DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE SAYEH PROPERTY

WHITEHORSE MINING DIVISION

(YUKON TERRITORY)

LAT. 60°25'N, LONG. 138°18'W

NTS: 105-C-6W

OWNER OF CLAIMS: DU PONT OF CANADA EXPLORATION LIMITED

OPERATOR: DU PONT OF CANADA EXPLORATION LIMITED

Submitted by: J.T. Neelands

Date : 1982 May

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

P. Watson

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 Johnson's Crossing 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 into the Teslin Lake, the drainage area of this creek was staked as the SAYEH property.

LOCATION AND ACCESS

The SAYEH claim is located within the Whitehorse Mining Division, NTS 105-C-6E (Lat. 60°25'N, Long. 138°18'W). The properties are located on the north side of Hayes Peak, west of Teslin Lake. The nearest population centre, Whitehorse, lies 62 kilometres to the northwest. The claims are accessible by helicopter from Johnson's Crossing which is situated on the Alaska Highway.

TOPOGRAPHY AND VEGETATION

The claims lie on the northern slope of Hayes Peak. Elevation rises from a maximum of 1850 metres at the summit of the hill to 915 metres in the anomalous stream at the northeast end of the property. The upper elevations are covered by grasses and scattered low evergreen shrubs. In the valley, spruce and alder dominate. Numerous intermittent streams flow off Dickson Hill in all directions and eventually flow into the northern end of Teslin Lake.

PROPERTY DEFINITION

The property consists of 25 claim units and was recorded 1981 June 8. See Dwg. No. KU.81-251 for claim location.

SAYEH 1 to 25: YA60939 to YA6093

PREVIOUS WORK

No previous work is recorded concerning the property.

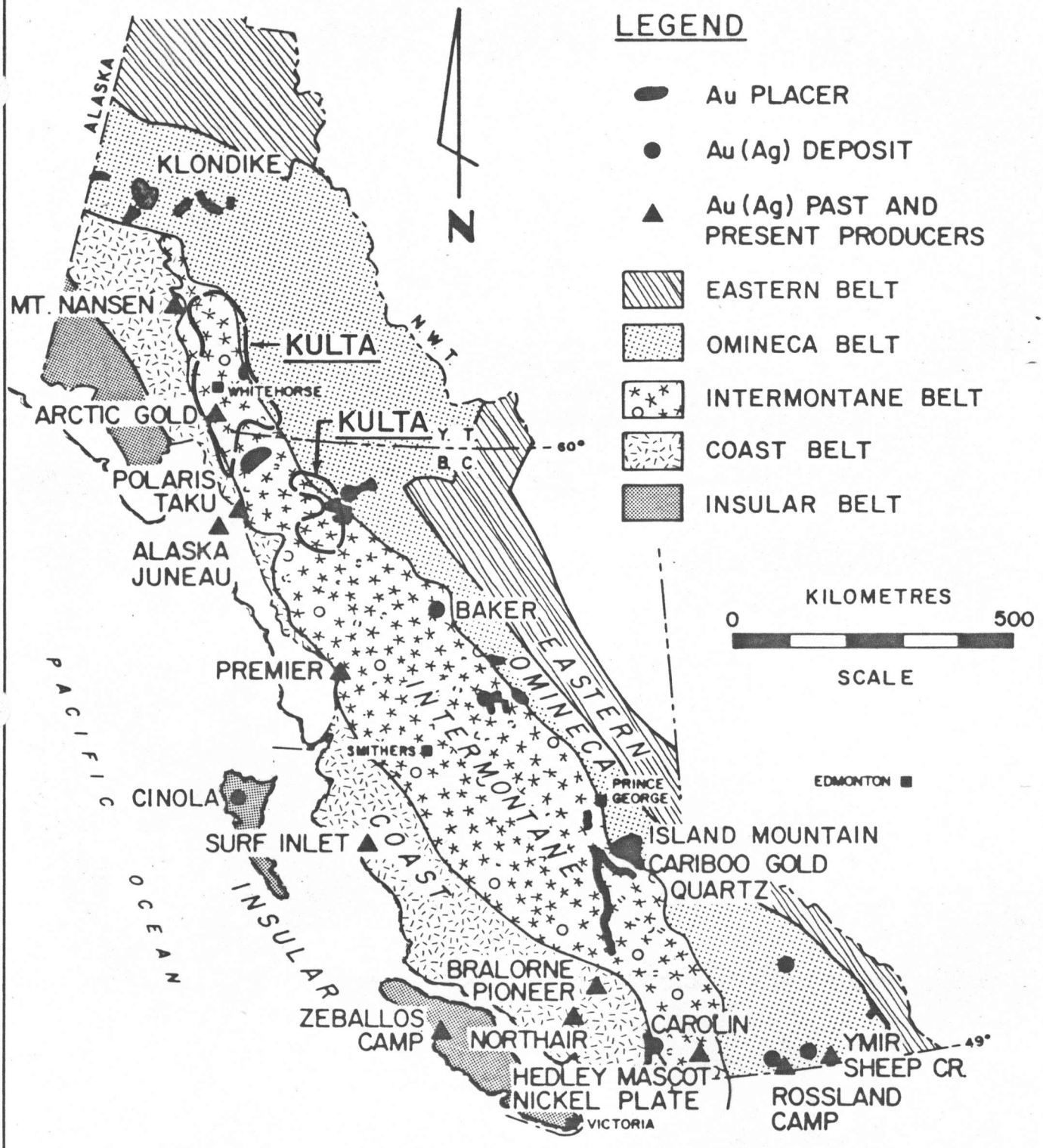


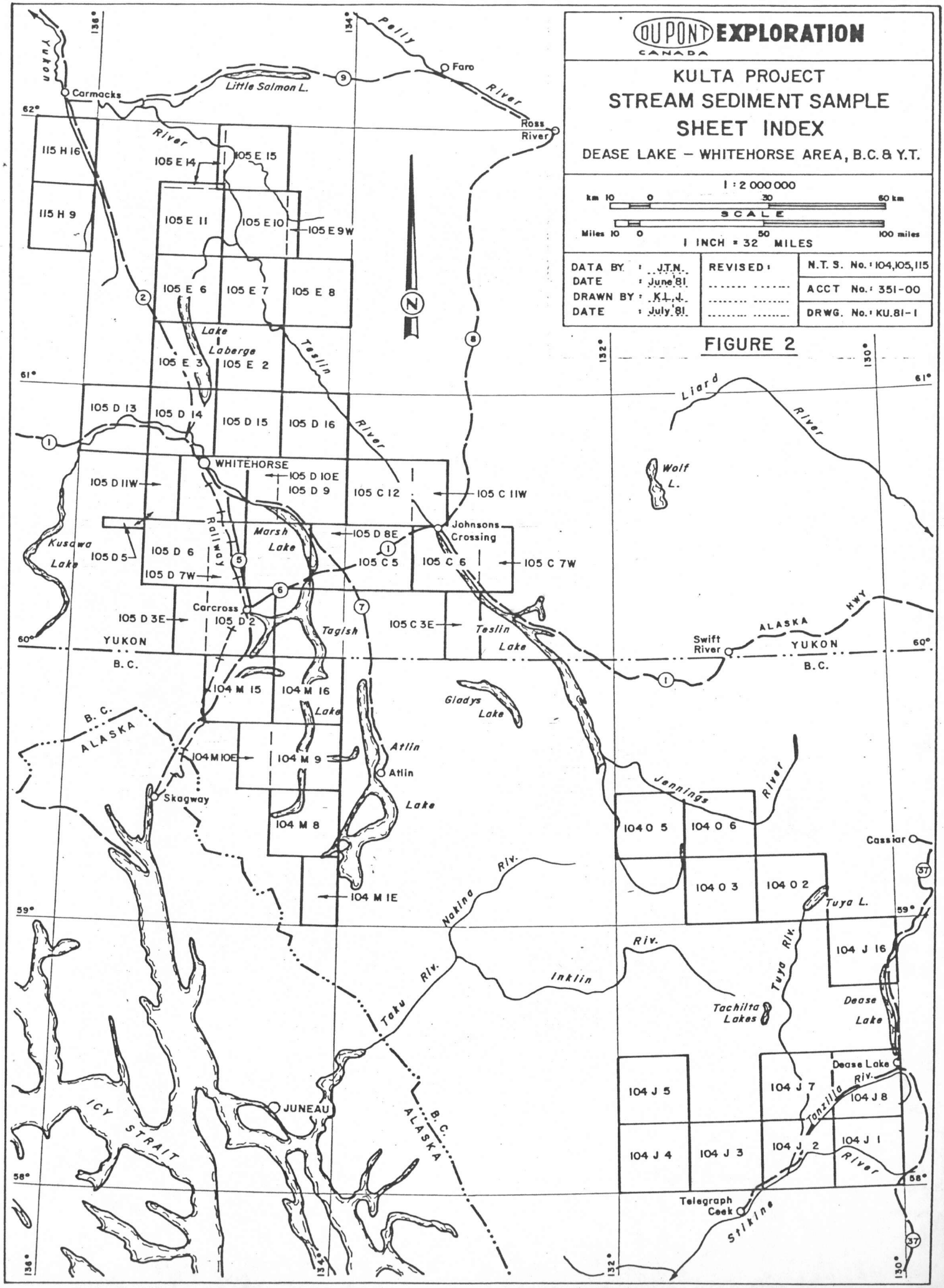
FIGURE 1

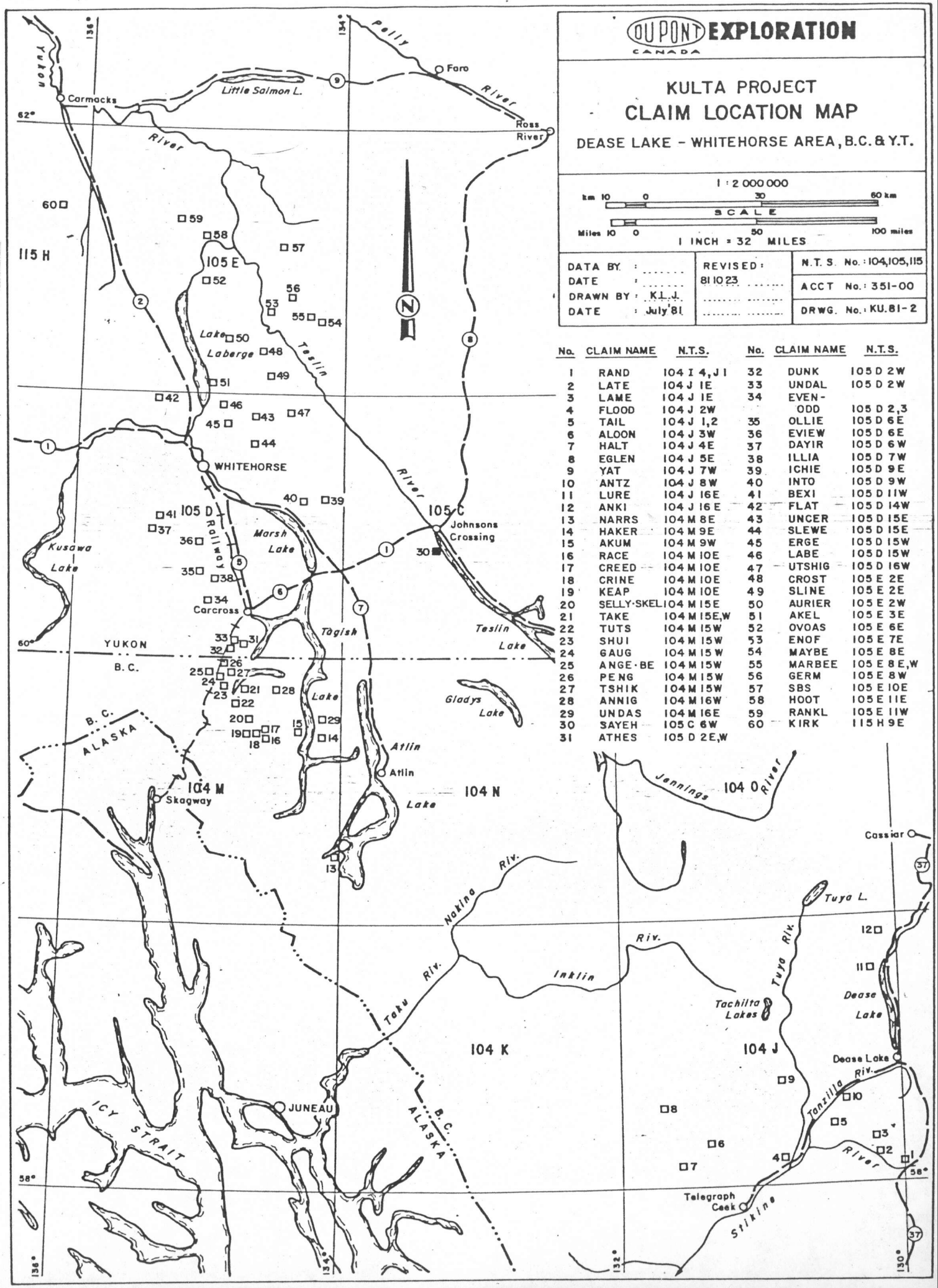
KULTA PROJECT AREAS

PRINCIPAL LODE & PLACER GOLD DEPOSITS CANADIAN CORDILLERA

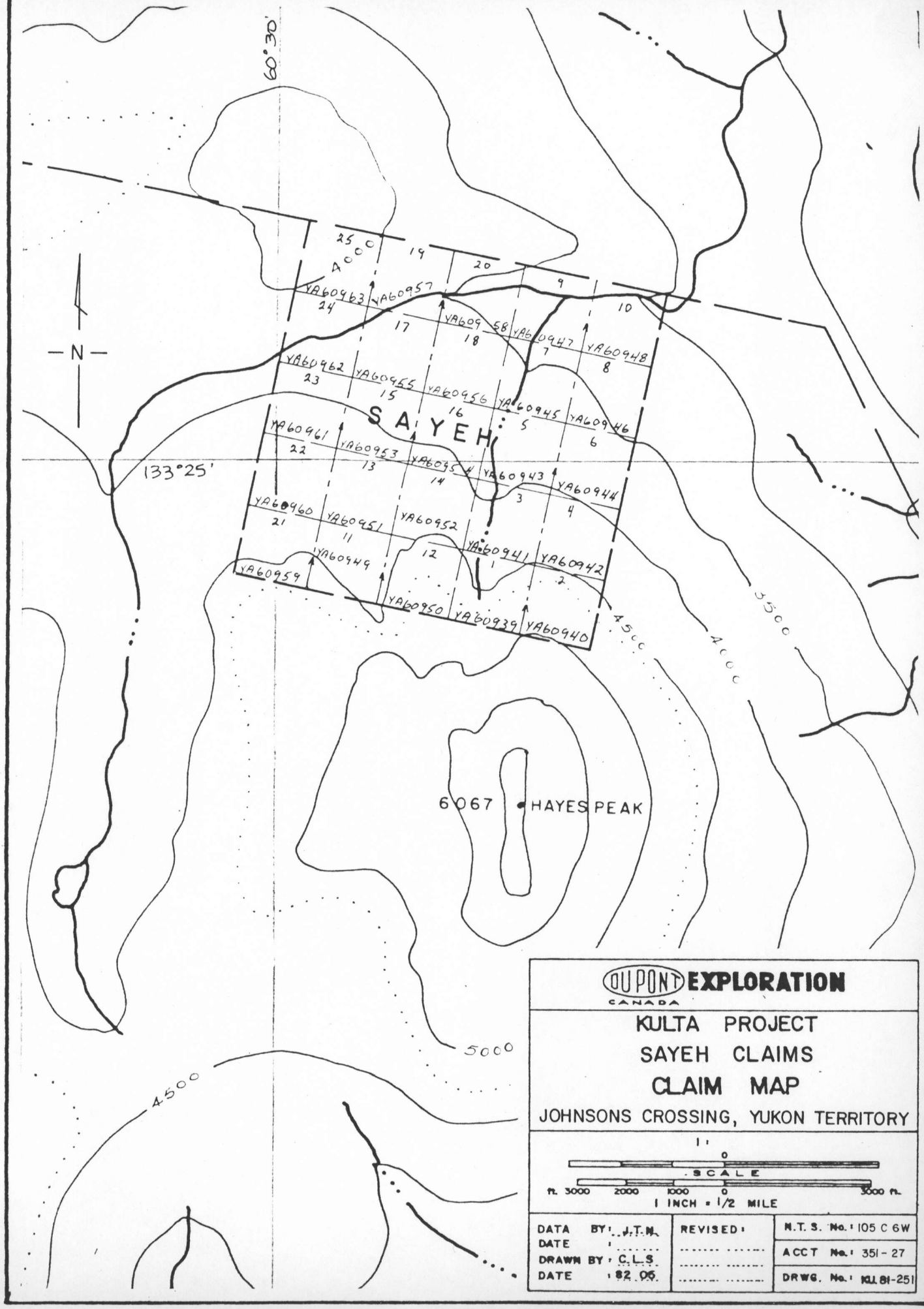
K.L.J. 8111 26

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
Pelly River
Ross 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
Railway
Marsh Lake
105 D 8E
Johnsons Crossing
Kusawa Lake
105 D 5
105 D 6
105 D 7W
105 C 5
105 C 6
105 C 7W
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
Tanzilla Riv.
104 J 5
104 J 7
104 J 8
104 J 4
104 J 3
104 J 2
104 J 1
Taku Riv.
JUNEAU
ICY STRAIT
B.C. ALASKA
Telegraph Creek
Stikine River
132°
130°
61°
62°
60°
59°
58°
136°
134°



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	UNCER	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
SAYEH CLAIMS
CLAIM MAP

JOHNSONS CROSSING, YUKON TERRITORY

SCALE

ft. 3000 2000 1000 0 3000 ft.

1 INCH = 1/2 MILE

DATA BY: J.T.M.	REVISED:	N.T.S. No.: 105 C 6W
DATE:		ACCT No.: 351-27
DRAWN BY: C.L.S.		
DATE: 82.05.		DRWG. No.: KU 81-251

PERSONNEL

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

1981 July 17:	J. Kowalchuk	(Senior Geologist)
	J. Kurtenacker	(Junior Geological Ass't)
	A. Deak	" " "
1981 Sept. 27:	J.T. Neelands	(Senior Geologist)
	J. Dupas	(Junior Geological Assistant)
	L. Harland	(Junior Geological Assistant)

GEOLOGY

Regional Geology

The property lies on the east edge of 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-Teslin 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. On the east side of the belt, alpine-type ultramafic bodies occur near the Teslin and Naklin sutures. 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.

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)

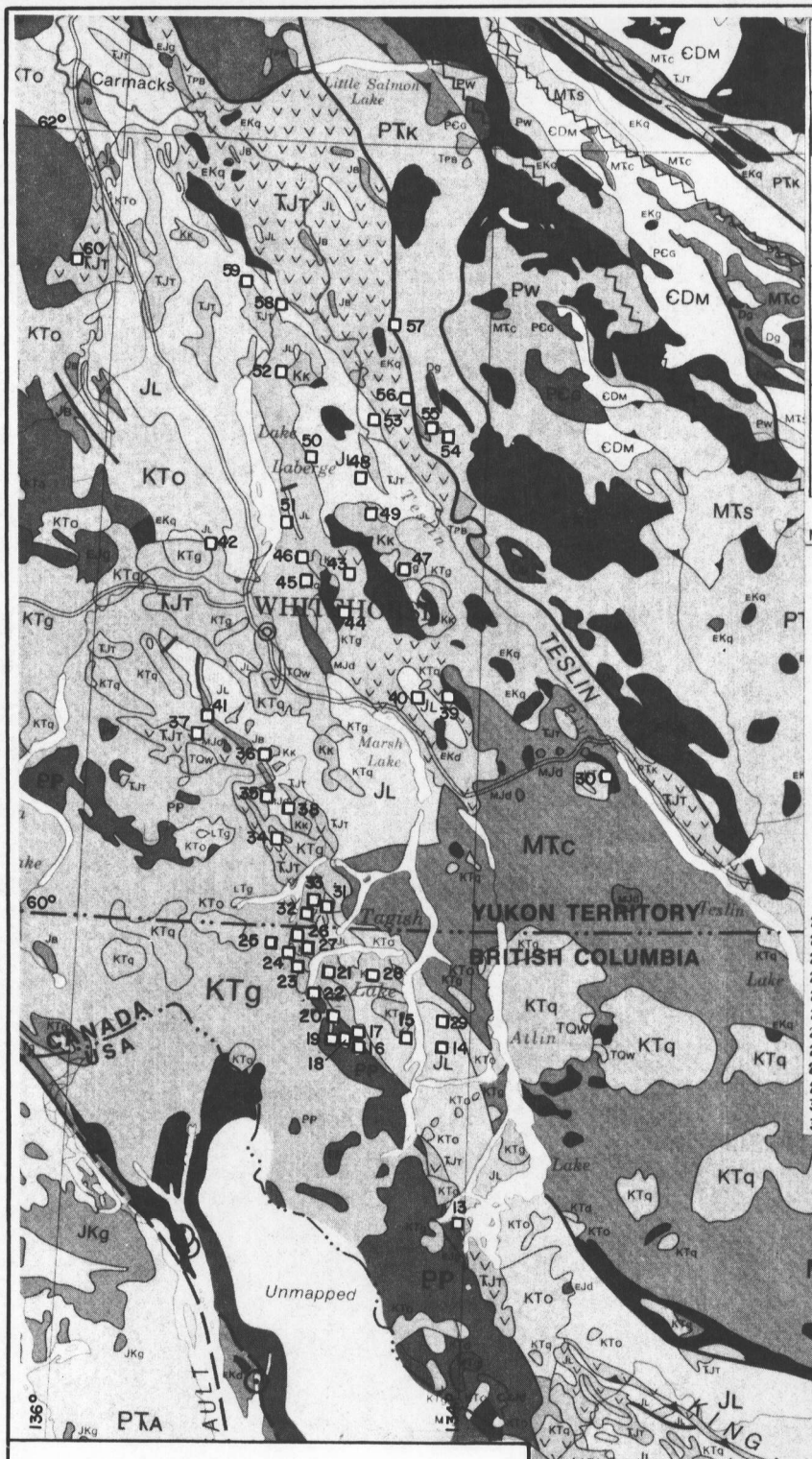
Takla-Nicola: Augite porphyry, basaltic volcanics; siltstone, shale, limestone, conglomerate.

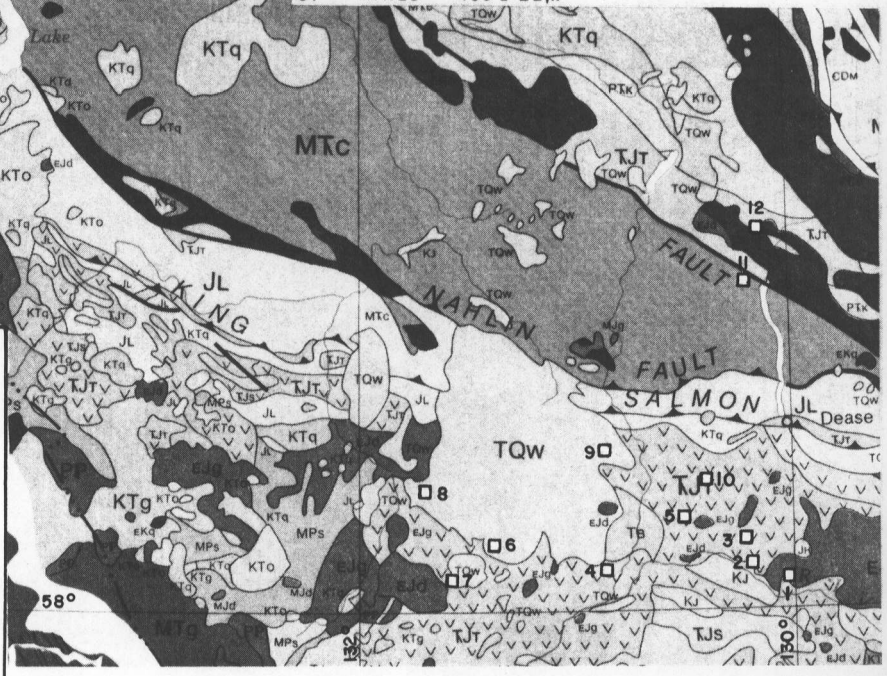
Mississippian - Triassic (MTC)

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			A C C T 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
3	LAME	104 J 1E	34	EVEN-ODD	105 D 2,3
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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

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.

Local Geology

The property is primarily underlain by Permian and or Triassic basalt. At the south end of the property, the volcanics are in contact with Cretaceous granodiorite and Jurassic or Cretaceous peridotite. Mulligan (1963) thinks that the peridotite may be related genetically to the basalt. Outcrop is more abundant at the south end of the claim.

The following is a brief description of the main lithologies observed thus far on the property.

a. Basalt, Unit 2d

The meta-basalt weathers light to dark grey and on fresh surface is dark green. Near the granodiorite contact the rock has been metamorphosed to hornlendite. East of the contact, the rock tends to be more massive, aphanitic and in places is porphyritic containing phenocrysts of hornblende up to 5 mm in length.

b. Peridotite, Unit 7a

The fresh peridotite is a medium-grained, brown weathering, soft and green to black mottled rock. It generally contains well formed pyroxene crystals that measure up to 4 mm in length.

c. Granodiorite, Unit 9b

The rock weathers light grey and is medium to coarse grained and leucocratic with 15% hornblende and biotite. The quartz content is approximately 15%. In places, the rock is quite leucocratic and quartz content increases up to 25%. The granodiorite is cut by a mafic dyke in the anomalous creek near the basalt-granite contact.

Structure

No bedding was observed in the volcanic rocks. Mulligan (1963) indicates that the volcanics and sediments along the west side of Teslin Lake strike northwest and dip to the west. Foliation in the rocks follow the regional trend and strikes northwest.

Mineralization

Minor malachite staining occurs in coarse-grained peridotite (sample 215C) to the south on Hayes Peak. No other mineralization was located.

Rock Description

Two rocks were analyzed as a result of prospecting the upper elevations of the property. A description of the rocks collected and their assay values is listed below.

Description of Rock Samples

Sample #	Assays			Description
	%Cu	%Pb	oz/t Ag	
215C	0.184	0.10	0.11	Peridotite with malachite staining
216	0.006	0.18	0.10	Quartz vein in peridotite

GEOCHEMISTRY

Procedure

A total of 2 rock and 6 stream sediment samples were collected during 1981. Silt samples were collected from the stream above the original anomalous sample. Samples consisted of 0.5 kgms of mainly silt and sand. These samples were collected by hand and placed in Kraft paper bags. A sample number was marked on the bag and on flagging tape which was secured to the sample site.

Rock samples were collected at random during the course of the survey and placed in plastic bags along with a sample tag. Sample sites were also marked with a length of flagging tape.

All samples were shipped to Min-En Laboratories Ltd., North Vancouver for preparation and analysis. Most samples were analyzed for Mo, Cu, Pb, Zn, Ag, Hg, As, Mn, Au and Sb. In addition, the stream sediment samples were sieved to -20 mesh and a heavy mineral separation and analysis was performed for Au, Ag and Cu. Refer to Appendix A for details and analytical procedures.

Results

A statistical analysis of the results obtained from regional stream sediment samples was performed to determine background and anomalous values for the various elements. Details of this analysis appears in a report by Neelands (1982) titled "Geochemical Report - Kulta Regional Stream Sediment Sampling Programme in the Dease Lake and Tagish Lake Areas". Table II reproduced from that report reveals median background values obtained for the elements studied. Table III shows the results of a report titled "Kulta Follow-Up" (Neelands 1982). The two studies show a good correlation between the stream sediment (heavy mineral) samples. The anomalous values given in Table III will be applied to the results of this property.

The results of geochemical sampling on the SAYEH property are tabled on Dwg. No. KU.81-179. These results have also been tabulated as to frequency distribution of elements in silts (see Table IV) and heavy mineral stream sediments (Table V).

The original heavy mineral stream sediment sample (6822D) ran 800 ppb Au in the fine heavy mineral fraction. Sampling of a stream draining south produced anomalous Au values in two samples. The highest value was 205 ppb Au (3853C). A sieved and concentrated sample collected above this sample did not contain any gold.

CONCLUSIONS AND RECOMMENDATIONS

Follow-up sampling failed to locate the source of the auriferous stream sediment anomaly. High silt samples collected in a tributary draining the SAYEH property have not been explained. More detailed sampling and prospecting is recommended.

JTN/krl

TABLE II

Kulta Regional Stream Sediment Sampling Programme

Background and Anomalous Values

Element	No. of Samples	Mean ppm	Median Background ppm	Standard Deviation	95% Threshold ppm
Mo	625	1.8	1.0	1.39	4.0
Cu(C1)CHm	598	44.5	38.0	27.39	150.0
Cu(C2)F	621	35.9	32.0	21.15	80.0
Pb	622	16.3	15.0	7.08	30.0
Zn	598	67.0	65.0	23.77	150.0
Ag(S1)CHm	623	1.04	1.0	0.50	2.5
Ag(S2)F	628	0.71	1.0	0.32	1.6
Mn	602	589.6	570.0	232.6	1200.0
Au(G1)CHm	588	8.21	5.0	5.22	25.0
Au(G2)F	579	6.2	5.0	4.66	15.0
%HM			6.0%		

TABLE III

Kulta Follow-Up

Background and Anomalous Values

Element	Medium					
	Heavy Mineral (227 samples)		SiH (43 Samples)		Soil (461 samples)	
	Median	Anomalous	Median	Anomalous	Median	Anomalous
MoF	1.0	3.0	1.0	2.0	4.0	15.0
CuF	30.0	90.0	70.0	160.0	40.0	250.0
CuFHM						
CuHM	50.0	180.0				
PbF	20.0	60.0	20.0	30.0	20.0	50.0
ZnF	60.0	160.0	80.0	100.0	90.0	200.0
AgF	0.8	1.5	0.9	1.2	0.8	1.7
AgFHM						
AgCHM	0.8	2.6				
HgF	25.0	50.0	40.0	80.0	35.0	160.0
AsF	10.0	50.0	15.0	45.0	15.0	120.0
MnF	500.0	1000.0	800.0	2000.0	700.0	2000.0
AuF	5.0	30.0	5.0	15.0	5.0	20.0
AuFHM						
AuCHM	5.0	50.0				
SbF	15.0	40.0	25.0	40.0	20.0	40.0
HM%						

Table IV
Silt
Frequency Distribution of Elements

Sayeh

Class Interval ppm/ppb	Mo F	F	Cu FHM	CHM	Pb F	Zn F	F	Ag FHM	CHM	Hg F	As F	Mn F	F	Au FHM	CHM	Sb F	H.M %
.1																	
0.2																	
0.3																	
0.4							2										
0.5							2										
0.6																	
0.7																	
0.8																	
0.9																	
1.0	4																
1.1																	
1.2																	
1.3																	
1.4																	
1.5																	
1.6-1.7																	
1.8-1.9																	
1.9-2.0																	
2.1-2.3																	
2.4-2.6																	
2.7-2.9																	
3.0-3.9																	
4.0-4.9											1						
5.0-5.9													1				
6.0-10		1			1						1		1				
11 - 15					2						2						
16 - 20					1												
21 - 25		1															
26 - 30						1											
31 - 35		2															
36 - 40						1											
41 - 45						1											
46 - 50						1											
51 - 60																	
61 - 70																	
71 - 80																	
81 - 90																	
91 -100																	
01-120																	
121-140													1				
141-160																	
161-180																	
181-200																	
201-250													1				
251-300																	
301-350																	
351-400																	
401-450																	
451-500																	
501-600																	
601-700																	
701-800																	
801-900																	
901-1000																	
1001-2000																	
2001-3000																	
3001-4000																	
4001-5000																	
>5000																	

Table V

Sayeh

Heavy Mineral Stream Sediment
Frequency Distribution of Elements

Class Interval ppm/ppb	Mo F	F	Cu FHM	CHM	Pb F	Zn F	F	Ag FHM	CHM	Hg F	As F	Mn F	F	Au FHM	CHM	Sb F	H.M %
0.1																	
0.2																	
0.3																	
0.4							1										
0.5								1									
0.6							1	1									
0.7																	
0.8																	
0.9																	
1.0	1										1						
1.1																	
1.2																	
1.3																	
1.4																	
1.5																	
1.6-1.7																	
1.8-1.9																	
1.9-2.0	1																
2.1-2.3																	
2.4-2.6																	
2.7-2.9																	
3.0-3.9																	
4.0-4.9											1						
5.0-5.9														1	1		
6.0-10					1										1		
11 - 15		1	1							1							1
16 - 20					1					1						1	1
21 - 25																	
26 - 30		1	1											1		1	
31 - 35						1											
36 - 40																	
41 - 45						1											
46 - 50																	
51 - 60																	
61 - 70																	
71 - 80																	
81 - 90																	
91 -100																	
101-120																	
121-140																	
141-160																	
161-180																	
181-200												1					
201-250																	
251-300																	
301-350																	
351-400																	
401-450																	
451-500																	
501-600																	
601-700												1					
701-800																	
801-900																	
901-1000																	
1001-2000																	
2001-3000																	
3001-4000																	
4001-5000																	
>5000																	

COST STATEMENT

Wages

	Cost
2 Geologists, 1.5 mandays (1981 July 17, Sept. 27)	$ 225.00
4 Jr. Geol. Assistants, 3 mandays (1981 July 17, Sept. 27)	156.58
	$ 381.58

Room & Board

Location	Daily Rate	Date	No. of Days	
Swift River	$30.00	1981 July 17	3	$ 90.00
Whitehorse	$50.00	1981 Sept. 27	1.5	75.00
				$ 165.00

Transportation

Helicopter in support of field work @ $432.50/hr including fuel (Flying by Viking Helicopter Ltd. of Prince George)

Dates (1981): July 17, Sept. 27 No. of hrs: 3.8 $1,643.50

Analytical Services

Type of Sample	No. of	Fraction Analyzed			Elements Analyzed											Unit Price	
		F	FHM	CHM	Mo	Cu	Pb	Zn	Ni	Ag	Hg	As	Mn	Au	Sb		
Heavy	2	X			X	X	X	X		X		X	X		X	$17.35	$ 34.70
Mineral	2		X		X	X	X	X		X				X	X	17.35	34.70
	2			X										X		5.00	10.00
Silt	4				X	X	X	X	X	X		X		X		14.30	57.20
Rock	2					X	X			X						22.75	45.50

Preparation - Rock	2 @ $2.75 sample	5.50
- Heavy Mineral	4 @ $20.00/sample	80.00
- Soil/Silt	4 @ $0.85/sample	3.40

Mo($0.90), Cu($0.90), Pb($0.90), Zn($0.90), Ni(0.90), Ag($0.90/$2.00), Hg($4.50), As($3.00), Mn($0.90), Au($5.00), Sb($3.75)

$ 271.00

Report Preparation

Drafting: 1 day @ $100/day	$ 100.00
Typing: 1 day @ $95.00	95.00
Map preparation 8 maps at 16¢/square foot	11.52
	$ 206.52

GRAND TOTAL: $2,667.60

REFERENCES

Christie, R. L.; "Geology: Bennett (104M)", G.S.C. Preliminary Series Map No. 19-1957, 1957.

Mulligan, Robert; "Geology of Teslin Map-Area, Yukon Territory (105C), G.S.C. Memoir 326, 1963.

Neelands, J. T.; "Geochemical Report - Kulta Regional Stream Sediment Sampling Programme in the Dease Lake and Tagish Lake Areas", B.C. Assessment Report, 1982.

Neelands, J. T.; "Kulta Follow-Up (104-J, 104-M)" Geological and Geochemical Report, B.C. Assessment Report, 1982.

Wheeler, J. O.; "Whitehorse Map-Area, Yukon Territory (105-O)", G.S.C. Memoir 312, 1961.

QUALIFICATIONS

I, John Thomas Neelands, do hereby certify that:

1. I am a geologist residing at 118-B W. 14th Ave, Vancouver, British Columbia and employed by Du Pont of Canada Exploration Limited.

2. I am a graduate of Carleton University (1971) in Ottawa, Canada, and hold a B.Sc., degree in Geology.

3. I am a member of the Geological Association of Canada and of the Association of Exploration Geochemists.

4. I have been practising my profession for the past ten years and have been active in the mining industry for the past sixteen years.

5. Between 1981 May and 1981 October, I supervised and participated in the field programme described in this report on behalf of Du Pont of Canada Exploration Limited.

J.T. Neelands
1982 May

APPENDIX I

Laboratory Procedure

PHONE 980-5814

APPENDIX I

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURE FOR GOLD GEOCHEMICAL ANALYSIS.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pre-treated with HNO_3 and $HClO_4$ mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.

APPENDIX I

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURES FOR Mo, Cu, Cd, Pb, Mn, Ni, Ag, Zn, As, F

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HNO_3 and $HClO_4$ mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the CH_2H_2-Air flame combination but the Molybdenum determination is carried out by C_2H_2-N_2O gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzit method using Ag $CS_2N(C_2H_5)_2$ as a reagent. The detection limit obtained is 1. ppm.

Fluorine analysis is carried out on a 200 milligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soil samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is 10 ppm F.

LEGEND

Banded chromite in dunite

Dunite interlayer with harzburgite

Fault
Identified
Probable (inferred)

Foliation

Contour (metres)

GEOLOGIC SKETCH

CHROMITE SHOWING
CRO CLAIM #2

MAP IV

J.S. Dodge 07-87

LEGEND

TERTIARY

MIOCENE

CARMACKS GROUP

12 — Grey weathering massive hornblende andesine porphyry

EOCENE

MT. NANSEN GROUP

11 — 11 a) Andesite 11 b) Basalt

10 — 10 a) Quartz monzonite 10 b) Granodiorite

CRETACEOUS

COAST INTRUSIONS

9 — 9a) Quartz monzonite 9b) Granodiorite 9c) Felsic dyke 9d) Mafic dyke 9e) Anorthosite

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 215 C — ROCK SAMPLE LOCATION and NUMBER

CLAIM LINE

ROCK ASSAYS

Number	% Cu	%Pb	oz/t Ag
215 C	0.184	0.10	0.11
216 C	0.006	0.18	0.10

DU PONT EXPLORATION CANADA

KULTA PROJECT
SAYEH CLAIMS 091041
GEOLOGY

JOHNSONS CROSSING 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., J.M.K.	REVISED :	N.T.S. No. :	105 C 6 W
DATE : 81 09 27		ACCT No. :	351 - 27
DRAWN BY : C.H.K.		DRWG. No. :	KU.81 - 178
DATE : 82 04 23			

MCT - 209

1981 SAMPLE RESULTS

Sample	Mo ppm -80	Mo ppm -80	Cu ppm -80	Cu ppm -80	Cu ppm -20 +80	Pb ppm -80	Pb ppm -80	Zn ppm -80	Zn ppm -80	Ni ppm -80	Ag ppm -80	Ag ppm -80	Ag ppm -20 +80	Hg ppb -80	As ppm -80	As ppm -80	Mn ppm -80	Au ppb -80	Au ppb -80	Au ppb -20 +80	Sb ppm -80	Sb ppm -80	Co ppm -80	H.M. wt. F/C gm	H.M. % F/C g	Orig. wt. F/C gm
Silt																										
3850 C	1		9			10		30		120	0.4				4			10					9			
3851 C	1		22			19		48		158	0.5				13			5					15			
3852 C	1		33			12		40		66	0.5				6			125					14			
3853 C	1		34			12		45		70	0.4				15			205					14			
-10 Sieve																										
6822 D	1		8		13	7		25			0.4		0.4				150	800		5				165.0	11.09	6.72
-4 Sieve																										
8452 B	2	1	12	11		6	5	33	36		0.4	0.5		20	4	11	190		5	5*	16	3		3.62/218.0	9.16/12.87	39.5/ 5.90
8453 B	1	1	29	27		16	6	42	29		0.6	0.6		15	1	3	640		30	10*	26	19		9.12/144.0	17.01/17.45	53.6/12.12

* -40 Mesh

LEGEND

O 3851 C	SILT or SOIL SAMPLE LOCATION and NUMBER
● 8453 C	SIEVED HEAVY MINERAL SAMPLE LOCATION and NUMBER
X – 6822 D	ORIGINAL SIEVED HEAVY MINERAL SAMPLE LOCATION (1981) and NUMBER

DU PONT CANADA **EXPLORATION**

KULTA PROJECT
SAYEH CLAIMS
GEOCHEMISTRY

Au, Ag, As, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Zn, %HM

JOHNSONS CROSSING AREA, YUKON TERRITORY

1 : 10 000

m 300 200 100 0 300 600 m

SCALE

1 INCH = 833 FEET

MAPPED BY	J.T.N./J.M.K.	REVISED	N.T.S. No. 105 C 6W
DATE	81 09 27		ACCT No. 351 - 27
DRAWN BY	C.H.K.		DRWG. No. KU.81 – 179
DATE	82 02 25		

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