

DUBLIN GULCH DRILLING PROJECT

1987

Prepared by

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For

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Dublin Gulch Project
Mayo Mining District
Yukon Territory
N.T.S. 106/D/4

May 1987



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1.0 INTRODUCTION

The Dublin Gulch Drilling Program was designed to discover if mineable placer reserve exists as a continuation of the currently mined deposit.

A program of overburden drilling was carried out using the Reverse Circulation method.

The target area was an unexplored zone located between the site of the current mining activities and Haggart Creek, of which Dublin Gulch is a tributary. This area was thought likely to be, at one time historically, the confluence of Dublin Gulch and Haggart Creek.

2.0 UNITS OF MEASUREMENT

Imperial System units have been used in this report for the following reasons:

1. All prior reports and work were conducted and reported using the Imperial System, therefore, continuity was maintained.
2. Drill tools and sampling practice utilize Imperial measure: (i.e. 20' drill rods, sampled in 2' increments).
3. The Imperial System appears to be the standard in the Yukon placer industry (the Placer Mining Act is still in Imperial units).

Gold weights are reported in their standard units, namely milligrams, grams and troy ounce (1 troy ounce = 31.1035 g).

3.0 DRILLING EQUIPMENT/METHOD

The drill used was a Schramm T-66, mounted on a Nodwell carrier.

Compressor - 500 C.F.M.
Bit - Tri-Cone (Walker MacDonald)
Bit Diameter - 5.125"
Stabilizer - 4.625" O.D.
Steel - 4.5" O.D.
Hole Size - 5.375" I.D.

Reverse Circulation was the method chosen. Air is supplied to the bit through rods having an inner steel tube, effectively dividing the rods into;

1. a central inner passage opening to the cutter heads at the bit at the intake end and a cyclone at the discharge end, and
2. an outer passage to conduct air from the compressor to the shirt-tails or the outer extremities or the "legs" to which the cutter heads are attached, air supplied to the outer extremities of the bit, transports chips cut at the base of the bit via the inner passage to the cyclone where the air pressure is released and the sample collected as a result.

This method proved to be efficient and effective. No holes required casing.

The average penetration rate was 25 feet/hour drilled.

A 10 hour work day resulted in approximately 7.5 hours drilling. The remaining 2.5 hours was equally divided between service, meal breaks and moving.

Table 1

DRILL PERFORMANCE SUMMARY

| <u>Hole</u> | <u>Depth (ft.)</u> | <u>Time (min.)</u> | <u>Rate (ft./min.)</u> |
|---------------------------|--------------------|--------------------|------------------------|
| 87-RCD-07 | 55 | 191 | 0.23 |
| 87-RCD-06 | 70 | 187 | 0.37 |
| 87-RCD-05 | 92 | 195 | 0.47 |
| 87-RCD-04 | 118 | 230 | 0.51 |
| 87-RCD-03 | 140 | 450 | 0.31 |
| 87-RCD-09 | 104 | 210 | 0.49 |
| 87-RCD-12 | 114 | 240 | 0.46 |
| 87-RCD-11 | 148 | 330 | 0.45 |
| 87-RCD-10 | 96 | 234 | 0.41 |
| <u>Total</u> <u>9 ea.</u> | <u>937 ft.</u> | <u>2267 min.</u> | <u>0.41 ft/min</u> |

Average hole depth 104.9 ft.
Average penetration rate 24.8 ft./hr.
Average daily (10 hour shift)(5 days) 187.0 ft./day

Note: Wet clay (clay with ice lenses) appeared to yield the poorest penetration rate and sample volume, a result of this materials inherent poor baling characteristics.

4.0 COST REPORT

Total cost incurred as a result of the Drill Program are \$ 44,987.40 CDN.

Table 3 illustrates these expenditures.

Table 2

DRILL HOLE DATA

| <u>Hole</u> | <u>Northing</u> | <u>Easting</u> | <u>Collar</u> | <u>Bedrock</u> | <u>Bottom</u> |
|-------------|-----------------|----------------|---------------|----------------|---------------|
| 87-RCD-01 | 18,130 | 10,659 | 2657.9 | Not Drilled | |
| 87-RCD-02 | 18,130 | 10,823 | 2673 | Not Drilled | |
| 87-RCD-03 | 18,130 | 10,987 | 2689.5 | 2556.5 | 2549.5 |
| 87-RCD-04 | 18,130 | 11,151 | 2709.6 | 2598.6 | 2591.6 |
| 87-RCD-05 | 18,130 | 11,315 | 2725 | 2638 | 2633 |
| 87-RCD-06 | 18,130 | 11,479 | 2747.9 | 2681.9 | 2677.9 |
| 87-RCD-07 | 18,130 | 11,643 | 2772.2 | 2726.7 | 2717.7 |
| 87-RCD-08 | 17,965 | 10,987 | 2684.2 | Not Drilled | |
| 87-RCD-09 | 17,801 | 10,987 | 2681.3 | 2582.3 | 2577.3 |
| 87-RCD-10 | 17,637 | 10,987 | 2672 | 2583 | 2576 |
| 87-RCD-11 | 18,293 | 10,987 | 2690.5 | 2547.5 | 2542.5 |
| 87-RCD-12 | 18,457 | 10,987 | 2684.2 | 2575.2 | 2570.2 |

Table 3

DUBLIN GULCH PROGRAM COSTS

| | |
|----------------------|--------------------|
| Wages | \$ 8,295.50 |
| Overhead and Fringes | 824.50 |
| General Consumables | 634.29 |
| Maps/Reports | 63.81 |
| Camp Materials/Food | 3,520.00 |
| Vehicle Rent/Lease | 6,620.00 |
| Assaying | 480.00 |
| Contractors | 2,500.00 |
| Drill Contractor | 20,801.80 |
| Travel | <u>1,247.50</u> |
| Total | <u>\$44,987.40</u> |

5.0 GEOLOGY OF THE PROGRAM TARGET AREA

The drilling program in 1987 was directed towards the location of the continuation of gold bearing pre-glacial channel gravels in an untested area between the deposit currently being mined and Haggart Creek. It was mandatory that this target be tested for the following reasons:

1. The Dublin Gulch deposit currently being mined and other sections of the creek mined in the past were and are very high grade.
2. Haggart Creek has produced many thousands of ounces of gold only below its confluence with Dublin Gulch.
3. The uncertainty as to what extent glaciation affected the east - west trending drainages such as Dublin Gulch.

The program was successful in locating the extension of the original Dublin Gulch channel. The program was also successful in establishing the fact that the channel was indeed high grade as indicated by the amount of gold found in bedrock samples of hole 87-12 and the deeper sections of hole 87-11. Unfortunately glaciation has affected the target area considerably and the bulk of the gold was flushed into Haggart Creek and formed extensive reworked deposits there. These deposits have since been, for the most part, mined out.

There appears to have been 2 glacial events that have effected the area. The first event did not invade the drainages with ice but melt waters carried some materials into established valleys such as Haggart Creek and Dublin Gulch. Much of this material was deposited in the original and still developing pay channels. The hematite found in the pay channels of Dublin Gulch and Haggart Creek are believed to have originated from iron formations in the Snake River area.

The second major glacial period advanced on the Dublin - Haggart area some 15,000 years ago and retreated approximately 11,000 years ago. Major glaciers moved southward down Haggart Creek, Lynx Creek and Swede Creek.

It now appears that a major glacier moved southerly down the Haggart Creek drainage and joined up with a major glacier moving westerly down Lynx Creek. The Haggart Creek glacier scoured, deepened and widened the valley floor and removed much of the pre-glacial material including gold trains emanating from Dublin Gulch. The valley walls underwent some scouring as well. In the vicinity of the drill area it appears that some scouring took place around drill hole 87-03 but did not scour hole 87-12 probably due to a rise in bedrock. A great deal of bedrock was removed from just west of the area covered by 1982 drill holes (RD-82-42, 43, 44 and RD-82-48, 49 and 50) leaving a major drop to the new Haggart Creek Valley floor.

Once the Haggart Creek glacier collided and joined with the Lynx Creek glacier it remained relatively static. The glacier dammed off Dublin Gulch. A lake gradually formed beside the glacier. Material carried down Dublin Gulch was deposited into the lake and terraces or benches of clay and rock debris were laid down. Some gold was removed from the upper parts of the pre-glacial channel and was redeposited as streaks in the terrace or bench clay rich gravels. As lake levels rose new terraces and benches were formed and partially superimposed on the lower earlier formed terraces. There appears to be 2 and possibly 3 benches formed on the south side of Dublin Gulch above the present day workings. This bench building and filling in of the glacial lake preserved the original pre-glacial channel because the gradient of the Dublin Gulch channel became flatter and flatter as the lake backed up the Dublin Valley.

Although the writer cannot be certain, there is a possibility that the green grey gravels located next to the bedrock as shown on section 18-130N (Figure 2) are pre-glacial and may represent the flanks or outer edges of the original pay channel. Gold is found in the section next to bedrock in drill holes RDC-87-04, 05 and 06. This gold may have been deposited by relatively slack waters such as a meandering Dublin Creek but is more likely to be gold "in transit". This is gold moving down slope from its source to a flatter gradient to be concentrated. This area toward which the gold was migrating to and ultimately concentrated in was the original pre-glacial Dublin Gulch channel.

It is then believed by the writer that as the lake built up beside the glacier the clays and gravels being brought into the lake were deposited on top of the green grey silty rich gravels. The grey clay gravels and brown clay gravels shown in Figure 2 represent this material being deposited into a lake. This is supported by observations made on the stratigraphy in the mine pit. The pay gravels are a green grey colour, very bouldery horizon. Approximately 25 to 30 feet above the pit floor is a preserved soil horizon lying on top of pay gravels. There is a lot of wood and other soil debris in this horizon. This soil horizon is immediately overlain by grey and brown clay rich gravels which form the benches or terraces above.

The next event that took place was the major event that removed the pay gravels from the area between the preserved channel (currently being mined) and Haggart Creek. The glacier began receding up the Haggart Creek Valley. In the process glacio-fluvial gravels were continually being deposited at the toe of the glacier. Once the glacier receded past Dublin Gulch, lake waters were released and Dublin Gulch started actively down cutting again only now with more energy as the gradient from the Suttle Pup area to Haggart Creek had become much steeper. This was due to the removal of the original gravels and some bedrock material from

Haggart Creek by the glacier. This water action remobilized the gold from the pre-glacial channel and deposited it in the Haggart Creek Valley. The actions of Haggart Creek waters and Dublin Gulch waters reconcentrated gold along Haggart Creek in streaks in their gravel seams. Some of the glaciofluvial gravels were reworked as well and the clay fraction removed.

As the down cutting action of Dublin Gulch continued, more of the original channel was removed and redeposited in Haggart Creek. The gold in the Dublin Gulch pay channel is rough and irregular shaped while in Haggart Creek the gold is flatter and smoother indicating the gold has travelled. The fineness of the gold from both creeks is virtually identical, thus giving credence to the notion that Haggart Creek gold is in fact remobilized Dublin Gulch gold. It has been estimated that between 30,000 and 40,000 troy ounces of gold were mined from Haggart Creek. This indicates that the original pre-glacial Dublin Gulch channel was very rich indeed.

The down cutting action of Dublin Creek probably then caused instability in the benches and slumping occurred as the material tried to reach its natural angle of repose. This slumping action combined with renewed down cutting and subsequent fan building by Suttle Pup gradually forced Dublin Gulch over to its present location on the right limited or north side of the valley near its mouth.

Gold values found near the surface of hole RCD-87-07 may be related to more recent eluvial events with the continued weathering of the gold vein system located upslope from the drill site. The gold is found within the surface soils and gravels which appear to be depositing on top of the glacial lake benches. This anomalous occurrence should be followed up with test work in the form of trenching.

6.0 DRILL SAMPLE PROCESSING

The drilling program at Dublin Gulch was carried out using a Nodwell mounted Schramm T-66 reverse circulation drill. This drill was selected because of its past performance at Dublin Gulch. The T-66 is virtually identical to the T-64H used in the 1981 - 1983 programs. Because of the similarities in the two drills, the characteristics of the drilling methods and sample recovery system would ensure continuity of the sample quality from the 1981 - 1983 programs to the 1987 program. The drill crew supplied by the contractor were very conscientious and helpful.

The gravels, sands and clays etc. from the drill were collected in large 21 inch by 36 inch heavy duty plastic bags that were secured to the outlet of the cyclone. The sample was collected continuously over 2 foot intervals. A Canada Tungsten supervisor at the drill collected the samples and recorded the type of material being drilled, drilling problems and related sample recoveries.

The samples were logged at the drill site before any processing so that gross lithologic features such as colour and clay content etc. could be mapped. Samples selected for processing were picked up and taken to the processing area.

The processing system consists of an elevated 4' x 8' steel washing tray that opens at one end above a long tom sluice box. The steel tray is elevated and tilted towards the outlet gate over the long tom. The tray outlet has a water flow control gate. The long tom sluice box is approximately 10" wide by 8' long. A boiler box is located at the inlet end (below the tray outlet) of the long tom. A 3' long by 10" wide piece of Monsanto CH-4 astro turf is used as a matting to line the upper portion of the long tom. An expanded metal mesh is placed over the astro turf matting and acts as small sluice box riffles to trap gold. Water is supplied by a

3/4" hose to the steel washing tray. Water is also supplied by a 3/4" hose to a manifold located at the head of the long tom (just under the steel washing tray outlet).

Each sample is weighed and then placed in a calibrated tub. The volume of the sample (in portions of cubic feet) is measured. This data is then recorded. The sample is then placed on the washing tray. A log is made of this sample just prior to washing. A more detailed observation is made of the matrix components and colour, etc. The outlet gate of the steel tray is closed as the sample is washed. A pool of water develops in front of the gate and the sample is agitated by hand in this pool of water to ensure that clay lumps etc. are broken down. The water to the long tom manifold is turned on and then the outlet gate on the tray is slowly opened. The pooled water on the tray is decanted off and then a stream of water from the tray hose washes the gravels through the gate and into the long tom. Once the sample has all been sluiced through the long tom, the astro turf mat and boil box are left filled with material. The mat and boil box contents are washed out into a plastic tub.

The washed sample in the tub is logged again to note matrix composition (grain size) and variety or lack thereof of the rock chips making up the gravel component of the sample. This data is merged with the logs prepared at the drill site and of the unwashed sample on the steel tray.

The washed sample is panned down to a concentrate and the numbers and size of gold colours and types of heavy minerals present are recorded. All this data is then merged and forms the text of the final logs located in Appendix B. The concentrate is placed in ziploc bags and sent to a lab for amalgamation so that the gold can be extracted and weighed (see Appendix A). Calculations utilizing the weight of gold and volume of the original sample are used to factor and calculate a grade recorded in troy ounces per cubic yard (see Table 4).

Table 4

DUBLIN GULCH DRILLING PROJECT

PRELIMINARY GRADE CALCULATIONS BASED ON 1987 DRILL SAMPLING RESULTS

| <u>Sample Number</u> | <u>Interval (Feet)</u> | <u>Length (Feet)</u> | <u>Measured Volume (Feet 3)</u> | <u>Measured Volume (Yard 3)</u> | <u>Au. Grams</u> | <u>Grade Au Troy oz/yd 3</u> |
|----------------------|----------------------------|--------------------------|-------------------------------------|-------------------------------------|------------------|----------------------------------|
| RCD-87-04 | 92-94 | 2 | 0.50 | 0.0185 | 0.0061 | 0.0467 |
| RCD-87-04 | 94-96 | 2 | 0.625 | 0.0231 | 0.0077 | 0.0107 |
| RCD-87-04 | 96-98 | 2 | 0.50 | 0.0185 | 0.0019 | 0.0330 |
| RCD-87-04 | 98-100 | 2 | 0.375 | 0.0139 | 0.0043 | 0.0099 |
| <hr/> | | | | | | |
| RCD-87-04 | 106-108 | 2 | 0.38 | 0.0141 | 0.0050 | 0.0114 |
| <hr/> | | | | | | |
| RCD-87-04 | 110-112 | 2 | 0.78 | 0.0289 | 0.0042 | 0.0047 |
| RCD-87-05 | 78-80 | 2 | 0.50 | 0.0185 | 0.0034 | 0.0059 |
| RCD-87-05 | 80-82 | 2 | 0.50 | 0.0185 | 0.0074 | 0.0129 |
| RCD-87-05 | 82-84 | 2 | 0.50 | 0.0185 | 0.0036 | 0.0063 |
| RCD-87-05 | 84-86 | 2 | 0.50 | 0.0185 | 0.0051 | 0.0089 |
| <hr/> | | | | | | |
| RCD-87-06 | 56-58 | 2 | 0.625 | 0.0231 | 0.0083 | 0.0116 |
| RCD-87-06 | 58-60 | 2 | 0.50 | 0.0185 | 0.0013 | 0.0023 |
| RCD-87-06 | 60-62 | 2 | 0.75 | 0.0278 | 0.0165 | 0.0191 |
| RCD-87-06 | 62-64 | 2 | 0.625 | 0.0231 | 0.0028 | 0.0039 |
| RCD-87-06 | 64-66 | 2 | 0.50 | 0.0185 | 0.0018 | 0.0031 |
| <hr/> | | | | | | |
| RCD-87-07 | 5-10 | 5 | 0.50 | 0.0185 | 0.0297 | 0.0516 |
| <hr/> | | | | | | |
| RCD-87-07 | 20-25 | 5 | 0.28 | 0.0104 | 0.0028 | 0.0087 |
| <hr/> | | | | | | |

| <u>Sample Number</u> | <u>Interval (Feet)</u> | <u>Length (Feet)</u> | <u>Measured Volume (Feet 3)</u> | <u>Measured Volume (Yard 3)</u> | <u>Au. Grams</u> | <u>Grade Au Troy oz/yd 3</u> |
|----------------------|----------------------------|--------------------------|-------------------------------------|-------------------------------------|------------------|----------------------------------|
| RCD-87-09 | 90-92 | 2 | 0.625 | 0.0231 | 0.0107 | 0 0149 |
| RCD-87-10 | 82-84 | 2 | 0.50 | 0.0185 | 0.0055 | 0.0096 |
| RCD-87-10 | 84-86 | 2 | 0.50 | 0.0185 | 0.0023 | 0.0040 |
| RCD-87-10 | 86-88 | 2 | 0.50 | 0.0185 | 0.0033 | 0.0057 |
| RCD-87-11 | 138-140 | 2 | 0.375 | 0 0139 | 0.0206 | 0.0476 |
| RCD-87-11 | 140-142 | 2 | 0.75 | 0.0278 | 0.0195 | 0.0226 |
| RCD-87-12 | 108-110 | 2 | 0 72 | 0.0267 | 0.1296 | 0.1561 |

09020

July 3, 1987

Update of 08730, May 15, 1987

7.0 CONCLUSIONS

The evidence suggests that Dublin Gulch flowed through the target area in its past history. This fact coupled with the high energy environment evidenced by the known recently mined deposit, allows the assumption that the deposit in all likelihood extended to Haggart Creek and likely, downstream in the Haggart Creek Valley.

A more recent or perhaps a series of more recent glaciofluvial events, has removed this deposition and smeared it throughout the area. Recent downcutting in the Haggart Creek Valley may have supplied the re-concentration mechanism of this Dublin sourced gold forming the Haggart Creek deposits mined in the recent past.

It is thus concluded that the likelihood of finding mineable reserve of significant tonnage is remote in the lower reaches of Dublin Gulch.


8.0 RECOMMENDATIONS

Anomalous gold values are found near surface in hole 87-RCD-07 (0 - 25'). It is recommended that a small backhoe trenching program be undertaken in conjunction with mining in 1987 to investigate this possible eluvial/colluvial placer.

9.0 STATEMENT OF QUALIFICATIONS

I, William Brian Lennan, of the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

- 1) I graduated in Geology (B.Sc. 1973) from the University of British Columbia.
- 2) I have practised my profession as an Exploration Geologist continuously since graduation and have been employed by such mining companies as Texas Gulf Inc., Cities Service Minerals Corporation, Canada Tungsten Mining Corporation, Queenstake Resources Ltd. and New Global Resources.
- 3) I am a Fellow of the Geological Association of Canada. I am also a member of the Canadian Institute of Mining and Metallurgy and the Prospectors and Developers Association of Canada.
- 4) I do not have any interest in the Canada Tungsten controlled and/or optioned claims in the Dublin Gulch - Fifteen Pup area or in the securities of Canada Tungsten Mining Corporation nor do I expect to receive any such interest in the future.
- 5) I have personally conducted placer sampling programs on the Dublin Gulch and Fifteen Pup placer properties and logged and sampled all rotary drill samples collected on the properties. I have gained knowledge of the placer geology in the areas by working on the placer mining project located on Dublin Gulch from 1983 to 1987 for Canada Tungsten. This report is an interpretation of the data obtained.



W.B. Lennan, B.Sc., FGAC.

10.0 REFERENCES

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Gilbert, G.W. (A compilation)

:08710

May 14, 1987

APPENDIX A

Bacon and Donaldson Amalgamation Results

May 22, 1987

File Number: 7117

CANADA TUNGSTEN MINING CORP.
Box 12525 Oceanic Plaza
1600 - 1066 West Hastings Street
Vancouver, B.C.
V6E 3X1

Attention: Mr. Jim Mustard

Dear Sir,

We have amalgamated placer drilling samples from your Dublin Gulch and Fifteen Pup drilling programs. The weight of gold recovered from each sample is reported as follows:

FIFTEEN PUP

| Sample I.D. | | Au weight grams |
|--------------|---------|-----------------|
| RCD-15-87-28 | 34'-36' | 0.0009 |
| 28 | 42'-44' | 0.0014 |
| 28 | 44'-46' | 0.0051 |
| 26 | 26'-30' | 0.0023 |
| 26 | 34'-38' | 0.0217 |
| 26 | 38'-44' | 0.0184 |
| 26 | 44'-48' | 0.0020 |
| 26 | 48'-52' | 0.0016 |
| 25 | 28'-32' | 0.0050 |
| 25 | 32'-36' | 0.0027 |
| 14 | 84'-86' | 0.0022 |
| 14 | 86'-88' | 0.0024 |
| 13 | 43'-46' | 0.0280 |
| 13 | 46'-50' | 0.0069 |
| 02 | 12'-16' | 0.0013 |
| 02 | 16'-20' | 0.0032 |



DUBLIN GULCH

Sample
I.D.

| | | |
|-----------|---------|--------|
| RCD-87-12 | 108-110 | 0.1296 |
| 11 | 138-140 | 0.0206 |
| 11 | 140-142 | 0.0195 |
| 10 | 82-84 | 0.0055 |
| 10 | 84-86 | 0.0023 |
| 10 | 86-88 | 0.0033 |
| 09 | 90-92 | 0.0107 |
| 07 | 5-10 | 0.0297 |
| 07 | 20-25 | 0.0028 |
| 06 | 56-58 | 0.0083 |
| 06 | 58-60 | 0.0013 |
| 06 | 60-62 | 0.0165 |
| 06 | 62-64 | 0.0028 |
| 06 | 64-66 | 0.0018 |
| 05 | 78-80 | 0.0034 |
| 05 | 80-82 | 0.0074 |
| 05 | 82-84 | 0.0036 |
| 05 | 84-86 | 0.0051 |
| 04 | 92-94 | 0.0061 |
| 04 | 94-96 | 0.0077 |
| 04 | 96-98 | 0.0019 |
| 04 | 98-100 | 0.0043 |
| 04 | 106-108 | 0.0050 |
| 04 | 110-112 | 0.0042 |

Yours truly,

BACON, DONALDSON & ASSOCIATES LTD.

M Beattie

Dr. M. J. V. Beattie, P.Eng.
MJVB:jrh

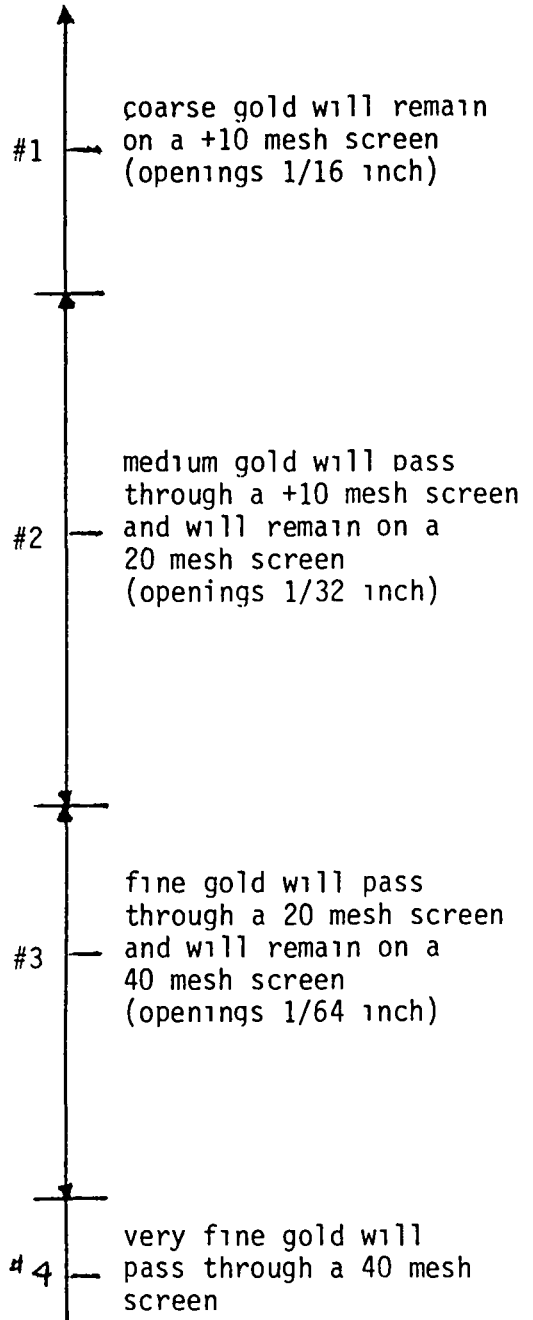


APPENDIX B

Dublin Gulch 1987 Drill Hole Logs

GOLD ESTIMATION CHART

- 10
- 9
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1
- 0



LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No RCD-87-03

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|------------|-----------------------|------------------|-------------------|--|
| 0-5 ft | no samples taken | | | Hole collar, black organic muck, top soil and silt. |
| 5-20 ft | samples not processed | | | Brown to grey brown wet clay rich gravels. Ice lenses along clay-sand layer contacts. Coarse gravel material is mainly cobbles to 6" diameter. Large boulders are rare. Clay=30%, Silt=20% Fine Sand=25%; Medium Sand=15%, Coarse Sand and Gravel=10%. |
| *20-52 ft | samples not processed | | | *Distinct change in gravels observed. Unit changes to a grey clay rich gravel sequence. The colour occasionally takes on a greenish tinge. Clay content averages 30%; Silt=20%, Fine Sand=25%, Medium Sand=20%, Coarse Sand and Gravel=5%. From 20-26 ft samples consist of a grey wet clay. Ice lenses were encountered at 22-24 ft. From 26-28 ft a coarse cobble layer was encountered with cobbles to 6" diameter common. From 28-40 ft the cobble gravels diminished and the composition of the matrix returned to the above noted distribution. Many ice lenses were encountered. From 40-52 ft the unit becomes 90% clay and silt with thin intermittent sandy layers. Coarse gravels are virtually absent. |
| *52-102 ft | samples not processed | | | *Distinct change to a greenish grey silty gravel sequence. Clay=10%, Silt=30%, Fine Sand=25%, Medium Sand to 5mm d.=25%, Coarse Sand and Gravel to 1cm d.=10%. This unit appears to be a very homogeneous one. The samples were dry as no ice lenses were encountered. From 84-86 ft a pebbly gravel layer occurs within the sequence. |

LOCATION Dublin Gulch Placer Drill Program
Logged by B. Lennan, J. Clarke

HOLE No. RCD-87-03

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No OF COLOURS | DESCRIPTION |
|-------------|--------------------------------------|------------------|--------------------------------|--|
| *102-110 ft | samples not processed | | | *Unit changes slightly to a greenish brown sandy and boulder gravel sequence. Boulder diminish below 110 ft. Clay=10%, Silt=25%; Fine Sand=30%, Medium Sand to 5mm d.=20%; Coarse Sand and Gravel=15%. |
| 110-112 ft | sample not processed (pan tested) | | No visible gold. Minor pyrite. | Greenish brown clay and silt rich gravels. Clay=40%; Silt=30%, Fine to Coarse Sand =30%. Rock chip compositions are more varied than in greenish gravels of holes 87-04, 05 and 06. This suggests that the source is not local. |
| 112-114 ft | sample not processed (pan tested) | | No visible gold. Minor pyrite. | As above but clay and silt steadily decreasing (25% total) while the fine to medium sands increase. Coarse gravels to 1cm diameter also decrease. Rock chip composition still highly variable. |
| 114-116 ft | sample not processed (pan tested) | | No visible gold. | Identical to more sandy gravels of the 112-114 ft interval. |
| 116-118 ft | sample not processed (pan tested) | | No visible gold. | Same as sample 114-116 ft although clay content rises to 25%. Gravels and coarse sand content increases slightly to levels of 112-114 ft interval. |
| 118-120 ft | sample not processed (pan tested) | | No visible gold. | Still part of brownish green gravel unit but clay and silt content rises dramatically again back to the 110-112 ft interval levels (Clay=40%, Silt=30%). Fine to medium sands make up remainder of material. Coarse sands and gravels disappear. |
| 120-122 ft | sample not processed (pan tested) | | No visible gold | Brown green unit as above. Clay and silt content decreases to approx. 25% (clay in particular). |

LOCATION· Dublin Gulch Placer Drill Program
Logged by· B. Lennan, J. Clarke

HOLE No. RCD-87-03

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-------------|--|------------------|-----------------------------------|---|
| 122-124 ft | sample not processed (pan tested) | | No visible gold | Very silty section is greenish brown. Clay=15%, Silt=40%; Fine Sand=20%, Medium to Coarse Sands to 1cm d.=25%. |
| *124-126 ft | sample not processed (pan tested) | | No visible gold. | *Colour changes abruptly to a brown, very silty matrix gravel sequence. Silt=50%; Fine Sand=30%; Medium to Coarse Sands and Gravels=20%. Composition of sand grains and rock chips still highly variable. |
| 126-128 ft | sample not processed (pan tested) | | No visible gold. Minor pyrite. | Same as 124-126 ft interval. Some dioritic intrusive rick chips occur in gravels. probably ground up boulder in drill hole. |
| 128-130 ft | sample not processed | | | Same as above. |
| 130-132 ft | sample not processed | | | Sticky grey brown clay layer with silt sand-sized grains. Clay=60%, Silt=20%, Sand and Gravel=20%. |
| *132-134 ft | 0.75 ft ³ | 60 lbs | No visible gold pyrite | Minor Powdery sample. Brownish grey colour. *Ground up bedrock. Bedrock at 133 ft. Silvery white-grey muscovite schist interbedded with grey sericitic quartites. |
| 134-140 ft | samples not processed (washed bedrock specimen taken) | | | Bedrock as described in 132-134 ft interval. |

E.O.H.

LOCATION: Dublin Gulch Placer Drill Program
Logged by B. Lennan, J. Clarke

HOLE No RCD-87-04

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-----------|-----------------------|------------------|-------------------|---|
| 0-10 ft | no sample taken | | | Hole collar, black organic muck and top soil. |
| 10-26 ft | sample not processed | | | Brown grey clay rich gravels Cobbles to 6" diameter common. Clay=25%; Silt=25%; Fine Sand=20%, Medium Sand to 5mm d.=20%, Coarse Sand and Gravel to 1cm d.=10%. From 18-22 ft some organic matter is observed. From 22-26 ft clay diminishes to about 10% and sand content increases. |
| *26-64 ft | samples not processed | | | *Distinct unit change to a grey clay and silt rich gravels. Clay=25-30%, Silt=25%, Fine Sand=25%, Medium Sand=20%; Coarse Sand and Gravels to 1cm d.=5%. From 28-30 ft intersect an ice lens From 32-40 ft samples are mostly fine clay and silt with negligible coarse sands. From 40-46 ft samples become sandier. An ice lens is encountered at 44 ft. From 46-52 ft unit becomes more sandy and gravelly. Clay=20%; Silt=25%; Fine Sand =25%, Medium Sand to 5mm d.=20%, Coarse Sand and Gravel to 1cm d.=10%. From 52-64 ft samples are made up mostly of clay and silt. |
| *64-92 ft | samples not processed | | | *Distinct unit change to greenish grey silt and clay rich gravels. This unit appears to have only coarse sands and fine gravels as its coarsest component. Clay=30%, Silt=30%, Fine Sand =25%, Medium Sand to 5mm d.=15%. Very homogeneous unit. From 88-90 ft a few gravel chips are found in the samples |

LOCATION: Dublin Gulch Placer Drill Program
 Logged by: B. Lennan, J. Clarke

HOLE No RCD-87-04

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-----------|-----------------------|---------------|--|--|
| 92-94 ft | 0.50 ft ³ | 44 lbs | 1 -#3 ball-shaped colour. 5 -#1 colours Abundant pyrite. | Same unit as from 64-92 ft. Becoming a little richer in gravelly material. Correlative with greenish clay and silt gravels found in holes 87-06 and 87-05. Clay=10%; Silt=40%; Fine Sand=25%; Medium Sand to 5mm d.=20%; Coarse Sand and Gravel to 1cm d.=5%. Rock chips are predominantly grey green quartzites Some white quartz fragments in sands. |
| 94-96 ft | 0.625 ft ³ | 56 lbs | 11 extremely fine colours | Greenish grey silty gravels as above. Silt=40%, Clay=15%, Fine Sand=20%; Medium Sand=15%; Coarse Sand=10%. Quartz fragment content of sand increases. Grey quartzite and phyllites are the predominant constituents of the sandy fraction. |
| 96-98 ft | 0.50 ft ³ | 47 lbs | 1 -#2 colours 3 -#1 colours Moderate amounts of pyrite | Greenish grey gravels. Silt decreases dramatically and gravels increase. Abundant subrounded pebbles to 1.5cm diameter. Silt=30%; Fine Sand=25%, Medium Sand to 5mm d =30%, Coarse Sand and Gravels=15% This is a definite gravel unit within a very silty section Composition of the rock chips remains the same as described in the 94-96 ft interval. |
| 98-100 ft | 0.375 ft ³ | 35 lbs | 2 -#1 colours 8 extremely fine colours | Same as 96-98 ft although silt is less than 25%. Fine Sand=20%, Medium Sand to 5mm d =30%, Coarse Sand to 1cm d.=25%. More coarse material than in 96-98 ft interval Phyllitic fragments increase while white quartz fragments decrease. |

LOCATION: Dublin Gulch Placer Drill Program
 Logged by B. Lennan, J. Clarke

HOLE No. RCD-87-04

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-------------|-----------------------|---------------|---|--|
| 100-102 ft | 0.375 ft ³ | 39 lbs | 2 extremely fine colours Abundant pyrite | Identical to the material in the interval from 96-100 ft. |
| 102-106 ft | 0.625 ft ³ | 57 lbs | 1 -#1 colour, irregular shape and thick cross-section. 4 extremely fine colours Abundant pyrite | Identical to the material in the interval from 96-102 ft. |
| *106-108 ft | 0.38 ft ³ | 43 lbs | 11 extremely fine colours. 1 -#1 colour. Dramatic decrease in pyrite. | * Distinct unit change Light brown sand and gravel unit. Subrounded to subangular pebbles to 1cm diameter. Silt increases to 30%. Fine Sand=30%, Medium Sand to 5mm d.=25%, Coarse Sand and Gravel to 1cm d.=15% Brown colour imported by brownish coloured muscovite schist. Grey quartzite chips increase while white quartz fragments decrease. |
| 108-110 ft | 0.375 ft ³ | 44 lbs | 2 extremely fine colours Abundant pyrite and minor black sand | Light brown as at 106-108 ft, sandy and gravelly material. Pebbles to 1.5cm are subrounded. Brown phyllitic schist fragments give the sand its colour. Matrix size and distribution as described in 106-108 ft interval. |
| *110-112 ft | 0.78 ft ³ | 70 lbs | 14 extremely fine colours Abundant fine grained pyrite and magnetite | Light brown. Very silty with gravel pebbles to 1.5cm diameter. They are subrounded. Medium to coarse sand is not abundant. Silt=65%; Fine to Medium Sand=20%; Coarse Sand to Gravel 5mm to 1.5cm d.=15%. *Bedrock at 111 ft. Bedrock is an interbedded sequence of grey phyllites and grey sericitic quartzites. |

LOCATION. Dublin Gulch Placer Drill Program
Logged by B. Lennan, J. Clarke

HOLE No. RCD-87-04

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|------------|---|------------------|---|--|
| 112-114 ft | 0.75 ft ³ (washed specimen collected) | 66 lbs | 2 extremely fine colours. Moderate amounts of pyrite and minor black sand. | Light grey green silty matrix sample. Bedrock chips are grey phyllite. Silt is probably ground up bedrock. Bedrock is grey green interbedded phyllites and grey sericitic quartzite. Some pyrite occurs along laminations between quartz rich layers and muscovite rich layers. Some white quartz vein fragments are also present. |
| 114-116 ft | 0.625 ft ³ | 54 lbs | 2 extremely fine colours. Minor pyrite and black sand. | Bedrock as described in 112-114 ft interval. Some graphitic schist material is present. |
| 116-118 ft | sample not processed | | | Bedrock. |

E.O.H.

LOCATION. Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No. RCD-87-05

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No OF COLOURS | DESCRIPTION |
|-----------|-----------------------|------------------|------------------|--|
| 0-10 ft | no samples taken | | | Top soil, organic muck and clay gravels. |
| 10-30 ft | samples not processed | | | Brown sandy gravels. Minor clay - less than 5%. Silt=25%; Fine Sand=35%, Medium Sand=25%, Coarse Sand and Gravels to 1cm d.=10%. From 15 to 18 ft drill hit 2 large boulders in excess of 1 ft diameter. Clay increases to approx. 10% from 18-30 ft. From 26-28 ft a layer of cobbles to 6" diameter occurs. At 30 ft hole intersects an ice lens. |
| *30-48 ft | samples not processed | | | *Distinct change in material. Grey clay rich gravels. From 30-32 ft this unit is very silty and sandy Clay=10%, Silt=40%, Fine Sand=30%; Medium to Coarse Sand=20%. From 32-48 ft clay increases to approx 20% and forms a sticky gumbo type sample. Most of the cobbles in the gravel fraction are less than 6" diameter. An 18" thick ice lens occurs at 40 ft. |
| *48-76 ft | samples not processed | | | *Green grey silty gravels with clay and sand rich intervals. From 48-58 ft this unit is very silty. Clay=10%; Silt=35%, Fine Sand=25%, Medium Sand to 5mm d.=20%; Coarse Sand and Gravels to 1cm d.=10%. From 58-76 ft the unit consists mainly of sand and very fine silt. It takes on a darker green colouration. There is a 6" thick gravel layer in the 68-70 ft interval. Cobbles generally under 4" diameter. From 70-76 ft unit returns to very sandy and silty matrix. |

LOCATION· Dublin Gulch Placer Drill Program
 Logged by· B. Lennan, J. Clarke

HOLE No. RCD-87-05

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|---|-----------------------|---------------|--|--|
| 76-78 ft | 0.50 ft ³ | 42 lbs | 2 very fine colours Minor pyrite | Greenish silty gravels as from 48-76 ft. Abundant graphite present in silts. Silt=65%, Clay=10%; Fine to Coarse Sand=25%. Predominant rock fragments are light grey green quartzites Correlative with greenish grey gravels in hole RCD-87-06. |
| 78-80 ft | 0.50 ft ³ | 47 lbs | 15 extremely fine colours. Flat but have irregular shaped edges. | Colour turns lighter green and the gravels have a very silty matrix. Composition of matrix as described above in 76-78 ft interval. In addition to grey quartzite rock chips, some biotite - quartzite schist fragments are found suggesting that cobbles in this horizon reach up to 6" diameter. |
| 80-82 ft | 0.50 ft ³ | 42 lbs | Approx 25 extremely fine colours and 2-#1 colours are present. #1 colours are ball shaped Abundant pyrite and 1 jasperoid hematite fragment. | Greenish grey silty gravels as described above. Matrix composition is Silt=65%, Clay=10%, Fine to Coarse Sands=25%. Rock fragments or chips are prodominantly grey sericitic quartzites and phyllites. Approx. 2% of sand grains are made up of white quartz grains and fragments. |
| 82-84 ft (washed specimen collected) | 0.50 ft ³ | 45 lbs | 9 extrmemly fine colours Abundant pyrite | Same as 80-82 ft interval Fine sand content increases a little. Coarse sand is less than 10% of the total matrix constituents. |
| 84-86 ft | 0.50 ft ³ | 48 lbs | 5 -#1 very fine colours They have irregular shapes and thick cross-sections. | Green grey silty gravels as described in 80-82 ft interval. |
| *86-88 ft | 0.375 ft ³ | 40 lbs | 2 extremely fine colours Dust sized pyrite particles. | *Light grey silty material. Ground bedrock Bedrock contact at 87 ft and is silvery grey phyllite Quartz chips from stringers in bedrock are abundant. |

LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No. RCD-87-05

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No OF COLOURS | DESCRIPTION |
|----------|---|------------------|--|--|
| 88-90 ft | 0.75 ft ³ (washed specimen collected) | 60 lbs | 10 extremely fine colours. Pyrite is Abundant. | Bedrock light grey with greenish tinged phyllite. |
| 90-92 ft | sample not processed | | | Bedrock. |
| E.O.H. | | | | |

LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No.: RCD-87-06

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-----------|-----------------------|------------------|--|---|
| 0-5 ft | not sampled | | | Black organic surface muck and wet brown clay. |
| 5-30 ft | samples not processed | | | Samples are all very wet. Ice lenses along clay-sand interfaces. Material is a brown clay rich gravel unit. Coarse gravel material is mainly cobbles to 6" diameter. Boulders are rare. Clay averages 30%, Silt=20%, Fine Sand=25%; Medium Sand=20%, Coarse Sand and Gravels=5% |
| *30-50 ft | samples not processed | | | *Distinct change in gravels observed. Unit changes to a grey clay rich gravel unit. The colour occasionally takes on a greenish tinge. Clay content averages 30%, Silt=20%, Fine Sand=25%, Medium Sand=20%, Coarse Sand and Gravels=5%. From 30-33 ft cobbles average 4" diameter. From 33-35 ft cobbles appear to be absent. Mainly a fine gravel clay interval. From 35-37.5 ft clay content decreases to approx. 20% and cobbles increase in amount. From 37.5-48 ft there is an ice lens so sample is of small volume and is wet. |
| *50-56 ft | 0.25 ft ³ | 36 lbs | 1 -#1 colour pyrite and arsenopyrite. | *Distinct change to a greenish grey silty and clay rich gravel unit. Clay=25%; Silt=25%, Fine Sand=20%, Medium Sand to 5mm d.=20%, Coarse Sand and Gravel to 1cm d.=10%. From 54-56 ft clay content decreases to approx. 5%. White quartz chips make up approx. 5% of sandy material and graphitic schist chips make up approx. 10% of sands. |

LOCATION: Dublin Gulch Placer Drill Program
 Logged by B. Lennan, J. Clarke

HOLE No. RCD-87-06

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|---|-----------------------|---------------|---|--|
| 56-58 ft | 0.625 ft ³ | 58 lbs | 1 -#2 very fine colour 4 extremely fine colours Minor pyrite. | Greenish grey clay rich gravels. Clay content increases over silt. Coarse sand and gravel content decreases. Clay=35%, Silt=20%; Fine Sand=30%; Medium Sand=10%; Coarse Sand and Gravel=5%. |
| 58-60 ft | 0.50 ft ³ | 42 lbs | 7 -#1 very fine colours Minor pyrite. | Greenish grey silty gravels. This is a very sandy material and there appears to be only minor amounts of coarser sands and gravels. Silt=40%; Fine Sand=35%; Medium Sand to 5mm d.=20%, Coarse Sand and Gravel=5%. |
| 60-62 ft (washed specimen collected) | 0.75 ft ³ | 54 lbs | 30 extremely fine colours. Abundant pyrite. | Greenish grey silty gravels as described above. |
| 62-64 ft | 0.625 ft ³ | 60 lbs | 10 very fine colours Abundant pyrite. | Greenish grey silty gravels. Content of coarser sands and gravels increases slightly over the previous 3 samples Silt=50%; Clay=5%, Fine Sand=20%, Medium Sand to 5mm d.=15%, Coarse Sand and Gravel to 1cm d.=10%. Grey quartzite fragments are the most prevalent rock and sand clasts. Phyllitic and graphitic schist chips are also present. |
| 64-66 ft (washed specimen collected) | 0.50 ft ³ | 50 lbs | 6 very fine colours Gold is flat with irregular edges. | Light greenish grey silty gravels. Silt=50%, Clay=5%; Fine to Medium Sand=35%, Coarse Sand and Gravel to 1cm d.=10%. Quartzite chips decrease and phyllite chips increase. |
| *66-68 ft | 0.50 ft ³ | 55 lbs | No visible gold Abundant pyrite. | *Bedrock - light greenish grey phyllites interbedded with grey sericitic quartzites and graphitic schist. |
| 68-70 ft (washed specimen taken) | 0.625 ft ³ | 63 lbs | No visible gold | Light grey muscovite-sericitic quartz schist bedrock. |

E.O.H.

LOCATION· Dublin Gulch Placer Drill Program
 Logged by. B. Lennan, J. Clarke

HOLE No : RCD-87-07

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|----------|----------------------|---------------|---|---|
| 0-5 ft | samples not taken | | | Surface organic material and soil. |
| 5-10 ft | 0.5 ft ³ | 54 lbs | 2 -#3 colours 17 very fine to extremely fine colours Abundant pyrite. | Grey brown silty and clay rich gravels. Silt and Clay=50%, Fine Sand =20%; Medium Sand to 5mm d.=20%, Coarse Sand and Gravels to 1 cm d.=10%. Grey quartzite pebbles make up 40% of gravels. White phyllitic to graphitic schist grains make up 60%. Minor granitic pebbles. |
| 10-15 ft | 0.50 ft ³ | 58 lbs | 4 very fine colours Pyrite content decreases dramatically | Grey brown silty and clay rich gravels. Clay content decreases and sand content increases. Silt=50%; Clay=10%, Fine to Medium Sand to 5mm d.=30%, Coarse Sand to 1cm d.=10% |
| 15-20 ft | 0.55 ft ³ | 63 lbs | No visible gold Minor pyrite and arsenopyrite | Grey brown silty and clay rich gravels. Coarse sand to 1cm increases to 15%. More biotite-quartz schist stones while quartz chips decrease in amount. |
| 20-25 ft | 0.28 ft ³ | 47 lbs | 10 extremely fine colours. Minor pyrite and arsenopyrite | Brown clay gravels. Small sample. Clay content increases again. Silt and Clay=25%, Fine Sand=30%; Medium Sand to 5mm d.=30%, Coarse Sand and Gravel to 1cm d.=15% White quartz chips are abundant and range in size from sand particles to 1.5cm diameter Approx. 25% of sand material is made up of quartz. The rest is made up mainly of grey quartzites and phyllites. |
| 25-28 ft | 0.62 ft ³ | 71 lbs | 2 extremely fine colours Minor pyrite, arsenopyrite and galena | Brown clay gravels. Clay and silt content increase dramatically to approx. 50%. Fine to Medium Sand to 5mm d.=30%, Coarse Sand and Gravels to 1cm d.=20% Quartz chips make up 20% of sand material. |

LOCATION. Dublin Gulch Placer Drill Program
 Logged by B. Lennan, J. Clarke

HOLE No. RCD-87-07

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|--|-----------------------|---------------|--|--|
| *28-31 ft | 0.35 ft ³ | 48 lbs | No visible gold. Abundant pyrite and arsenopyrite | Brown clay gravels. Silt and Clay=50%; Fine Sand=25%; Medium Sand=15%; Coarse Sand and Gravel to 1cm d.=10%. Some *quartz clast carry disseminated pyrite and arsenopyrite. |
| 31-34 ft | samples not processed | | | Brown clay gravels as described above. |
| *34-37 ft | samples not processed | | | *Distinct grey coloured clay rich gravels. Clay=10%; Silt=30%, Fine Sand=30%; Medium Sand to 5mm d.=25%, Coarse Sand and Gravel to 1cm d.=5% Some cobbles up to 6" diameter encountered in drill hole. |
| 37-40 ft | samples not processed | | | Grey clay gravels as above. |
| 40-43 ft | 1.0 ft ³ | 73 lbs | 1 very fine colour Abundant fine pyrite. | Grey brown gravels with less than 10% clay. Silt=40%; Fine Sand=30%; Medium Sand to 5mm d.=20% No coarse sands. Rock chips are schistose with a large variety of compositions. |
| 43-45 ft | 0.08 ft ³ | 17 lbs | No visible gold Abundant pyrite. | Near bedrock interface. A few pebbles of foreign material. Most rock chips are a silvery coloured sericitic quartzite to a muscovite schist |
| *45-47 ft (unwashed specimen collected) | 0.25 ft ³ | 38 lbs | 2 extremely fine colours Coarse and fine pyrite. | *Bedrock at 46 ft. Grey quartzite with sericite-schist interbeds. |
| 47-55 ft | samples not processed | | | Bedrock - quartzites and phyllitic schist. |

E.O.H.

LOCATION: Dublin Gulch Placer Drill Program
Logged by. B. Lennan, J. Clarke

HOLE No. RCD-87-09

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-----------|-----------------------|------------------|-------------------|--|
| 0-22 ft | no samples taken | | | Brown surface clay and silt rich gravels. Some black organic muck at top of hole. Clay=25%; Silt=25%; Fine Sand=20%; Medium Sand to 5mm d.=20%; Coarse Sand to 1cm d.=10 Cobbles in this unit reach up to 6" diameter Cobbles and boulders larger than 6" are rare |
| *22-38 ft | samples not processed | | | *Grey silty gravels with some clay. Distinct unit change. This section not as clay rich or sticky as in hole 87-03. Cobbles to 4" diameter common. Clay=10-15%, Silt=25%; Fine Sand=30%; Medium Sand to 5mm d.=20%; Coarse Sand and Gravels to 1cm d.=10%. |
| *38-50 ft | samples not processed | | | Grey silty unit changes from above. Colour remains the same but silt content decreases and clay content increases substantially to produce wet sticky samples. Clay=35%; Silt=15%, Fine Sand=20%; Medium Sand to 5mm d =20%, Coarse Sand and Gravel to 1cm d.=10%. Cobbles from 4-6" diameter are common. |
| *50-82 ft | samples not processed | | | *A distinct unit change to a greenish grey silty gravel sequence. Clay=10-15%, Silt =25%, Fine Sand=30%, Medium Sand to 5mm d. =20%; Coarse Sand and Gravel to 1cm d.=10%. Most of the coarser gravels that make up this unit rarely exceed 3" diameter. It is a fairly evenly sorted unit with a silt and sand rich matrix. |
| 82-90 ft | samples not processed | | | Colour of the greenish grey unit changes to a brown green colour. The gravels are silty but carry more sand and pebble sized material. Appears to be an outwash type of gravel. Clay=15%, Silt=25%, Fine Sand=30%, Medium Sand to 5mm d =30%, Coarse Sand and Gravel to 1cm d =10% |

LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J Clarke

HOLE No. RCD-87-09

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|---|--------------------------------------|------------------|--|--|
| 90-92 ft (unwashed and washed specimen) | 0.625 ft ³ | 53 lbs | 2 -#1 colours 4 extremely fine colours Irregular shape and thick cross-section. | Same unit as described in 82-90 ft interval. Brown green very silty gravels. Silt=50%; Fine Sand=25%, Medium Sand to 5mm d.=20%, Coarse Sand and Gravel to 1cm d.=10%. Most gravel chips are grey sericitic quartzites. |
| 92-94 ft (washed specimen taken) | sample not processed (pan tested) | | No visible gold. Abun- dant pyrite and some arsenopyrite and jame- sonite. | Greyer colour than 90-92 ft interval. Possibly correlative with 76-78 ft interval of hole 87-10 Has streaks of reddish colouration in unwashed sample. Has abundant grey quartzite chips. |
| 94-96 ft (pan tested) | sample not processed (pan tested) | | No visible gold. Abundant pyrite and some arsenopyrite. | Becomes a little browner coloured again as from 90-92 ft interval There are less grey quartzite chips. |
| 96-98 ft (unwashed and washed specimen taken) | 0.50 ft ³ | 48 lbs | No visible gold. Moderate amount of pyrite. | Brown silty gravels with a slight greenish tinge. Silt=50%; Fine Sand=25%; Medium Sand to 5mm d.=15%; Coarse Sand and Gravel to 1cm d.=10%. Three main types of gravel chips: 1) Brown muscovite-sericite quartz schist; 2) White granular quartz, 3) Grey sericitic quartzites with some graphitic laminations. |
| *98-100 ft | 0.58 ft ³ | 51 lbs | 4 extremely fine colours Minor pyrite. | Brown green to dark grey colour. At bedrock *interface at 99 ft. Bedrock is a graphitic schist. The rock is ground to silt-sized particles. Chips of brown muscovite schist and quartz vein material from quartz stringers in bedrock are also found. |

LOCATION Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No. RCD-87-09

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|------------|---|------------------|-------------------|---|
| 100-102 ft | sample not processed (unwashed specimen collected) | | | Bedrock - From 100-101 ft grey quartzite occurs and from 101-102 ft graphitic schist occurs. |
| 102-104 ft | sample not processed | | | Bedrock - From 102-103 ft graphitic schist occurs and then back into grey quartzites from 103-104 ft. |

E.O.H.

LOCATION: Dublin Gulch Placer Drill Program
 Logged by: B. Lennan, J Clarke

HOLE No. RCD-87-10

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-----------|--|---------------|---|---|
| 0-4 ft | no samples taken | | | Brown surface clay, silts and gravels. Some black organic muck at top of hole. |
| * 4-20 ft | no sample taken | | | *Grey brown clay and silt rich gravels. Samples wet due to ice lenses. Cobbles to 4" diameter are common. Clay=20%; Silt=20%, Fine Sand=30%, Medium Sand to 5mm d.=20%, Coarse Sand and Gravels to 1cm d =10% Grey sericitic quartzite and muscovite-quartz schist rock chips are abundant. |
| 20-24 ft | samples not processed | | | Grey brown clay and silt rich gravels as described in 4-20 ft interval. |
| *24-64 ft | samples not processed | | | *A distinct unit change to a thick sequence of greenish grey to greenish brown silty gravels. From 24-42 ft the sequence is very sandy. Silt=20%; Fine Sand=40%; Medium Sand to 5mm d.=25%; Coarse Sand and Gravel to 1cm d.=15%. From 42-64 ft the sequence has a very fine grained silt matrix with minor coarse sands and gravels. Silt=50%, Fine Sand=30%, Medium Sand to 5mm d.=20%. |
| *64-76 ft | samples not processed | | | *Distinct unit change to a brownish coloured unit of silt rich gravels. Silt=40%; Fine Sand=25%; Medium Sand=20%, Coarse Sand=15%. |
| 76-78 ft | 0.625 ft ³ (washed specimen taken) | 53 lbs | No visible gold. Abundant pyrite to 5mm d Minor arsenopyrite | Brown grey silty gravels Silt=50%; Fine Sand=20%, Medium Sand to 5mm d.=15%, Coarse Sand to 1cm d.=15%. White quartz and grey quartzite chips make up 80% of components in sands, while brown phyllites and grey phyllites make up the remaining 20%. |

LOCATION. Dublin Gulch Placer Drill Program
Logged by B. Lennan, J. Clarke

HOLE No RCD-87-10

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|--|-----------------------|---------------|--|--|
| 78-82 ft | samples not processed | | | Identical to 76-78 ft interval. |
| 82-84 ft | 0.50 ft ³ | 50 lbs | 8 extremely fine colours Abundant pyrite and minor arsenopyrite. | Lighter brown silty gravels. Browner than the 76-78 ft interval due to a decrease in the white quartz and grey quartzite chips. There is a greater variety of brownish coloured schists. Silt, sand and coarse sands are in same proportion as in the 76-78 ft interval. |
| 84-86 ft (washed specimen taken) | 0.50 ft ³ | 52 lbs | 11 extremely fine colours. Abundant pyrite. | Light brown silty gravels with grey streaks (ground up quartzite cobbles?). Silty material=40%; Fine Sand=25%, Medium Sand=20% Coarse Sand and Gravels to 1cm d.=10%. |
| 86-88 ft | 0.50 ft ³ | 52 lbs | 8 extremely fine colours with abundant pyrite. Fragments of pyrite crystals up to 4mm d. | Light grey reddish brown with grey streaks caused by drill grinding up quartzite? boulders. Silt=40%, Fine Sand=25%, Medium Sand to 5mm d.=20%, Coarse Sand and Gravel to 1cm d.=15%. A little more coarse material than in 84-86 ft interval. There is more variety in composition of rock fragments. There is a decrease in grey quartzite and white quartz chips. |
| *88-90 ft | 0.50 ft ³ | 52 lbs | 2 extremely fine colours Minor pyrite. | *Grey silty material is possibly a ground up boulder or bedrock. When washed graphite is released. Bedrock at 89 ft. Bedrock is a black graphitic schist unit. |
| 90-92 ft | 0.75 ft ³ | 62 lbs | 2 extremely fine colours Minor pyrite. | Bedrock - graphitic schist. |
| 92-94 ft (bedrock specimen collected) | 0.625 ft ³ | 54 lbs | No visible gold | Bedrock - graphitic schist. |
| 94-96 ft | sample not processed | | | Bedrock - graphitic schist. |

E.O.H.

LOCATION: Dublin Gulch Placer Drill Program
Logged by B. Lennan, J. Clarke

HOLE No : RCD-87-11

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|------------|-----------------------|------------------|-------------------|--|
| 0-30 ft | no samples taken | | | Brown surface clay and silt rich gravels. Some organic material at top of hole. Clay=20%, Silt=30%; Fine Sand=20%; Medium Sand to 5mm d.=20%; Coarse Sand to 1cm d.=10%. Cobbles in this clay rich unit reach up to 6" in diameter. Cobbles and boulders larger than 6" are rare |
| 30-34 ft | samples not processed | | | Brown surface clay and silt rich gravels as described above. |
| *34-52 ft | samples not processed | | | *Distinct unit change to grey clay rich gravels. Cobbles to 4" diameter common with clay and silt matrix. Clay=20%; Silt=20%, Fine Sand=30%, Medium Sand to 5mm d.=20%, Coarse Sand and Gravel to 1cm d.=10%. Most rock chips are grey sericitic quartzite and muscovite-quartz schists |
| *52-124 ft | samples not processed | | | *A distinct unit change to a thick unit of greenish grey to greenish brown silty gravels. From 52-80 ft the unit is a sandy gravel with some clay. Clay=15%; Silt=20%, Fine Sand=30%; Medium Sand=25%; Coarse Sand=10%. From 80-100 ft the unit is a sandy matrixed cobble gravel with cobbles to 6" in diameter. Clay content decreases to near 0%. From 100-120 ft the unit becomes boulder rich although most boulders range in size from 6" to 1 ft in diameter. Clay in the matrix occurs from 100-104 ft and from 118-124 ft |

LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No.: RCD-87-11

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-------------|---|------------------|---|---|
| 124-126 ft | 0.625 ft ³ (unwashed specimen collected) | 50 lbs | No visible gold | Part of greenish grey unit previously described. In this interval the greenish gravels have a very silty matrix. Silt=50%, Fine Sand=25%; Medium Sand to 5mm d.=15%; Coarse Sand and Gravel=10%. The washed sample is grey coloured and the rock chips are made up of grey phyllites and quartzites. Some graphite schist fragments occur. Abundant white quartz chips. |
| 126-132 ft | sample not processed | | | Greenish grey silty gravels as described in 124-126 ft interval. |
| *132-134 ft | sample not processed | | | *Very hard gravelly unit. Colour varies from greenish brown to brown and is sometimes indistinguishable from greenish grey silty gravels above, other than the very compact hard nature of this gravel unit. More cobbles and small boulders to 8" diameter occur. |
| 134-136 ft | 0.70 ft ³ | 54 lbs | 1-#1 very fine colour Abundant pyrite Minor arsenopyrite and some hematite | Greenish grey very silty gravels. When washed graphite is found in the silty fraction. Silt=60%, Fine Sand=20%; Medium Sand to 5mm d.=15%; Coarse Sand and Gravel to 1cm d.=5%. Washed sample is grey and is made up mainly of grey quartzites and phyllites. |
| 136-138 ft | 0.625 ft ³ (unwashed and washed specimen collected) | 50 lbs | No visible gold Abundant pyrite. | Light grey brown. Light streaks in sample caused by drilling boulders. Silt=45%; Fine Sand=30%, Medium Sand to 5mm d.=20%; Coarse Sand and Gravels to 1cm d.=5%. Washed sample is grey brown and the rock chips are mainly grey quartzites, white quartz and brown muscovite schists. Pieces of graphitic schist also occur. |

LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No.. RCD-87-11

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-------------|---|------------------|---|--|
| 138-140 ft | 0.375 ft ³ | 30 lbs | 4 -#3 colours (fine) 40-#1 very fine colours Abundant pyrite, arseno- pyrite and jamesonite. Some hematite. | Unwashed colour is greenish grey brown. It is a silty gravel. Silt=45%; Fine Sand=30%; Medium Sand to 5mm d.=20%; Coarse Sand and Gravel to 1cm d.=5%. Washed colour is grey brown. Coarser pieces of rock are phyllitic schists, grey quartzites, brown muscovite- sericite schist and pyrite. |
| 140-142 ft | 0.75 ft ³ | 60 lbs | 1 -#3 fine colour 11-#1 very fine colours 1 -#2 colour Abundant pyrite. | Light greenish brown silty gravels. Silt=55%, Clay=5%, Fine Sand=25%; Medium to Coarse Sand and Gravel to 1cm d.=15%. Washed colour is grey and rock chips are predominantly grey sericitic quartzites. Some muscovite and graphitic schist chips occur. |
| *142-144 ft | 0.73 ft ³ (washed specimen collected) | 55 lbs | 2 extremely fine colours Abundant pyrite. | *Light grey coloured bedrock chips. Bedrock at 143 ft and is a grey quartzite. |
| 144-148 ft | sample not processed | | | Grey quartzite bedrock. |

E.O.H.

LOCATION: Dublin Gulch Placer Drill Program
Logged by. B. Lennan, J Clarke

HOLE No. RCD-87-12

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-----------|-----------------------|------------------|-------------------|---|
| 0-20 ft | no samples taken | | | Brown surface clay and silt rich gravels. Some organic black muck at top of hole. Clay=20%; Silt=30%; Fine Sand=20%; Medium Sand to 5mm d.=20%, Coarse Sand to 1cm d.=10% Cobbles in this unit reach up to 6" diameter with 3-4" being the norm. |
| *20-50 ft | samples not processed | | | *Distinct unit change to a grey clay and silt rich gravel sequence. From 20-26 ft a very cobbly layer occurs with cobbles to 6" in diameter being common. Cobbles ranging in size from 2-4" diameter are the most common size and silts, clays and sands make up the matrix around the cobbles. From 26-28 ft a brown silty layer occurs. Clay is absent from this layer From 28-50 ft the grey gravels contain abundant clay and the samples are wet and sticky for the most part. Average matrix composition for this interval is Clay=25%; Silt=20%, Fine Sand=25%, Medium Sand=20%; Coarse Sand and Gravels to 1cm d.=10% Most rock chips are grey sericitic quartzites and muscovite-quartz schists. |
| *50-82 ft | samples not processed | | | *Greenish grey to greenish brown unit starts at 50 ft. It is a silty and sandy gravel unit with layers of clay rich gravels occurring occasionally. From 50-60 ft the composition is Clay=15%, Silt=30%; Fine Sand=25%, Medium Sand=20%, Coarse Sand and Gravel to 1cm d.=10%. From 60-78 ft the amount of clay decreases and the medium to coarse sand content increases Clay is less than 5%, Silt=30%, Fine Sand=20%, Medium Sand=30%, Coarse Sand to 1cm d.=15%. From 78-82 ft a strong gravel layer with small boulders (8" d.) occurs. |

LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No.: RCD-87-12

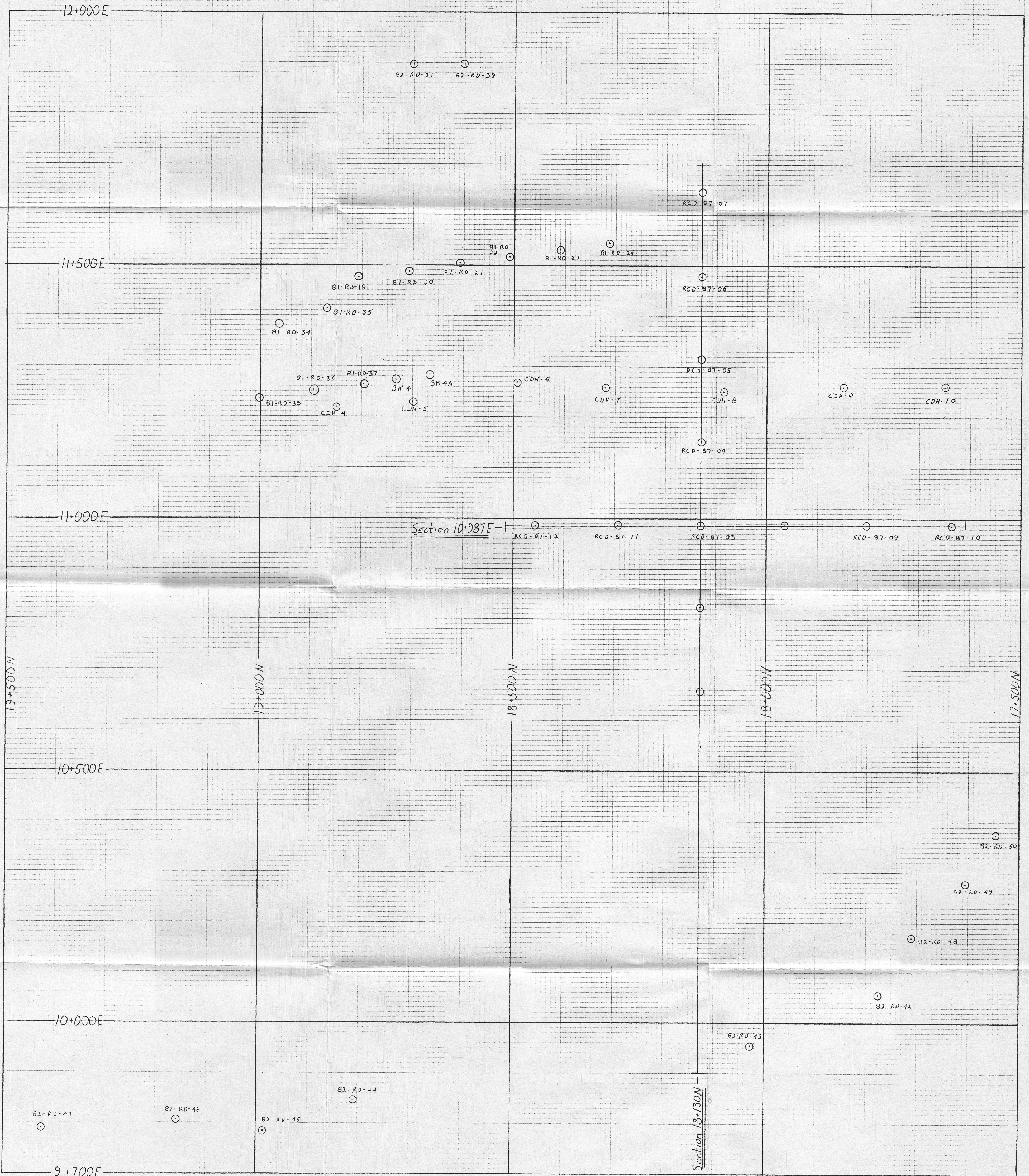
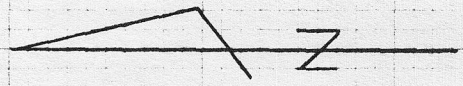
| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-----------|-----------------------|------------------|--------------------------------------|---|
| 82-84 ft | 0.375 ft ³ | 35 lbs | 1 extremely fine colour | Greenish brown gravel layer that started at 78 ft continues. Biotite flakes in sample sands suggest a granitic boulder was ground up by the drill. Rock chips and sand grains exhibit a highly variable composition. Silt=35%; Fine Sand=20%; Medium Sand to 5mm d.=25%; Coarse Sand to 1cm d.=20%. |
| 84-88 ft | samples not processed | | | As above - boulder layer continues to 88 ft. |
| 88-94 ft | samples not processed | | | Greenish brown gravel unit. Boulder layer ends at 88 ft. Unit returns to its more silty and sandy norm as described in the 50-82 ft interval. |
| *94-96 ft | sample not processed | | | *At 94 ft greenish grey to greenish brown gravels contact brown silty and sandy gravels. Silt=40%; Fine Sand=25%; Medium Sand=25%, Coarse Sand=15%. |
| 96-98 ft | 0.78 ft ³ | 63 lbs | No visible gold. Abundant pyrite. | Light grey brown very silty gravels with a minor amount of clay. Silt=65%; Clay=5%, Fine Sand=20%; Medium to Coarse Sand to 1cm d.=10%. Washed sample is grey coloured due to predominance of grey sericitic quartzite and grey phyllite chips. |
| 98-104 ft | samples not processed | | | Light grey brown gravels. A boulder and cobble rich layer occurs here. Silt=40%; Fine Sand=20%, Medium Sand=20%, Coarse Sand and Gravel=20%. |

LOCATION: Dublin Gulch Placer Drill Program
Logged by: B. Lennan, J. Clarke

HOLE No. RCD-87-12

| FOOTAGE | MEASURED VOLUME | SAMPLE WEIGHT | No. OF COLOURS | DESCRIPTION |
|-------------|---|------------------|--|--|
| 104-106 ft | 0.75 ft ³ (washed specimen taken) | 56 lbs | 2 extremely fine colours | Light brown silty horizon. Some graphite released from silt upon washing sample. Silt=50%; Fine Sand=20%; Medium Sand to 5mm d.=20%, Coarse Sand and Gravel to 1cm d.=10%. Rock chips and sand grains mainly consist of grey quartzites, silvery grey phyllites and some graphitic schist. |
| 106-108 ft | 0.75 ft ³ | 52 lbs | 1 -#1 colour. Very abundant pyrite. | Greenish brown silty gravels as from 104-106 ft interval. |
| *108-110 ft | 0.72 ft ³ (washed specimen taken) | 53 lbs | 10-#3 and #4 colours 38-#1 colours Very abundant pyrite. | *Bedrock at 109 ft. Grey graphitic schist interbedded with grey quartzites. Some white quartz fragments from quartz stringers |
| 110-112 ft | 0.75 ft ³ | 50 lbs | 2 -#1 colours Moderate pyrite | Bedrock as described in 108-110 ft interval. |

E.O.H.



DUBLIN GULCH PROJECT
1987

Drill Hole Location Plan

Scale 1 inch = 100ft

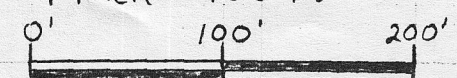


FIG. #1

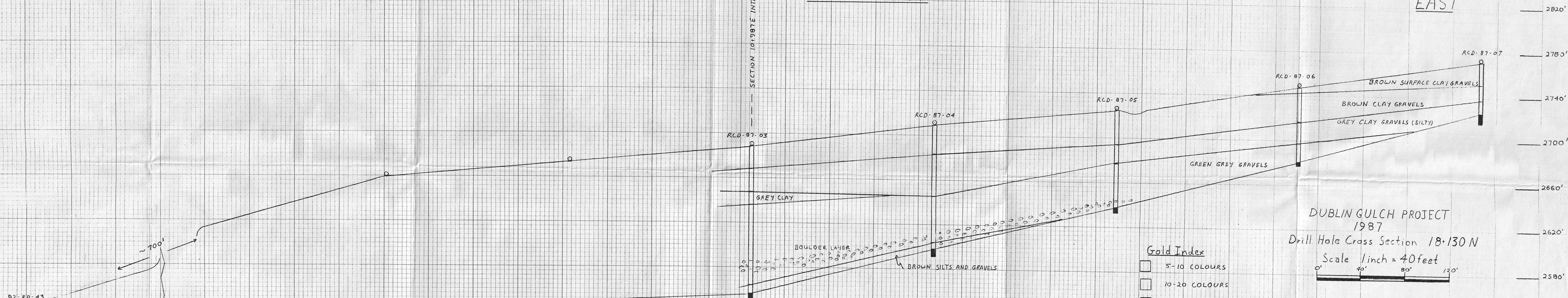
D.L. MAY 1987

WEST

LOOKING NORTH

EAST

Elevation (ft.)



DUBLIN GULCH PROJECT
 1987
 Drill Hole Cross Section 18+130 N

Scale 1 inch = 40 feet
 0' 40' 80' 120'

FIG. # 2

NORTH

LOOKING EAST

SOUTH

Elevation (ft)

2740'

2700'

2660'

2620'

2580'

RCD-87-12

RCD-87-11

RCD-87-03

RCD-87-09

RCD-87-10

CROSS-SECTION 10+987E
INTERSECTION

BROWN SURFACE CLAY & GRAVEL

GREY SILT & CLAY GRAVELS

GREY CLAY (STICKY) GRAVELS

GREEN GREY SILTY GRAVELS

BOULDER LAYER

BROWN SILTY GRAVELS

Gold Index

5-10 COLOURS

10-20 COLOURS

20+ COLOURS

DUBLIN GULCH PROJECT

1987

Drill Hole Cross-Section 10+987E

Scale 1 inch = 40 feet



FIG. #3

BL - MAY 1987