

Source Detail

AIMS

Selection Criteria: Strong (0223)

Strong

Source ID	0223	File Num	39100-20-Strong	UTM Zone	10
Type	Gravel Pit	Service Area	7: Fraser Valley	UTM Easting	541700
Licensed	No	Tenure Status	Ministry owned	UTM Northing	5430700
Hectares	60.76	Dev Status	Active	NTS Map Num	92G/1
Location	3.0km s of Fraser Hwy on Bradner Road, then 0.4km west on and south of King Road.				
Comments	PDP updated May 2007 for Gateway Project. Pit last evaluated 2009. PDP updated several more times for the PMH1Project. At the completion of PMH1 Project (2014), the PDP was updated to mine the G-2 layer. There is a Profit a Prendre on the north 12 1/2 chains of the NE1/4 of Sec.9, TP.13, NWD. (NW edge of Pannu prop.) This agreement expired Aug.31, 2005, the agreement was never renewed.				

Selection Criteria: Strong (0223)

Strong

Geotech Information (by Source Area)

A	Gravel	61	Degradation	77	Microdev - Coarse	6	Spec. Gravity - Coarse	2.686
	Sand	38	Sand Equiv	74	Microdev - Fine	7	Spec. Gravity - Fine	2.548
	Fines	1	MgSO4 - Coarse	5	Microdev - Avg		Absorption - Coarse	0.6
	Oversize	6	MgSO4 - Fine	11	Petrographic Num		Absorption - Fine	1.6
B	Gravel	61	Degradation	77	Microdev - Coarse	3	Spec. Gravity - Coarse	
	Sand	39	Sand Equiv	74	Microdev - Fine	7	Spec. Gravity - Fine	
	Fines	1	MgSO4 - Coarse	5	Microdev - Avg		Absorption - Coarse	
	Oversize	6	MgSO4 - Fine	11	Petrographic Num		Absorption - Fine	
C	Gravel	58	Degradation	66	Microdev - Coarse	4	Spec. Gravity - Coarse	
	Sand	40	Sand Equiv	68	Microdev - Fine	9	Spec. Gravity - Fine	
	Fines	2	MgSO4 - Coarse	0	Microdev - Avg		Absorption - Coarse	
	Oversize	9	MgSO4 - Fine	0	Petrographic Num		Absorption - Fine	
D	Gravel	53	Degradation		Microdev - Coarse	6	Spec. Gravity - Coarse	
	Sand	45	Sand Equiv		Microdev - Fine	8	Spec. Gravity - Fine	
	Fines	2	MgSO4 - Coarse		Microdev - Avg		Absorption - Coarse	
	Oversize	3	MgSO4 - Fine		Petrographic Num		Absorption - Fine	
E	Gravel	28	Degradation		Microdev - Coarse		Spec. Gravity - Coarse	
	Sand	66	Sand Equiv		Microdev - Fine		Spec. Gravity - Fine	
	Fines	6	MgSO4 - Coarse		Microdev - Avg		Absorption - Coarse	
	Oversize		MgSO4 - Fine		Petrographic Num		Absorption - Fine	
F	Gravel	32	Degradation		Microdev - Coarse		Spec. Gravity - Coarse	
	Sand	60	Sand Equiv		Microdev - Fine		Spec. Gravity - Fine	
	Fines	8	MgSO4 - Coarse		Microdev - Avg		Absorption - Coarse	
	Oversize		MgSO4 - Fine		Petrographic Num		Absorption - Fine	
G	Gravel	25	Degradation		Microdev - Coarse		Spec. Gravity - Coarse	
	Sand	67	Sand Equiv		Microdev - Fine		Spec. Gravity - Fine	
	Fines	8	MgSO4 - Coarse		Microdev - Avg		Absorption - Coarse	
	Oversize		MgSO4 - Fine		Petrographic Num		Absorption - Fine	

Selection Criteria: Strong (0223)

Strong

Legal Land Description

		Description
PIN	6671951	Lot 1, Section 9, Township 13, NWD
File Num		Plan 67442
Reserve Num		PID 002-363-372
Property File	PS-65062	
PIN	90056343	North 12.5 chains North East Quarter Section 9, Township 13 Except; Firstly: Part subdivided by Plan 12137 Secondly: Part divided by Plan15689, NWD
File Num		PID 007-276-028
Reserve Num		
Property File		
PIN	6672151	Lot F, Plan 23316, NWD
File Num		PID 009-228-811
Reserve Num		
Property File		

Development Information

Pit Dev Plan Month/Year	Apr 2014	Dev Comments	The pit is progressing well as long as the development plan is followed.
Update Required	No		For effective use of all materials, selective mining techniques are required to blend the finer sandy areas with the coarser areas.
Last Evaluated Month/Year	Jan 2013		A primary crusher must be used for all crushing contracts. All areas shall be mined to the clay layer at which point operations should start at the SW side of the property removing the upper clay layer to access and mine the underlying granular material. Once established, clay overburden can be used to back fill the area previously mined. Clay will likely be encountered at a shallower depth in area "B" than in area "A". This clay layer is to be progressively removed in conjunction with Areas "F" and "G" G-2 granular material. Selective mining, washing and/or sand rejection will be required to produce SGSB.
		Dev History	Previous testing and use dates back to 1958 with favourable results for base coarse and surfacing aggregates. 2005 - approximately 300,000m3 was mined for various products. 2009-2013 PMH1 Project extracted +1,000,000 m3 of granular material for use as 25WGB, BEF, fisheries gravel and cohesionless embankment.
		Constraints	Neighbors Pat Uprichard - 604 856-8365 Wayne Daigneault - 604 857-1610 David Avery - 604 857-4188 Ron Dhanda - 778 883-4556 Ruup Pannu Russ Goosen - 604 309-7424
		FN Consult	

Selection Criteria: Strong (0223)

Strong**Material Quantities**

Area	Proven	Potential	Approved Usage
A			25WGB, 50WGB, MAMA, WAB
B			25WGB, 50WGB, BEF, MAMA, SGSB, WAB
C			25WGB, MAMA, SGSB
D			
E			
F			BRW, PIT, SGSB
G			BRW, SGSB

Current Aggregate Inventory

Material	Volume
PIT pit-run granular aggregate	-98,930

Exploration History

Month/Year	Completed by	Details
Nov 1970	MoT	Geophysical survey
Mar 1976	MoT	7 test holes completed by Ministry diamond drill, ranging in depth from 9.2m to 15.8m. 84 test holes were completed by auger to depths ranging from 1.0m to 10.0m
Nov 1996	MoT	22 test pits completed to an average depth of 6.0m
Dec 1999	MoT	11 test pits completed to an average depth of 5.0m. These test pits were dug on the leased area to the north. The main purpose of this testing was for an Agrologist report.
May 2001	MoT	14 test pits completed to an average depth of 6.0m. These were to confirm untested areas of the main pit.
Nov 2004	Trow	2 Beckerdrill holes were completed to depths of 29.0m.
Jan 2005	Trow	9 Sonicdrill holes were completed to depths of 30.0m.
May 2009	MoT	15 test pits were excavated to an average 5.5m depth in the remaining unexplored areas of the property.
May 2009	MoT	14 Sonic holes were completed to 20 & 30 metre depths with the installation of 6 water monitoring wells.
Feb 2010	MoTI	6 test holes completed with a Sonic drill to depths of 21 m
May 2010	MoTI	28 test holes completed with a Sonic drill to depths ranging from 21m to 36 m.
Aug 2010	MoTI	10 test holes completed with a Sonic drill to depths ranging from 17 m to 29 m.
Jan 2011	MoTI	4 test holes completed with a Sonic drill to depths of 29 m.
Dec 2010	MoTI	4 test holes completed with a Sonic drill to depths ranging from 18 m to 27 m.
Jul 2011	MoTI	9 test pits excavated to an average depth of 7 m.
Dec 2012	MoTI	10 test pits excavated to an average depth of 6.5m
Jan 2013	MoTI	2 test pits excavated to an average depth of 4m.

Selection Criteria: Strong (0223)

Strong

Site Surveys

Month/Year	Type
Nov 1970	Other
Mar 1976	Sketch
Feb 1998	DEM (survey)
Apr 2004	DEM (ortho)
Nov 2012	DEM (ortho)
May 2011	DEM (ortho)
Nov 2011	DEM (ortho)
May 2012	DEM (ortho)
Jan 2014	DEM (ortho)

Summary Information

Comments	PDP updated May 2007 for Gateway Project. Pit last evaluated 2009. PDP updated several more times for the PMH1 Project. At the completion of PMH1 Project (2014), the PDP was updated to mine the G-2 layer. There is a Profit a Prendre on the north 12 1/2 chains of the NE1/4 of Sec.9, TP.13, NWD. (NW edge of Pannu prop.) This agreement expired Aug.31, 2005, the agreement was never renewed.
Site Reclamation	Topsoil and overburden should be stockpiled separately and seeded to prevent erosion, these stockpiles are to be used for final pit reclamation. All interim sloping is to be left at 11/2H to 1V. The clay overlying the G-2 layer is to be stockpiled and/or progressively used to reclaim mined out G-2 areas Final sloping shall be 2H to 1V All reclamation works shall be in accordance with Ministry of Mines regulations and MoT Reclamation and Environmental Protection Handbook for Sand, Gravel and Quarry Operations in British Columbia. Golders completing a pit reclamation plan in 2014.
Geology/ Geomorphology	Part of a large glacial outwash deposit termed the Abbotsford Outwash. The property consists of horizontally stratified layers of clean gravels and sands over 6.0 to 14.0 metres of clay. There is gravel beneath the clay, but excavation may be hindered by the water table at this depth. A westerly trending glacial outwash stream eroded a deep channel along the south property line. The pit underlies the Abbotsford-Sumas aquifer, composed of the Sumas Drift, which are recessional glacio-fluvial sand and gravel deposits which were laid down by proglacial streams.