DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE DUNK PROPERTY

WHITEHORSE MINING DIVISION

(YUKON TERRITORY)

LAT. 60°02'N, LONG. 134°50'W

NTS: 105-D-2W

OWNER OF CLAIMS: DU PONT OF CANADA EXPLORATION LIMITED

OPERATOR: DU PONT OF CANADA EXPLORATION LIMITED

Submitted by: H. Copland
J.T. Neelands

Date : 1982 May

This report has been examined by the Geological Engineering Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $2,000.

P. Watson

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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INTRODUCTION

During 1981 May, reconnaissance stream sediment sampling was carried out in the Carcross area of southern Yukon. The sampling was undertaken as part of a large regional programme known as Kulta Project. The areal extent of this project is shown on Dwgs. KU.81-1, 1a and 2.

As the result of an anomalous gold sample in a creek draining west into the Bennett Lake, the drainage area of this creek was staked as the DUNK property.

LOCATION AND ACCESS

The DUNK claim is located within the Whitehorse Mining Division, NTS 105-D-2W (Lat. 60°02'N, Long. 134°50'W). The property is located on the east side of Bennett Lake south of the west arm of the lake. The nearest population centre is Carcross, which lies 15 kilometres to the northeast. The property is accessible by helicopter from Carcross or by boat along Bennett Lake. The White Pass and Yukon Railroad passes along the western edge of the property.

TOPOGRAPHY AND VEGETATION

The claim lies centred on the valley created by Dundalk Creek which drains to the west into Bennett Lake. The property rises gently from the lake at an elevation of 655 metres to a maximum of 1250 metres in the southeast towards Dundalk Mountain. Dundalk Creek cuts a steep narrow canyon through the property in the east. Towards the lake, terraces of glacial sands and gravels predominate. Thin stands of spruce and small swamps in the east give way to thick spruce, pine and poplar near the lake.

PROPERTY DEFINITION

The property consists of 20 claim units. See Dwg. No. KU.81-251 for claim location. The claims are in good standing until 1982 June 8.

DUNK: YA61000 to YA61019

PREVIOUS WORK

No previous work is recorded concerning the property. The property was staked in June 1981 on the basis of an auriferous stream sediment anomaly. Follow-up work in August consisted of taking for analysis, soil, stream sediment and rock samples.

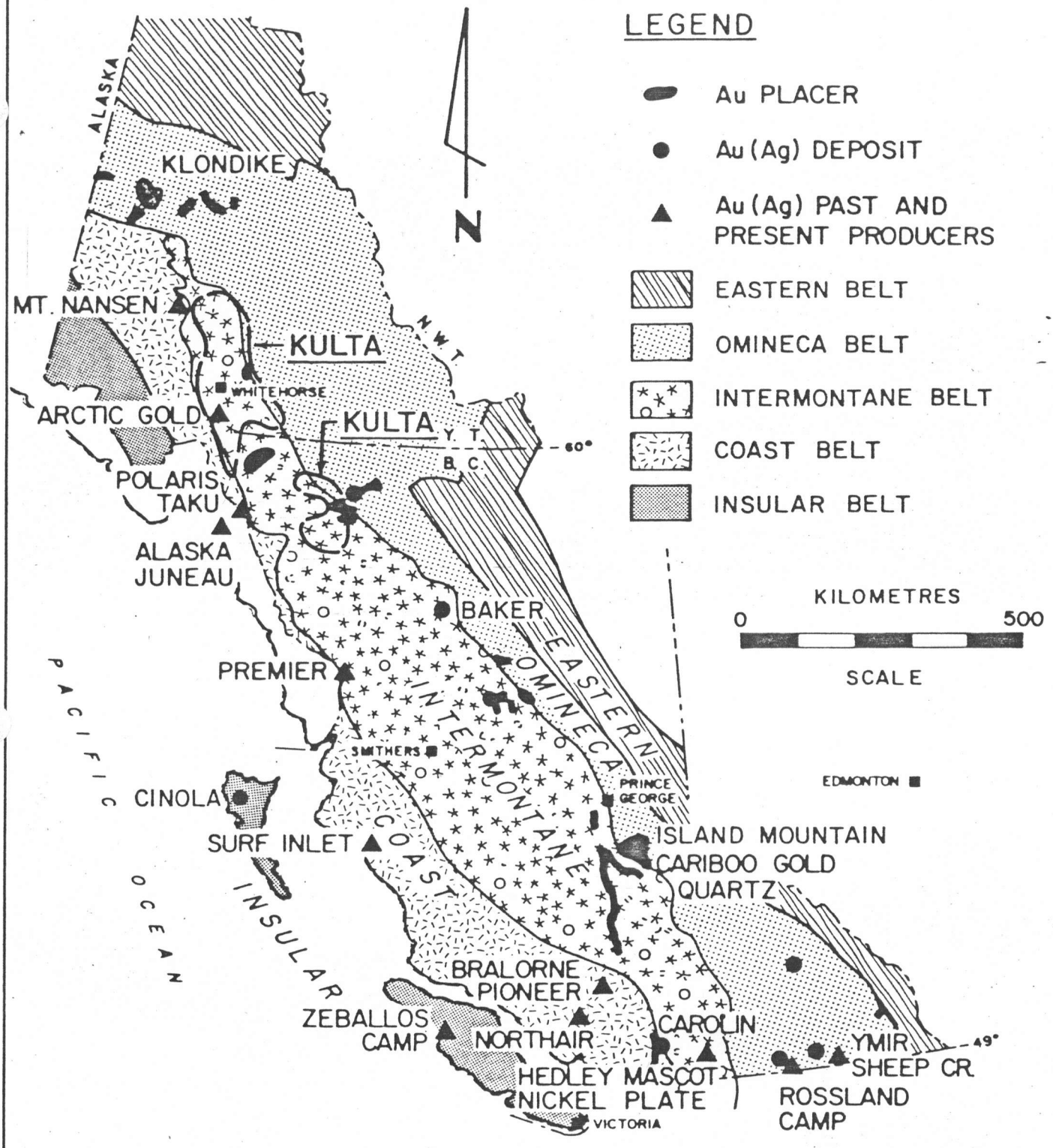


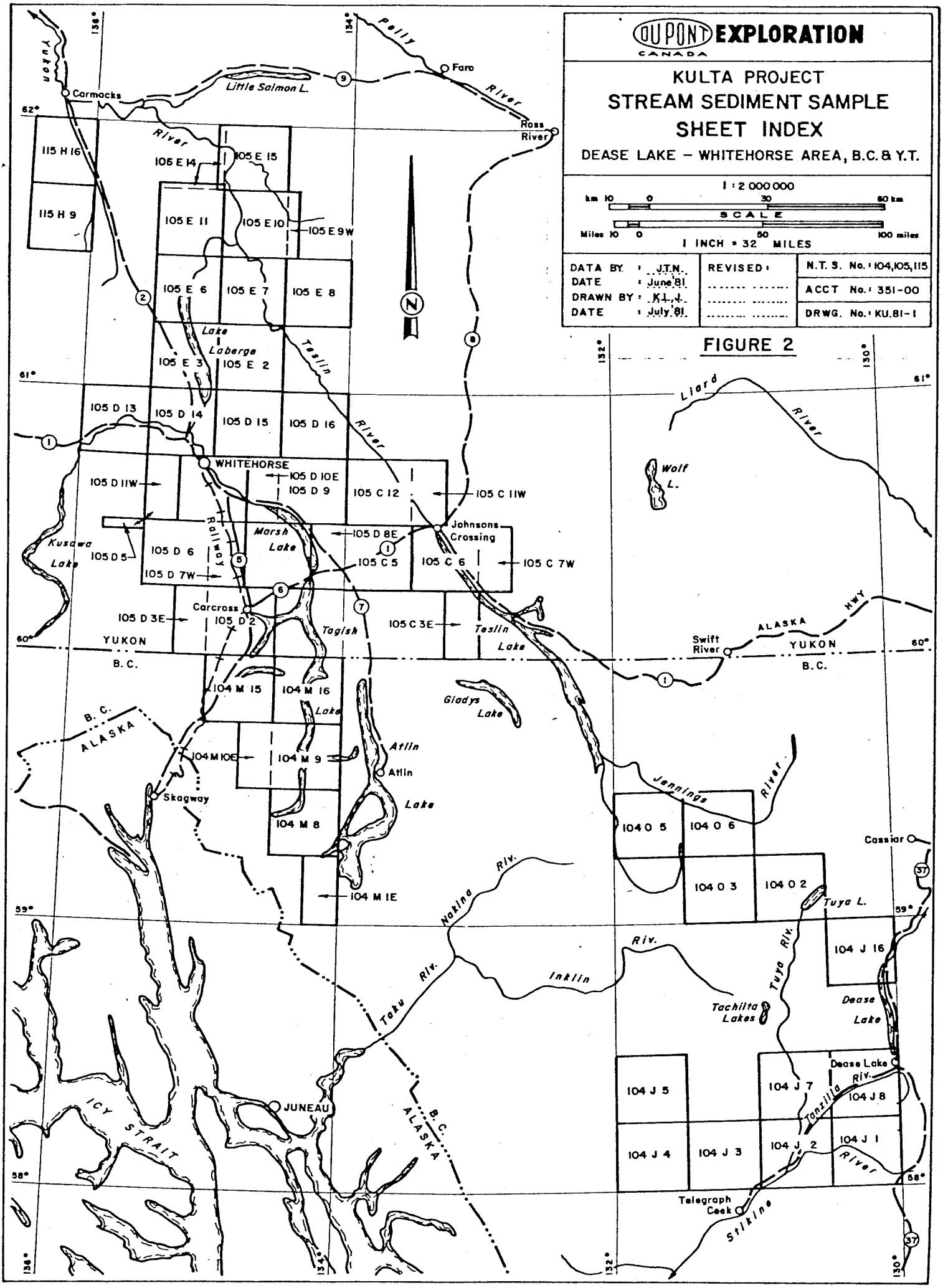
FIGURE 1

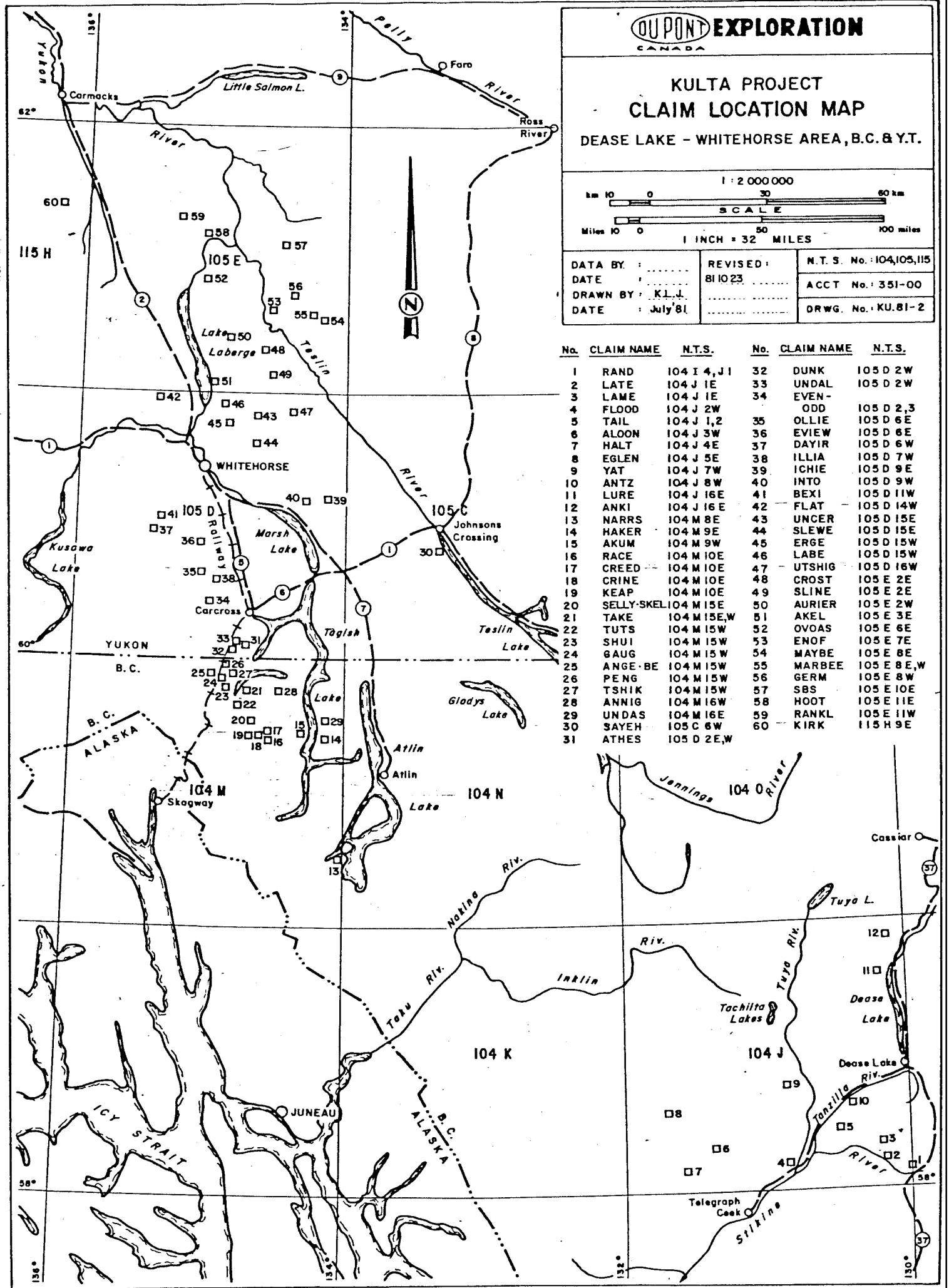
KULTA PROJECT AREAS

PRINCIPAL LODE & PLACER GOLD DEPOSITS CANADIAN CORDILLERA

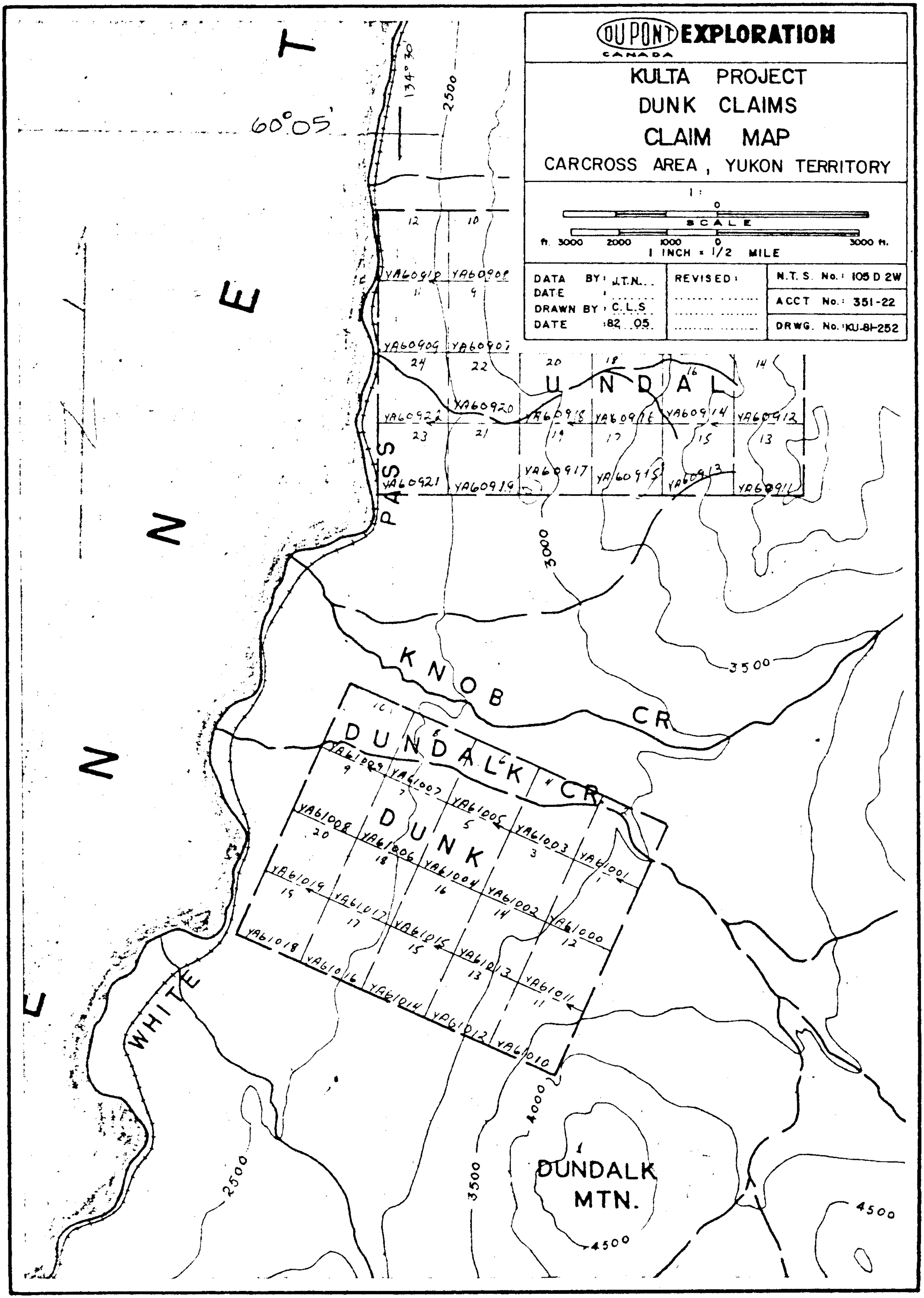
K.L.J. 81 11 26

DRWG No. KU.81-1a


DUPONT EXPLORATION
CANADA
KULTA PROJECT
STREAM SEDIMENT SAMPLE
SHEET INDEX
DEASE LAKE – WHITEHORSE AREA, B.C. & Y.T.
1 : 2 000 000
km 10 0 30 60 km
SCALE
Miles 10 0 50 100 miles
1 INCH = 32 MILES
DATA BY : J.T.N.
DATE : June 81
DRAWN BY : K.L.J.
DATE : July 81
REVISED :
N.T.S. No. : 104,105,115
ACCT No. : 351-00
DRWG. No. : KU.81-1
FIGURE 2
Yukon
Carmacks
Little Salmon L.
Faro
Ross River
Pelly River
115 H 16
115 H 9
105 E 14
105 E 15
105 E 11
105 E 10
105 E 9W
105 E 6
105 E 7
105 E 8
Lake Laberge
105 E 3
105 E 2
Teslin River
105 D 13
105 D 14
105 D 15
105 D 16
WHITEHORSE
105 D 11W
105 D 10E
105 D 9
105 C 12
105 C 11W
Kusawa Lake
105 D 5
105 D 6
105 D 7W
Marsh Lake
105 D 8E
105 C 5
105 C 6
105 C 7W
Johnsons Crossing
Carcross
105 D 3E
105 D 2
Tagish
105 C 3E
Teslin Lake
YUKON
B.C.
104 M 15
104 M 16
Lake
Gladys Lake
B.C. ALASKA
104 M 10E
104 M 9
Atlin
Skagway
Lake
104 M 8
104 M 1E
Liard River
Wolf L.
Swift River
ALASKA HWY
YUKON
B.C.
Jennings River
104 O 5
104 O 6
104 O 3
104 O 2
Cassiar
Tuya L.
Nahlin Riv.
Inklin Riv.
Tuya Riv.
104 J 16
Tachilta Lakes
Dease Lake
Dease Lake Riv.
Tanzilla River
104 J 5
104 J 7
104 J 8
104 J 4
104 J 3
104 J 2
104 J 1
Telegraph Creek
Stikine
Taku Riv.
JUNEAU
ICY STRAIT
B.C. ALASKA
61°
60°
59°
58°
132°
130°
134°
136°



No.	CLAIM NAME	N.T.S.	No.	CLAIM NAME	N.T.S.
1	RAND	104 I 4, J 1	32	DUNK	105 D 2W
2	LATE	104 J 1E	33	UNDAL	105 D 2W
3	LAME	104 J 1E	34	EVEN-ODD	105 D 2,3
4	FLOOD	104 J 2W	35	OLLIE	105 D 6E
5	TAIL	104 J 1,2	36	EVIEW	105 D 6E
6	ALOON	104 J 3W	37	DAYIR	105 D 6W
7	HALT	104 J 4E	38	ILLIA	105 D 7W
8	EGLEN	104 J 5E	39	ICHIE	105 D 9E
9	YAT	104 J 7W	40	INTO	105 D 9W
10	ANTZ	104 J 8W	41	BEXI	105 D 11W
11	LURE	104 J 16E	42	FLAT	105 D 14W
12	ANKI	104 J 16E	43	UNGER	105 D 15E
13	NARRS	104 M 8E	44	SLEWE	105 D 15E
14	HAKER	104 M 9E	45	ERGE	105 D 15W
15	AKUM	104 M 9W	46	LABE	105 D 15W
16	RACE	104 M 10E	47	UTSHIG	105 D 16W
17	CREED	104 M 10E	48	CROST	105 E 2E
18	CRINE	104 M 10E	49	SLINE	105 E 2E
19	KEAP	104 M 10E	50	AURIER	105 E 2W
20	SELLY-SKEL	104 M 15E	51	AKEL	105 E 3E
21	TAKE	104 M 15E,W	52	OVOAS	105 E 6E
22	TUTS	104 M 15W	53	ENOF	105 E 7E
23	SHUI	104 M 15W	54	MAYBE	105 E 8E
24	GAUG	104 M 15W	55	MARBEE	105 E 8E,W
25	ANGE-BE	104 M 15W	56	GERM	105 E 8W
26	PENG	104 M 15W	57	SBS	105 E 10E
27	TSHIK	104 M 15W	58	HOOT	105 E 11E
28	ANNIG	104 M 16W	59	RANKL	105 E 11W
29	UNDAS	104 M 16E	60	KIRK	115 H 9E
30	SAYEH	105 C 6W			
31	ATHES	105 D 2E,W			



DUPONT CANADA EXPLORATION
KULTA PROJECT
DUNK CLAIMS
CLAIM MAP
CARCROSS AREA, YUKON TERRITORY
SCALE
ft. 3000 2000 1000 0 3000 ft.
1 INCH = 1/2 MILE
DATA BY: J.T.N.
DATE
DRAWN BY: C.L.S.
DATE: 82 05
REVISED:
N.T.S. No.: 105 D 2W
ACCT No.: 351-22
DRWG. No.: KU-81-252
60°05'
134°30'
2500
3000
3500
4000
4500
KNOB CR
DUNDALK CR
DUNDAL
DUNK
WHITE PASS
DUNDALK MTN.
YA60910
YA60908
YA60909
YA60907
YA60922
YA60920
YA60918
YA60916
YA60914
YA60912
YA60921
YA60919
YA60917
YA60915
YA60913
YA60911
YA61009
YA61007
YA61005
YA61003
YA61001
YA61008
YA61006
YA61004
YA61002
YA61000
YA61019
YA61017
YA61015
YA61013
YA61011
YA61018
YA61016
YA61014
YA61012
YA61010

PERSONNEL

Property work was performed by the following people on the dates indicated:

1981 August 9:	H. Copland	(Senior Geological Assistant
	L. Cunningham	(Junior Geological Assistant)
	A. Deak	" " "
	A. MacArthur	" " "

GEOLOGY

Regional Geology

The property lies within the Intermontane Belt of the western Cordillera. The belt consisting mainly of sedimentary and volcanic rocks stretches from the Yukon to southern British Columbia. The belt averages 150 kilometres in width and trends northwest-southeast. Bordering the belt to the west are the granitic rocks of the Coast Mountain Intrusions, which stretch along the entire B.C. coast into Alaska.

Physiographically, the region is part of the Yukon Plateau. This area is characterized by glaciated mountain peaks generally under 2000 metres in elevation and long narrow lake-filled valleys. To the west, the rugged extensively glaciated peaks of the Coast Mountains dominate.

The Tagish-Bennett Lake areas are dominated by rocks of the Intermontane Belt with small plutons (2-8 km in size) of Late Cretaceous Coast Intrusions scattered throughout. The main front of the Coast Mountains occurs seven kilometres west of the area. The rocks of the Intermontane Belt comprise Palaeozoic metamorphic rocks (schists and gneiss), Pennsylvanian (?) and Permian volcanic and meta-volcanic rocks (Taku Group), Lower and Middle Jurassic sediments (Laberge Group), and Upper Cretaceous volcanic rocks (Hutshi Group). See Table of Formations (Table 1) and Dwg. No. KU.81-2b (Kulta Project Regional Geology).

The rocks generally occur in northwest trending belts as part of a large regional synclinorium (Wheeler 1961, p. 103). All Pre-Cretaceous rocks show this trend. Locally tight folding has been observed, possibly due to intrusive placement.

Economic mineralization has been exploited in the area from various sources. The Engineer Mine (Au,Ag) is hosted by quartz-calcite veins occuring in shales and greywackes of the Laberge Group. Venus Mine (Au,Ag) is hosted by a quartz vein cutting through Hutshi Group andesites. Numerous other showings similar to the Venus Mine occur in the Tagish Lake region.

TABLE I

Table of Formations

Miocene to Pleistocene (TQW)

Wrangell-Garibaldi: Basic to intermediate volcanics.

Upper Cretaceous-Oligocene (KTo)

Ootsa Lake - Kamloops (Hutshi Group): Intermediate to acidic volcanic flows, tuff; non-marine.

Late Cretaceous and Early Tertiary

Nisling Range Alaskite, Nanika (KTq): Granite, quartz monzonite lesser granodiorite.

Babine (KTg): Granodiorite, quartz diorite, quartz monzonite, lesser quartz monzonite, diorite, monzonite.

Lower and Middle Jurassic (JL)

Laberge-Quesnel (Stuhini Fmn): Greywacke, argillite, conglomerate; marine.

Late Triassic - Early Jurassic

Hogem Granodiorite (EJg): Quartz diorite, granodiorite, lesser diorite, quartz monzonite.

Iron Mask (Ejd): Diorite, monzonite, syenite, quartz, diorite, minor pyroxenite, granodiorite.

Upper Triassic - Lower Jurassic (TJT)

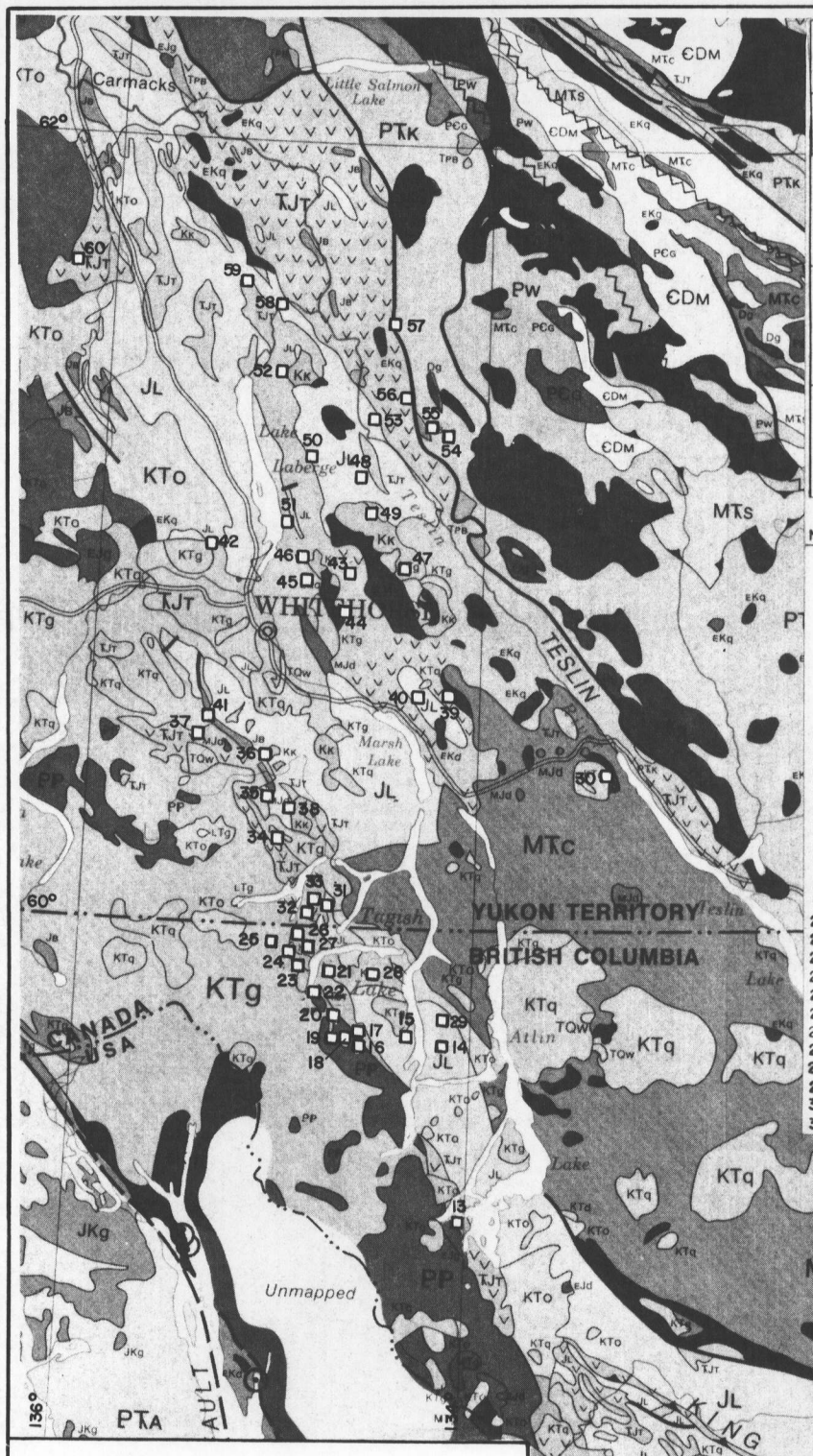
Takla-Nicola: Augite porphyry, basaltic volcanics; siltstone, shale, limestone, conglomerate.

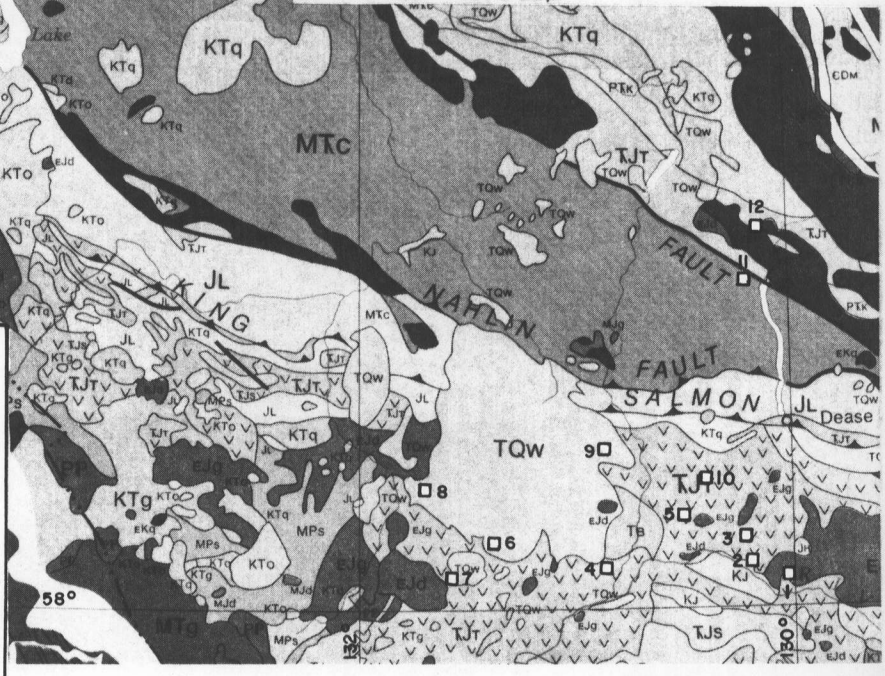
Mississippian - Triassic (MTC)

Cache Creek - Anvil Range: Chert, argillite, carbonate, basalt, associated diabase, gabbro, alpine ultramafic; marine.

Proterozoic - Palaeozoic

Central Gneiss - Skagit: Granitoid Gneiss, migmatite schist, amphibolite, plutonic rocks.





DUPONT EXPLORATION
CANADA

KULTA PROJECT
REGIONAL GEOLOGY
DEASE LAKE - WHITEHORSE AREA, B.C. & Y.T.

1 2 000 000

km 10 0 30 60 km

SCALE

Miles 10 0 50 100 miles

1 INCH = 32 MILES

DATA BY	J.T.N.	REVISED:	N T S No. 104,105,115
DATE			ACCT No. 351-00
DRAWN BY	K.L.J.		DRWG No. KU.81-2b
DATE	MAY '82		

No.	CLAIM NAME	N.T.S.	No.	CLAIM NAME	N.T.S.
1	RAND	104 I 4, J 1	32	DUNK	105 D 2W
2	LATE	104 J 1E	33	UNDAL	105 D 2W
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23	SHUI	104 M 15W	53	ENOF	105 E 7E
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27	TSHIK	104 M 15W	57	SBS	105 E 10E
28	ANNIG	104 M 16W	58	HOOT	105 E 11E
29	UNDAS	104 M 16E	59	RANKL	105 E 11W
30	SAYEH	105 C 6W	60	KIRK	115 H 9E
31	ATHES	105 D 2E,W			

LEGEND

UPPER CRETACEOUS - OLIGOCENE

KTo — Carmacks, Mt. Nansen, Endako: Intermediate to acidic volcanic flows, tuff: non marine

LOWER AND MIDDLE JURASSIC

TJt — Nicola and Lewes: Volcanic and sedimentary rocks.

LATE CRETACEOUS AND EARLY TERTIARY

KTq, KTg — Granitic rocks

LATE PALEOZOIC - TRIASSIC

Alpine - type ultramafics

LEGEND

TERTIARY

MIOCENE

CARMACKS GROUP

12 — Grey weathering massive hornblende andesine porphyry

EOCENE

MT. NANSEN GROUP

11 — 11a) Andesite 11b) Basalt

10 — 10a) Quartz monzonite 10b) Granodiorite

CRETACEOUS

COAST INTRUSIONS

9 — 9a) Quartz monzonite 9b) Granodiorite 9c) Felsic dyke 9d) Matic dyke

HUTSHI GROUP

8 — 8a) Rhyolite 8b) Dacite 8c) Andesite 8d) Basalt 8e) Tuff 8f) Volcanic conglomerate

7 — 7a) Peridotite 7b) Serpentinite

UPPER JURASSIC and/or LOWER CRETACEOUS

TANTALUS FORMATION

6 — 6a) Shale 6b) Schist 6c) Quartz sericite schist

UPPER TRIASSIC and LOWER JURASSIC

LABERGE GROUP

5 — 5a) Siltstone 5b) Limestone 5c) Shale 5d) Quartzite 5e) Conglomerate 5f) Hornfels

4 — 4a) Dacite 4b) Andesite 4c) Basalt 4d) Volcaniclastics (conglomerate, breccia) 4c) Tuff

LEWES RIVER GROUP

3 — 3a) Limestone 3b) Argillite 3c) Siltstone 3d) Arkose 3e) Greywacke 3f) Quartzite

2 — 2a) Rhyolite 2b) Dacite 2c) Andesite 2d) Basalt 2e) Volcanic breccia, conglomerate

CARBONIFEROUS and/or PERMIAN

ANVIL ALLOCHTHONOUS ASSEMBLAGE

1 — 1a) Gneiss 1b) Schist 1c) Quartzite 1d) Phyllite 1e) Breccia

SYMBOLS

OUTCROP

CONTACT

x 8440 D — ROCK SAMPLE LOCATION and NUMBER

CLAIM LINE

G — GOSSAN

ROCK GEOCHEMICAL RESULTS

Sample	Mo ppm -80 F	Cu ppm -80 F	Pb ppm -80 F	Zn ppm -80 F	Ni ppm -80 F	Ag ppm -80 F	Hg ppb -80 F	As ppm -80 F	Au ppb -80 F	Sb ppm -80 F
8440 D	1	33	279	330	20	10.3	15	11	5	35
8441 D	1	16	55	99	11	2.5	30	6	10	25
8442 D	2	14	62	39	13	2.8	50	4	5	75

DU PONT EXPLORATION CANADA

KULTA PROJECT
DUNK CLAIMS
GEOLOGY

091045

CARCROSS AREA, YUKON TERRITORI

1 : 10 000

m 300 200 100 0 300 600 m

SCALE

0

1 INCH = 833 FEET

MAPPED BY :	J.T.N., L.D.C.	REVISED :	N.T.S. No. : 105 D 2W
DATE :	81 08 09		
DRAWN BY :	C.H.K.		ACCT No. : 351 - 22
DATE :	82 04 28		DRWG. No. : KU. 81 - 182

KCT - 209

1981 SAMPLE RESULTS

Sample	Mo ppm -80	Cu ppm -80	Pb ppm -80	Zn ppm -80	Ni ppm -80	Ag ppm -80	Hg ppb -80	As ppm -80	Mn ppm -80	Au ppb -80	Sb ppm -80
Soil	F	F	F	F	F	F	F	F	F	F	F
AS 27	1	18	12	99	14	0.5	10	7	740	5	8
AS 28	2	85	10	68	17	0.6	80	6	1340	10	20
AS 29	1	10	6	49	6	0.3	45	<1	285	5	14
AS 30	1	29	15	78	16	0.8	50	<1	760	5	15
AS 31	5	31	18	181	20	1.0	75	4	1700	5	18
AS 32	2	15	14	108	14	0.7	30	6	1270	5	23
AS 33	2	17	14	107	15	0.6	5	<1	320	5	10
AS 34	1	17	13	71	17	0.4	5	12	320	5	14
AS 35	1	11	12	86	10	0.4	50	8	535	5	18
AS 36	1	16	13	51	17	0.5	45	2	400	5	16
AS 37	2	16	12	69	13	0.4	40	12	250	35	12
AS 38	2*	31*	16*	194*	11	0.8*	80*	<1*	1390*	5*	24*
AS 39	2	27	15	62	20	0.8	20	12	495	5	18
AS 40	2	12	13	71	14	0.6	5	<1	205	5	10
AS 41	1	12	13	50	11	0.5	25	<1	385	10	24
AS 42	2	17	14	73	16	0.6	25	<1	360	5	15
AS 43	2	13	23	70	10	0.5	5	25	540	5	20
AS 44	1	8	11	45	9	0.3	5	11	140	5	10
AS 45	1	4	12	88	11	0.5	45	4	375	10	8
AS 46	1	16	23	68	17	0.7	5	8	2100	10	20
AS 47	1	6	18	80	10	0.7	10	<1	380	10	20
AS 48	2	7	18	51	22	0.4	35	22	325	30	34
AS 49	1	8	14	38	10	0.6	35	14	230	10	8
AS 50	1	8	13	54	13	0.5	35	4	320	10	16
AS 51	1	10	17	63	14	0.6	5	<1	240	10	28
AS 52	1	12	24	161	14	0.6	15	1	1210	5	16
AS 53	1	15	24	115	16	0.9	20	18	1070	10	25
AS 54	1	12	20	144	14	0.9	5	<1	1250	5	20
AS 55	1	9	18	139	12	0.7	30	20	490	10	20
AS 56	2	13	19	112	13	0.3	25	<1	840	15	15
AS 57	2	18	26	142	18	0.3	25	15	1070	45	30
AS 58	1	14	25	156	12	0.5	10	<1	1920	15	20
AS 59	1	32	20	129	16	0.4	60	17	1230	25	20
AS 60	2	27	21	109	18	0.9	40	16	990	10	10
AS 61	1	20	22	169	13	0.4	5	17	1090	5	14

* -40 Mesh

Sample	Mo ppm -80	Cu ppm -80	Pb ppm -80	Zn ppm -80	Ni ppm -80	Ag ppm -80	Hg ppb -80	As ppm -80	Mn ppm -80	Au ppb -80	Sb ppm -80
	F	F	F	F	F	F	F	F	F	F	F
AD 1	1	24	17	58	23	0.9	20	13	240	5	16
AD 2	1	26	20	66	25	1.0	40	19	460	5	10
AD 3	2	18	13	75	16	0.6	35	18	340	10	5
AD 4	2	28	13	55	16	0.8	45	12	400	5	5
AD 5	1	18	12	46	14	0.6	35	<1	395	15	4
AD 6	1	26	15	61	24	0.8	20	<1	550	10	8
AD 7	1	18	14	123	18	0.9	5	14	1340	5	6
AD 8	2	12	10	71	12	0.5	10	17	640	10	4
AD 9	2	18	15	55	17	0.7	20	7	395	5	22
AD 10	1	24	14	58	20	0.6	5	6	500	5	10
AD 11	1	24	14	71	26	0.6	15	8	290	10	6
AD 12	1	16	12	102	17	0.4	5	6	325	5	15
AD 13	1	18	17	75	20	0.6	35	11	580	5	8
AD 14	1	10	16	84	14	0.4	5	4	320	15	16
AD 15	1	14	17	131	12	0.3	10	<1	640	5	14
AD 16	2	16	16	70	14	0.6	25	<1	820	5	25
AD 17	1	8	15	88	14	0.6	20	<1	680	5	18
AD 18	1	12	16	95	13	0.5	20	13	540	5	16
AD 19	1	18	17	106	19	0.6	15	17	860	45	18
AD 20	1	42	17	399	18	0.6	55	<1	5650	5	15
AD 21	1	24	17	103	20	0.4	25	<1	740	5	24
AD 22	2	26	17	80	22	0.8	65	17	680	5	28
AD 23	1	22	17	100	27	0.6	5	13	1580	5	10
AD 24	1	28	20	104	39	0.5	30	18	1520	5	16

Sample	Mo ppm -80	Cu ppm -80	Cu ppm -80 FHM	Cu ppm -20 +80 CHM	Pb ppm -80	Zn ppm -80	Ni ppm -80	Ag ppm -80	Ag ppm -80 FHM	Ag ppm -20 +80 CHM	Hg ppb -80	As ppm -80	Mn ppm -80	Au ppb -80	Au ppb -20 +80 CHM	Sb ppm -80	H.M. wt. gm	H.M. %
	F	F	FHM	CHM	F	F	F	F	FHM	CHM	F	F	F	F	CHM	F		
-10 Sieve																		
7522 D	1	36		79	24	81		0.7		2.1			505	55	700			
-20 Sieve																		
9706 D	1		95	85	36	76	26		3.6	10.3	15	7	600	6800	25000	35	0.56/7.01	3.20/1.17

LEGEND

○ AS 27	SILT or SOIL SAMPLE LOCATION and NUMBER
● 9706 D	SIEVED HEAVY MINERAL SAMPLE LOCATION and NUMBER
X – 7522 D	ORIGINAL SIEVED HEAVY MINERAL SAMPLE LOCATION (1981) and NUMBER

091045

DUPONT CANADA **EXPLORATION**

KULTA PROJECT
DUNK CLAIMS
GEOCHEMISTRY
Au, Ag, As, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Zn & %HM

CARCROSS AREA, YUKON TERRITORY

1 : 10 000

m 300 200 100 0 300 600 m

SCALE

0 1 INCH = 833 FEET

MAPPED BY :	J.T.N., L.D.C.	REVISED :	N.T.S. No.: 105 D 2W
DATE :	81 08 09		ACCT No.: 351 - 22
DRAWN BY :	C.H.K.		
DATE :	82 04 23		DRWG. No.: KU. 81 - 183