

**1994 GRUBSTAKE PROGRAM**

**YTG MINERAL INCENTIVES PROGRAM  
PROJECT #94-71**

**MARSH LAKE AREA  
WHITEHORSE MINING DISTRICT**

**105D/8 & D/9  
Lat. 60° 35' Long. 134° 30'**

**By. R. S. Berdahl  
Box 5664  
Whitehorse, Yukon  
Y1A 5L5**

**For work performed between  
July 2 - October 1, 1994**

**December 1994**

## TABLE OF CONTENTS

	<b>Page</b>
<b>Title Page</b>	
<b>Table of Contents</b>	
<b>Summary</b>	
1.0     Introduction	3
2.0     Access/Location	4
3.0     History	4
4.0     Physiography/Vegetation	5
5.0     Geology	
5.1     Regional Geology	5
5.2     Property Geology	5
6.0     Mineralization/Modelling	6
7.0     Methodology	7
8.0     Conclusion and Recommendations	7
<b>References</b>	8
<b>Appendices</b>	
Appendix A: Location Map	
Appendix B: Geochem Results	
Appendix C: Property Map	
Appendix D: Geophysics Map	

## SUMMARY

Prospecting in the Marsh Lake area concentrated on two areas. On 105D9, the contact between Laberge sediments and Lewes River sediments and volcanics was prospected. Evidence of mezothermal and epithermal systems were found. The highest values obtained were 1,158g Au in float and 3983 ppm Cu. A 146 ppb stream sediment sample was collected in a west draining creek. Retesting of the government geochemical Au anomaly of 39 ppb in a south draining creek yielded a 29 ppb Au reading. On 105 D/8 geophysical anomalies mapped as part of the Yukon Prospectors' Association project were considered. Ground proofing with an EM-16 confirmed some mapped anomalies.

## **1.0 Introduction**

This report was prepared to compile information gathered during the 1994 field season. Its purpose is to help assess the area's economic and exploration potential as well as to satisfy one of the requirements of the Yukon Mineral Incentive Program under which this project was partially funded (project #94-71).

The project area is in the southern Yukon approximately 30 miles southeast of Whitehorse. Reconnaissance prospecting was performed in order to find mineralized epithermal/mezothermal gold veins in association with perceived model targets.

Both classic motherlode gold type and epithermal deposits are being sought

## **2.0 Access/Location**

Caribou Lake lies about 4km northeast of Marsh Lake at Lat. 60 31', Long. 134 15' on NTS map sheet 105D/9. The area of interest surrounds the lake and extends over 10km to the northeast and south onto 105/D8. The prospecting area can be reached along a tote road which passes north of Caribou Lake. This tote road leaves the Alaska Highway approximately 30 miles south of Whitehorse near the old Marsh Lake Marina. The entire area is within the jurisdiction of the Whitehorse Mining Recorder

Access to the area was by vehicle to approximately Km 4 of the tote road and then north and south on foot. Alternatively, a float plane could land on Caribou Lake. With the location and ready access the use of a helicopter or plane is not foreseen.

## **3.0 History**

Several adits which predate the Klondike Gold Rush can be found along Marsh Lake. Given the difficult conditions of glacial overburden and permafrost the area has not been subject to much conventional prospecting. Interest in base metals prompted Prado Exploration Ltd. to stake claims and run EM, and magnetic surveys over the area in 1968. The rising price of gold in the 1970's and 80's prompted gold exploration along the Marsh Lake trend, most notably at the Rossbank and nearer Squanga Lakes on the Tog et al claims. The 'IS' claims were staked in 1989 by the author to cover structures with carbonitized ultramafic alterations float. More recently claims were staked by myself and G. Rushant to cover newly discovered gold shear (ET and Janet).

During the spring of 1994, Dighem Geophysics carried out an airborne EM and magnetic survey over a portion of the interest area as part of a Yukon Prospectors/MDA project.

#### **4.0 Physiography/Vegetation**

The area is characterized by hills rising to about 1700 feet above broad, and in places, swampy lowlands.

Northwesterly flowing glaciers have exposed and rounded the bedrock at higher elevations while dumping debris of unknown depths in the adjacent valleys.

Vegetation is variable with pines concentrating on the drier glacial benches and more typical boreal plants elsewhere. Aspen grows on south facing slopes often surrounding grassy windswept openings. Labrador Tea and moss seem to favour areas harbouring permafrost. Alder, willow, cottonwood are common. Spruce is more or less ubiquitous over the entire area.

#### **5.0 Geology**

##### **5.1 Regional Geology**

The Caribou Lake project lies within the Intermontane Super Terrane. The oldest rocks (Miss. to Triassic) in the area are those of the Cache Creek group which consist of oceanic mafic volcanics and overlying chert, carbonates and volcanics.

In the mid Jurassic the amalgamated Triassic Lewes River volcanics and Jurassic Leberge sediments which constitute the Whitehorse Trough were abducted over the Cache Creek Terrane. The mid to late Jurassic accretion of the Insular Super Terrane created the Coast 'complex' of metamorphosed volcanics and sediments which is thought to have produced the plutons within the Intermontane from the mid Jurassic to the Cretaceous.

##### **5.2 Property Geology**

Wheeler (1961) mapped the area as unit A and Aa, volcanic rocks of uncertain age and metamorphosed volcanic rocks respectively. He has also mapped the intrusive east of Caribou as a Cretaceous pegmatitic syenite. Most of contact areas are overburden covered.

Generally Leberge group sediments are thought to juxtapose the 'A' volcanics (diorites and altered diorites) along a strong northeast linement marked by linear magnetic anomalies and a series of EM anomalies. Interspersed in both are limestones, black cherts, banded cherts and shales, black crystalline limestones and serpentinites thought to belong to the Cache Creek group. (see property map CPcc) Outcrop in low lying 'contact areas' is less than 10%.

Along a southeast trending fault south of the "lake showing" on the ET claims meta-ultramafics or possibly mylonites juxtapose the volcanics and altered volcanics. Soil samples from the critical contact fault cannot be taken because of permafrost.

A large fault runs north from Michie Mountain. Contact between Lewes River and Lebarge sediments generally lie just west of this fault. The mapping of the fault as well as the sediment/sediment contact seems rather arbitrary in places.

## **6.0 Mineralogy/Modelling**

Mineralization was discovered in several locations. Cu (R4D913) and Ag (R4D914) numbers were elevated (3983 ppm Cu) and (31.5g Ag) in azurite and pyritic black limestone respectively. The black, possibly brecciated, limestone vertically contacts a tuff at the mineralization.

The rocks are mapped as Lewes River which are reported to have elevated Cu values naturally. Adjacent quartz carbonate veins cutting conglomerate/agglomerate are not anomalous. Rhyolite dikes cut the same conglomerate and nearby diorites.

Epithermal, limonitic quartz veins from the 5600' peak returned low values.

R4D910, consisted of limonitic quartz, veins (1/4 - 1") through black carbonates, returned values of 966 ppb Au in sheared, complex geology consisting of NE trending aplite dikes crosscutting shales, greenstones and a NW trending quartz dike.

A stream sediment sample draining the west facing slope of the hills northeast of Caribou Lake returned 146 ppb Au (S4D924). In the same drainage quartz float with minor pyrite and possible galena returned a Au value of 1,158 ppb (R4D94). It is not known if the float is local or glacially derived.

The resampling of the Government geochemical anomaly (39ppb) produced a 29 ppb response with a 21 ppm W anomaly. Other elements were sub anomalous.

## **7.0 Methodology**

Prospecting was carried out along suspected geologic contacts and faults in an area with an anomalous Au geochem signature

Forty rock, soil and steam sediment samples were sent for analysis. NAL of Whitehorse analysed the samples for Au (fire assay) and 30 element ICP (IPL in Vancouver).

An EM-16 was used in the survey area south of Caribou Lake to attempt to ground proof airborne anomalies mapped by Dighem Geophysics as part of the MDA/Prospectors' Association Marsh Lake project. Both the Hawaii and Seattle stations were employed.

## **8.0 Conclusion and Recommendations**

The geology along with interesting geochemical/geophysical results in the Caribou Lake area suggest a good probability of mezothermal and/or epithermal mineralization. More work over the entire area needs to be done. Specifically,

- 1) Combined EM and Mag surveys need to be carried out on the Gary R claims.
- 2) Other EM and Mag targets in the Caribou area need ground EM and Mag.
- 3) Ground proofing of above anomalies
- 4) Contingent on the above results, trenching or drilling work needs to be carried out to test EM/Mag targets.
- 5) Detailed prospecting needs to be carried out along the large mapped fault running north of Michie Mountain
- 6) Detailed prospecting needs to be performed along porphoritic syenites (mapped 8 g by Wheeler) east of Caribou Lake and within the 3d unit (as mapped by Wheeler) just east of the above mentioned Michie Mountain fault approximately 6 miles north of the mountain apex. Additional prospecting along the rest of the ridge immediately to the west should also be performed.

## **REFERENCES**

Rushant, G.

Prospecting and Geochem Report on the Jan 1 - 12, 15 Claims, 105D/9 Assessment Report 1993.

Tindale, J.L., B.Sc.

Airborne Electromagnetic and Magnetometer Survey in the Marsh Lake area, 1968.

Wheeler, J.O.

Memoir 312· Whitehorse Map Area, Yukon Territory, 105D. Geological Survey of Canada, 1961

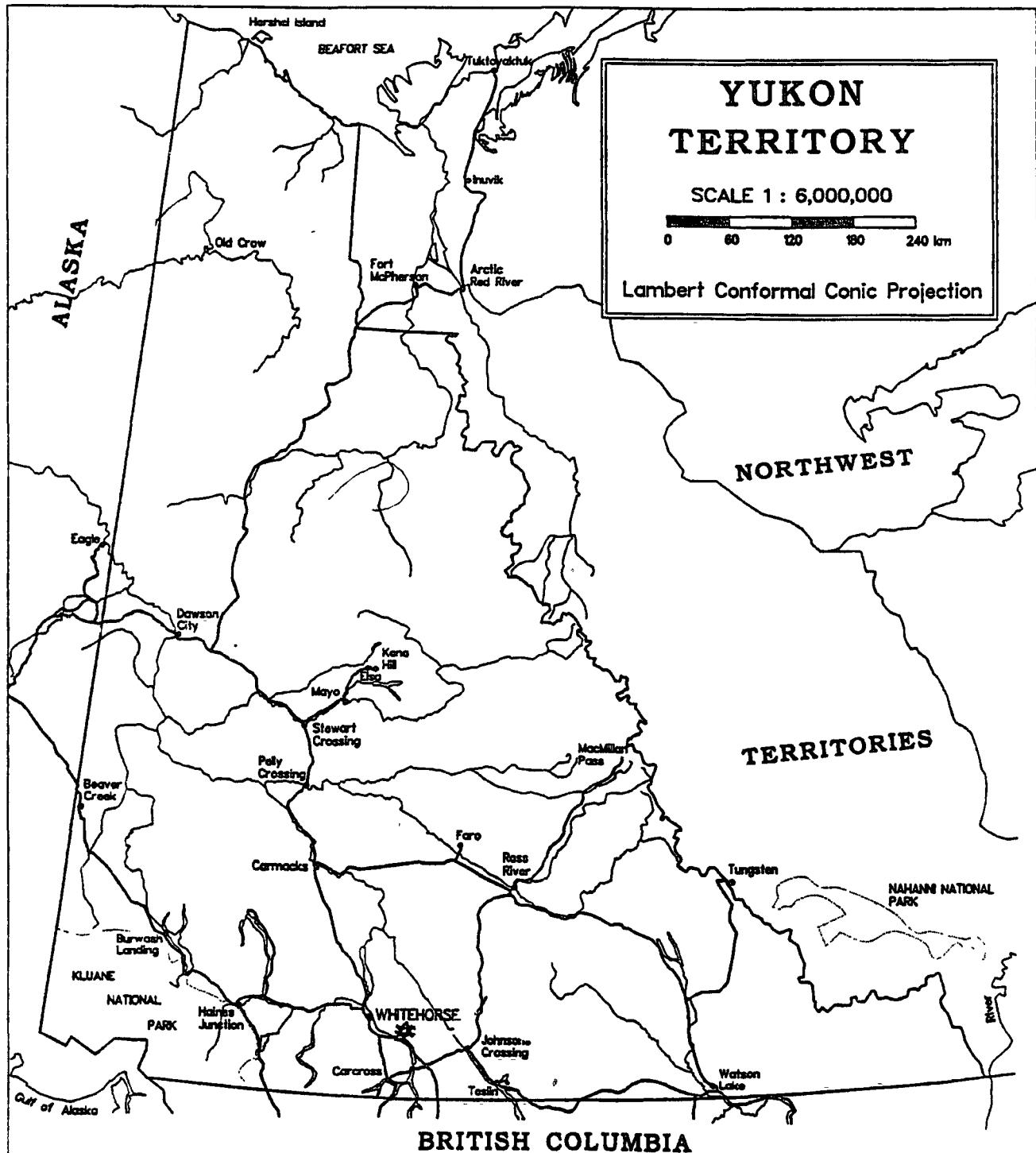
Wheeler, J.O., Brookfield H.J., Garielse, H., Monger, J.W.H., Tipper H.W. and Woodworth G.J. 1991

Geology of the Cordilleran Origin in Canada, Geology of North America vol G-1, Geologic Survey of Canada.

Dighem Geophysics Ltd./Yukon Prospectors Assn.

Marsh Lake Survey 105 D/8, March 1994

**APPENDIX A**  
**LOCATION MAP**



# LOCATION MAP CARIBOU PROJECT

FIGURE 1

**APPENDIX B**  
**GEOCHEM RESULTS**



INTERNATIONAL PLASMA LABORATORY LTD

## CERTIFICATE OF ANALYSIS

iPL 94G1504

2036 Columbia Street

Vancouver B C

Canada V5Y 3E1

Phone (604) 879-7878

Fax (604) 879-7898

RON BERDAHL

Northern Analytical Laboratories

Out: Jul 20, 1994 Project: W0 25272

In : Jul 15, 1994 Shipper: Norm Smith

PO#: Shipment:

ID=C030900

Msg: ICP(AqR)30

Msg:

## Document Distribution

1 Northern Analytical Laboratories  
 105 Copper Road  
 Whitehorse  
 YT Y1A 2Z7

EN RT CC IN FX

1 2 2 2 1

DL 3D 5D BT BL

0 0 0 1 0

ATT: Norm Smith

Ph: 403/668-4968

Fx: 403/668-4890

## 83 Samples

Raw Storage:

0= Rock

0= Soil

0= Core

0=RC

Ct

83= Pulp

0=Other

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--

--



**CERTIFICATE OF ANALYSIS**  
**iPL 94G1504**

**INTERNATIONAL PLASMA LABORATORY LTD**

2036 Columbia Street  
Vancouver B.C.  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Client: Northern Analytical Laboratories  
Project: WO 25272 83 Pulp

PL: 94G1504

Out: Jul 20, 1994

In: Jul 15, 1994

Page

Page 1 of 3  
7:490720941

Sec  
Certifie

Section 1 of 1

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	B <sub>1</sub> ppm	Cd ppm	Co ppm	N <sub>1</sub> ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	F <sub>1</sub> %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %	
002312	P 1.2	7	109	13	72	56	<	6	<	<	1.1	5	9	37	5	208	5	486	8	5	3	<	<	0.41	0.22	1.17	0.15	0.08	0.03	0.06	
002313	P 4.2	361	52	175	66	38	<	9	<	<	0.6	6	27	33	<	263	5	380	6	3	2	<	<	0.55	0.07	1.61	0.03	0.03	0.03	0.01	
002314	P 0.2	14	6	6	16	13	<	5	<	<	1.2	44	616	119	<	413	10	1367	<	313	1	3	<	<	0.06	5.68	3.15	13%	0.01	0.03	<
002315	P 0.1	12	<	50	675	201	<	8	<	<	0.1	37	397	447	<	359	7	328	<	11	1	2	<	<	0.05	0.41	3.17	7.00	0.01	0.03	<
002316	P <	5	2	8	62	29	<	5	<	<	1.6	81	0.2%	81	<	573	13	404	<	240	1	3	<	<	0.05	9.26	3.44	12%	<	0.03	<
C1(A)	P <	59	4	29	14	<	<	1	<	<	0.1	8	59	38	<	111	37	80	23	30	2	4	0.03	0.70	0.64	1.03	0.34	0.54	0.06	0.21	
C1(B)	P <	67	13	33	14	<	<	1	<	<	0.1	5	49	30	<	68	34	68	28	31	2	4	0.02	0.57	0.79	0.91	0.26	0.46	0.05	0.25	
C2	P 0.3	15	<	174	46	<	<	41	<	<	0.5	6	8	159	<	3	88	210	24	155	4	3	0.03	1.14	0.69	11%	0.61	0.30	0.10	0.28	
D4D 931	P 0.1	17	7	66	16	<	<	2	<	<	0.3	24	10	304	<	7	64	861	13	18	1	7	<	1.83	0.30	6.04	0.30	0.07	0.03	0.11	
D4D 933	P 0.1	29	4	54	8	<	<	1	<	<	0.2	11	40	135	<	69	68	245	10	39	2	2	0.07	1.38	0.73	2.36	1.00	0.05	0.04	0.10	
D4D 934	P <	26	5	50	8	<	<	1	<	<	0.4	9	35	136	<	52	58	295	8	21	<	1	0.03	1.52	0.41	2.51	0.85	0.04	0.03	0.08	
D4P1410	P 0.3	62	10	166	30	6	<	6	<	<	0.6	20	56	298	<	22	56	3344	14	29	3	2	0.02	1.11	0.87	13%	0.48	0.09	0.03	0.10	
D4P1411	P <	15	15	93	14	<	<	3	<	<	0.4	9	18	118	<	26	46	351	19	19	1	1	0.06	1.40	0.25	2.53	0.50	0.08	0.03	0.09	
DHP 145	P 0.8	55	18	217	33	8	<	6	<	<	1.3	26	55	321	<	28	75	1845	12	19	<	1	0.04	1.82	0.10	4.36	0.40	0.10	0.03	0.19	
R4D 21	P <	17	4	25	503	10	<	7	<	<	0.5	4	16	190	<	223	16	585	<	18	1	1	<	0.21	3.34	1.86	0.11	0.10	0.03	0.01	
R4D 91	P 0.2	39	9	47	28	<	<	3	<	<	1.0	9	17	96	<	21	7	864	10	745	5	2	<	0.28	9.33	2.78	1.45	0.17	0.04	0.08	
R4D 92	P 0.1	39	23	80	15	<	<	5	<	<	0.6	26	21	157	<	45	151	770	28	241	7	3	0.15	2.38	3.50	5.39	3.04	0.16	0.13	0.45	
R4D 93	P 0.3	157	22	106	<	<	<	3	<	<	0.6	21	46	137	<	33	37	831	/	280	2	4	<	0.49	3.37	4.90	2.19	0.26	0.05	0.11	
R4D 94	P <	15	<	18	13	5	<	7	<	<	0.1	4	9	35	<	216	5	247	<	100	<	1	<	0.08	0.99	0.86	0.06	0.03	0.03	0.02	
R4D 95	P <	14	30	29	7	<	<	3	<	<	0.1	3	7	77	<	142	4	143	4	17	3	<	<	0.19	0.10	0.74	0.04	0.05	0.07	0.03	
D4D 96	P 0.5	177	17	124	25	<	<	5	<	<	0.6	15	34	47	<	40	74	418	7	13	1	2	0.06	2.36	0.16	7.75	0.89	0.06	0.03	0.13	
R4D 97	P <	60	<	45	15	<	<	4	<	<	0.4	17	74	83	<	181	17	631	3	1187	<	2	<	0.93	15%	2.91	0.57	0.10	0.03	0.01	
R4D 910	P 0.8	34	100	92	117	<	<	9	<	<	1.4	11	21	181	<	142	26	742	5	298	3	4	<	0.37	3.46	3.76	0.54	0.11	0.03	0.16	
R4D 911	P <	7	7	31	12	<	<	4	<	<	0.3	5	8	308	<	46	7	1666	10	2036	1	2	<	0.15	17%	1.99	1.20	0.06	0.03	0.07	
R4D 912	P 0.1	106	2	83	16	<	<	3	<	<	1.5	29	40	215	<	50	47	828	11	488	4	6	<	0.49	9.39	4.96	2.53	0.15	0.07	0.52	
R4D 913	P 12.5	3983	12	231	16	<	<	12	<	<	0.6	48	46	55	<	123	42	203	<	162	2	2	<	1.61	1.49	6.00	1.08	0.03	0.03	0.01	
R4D 914	P 31.5	2677	20	217	46	<	<	8	<	<	0.6	57	42	13	<	97	12	34	<	6	2	1	<	0.75	0.05	12%	0.37	0.06	0.03	<	
R4D 915	P 3.1	327	12	105	52	<	<	3	<	<	0.8	14	21	87	<	67	16	690	7	16	1	3	<	0.61	0.19	3.93	0.11	0.14	0.07	0.08	
R4D 916	P <	25	<	22	8	<	<	4	<	<	<	3	5	27	<	32	5	1545	4	1275	<	1	<	0.09	25%	1.17	0.33	0.03	0.03	0.01	
R4D 917	P <	106	9	68	9	6	<	3	<	<	0.5	41	95	75	<	447	125	1380	9	400	2	15	0.01	2.58	5.48	5.89	5.05	0.08	0.03	0.29	
D4D 918	P 0.5	90	8	158	62	<	<	5	<	<	1.0	38	91	147	<	82	58	960	5	76	1	7	<	2.57	1.49	6.14	1.75	0.09	0.03	0.08	
R4D 919	P 0.2	76	4	57	4	<	<	3	<	<	0.3	18	14	17	<	77	108	592	2	30	11	5	0.34	2.23	0.86	4.91	2.21	0.05	0.06	0.05	
D4D 920	P 0.1	21	6	65	4	<	<	1	<	<	0.3	10	13	168	<	11	41	348	17	30	2	3	<	2.02	0.88	3.66	0.74	0.09	0.04	0.17	
D4D 922	P 0.2	36	6	48	9	<	<	1	<	<	0.3	15	174	92	<	266	58	339	7	12	<	1	0.04	1.69	0.24	2.81	1.96	0.05	0.04	0.07	
R4D 932	P <	14	16	50	13	<	<	6	<	<	0.5	9	13	116	<	158	14	1018	5	53	1	2	<	0.26	0.92	3.32	0.13	0.13	0.05	0.09	
D4D 935	P <	23	9	43	7	<	<	1	<	<	0.1	10	31	155	<	48	62	324	12	26	1	1	0.04	1.86	0.42	2.49	0.82	0.07	0.03	0.11	
D4D 936	P <	21	6	52	4	<	<	2	<	<	0.3	7	30	120	<	53	44	209	7	19	<	<	0.02	1.29	0.37	2.07	0.72	0.04	0.03	0.08	
R4D 937	P <	16	7	25	769	7	<	6	<	<	0.3	8	18	52	<	190	15	685	2	48	1	3	<	0.17	3.30	1.42	0.07	0.07	0.03	0.06	
R4D 938	P 7.5	1363	9	246	21	<	<	5	<	<	1.2	4	8	209	<	120	4	123	<	16	1	1	<	0.45	0.70	2.59	0.13	0.10	0.06	0.01	

**Min Limit**    0.1    1    2    1    5    5    3    1    10    2    0.1    1    1    2    5    1    2    1    1    0.01    0.01    0.01    0.01    0.01    0.01  
**Max Reported\***    99.9    20000    20000    20000    99999    99999    99999    99999    999    999    99.9    999    99999    999    99999    999    99999    999    99999    999    99.1    1.00    9.99    9.99    9.99    9.99    9.99    5.00    5.00

--No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pu1 U=UnDefined m=Estimate/1000 z=Estimate % Max=No Estimate

International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7876 Fax:604/879-7856





**CERTIFICATE OF ANALYSIS**  
**iPL 94G1504**

INTERNATIONAL PLASMA LABORATORY LTD

5295 Cambie Street  
Vancouver BC  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Client: Northern Analytical Laboratories  
Project: WO 25272 83 Pulp

iPL: 94G1504

Out: Jul 20, 1994  
In: Jul 15, 1994

Page

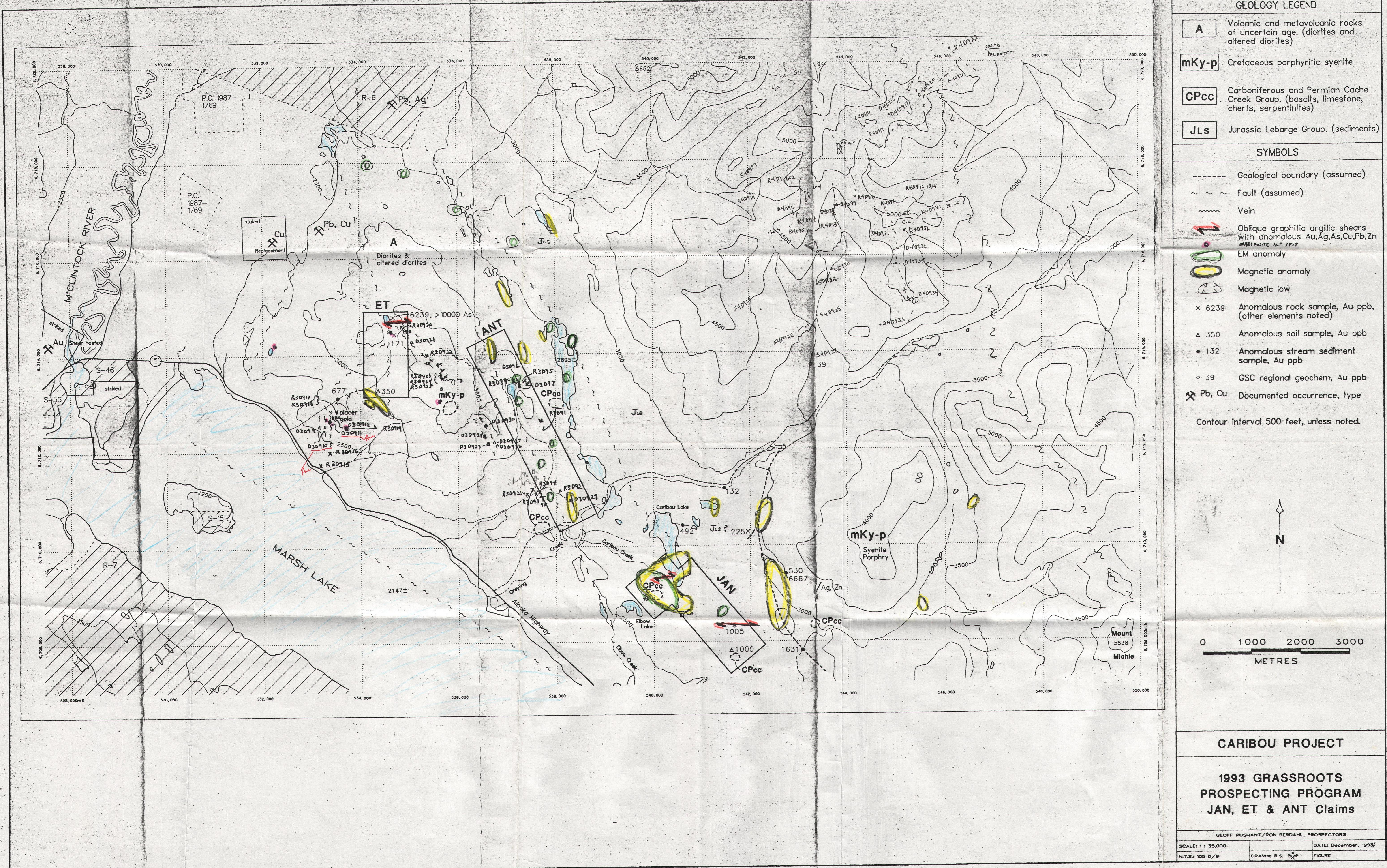
Pao

Pao

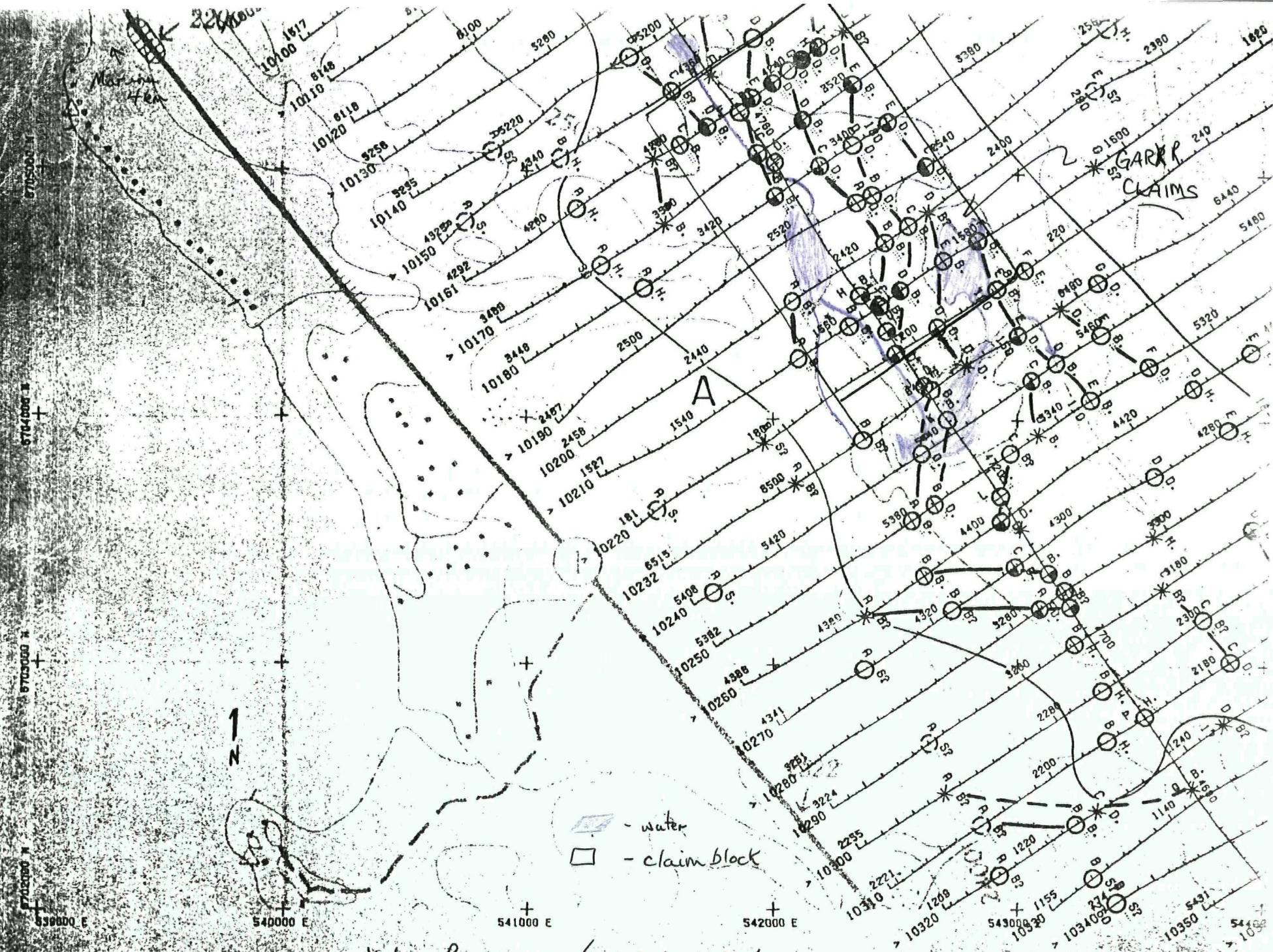
Section 1 of 1  
Certified BC Assayer: David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
S4D 927	P <	11	8	36	17	<	<	1	<	<	0.1	8	26	99	21	49	50	324	14	29	1	1	0.07	0.84	0.55	1.95	0.64	0.04	0.04	0.07
S4D 928	P <	13	3	48	<	<	<	1	<	<	0.3	9	26	108	<	49	45	487	11	38	1	1	0.07	0.98	0.68	1.83	0.77	0.05	0.04	0.07
S4D 929	P 0.3	50	6	85	11	<	<	2	<	<	0.6	15	46	139	<	68	62	465	7	40	1	1	0.05	1.51	0.92	2.99	1.12	0.07	0.04	0.09
S4D 930	P <	15	2	50	5	<	<	1	<	<	0.2	8	25	95	<	51	40	291	8	39	1	1	0.06	0.94	0.71	1.56	0.73	0.04	0.04	0.07
S4P1422	P 0.1	17	8	60	5	<	<	2	<	<	<	9	13	124	<	26	43	330	31	20	1	1	0.09	1.07	0.42	1.96	0.49	0.10	0.04	0.14

**APPENDIX C**  
**PROPERTY MAP**



**APPENDIX D**  
**GEOPHYSICS MAP**



Yukon Prospectors / MDA 1994

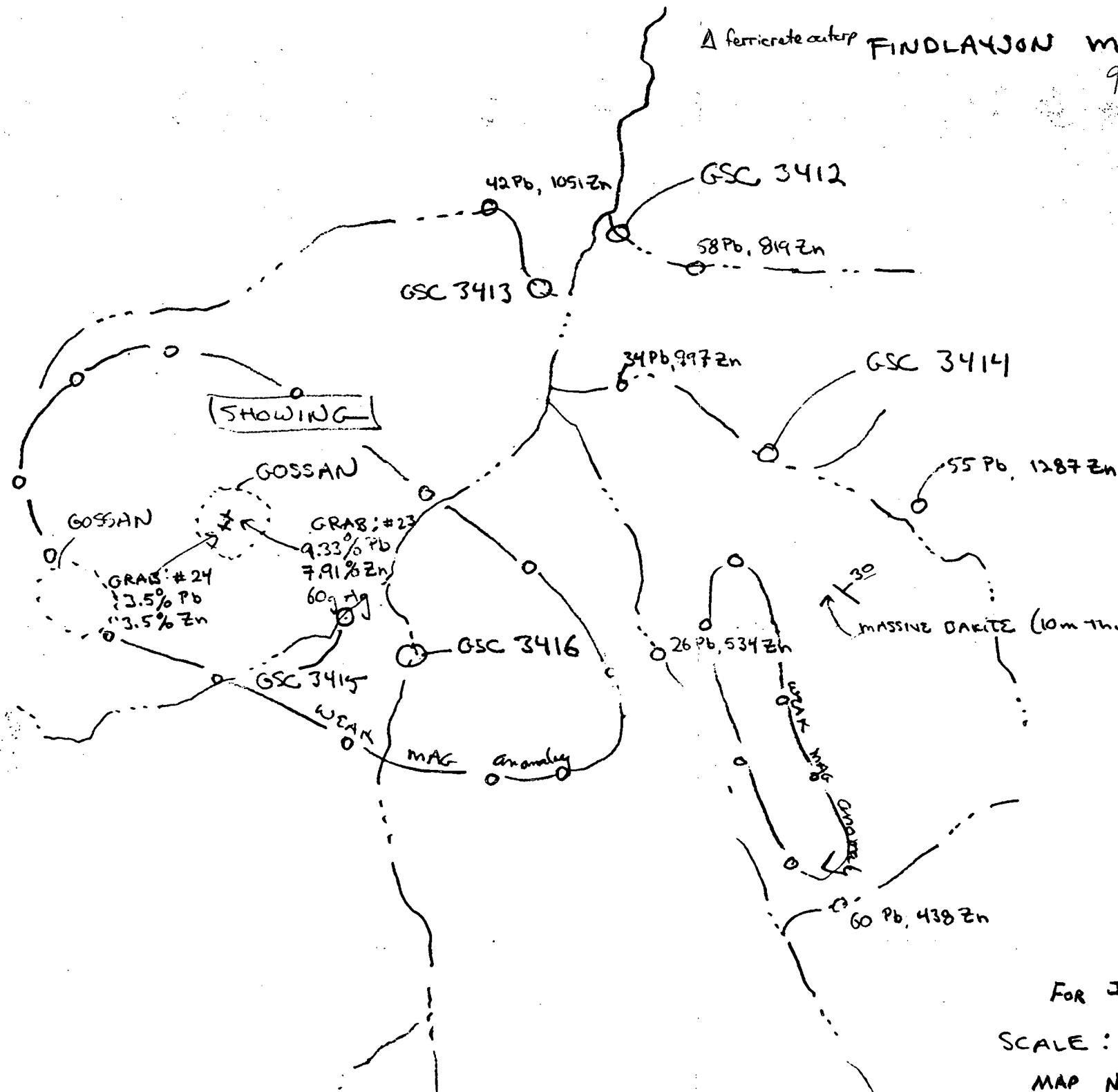
## DIGHEM VLF SURVEY

(+) anomaly B- bedrock source  
D- dike "

A ferricrete cuttop FINDLAYSON MAP SHEET

94-071

1  
N



"VVO" property  
FOR JS BERDAHL GRUBSTAKE  
1994

SCALE : 1/2 mile to 1 inch

MAP N<sup>o</sup> 2 MAG/GSC Anomalies

June 17, 94

Zelti project - #1 claims study

$110^{\circ}$  - orange qtz porphyry rhyolite  
10-20 m wide - felsic, possibly alt. feld.  
phenocrysts - @ #1 No 1 + No 2 Hope claims.

Hvy smoke + strong wind from west N.W.

Locate ~~Nevada~~ / Danube drill sites + core.  
exposed boxes of alt material rotten, or  
poor recovery; locate 100 boxes of drill core  
at a ~~geological camp~~ (Colorado 1984) approx  
1 km south of 88 drill camp - undist. but  
top boxes weathered - 10 boxes 31m, top surface  
fairly messy conglom. etc.; structures  
running  $\approx 110^{\circ}$  due west of drill camp.

at ridge (Rennie) - top exposure  
alt. rk, both thinning; 1<sup>st</sup> structure  
seems correlative according to 'granite' ridge +  
possibly 'talcophane' ridge (route from  
Nevada (pt.); Alt rock consists of reddish  
alt feldspar (porphyritic biotite?) leucite w. heavy  
marginal country (25% of fractured surfaces)  
+ limestone; feldspar light green; other alt.  
rock is qtz rich pinkish + brownish yellow-green  
'or schist'; alternates, w. limestone - very alt w/ brownish  
structure. One dark rk, possibly tourmaline -  $\approx 12$   
thick at base rk., ridge top structure  
is 2 m wide; seasonal. Dark down slope is - may

represent float fan. 'Granite' alt material rk. for  
short ( $\approx 10$ ) Actual 'Granite' mineralization (see  
1984 Nevada rpt) not seen - suggested granite  
still filled by current - part of sandstone.

Ridge 1: float, 'qtz stn' from talus  
front of about  $110^{\circ}$  forest may contain  
alt rk; inimitable ... & mostly.

A suspended float, which parallel ridge is  
filled w/ sand. Society of samples taken  
from Nevada R 37500 37 cu cm vein  
KTB (Th - Al - As - S - Si - Ca - Fe). Which  
make me wonder - may assay 3rd type.

June 18 Explored to the north - to; the  
San Berada zone; attempt to categorize  
Zelti rk as regard w/ actual lithology.  
most 4a-b limestone/biotite synclines; Zelti  
structures itself quite obscure, much  
qtz silic. + also alt., 2 structures  
wrapped. Units from structures north  
are apparently a light + sort. dolomite -  
thin pebbles qtz to graywacke; I would  
have called them otherwise; a dolomite,  
'epidote' associated orange weathering boulders  
unit w/ angular boulders (10 ft) cuts thin  
pebbly conglomerate on north slope. I  
would call much of the bould. unit 'black  
quartzite / talc pink' - light w/ dol.

Let us then watch how he profits  
by his wife's infidelity.

With problems about water, sediment, etc., as  
visible on both sides of your belt of alluvium,  
also east from middle of main sandbank -

Schmidl., age plant. R4 P14/12 - established  
earlier after last fall snow.

Look out one fault-line on topographic profile  
are eastward of Reth or at least  
these are roughly E-W. Several parallel  
faults on cliff-side must take  
various dips due to nature of fault-line  
which form from westward to north  
cliff face. 1<sup>st</sup> art. 1<sup>st</sup>

alt. 4000 ft. long. High peaks as well as  
valley with 100' contour interval in them.  
Some narrow streams and waterfalls, another  
large one 60' in Z. 800

5  
1

N 50° 90'

#1341  
100° 60° 90° 17°  
Some gravel & pink  
frits  
bottom  
frits

~~100~~ 100% - 100% / Total QTR 2 Sales - 38%

1050 feet here 2 dikes of unknown material  
running  $170^{\circ}$  or 41 m.  $20^{\circ}$  "rusty"  
2 areas present mostly a schistopelite  
large  $1'' \times 2''$  feldspar stolens - 90% Feld  
R4P1413 - ~~out~~ Total at 2.1m. very

R491414 - "alt" above w/o sulphur.

165° front 30° ft wide - ~~fall~~

2nd 'dike' in 105 fault line up  
with pile of orange alt porph/synthetic  
that contained #13 + 14 + 15

R4P14/16 - 1" thick pink w/ sulphide  
along magmatic fold porch biotite,?  
Sparte, other than root or contact.  
little alt to synclinal - phyllonitic  
gneiss occurring but still form a small  
- Tarnavite veins <sup>veins are fine</sup> striking  $80^{\circ}$   
dipping  $70^{\circ}$  S.

June 21 - D4 P14/7- Soil from  
60° notch below <sup>etc</sup> gyp porphyry <sup>gravel</sup> cusp.

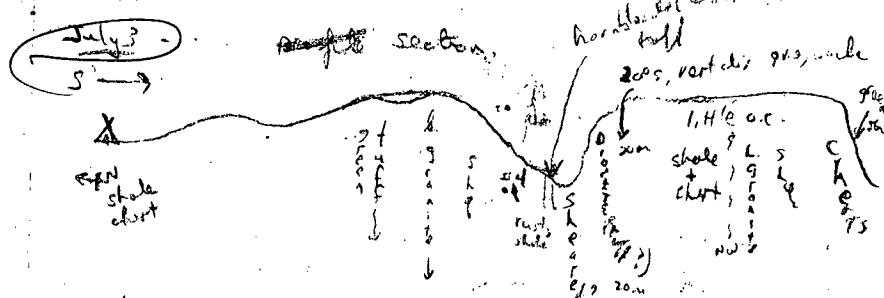
R4P14/18 - grissen flt at end of 105  
fault - float abunch + to 6" veins  
lot of sulphur 25% ; Sigo: fine - found  
grissen attached to alt qts porphyry - at least  
they're not naturally exfoliated ... talus  
mix of ignimbrites - phenocryst to fine grained

M'Chi back east: July 2,

Common shale / rusty shales - strike N dip 80° to west - don't go in the area consists of shales & pyrites w/ ph. Dominating from ridge line north, @ A N + trending fault (details later) @ B minor qd. flt + rusty weathered sediment ("graywacke") above w/ ph. flt, more rusty "graywacke" at "fault" @ C shales give way to ph. as one traverses west at "saddle" elevation. North side of high knoll. qd. veins (2-3 m. apart each) in pyrite + pyritic shale talus. Qd. veins + ph. carb. manganese (~~lithophyllite~~) in talus of shale, quartzite; an "manganite" (weathered rock rock alt to sericite) occurs elsewhere w/ ph. carb. Volcanic contact presumably west of high point of knoll; though discrete "sills" (talus) is located 100 m. west of knoll where pyritization manganese stains there and areas some quite heavy. R4D91

R-1092 - 'horstels' w/ brown pyroclastic  
No actual contact found - a  
light green - carbonaceous ex. magmatic  
volcanic.

R4D123 - south of brook - orange cherts w/  
gr. stringers w/ pyrite and to light green  
'vol' (headwaters of 3rd creek) light green  
granitic rock may be boulders in gravel  
85' 160' sp.



Hills rounded. glacial flt conundicates geology.

R4094 - double fist specimen flat, linearite, minor (trace pyrite) possible garnet - origin unknown - glacial or local

shales are N striking & steeply dipping  
tuffs - ? may be local source glaciol transp.  
shear (N-S structure) contains evident Rock - possible,  
alt tuff - diff to find clean surface - see sample :  
rocks - get <sup>thin</sup> flt on thin green base? granitic - fine granular  
angular flt in one of the two -

gradually grade into heavy band  
of greyish staining before minor pyritic shales resume  
below.

R4D95 - gts w/ limestone below a horizon (calc) -  
post. occurs, w/ or integrates to N striking graywacke  
in NW Nut structure w/ horizon above (topog)  
also gray limestone, the felina granulite re.  
also a soft calc w/ orange blbcks.

D4D922 - soil @ each side of  
Lower Poco Creek contact - 7" - light  
July 7 (Lg. 1' org. (ox) slate  
very weathered, etc) S4D923 - light  
Limestone creek (below north border fault (west))  
pan moist wet. Black sand - S4D924 - light  
sand (brown, grey, blackish) - good black  
sand in pan - valley surface at many points  
(see map above) - both 1' wide, 1' deep.  
gravel bottom w/ organic material underneath.  
Poco Creek - no water on north bank,  
south side - lots of mineral horns, 1 inch  
boulders, matrix, etc. R. limestone  
Poco Creek samples not before hitting  
Poco Creek - no limestone 2-3' in single  
drainage - 1-2.3' - walls ree-  
roded or planed - no gravel - S4D925  
Poco Creek - S4D926 - @ confluence w/ FICK  
above thin 150-200 m. rock is sandy  
@ confluence - 1/2' gravel bottom, fine  
along ends, etc. S4D927 - marshy creek  
(29) - bank not planed - 3-4' across  
gravel - two thin pine covered  
shores - other ~~scrub~~ <sup>scrub</sup> key willow  
S4D928 - more creek above con-  
fluence - bottom like 1, from

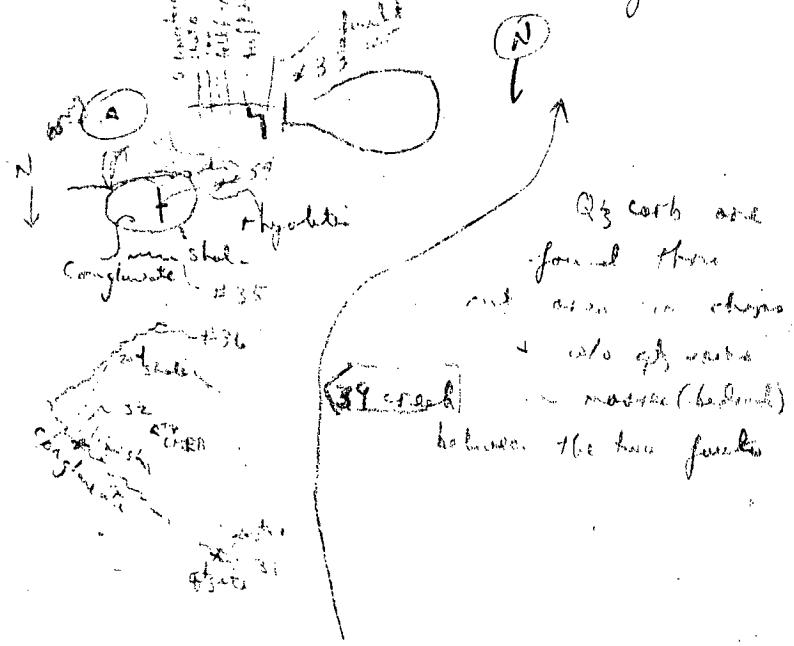
general @ confl to fine organic  
then quickly to large rocks  
sample below @ fine boulders - 90%  
fine w/ organic material underneath  
S4D929 - R. limestone trib (see topo) & actually a seep  
take sample thru organic slate  
S4D930 - marsh creek (39) 1-2' wide - some rock  
(1 ft size) mostly sand, org. mix - with/grey/brown bands  
pan - little black sand (more wet). Water  
usually below mud on banks.

July 8 - D4D931 - soil (reddish w/ fine root)  
from "gtz cobblestone" in NW structure juxtaposed  
NW trending, west dip calcareous granular qtz, etc.  
w/ (to the north) qtzite. Most qtz cobble appears  
to be coming from qtzite end of thing.  
rusty qtz stringers "common" in flt.

Rock north of qtzite streak w/ interpositions of  
the calc rock mentioned above. Lots of flowers,  
boulders - on fault sampled #1 #3 south side  
(possibly across or on contact w/ 4a/3?)? NW striking  
limestone, tuff? + conglomerate in talus sub crop  
much w/ orange ochre + 1/2" qtz veins

R4D932 - qtz veins w/ mica + orange rich  
carbonate? breccias - where faults meet,  
conglomerate; the conglomerate/limestone  
contact seems to correspond to the  
4/3 contact on the general map

with the conglomerate being lobate? (they are east of the main outcrop as the new fault?)



New fault @ 34' - rough street "X" + new cut don't re-use (see 37' x's) - suggest shearing / deformation, @ 35' - soil hole reveals several large blocks (all diabase) + orange rock (2") qtz cobb sample at 1/2' thru arg. blocks  
D 40936 - ~1' deep stone glacial + talus  
 1/2' , D 40933 - in fault (30m wide) + possibly over w/ mag. 1/2' material  
 small - clay, green, yellow;  
 Between 33 & 34' - zig-zag fault - 20' wide  
 but - east - S. fault - no 33 possible

big + sharp rx

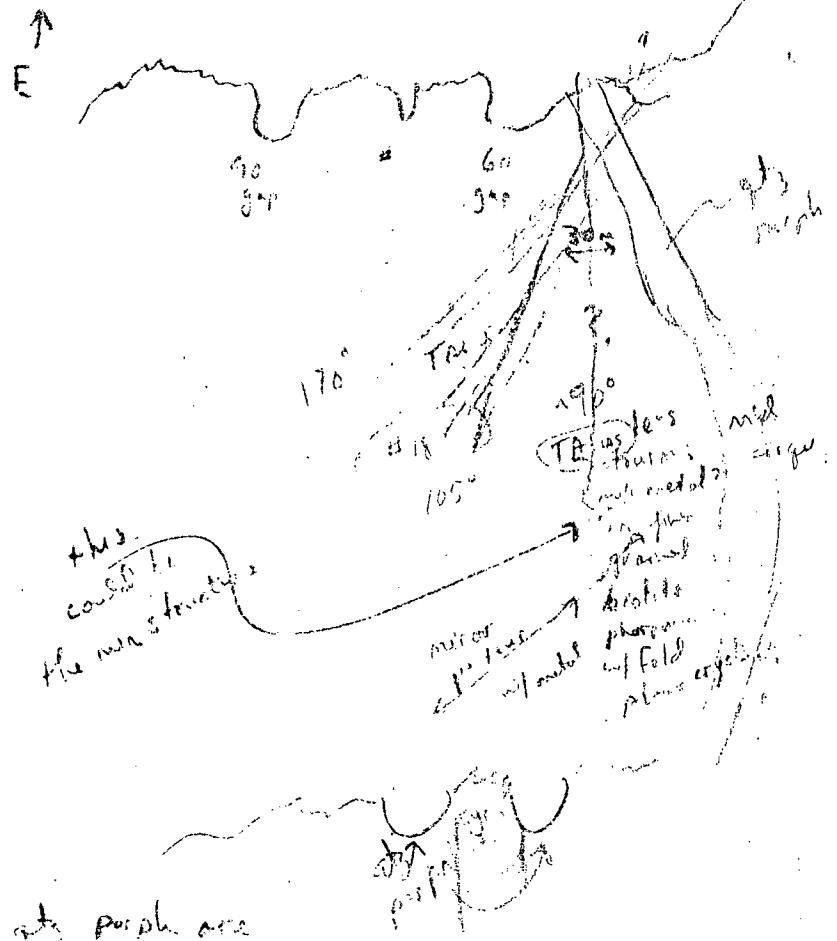
Saturday Investigate ridge legend as shown by to Nek's fault (GSC) + 34' - greenish unit. Spilitized type qtz w/ biotite, mafic, etc one piece of malachite, - some possibly w/ scapolite - qtz appears to lie curving from an end of NE trending aplite like (1m wide?) on a section of serpentinite (diorite) 1-2 m wide which cuts (both) the general north-northwest trend of mostly shale making up the GSC wrapped 4a/3 units contact R40930 Several samples of qtz + shales of serpentinite taken. Serpentinite continues over top of hill + down either side ~ 200 m thick shale = aplite very "gravelly" w/ qtz filled porphy. - going along contact from knot to top Diorite, 155°

@ 600m alt (maggy) rhyolite cut NE + overlie qtz - also going NW, along a fault NE, more "gravelly" may under lie qtz - or if qtz is ~ longitudinal-like (self), fine grained calke? Shale below it one.

R 40937

- #29 9" - interbedded thin orange /  
brown soil, 13 m to 36
- #30 1' - yellow rubble horizon with  
clay or mud pebbles other organics - sample  
~~about~~ then rock, sample at. ex.  
mostly yellow rubble - 5m to #31
- #31 clay or red 2<sup>1/2</sup> ft, from polygon weather  
lots of pebbles - 13 m to 32
- #32 ~1' lots of roots in yellow rubble  
3" organics - brown soil interbedded  
7~~4~~ m to 32
- #33 - 3" org - 9" yellow rubble - brown  
clay soil at 1<sup>1/2</sup> m sample 12m to 34
- #34 2" org - yellow rubble with 9"  
water, brown clay soil, sand line
- approx 400 m toward point #1, #34. - soil  
sample (Rounded) P35371 - their line  
is more ~~irregular~~ irregular & 10x as long  
as width
- RHM435 - ox from along a NE ridge  
just not shown on roadbed  
geology map as is the one I traced  
but is shown on their sample is  
set atop w. vertical sample location  
not shown - my tracing parallel  
the P35371 et al from 100m west  
but cuts a major feature shown on  
geology map.
- June 25 snow.

res phryg



purple are  
in both faults  
the high in line are nicely cut across  
(see picture.)

D4P14/19 - reddish dirt from  
200' m SW of pk top in flat  
boulder stream, higher covered area  
Lots of int. rad. in syenite, contact and  
and contact north ridge syenite etc.  
boulders - horn/biotite porphyry w/  
feldspars phenocrysts; also gneiss (gneiss w/  
tourmaline + small quartz crystals w/o biotite /  
horn or other mica)

R4P14/20 - qtz tourmaline 1-2 m wide  
on SW striking fault - possible  
extension of Creek section of fault  
see photo

D4P14/21 - Soil - red on N 1/4 above  
approx 1km South W 1/4 just north of  
Knob (1st. highest) ± 100m NE of (PF4P6361)  
note Norandith

D4P14/22 - @ end of SW fault  
creek thru syenites - lots of tour  
coating - one 1/2' thick (see below) flt.

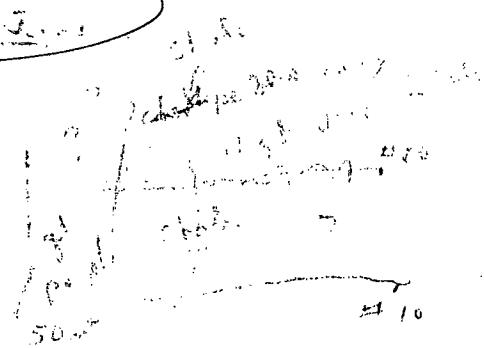
R4P14/23 - flt. tour - very no vis. sig.

R4P14/24 - alt. tour at end of boulders  
of r. l. (thick up) of Norandith

- gneiss at head of are & syn. etc  
+ more tour; pink chalcopyrite etc.

1/2 m min

22 June



Orange found - 100%

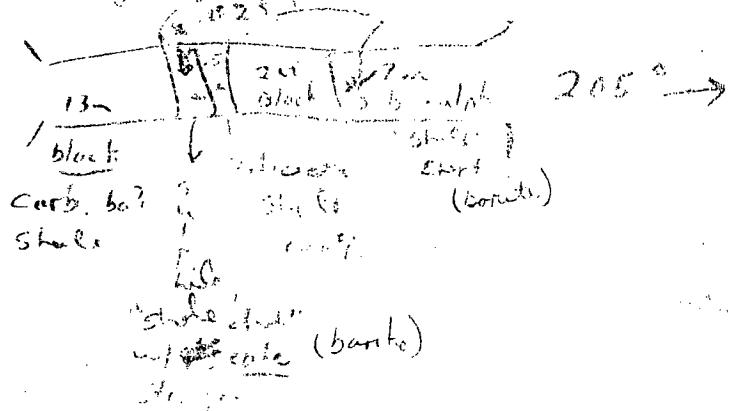
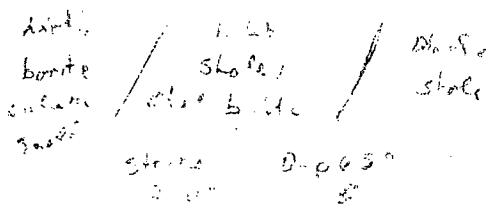


Photo 8 - X - Section



RHPH/26 - orange qtz carb along Anza  
Rd - only to Rosa Creek - 300 ft m  
band - most likely the qtz porphyry band  
as no zebra seen due east & 2 km  
eastern today.

Anza - tan / tan - still "decent" shgs  
Several dozen of pebbles in lower creek  
former gravel bed.

Collect several bands samples w/o #15  
most wolf bear carbon track on sand  
orange pink flower - no opening  
bottom travel (see photo) & cut  
Middle black/grey band, orange weathering  
most of its length.

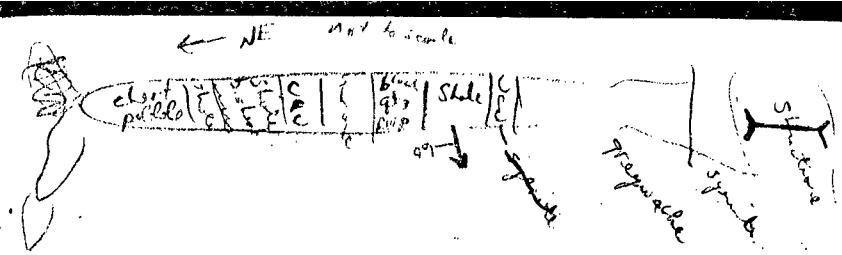
23 June - collect 4a unit - horabiol  
little quartz segregate for MDA (Dorrie)  
age of 74 mya is correct for Fort Knob  
type deposit - need to determine if  
ex one ore mine or 2 mines as  
the 2 mines are not co-ordinates for  
Ft Knob style; enough qtz in 4a  
did have called it a granite, did  
not look at actual granite & cut  
at head of cyanide crk. planned two  
trks of Syenite cross b. for job  
(The other "co-ordinates" for Ft Knob style are

gold carb. & few small  
metallics & up to 17 vol. % sand  
+ scattered fragments + silt. no  
gold on any cross-cut sample taken  
at intervals of a few days, one  
which is up the second to headwaters  
of stream across creek. 1 "gray" bell-shaped  
just round & a large body, the remainder

24 June trench penicile ridge  
Very argillite with garnetites from surface  
and just below 1 ft on south side  
of valley-side (R4P14/28 - to corner  
of 2nd tier) very light. lots of manganese  
stained grey-green, towards the  
bottom brownish.

flat (low area) with noted on south facing  
slope (over slope) of stream bed, one noted  
influently above. But no 1 ft. manganese  
(R4P14/27 - grey w/ amorphous grey  
material which had been leached  
at 2nd contact @ organic creek #4  
sample.) Across base / carbon at same  
Penicile ridge has 2 garnetites (garnet) contacts (Wardell)  
the older & fine gold from bleached  
& purplish to dirty chert pebbles (or qtz, pthph)

1 ft. width & up side is the banded  
gold contact in the stream bed - chert pebbles rough

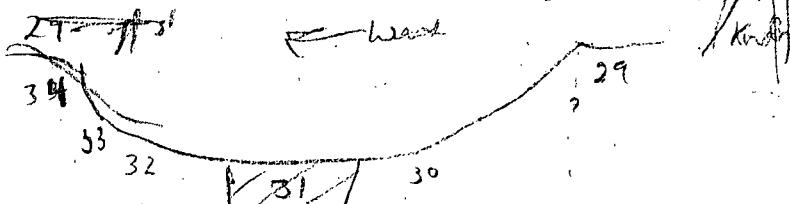


Several rx from trench

which crosses mid. point of NW,  
"structured" 30± m wide,

mainly used in quarrying (from contact 10m NE)  
much argillite alt w/ red bleaching with  
some structure of garnetite (feldsp) still  
preserved but clay, pottery like orange  
(heavy?) rx w/ many (torn) voids to thin  
quite common; less argillite alt w/  
Manganese agglomerate common. Trench  
dry 3 ft x 8' + on a front polygon  
much water saturated along - strange stuff.  
red veins of tourmaline, some mica (?) qtz  
thin flt - yellow - sample across structure

D4P14/29 Etwast to 34 (6.)



70° bedding - south. strn

mineral?

~ 20 mm.

- 10 0, +4 - flat  
2 + 18, +8 - forest. fl.  
3 + 3 + 15 - up slope 30°  
4 + 3 + 12 - break. down  
5 + 5 + 3 - gentle slope  
6 + 3 + 1 - "  
7 + 7, 0 flat Handt. D, +4,  
8 + 22, 5 (10m up all channel from point)  
9 + 17 + 12 in spruce/taiga wood stand - gentle slope  
10 0 0 + 12 slope - open  
11 - 12. 0 mixed wetland  
12 0, -1 " " granite  
11.5 - 8, -2  
13 + 26, -1 ridge top - flat 10m  
14 - 10 - 12 " " 10m (input format)  
13.5 + 7 - 6  
15 + 10 + 5 slight down  
16 + 20 - 8 " "  
17 + 3 - 4  
18 - 6 - 12 " " irregular, some fracturing

## Scotty Claims #

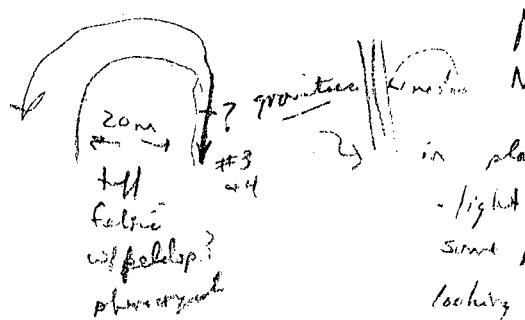
(July 28, 1998)

R4051 - R4051 - epitomed qtz  
vein. 4" w/ stonite alt on margins  
in float - Surprise area w/  
horn blende granule talc, some rusty +  
epidote. "shorn flt (author)"

R4052 - rusty granulation w/ some ~~iron~~  
tornoline / porphyry

R4053 - qtz vein talc ~ 10 m west of  
#1 above w/ manganese, silver, nickel +  
nickel galena (disseminated)

R4054 (2) 3 talcous at 2" talc  
w/ above + copper ~~cont~~



in places 2 phases  
- light + dark  
stone brecciated  
looking w/ light surface  
or dark

R4055 - rusty qtz flt on float

Polygon ~ 200 m from part #1, walls  
rx qtz (white) + some w/ pyrite  
crysobele.

D4056 - from above soil, yellowish surface

R4057 - white qtz 150m west of  
part #1 in talus of gravels, calcareous  
"hor white" (yellowish brown); rock boulders  
pink stain & red (As?) veins (pending)

cont. west - wollastonite streak good  
according wollastonite ( $\frac{1}{2}$ ) + Cu +  
lots of garnets (see Surprise Bay 7/28  
fair amount of qtz veins w/  
streak inclusions).

R4058  $\rightarrow$  qtz

vein 1" talus w/ yellow (bright canary)

+ grey veinlets (bladed qtz xlate formularite).  
Streak of native copper, rusty greenish + (IO?),  
qly. wollastonite, yellow (?) & few garnets.  
Various calc silicates; pink stain on  
some white rx (pink streak)

Streak up creek adj to sulfide inclusions (neg)

magnetite streak w/ ~~sulfide~~ (?) , diag (?)

~~affine~~ wile (see ultra <sup>surprise</sup> bay 7/28  
no garnets)

7/29

dry fog rain - overcast  
E rocks much qtz - sandy & white  
low pts w/ yellow  
dry alt. porch (?) 11 shp 2pm  
dewy ground;  
evidence of Shallow gas but nothing found

Locate Line 10 + 00 at

"L 10 + 00 N 18° E + 50' E"  
proceed 350 m @ 60° thru  
Talke Soil Sampler to 700 m  
from origin - at east  
Line 10 + 00

60° Line trends to the north  
(mag disturbance?)

at 550 went 100' m south +  
again line up w/ notch @ 60°  
angle; Talke Soil same  
L 753 + 350 m bear dig.

D4059 - dirt from left bank  
trib (dry) on 10 line

D40510 - dry rig lot (soil 15') no  
line 9.

by map - actually seen as though it  
should be further west - say line  
2 or 3', not 5'; but map shows  
the 3' - Much snow pack  
+ granite outcrops are <sup>and</sup> visible + obvious  
to road surface. Line 100 E more  
metally, coarse-grained granite.  
Line 100 E at 1 ft + 300 E for it.  
not certain where S is - or if  
outcrops are marked correctly on  
line 100. Had problems w/ topo  
chart so line 5' may be wrong  
maybe 9'. Found 46 diamonds of  
felsite for line 7 near line  
400 + base line.

83 veins take thought elsewhere at rock + talus  
+ epikarst within present.  
R4 D5 21 - rusty ~~chalcopyrite~~ metal form,  
placoch stained chalc + highly (chalc)  
alt. porphyry - from talus talus;  
Saw metal from oxidized - chalcocite? -  
Sect of rock cavity 189  
R4 D5 22 - granite rx w/ minor biotite  
+ trace galena.  
R4 D5 23 - very alt rx - cassiterite, pyrite  
chlor stage - fair bit of green - scapolite?  
at top of copper.

July 21 - Lubberland - 10 miles south of town  
elevation 1000 m.

1. Between two generally non-stained boulders  
cassiterite (pyrite?) / & eye starts common.  
Cassiterite very rusty or as metal, etc.  
Also good oxidation? also felsite?  
Felsite + felsite boulders probably would  
be oxidized at surface.  
R4 D5 24 - few talus + no felsite (metabatic)  
+ talus talus in part talus.

R4D938 - black young - x ozza w/ low  
grade grey corb alt - gl ridge - minor washable

② later outcrop calc breccia, containing  
silicified, rusty fractured, many meta.  
volc - breccia? + also in outcrop  
black metased (chart 114)

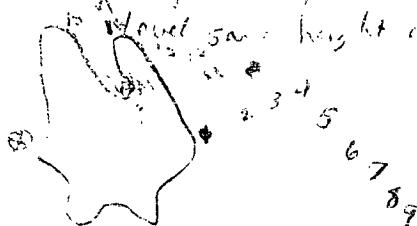
1.2/11 STATE Gray & brown over air-borne gray  
~~Aug 12 + 13~~ + locate graph down  
an open?

Sept 15 Use TM 16 to return  
car to go South corner lake - turn  
machine. approx 15<sup>000</sup>

Scuttle - 1st + 1st - turn right.  
② young C. lake level.  
2 + 25 + 1 30' up (½ rock face)  
+ 27 + 3 top of 2nd ant. and 1/2 face  
+ 22 + 1 " and 1/2 face

③ 4 switch + Herring - 16, - 4  
(5 - 10, - 2 (3 flights then))

- 4, - 10 Level 5m - height as 5



7 - 2, + 5 follow ridge edge

8 0, + 8  
9 - 22 + 1 small spring, depth about 30 ft.  
9 Scuttle - + 23 + 6  
10 Herring - 8 + 3 scuttle + 12 - 0

11 - + 3, - 1 same elev @ 2 - gentle slope  
12 - + 13 - 1 " level " land  
13 - 8, 0 land & scuttle + 14, + 3  
14 - 12, - 7 level w/ 1st scuttle + 6, + 2  
15 0 - 1 swamp lake & scuttle + 2 + 2  
16 6, 0 " " " - 11 + 4  
17 0, + 2 gully lateral; scuttle - 16 + 8 - new struct  
18 - road to line 10m - + 13 + 4  
19 - up 20' ridge - 2, 0  
20 5, + 10  
21 + 2 + 7 start up slight rise

Scuttle for new structures - + coming to  
- level 3

Post 11.2 May 3<sup>rd</sup>, sec 1  
25 m up creek from  
S. 10

M4D511 - nose not in stream of  
lineament crack showing small  
anomalous areas of Watson Zone  
- 1/4 slope, 10's grain, 1 cm max  
late up cortex brown tan - exfoliation  
stitch pattern

July 3<sup>rd</sup> - attempt to read. grnd.  
Tens run @ 60° + eastward; at 150°

- coarse east bedrock - full size  
pebbles; tiny frag 2 day weather  
visual character porous, near

TP area composed of two off -  
which frag so small it flat -

~3° dip of ridge & cliff + flat  
250° from bottom

R4D512 - white, yellowish grey worn on  
graphitic schist w/ pyrite + yellow, limon.  
(lt) - shear may be 150°, 10 foot +  
wide west breccia bed of (hang wall)  
w/ gentle SW dip & a thin, good  
schist subcrop with 50° SE dips.

Potentially water table after flood

for a section of 145° + others

R4D513 - graphitic s. basic schist  
out of shear zone.

R4D514 - rusty qtz w/ pyrite, magnet? +  
thin horizontal schists - 1" + vein  
between 1m + 2m + 1m + 1m

R4D515 - rusty, melaniferous schist  
near surface / transition of graphitic schist / phyllite  
(Augitite, etc.)

R4D516 - melaniferous schistose qtz -  
flat - some areas

@ beginning of long ridge (6,000') rx w/  
flagging "i-7524" - first part  
may be faded -

D4D517, 18, 19, soils from ~60°  
lineament from top of head 7-10' creek  
17 being <sup>top</sup> of ridge & 19 toward  
creek bottom

45+00N / 50 E - 1800', 1500' + 2000'  
soils to chalk out multi element  
anomaly in the Watson Zone  
found fine + + + (?) semi-halftone bed.

272<sup>o</sup>

chip NE - 20?

1000 ft

shale (bar slate) ~~some ls.~~ not flat  
flat lying ls. dip N.E. 10°

chert pebble cong.  
stone ls. ls. + ls.  
chert pebble cong.  
orange ls. ls. ls. ls.  
calcareous dolomitic ls.  
20 m. shale

black slate w/ iron stain on fracture  
dip N.E. 10°

D 4A147 - shale soil sample at qt carb/shale interface

D4A149 - orange soil sample directly above #7

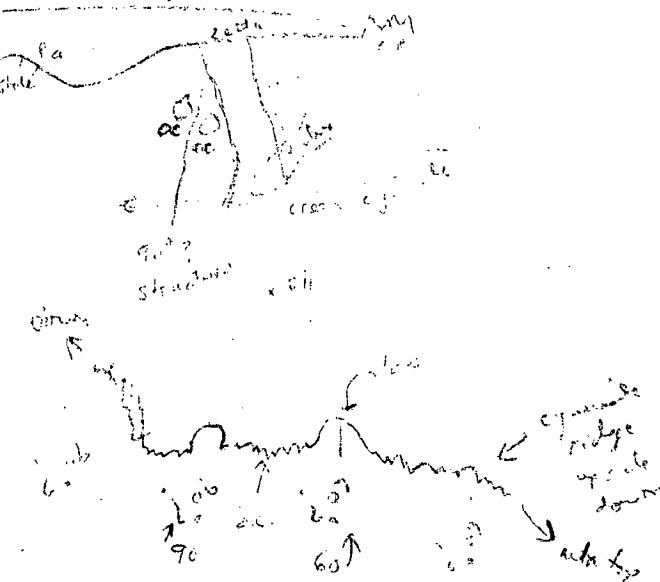
R4P148 - rx of orange-red gty corbs

~~June 20 D4 PUL 11~~

D4/P14/10 - Soil from drainage cutting  
(qtz) carb structure as it breaks into  
angular块; In Noranda Rep. J. Morin is  
quoted as saying calcite is late stage  
intensive activity w/ no econ. value?  
Appears qtz carb has up w/ qtz from  
2 days ago - below (not th) getta.

June 20 D 481411 - Soil from west  
side of igneous outcrop along 60° horizon  
- Located about 1/2 mile - structure quite

obvious to creek bottom so not topo  
on west S. & So Hill - random soil samples  
two notable on Spurridge ridge - one very  
alpine w/ 90% mica w/ 60° hematite ??  
Seems to lie on right bank w/ weathered  
on eastern ridge, especially topsoil surface  
green lichen covered - 2 km west of So.



in 90° structure (just back north west) )  
flat of aptidium gelis - transverse  
ridges are brown (2nd top); see N. and 1st)  
limonitic / argillitic alt. ; possibly dolomitic  
(Scapularia?) - similar out. place -  
but general w/ red. or pale grey - smooth edge  
up for some - ~~thin~~ ex. to be  
seen

Ridge toward east side Nickletoch Valley,  
area of shale testing site - best outcrop  
- note yellow tills west of NW  
faults most prominent feature. and  
quite distinct, some rusty shales  
~~greenish~~ greenish (till?) found one  
"pass face (east slope). small shallow  
etc. The light green "granite" was  
found in the very shale (unst.) &  
is probably a tuff.

R4D96 - soil @ first gully (west of  
#1) from rusty shale layer.

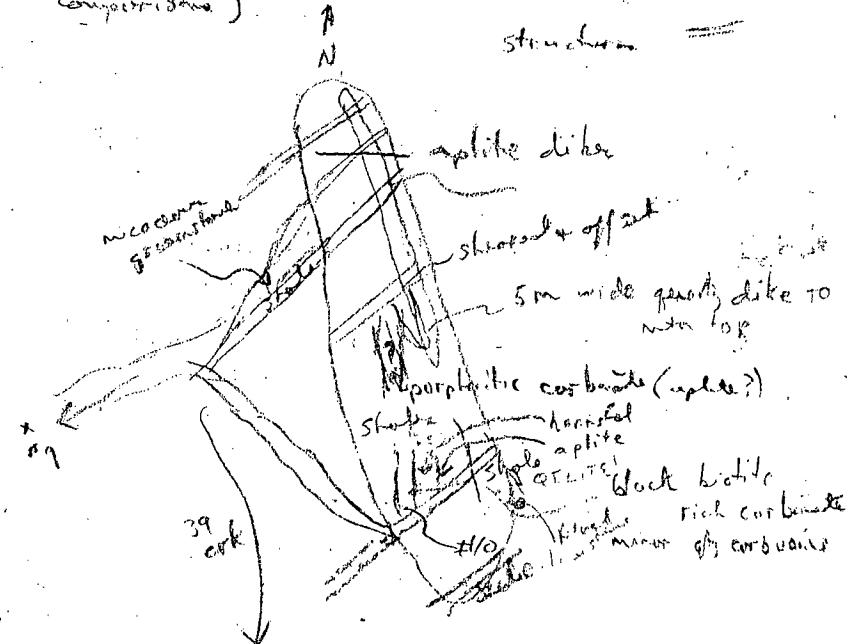
R4D97 - qt<sup>z</sup> vein thru shear and (gt)<sup>z</sup>  
limestone light green (different) rock  
~ qt<sup>z</sup> casts of some type. Several  
shale "granite" tuff is taken for  
color? It's an ridge just above last  
(gt)

July 4<sup>th</sup>

INDEPENDENCE DAY  
Beautiful Day sun

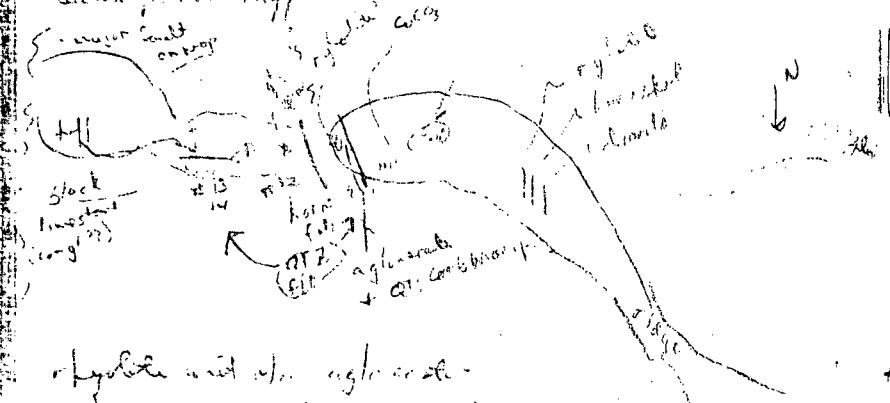
R4D98 - Stream bed in upper 39 creek  
where water begins to run - creek 1-2'  
wide 1-2" deep, - less gravelly (spore) bottom  
w/ organic content.

S4D99 - L.L. trib (looking down) lacustrine  
NE fault near contact just west of camp  
- dredge - steep water only, on steepest part  
150 m up from confluence - 6" wide  
gravel on top of noted - sample largely  
organic mess not - take this in to consider  
when comparing (see Wyo project 1992 for  
comparisons).



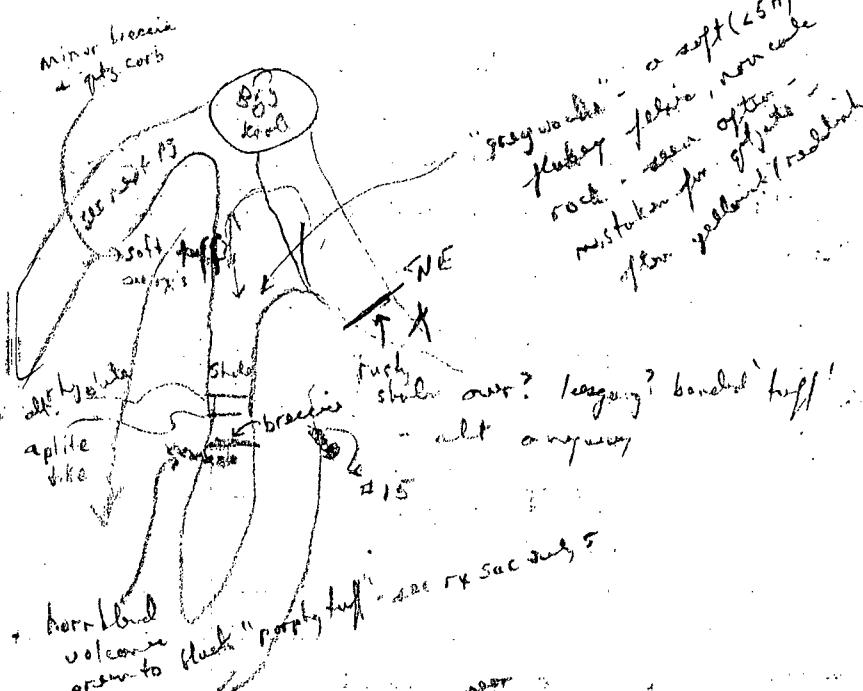
R4D99 - limestone qt veins (1"-1/4") thru  
black biotite carbonates.

Geology also - nothing I can teach you  
more will shake my shake. Being "cut"  
by horizon of iron oxide it has not the  
normal sulphide & "pyritic" grit (unseen)  
- throughout (yellowish grey), tuff & following  
phenomenon at little grit or rock of  
distant origin. Phosphate irregular lingers  
around iron oxide / pyrite, unseeable - but I don't  
think so close rocks complete (July 4), @ high  
point on ridge mostly sandy coarse w/ tuff in  
contact w/ shales (82° to east to west - this side of basin)  
R4D9T6 - ironistic grit & carbonate veins (11°) thin  
black & yellowish tuff.



argillite with silt. argillite -  
argillite may be a co-igneous  
(hornfels?) Lots of fine limestone chunks  
some dol., R4DF112. - argillite at bottom of  
limestone, etc.; lots of gley lit, some argillite,  
soil, sand

Mar. 1. 012 g/t or more of Cu - some pyrite but no galena; R40913 - Cu staining on quartz, pyritic (chalcopyrite?) limestone (black - possibly brecciated) @ contact (vertically) of shaff over limestone unit - pretty brown, one isolated + rare. Cu is pyrite + malachite; R40914 - sulfide rich rocky limestone 2 km E corriban; one worn, elongated fist gopher. July 5 - reasonable weather - wind not bad.



RH0915 - breccia from low point on ridge  
(structure - ~~N~~) - near possible volcanoes (residual)  
2° coribon north of knob

out side of ridge +  
toward west fault.  
soil ( $\approx$ ) rock - sand  
look: 'gravel' but s.t. gravel  
yellowish tan & grey.

Soil - agl. surface - sulphurite striking  $230^{\circ}$   
clear broken, to at time, white  
other create a very short weathering facies -  
one which with time, is just sandy  
the freshwater drift get more weak.

July 6 - 1st stream has sand.

R40916 - qtz. carb. veins  
ft from west side of  
prob - qtz. carb  
common - P  
(?) x - qtz. over  
these metallic form  
"qtz. carb. alt rock"

R40917 - more qtz. carb. metallic form  
of bi-modal (gray) common  
from east of big knob to #1?

Hard rock - "felsic" felsic  
drift - felsic alt. Laramie  
Oltanae ??

D40918 - Soil from N + NE fault that  
may align w/ mapped intra-fault  
via a fault joint ~~west~~ of ear showing  
- Ex in fault are ph. carb. lots of  
qtz. veins to  $230^{\circ}$  + eastern out front rock  
w/ sp. calc. on fract. soil from - felsic  
volc / volcanic heat - large snow drift  
hinders exploration lower hill.

R40919 - rusty pyritic shales juxtaposed  
to hornfels of 17. found it south + aggregates  
on east side - felsification  
Talus slope on N side of bigger knob whole, aggregates,  
hornfels, 'rhombic alt.' +, dark brown-shallowly +  
dipping  $20-30^{\circ}$  N, 2nd kilometer today - one  
directly over camp + shale - @ room probability  
from Brian iron.

@ fault (GSC map) east of bigger knob (pg opp).  
gray green sargony & X just. yellow to drift  
low bluish mica trapp? volcanic - D40920 -  
Soil sample @ crest of ridge in fault.  
@ @ west of fault limestone breccia (3c on map)  
for 200 m<sup>2</sup>) rusty

R40921 - breccia/aggol. in kilometer long  
"cat trail" fault cut along south side  
of mtn. Thrust? - breccia zone just west  
"grey sulphurites" - (?) carb. breccia.

SEPT. 24

#13 Silt w/ greenish hue of  
massive sulfides in center of  
schists + many "A" granites

- #14 - silt from above showing
- #15 - alt rx from above - yellow  
with a few rusty rock - boulders
- #16 - compacted alt massive sulfide

#2 Y25515	#1 Y25517
#2 Y25514	#1 Y25516

50 m @ 197° to ~~drill~~ hole from post to drill hole.

Diatom case in side Sept 1 ~20' box

DDH 19 DDH 2 2 10 boxes  
all core ~1/4" probably by ~~the~~ ~~the~~

DDH 2 - box 1 - ~~2~~ 21

DDH 15 box 1 - 10

DDH 80 2/145.4 - 150.75 M

DDH 80 2/150.95 - 157.9 M

DDH 3 box 1-9 (10,11) rack #2

DDH 6 - ~~box~~ 4, 5, 6 (?), 7, 19, 20, 21  
22, 23, 24, 25, 26, 10 9, 2, 3, 1 -

DDH 18 (cont.) 18, 13, 14, 11, 12, 16, 17,

DD7 - 1, 2, 3, (4), 5, 6, 7, 8, 10, 11, 12, 13 (4/15)

25, 24, 23, 22 21 20 16 17  
DDH 8 - Box 1-14, 18, 19, 15, 26  
DDH 1 - Box 1-24 (no 22)

DDH 10 - 1-17 (18) 19  
DDH 9 1-15, 16  
DDH 14 1-12

DDH 15 11, 12 13

DDH 19 \* est.

DDH 23
DDH 20
" 16
18
17

~~DDH 19~~

DDH 5

DDH 4 - Box 1 (?) 12, 13,  
DDH 1 - 25

25<sup>th</sup> back

DDH 80 - 26	80-34
" 80 - 27	80-31
" - 28	80-35
" - 29	80-33
" - 30	80-32
" - 34	80-35
36 37 "	37

~~Nikon F2~~ - good  
with 50 mm lens  
- 35mm pictures are

much better when I have

lens - AZ

camera - W

DON - 24

DON 50-3

PI. 2 6/20

hole 42

39

38

43 (small core)

44

21 - 6

Sample 21-6  
clastic rock

268 ppb

#7 ft ↓ clastic 2 probably from  
gabbroic / gabbroic contact rusty pyritic  
mineralization "andradite"

#8 ft clastic - above 2nd test frame  
100m S; chalcocite (?) + pyrite w/ botryoidal  
in rusty - breccia like rock

#9 - ft - skin / <sup>pyritic</sup> ~~pyritic~~ stalactites w/ orange gabbro  
~25m S of #8 @

#10 - ft - white gabbro turned rusty w/ metal  
(pyritic ?) ~~in~~ particles (1") to sheared  
by magnetite ~~sheared~~ + misc oxide?

#11 - variety of orange streaked gabbro ft w/ pyritic  
chalcopyrite + porphyroblasts

#12 massive large pyroxene w/ titanomagnetite

cuts the ridge at the topographic low (unreported)  
 + a rusty "barite" cut NE (mapped as  
 "brown phlogopite") just below a  
 limited and narrow of bould. barite talus.  
 Shale / slate predominate to the north w/  
 quartz (unit 3). Barite was found  
 250' north of reported unit in "felsic".  
 3 m ± across the ridge at another topog.  
 low. D4P142 - Soil sample of felsic over.  
 R4P143 - barite - light color - no bouldery  
 evident, R4P144 - not dolomitized, "gtz rock"  
 rock - yellowish clay alt? - all from  
 same unit. "potashitic gtz" cut ridge  
 east of La. ; shale / slate becomes  
 rusty near norovolcan kerite showing.  
 No sulphides in barite, carbonates hard  
 trace sulphide pyrite. Kerogen found  
 at drill site #5 middle position (in flt.  
 can very strong wind, more hard - windy no bugs.  
 Unit 19. - very dry, short grass and trash;  
 "barite contact" cut - brownish over. ± 500' ±  
 concentrate on soil contacts - eg. gtz partially  
 to talus to "conglomerate" shal. unit. as above  
 + north of kerite string - sand until  
 help down to rock, shale / slate - S EN.  
 dip west (21° NNE)

d. boulders there is more potential with meta  
 seda than in sigma et al - best  
 drift, whose were talus seda - earlier seen  
 noted in "diam." D4P144 - soil from  
 70-80° trending valley off (east) thin  
 Zetts 60° structures (?)?

. Zetts  
 attempt  
 across ridge.  
 #3  
 & black  
 shale  
 #5  
 ep  
 low

1/1 m t. - rounded shale  
 ft in 4 - shale, gtz  
 a whole gray gtz with

R4P146 - "mineral, rusty gtz 'kerite' + alt  
 "pebble conglomerate" - from talus drift;  
 contact 250' below ridge top;  
 Canyon which has a drift set up <sup>valley</sup>  
 (most east drift) is "kerite" - good  
 follows contact - looks like an structure  
 (canyon not contact). could have set up  
 on structures that should have been disrupted.  
 Few bit of bleached "pebble con" (theuff?)  
 with limestone marl.

94071

①

## Amendment to J.S.Berdahl 1994 Grabstake

1. Replace "Wyo" project area (105G) with the M'Clintock area (105D)

Reason - The "Wyo" area was optioned by Cominco. In addition a new, possibly significant gold discovery was made in the M'Clintock area. As well a new geophysics ~~release~~ survey was released over portions of the area.

Location: 105D.8-9. Lat  $60^{\circ}35'$  Long  $134^{\circ}30'$   
Specifically work will be carried out along shear / contacts running north of Mt Nitchie and in lowlands covered by / or near the geophysics survey

Access: Access will be by helicopter to mountain areas and by vehicle and foot via tote roads to Caribou Lake and Elbow creek areas. These leave the Alaska Highway approximately 30 miles south of Whitehorse.

(2)

Geology The McClintoch lies within the Whitehorse trough, a Mesozoic fore-arc basin obducted over the craton in the Jurassic. Permian to Carboniferous Cache Creek volcanics (mafic) + sediments juxtapose younger <sup>volcanic</sup> Lewis River and Leberge sediments.

Motherlode gold targets are sought in shear zones related to the "regional" Marsh Lake fault.

2. upper Watson River Area replaces unnamed 115A geochem target

Reason - The 1994 115A geochem release failed to show "significant" coincident precious metal / indicator element anomalies in the east end of the map sheet. Interesting targets west and north of Haines Jct are in "sensitive areas" (near park or Kellyman area) or in areas already staked (faithlawn etc). Meanwhile the Watson River area presents significant soil anomalies ( $> 2700 \text{ ppb Au}$ ) and coincident anomalies over a  $1.2 \text{ km}^2$  area from previous work during the "skutum boom days".

(3)

Location - 105 D 4/5 west of Mt Skukum and  
Omni deposit at the headwaters  
of Watson River

Access - access to the property is via  
helicopter from Whitehorse, approx.  
 $\frac{1}{2}$  hour to the north

Geology - The geology of the ~~area~~ target area  
partially reflects that of  
Mt. Skukum. The area is  
underlain by monzonite and  
granodiorites to diorites with  
roof pendants of Permian marbles,  
schists etc. of the 'Yukon Group'.  
Both these have been intruded and  
overlain by Eocene porphyry intrusives  
and volcanic breccias of the  
Mt Skukum complex. Rhyolitic dikes  
cross cut all units.

Don Fairchild - STG land planning

Ann Aergraves

29th  
PP

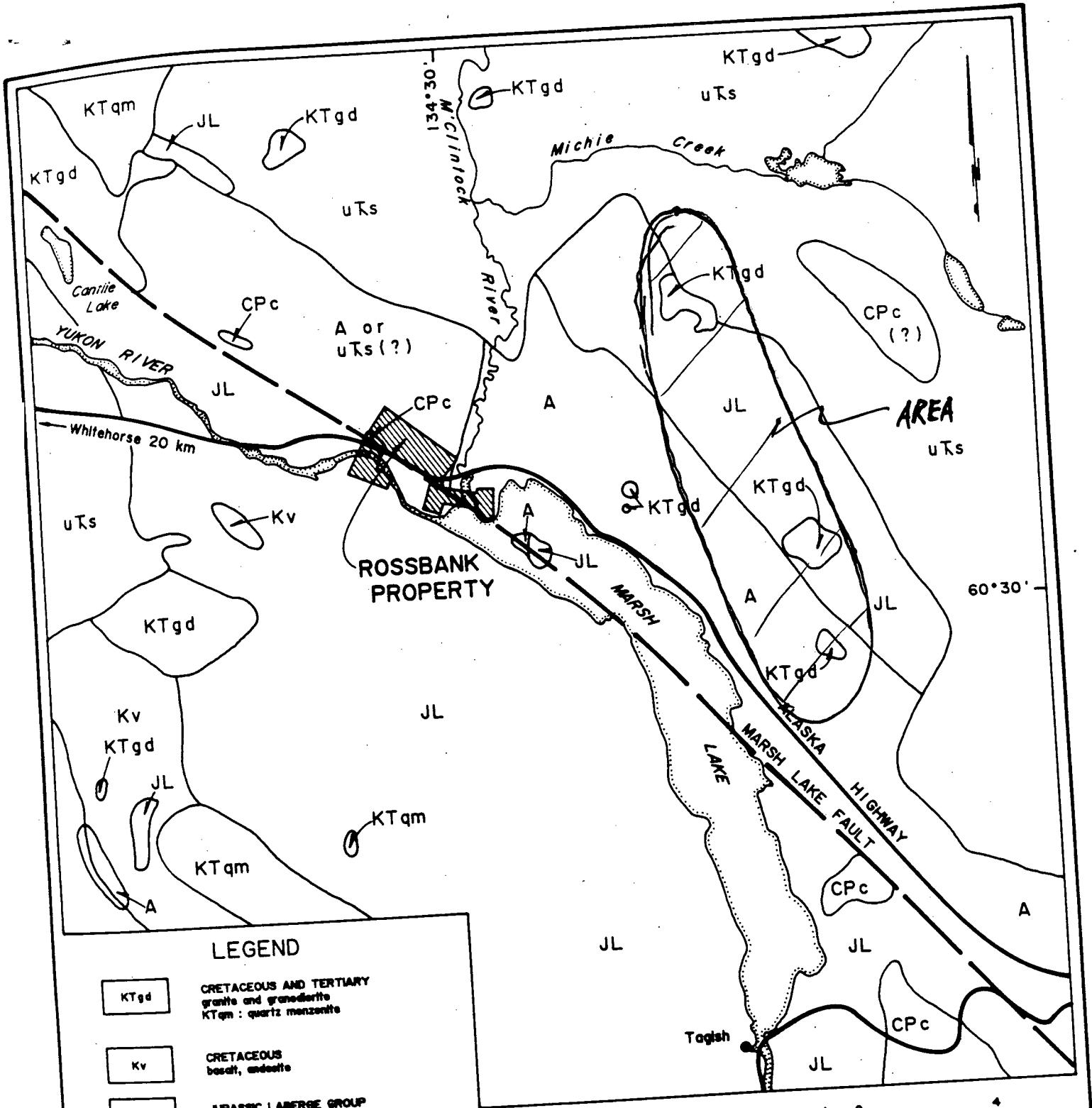
Fig 16

McClintock

Work detail - several targets in the McClintock area will be considered. The contact (shear) running north of Mt. McMechie, ~~Creek M~~ the geophysical targets presented with the government geophysics release, and other perspective targets.

Watson

Work detail - re-establishment of the grid lines to re-check soil anomalies outlined by ~~the~~ Skukun gold in 1989. General prospecting of the general area to find new targets & confirm old showings.

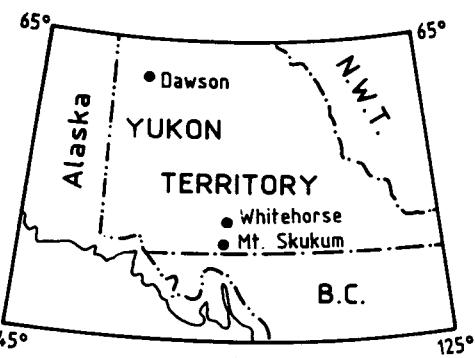


INCO EXPLORATION & TECHNICAL SERVICES INC.		NOV. 1990
ROSSBANK PROPERTY		
REGIONAL GEOLOGY		
Aurum Geological Consultants Inc.		NOV. 1990
N.T.S. 105 D	DRAWN BY LW	SCALE 1:253,440
FIGURE 3		

SKUKUM AREA  
LOCATION MAP

N  
—

0 15  
km



135° 00'

WHITEHORSE

YUKON

RIVER

Cowley Lake

60° 30'

Robinson

Horse

Creek

Alligator  
Lake

Watson

River

Annie  
Lake

60° 15'

Carcross

Bennett Lake

West Arm

MT SKUKUM

CALDERA  
COMPLEX

Butte Cr.

River

Berney

Wheaton

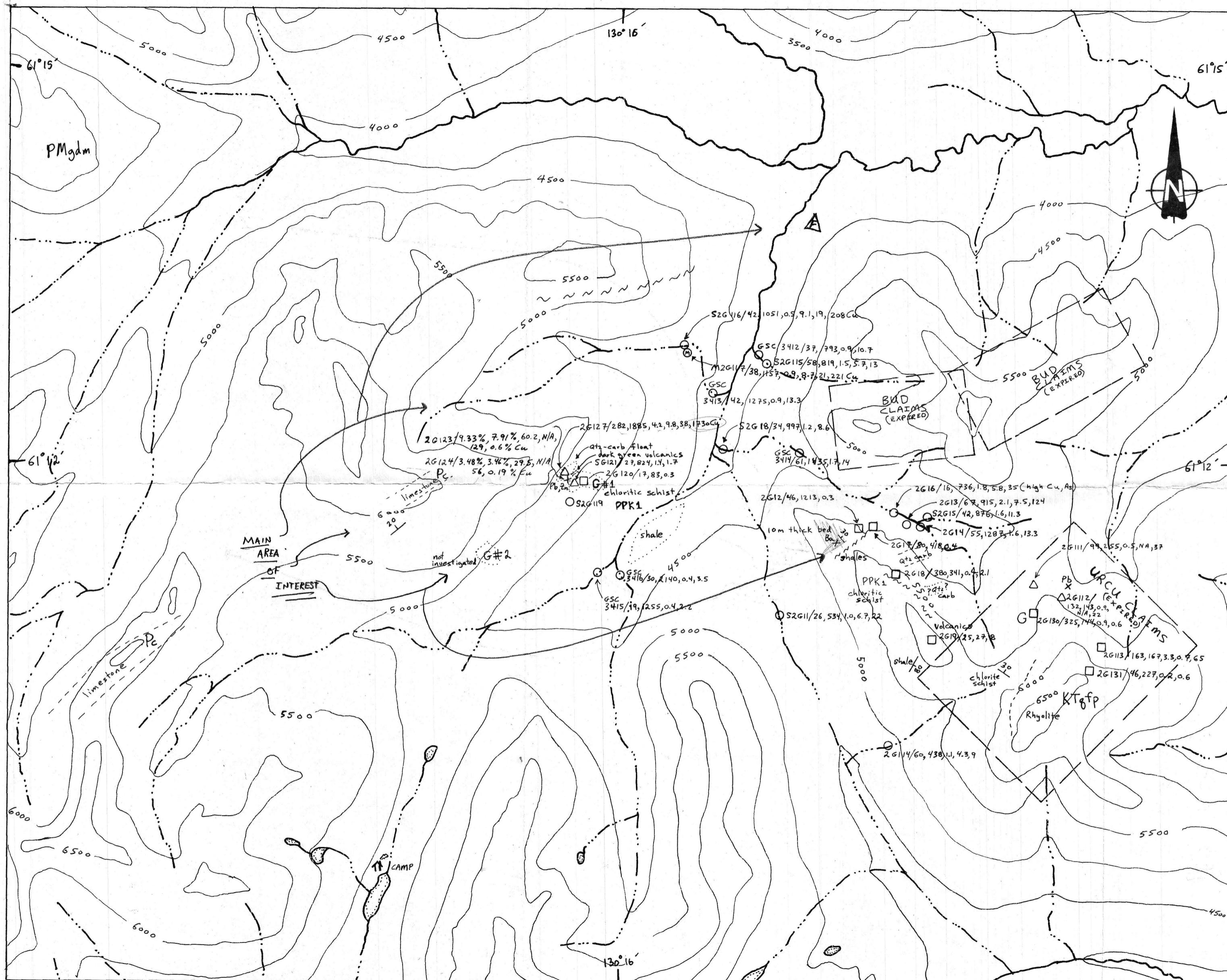
Primrose  
Lake

136° 45'

135° 00'

Figure 1 Location map of the Mt. Skukum area.





## **LEGEND**

**Cretaceous to Tertiary**

### Carboniferous or Permian

Pc white weathering limestone

### Devonian (?) to Triassic (?)

### PMgdm mylonitized hornblende granodiorite

### Precambrian (?) to Paleozoic (?)

**PPK1** Klondike Schist: muscovite quartz blastomylonite, chlorite schist, mafic volcanics

- rock sample
- stream sediment sample
- soil sample
- moss mat sample

sample number/Pb ppm,  
Cd ppm

~ ~ fault  
 - - - approximate lithological contact  
 G#1 gossan and number  
 x mineral occurrence  
 . . . outcrop or zone perimeter

elevation contour 500 feet  
—o— mag anomaly  
A ferricrete

**J. S. BERDAHL**

MAP N<sup>o</sup> 3

**WYO PROJECT**

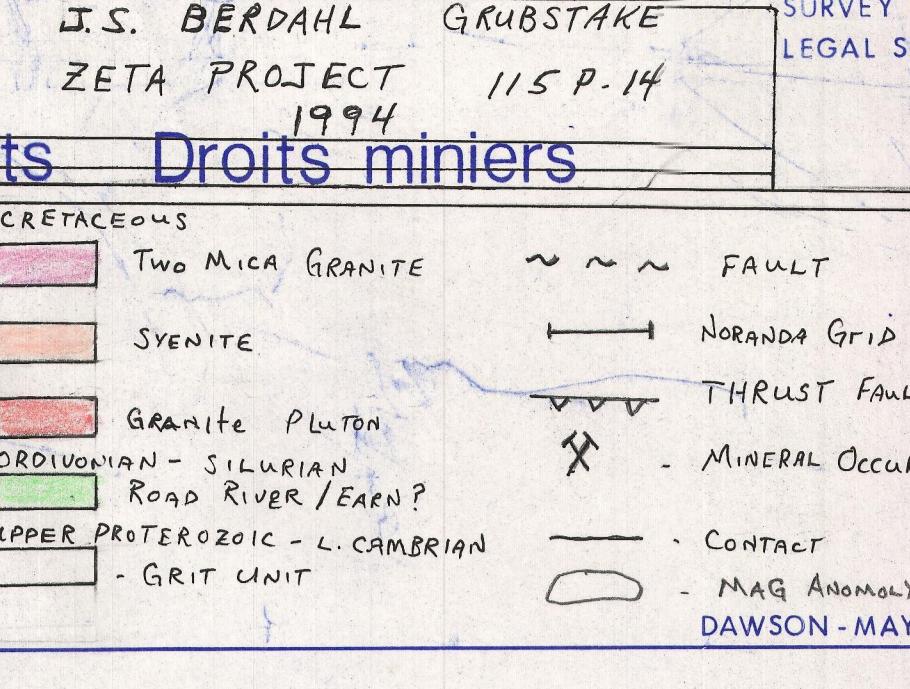
Watson Lake Mining District

**GRUBSTAKE 1994 YMIP**

**GEOLOGY AND GEOCHEMISTRY**

94-071

Mineral Rights Droits miniers



TOPOGRAPHY COMPILED FROM 1:50,000  
NATIONAL TOPOGRAPHIC SERIES.  
CONTOUR INTERVAL 500 FEET.  
SURVEY INFORMATION COMPILED FROM  
LEGAL SURVEYS, BY DRAFTING SERVICES.

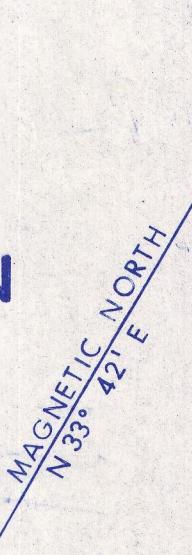
## SHEET 115 P-14

QUARTZ

LATITUDE 63° 45' to 64° 00'

LONGITUDE 137° 00' to 137° 30'

SCALE 1:31,680  
 FEET  
 1000 0 1500 3000 4500 6000 7500 8000 10500  
 FEET

ISSUED UNDER THE AUTHORITY OF THE MINISTER  
OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

## NOTICE

THIS MAP IS ISSUED AS A PRELIMINARY GUIDE  
FOR WHICH THE DEPARTMENT OF INDIAN AFFAIRS  
AND NORTHERN DEVELOPMENT WILL ACCEPT NO  
RESPONSIBILITY FOR ANY ERRORS, INACCURACIES  
OR OMISSIONS WHATSOEVER.

Note: Entry on certain lands is withdrawn from staking  
in cross-hatched areas to facilitate the settlement  
of Native Land Claims without prejudice to Existing  
Surface and Subsurface Rights.

116-A-4	116-A-3	116-A-2
115-P-13	115-P-14	115-P-15
115-P-12	115-P-10	115-P-11

