PLACER EVALUATION REPORT

ON THE WINGDAM PROPERTY

N.T.S. 93H /4W

Lomidoo M.D.

Latitude 53°02' Longitude 121°57'

Owner of Claims
Tanacana Mines Inc.

Operator
Placer Development Limited

J.M. Morganti

October 25th, 1984

TABLE OF CONTENTS

List of Figures, Tables and Plates

1. Summary and Recommendation:

The present study indicates that the source of gold in Wingdam Creek is an old elevated channel of Lightning Creek. This old channel remains as a topographic bench which parallels Lightning Creek from Stanley to at least Wingdam. The nugget nature of the gold suggests transport over 10 km, making the area of Wells not unreasonable as a source of the gold. There is no apparant bedrock source of gold in the Wingdam Creek. Therefore, the only potential for gold on the claims are deep channels in Lightning Creek and a remnant elevated channel of Lightning Creek.

2. Introduction:

Placer claims held by Tanacana Mines Ltd. and located in the area of Wingdam Creek were tested by Placer Development Ltd. (to avoid obvious confusion the company will be abreviated P.D.L.) using Heavy Mineral Sampling Techniques. Wingdam Creek and its major tributary were sampled with the objective of evaluating the placer potential of Wingdam Creek and check on the source of gold in Wingdam Creek.

3. Location:

The Wingdam placer claims are located 51 km east of Quesnel, British Columbia (Figure 1). Access to the property is by paved highway 26 between Quesnel and Wells. The property is accessible only by foot over a partially washed out bridge spanning Lightning Creek (Figure 2).

4. Property Definition:

Thirteen placer claims constitute the group of claims considered in this report and are listed in Table 1. The claims essentially cover Wingdam Creek (Figure 3).

TABLE 1

List of Placer Claims (leases) evaluated during the study.

PML 7074	
PML 5332	*
PL 843	
PML 7121	
PML 7254	
PL 852	
PML 7067	*
PML 7092	
PML 7117	
PL 1860	
PL 1859	
PL 1862	
PL 1864	

* Placer claims on which work was specifically completed


Conic Projection
N
YUKON
N.W.T.
Carmacks
WHITEHORSE
Fort Nelson
BRITISH COLUMBIA
ALBERTA
Dawson Creek
Prince Rupert
QUEEN CHARLOTTE ISLANDS
Prince George
EDMONTON
WINGDAM PROJECT AREA
Williams Lake
PACIFIC
OCEAN
Merritt
VANCOUVER ISLAND
VANCOUVER
VICTORIA
PLACER DEVELOPMENT LIMITED
EXPLORATION PROJECTS
FIGURE 1
100 0 100 200
MILES

MAJOR PLACER GOLD AREAS

AREA OF LODE GOLD DEPOSITS

AREA OF ELEVATED REMNANT CHANNEL OF LIGHTNING CREEK

QUESNEL LAND RECORDING DISTRICT

Fig. 2

Map of Lightning Creek - Barkerville Area

Scale: 1" = 3 miles

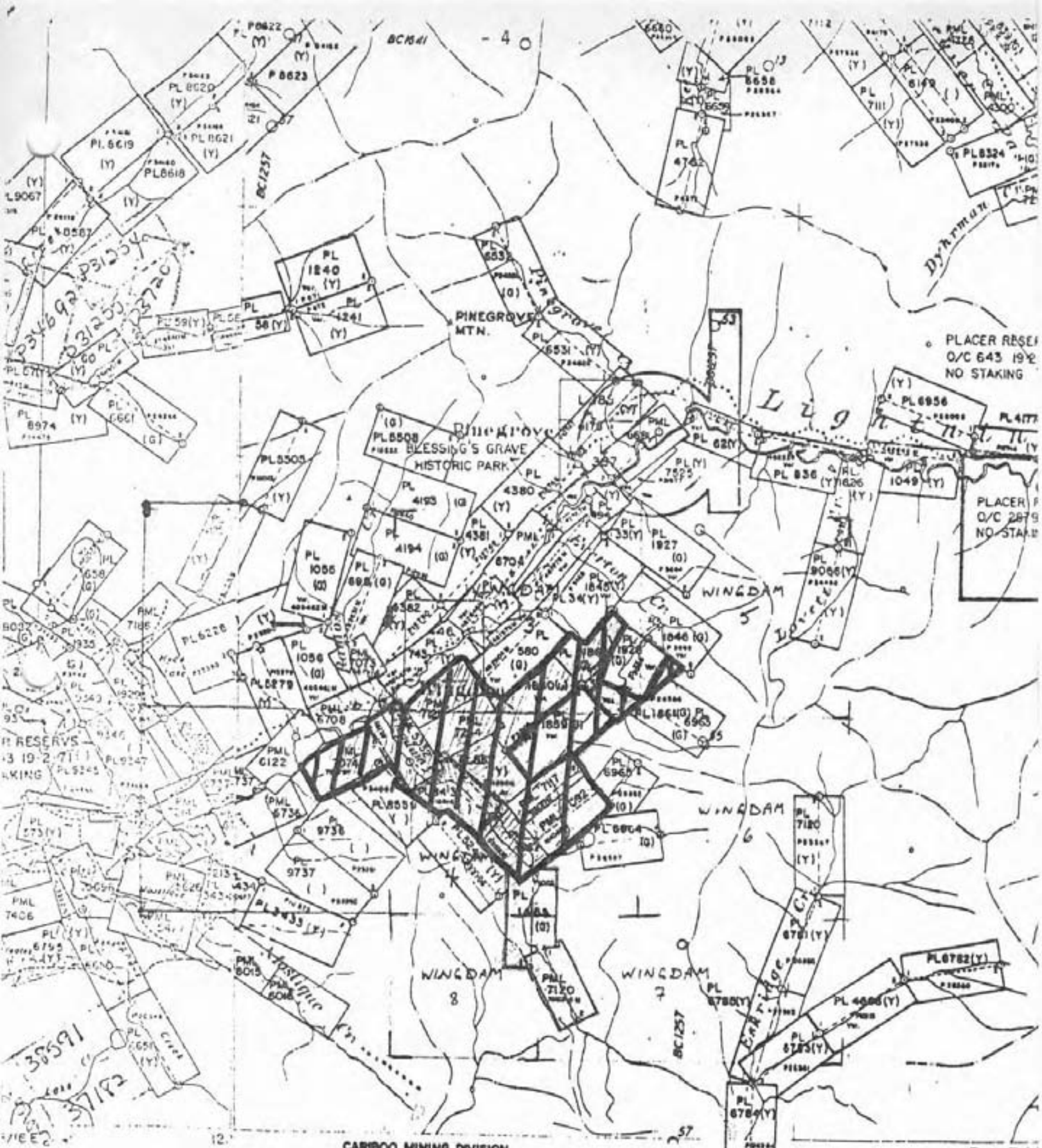

FIGURE 3. Location map for the Wingdam Placer Leases.

5. Scope of the Present Program:

The objective of the present program is to test Wingdam Creek for placer gold potential. There are four major potential sources of placer gold in the creek.

These are:
(1) Gold occurring as placer gold associated with Wingdam Creek
(2) Gold derived from an elevated remnant channel of Lightning Creek
(3) Gold derived from glacial material in the area
(4) Gold from a bedrock source in Wingdam Creek

To evaluate the placer potential of Tanacana's Wingdam placer leases (claims) in terms of the nature of gold occurrence heavy mineral samples were used. These were collected various points along Wingdam Creek and were interpreted in light of bedrock and surficial geology.

6. Sample Collection:

Samples used in the present investigation were collected in June 1984. Samples were taken in Wingdam Creek, by digging a vertical hole with a shovel. Each shovel full was screened with a 20# (mesh) in the field. The -20# sample was collected in a pan until ~10 kg had been collected, then the sample was drained and bagged. The location of the sample sites are shown in Plate 1.

7. Sample Preparation:

Samples were prepared by C.F. Mineral Research Ltd., 263 Lake Avenue, Kelowna, B.C. These were considered orientation samples. Samples were washed, and sized into the following fractions:

-20 + 35 # (mesh)
-35 + 60 # (mesh)
-60 + 150 # (mesh)
-150 + 200 # (mesh)
-200 # (mesh)

These were then separated by semigravity concentration through a tetrabroethane and a methylene iodide heavy liquid separation using double 0.5-1.0 micron filtration. This process provided the following specific gravity concentrates.

L = Light
I = Intermediate
H = Heavy

Heavy and intermediate -20+35 #, -35+60 #, 60+150 #, -150+200 # and -200 # fractions were then run through 30 electromagnetic separations. The process provided magnetic susceptibility concentrates:

N = Non-magnetic
P = Paramagnetic
M = Magnetic

In addition to the above sub-samples an organic-clay fraction was made from the -400 # samples.

All light (L) fractions were washed with acetone. All sample fractions were dried, weighed, labelled, bagged and sent to J.M. Morganti at P.D.L. A list of sample fractions is provided in Appendix A. All sample fractions were examined with a binocular microscope. Any gold grains identified were tallied and geometrically classified. A list of those fractions containing visible gold are presented in Table 2.

Those fractions listed in Table 2 were also sent out for neutron activation analysis as described by Hoffman and Brooker, 1981.

8. Results of Heavy Mineral Samples:

Gold was identified only in the HN (Heavy Nonmagnetic) and HP (Heavy Paramagnetic) fractions within the -35+60# and the -60+150 # size fraction. The results of the microscopic study is presented in Table 2.

TABLE 2

Sample No.	Sample Fraction	No. of Gold Grains Observed	Comments
02101	-35+ 60 HN	-	
	-35+ 60 HP	-	
	-60+150 HN	-	
	-60+150 HP	-	
02102	-35+ 60 HN	1	1 flat rounded nugget,
	-35+ 60 HP	-	all the rest of the
	-60+150 HN	2	nuggets are flat and
	-60+150 HP	1	semi-rounded
02103	-35+ 60 HN	2	
	-35+ 60 HP	1	All nuggest were flat
	-60+150 HN	3	and semi-rounded
	-60+150 HP	1(?)	
02104	-35+ 60 HN	2	1 nugget flat and
	-35+ 60 HP	1	semi-angular.
	-60+150 HN	2	Note 1 grain scheelite.
	-60+150 HP	1	Nugget flat and semi-rounded.
02105	-35+ 60 HN	1	Noted 3 grains of scheelite
	-35+ 60 HP	-	
	-60+150 HN	3	Grains are flat and rounded
	-60+150 HP	2	

This shape and roundness of the gold nuggets indicate that the gold has been: (1) transported over great distance or (2) is from a local surficial source.

9. Geology:

Two geologic components are considered in the present study. Bedrock geology and ore deposits provide information on potential sources of Placer gold. A review of the surfical geology inidicates constraints on potential sources of placer gold.

9.1 Bedrock Geology and Lode Deposits:

Geologic Mapping in the area has been summarized by Campbell, Mountjoy and Young (1973) and recently revised by Struick (1984). Map units relevant to the present discussion include rocks ranging in age from Hadrynian to Mesozoic in age. Paleozoic and Mesozoic volcanics occur in the Wingdam area. Boulders observed in Wingdam Creek are predominantly dacitic volcanics, quartzites and minor diorite.

The only economically significant lode gold deposits occur in the area of Wells and Barkerville. Specifically, the Cariboo Gold Quartz, Island Mountain and Mosquito Creek Mines. At these mines most of the gold extracted occurred in quartz veins, but about 25% occurred as carbonate replacement. Only one potentially gold bearing quartz vein has been identified in Minfile in the Wingdam area, but no gold has been identified in this vein. Thus the most apparent bedrock source of lode gold in the area is in the Wells area.

9.2 Surficial Geology and Placer Gold Deposits:

The surficial geology in the Lightning Creek-Wingdam Creek area is complex. A combination of preglacial, interglacial and postglacial gravel deposits and glacial deposits occur, in varying locally in relative abundance. Gold is associated in only a few specific lithologies.

The area of interest in the present report is between the headwaters of Lightning Creek, approximately 3 km upstream from Van Winkle Creek and the confluence of Lightning Creek and the Cottonwood River (Figure 2).

Depth to bedrock varies considerably, but locally at Wingdam the Lightning Creek area it is greater than 75 m deep. Overlying bedrock in the valley bottom the deposits are mostly glacial-fluvial in origin, consisting of boulder clay, stratified sands and gravels, and silt or clay (Slum) and the surface alluvial deposits of the present streams. Figure 4 depicts a generalized cross-section of the surficial deposits in Lightning Creek. Gold has been found in the preglacial and interglacial lower gravel deposits have been mined. The Sanderson and Melvin are the most famous of these. Gold bearing gravels mined underground at

Wingdam are related to Lightning Creek and gold deposition appears to be the result of old channel perturbation in Lightning Creek and not the result of gold derived from Wingdam Creek. Furthermore the gold bearing gravel are in part upstream of Wingdam.

Detailed reports (P.D.L. file 03247) indicate that the main underground work at Wingdam was done within the Lower Lightning Creek gravels which are preglacial or interglacial in origin. Johnston (in Johnston and Uglow, 1926) had previously proposed that the bend in Lightning Creek at Beaver Pass (refer to Figure 2) was a location of stream capture. At that time the main drainage of Lightning Creek was by way of Beaver Pass and the present drainage in the section of Lightning Creek from Beaver Pass House to Wingdam was reversed. This proposal has not been supported because of the lack of data on the depth to bedrock in Beaver Pass. Data found in Placer Development Ltd.'s Exploration file (File 03247) indicates that the gold bearing gravels in the Wingdam area contain abundant quartzite boulders. If so, these are most likely derived from the east based by geologic mapping by Struick, 1984 and the present author. Therefore evidence does not support the theory of stream reversal, but that Lightning Creek has always drained to the west.

In review, evidence supporting a Lightning Creek related source for gold includes: **(1)** gold bearing gravels which continue up stream from Wingdam Creek, **(2)** geologic evidence for a long term western flow of Lightning Creek, **(3)** the gold bearing gravels are similar to other gold bearing gravels found between Wingdam and Van Winkle Creeks (Johnston and Uglow, 1926).

Gravels associated with Lightning Creek have been the source of 10 times the gold produced from its tributaries. This would suggest that the source of gold in the old channel deposits had its source at the headwater of Lightning Creek in the area of known lode gold deposits south of Wells (Figure 2). Elevated remnant channels south of Lightning Creek appear to have a similar origin (Figure 2).

Production data (Table 3) show that Placer Creeks draining the Wells area to the east have produced about the same order of magnitude as Lightning Creek. Thus it is not unreasonable to propose that the source of gold in Lighting Creek originated, from subsequenty eroded, gold deposits similar to those near Wells.

The source of the minor amounts of gold won from Wingdam Creek appears to be separate from that mined in Lightning Creek at Wingdam.

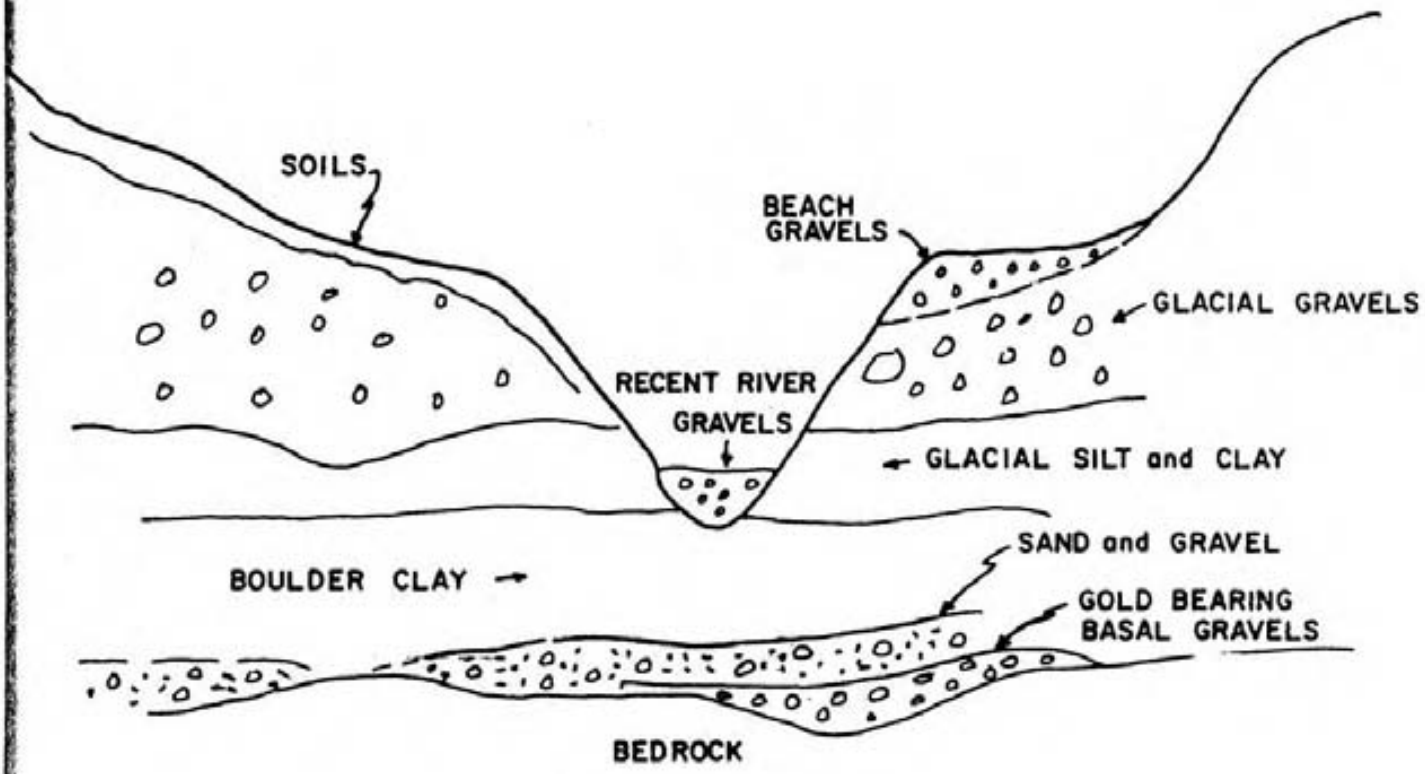

FIGURE 4 GENERALIZED SURFICAL GEOLOGY OF LIGHTNING CREEK. LOOKING EAST

TABLE 3

Gold Production from major Placer Creeks occurring in the Cariboo gold camp (1874-1945).

Creek Name	(oz.)
Lightning Creek	98602
Williams Creek	85530
Antler Creek	33652
Lowhee Creek	74022
Little Swift River	15
Jack of Clubs Creek	6916
Cornish Creek	-
Slough Creek	29977
Mosquito Creek	18295
Fontain Creek	-
Tregillus Creek	793

As mentioned previously gravels associated with Lightning Creek have produced 10 times the total gold produced from all of its tributaries. In contrast Wingdam Creek has produced only 7 oz. The heavy mineral samples taken in association with the present evaluation indicates that there are traces of Placer gold in Wingdam Creek.

During sample collection, Wingdam Creek was traversed through its entire length. No channel gravels were in the abundant slumps in the creek walls. All material showed heterogenous sizing and a total lack of bedding, indicating only glacial till is exposed.

Production figures (Table 4) show that creeks entering Lightning Creek produced 76% of the gold from tributary streams. Of those entering from the north 76% of the total gold was produced from one creek (Perkins Creek). Conclusions reached from the production data are: **(1)** Wingdam Creek has not produced significant quantities of gold **(2)** a significant proportion of gold won from tributaries of Lightning Creek have come from those entering from the south.

Gold nugget morphology observed in gold from samples taken from Wingdam Creek show evidence of significant transport distance (>10 km). No evidence of local source (e.g. as gold intergrown with rock clasts) for the gold were found. The two most logical sources for gold in Wingdam Creek are therefore an elevated remnant channel of Lightning Creek, and/or gold bearing glacial till. Previous placer gold exploration by Tanacana to the east of Wingdam Creek (Myers, 1980) have located a elevated remnant channel in the area. Heavy mineral samples collected from the drainage area of this elevated channel contained some gold nuggets. Sample 02101, taken upstream of the area draining the

elevated channel did not contain identifiable gold.

10. Conclusion:

Gold found in Wingdam Creek during the present evaluation appears to have originated from a elevated remnant channel of Lightning Creek. This elevated channel has most likely been the major source of gold won from the southern tributaries of Lightning Creek.

TABLE 4

Gold production from creeks entering Lightning Creek (1874-1945). Does not include gold recovered from Lightning Creek itself or buried deeper Lightning Creek Channels)

Creek Name	(Enters from North(N) or South(S)	Production in oz.
Milk Ranch Creek	S	8
Houseman Creek	N	266
Amador Creek	N	178
Van Winkle Creek	S	1751
Perkins Creek	N	1466
Grub Gulch	S	375
Chisholm Creek	N	0
Last Chance Creek	S	1327
Davis Creek	N	0
Anderson Creek	S	39
Jawbone Creek	N	11
Boulder Creek	S	14
Forty Thieves Creek	N	0
Timon Creek	N	0
Donowah Creek	S	0
Heyde Creek	N	0
Peters Creek	S	1717
Beaver Pass Creek	N	3
Lovett Creek	S	0
Pinegrove Creek	N	0
Ramos Creek	N	0
Wingdam Creek	S	7
Mostique Creek	S	2894
Gageh Creek	S	143
Coldspring Creek	N	-

Total Production

(1) Those entering Lightning Creek from the South 8267 oz.
(2) Those entering Lightning Creek from the North 1924 oz.

11. References:

(1) Campbell, R.B., Mountjoy, E.W., and Young, F.G., 1973 Geology of McBride Map-area, British Columbia: Geol. Survey of Canada. Paper 72.35

(2) Hoffman, E.L., and Brooker, E.J., 1981, The determination of gold by neutron activation analysis: Paper presented at Geol. Assoc. Can. Symposium, Vancouver, B.C. April 14, 1981

(1) Holland, S.S., 1950 Placer Gold Production of British Columbia: B.C. Dept. Mines Bull. 28.

(2) Johnston, W.A., Uglow, W.L., 1926, Placer and Vein Gold Deposits of Barkerville, Cariboo District, British Columbia: Geol. Survey of Canada, Mem. 149.

(3) Struick, L.C., 1984. Geol. Survey of Canada. Open File 858

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(3) Struick, L.C., 1984. Geol. Survey of Canada. Open File 858

12. Statement of Expenses:

The following expenses were incurred by Placer Development Limited for conducting the heavey mineral survey and evaluation of the Wingdam Placer leases.

Personnel Costs:

Personnel	Period Employed	Days & Rate	Cost	
J.M. Morganti	June 20	1 day @$380	380.	
W. Pentland	June 20	1 day @$329	329.	
				$ 709.

Crew Room and Board Costs

Cascade Motor Inn in Quesnel and Board @ $46.00 man/day	$ 92.

Heavy Mineral Sample Preparation

Charges by C.F. Minerals	$ 826.
Sample Transportation	$ 25.
Heavy Mineral Analysis by Neutron Activation (est.)	$ 230.
Micrsocope Studies	$1080.
Report Preparation	$1040.
TOTAL EXPENSES	$4038.

13. Statement of Qualifications:

I, J.M. Morganti of Placer Development Limited do hereby certify that:

I am a geologist

I am a graduate of Western Washington State Univeristy with a B.A. (honors) degree and a B.A. Sc. degree in Geology and Chemistry.

I am a graduate of Washington State University with a M.Sc. degree in Geology (Economic Geology).

I am a graduate of the University of British Columbia with a Ph.D. in Geology (Exploration and Economic Geology).

From 1969 until the present, I have been engaged in Mineral Exploration in British Columbia, Yukon Territory, Northwest Territories, Alaska, Idaho, Montana, Nevada, New Mexico, Washington, Oregon, California, Arizona, Wyoming, Colorado and Mexico.

I personally supervised and participated in the field work, and have reviewed and assessed the data resulting from this work.

John M. Morganti

J.M. Morganti

JMM/dd
84.10.30

APPENDIX

List of samples and subsamples derived from the 5 initial heavy mineral field samples.

C.F. MINERAL RESEARCH LIMITED
263 LAKE AVENUE
KELOWNA, BRITISH COLUMBIA
CANADA V1Y 5W6

TEL. (604) 763-181
(604) 860-852

5/5

SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence	SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence
02105							
-20+35 IM	0.30			-200 IM	0.01		
IP	27.18			IP	0.24		
IN	87.04			IN	1.02		
HM	6.34			HM	1.71		
HP	48.10			HP	2.00		
HN	4.99	± 3		HN	1.89		
-35+60 IM	0.17			400 L	3.32		
IP	15.17						
IN	59.58			ORG.	4.53		
HM	3.54						
HP	28.83			-20+35 L	4.4Kg		
HN	6.34	± 2		-35+60 L	1.6Kg		
				-60+150 L	1.1Kg		
-60+150 IM	0.08			-150+200 L	.10Kg		
IP	11.75			-200 L	.08Kg		
IN	12.18						
HM	2.84			ORIG. WT. KG.	7.6		
HP	17.80						
HN	6.06	NIL					
-150+200 IM	0.01						
IP	0.41						
IN	0.95						
HM	1.85						
HP	2.61						
HN	2.17						

* Net weight of sample by C.F. Minerals = Gross wt. - Tare of container

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4/5

SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence	SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence
02104							
-20+35 IM	0.16			-200 IM	<0.01		
IP	24.56			IP	0.22		
IN	64.85			IN	5.35		
HM	3.03			HM	0.10		
HP	22.93			HP	0.46		
HN	3.19	NIL		HN	0.64		
-35+60 IM	0.08			400 L	4.30		
IP	11.90						
IN	35.58			ORG.	11.05		
HM	1.40						
HP	17.39			-20+35 L	3.7Kg		
HN	4.63	NIL		-35+60 L	1.6Kg		
				-60+150 L	1.2Kg		
-60+150 IM	0.02			-150+200 L	.16Kg		
IP	11.29			-200 L	.13Kg		
IN	11.01						
HM	1.94			ORIG. WT. KG.	7.7		
HP	14.76						
HN	6.02	± I					
-150+200 IM	0.05						
IP	0.65						
IN	1.80						
HM	0.20						
HP	1.02						
HN	0.71						

* Net weight of sample by C.F. Minerals = Gross wt. - Tare of container

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3/5

SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence	SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence
02103							
-20+35 IM	0.20			-200 IM	<0.01		
IP	38.20			IP	0.27		
IN	30.91			IN	5.54		
HM	2.14			HM	0.04		
HP	19.75			HP	0.14		
HN	1.91	NIL		HN	0.34		
-35+60 IM	0.07			400 L	4.83		
IP	21.14						
IN	18.11			ORG.	57.25		
HM	1.38						
HP	11.94			-20+35 L	4.5Kg		
HN	2.94	NIL		-35+60 L	2.2Kg		
				-60+150 L	1.2Kg		
-60+150 IM	0.04			-150+200 L	.17Kg		
IP	6.12			-200 L	.16Kg		
IN	12.94						
HM	1.36			ORIG. WT. KG.	8.8		
HP	7.63						
HN	2.30	NIL					
-150+200 IM	0.02						
IP	0.53						
IN	3.44						
HM	0.09						
HP	0.25						
HN	0.40						

* Net weight of sample by C.F. Minerals = Gross wt. - Tare of container

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2/5

SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence	SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence
02102							
-20+35 IM	0.09			-200 IM	0.01		
IP	22.30			IP	0.42		
IN	14.64			IN	17.93		
HM	2.02			HM	0.16		
HP	14.57			HP	0.54		
HN	1.86	NIL		HN	0.63		
-35+60 IM	0.06			400 L	5.45		
IP	12.68						
IN	11.50			ORG.	80.69		
HM	1.92						
HP	12.40			-20+35 L	2.5 Kg		
HN	3.13	NIL		-35+60 L	1.9 Kg		
				-60+150 L	1.2 Kg		
-60+150 IM	0.06			-150+200 L	0.2 Kg		
IP	8.79			-200 L	0.18 Kg		
IN	36.45						
HM	1.85			ORIG. WT. KG.	6.9		
HP	9.80						
HN	3.79	NIL					
-150+200 IM	20.01						
IP	1.02						
IN	10.89						
HM	0.24						
HP	0.89						
HN	0.58						

* Net weight of sample by C.F. Minerals = Gross wt. - Tare of container

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Placer Development Ltd.
Project: Wingdam
J.M. Morganti July 31, 1984

C.F.M. 84-52

1/5

SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence	SAMPLE NO.	NET WEIGHT *(gms)	Grains of Scheelite ? Blue-white S.W. & 'dead' L.W. Fluorescence	Possible Powellite? Yellow S.W. & 'dead' L.W. Fluorescence
02101							
-20+35 IM	<0.01			-200 IM	<0.01		
IP	9.69			IP	0.35		
IN	9.48			IN	10.97		
HM	1.26			HM	<0.01		
HP	1.88			HP	0.06		
HN	0.57	NIL		HN	0.16		
-35+60 IM	<0.01			400 L	5.37		
IP	5.24						
IN	10.38			ORG.	61.42		
HM	0.13						
HP	2.03			-20+35 L	1.6Kg		
HN	1.65	NIL		-35+60 L	2Kg.		
				-60+150 L	1.3Kg		
-60+150 IM	<0.02			-150+200 L	0.2Kg		
IP	3.68			-200 L	0.2Kg		
IN	18.22						
HM	0.09			ORIG. WT. KG.	6.1		
HP	1.34						
HN	1.34	NIL					
-150+200 IM	0.07						
IP	0.40						
IN	7.53						
HM	<0.01						
HP	0.10						
HN	0.12						

* Net weight of sample by C.F. Minerals = Gross wt. - Tare of container

ACER DEVELOPMENT LTD (RESEARCH CENTRE)

GEOCHEMICAL DATA LISTING: Wingdam J. Morganti DATE: 84-11-06

PDL lab data fnam: P4260-1
no index fnam information available

STANDARD ANALYSIS METHODS USED BY PDL GEOCHEM LAB ARE LISTED BELOW:
ALL RESULTS EXPRESSED AS INDICATED IN UNITS COLUMN BELOW
ANY EXCEPTIONS FOR THIS PROJECT ARE NOTED ABOVE

REMARKS: INTERNAL LAB STANDARDS HAVE BEEN INCLUDED FOR REFERENCE.
SAMPLE NUMBERS FOLLOWED BY * ARE DUPLICATE ANALYSES.

	UNITS	WT.G	ATTACK USED	TIME	RANGE	METHOD
MO	PPM	0.5	C HCLO4/HNO3	4HRS	1-1000	ATOMIC ABSORPTION
CU	PPM	0.5	C HCLO4/HNO3	4HRS	1-4000	ATOMIC ABSORPTION
ZN	PPM	0.5	C HCLO4/HNO3	4HRS	1-3000	ATOMIC ABSORPTION
PB	PPM	0.5	C HCLO4/HNO3	4HRS	2-3000	A.A. BACKGROUND COR.
CD	PPM	0.5	C HCLO4/HNO3	4HRS	0.5-200	A.A. BACKGROUND COR.
NI	PPM	0.5	C HCLO4/HNO3	4HRS	1-2000	ATOMIC ABSORPTION
CO	PPM	0.5	C HCLO4/HNO3	4HRS	1-2000	ATOMIC ABSORPTION
AG1	PPM	0.5	C HCLO4/HNO3	4HRS	0.2-20	A.A. BACKGROUND COR
AU	PPM	10.0	AQUA REGIA	3HRS	0.05-4.00	A.A. SOLVENT EXTRACT.
U	PPM	0.25	DIL HNO3	2HRS	1.0-1000	FLOURIMETRY SOLV. EX.
V	PPM	0.5	C HF/HCLO4/HNO3/HCL	6HRS	5-1000	ATOMIC ABSORPTION
W	PPM	1.0	C HF/HNO3/HCL/H2SO4	4HRS	5-500	A.A. SOLVENT EXTRACT.
F	PPM	0.25	NA2CO3/KNO3 FUSION	30MIN	40-4000	SPECIFIC ION ELECTODE
AS	PPM	0.5	C HCLO4/HNO3	4HRS	2-1000	A.A. BACKGROUND COR.
SB	PPM	0.5	C HCLO4/HNO3	4HRS	2-1000	A.A. BACKGROUND COR.
BI	PPM	0.5	C HCLO4/HNO3	4HRS	2-2000	A.A. BACKGROUND COR.
MN	PPM	0.5	C HCLO4/HNO3	4HRS	2-3000	ATOMIC ABSORPTION
FE	%	0.5	C HF/HCLO4/HNO3/HCL	6HRS	0.02-20%	ATOMIC ABSORPTION
HG	PPB	0.25	DIL HNO3/HCL	2HRS	5-2000PPB	A.A. COLD VAPOR GEN.
BA	%	0.25	C HF/HI/OXALIC	4HRS	0.02-20%	ATOMIC ABSORPTION
NA	%	0.5	C HF/HCLO4/HNO3/HCL	6HRS	0.2 -20%	ATOMIC ABSORPTION
K	%	0.5	C HF/HCLO4/HNO3/HCL	6HRS	0.2 -20%	ATOMIC ABSORPTION
CA	%	0.5	C HF/HCLO4/HNO3/HCL	6HRS	0.02-20%	ATOMIC ABSORPTION
SR	PPM	0.5	C HF/HCLO4/HNO3/HCL	6HRS	10-2000	ATOMIC ABSORPTION
MG	%	0.5	C HF/HCLO4/HNO3/HCL	6HRS	0.2-20%	ATOMIC ABSORPTION
SN	PPM	1.0	MH41 FUSION	15MIN	5-500	A.A. SOLVENT EXTRACT.
LOI	%	1.0	ASH 600 DEG C	2HRS	0.02-99%	WEIGH RESDUE

AR 12956

GRID	SAMPLE	PROJECT	AG	AU	W	AS
02101	CHN	4260	0.6	<0.04	110	46
02101	CHP	4260	4.5	1.20	5	190
02101	FHN	4260	0.5	<0.04	140	32
02101	FHP	4260	4.7	<0.04	3	200
02102	CHN	4260	0.6	<0.04	150	40
02102	CHP	4260	1.0	<0.04	4	150
02102	FHN	4260	0.4	<0.04	98	64
02102	FHP	4260	1.0	0.04	6	130
02103	CHN	4260	3.4	>2.70	170	20
02103	CHN*	4260	4.4			
02103	CHP	4260	0.7	0.07	5	250
02103	FHN	4260	<0.2	<0.04	120	17
02103	FHP	4260	0.6	<0.04	5	200
02104	CHN	4260	0.9	1.60	69	130
02104	CHP	4260	0.6	<0.04	5	200
02104	FHN	4260	0.6	<0.04	170	220
02104	FHP	4260	1.0	0.19	4	170
02105	CHN	4260	2.7	7.80	130	100
02105	CHP	4260	0.7	0.05	3	140
02105	CHP*	4260	0.8			
02105	FHN	4260	0.6	100.0	120	61
02105	FHP	4260	0.4	<0.04	5	120
test	STD G	4260	0.8			96
test	STD W	4260			44	
test	STD AU	4260		0.92		

END OF LISTING - 25 RECORDS PRINTED
GCLIST RUN AT: 08:58:05

AUTOVALU

PLACER DEVELOPMENT LIMITED: GEOCHEM ASSAY SYSTEM

Following elements needed some values adjusted:

ELEMENT	NSS	LOW	HI	%	BLNK	NVAL
AG	0	1	0	0	0	20
AU	0	11	1	0	0	20

5 records skipped: tests, duplicate analyses

SUMMARY OF GEOCHEM DATA: Winndam J. Morganti

ITEM	# VALUES	MISSING	MINIMUM	MAXIMUM	AVERAGE	STD. DEV.
GRID	20	0	02101	02105		
SAMP	20	0	CHN	FHP		
PROJ	20	0	4260	4260		
AG	20	0	.10	4.70	1.31	1.38
AS	20	0	17.00	250.00	125.00	73.61
AU	20	0	.01	270.00	22.57	64.40
W	20	0	3.00	170.00	66.10	66.84

END OF GCHSCAN: DATE: 24-11-06 time: 08-58-05 20 RECORDS PROCESSED

AUTOVALU

PML 7121

PML 7254

PL 852

PML 6106

PML 5332

WINGDAM LAKE

LOCATION OF ELEVATED CHANNEL DEPOSIT. (MYERS 1980.)

THICK OVERBURDEN (POSSIBLE DRILLING)

NARROW, STEEP SIDED POSSIBLE CANYON

INDICATED GRAVEL

No visible gold concentration

THICK OVERBURDEN (POSSIBLE DRILLING)

FURTHER SURFACE WORK AND TESTING

02101

02102

02103

02104

02105

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,950

LEGEND

- 2 — TRENCH and NUMBER
- ⊗3 — TEST PIT and NUMBER
- NEW ROAD
- OLD ROAD TO WINGDAM LAKE
- ⊗ 02102 — HEAVY MINERAL STREAM SAMPLE SITE AND SAMPLE NUMBER.

PLATE 1

PLACER DEVELOPMENT LIMITED
VANCOUVER, B.C.

LOCATION MAP

HEAVY MINERAL SAMPLE SITES

WINGDAM - LIGHTNING CREEK AREA, B.C.
CARIBOO MINING DIVISION - BARKERVILLE DESIGNATED PLACER AREA

TOPOGRAPHIC MAP BY McELHANNEY SURVEYS LTD.
COMPILED FROM AERIAL PHOTOGRAPHY AT AN APPROXIMATE SCALE OF

JMM OCT. 1984.