

LOG NO:	OCT 27 1993 RD.
ACTION:	returned with amendments March 10, 1994
FILE NO:	

QUEENSTAKE RESOURCES LTD.

and

WEAVER CREEK PLACER

Moyle River - Cranbrook, B.C.
Fort Steele Mining District

N.T.S. 82 G/5 82 F/8

Placer Leases
Weaver Creek Placer # 2137 PL 2138 Mf.
Queenstake Resources Ltd. # 1902

by

Michael P. Henrick P.Geo.

Covering work carried out during the period

November 1 to December 2, 1992

January, 1993

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

23,062

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Plan (1).....(pocket at the back of the report)

 Survey Drill Hole Locations, Sections and Longitudinal
Gradient

(1)

SUMMARY

Eighteen holes, totalling one thousand feet (1000 ft.) of overburden drilling was completed on four lines over a strike length of two thousand feet (2000 ft.) on Placer Leases # 1902 and # ~~2138~~ ²¹³⁸. Twelve holes were drilled on Queenstake Resources Ltd. Lease # 1902 on three separate drill lines (see Plan # 1) for a total footage of six hundred and ninety - two feet. (692 ft.) The remaining six holes, totalling three hundred and eight feet, (308 ft.), were drilled on one line on Weaver Creek Placer Lease # ~~2138~~ ²¹³⁸.

1 ft = 30.5 cm
2

The drilling was completed by Owens Drilling Ltd., 1940 6th Street North, Cranbrook, B.C. V1C 3W9 using a Barber Dual 1224 air rotary drill with a downhole hammer and rotating casing table. (see appendix VI)

A total of eighty-five samples were processed as per the sample method described in appendix III. Of these, fourteen samples were sufficient to save and grade determinations were calculated as per appendix V. Another twenty-six samples contained values insufficient to weigh, but were noted as trace values. These values are plotted on the attached survey sheet. (Plan #1)

INTRODUCTION

The object of the 1992 overburden drill programme on Placer Lease # 2138 (Weaver Creek Placers) and Placer Claim # 1902, (Queenstake Resources Ltd.) was to determine overburden depth, tertiary channel width, longitudinal gradient, and to check for gold values within the auriferous channel gravels and to determine the bedrock type and characteristics.

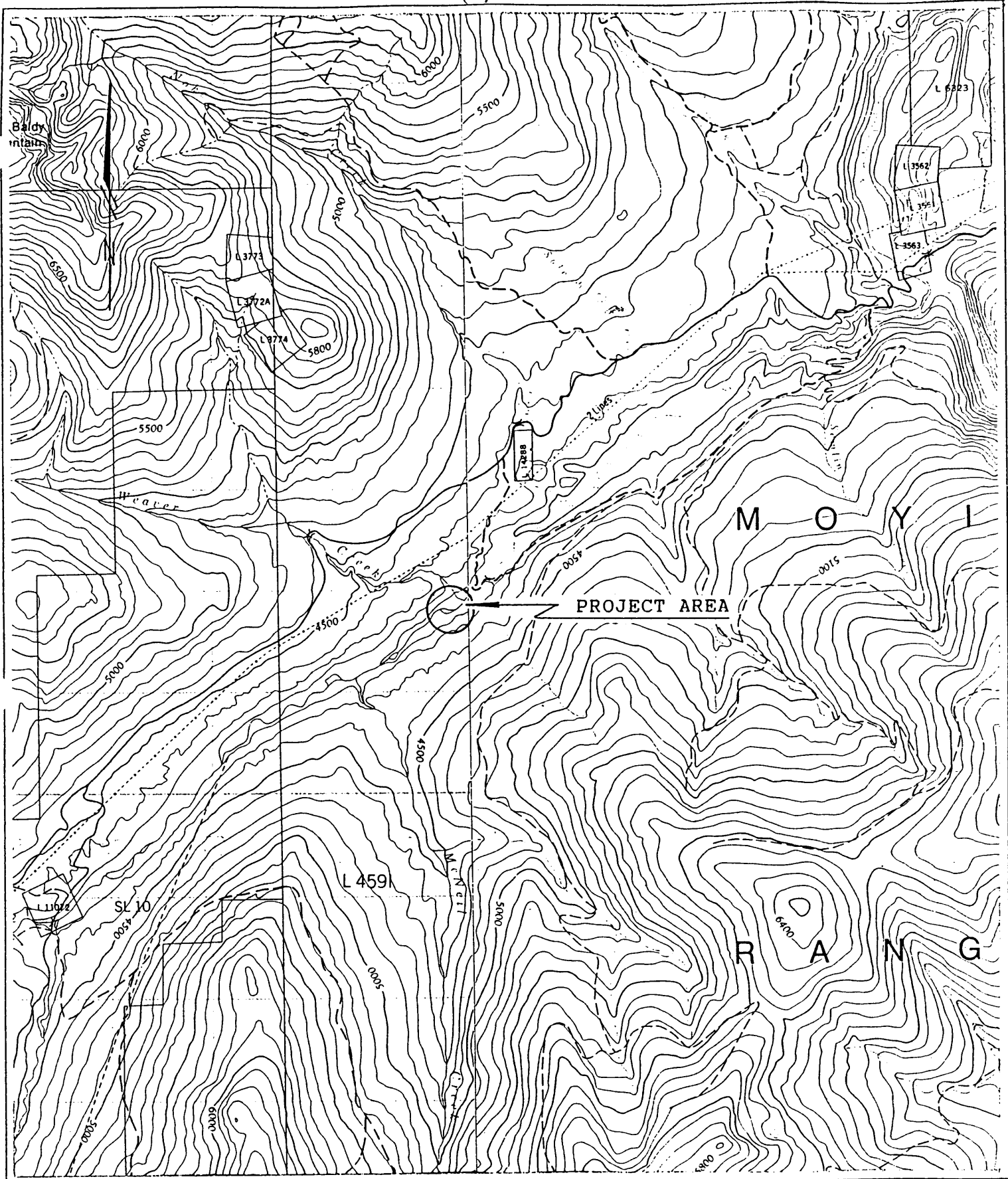
The programme was successful and did verify all the criteria it initially was laid out to do. In addition, it identified an incised narrow channel on Drill Lines B92 and C92, (Plan 1). The section of the incised narrow channel is also the area of greatest longitudinal bedrock gradient, up to 6 degrees in this portion. The tertiary valley width varies between 50 feet and 230 feet. Overburden depths were quite constant throughout at between 49 and 53 feet and at 61.5 to 63.5 feet within the narrow incised channel.

Forty of the eighty-five samples processed, had gold values, ranging from trace through 0.16 crude ounces per cubic yard. Three of the samples contained nuggets which were used to calculate grade determinations. The values calculated using the nugget, although not excessively high, will probably be higher than actual grade. (note Appendix V)

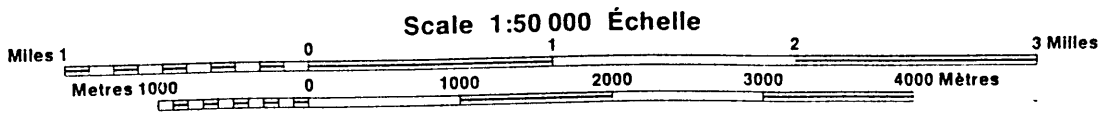
LOCATION AND ACCESS

The property is located in the Fort Steele Mining District of southeastern British Columbia, 32 kilometers by road southwest of Cranbrook. (Map Sheet, N.T.S. 82 F/8 Grassy Mountain and N.T.S. 82 G/5 Moyle Lake.)

Access is via Highway 3 & 95, south from Cranbrook - a distance of 16 kilometers to the Lumberton Road turnoff and thence via Lumberton and Moyle River Road, an all season gravel logging road, a distance of 13 kilometers to the Semlin Creek logging road turnoff. The Semlin Creek Road crosses the property 2.7 kilometers from the turnoff.



LOCATION MAP
Figure 1



GEOLOGY

The property is underlain by weak to moderately metamorphosed sediments of the Alldridge formation that dip gently downstream to the northeast. The sediments are primarily argillites interbedded with quartzites. The argillites are often silicious, resulting from original composition and may be highly silicified in the vicinity of intruded diorite plugs and sills.

Gold mineralization associated with sulphide occurrences are common to the north and west of the Moyie River within both the Creston and Alldridge formations. These occurrences are commonly associated with fault joints in close proximity to igneous intrusives. These hardrock deposits are the principal sources of the auriferous gold found in the Moyie River placer deposit.

A large diorite plug at the mouth of Weaver Creek on the bottom end of the property acted as a natural dam and impeded the downward erosion of the original Moyie channel between Ridgeway and Weaver Creeks. This plug also injected numerous sills parallel to the bedding of the gently dipping sediments above Weaver Creek. These sills, varying in thickness from a few feet up to thirty feet, resisted erosion and created a network of natural riffles. Thus the original channel between Weaver and Ridgeway Creeks had a gentle bedrock gradient of from one to three percent and wandered from valley wall to valley wall trapping the auriferous gold behind the natural diorite riffles.

It is believed that the Moyie River eroded a narrow canyon drainage similar in configuration to the present valley during the late Cenozoic Era (Hopkins, 1971). It is a common practice to refer to the gold bearing placer channel as a "Tertiary Channel" as this age of alluvial deposition is so commonly associated with gold bearing placer deposits throughout the western Cordillera. The actual age of the Moyie "Channel" has not been determined but it is believed to be a mid-Quaternary deposit.

During the pleiocene period, glaciation cut a very broad "U" shaped valley, generally following the early drainage. The bedrock walls bordering the original channel protected portions of the gold-bearing alluvial material from glacial scouring. Glacial till filled up the valley and has only been partially removed to present levels by subsequent post glacial, high energy stream flows. The original preglacial gold bearing channel, (paleo channel), is from five to eight feet thick and lies in a bedrock trough somewhat paralleling the present drainage pattern. This channel is buried by forty to sixty feet of compact, silty boulder till.

PREVIOUS WORK

Placer mining on the Moyie River was underway in the late 1800's by surface hand miners and by underground drifting on the lower portions of the river. During the 1920's and 1930's, the Consolidated Mining and Smelting Company mined a shallow mantle deposit at Inca Flats using a truck haul to a stationary washing plant. Between 1934 and 1941, drift mining was carried out by Oscarson and Ewin at the lower falls, (Oscarson Falls), on the Moyie River. The operation was successful in reaching the buried channel and it was reported by a Cominco engineer that the grade was \$9.35 per cubic yard at \$35.00 an ounce gold and approximately 900 fine (Hopkins, P. 1971) indicating a grade of 0.23 ounces per cubic yard. Difficult mining conditions and lack of capital resulted in limited production.

During 1939 and 1940, Cominco drilled 48 churn drill holes for a total footage of 1,825 feet within the Queenstake property area. Drilling was done on nine lines across the valley, spaced 600-900 feet apart with holes on each line at roughly 100 foot spacing. Within the drill area and over the total gravel depth, Cominco estimated 2,036,000 cubic yards with an overall grade of 0.014 ounces per cubic yard and within the property area, a total potential reserve of ten million cubic yards of similar grade. (Gilford, R.G., 1965)

In 1973, Canadian Occidental Petroleum Ltd., acquired all the placer leases on the Moyie River and carried out an extensive program of surface mapping and sampling as well as limited churn drilling. The program was terminated in 1974-1975 when it became apparent that the environmental requirements were going to be very difficult to achieve.

Between 1980 and 1983, the Moyie Mining Company mined 1,240 lineal feet of gold bearing channel outlined by the early Cominco drilling. The average depth of gravel was 44 feet. The upper 30 feet was stripped and the lower 14 feet, having a reported grade of 0.06 crude ounces per cubic yard, was processed in a trommel-slucice plant.

In 1985, Queenstake Resources Ltd. acquired the property by outright purchase. A total of 99 drill holes have been drilled on the Queenstake property to date and the property has been in steady production from the spring of 1986 to the present.

Weaver Creek Placers drilled three holes in the spring of 1989 on Lease # 213~~2~~. No other work has ever been reported on this lease.

WORK COMPLETED

Drill Access Roads and Site Preparation:

A D-8 H Caterpillar, owned and operated by Fiorentino Bros, Contracting Ltd., 2401 Cranbrook Street North, Cranbrook, B.C., was used to construct drill access roads and drill site locations. (Appendix VI)

A total of 3722 feet of access road was constructed. All drill sites were located on the drill roads. Only minimal timber was disturbed as the entire area consists of sparse second growth alder and poplar.

Overburden Drilling:

A total of 1000 feet of 6 inch overburden drill was completed on four separate drill lines on Placer Lease # 2138 (Weaver Creek Placers) and Placer Lease 1902 (Queenstake Resources Ltd.) The drilling was done under contract by Owen's Drilling Ltd, (Appendix VI) utilizing a Barber dual 1224 air rotary drill equipped with a downhole hammer and rotating casing table. All work completed was supervised by Michael P. Henrick, P.Geo., assisted by Jim Fiorentino. (see Appendix VI)

Levels and Gradients:

All drill hole collars were surveyed for location and elevation, using a W & L.E. Gurley theodolite. All distances between holes were chained. The surveying was done by M.P. Henrick, P.Geo., assisted by Jim Fiorentino. (AppendixVI) All drill hole locations were calculated and plotted on survey Plan 1 at the back of the report.

Reclamation:

All drill sites and access roads were levelled. All hanging snags were felled and cut. The entire road access area and drill site locations were seeded and fertilized. The inspector for the Department of Energy, Mines and Petroleum Resources has inspected the entire area and found it to be adequately reclaimed.

CONCLUSION

If a six foot pay zone width is applied, the overburden depths throughout the entire drill area remained constant at 49 to 53 feet in the upper channel area and at 61.5 to 63.5 feet in the lower narrow incised gut channel area.

The tertiary channel width between drill lines A92 and B92 varies from a full channel width on drill line A92 of 165 feet to an upper channel width of 135 feet on drill line B92. Included within the upper channel on drill line B92 is a lower narrow incised gut channel that is 50 feet wide.

The tertiary channel width between drill lines B92 and C92 varies from 135 feet within the upper channel on drill line B92 to approximately 200 feet wide within the upper channel on drill line C92. The lower narrow incised gut channel runs throughout this section and is 50 feet wide.

The tertiary channel width between drill lines C92 and D92 varies from approximately 200 feet wide within the upper channel on drill line C92 to 230 feet wide on drill line D92 and 50 feet wide in the narrow incised gut channel on drill line C92.

The longitudinal bedrock gradient between drill lines A92 and B92 runs between 4 degrees and 7 degrees, depending on where the narrow incised gut channel meets the upper broader channel. The bedrock gradient between drill lines B92 and C92 runs at 6 degrees in both the upper and the lower narrow incised gut channel. The longitudinal bedrock gradient between drill line C92 and D92 runs between 1.1 degree and 2.9 degrees, depending on where the narrow incised gut channel ends.

All holes drilled within the channel, with the exception of drill hole F-5, had values of from trace through to 0.16 crude ounces per cubic yard. Drill hole F-5 may in fact be out of the channel as the channel was never closed to the west on this section. Two spectacular nugget samples found in hole # F-10 occurred well above the bedrock gravel interface and pay zone area. Another nugget sample, from drill hole # F-4, occurred in the narrow incised gut channel on drill line C92 within the pay zone area. The samples containing nuggets had little or no ancillary gold as in sample 56-58-hole # F-10.

Bedrock varied from a mixture of hard competent silicious argillites and fine grained silicified diorites on drill lines A92, B92 and C92 to a coarse grained soft friable weathered diorite on drill line D92.

The tertiary channel width is narrower and the longitudinal gradient is steeper within the section between drill line A92 and C92. The section between drill lines B92 and C92 has a deeply incised narrow channel gut below the upper channel. This is typical of tertiary channels with harder silicified bedrock as found throughout this section. The bedrock gradient below drill line C92 to drill line D92 is significantly less and the channel width increases to 230 feet as is typical of tertiary channels on the Moyie River when softer friable bedrock is encountered.

The occurrence of significant gold values throughout the steeper narrow tertiary channel and within the narrow incised gut channel is not typical of previously mined sections on the Moyie River to date. The values throughout this section are pervasive enough to suggest that they are not erratic, although the larger pieces, (nuggets), do occur with little or no ancillary gold values and in one instance do occur above the pay zone..hole # F-10.

The bedrock within the vicinity of drill line D92 is diorite that is far enough removed from the upper contact zone with the Aldridge Formation not to be silicified. It is good bedrock, being softer, altered, friable and iron stained. The longitudinal bedrock gradient in this section is between 1% and 2% and the valley width has increased to 230 feet. The values along the drill line range from trace through to 0.04 crude ounces per cubic yard.

This section of tertiary channel below the upper silicified contact zone and above the lower silicified contact zone display all the criteria to suggest that the best trap for gold values would exist within this area.

RECOMMENDATIONS

The drilling completed on drill lines A92, B92 and C92 indicate a section of tertiary channel with exceptionally hard bedrock, a steep longitudinal gradient, narrow valley width and good gold values. From past experiences with this type of ground on the Moyie River, I would not recommend initiating a new pit in this area.

The drilling completed on drill line D92 indicates a section of tertiary channel with soft friable bedrock, a gentle longitudinal gradient, broad valley width and minimal gold values. From past experience on the Moyie River, this type of ground has been very productive. I would recommend drilling two more drill lines ...one on Placer Lease #2135 400 feet downstream from drill line D92 and one on Placer Lease 1902 400 feet upstream from drill line D92.

The object would be to outline an economic section of ground to establish an initial pit. If the initial pit proves economic, mining would advance cautiously upstream to assess the ground within the vicinity of drill lines C92, B92 and A92, and advance cautiously downstream to locate the lower silicified contact zone.

Respectively submitted,

Michael M. P. Henrick
PROFESSIONAL
PROVINCE
OF
MICHAEL M. P. HENRICK
P. Geo.
BRITISH
COLUMBIA
GEOLOGIST

APPENDIX I

M.P. Henrick Drill Logs

Hole # F-1 November 2, 1992 M.P. Henrick/Jim Fiorentino

FOOTAGE	VOLUME DEPTH	MATERIAL
72-60 *	Full	-one sample all bedrock, diorite upper section altered, hematite stain, minor limonite, quartz chunks, altered-iron, abundant black sand (heavy sulphides-black) 3 fine Au
58-60 *	5 1/2"	- definitely more altered, all
58-60	2"	diorite, abundant hematite, abundant black sand and heavy sulphides 7 pieces vvv fine Au.

CONTACT

56-58 **	2"	good gravel mix, only minor diorite
56-58	2"	noted, moderate Black sand, steel
56-58	2"	2 vvv fine Au & 1 med. chunky Au saved

November 3, 1992 M.P. Henrick/J. Fiorentino

54-56 **	3"	good gravel mix, quite a bit of
54-56	3"	diorite, somewhat iron stained hematite and limonite, minor quartz, abundant black sand 3 vv fine Au, 1 chunky match head size Saved.
52-54 *	2"	less limonite and hematite, even less quartz, moderate black sand and blue black heavy sulphide 7 vvv fine Au Not Saved
50-52	2"	good gravel mix as above, abundant
50-52	6 1/2"	diorite and silicified argillite, hematite stain

Hole # F-2 November 3, 1992 M.P.Henrick/J.Florentino

FOOTAGE	VOLUME DEPTH	MATERIAL
62-64	9"	definitely all bedrock, diorite with abundant quartz shears.
60-62 *	1 1/2"	abundant black sand concentrate with steel and black blue sulphides.....2 vvv fine Au
58-60 *	1"	definitely all bedrock, diorite with quartz shears as above
	10"	moderate black sand, concentrate steel 1 vvv fine Au
56-58 *	4 1/2"	all bedrock, slightly altered, possible odd chunk argillite
56-58	1"	moderate black sand concentrate, 2 vvvv fine Au
54-56 *	2"	80% bedrock, 20% pebble material, definitely more altered
54-56	7"	nearly all bedrock, moderate to abundant black sand, steel etc., 1 vv fine Au, 2 vvv fine Au
CONTACT @ 55 feet		
52-54	1"	cobble, boulder mix, coarse material, coarse boulders, moderate to less moderate black sand and steel....no Au.
50-52 *	2 1/2"	mainly mixed boulder material, silicified argillite and diorite, minor quartz, moderate black sand 3 vvv fine Au
48-50 *	6 1/2"	still a lot of bedrock chips
46-48	3 1/2"	moderate black sand and steel
44-46	2 1/2"	1 fine Au....Not Saved

Hole # F-4

FOOTAGE	VOLUME DEPTH	MATERIAL
72-74	7"	bedrock, fine grained argillite???
70-72	1 1/2" 12"	diorite, abundant pyrite, hard, slightly altered, limonite, hematite, abundant pyrite, no black sand, minor steel, No Au
CONTACT	68.5'	
68-70 **	2 1/2"	mainly all boulder material, minor
68-70	3 1/2"	bedrock chips, (possible 1/2" sliver
68-70	1 1/2"	of decayed wood), abundant concentrate
		1/2 black sand and 1/2 pyrite...3 vvv fine Au and 1 medium Au saved.
66-68 *	2"	all boulder material, good mix, 2
66-68	1 1/2"	chunks blue grey sulphides (galena)
66-68	2"	noted and saved. abundant black sand
66-68	3 1/2"	and sulphides, steel etc., 2 v fine Au Not Saved
64-66 **	6"	material as at 66-68 (even mix)
64-66	4"	abundant sulphides and black sand 3 vvv fine Au Not saved, 1 fine Au chunky saved.
62-64 **	2 /1/2"	material as at 64-66
62-64	5"	slightly more limonite, abundant
62-64	1"	heavy concentrate
62-64	2"	1 large nugget saved
62-64	6"	3 vvv fine Au and 1 vv fine Au (not saved)
62-64	5"	
60-62 *	3 1/2"	material as at 62-64, less hematite
60-62	9 1/2"	less concentrate, moderate black
60-62	3"	sand. 2 vvv fine Au Not saved
60-62	2 1/2"	
58-60	2"	material finer and well mixed
58-60	2"	minor to moderate black sand
58-60	2 1/2"	No gold

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Hole # F-5 *

4 1/2 pails bed rock material (composite done for reference)
- all bedrock silicified argillite, definite quartz
sections, minor concentrate..mainly pyrite, minor black sand
3 vvv fine Au..Not saved

Hole # F-7 November 10, 1992 M.P.Henrick/J.Fiorentino

FOOTAGE	VOLUME DEPTH	MATERIAL
62-64	7"	Dry, drilled open hole, powder (All
60-62	4 1/2"	bedrock argillite, abundant sulphides, pyrite, moderate black sand, No Au

CONTACT 59 feet

58-60 **	3 1/2"	50 % bedrock material, argillite
58-60	10"	specular hematite and galena, abundant sulphides, moderate black sand, amalgamated sample
56-58 **	9"	good cobble boulder mix, mainly
56-58	10"	diorite boulder material, less sulphides and black sand, still abundant sulphides. Amalgamated sample

November 11, 1992

54-56	composite check done for reference
52-54	no Au, moderate to abundant black sand
50-52	concentrate, diorite bedrock

HOLE # F-8 November 11, 1992 M.P.Henrick/J.Fiorentino

FOOTAGE	VOLUME DEPTH	MATERIAL
74-76	8"	all bedrock chips, minor alterations
74-76	8"	limonite, hematite, minor black sand
72-74	full	minor sulphides, No Au
70-72	1 1/2"	all bedrock chips, alteration as above, hematite and limonite, minor black sand, minor sulphides, No Au.
68-70	4 1/2"	nearly all bedrock, 10% boulder material, minor black sand, minor sulphides, No Au
CONTACT	69.5 feet	
66-68	11 1/2"	mainly diorite boulder material
66-68	1"	moderate black sand & sulphides No Au
64-66	2 1/2"	mainly all diorite, quite crystalline
64-66	7"	minor chunks quartz & pebble material. Large boulders, abundant black sand concentrate, steel etc., No Au, (minor sulphides)
62-64 *	4 1/2"	boulder mix, abundant diorite noted, moderate black sand concentrate, 1 vvv fine Au Not saved
60-62	4 1/2"	as at 62-64, slightly more diorite boulder material, only minor black sand, mainly sulphides No Au
58-60	2"	
58-60	4"	
56-58	7"	
56-58	6 1/2"	
54-56	10"	The whole section washed as a composite. -moderate black sand and sulphides
54-56	1"	No gold.
52-54	4 1/2"	
50-52	13"	
50-52	4"	
48-50	2 1/2"	slimy clay, varved clay

HOLE #F-9 November 11, 1992 M.P.Henrick/Jim Fiorentino

FOOTAGE DEPTH	VOLUME	MATERIAL
30-32		All bedrock material diorite.
32-34		Composite done for reference
34-36		Moderate black sand. No Au.

HOLE # F-10 November 12, 1992 M.P.Henrick/J.Fiorentino

64-66	14"	All diorite bedrock, minor quartz
62-64	full	shear material, altered hematite,
60-62	full	limonite and goethite, moderate
58-60	8"	concentrate, mainly all sulphides,
		fresh and rusty, No Au. Bedrock???

CONTACT @ 57 feet

56-58 **	3 1/2"	Virtually all diorite..90% with minor
56-58	11"	quartz and argillite shards.-moderate
		black sand and steel...1 gold nugget, no ancillary fine Au.
54-56	7"	Even mix, argillite and diorite with
54-56	6"	minor quartz shards, alteration-
54-56	7"	limonite and goethite, minor black
		sand..No Au
52-54	3"	mainly argillite, diorite boulder mix,
		minor black sand concentrate, no Au, alteration-limonite and
		goethite
50-52	7"	Good boulder mix with abundant diorite
50-52	11"	and quartz shards, odd piece large
50-52	12"	argillite, moderate black sand
		concentrate, 1/2 black sand and 1/2 sulphides....No Au.
48-50 **	6"	Good boulder mix, diorite and quartz
46-48	11"	shards. moderate black sand
46-48	8"	concentrate with 1 gold nugget. Medium
		sized piece Au saved and added to sample from tray.
44-46 **	3"	Good boulder mix, abundant diorite and
44-46	1"	quartz shards, moderate black sand
44-46	3 1/2"	concentrate with sulphides..2 gold
44-46	10"	nuggets. -several pieces Au
		amalgamated.
42-44 *	2"	A good mix of boulder material-a lot
40-42	8"	of coarse diorite material and square
		argillite, minor quartz..moderate black sand concentrate
		with sulphides....1 vvvv fine Au...Not saved

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HOLE # F-11 November 16, 1992 M.P.Henrick/Jim Fiorentino

FOOTAGE	VOLUME DEPTH	MATERIAL
58-60 *	2"	Open hole, virtually all silicified argillite with iron staining.-minor black sand concentrate, (minor sulphides--2/3 rusty, 1/3 fresh) 1 vvvv fine Au Not saved.
56-58	6"	
54-56	full	
52-54 *	7 1/2"	
52-54	full	50% argillite and 50% boulder material -moderate black sand concentrate..a
50-52	10"	lot of fresh sulphides with some rusty
50-52	full	pyrite 1 vvv fine Au.
48-50 **	3"	Good mix boulders--diorite, argillite and quartz shards. (moderate black sand concentrate-1/2 sulphides(rusty) and 1/2 fresh black sand. 1 medium Au Saved
48-50	full	
46-48	full	Good mix of boulder material, abundant diorite, minor quartz and abundant argillite, moderate black sand, abundant pyrite--fresh and rusty.
44-46	full	Virtually the same as sample 42-44. Boulder mix, argillite
42-44	2"	Minor diorite shards, moderate black sand concentrate, 1/2 sulphides and 1/2 black sand.
40-42	3"	Boulder mix, argillite, diorite and minor quartz shards, moderate black sand concentrate, 1/2 sulphides (both fresh and rusty) and 1/2 black sand. No Au.

HOLE #F-12 November 16, 1992 M.P.Henrick/J. Fiorentino

46-48	1"	Definitely all diorite bedrock
46-48	11"	abundant fine fresh sulphides.
44-46	5 1/2"	concentrate all fine sulphides.No Au.

CONTACT @ 42.5 feet

42-44 *	2"	90% diorite bedrock, slightly altered, 10% diorite and argillite cobble and boulder material.
		1 vv fine Au and 1 vvvv fine Au. Not saved.
40-42 *	11"	Cobble, boulder mix-mainly diorite, -coarse to fine grained argillites, silicified, quartz shards, moderate black sand, moderate sulphides, a lot rusty 1 vvvv fine Au.
	2 1/2"	

HOLE # K-2 November 18, 1992 M.Henrick/J.Fiorentino

FOOTAGE	VOLUME DEPTH	MATERIAL
64-66 *	Full	Definitely all diorite, quite coarse,
64-66	13"	green, broken, minor limonite and hematite, moderate black sand concentrate..1/2 fresh sulphides and 1/2 black sand..1 fine Au and 2 vvvv fine Au Not saved.
62-64 **	6 1/2"	All diorite, broken and more altered.
62-64	3"	quartz shear material, diorite coarse, with blue-grey sulphide veinlettes, moderate black sand 1 large nugget and 1 fine Au Sample saved.
60-62	11 1/2"	Boulder and diorite mix(50% of each)
60-62	Full	-probably a fissure in bedrock with gravel.-diorite more altered, hematite and limonite, abundant sulphides,fresh and rusty, minor black sand No Au.
58-60 *	9"	Material half boulder argillite and quartz, and half diorite, coarse and altered.-hematite and limonite stain, minor black sand, minor sulphides(fresh and rusty)...1 vvvv fine Au Not Saved.
56-58 *	9"	Good boulder mix, still quite a bit of diorite,(less than 50%), hematite and limonite stain, minor black sand, minor sulphides (fresh and rusty),1 vvvv fine Au. Not saved.
CONTACT @ 57 feet		
54-56 **	7"	Good boulder mix, still some
54-56	1"	diorite..probably boulder material, minor black sand, minor sulphides (generally less)... 1 flat piece large Au. Saved.
52-54 *	7"	Definite good boulder mix (argillite
52-54	3 1/2"	silicified), diorite,quartz, moderate black sand concentrate. minor sulphides..1 v fine Au Not Saved.
50-52	1 1/2"	Good boulder mix. -minor to
50-52	9 1/2"	moderate black sand concentrate with sulphides. No Au. Quite a bit of clay noted.
48-50	7"	Good boulder mix. Abundant
48-50	4"	black sand. No Au. - abundant gumbo and clay--hard to wash.

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November 19, 1992 M.Henrick/J.Florentino

46-48 3" Good boulder, cobble mix, nothing
44-46 11" outstanding, abundant black sand
44-46 4" concentrate, abundant specular
hematite, steel, less sulphides. No Au.
42-44 13" As above (44-48)
42-44 2" Concentrate exactly the same
40-42 8" Abundant specular hematite. No Au

HOLE # K-3 November 19, 1992 M.Henrick/J.Florentino

62-64 ** 8" solid Diorite, quite coarse grained, soft
62-64 3" slop friable, hematite and limonite
62-64 13 1/2" staining, minor epidote, moderate
60-62 8 1/2" black sand concentrate, minor specular
60-62 8 1/2" hematite, abundant steel,
Au amalgamated sample

58-60 10" solid Some bedrock but quite abundant
5" slop boulder material, moderate black sand
concentrate...No Au.

56-58 * 14 1/2" solid 50% diorite and 50% boulder
5" slop material, diorite coarse (diorite
boulders??) moderate black sand concentrate.
1 v fine Au. Not Saved.

CONTACT @ 57 feet...possible 55 feet

56-58 13" solid 70% diorite and 30% boulder material
56-58 6 1/2" slop -coarse diorite, possible diorite
boulders. -abundant sulphides, moderate black sand. No Au.

54-56 9" solid 30% diorite and 70% boulder material.
6" slop -moderate sulphides and moderate black
54-56 4" sand...No Au.

52-54 10" All boulder material..good mix,
moderate black sand, no sulphides, No Au.

50-52 8" Good mix boulder material, moderate
black sand, minor sulphides, No Au.

48-50 * 12" 80% diorite coarse boulders
48-50 1 1/2" 20% argillite quartz
46-48 2 1/2" -moderate black sand concentrate
46-48 5 1/2" -no sulphides 1 vvv fine Au, Not saved

44-46 * 1" Good mix boulder material
42-44 5" -moderate to minor black sand
42-44 6" abundant steel
40-42 7" 1 vvvv fine Au
40-42 5 1/2" Not Saved

HOLE #K-4 November 20, 1992 M.Henrick/J.Florentino

FOOTAGE	VOLUME DEPTH	MATERIAL
54-56	3 1/2"	Virtually all diorite, minor argillite chips, only minor black sand concentrate, mainly sulphides. No Au.
52-54	2"	
52-54	4 1/2"	

CONTACT @ 54 feet

50-52	10 1/2"	1/2 diorite and 1/2 argillite. Boulder mix..abundant fine layered grey clay, (moderate to minor black sand concentrate, half sulphides, No Au.
50-52	1"	
48-50	1"	Good boulder mix, mainly argillite and quartz, abundant fine clay, moderate black sand, minor sulphides, No Au.
46-48 *	11"	Excellent boulder mix, diorite quartz, argillite, chert clay, abundant black sand, no sulphides, 1 vvv fine Au.
46-48	2 1/2"	
44-46	1"	
42-44	10"	Excellent boulder mix, quartz argillite chert, abundant black sand concentrate, no sulphides -some steel No Au.
40-42	4"	
40-42	11 1/2"	
40-42	3"	

HOLE #K-5 November 20, 1992 M.Henrick/J.Florentino

56-58	3"	Definitely all bedrock, dark medium grained green diorite, altered, epidote, abundant rusty and fresh pyrite, minor black sand, No Au.
54-56	7 1/2"	

CONTACT @ 53 feet

52-54	12"	70% diorite and remainder argillite and quartz boulder shards, coarse cuttings, minor black sand, minor pyrite, No Au.
50-52	5 1/2"	Good boulder cobble mix, mainly argillite, minor black sand, minor pyrite, No Au.
48-50	9"	Good boulder material mix moderate black sand concentrate, No Au.
48-50	Full	
46-48	5"	
44-46	10"	Good cobble boulder mix abundant black sand concentrate No Au
42-44	Full	
42-44	12"	
40-42	1"	

APPENDIX II

Owen's Drilling Drill Logs

OWEN'S
Drilling Ltd.

100 J - 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 20, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semin Creek

Hole No.: K6

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France					
Stan Woodford					

TIME SUMMARY		LOG OF FORMATIONS			
Hours		Depth			Start Drill to 36'. Try to pull casing cut off. One hour to pull steel pack up Clay, gravel, cobbles Bedrock K6 Charge out 36' of 6" drilling Used Old R3 Total 36'
Drilling		Casing Tally	From	To	
Curly Work			0'	32'	
Rep. & Maint.			32'	36'	
HOLE INFORMATION					
Hole Size	Start 6 Finish 6'				
Hole Depth	0 36'				
Casing Length	0 35'				
Water Level					
Stick up Above Ground Surface					
PRODUCTION INFORMATION					
Screen Slot Size	.....			
Top	.....			
Length	.....			
Bottom	.....			
Fittings	.....			
Static Water Level	.....			
Pumping Level	..... at .....GPM				

**OWEN'S
Drilling Ltd.**

7 - 6th St. N.
Cranbrook BC V1C 3M9

Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 19, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: K4 & K5

NAME		TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France		Driller				
Stan Woodford		Helper				
TIME SUMMARY		LOG OF FORMATIONS				
	Hours	Depth				
Drilling		Casing	From	To	Drill K4 from 5'-56'. Try to pull casing cut off 45' left move to K5 drill to 56'. Pull casing move to K6 set up.	
Hourly Work		Tally				
Rep. & Maint.						
HOLE INFORMATION						
Hole Size	Start Finish K4-6" K5-6" K4-6" K5-6"					
Hole Depth	K4-15' K5-C K4-56' K5-56'					
Casing Length	K4-15' K5-C K4-55' K5-55'					
Water Level						
Stick up Above Ground Surface						
		K4				
		0'	5'		Clay, gravel cobbles	
		5'	25'		Gravel, sand, wet	
		25'	36'		Gravel, sand cobbles, water	
		36'	40'		Clay, gravel, sand, boulders	
		40'	50'		Clay, gravel, boulders, dry	
		50'	56'		Bedrock	
		K5				
		0'	4'		Clay, gravel, cobbles	
		4'	11'		Boulders, gravel, clay, water	
		11'	21'		Gravel, sand, cobbles, water	
		21'	23'		Boulders, gravel, sand, water	
		23'	42'		Clay, gravel, sand, dry, hard	
		42'	52'		Boulders, gravel, clay, water	
		52'	56'		Bedrock	
PRODUCTION INFORMATION						
Screen Slot Size	.....				
Top	.....				
Length	.....				
Bottom	.....				
Fittings	.....				
Static Water Level	.....				
Pumping Level	..... at GPM					
					Charge Out K4 - 40'- 6" Drilling K5 - 56' - 6" Drilling x6" shoe	

OWEN'S Drilling Ltd.

- 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 18, 1992 Shift: _____ Rig No.: 1
Customer: Fiorentino Bros. Location: Semlin Creek Hole No.: K3 & K4

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France	Driller				
Stan Woodford	Helper				

TIME SUMMARY		LOG OF FORMATIONS				
	Hours	Depth				
		Casing Tally	From	To		
Drilling					Pull out of K2 move to K3. Set up new shoe. Drill to 64'. Try pull pipe cut off move to K4, new shoe, drill to 15'	
Hourly Work						
& Maint.						
HOLE INFORMATION						
Hole Size	Start <u>K3-6" K4-6"</u> Finish <u>K3-6" K4-6"</u>					
Hole Depth	<u>K3-0' K4-0</u> <u>K3-64" K4-15'</u>					
Casing Length	<u>K3-63' K4-15'</u>					
Water Level						
Stick up Above Ground Surface						
PRODUCTION INFORMATION						
Screen Slot Size	.....				
Top	.....				
Length	.....				
Bottom	.....				
Fittings	.....				
Static Water Level	.....				
Pumping Level	..... at GPM				
					Charge Out	
					K3 - 64' - 6" Drilling	
					K4 - 15' - 6" Drilling	
					1x6" Shoe	
					1x6" Shoe	
					TOTAL = 79' - 6" Drilling	

OWEN'S Drilling Ltd.

1 - 6th St. N.
 Cranbrook BC V1C 3M9
 Phone: (604) 426-2455

Nelson, BC
 Phone: (604) 825-9319

Date: November 17, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: K1 & K2

NAME		TRADE		RATE	Regular Time	Travel Time	Overtime
Rick France		Driller					
Stan Woodford		Helper					
TIME SUMMARY			LOG OF FORMATIONS				
			Drill hole K1 (0-30'). Pull out move to K2. 1-1/2 hrs. put pipe truck Set up K2. Drill to 66'. Pull casing back out of bedrock.				
Drilling _____ Hours							
Hourly Work _____							
& Maint. _____							
HOLE INFORMATION							
			Casing Tally				
			Depth				
			From				
			To				
Hole Size <u>K1-6" K2-6"</u> <u>K1-6" K2-6"</u>			K1				
Hole Depth <u>K1-0 K2-0</u> <u>K1-30 K2-66'</u>			0' 4'				
Casing Length <u>K1-0</u> <u>K1-29' K2-65'</u>			4' 12'				
Water Level _____			12' 18'				
Stick up Above _____			18' 24'				
Ground Surface _____			24' 30'				
			K2				
			0' 7'				
			7' 23'				
			23' 26'				
			26' 37'				
			37' 66'				
			Bedrock broken				
			Boulders, gravel, clay				
			Gravel, clay, boulders, water 10'				
			Clay, gravel, cobbles, wet				
			Gravel, sand, cobbles, water				
			Gravel, boulders, clay				
			Bedrock broken				
PRODUCTION INFORMATION							
Screen Slot Size _____							
Top _____							
Length _____							
Bottom _____							
Fittings _____							
Static Water Level _____							
Pumping Level _____ at _____ GPM							
			Charge Out				
			K1 - 30' - K1				
			Pull out more - 1-1/2 hours				
			1 x 6" Shoe				
			K2 - 66'				
			1 x 6" Shoe				
			TOTAL - 96'				

OWEN'S
Drilling Ltd.

6th St. N.
Granbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 16, 1992

Shift: _____

Rig No.: 1

Customer: Florentino Bros.

Location: Semlin Creek

Hole No.: F11 & F12

NAME		TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France		Driller				
Stan Woodford		Helper				
TIME SUMMARY		LOG OF FORMATIONS				
Hours		Depth			Drill F11 from 35' - 60'. Pull casing. Move to F12, new shoe. Drill to 48' Try to pull casing. Cut off move to K1 set up.	
Drilling		Casing Tally	From	To		
Hourly Work						
& Maint.						
HOLE INFORMATION					Boulders, gravel and clay, water 7' Sand, gravel, clay Boulders, clay, gravel, water Boulders, clay, gravel, wet Bedrock	
Start Finish						
Hole Size	F11-6" F12-6"	F11-6" F12-6"				
Hole Depth	F11-35' F12-0'	F11-60' F12-48'				
Casing Length		F11-55' F12-48'				
Water Level						
Stick up Above Ground Surface					Clay, gravel Boulder, gravel, clay, water Clay, gravel, sand, wet Boulders, gravel, clay, water Bedrock, broken	
PRODUCTION INFORMATION					Charge Out F11 25' - 6" Drilling F12 48' - 6" Drilling TOTAL 73' 1 x 6" Shoe	
Screen Slot Size						
Top						
Length						
Bottom						
Fittings						
Static Water Level						
Pumping Level at _____ GPM						

OWEN'S Drilling Ltd.

1 - 6th St. N.

Cranbrook BC V1C 3M9

Phone: (604) 426-2455

Nelson, BC

Phone: (604) 825-9319

Date: November 12, 1992

Shift: _____

Rig No.: _____

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F10 & F11

NAME		TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France		Driller				
Stan Woodford		Helper				
TIME SUMMARY		LOG OF FORMATIONS				
	Hours	Casing Tally	Depth From	To		
Drilling					Drill hole F10 from 38' to 65'. Try to pull casing, cut off weld cap on set up. Repairing F11 drill to 36'	
Hourly Work						
Up & Maint.						
HOLE INFORMATION						
	Start					
	Finish					
Hole Size	F10 - 6"		0'	4'	Clay, gravel, cobbles	
			4'	8'	Clay, gravel and boulders	
			8'	14'	Clay, gravel, tight	
Hole Depth	65'		14'	53'	Boulders, clay, gravel, water 36-40'	
			53'	57'	Boulders, gravel	
Casing Length	64'		57'	65'	Bedrock	
Water Level						
Stick up Above Ground Surface						
PRODUCTION INFORMATION						
Screen Slot Size	.....				Charge Out	
Top	.....				F10 - 27'	
Length	.....				F11 - 36'	
Bottom	.....				TOTAL 63'	
Fittings	.....				
Static Water Level	.....				
Pumping Level	..... at				GPM	

**OWEN'S
Drilling Ltd.**

7 - 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 11, 1992
Customer: Fiorentino Bros.

Shift: _____
Location: Semlin Creek

Rig No.: 1
Hole No.: F8 - F9 & F10

NAME		TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France		Driller				
Stan Woodford		Helper				
TIME SUMMARY		LOG OF FORMATIONS				
	Hours	Depth				
Drilling		Casing Tally	From	To	Grind through boulder on F8 drill from 67 - 77'. Pull casing move to hole F9. Drill to 36'. Pull out. Move to hole F10. Drill to 38'	
Hourly Work						
& Maint.						
HOLE INFORMATION						
Hole Size	Start F9 - 6"					
	Finish F9 - 6"					
Hole Depth		F9				
		0'	9'		Boulders, clay, gravel	
		9'	22'		Sand, silt, water	
		22'	24'		Sand, gravel, silty clay	
		24'	29'		Boulders, sand and clay	
		29'	36'		Broken bedrock	
Casing Length						
Water Level						
Stick up Above Ground Surface						
PRODUCTION INFORMATION						
Screen Slot Size					Charge Out	
Top					F8 - 10' Drilling	
Length					F9 - 36' Drilling (put new shoe on)	
Bottom					F10 - 38' Drilling	
Fittings					TOTAL 84' 6" Drilling	
Static Water Level					1 x 6" shoe	
Pumping Level	at				GPM	

**OWEN'S
Drilling Ltd.**

- 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 10, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F7 & F8

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France	Driller				
Stan Woodford	Helper				

TIME SUMMARY		LOG OF FORMATIONS			
		Depth			
	Hours	Casing Tally	From	To	
Drilling					Drill F7 from 57' to 63'. Pull out. Move to F8, drill to 76'.
Hourly Work					
Rep. & Maint.					
HOLE INFORMATION					
Hole Size	Start 6" Finish 6"				
Hole Depth	0" 77'				
Casing Length	76'				
Water Level					
Stick up Above Ground Surface					
PRODUCTION INFORMATION					
Screen Slot Size	.....				Charge Out F7 - 7' 6" Drilling F8 - 1 x 6" Shoe 67' - 6" Drilling TOTAL 74'
Top	.....			
Length	.....			
Bottom	.....			
Fittings	.....			
Static Water Level	.....			
Pumping Level	..... at GPM				

**OWEN'S
Drilling Ltd.**

- 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 9, 1992
Customer: Fiorentino Bros.

Shift: _____
Location: Semlin Creek

Rig No.: 1
Hole No.: F7

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France	Driller				
Stan Woodford	Helper				

TIME SUMMARY		LOG OF FORMATIONS			
Hours		Depth			
		Casing Tally	From To		
Drilling					Drill from 15' - 56'. Wipers wore out. Need new ones.
Hourly Work					
& Maint.					
HOLE INFORMATION					
Hole Size	Start 6" Finish 6"				
Hole Depth	18' 56'				
Casing Length	56'				
Water Level					
Stick up Above Ground Surface					
PRODUCTION INFORMATION					
Screen Slot Size	Top				
Length	Bottom				
Fittings					
Static Water Level					
Pumping Level	at _____ GPM				
					Charge Out 41- 6" Drilling

**OWEN'S
Drilling Ltd.**

- 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 6, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F6 & F7

NAME		TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France		Driller				
Stan Woodford		Helper				
TIME SUMMARY		LOG OF FORMATIONS				
	Hours	Casing Tally	Depth From To			
Drilling					Drill hole F7 to 43'. Pull out. Weld on shoe. Drill hole F7 to 16'	
Hourly Work						
& Maint.						
HOLE INFORMATION						
Hole Size	Start 6"					
	Finish 5"					
Hole Depth						
	43'					
Casing Length						
	42'					
Water Level						
Stick up Above Ground Surface						
PRODUCTION INFORMATION						
Screen Slot Size						
Top						
Length						
Bottom						
Fittings						
Static Water Level						
Pumping Level						
	at					
					GPM	

HOLE INFORMATION		Depth		Formation
Start	Finish	From	To	
0'	5'			Boulders and gravel, water
5'	8'			Gravel, sand and cobbles, water
8'	27'			Silty clay and sand, wet
27'	34'			Silty clay, sand, gravel, wet
34'	38'			Gravel, sand, cobbles, water
38'	40'			Clay, gravel, sand, water
40'	48'			Bedrock, hard

PRODUCTION INFORMATION	
Screen Slot Size	
Top	
Length	
Bottom	
Fittings	
Static Water Level	
Pumping Level	at _____ GPM

CHARGE OUT	
F6 - 43'	
F7 - 16'	
TOTAL 59'	1x6" drive shoe

**OWEN'S
Drilling Ltd.**

- 6th St. N.
Cranbrook BC V1C 3M9

Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 5, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F5

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France	Driller				
Stan Woodford	Helper				

TIME SUMMARY		LOG OF FORMATIONS			
Hours		Depth			
Drilling		Casing Tally	From	To	Drill hole F5 to 57'. Check with Mike. Pull out and move to F6, maintenance.
Hourly Work					
Rep. & Maint.					
HOLE INFORMATION					
	Start Finish				
Hole Size	6" 6"	0'	9'		Boulders, gravel, water
		9'	13'		Gravel, sand, boulders, water
		13'	34'		Gravel, sand, water
Hole Depth	57'	34'	40'		Boulders, gravel, sand, water
		40'	48'		Gravel, sand, water
Casing Length	56'	48'	49'		Boulder
		49'	57'		Bedrock, broken
Water Level					
Stick up Above Ground Surface					
PRODUCTION INFORMATION					
Screen Slot Size	.....			
Top	.....			
Length	.....			
Bottom	.....			
Fittings	.....			
Static Water Level	.....			
Pumping Level	..... at GPM				
					Charge Out 57' - 6" drilling

**OWEN'S
Drilling Ltd.**

6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 4, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F4 & F5

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France	Driller				
Stan Woodford	Helper				

TIME SUMMARY		LOG OF FORMATIONS		
	Hours	Depth		
		Casing Tally	From	To
Drilling				
Hourly Work				
Rep. & Maint.				
HOLE INFORMATION				
Hole Size	Start 6" Finish 6"			
Hole Depth	73'			
Casing Length	72'			
Water Level				
Stick up Above Ground Surface				
PRODUCTION INFORMATION				
Screen Slot Size	.....		
Top	.....		
Length	.....		
Bottom	.....		
Fittings	.....		
Static Water Level	.....		
Pumping Level	..... at GPM			

Drill hole F4 from 44' to 73'. Pull out and move pull by cat.
Set up hole F5, weld on shoe.

0' 2' Silty, clay
2' 7' Cobbles, gravel and clay
7' 21' Silty, clay, sand, gravel, wet
21' 23' Cobbles, gravel, sand, water
23' 36' Gravel, sand and cobbles
36' 50' Boulders and gravel
50' 54' Cobbles and gravel
54' 58' Sand and gravel
58' 70' Boulders, gravel and sand
70' 73' Bedrock

Charge Out
F4 - 29' - 6" drilling
F5 - 1 x 6" Drive shoe

OWEN'S
Drilling Ltd.

J - 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: November 3, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F3 & F4

NAME		TRADE		RATE	Regular Time	Travel Time	Overtime
Rick France		Driller					
Stan Woodford		Helper					
TIME SUMMARY		LOG OF FORMATIONS					
		Depth					
		Casing Tally	From	To			
Drilling	Hours				Bring 280 Casing. Weld on shoe. Set up drill.		
Hourly Work					Drill to 35' (Hole F3). Check with Mike to see if it is bedrock.		
Setup & Maint.					Pull out, move to hole F4 set up.		
					2 HOURS		
					Drill to 44'		
					F3		
					0' 5'		
					5' 17'		
					17' 27'		
					27' 35'		
					Clay, gravel, cobbles, wet		
					Gravel, sand, silt and water		
					Clay, gravel and boulders		
					Bedrock		
HOLE INFORMATION							
Hole Size	Start Finish						
	6" F3-6' F4-6"						
Hole Depth	F3-35' F4-44'						
Casing Length	F3-34' F4-44'						
Water Level							
Stick up Above Ground Surface							
PRODUCTION INFORMATION							
Screen Slot Size	Top						
Length	Bottom						
Fittings							
Static Water Level							
Pumping Level	at GPM						
		Charge Out					
		F3 - 35' 1 x 6" Drive shoe					
		F4 - 44' (Same shoe)					
		TOTAL - 79'					
		2HRS. pullout move					

**OWEN'S
Drilling Ltd.**

J - 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

**Nelson, BC
Phone: (604) 825-9319**

Date: November 2, 1992

Shift: _____

Rig No.: 1

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F2

NAME		TRADE		RATE	Regular Time	Travel Time	Overtime
Rick France		Driller					
Stan Woodford		Helper					
TIME SUMMARY			LOG OF FORMATIONS				
		Depth					
Drilling	Hours	Casing Tally	From	To	Drill hole F2. Pull out. 2 hours to pull back 2-1/2' out of rick. Fold down, pull steel truck with cat.		
Hourly Work							
& Maint.							
HOLE INFORMATION			0'	8'	Clay, gravel, boulders, 5' wet		
Hole Size	Start 6"	Finish 6"	8'	13'	Gravel, sand, water		
			13'	22'	Silty clay, sand and gravel, water		
Hole Depth		63'	22'	31'	Gravel, sand, water		
			31'	33'	Silty sand and little gravel, water		
Casing Length		62'	33'	44'	Silty clay, sand, gravel, wet		
			44'	60'	Boulders, gravel and sand		
Water Level			60'	63'	Bedrock		
Stick up Above Ground Surface					Drilling 63'	No shoe used First one	
PRODUCTION INFORMATION							
Screen Slot Size	.....				Charge Out		
Top	.....				F3 - 35' 1 x 6" Drive shoe		
Length	.....				F4 - 44' (Same shoe)		
Bottom	.....				TOTAL - 79'		
Fittings	.....				2HRS. pullout move		
Static Water Level	.....					
Pumping Level	..... at GPM						

OWEN'S
Drilling Ltd.

J - 6th St. N.
Cranbrook BC V1C 3M9
Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: October 30, 1992

Shift: _____

Rig No.: _____

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F1

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France	Driller				
Stan Woodford	Helper				

TIME SUMMARY		LOG OF FORMATIONS			
		Depth			
	Hours	Casing Tally	From	To	
Drilling					Drill from 35' to 72'. Grind casing into rock. Pull casing - 2hr-45 min.
Hourly Work					
J. & Maint.					
HOLE INFORMATION					
Hole Size	Start 6" Finish 6"				
Hole Depth	72'				
Casing Length	65'				
Water Level					
Stick up Above Ground Surface					
PRODUCTION INFORMATION					
Screen Slot Size	.....			
Top	.....			
Length	.....			
Bottom	.....			
Fittings	.....			
Static Water Level	.....			
Pumping Level	..... at GPM				

**OWEN'S
Drilling Ltd.**

10 - 6th St. N.
Cranbrook BC V1C 3M9

Phone: (604) 426-2455

Nelson, BC
Phone: (604) 825-9319

Date: October 29, 1992

Shift: _____

Rig No.: _____

Customer: Fiorentino Bros.

Location: Semlin Creek

Hole No.: F1

NAME	TRADE	RATE	Regular Time	Travel Time	Overtime
Rick France	Driller				
Stan Woodford	Helper				

TIME SUMMARY		LOG OF FORMATIONS			
		Depth			
Drilling	Hours	Casing	From	To	Move to Lumberton set up Change hammer, change wipers Fix discharge hose Drill to 35'. Weld next joint on sample from 30'
Hourly Work		Tally			
Up & Maint.					
HOLE INFORMATION					Mobilization
Hole Size	Start 6"				
	Finish 6"				
Hole Depth	0"				
	35'				
Casing Length					35' of Drilling
	35'				
Water Level					1 x 6" drive shoe
Stick up Above Ground Surface					
PRODUCTION INFORMATION					
Screen Slot Size	.....			
Top	.....			
Length	.....			
Bottom	.....			
Fittings	.....			
Static Water Level	.....			
Pumping Level	..... at				
	GPM				

APPENDIX III

Sample Method

SAMPLE METHOD

All cuttings, from each two foot section drilled within the gravel sections of interest, were collected in five gallon plastic pails. These pails were labelled and transported to the Moyle River for processing. All pails were then logged for material type, dampness, colour and volume. (Appendix VII) The samples were washed in a four foot by one foot long tom sluice run. The sluice run was equipped with a two foot square washing tray that spilled on to the long tom sluice below. The sluice run was elevated at one and three quarter inch per foot. Riffle action on the sluice was achieved by using three quarter inch expanded metal laid over an astro-turf blanket. Sample intervals washed ranged from single two foot samples to composite four foot samples, depending on areas of interest within the section.

All concentrates, from each sample interval, were collected and panned. All colours noted were counted and recorded in the drill logs. (Appendix I) All significant auriferous samples were amalgamated, digested, annealed and weighed. All weights, thus achieved, were recorded on the attached drill logs (Appendix I), and gold sample weights and grade sheet, (Appendix V) and marked on the attached drill sections. (Plan I)

APPENDIX IV

Drill Hole Statistics

DRILL HOLE STATISTICS

Hole	Date (1992)	Footage (Final)	Casing	Contact	Samples	Bedrock
F-1	Oct. 29/30	72	65	58	washed	diorite
F-2	Nov. 2	63	62	55	washed	diorite
F-3	Nov. 3	35	34	27	not/washed	diorite
F-4	Nov. 4	73	72	67.5	washed	argillite
F-5	Nov. 4/5	57	56	49	composite	argillite
F-6	Nov. 6	43	42	40	not/washed	argillite
F-7	Nov. 9	63	56	59	composite	diorite
F-8	Nov. 10	77	76	69.5	washed	diorite
F-9	Nov. 11	36	35	29	composite	diorite
F-10	Nov. 12	65	64	57	washed	diorite
F-11	Nov. 16	60	55	53	washed	argillite
F-12	Nov. 16	48	47	42.5	washed	diorite
Total (Queenstake)			692			
K-1	Nov. 17	30	29	24	not/washed	diorite
K-2	Nov. 17	66	65	57	washed	diorite
K-3	Nov. 18	64	63	57	washed	diorite
K-4	Nov. 19	56	55	54	washed	diorite
K-5	Nov. 19	56	55	53	washed	diorite
K-6	Nov. 20	36	35	32	not/washed	diorite
Total (Weaver Placer)			308			
Grand Total		1000		960		

APPENDIX V

Gold Sample Weights and Grades

GOLD SAMPLES WEIGHTS AND GRADES

Hole	Footage #	Weight (Grains)	Cubic Foot Volume	Oz/Cu.Yd. Crude Grade
F-1	54-56	1.55	1.25	0.069
F-1	56-58	0.10	2.05	0.0027
F-4	62-64	10.15(nugget)	3.55	0.16
F-4	64-66	0.25	1.03	0.0136
F-4	68-70	0.5	1.41	0.0199
F-7	56-58	1.3	0.56	0.1305
F-7	58-60	1.4	0.85	0.0926
F-10	44-46	6.05	2.77	0.1228
F-10	46-50	9.2 (nugget)	1.02	0.507
F-10	56-58	5.7 (nugget)	0.804	0.402
F-11	48-50	0.05	1.429	0.00196
K-2	54-56	0.35	1.151	0.017
K-2	62-64	0.90	1.06	0.0477
K-3	60-64	0.10	1.10	0.0051

APPENDIX VI

Personnel

PERSONNEL

Owen's Drilling Ltd. 1940 6th Street North
Cranbrook, B.C. V1C 3M9
Phone: 604) 426-2455

Rick France.....driller
Stan Woodford.....helper

M.P. Henrick Mining Services Ltd. R.R.1, Site 29, Comp.11
Okanagan Falls. B.C.
V0H 1R0
Phone: 604) 497-5979
Fax: 604) 497-5600

Michael P. Henrick P.Geo.

Florentino Bros. Contracting Ltd. 2401 Cranbrook Street W.
Cranbrook, B.C.
Phone: 604) 426-7281

Jiim Florentino....supervisor and operator

APPENDIX VII

Volume Determination Chart

Bucket Volume Determinations

Inches	Fluid Ounces	Total Ounces	Cubic Inches	Cubic Feet	Cubic Yards
Full	59	799	1385.5	.8018	.0297
1	58	740	1283.2	.7426	.0275
2	57	682	1182.6	.6844	.0253
3	56	625	1083.8	.6272	.0232
4	55	569	989.6	.5710	.0211
5	54	514	891.3	.5158	.0191
6	53	460	797.6	.4616	.0171
7	52	407	705.7	.4084	.0151
8	51	355	615.6	.3562	.0132
9	50	304	527.1	.3051	.0113
10	49	254	440.4	.2549	.0094
11	48	205	355.5	.2057	.0076
12	47	157	272.2	.1575	.0068
13	46	110	190.7	.1104	.0041
14	45	64	110.9	.0642	.0024

APPENDIX VIII

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Michael P. Henrick, of R.R.#1, Site 39, Comp, 11, Okanagan Falls, B.C., V0H 1R0, do hereby certify that:

- 1) I am a graduate of the University of North Dakota (1970) with a Bachelor of Philosophy degree in Geology.
- 2) From 1970 until 1982, I worked as a geologist in mineral exploration in British Columbia, the Yukon Territory, Saskatchewan, Manitoba, Ontario, and Quebec, as well as in Oregon, Arizona and California.
- 3) From January, 1983 to the present, I have worked as a geological consultant, concentrating mainly on placer evaluation and production.
- 4) I have supervised all the work on the Queenstake Resources Ltd. Moyie River project from 1985 to the present and have interpreted all data resulting from this work.
- 5) I have supervised all work on the Ole Placer property during the 1990 and 1991 summer season and have interpreted all data resulting from this work.
- 6) I have no financial interest, and am not connected in any way with this property.
- 7) I am a Fellow of the Geological Association of Canada.
- 8) I am a Professional Geoscientist registered with the Professional Engineers and Geoscientists of the Province of British Columbia.
- 9) I am an Honorary Life Member of the Prospectors and Developers Association of Canada.



APPENDIX IX

1993 Overburden Drill Budget

1993 OVERBURDEN DRILL BUDGET

12 Overburden Holes @ \$1,300.00/hole.....	\$15,600.00
Supervision @ \$500.00/day.....	6,000.00
Access roads and drill site Preparation and Reclamation	1,000.00
 Total Budget.....	 \$22,600.00

82G5W
82F8E

40498
12198
TL 40499
12199

5474304

MAO JACK
311033
P71390

PL 11179

ROBBIE
PC 114
P71043

ROBBIE
PC 115
P71043

PC 146
BOW
P71043

PC 53
P71043

PC 62
P61745

PC 54
P6220

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,062



PLACER CLAIM MAP

↑ P.C. 53+62



P.C. 54 ← FORMERLY P.C. 2137

NEARER CK.

CHAIN POST

APPROX. LOCATI
OR DRILL LINE

UPPER BOUNDARY
BETWEEN P.C. 54
AND P.L. 1902

P.L. 1902

NOYIE RIVER

NOT TO SCALE

APRIL 7 1994
J. Kenne

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,062

