 17, 2017	
Review of Documents in Support of Certificate of	Projects Ltd.		
Compliance, Former Service Station, 5832 Trans-			
Canada Highway, Duncan, BC			
Stage 1 Update, Stage 2 Preliminary Site Investigation	Erin O'Brien and Dawn	March 17, 2017	
and Detailed Site Investigation Former Duncan Esso	Flotten, Golder		
Service Station, 5832 Trans-Canada Highway,			
Duncan, BC, SAP No. 88004890			
Stage 1 Preliminary Site Investigation for the Former	Mark Newman and Mark	December 10, 2015	
Duncan Esso Service Station, 5832 Trans-Canada	Adamson Golder		
Highway, Duncan, BC, SAP No. 88004890			
Data Report for Former Service Station, 5832 Trans-	Erin O'Brien and Phyllis	July 20, 2015	
Canada Highway, Duncan, BC, SAP No. 88004890	Bruleigh, Golder		
Data Report for Environmental Investigation at	Wendy Beairsto and Rick	ck October 1, 2014	
Former Service Station, 5832 Trans-Canada	Peleshytyk, Golder		
Highway, Duncan, BC, SAP No. 88004890			
Data Report for Former Service Station, 5832 Trans-	Wendy Beairsto and Rick	March 25, 2013	
Canada Highway, Duncan, BC, SAP No. 88004890	Peleshytyk, Golder		
2011 Site Monitoring and Sampling Report, 5832	Hanna Musslick and Rick	May 25, 2012	
Trans-Canada Highway, Duncan, BC, SAP No.	Peleshytyk Golder		
88004890			
2010 Site Monitoring and Sampling Report, 5832	Jeff Christie and Rick	August 16, 2011	
Trans-Canada Highway, Duncan, BC, SAP No.	Peleshytyk, Golder		
88004890			
Interim Monitoring Optimization - 5832 Trans-	Jennifer Young and Robert	June 4, 2010	
Canada Highway, Duncan, BC, SAP No. 88004890	McLenehan Golder		
Groundwater Sampling Report, Former Duncan Esso	Jennifer Young and Robert	December 16, 2009	
Service Station, 5832 Trans-Canada Highway,	McLenehan, Golder		
Duncan, BC, SAP No. 88004890			
Groundwater Sampling Report, 5832 Trans-Canada	Wendy Beairsto and Charito	March 26, 2009	
Highway, Duncan, BC	Canero, Golder		
Site Investigation and Remedial Excavation, Former	Nadine Schwager and	June 11, 2008	
Duncan Esso, 5832 Island Highway, Duncan, BC	Patricia Carmichael, SNC		
	Lavalin		
Site Monitoring and Sampling Report, Duncan Esso,	Robert Stacey and David	December 19, 2007	
5832 Island Highway, Duncan, BC.	Kettlewell, SNC Lavalin		
Site Monitoring Report, Duncan Esso Service Station,	A.P. Michielsen, O'Connor	February 14, 1992	
Duncan, British Columbia			
Subsurface Investigation, Esso Service Station,	C.J.M Rostron and R.D.	August 16, 1989	
Duncan, British Columbia	King, O'Connor		

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