



Ministry of Transportation and Infrastructure

Geotechnical and Materials Engineering

Southern Interior Region

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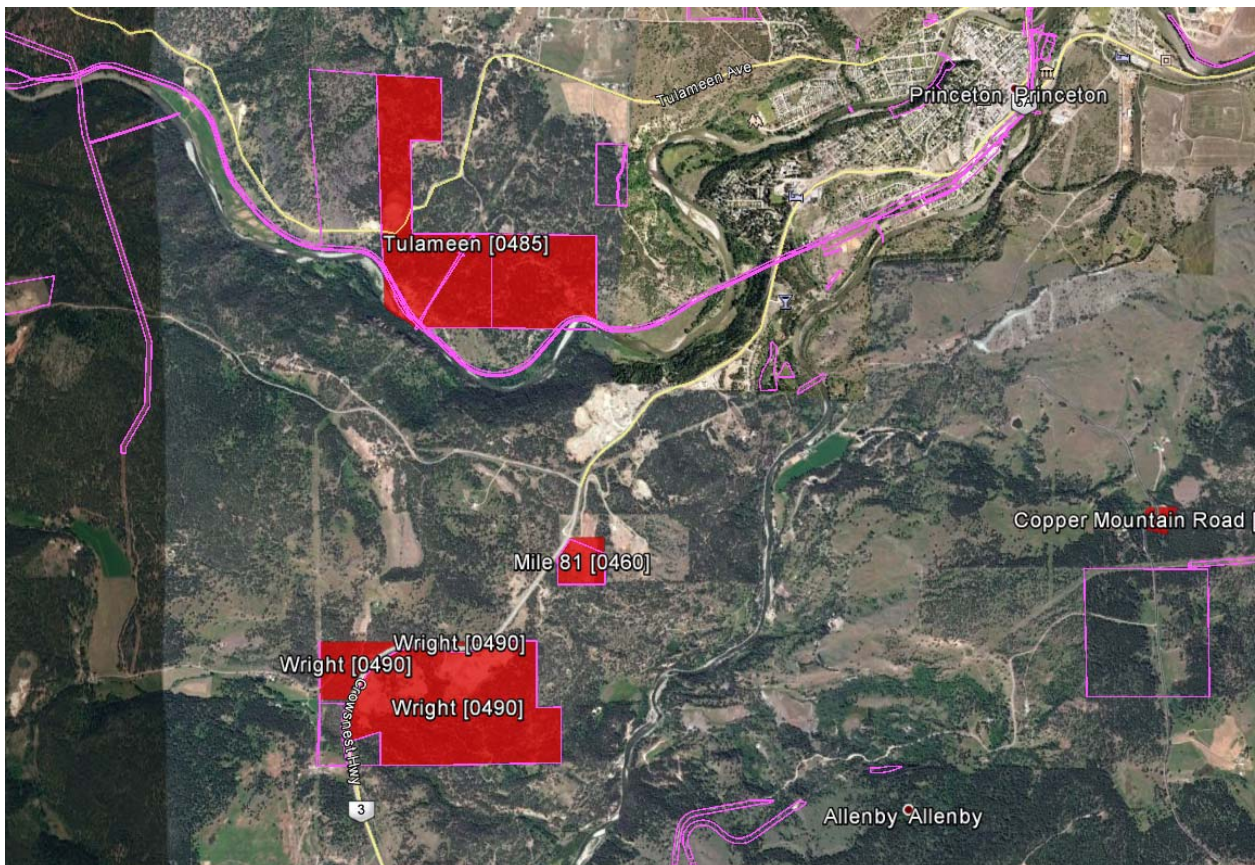
Wright Pit No. 0490

2016 Technical Information Report

LOCATION AND LEGAL DESCRIPTION

Wright Pit is located 6.4 km southwest of Princeton on Highway 3 (Figure 1). The pit is legally described as being within a portion of DL 977, 978, YDYD. A Section 16 Map reserve covers the 88 hectare site.

The geographical coordinates are 49°30'30" North, 110°33'5" West, Universal Transverse Mercator Grid Zone 10, 677,400 Easting, 5,476,000 Northing.



1998 TEST PIT SUMMARY

1	OF	2											
AGGREGATE LOG													
PROJECT:		Wright Pit						SAMPLED BY:		DGS			
PIT #:								METHOD:		Excavator			
DISTRICT:		South Okanagan						DATE:		01-Nov-98			
Lab results in bold													
TH / TP	DEPTH		SAMPLE BAG No.	SOILS CLASS	ESTIMATED GRADUATION			ESTIMATED ROCK 75mm				SAND TYPE F M C	REMARKS (PHOTOS)
	FROM	TO			G	S	F	MAX SIZE	75mm 150mm	150mm- 375mm	375mm		
98-01	0.0	5.7	36256	SP	2	95	3	100	1	0	0		
				SP	15	82	3						LAB TESTED
98-02	0.0	5.0	39082	GP	55	43	2	250	15	5	0	M	
				GP	67	31	2						LAB TESTED
98-03	0.0	4.5	38974	GP	55	42	3	400	8	5	2	M,C	
98-04	0.0	1.0		GP-GM	50	44	6	150	2	0	0	M	
	1.0	1.5		GP-GM	50	42	8	150	2	0	0	M	COMBINED SAMPLE
	1.5	2.0		SP	2	95	3						
				SP-SM	45	50	5						LAB TESTED
	2.0	4.8		GP-GM	54	40	6	300	10	5	0	M,C	
98-05	0.0	0.8		GP	85	14	1	20	0	0	0		
	0.8	1.5		SP	2	95	3						
	1.5	2.0		GP	85	14	1	20	0	0	0		
	2.0	4.0	X6291	GP	60	25	4	400	7	5	3		
				GP	71	25	4						LAB TESTED
98-06	0.0	0.2											WINTER ABRASIVE
	0.2	0.3											ASPHALT LAYER
	0.3	2.0											ASPHALT AND BLACK POLY
	2.0	3.5		GP	60.0	36.0	4.0	300	3	2	0	F,M	
	3.5	4.5		SP	2	95	3						
98-07	0.0	0.8		SP	2	95	3						
	0.8	1.4		ASPHALT - BLACK ORGANICS - WOOD									
	1.4	4.0	224	SP	40	50	4						
				SP	37	59	4						LAB TESTED
98-08	0.0	6.0		SP	40	56	4	250	4	1	0	F,M	CLAY BALLS, POOR QUALITY
													IGNEOUS ROCK
98-09	0.0	4.5	X11819	GP-GM	60	34	6	350	8	5	2	M,C	
				GW	74	22	4						LAB TESTED

2	OF	2	AGGREGATE LOG										
PROJECT:			WRIGHT PIT					SAMPLED BY:			DGS		
PIT #:								METHOD:			EXCAVATOR		
DISTRICT:			OKANAGAN SHUSWAP					DATE:			01-Nov-98		
Lab results in bold													
TH / TP	DEPTH		SAMPLE BAG No.	SOILS CLASS	ESTIMATED GRADUATION			ESTIMATED ROCK 75mm				SAND TYPE F M C	REMARKS (PHOTOS)
	FROM	TO			G	S	F	MAX SIZE	75mm-150mm	150mm-375mm	375mm		
98-10	0	2.0	873	SP-SM	1	88	11	50	0	0	0	F,M	
	2.0	5.0		SP	10	88	2	150	1	0	0	F,M	
				SW	3	92	5						LAB TESTED
98-11	0.0	0.1		TS									
	0.1	4	872	SP	15	83	3	200	1	0	0	M	
				SW	19	78	3						LAB TESTED
98-12	0.0	0.1		TS									
	0.1	4.5	38968	GP	60	38	2	300	2	2	0	M	
				SW	36	62	2						LAB TESTED
98-13	0.0	0.1		TS									
	0.1	5.0		SP	1	98	1		0	0	0	F,M	
98-14	0.0	4.0	890	GP	60	37	3	350	12	8	0	M	SOUNDNESS TESTING
98-15	0.0	4.0	889	GP	60	37	3	350	12	8	0	M	
				GW	65	33	2						LAB TESTED
98-16	0.0	1.5		OB	0	85	15					M	
	1.5	4.5		GP	60	37	3	350	12	8	0	M	
98-17	0.0	0.1		TS									
	0.1	5.5	895	GP	65	34	1	350	12	8	0	F,M	
98-18	0.0	0.2		TS									
	0.2	4.5		GP	65	34	1	350	20	10	0	M,C	
98-19	0.0	1.0		SP-SM	10	80	10						
	1.0	3.8		SP	2	95	3						
	3.8	6.5		GP	60	38	2	350	8	2	0	M,C	
98-20	0.0	0.1		TS									
	0.1	0.4		SP-SM	44	50	6	25	0	0	0	F,M	
	0.4	4.0	894	GP	60	38	2	350					
				GW	58	39	3	350	10	5	0	M,C	LAB TESTED

The outlined suitability boundary of Wright Pit has the following average and range of gradations based on laboratory sieve analysis and visual field estimates:

Laboratory Samples

<u>Classification</u>	<u>Average %</u>	<u>Range %</u>
Gravel (4.75 – 75.0 mm)	58	48 – 65
Sand (0.075 – 4.75 mm)	40	34 – 50
Fines (< 0.075 mm)	2	1 – 3

Oversize Field Estimates

<u>Classification</u>	<u>Average %</u>	<u>Range %</u>
Boulders (> 375 mm)	1	0 - 2
Cobbles (150 – 375 mm)	7	1 – 10
Cobbles (75 – 150 mm)	12	8 – 20

The maximum size rock observed was 400 mm.

AGGREGATE QUALITY AND SOUNDNESS

Listed below is a tabular summary of Degradation, Sand Equivalent, Specific Gravity, Absorption, Magnesium Sulfate and Micro-Deval test results for selected samples taken throughout the suitability area.

Location	Degradation	Sand Equivalent	Specific Gravity	Absorption	Magnesium Sulfate	Micro-Deval
TP 98-14					3.16 Coarse 10.56 Fine	
TP 98-15	75.3	70.5				
TP 98-17	76.6	53.7				
TP 98-23			2.66 Coarse 2.63 Fine	1.34 Coarse 1.77 Fine		
Pit Face						6.0 Coarse
Pit Face						5.5 Coarse

The laboratory testing indicates material contained within the suitability boundary is of good soundness with non plastic fines.

SUITABILITY

Material within the suitability boundary of Wright pit is suitable for the production of the following products:

1. Asphalt Mix
2. Graded Seal
3. 25 mm Well Graded Base Course
4. Select Granular Sub-Base

QUANTITY

Based on maximum depths of physical testing, the 1998 suitability boundary of Wright Pit has the following estimated volume:

APPROX. VOLUME: 25,000m³

Pit Development and Recommendations:

- The suitability boundary of Wright Pit has been cleared, grubbed and stripped.
- The crusher is to be located on the pit floor, as indicated on the Pit Development Plan. Mining is to proceed as directed in the Pit Development Plan.
- Processed aggregate may be stockpiled where room is available (within the developed area of the pit).
- Due to the high quantity of oversize present, it will be necessary to utilize a primary crusher capable of reducing material as large as 375mm x 450mm.
- At the completion of mining, active pit faces shall be sloped to a minimum of 1 ½:1 with granular material. **Reject material from aggregate production is not to be used to slope or infill pit faces without the prior approval of the Ministry Gravel Resource Manager.**