

YMIP DESIGNATION NUMBER: 94-031

REPORT ON: TRENCHING DIANA PLACER PROPERTY
MOOSEHORN RANGE

CLAIMS:

NAME	NUMBER
DIANA 1	P 33227
DIANA 2	P 33228
DIANA 3	P 33229
DIANA 4	P 33230
DIANA 5	P 33231
DIANA 6	P 33232
DIANA 7	P 33233
DIANA 8	P 33234

LOCATION: NTS 115 N-2

LAT. 63 03' 30" NORTH
LONG. 141 00' 00" WEST

REPORT PREPARED BY: DOUGLAS B. CRAIG, Ph. D., P.Eng.

REPORT PREPARED FOR: KENNETH J. MULLOY

WORK PERFORMED: TRENCHING SEPT. 11-20, 1994
SAMPLING SEPT. 21-25, 1994
ANALYSIS/REPORT PREPARATION NOV. 7-14, 1994

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1 INTRODUCTION

The DIANA property is a placer gold prospect on the Yukon-Alaska border, 70 kilometers north of Beaver Creek, on the Alaska Highway (see Location Map). Kenyon Creek, one kilometer to the south of the property, has yielded in excess of 30,000 crude ounces of gold over a mining life of 12 years (1976-1987) and the tailings and tailings dam material are currently (1994) being re-mined.

This report represents target evaluation of the prospect based on trenching, test sluicing and analysis of sluice concentrates. The geology and previous work is described in Appendix B as are details of access, physiography and history.

The plan for the target evaluation is given in Appendix A, Exploration Proposal, submitted in support of the Yukon Mining Incentive Program application.

2 TRENCHING

2.1 General

The trenching was done during the 10 day period from September 11-21, 1994 by personnel and equipment of Moosehorn Exploration, P.O. Bag 6050, Dawson City, Yukon, YOB 1G0. This operation mines on the east side of the Moosehorn Range, some five kilometers from the DIANA property and thus has reasonable access to the property over a track which can be traversed by heavy equipment and all terrain vehicle for personnel.

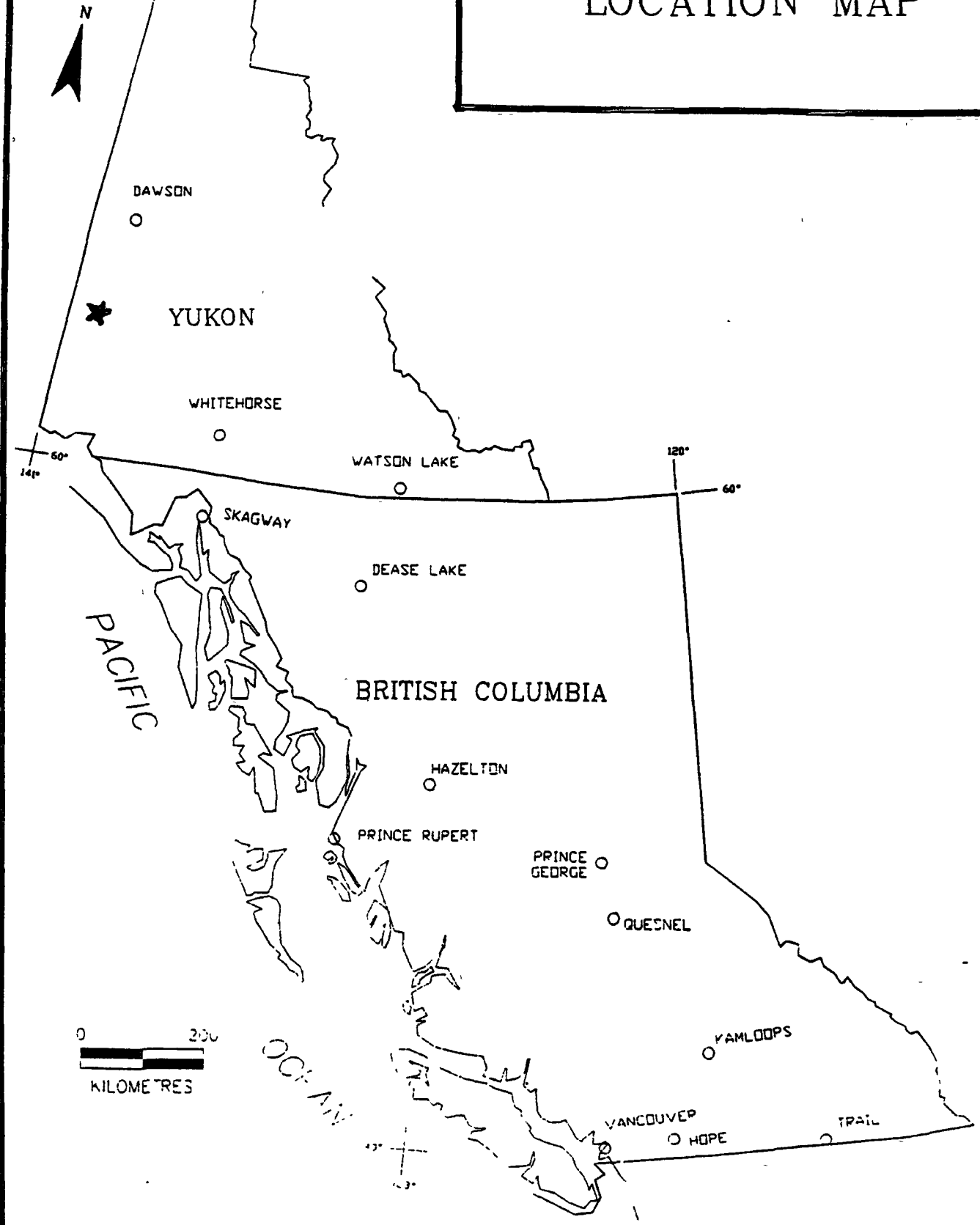
The persons doing the work follows:
Ian Warrick, equipment operator
Joseph Schmidt, equipment operator
Kenneth J. Mulloy, sampler
Douglas B. Craig, geologist

The equipment used on the trenching program consisted of a D7F bulldozer with parallelogram ripper and Case backhoe mounted on a rubber tracked Nodwell.

Trench locations are shown on the accompanying claim map. Trench # 1 is 200 feet (60 m) southwest (downstream) from Post # 2 of Claim DIANA # 8. Trench # 2 is 100 feet (30 m) northeast (upstream) from Post #1 of Claim DIANA #6.

Trench # 1 is L-shaped totalling 200 feet long by 20 feet wide by 9 feet deep. Volume of material is 1333 cubic yards (1020 cubic meters). Trench # 2 is 70 feet long by 20 feet wide by 8 feet deep. Volume of excavated material is 415 cubic yards (317 cubic meters).

LOCATION MAP



2.2 Gravel Section

Description of the material excavated follows:

The surface consists of tussock tundra muskeg with abundant dwarf birch and other shrubs and plants such as blueberries and cranberries. Beneath this is a discontinuous layer 2 to 3 feet thick (50 cm to 1 m) of grey, fine silt and clay. Blocky granodiorite slide rock, 5 feet (1.5 meters) in largest dimension, occurs erratically both in the unconsolidated section and along the creek. Gravel, consisting of angular rock fragments of largely decomposed granodiorite, poorly sorted, makes up most of the material of the trenches. There are some discontinuous, fragmental layers which appear almost in place. Sparse, but important, vuggy, rusty quartz vein material is visible in the trench walls and in the excavated material. Gold as rough, mostly angular, bright grains occur in essentially every pan.

The cut at the deepest point is 14 feet (4.3 m) below surface.

There is not a tidy stratigraphy to the unconsolidated material in the cuts. There are one or more rusty zones in the gravels, but these pinch out when followed either downstream or in the transverse trench toward the northwest side of the valley. Similarly, the silt layer is not continuous. In the channel sample represented by sample # 7:

" 0.9 m channel sample, brown, decomposed, uniform gravel, just below 6 inch (15 cm) fragmental layer consisting of 4 inch (10 cm) fragments, which is in turn, below 0.9 m of silt. Farther away from the centre of the cut there is still some rusty brown gravel at the level of the silt above this sample site. In other words, this is not the highest gravel in the cut. If one goes towards the valley side they see discontinuous lenses of rusty gravel."

3 ANALYSIS

3.1 Sampling Procedure

A few single pan samples were taken but of those on which an estimate of the grade of the deposit are based, each consisted of 100 liters gravel taken either from a single site or as a reasonably uniform, channel sample up the vertical side of the trench. This material was run through a test sluice box 1 foot (30 cm) wide by 4 feet (120 cm) long floored by expanded metal riffles over Nomad matting to capture the gold. The 100 liter sample was reduced to approximately 10 liters of sluice concentrate. This was then panned down to 10- 30 ml, placed in a plastic bag and labelled.

3.2 Sample Analysis

These samples were further panned and the black sand was removed by magnet, in camp and in Whitehorse. Final separation was by a combination of mercury amalgamation and hand picking. Samples #3 and #13 were completely amalgamated with the mercury weighed before and after it had taken up the gold. The remaining samples were hand picked under a 20 power binocular for the coarser material and the finer material amalgamated with mercury. The weights were taken on a Monopan precision balance, direct reading to the nearest 0.001 gm and by vernier to 0.0001 gm. Reliable accuracy would be closer than 0.0005 gm. Taking Sample # 6 as an example, 32 colours were hand picked and weighed 0.0606 gm. Visible were 25 colours too fine to be picked conveniently. By amalgamation these fines were recovered and found to be 0.0084 gm. Thus the fine fraction recovered by this technique came to 0.0084/ 0.0691 or about 12 per cent. Other samples were similar, providing confidence in the method.

Results are given in Table 1.

3.3 Character of the Gold

The gold is bright, largely untarnished and chunky, much of it equidimensional. Some grains are almost spherical, consistent with cubic grains, with the edges blunted by slight or modest transportation wear. Most grains show planar surfaces, also consistent with only slight transportation wear. Some grains have small quartz inclusions. Concentrates, viewed with 20 X binocular microscope, show abundant euhedral, well terminated quartz crystals, consistent with growth in open spaces. The interpretation is that gold was deposited in open spaces in quartz veins in granodiorite, in part as irregular grains conforming to the spaces available, but in part showing crystal faces. Deep progressive weathering of both the granodiorite and the contained quartz veins freed the gold, some of which moved by stream action, but some of which apparently settled or moved downward with the decomposition and removal of the host rock, producing an almost residual deposit, strictly a deposit combining these two characteristics - stream transport and residual concentration. Both the unworn character of the gold and the lower grade downstream, at least suggested by the sampling, but consistent with adjacent creeks, indicates the described mode of formation.

3.4 Gold Distribution

The sampled bulldozer cut on DIANA # 8 Claim being perhaps 1500 feet (460 m) downstream from the head of the creek and

Sample	Trench	Gold (grams)	Grade \$/cu yd	Grade \$/cu m	Comment
3	1	.103	11.25	14.70	Bottom of cut #1
4	1	.0687	7.95	10.40	Channel 0-1.2 m
5	1	.0240	2.65	3.46	Channel 1.2- 2.4 m
6	1	.0690	7.47	9.76	Hole-deepest
7	1	.0250	2.71	3.54	7 meters lateral
9	2	.0126	1.39	1..82	Backhoe Sample
10	2	.004	0.43	0.56	Backhoe Sample
11	1	.0180	1.95	2.55	Backhoe Sample
12	1	.0315	67	87.60	1 Pan only
13	1	.2140	23.16	30.27	Presumed bedrock surface

TABLE 1. Sample data, calculated grades

Conversion factors used are as follows:

1000 liters (1 cubic meter) = 35.3 cubic feet or 1.31 cubic yards

31.1 grams = 1 troy ounce

Price of gold is taken as of November 5, 1994 at \$384.40 USD.

and exchange rate as \$1 CAD = \$ 0.7371 USD.

Gold from the Moosehorn Range is taken as 850 fine.

Thus gold from a 100 liter sample:

$$\underline{\hspace{2cm}} \text{grams}/100 \text{ l} \times 100 \text{ l} / 0.131 \text{ cu yd} \times \frac{850 \text{ fine}}{1000} \times \$ \frac{382.40}{\text{oz}} \times \frac{1}{\$.7371}$$

or $\underline{\hspace{2cm}}$ grams/100 l X 108.227 = \$ $\underline{\hspace{2cm}}$ CAD / cu yd

probably less than that from the presumed source, gold in quartz veins, and even less from speculated, long since eroded vein material, could be expected to be a fairly high grade section. Re-phrased, there is present day transport and deposition of gold by the creek as indicated by the presence of fine gold right at surface in the creek. There is a gold bearing section at least 14 feet (4.3 m) thick locally with gold throughout, indicating historical accumulation of gold - as indicated by the sampling program in the cut. There is a gravel section 8 feet (2.4 m) thick having a grade greater than \$7 / cubic yard and apparently having a thinner layer within this section grading greater than \$20 / cubic yard. This ignores the single pan indicating approximately \$70 /cubic yard as being too small a sample to be reliable. Further, a single nugget in this pan provided \$50 of the \$70 / cubic yard figure. It would be pure coincidence if this cut were in the richest part of the placer deposit. Since neither the lateral nor longitudinal extent or limits have been established, it is not possible at this stage to predict total volumes of gravel or total contained gold. However, it is a promising deposit. It has potential commercial value.

The pay streak is not recognized 1200 feet (365 m) downstream in Trench # 2 on Claim DIANA # 6, backhoe samples returning only \$1.95 and \$0.43. There are several possible reasons for this. Perhaps the trench simply missed richer grounds which will be discovered with further work. Also, the grade is presumed to decrease downstream based on the limited transport from the quartz vein sources. The view taken here is that a possible pay streak was simply missed, since there are at least some quartz veins this far to the southwest (downstream) on the adjacent creek.

4 CONCLUSION

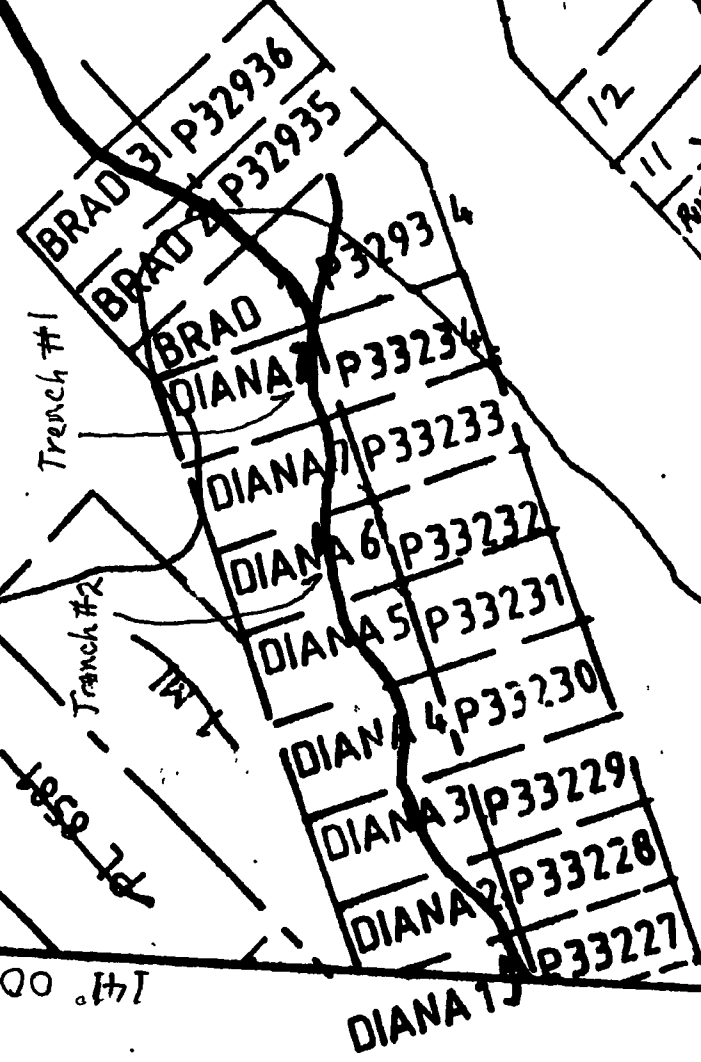
The target evaluation work on the DIANA placer prospect in the Moosehorn Range, supported by the Yukon Mining Incentive Program, has discovered a gold deposit on this creek grading at least \$ 7 per yard, at the present gold price. This deposit can be mined at a profit at present operating costs.



M.00 .00 .HT

Trench #1

Trench #2



PART OF
115 N/2

SCALE
1 in. = 1200 ft.
1 cm. = 140 m.

APPENDIX A

EXPLORATION PROPOSAL

EXPLORATION PROPOSAL

(a) Project Location:

- i) DIANA Property, Moosehorn Range
- ii) Moosehorn Range, Whitehorse Mining Division
- iv) Claims P 33227 - P 33234 Claim Sheet 115 N - 2 Placer
NTS Map Sheet 115 N-2
Latitude 63 03' 30" North, Longitude 141 00' 00" West
(Claim P 33227)
Property is outlined in red on accompanying current
placer claim map.

(b) Access:

Preferred access is by fixed wing aircraft to a 650 m airstrip at the head of Kenyon Creek and from there two kilometres by foot or ATV along a mining road and easily followed bulldozer track to the property. Both Bonanza Air of Dawson City and Air North of Whitehorse routinely service operations in the immediate area, making use of this airstrip.

(c) Exploration Target:

- i) Commodity: Gold
- ii) Deposit type: Placer - partly decomposed alluvial gravels. Details are provided in accompanying geological reports.

(d) Rationale:

The property has considerable promise, based on :

- i) Similar gravel rock types, characteristics and erosional source as a nearby highly productive creek (Kenyon Creek).
- ii) Surface work and limited drilling return fine gold but a stage of bulk sampling is essential to establish grade and delineate volumes of prospective economic gravels on the property.

(e) Description of type and amount of proposed work:

- i) Geological
Location of two transverse trenches from one side of the creek valley to the other are to be established.
- ii) Physical work:
Cutting of trenches by Nodwell mounted backhoe, from surface to bedrock, is to be done. Each trench is estimated to average three metres wide, six metres deep

and eighty metres long, 1500 cubic meters to be excavated from each trench, a total of 3000 cubicmetres.

- iii) Test sluicing if the trenched material is to be carried out continuously during the trenching. No estimate is included here for mobilization as the equipment will be available from an operation about four kilometres away from the property, with access along Kenyon Creek and a one kilometre bulldozer track to the property.

- (f) Estimate of the number of working days:
Trench location: Two days travel, 3 days field -10 person days.
Field geologist and assistant.
Excavation of trenches with test sluicing of material: Two days travel, 33 field days - 70 person days.
Geologist and assistant.

- (g) An accurate estimate of the budget:
\$45958 as detailed on the Proposed Budget accompanying this proposal.

- (h) No partners will be applying for YMIP assistance.

APPENDIX B

GEOLOGICAL REPORT

GEOLOGY REPORT ON MOSEHORN RANGE PROPERTY

WHITEHORSE MINING DISTRICT
YUKON TERRITORY

NTS 115 N-2

D.B. CRAIG, Ph.D., P.ENG.

FEBRUARY 1994

NUMBER

TYPE CLAIMS
PLACER

P 33227
P 33228
P 33229
P 33230
P 33231
P 33232
P 33233
P 33234

LOCATION: 63 03' 30" N LATITUDE,
141 00' 00" W LONGITUDE

OWNER: KENNETH J. MULLOY

SUMMARY

The DIANA property consists of eight placer claims registered under the terms of the Yukon Placer Mining Act, on the west side of the Moosehorn Range, north of Beaver Creek, in the Whitehorse Mining District. The downstream end of the property is on the Yukon-Alaska border (141 st Meridian). Access is by fixed wing aircraft to either of two 650 metre airstrips on the east and west sides of the Moosehorn Range, from Beaver Creek, 70 kilometres due south or Dawson City, 130 kilometres to the northeast. Bulk supplies, fuel and equipment are taken to the area annually, from January to March, over a winter road from Beaver Creek, on the Alaska Highway.

Placer gold was discovered two kilometres to the southeast of these claims at the head of Kenyon Creek (local name) in 1975. Kenyon Creek was mined each year from 1976 to 1987, producing in excess of 30,000 crude ounces gold from approximately 4000 metres length of creek valley. Mining on the property of Claymore Resources was shifted to Swampy Creek (local name for the next creek south of Kenyon Creek) in 1988 where mining has been continued.)

The DIANA claims have been prospected and geologically examined and three hammer drill holes have been put down to bedrock. This report is based on the property work and literature of the area, particularly Mineral Industry Report 1976 Yukon Territory, by J.A. Morin et al.

The conclusion is that the claims are underlain by similar bedrock and contain similar alluvial and residual gravels or decomposed bedrock to those on the nearby, highly productive Kenyon Creek. Free gold is present in the surface gravels in small amounts. Drilling of this and the next creek to the north return samples containing fine gold throughout the gravel section, which is typically 6 to 9 metres thick.

The property is worthy of further exploration by bulk sampling, by trenching and test sluicing to determine the grade and extent of the gold bearing gravels.

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2.2 PROPERTY EVALUATION	3
3. CONCLUSIONS	3

INTRODUCTION

The DIANA property is a placer gold prospect on the Yukon-Alaska border, 70 kilometres north of Beaver Creek on the Alaska Highway (see Location Map). Adjacent creeks, immediately south, have been extensively mined. Kenyon Creek, one kilometre to the south has produced in excess of 30,000 crude ounces of gold over a mining life of 12 years (1976-1987). Mining on the next creek south of Kenyon Creek (Swampy Creek) began in 1988 and has continued.

No target evaluation or definitive exploration has previously been done on the property. The area is part of the larger Moosehorn Range examined by Claymore Resources and Great Bear Mining as well Indian and Northern Development geologists in 1975 and 1976. Site specific work consists of panning of hand dug test pits revealing fine gold at surface and three hammer drill holes to bedrock. Fine gold (colours) are present in panned surface samples and material from drill holes.

1.1 LOCATION AND ACCESS

The claim group is situated on an unnamed creek which flows southwestward across the Yukon-Alaska border at Latitude 63° 03' 30" north and Longitude 141° 00' 00" west. Access to the area is typically by fixed wing aircraft to two 650 metre gravel airstrips on the west and east sides of the Moosehorn Range, from either Beaver Creek, 70 kilometres to the south or Dawson City, 130 kilometres to the northeast. Heavy equipment, bulk supplies and fuel are brought in from Beaver Creek over a 75 kilometre winter road during the period January to March each year. Access for the geological work involved in this report was from Dawson City.

1.2 PHYSIOGRAPHY

The DIANA placer property, is on the west side of the Moosehorn Range in the Klondike Plateau, the western subdivision of the Yukon Plateau. Here it is an area of gently rolling, flat topped hills and ridges which has not experienced continental glaciation. Blocky felsenmeer (boulder fields) cover much of the upland; the boulders, being weathered loose from the underlying bedrock, largely by frost action, are almost in situ. The lower slopes of the range are cut by the small creek valleys. The creek valley examined ranges in elevation from approximately 2500 feet (800 metres) at the downstream end to 3500 feet (1100 m) at the upper end, and is part of the lower slope of the overall Moosehorn topography. The valley is in the shape of a broad, asymmetrical V, with the north side having coarse slide rock,

1000 ft/mile (200 m/km). The valley bottom vegetation is characterized by tussock tundra muskeg and dwarf birch, with poplar, birch and black spruce on the valley sides.

1.3 CLAIM INFORMATION

The property consists of 8 claims (P 33227- P 33234) in good standing to October 8, 1994, in the name of Kenneth J. Mulloy of Whitehorse. (Assessment work filed October 1994 places these claims in good standing to October 8, 1995).

1.4 HISTORY

The first recorded discovery of gold in the Moosehorn Range was by Quintana Minerals in 1970 of gold bearing quartz veins in boulders. The SIL claims, staked in this discovery, were allowed to lapse. The ground was re-staked by A. Harmon in 1972 as the DEA Group and transferred to Great Bear Mining Co. Ltd. During the summer of 1974, geologist M. Kenyon discovered visible gold southwest of the DEA claims, presumably in segments of quartz veins in the blocky felsenmeer of the uplands. This ground was staked as quartz claims, the LORI Group, by Claymore Resources. The ground was explored by geochemistry, geophysics, trenching and diamond drilling. The quartz veins containing the gold trend north-northwest along the crest and upper flank of the upland. Where intersected by diamond drill holes, at some 10 metres depth, the veins were found to be narrow (6 inches / 15 cm) and low grade, although there were local, high grade intersections.

In 1975 M. Kenyon discovered coarse, easily panned gold in the upper portion of what came to be known as Kenyon Creek. Evaluation work followed with bulk sampling and test mining being done in 1976. Production of gold from this placer deposit was reported as 1,895 crude ounces gold and 40 ounces of jewellery grade gold from the first 12,000 cubic yards (9000 cu. m) sluiced. The creek was then mined each season from 1976 to 1987, producing a total of greater than 30,000 crude ounces of gold during the 12 years.

2. GEOLOGY

2.1 GEOLOGICAL SETTING

The area is underlain by rocks of the Mesozoic Klotassin

Batholith, locally consisting of massive, equigranular granodiorite and foliated granodiorite, both with accessory biotite and hornblende in varying proportions. The frost fractured and heaved felsenmeer boulders, abundant on the uplands, are near enough to being in situ to be used for determination of bedrock type. These boulders consist of the massive, medium-grained hornblende biotite granodiorite (unit 3a, Morin et al, 1976). To the west, on the intermediate and lower slopes, toward the Alaska border, the rocks are foliated hornblende biotite granodiorite and diorite (unit 2a, Morin et al, 1976).

2.2 PROPERTY EVALUATION

The property under consideration was staked in 1992 as a one mile placer lease and converted into claims in 1993; the claims are in good standing and valid until October 8, 1995. Bedrock, where exposed, was identified as to rock type. The rocks in the upper portion of the stream valley consist of the massive, medium grained biotite hornblende granodiorite (unit 3b). Those in the lower portion of the creek show some foliation and are hornblende biotite granodiorite (unit 2a).

Test pans were taken at frequent intervals from the stream bed and hand dug shallow pits to compare gravel types with the known material of the nearby productive creek and to check for the presence of free gold.

Test drilling, near the Alaska border, to 7 metres depth gives the following section: 3.5 metres muck and silt followed by 3.5 metres alluvial gravel characteristically made up of decomposed, rough fragments containing vuggy, open quartz vein material, reminiscent of the quartz veins of the uplands. Test pans from the surface and drill returns contain fine, free gold.

3. CONCLUSIONS

Gold bearing quartz veins in granodiorite trend north-northwest along and near the crest of the Moosehorn Range, These veins are erratic, pinching both at depth and along strike. They contain sporadic but locally high grade gold sections. The erosion of the upper portion of these veins represents the most probable source of the nearby placer gold on the east and west flanks of the Moosehorn Range. Free gold is present in the granodiorite near the airstrip at Kenyon Creek, characteristically in vuggy quartz. The gold is rough and angular, consistent with negligible to little transport. To the extent that some portion of the vein system was eroded and the material transported into the creek valley covered by the DIANA claims, there should be significant gold in these gravels also.

4

In support of this are the following:

1. The gravels consist of rough, angular granodiorite.
2. A small fraction of the creek gravels is vuggy quartz.
3. Surface testing and drill hole recoveries demonstrate the presence of fine gold in the creek gravels. This gold is too fine for one to recognize whether it has the rough angular features of that in the decomposed granodiorite or in the nearby mined placers.

The above attractive features are adequate grounds to justify backhoe trenching to bedrock to establish grade of the deposit.

D. B. Craig, Ph.D., P.Eng.

APPENDIX C

COST STATEMENT



MOOSEHORN EXPLORATION

P.O. Bag 6050
Dawson City, Yukon
Canada Y0B 1G0

Minesite Radiophone:
(403) 2M-3198 Beaver Creek Channel

CHARGES TO D.B. CRAIG FOR TRENCHING PROGRAM

DIANA PROPERTY

AIR CHARTER AND ACCOMMODATION

Excavation:	D7F Caterpillar Dozer @ \$150/hr	
	Sept.11-20, 12 hr/day X 10 days	18000
	Nodwell Mounted Backhoe @ \$150/hr	
	Sept.11-20, 12 hr/day X 10 days	18000
Reimbursement for Bonanza Air Charter:		
	Sept.21, 1994	383 + 26.81 GST
	Sept.25, 1994	383 + 26.81 GST
		819.62
Reimbursement for camp facilities and meals:		
	8 Man days @ 52.85	422.80
Total		<u>37,242.24</u>

OUR NUMBER	019642
DATE	16 NOVEMBER 1994
CUSTOMER'S ORDER	
SALESMAN	
TERMS	
F.O.B.	

TAX REG. NO. _____
 SOLD TO D.B. CRAIG, GEOLOGICAL SERVICES
32 SUNSET DRIVE NORTH
 SHIP TO WHITEHORSE, YUKON, Y1A 4M8
 ADDRESS _____ VIA _____

INVOICE

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	SAMPLING, DIANA PROPERTY		
4 Days	Sept 21-24/94 Sampler K.J. Mulloy	150 00	600 00
4 Days	Sept 21-24/94 Geologist D.B. Craig	300 00	1200 00
	SAMPLE ANALYSIS, REPORT PREPARATION		
5 Days	Nov 8, 9, 10, 14, 15, D.B. Craig, Geologist	300 00	1500 00
	<i>D.B. Craig</i>		
	TOTAL		3300 00

BLUENE DC 31

COSTS:

37,242.42
 3300.00

TOTAL

40,542.42

94.031

GEOLOGY REPORT ON MOOSEHORN RANGE PROPERTY

WHITEHORSE MINING DISTRICT
YUKON TERRITORY

NTS 115 N-2

D.B. CRAIG, PH.D., P.ENG.

FEBRUARY 1994

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The DIANA claims have been prospected and geologically examined and three hammer drill holes have been put down to bedrock. This report is based on the property work and the literature on the area, particularly Mineral Industry Report 1976 Yukon Territory, by J.A. Morin et al.

The conclusion is that the claims are underlain by similar bedrock and contain similar alluvial and residual gravels or decomposed bedrock to those on the nearby, highly productive Kenyon Creek. Free gold is present in the surface gravels in small amounts. Drilling of this and the next creek to the north returns samples containing fine gold throughout the gravel section, which is typically 6 to 9 metres thick.

The property is worthy of further exploration by bulk sampling, by trenching and test sluicing to determine the grade and extent of the gold bearing gravels.

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4. CLAIM MAP	POCKET

INTRODUCTION

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No target evaluation or definition exploration has been done on the property. The area is part of the larger Moosehorn Range examined by Claymore Resources and Great Bear Mining as well as Indian Affairs and Northern Development geologists in 1975 and 1976. Site specific work consists of panning of hand dug test pits revealing fine gold at surface and three hammer drill holes to bedrock. Fine gold (colours) are present in panned surface samples and material from drill holes.

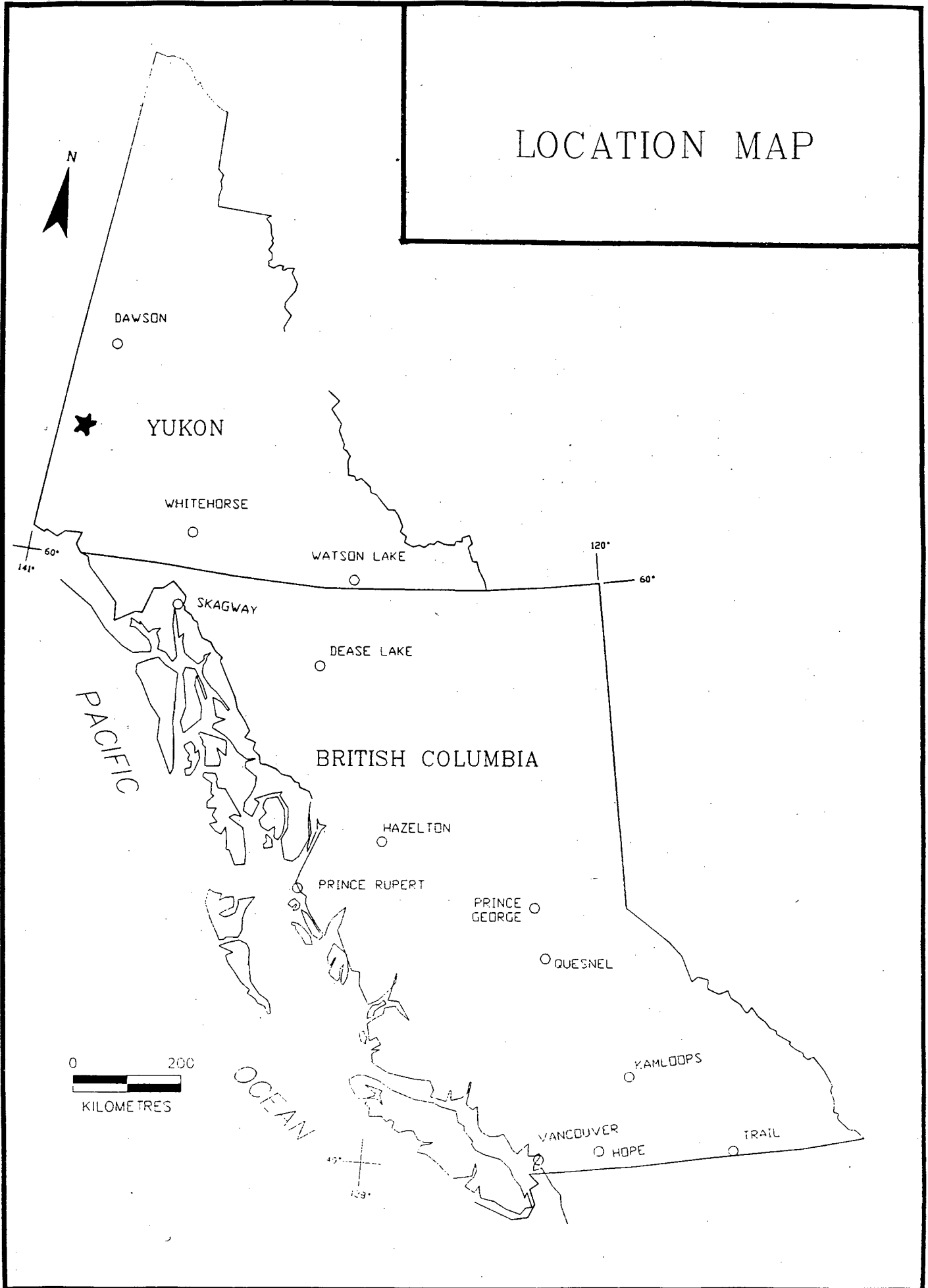
1.1 LOCATION AND ACCESS

The claim group is situated on an unnamed creek which flows southwestward across the Yukon-Alaska border at Latitude $63^{\circ} 03' 30''$ north and Longitude $141^{\circ} 00' 00''$ west. Access to the area is typical by means of fixed wing aircraft to two 650 metre gravel airstrips on the west and east sides of the Moosehorn Range, from either Beaver Creek, 70 kilometres to the south of Dawson City 130 kilometres to the northeast. Heavy equipment, bulk supplies and fuel are brought in from Beaver Creek over a 75 kilometre winter road during the period January to March each year. Access for the geological work involved in this report was from Dawson City.

1.2 PHYSIOGRAPHY

The DIANA placer property, is on the west side of the Moosehorn Range in the Klondike Plateau, the western subdivision of the Yukon Plateau. Here it is an area of gently rolling, flat topped hills and ridges which has not experienced continental glaciation. Blocky felsenmeer (boulder fields) cover much of the upland; the boulders, being weathered loose from the underlying bedrock, largely by frost action, are almost in situ. The lower slopes of the range are cut by the small creek valleys. The creek

LOCATION MAP



valley examined ranges in elevation from approximately 2500 feet (800 m) at the downstream end at the border to 3500 feet (1100 m) at the upper end, and is part of the lower slope of the overall Moosehorn topography. The valley is in the shape of a broad, asymmetrical V, with the north side having coarse slide rock, being steeper than the south side. Gradient is approximately 1000 ft/mile (200 m/km). The valley bottom vegetation is characterized by tussock tundra muskeg and dwarf birch, with poplar, birch and black spruce on the valley sides.

1.3 CLAIM INFORMATION

The property consists of 8 placer claims (P 33227 - P 33234) in good standing to October 8, 1994, in the name of Kenneth J. Mulloy of Whitehorse.

1.4 HISTORY

The first recorded discovery of gold in the Moosehorn Range was by Quintana Minerals in 1970 of gold bearing quartz veins in boulders. The SIL claims, staked on this discovery, were allowed to lapse. The ground was re-staked by A. Harmon in 1972 as the DEA Group and transferred to Great Bear Mining Co. Ltd. During the summer of 1974, geologist M. Kenyon discovered visible gold southwest of the DEA claims, presumably in segments of quartz veins in the blocky felsenmeer of the uplands. This ground was staked as quartz claims, the LORI Group, by Claymore Resources. The ground was explored by geochemistry, geophysics, trenching and diamond drilling. The quartz veins containing the gold trend north-northwest along the crest and upper western flank of the upland. Where intersected by diamond drill holes, at some 10 metres depth, the veins were found to be narrow (6 inches / 15 cm) and low grade, although there were local, high grade intersections.

In 1975 M. Kenyon discovered coarse, easily panned gold in the upper portion of what came to be known as Kenyon Creek. Evaluation work followed with bulk sampling and test mining being done in 1976. Production of gold from this placer deposit was reported as 1,895 crude ounces gold and 40 ounces of jewellery grade gold from the first 12,000 cubic yards (9000 cu. m) sluiced. The creek was then mined each season from 1976 to 1987, producing a total of greater than 30,000 crude ounces of gold during the 12 years.

2. GEOLOGY

2.1 GEOLOGICAL SETTING

The area is underlain by rocks of the Mesozoic Klotassin Batholith, locally consisting of massive, equigranular granodiorite and foliated granodiorite, both with accessory biotite and hornblende in varying proportions. The frost fractured and heaved felsenmeer boulders, abundant on the uplands, are near enough to being in situ to be used for determination of bedrock type. These boulders consist of the massive, medium-grained hornblende biotite granodiorite (unit 3a, Morin et al, 1976). To the west, on the intermediate and lower slopes, toward the Alaska border, the rocks are foliated hornblende biotite granodiorite and diorite (unit 2a, Morin et al, 1976).

2.2 PROPERTY EVALUATION

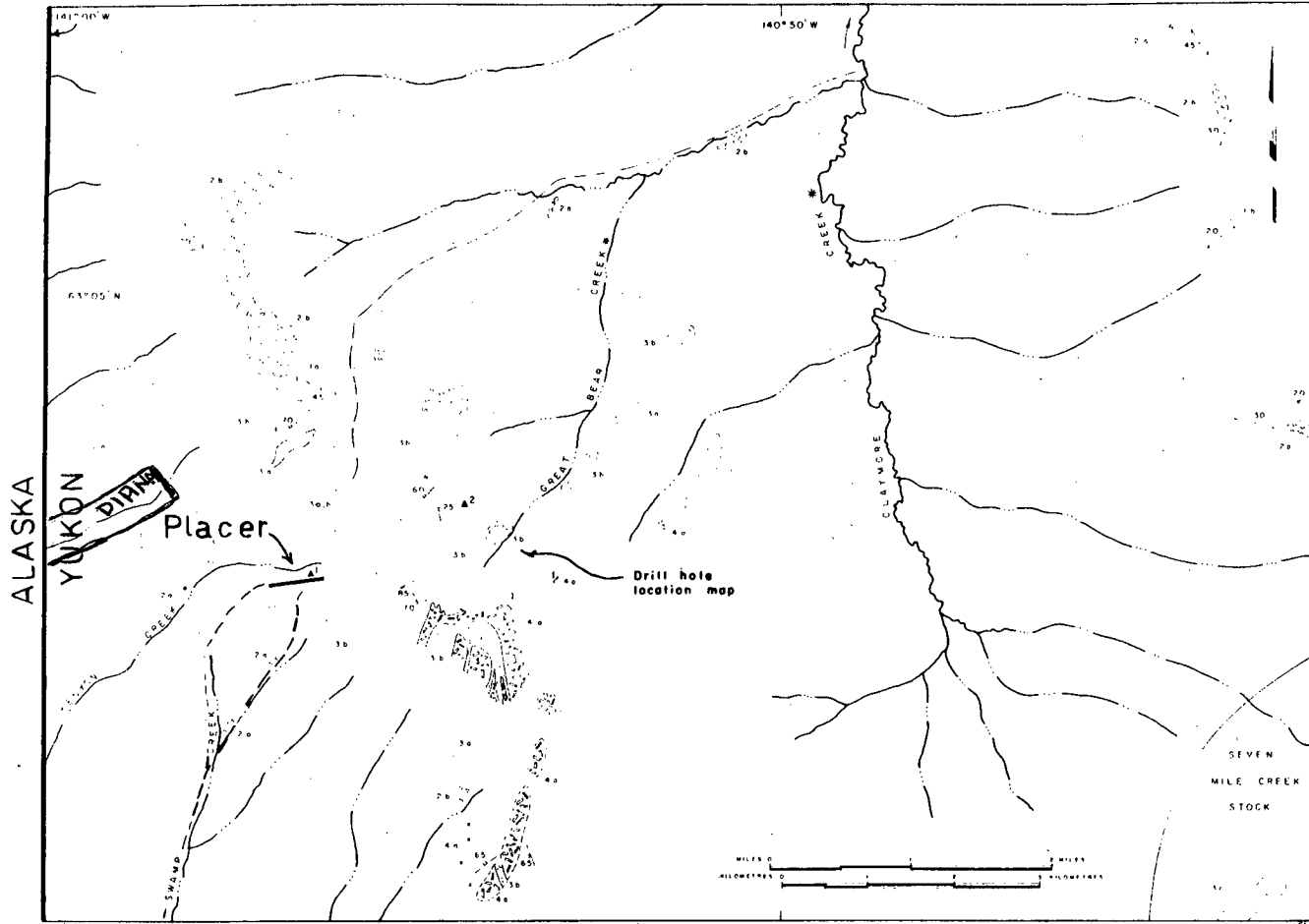
The property under consideration was staked in 1992 as a one mile placer lease and converted into claims in 1993; the claims are in good standing and valid until October 8, 1994. Bedrock, where exposed, was identified as to rock type. The rocks in the upper portion of the stream valley consist of the massive, medium grained biotite hornblende granodiorite (unit 3b). Those in the lower portion of the creek show some foliation and are hornblende biotite granodiorite (unit 2a).

Test pans were taken at frequent intervals from stream bed and hand dug shallow pits to compare gravel types with the known material of the nearby productive creek and to check for the presence of free gold.

Test drilling, near the Alaska border, to 7 metres depth gives the following section: 3.5 metres muck and silt followed by 3.5 metres alluvial gravel characteristically made up of decomposed, rough fragments containing vuggy, open quartz vein material, reminiscent of the quartz veins of the uplands. Test pans from the surface and drill returns contain fine, free gold.

3. CONCLUSIONS

Gold bearing quartz veins in granodiorite trend north-northwest along and near the crest of the Moosehorn Range. These veins are erratic, pinching both at depth and along strike. They



GEOLOGY OF THE MOOSEHORN RANGE, 115 N-2

LEGEND



4 Porphyritic Dyke Rocks
a Quartz diorite, granodiorite porphyry

INTRUSIVE TO GRADATIONAL CONTACT



3 Massive Equigranular to Porphyritic Stock Rocks
a Hornblende biotite granodiorite
b Biotite granodiorite, quartz monzonite
c Porphyritic quartz monzonite

GRADATIONAL CONTACT



2 Foliated Granitic Rocks
a Hornblende biotite granodioritic, diorite
b Biotite granodiorite

INTRUSIVE CONTACT



1 Yukon Group
a Quartzite
b Biotite quartz feldspar schist

SYMBOLS



Rock outcrop, mainly felsenmeer



Lineation



Foliation, inclined, vertical



Joint, inclined, vertical



Geological contact, assumed



Tote Road



Camp Location, 1 - Claymore
2 - Great Bear



Airstrip



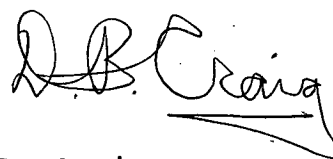
Local creek name

contain sporadic but locally high grade gold sections. The erosion of the upper portion of these veins represents the most probable source of the nearby placer gold on the east and west flanks of the Moosehorn Range. Free gold is present in the alluvial gravels and in decomposed, residual portions of the granodiorite near the airstrip at Kenyon Creek, characteristically in vuggy quartz. The gold is rough and angular, consistent with negligible to little transport. To the extent that some portion of the vein system was eroded and the material transported into the creek valley covered by the DIANA claims, there should be significant gold in these gravels also.

In support of this are the following:

1. The gravels consist of rough, angular granodiorite.
2. A small fraction of the creek gravels is vuggy quartz.
3. Surface testing and drill hole recoveries demonstrate the presence of fine gold in the creek gravels. This gold is too fine for one to recognize whether it has the rough angular features of that in the decomposed granodiorite or in the nearby mined placers.

The above attractive features are adequate grounds to justify backhoe trenching to bedrock to establish the presence of a paystreak near bedrock and to establish grade of the deposit.



D.B. Craig, PH.D., P.Eng.

REFERENCES

MORIN, J.A. et al. 1977; Mineral Industry Report 1976, Yukon Territory, EGS 1977-1, Pages 33-54.

STATEMENT OF QUALIFICATIONS

DOUGLAS B. CRAIG, PH.D., P. ENG.

ACADEMIC

1958	B.A. Sc.	Geological Engineering	University of British Columbia
1966	Ph. D.	Geology	University of Wisconsin

PROFESSIONAL

1955 - 1965	Field Assistant and Sponsored Thesis	Geological Survey of Canada
1966 - 1968	Geologist	CIDA/Geological Survey of Jamaica
1968 -1969	Geologist	Department of Mines and Petroleum Resources of British Columbia
1969 - 1979	Regional Geologist Yukon	Department of Indian Affairs and Northern Development
1979 -1987	Instructor, Geology	Yukon College