

MAP NO : ASSESSMENT REPORT X  
115 F 15 PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 092886  
MINING DISTRICT: Whitehorse  
TYPE OF WORK: Prospecting

REPORT FILED UNDER: HARJAY EXPLORATION LTD.

DATE PERFORMED: JUNE 15, 1990

DATE FILED: DEC. 14, 1990

LOCATION: LAT.: 61°00'N 61°55'W

AREA: White River

LONG.: 140°32'W

VALUE \$: 1,000

CLAIM NAME & NO.: WR 1-10

WORK DONE BY: Graham Davidson

WORK DONE FOR: Harjay Exploration Limited

DATE TO GOOD STANDING:


REMARKS: This property lies 2 km south of the Denali Fault. Permian and Triassic sedimentary and volcanic rocks are intruded by granitic and mafic bodies of Upper Triassic and Cretaceous age.



EXPLORATION REPORT  
ON THE  
WR 1-10 CLAIMS

NTS 115 F-15  
G.S. DAVIDSON, P. GEOL.  
NOVEMBER, 1990



092886

EXPLORATION REPORT  
ON THE  
WR 1-10 CLAIMS  
Lat. 61.56 N, Long. 140.32' W  
Whitehorse Mining District  
NTS 115 F-15

For: Harjay Exploration Ltd.  
Suite 17-4078 Fourth Ave.  
Whitehorse, YT

By: G.S. DAVIDSON, P.Geol.

November, 1990

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 \$ 4,000.

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

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## SUMMARY

The WR 1-10 claims are held by Harjay Exploration Ltd. in the White River District of the western Yukon. Geophysical surveys performed over the property in 1988 produced several strong linear anomalies. The 1990 exploration work examined these geophysical targets.

The WR claims adjoin the Canalask property which features an orebody with reserves of 550,000 tons grading 1.68% nickel. The deposit consists of disseminated and fracture filling pyrrhotite and pentlandite occurring in shattered silicified tuffs beside a serpentinized peridotite sill. The tuffs belong to the Permian Skoli Group which also underlie the WR claims.

The 1990 exploration work consisted of limited blast trenching and prospecting of VLF-EM anomalies. Pyritic quartz pebble conglomerate and chert layers, exposed in two pits, underlie one of the anomalies. Rock samples from these pits produced low to background metal values.

## INTRODUCTION

The WR 1-10 claims are held by Harjay Exploration Ltd. on the southeast side of the White River, 5 km. upstream of the Alaska Highway. The claims adjoin the Micro Property which covers the Canalask nickel deposit. This deposit discovered in 1952 is being reevaluated for its PGE and nickel content.

The writer and R. Stack of Whitehorse excavated several pits on VLF-EM anomalies on June 15, 1990. This report describes the results of the brief evaluation.

## LOCATION AND ACCESS

The claims are located 40 km. south of the town of Beaver Creek on NTS Map Sheet 115 F-15, geographical coordinates 61 deg 57'N, 140 deg 22' W. The Alaska Highway passes within 6 km. of the WR property and a gravel road connects the Micro Property to the highway near the White River Lodge. Several cat trails extend from the Micro onto the WR claims. Figure 1 shows the property location.

The total road distance from Whitehorse to the claims is 405 kilometers.

## PHYSIOGRAPHY

The claims are situated in the Kluane Range of the St. Elias Mountains close to the Shakwak Valley. The Shakwak is a major structural depression and part of the Denali Fault system. The claims cover low hills and level swampy areas between 730 and 1000 metres elevation. The White River flows along the western margin of the property, through wide gravel flats. Outcrop is limited to steep river and creek banks.

Climatically, the area features long cold winters with low annual precipitation. Exploration is possible on a year round basis at the elevations encountered on the WR claims.

Vegetation consists of poplar and birch thickets on hillsides, and stunted spruce forest in swampy areas.

Yukon Territory  
Area: 478,034 sq. km.  
Population: 25,000  
Capital: Whitehorse

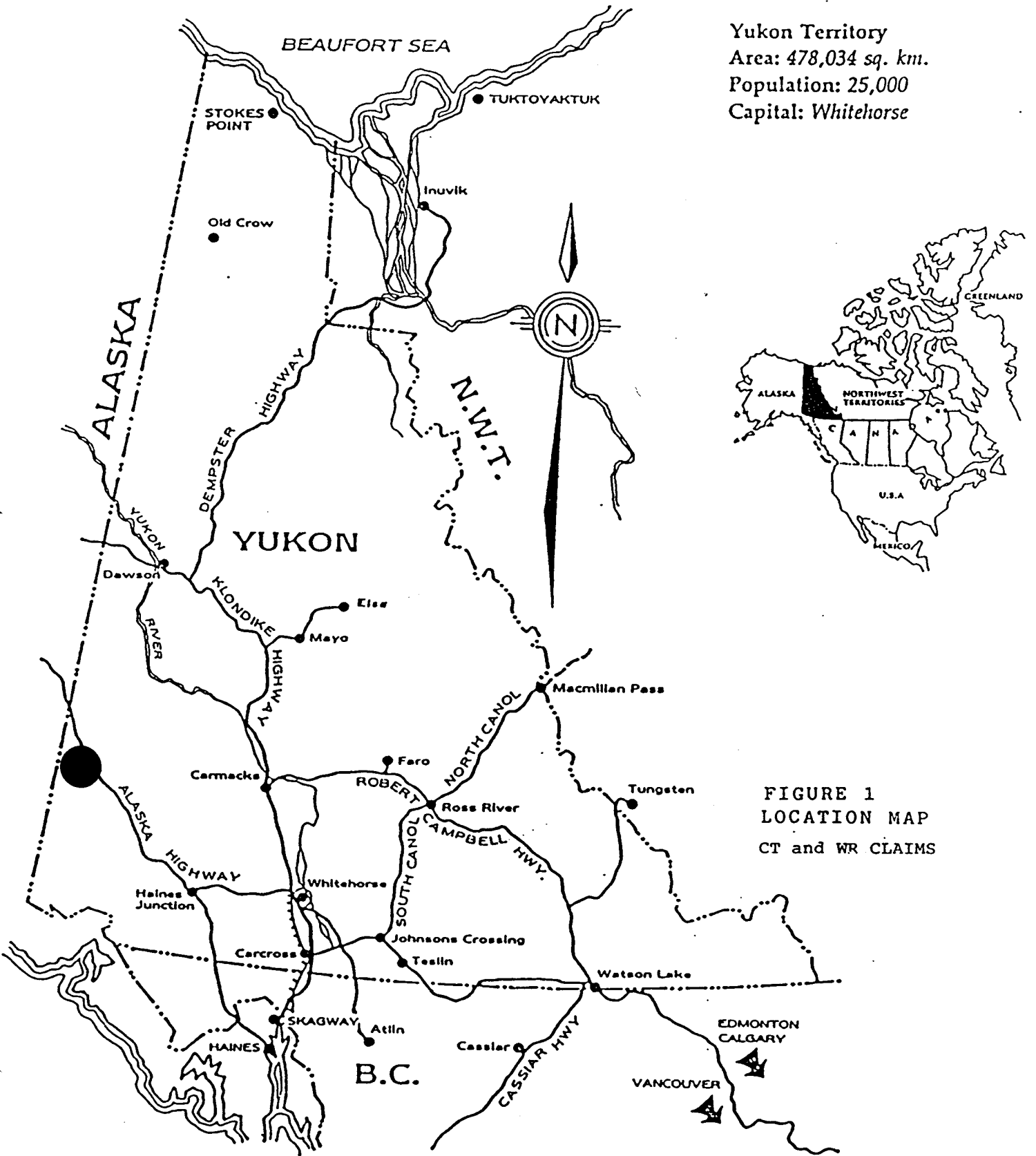


FIGURE 1  
LOCATION MAP  
CT and WR CLAIMS

## PROPERTY

The WR 1-10 claims are shown in Figure 2. The claims are registered in the office of the district mining recorder in Whitehorse. An expiry date of June 18, 1991 has been applied for.

## REGIONAL GEOLOGY

The White River area south of the Shakwak Valley is underlain by Permian and Triassic sedimentary and volcanic units intruded by granitic and mafic bodies of Upper Triassic and Cretaceous age. The general geology of the district was released in Open File #829 by the GSC. The regional geology is shown in Figure 3.

The property lies 2 km. south of the Denali Fault, the structural division between rocks of the Alexander Terrane (Kluane Ranges) and granitic rocks of the Ruby Ranges. In the Kluane Ranges the Carboniferous to Permian Skoli Group is divided into the Station Creek Formation, tuffs and volcanic breccia; and the Hasen Creek Formation, argillite, limestone, greywacke and conglomerate. The Skoli Group is foliated parallel to the Denali Fault and hosts pyrite-chalcopyrite mineralization in shear zones and in strataform lenses.

Triassic Nikoli greenstone also occurs extensively in the Kluane Ranges. The greenstone is primarily mafic flows which weather to a dark green or purple colour.

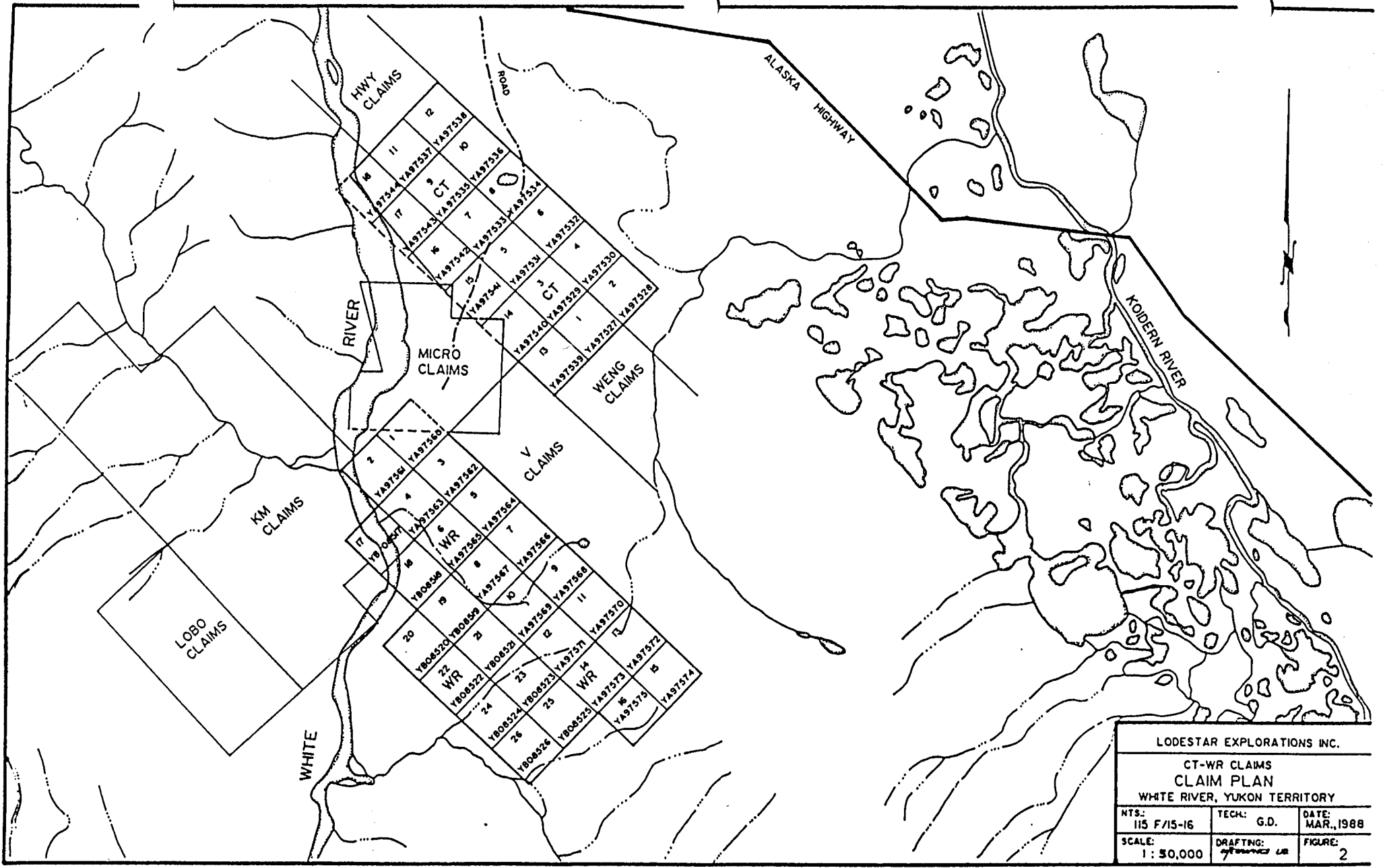
Sills and elongated bodies of peridotite, dunite and gabbro outcrop along the front ranges. Nickel, copper and PGE mineralization occurs within the basal section of the sill and in adjoining Skoli Group rocks.

## EXPLORATION HISTORY

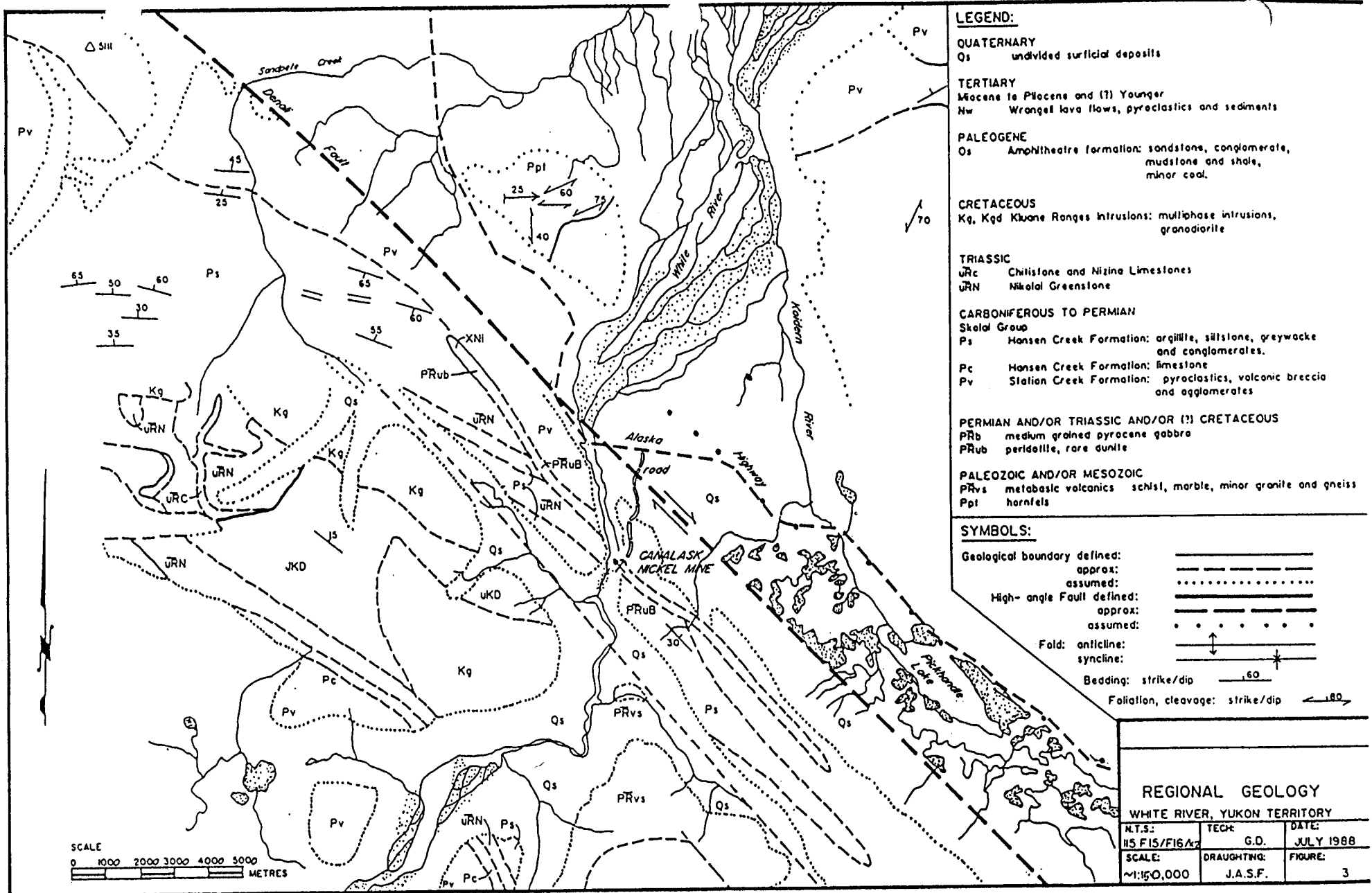
Large parties of prospectors explored the White River area in the early 1900's, searching for the source of placer copper occurrences near the Alaska border. One native copper deposit (Canyon City) was discovered in 1905; limited development work uncovered several large tabular masses of native copper.

Placer miners were active on most of the creeks in the 1930's; recent placer activity is restricted to testing on San Pete and Deadman Creeks.





LODESTAR EXPLORATIONS INC.		
CT-WR CLAIMS CLAIM PLAN		
WHITE RIVER, YUKON TERRITORY		
NTS: 1/5 F/15-16	TECH: G.D.	DATE: MAR., 1988
SCALE: 1 : 50,000	DRAFTING: OFFSHORE CO.	FIGURE: 2



In the 1950's, the Kluane Ranges were intensely explored for copper-nickel mineralization with two significant deposits discovered, Wellgreen and Canalask. The Canalask orebody has reserves of 550,000 tons grading 1.68% nickel and 0.04% copper. The WR claim area was originally staked with the Canalask showing as the General Enterprise Group (GE) which was acquired by Canalask Nickel Mines Ltd. in 1954. Magnetometer and SF surveys were undertaken on a cut grid reported to cover the GE group. In the late 1950's most of the claims were allowed to lapse.

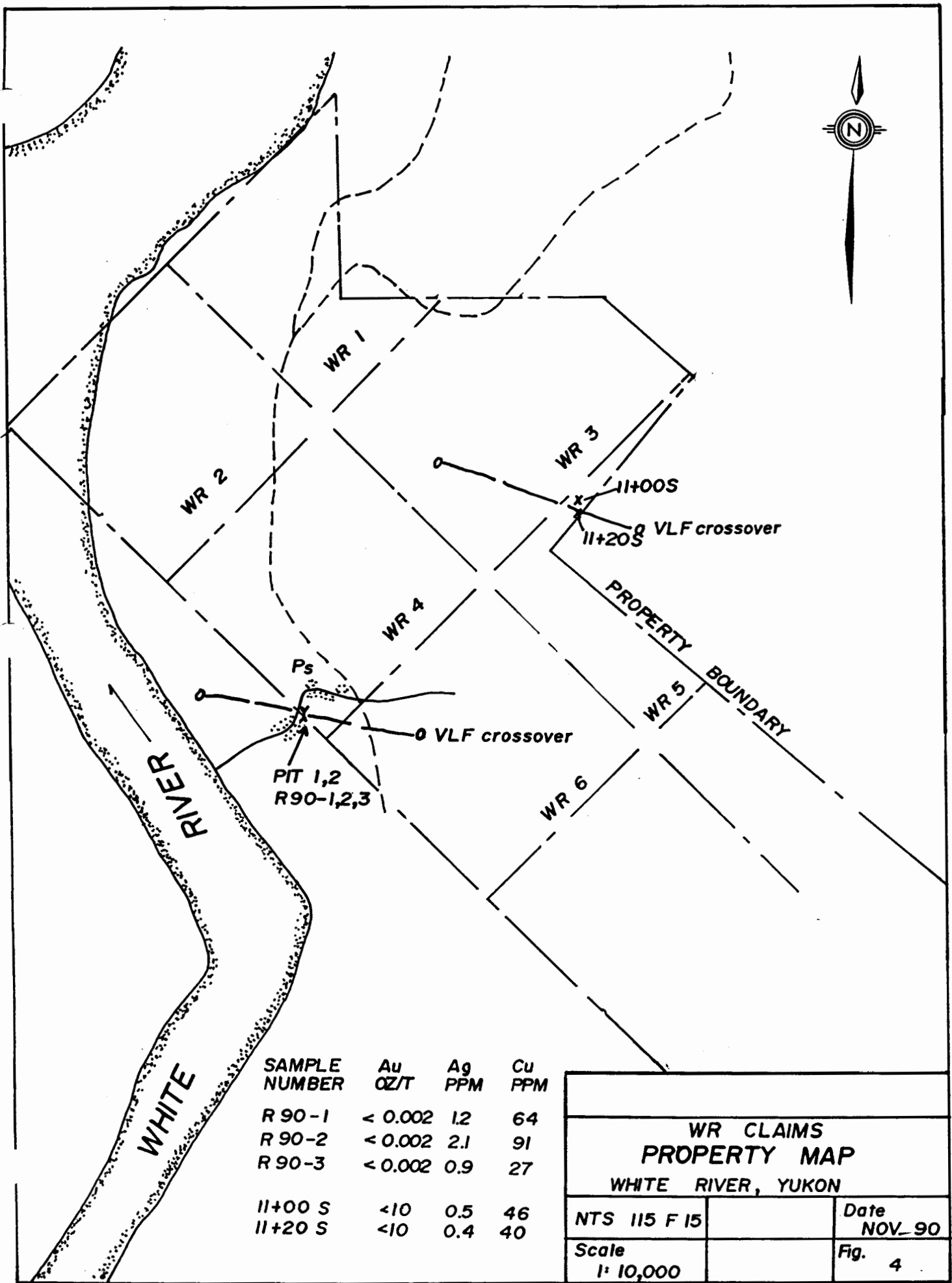
A second surge of Cu-Ni exploration was underway by the mid 1960's. The Canalask area was restaked as the Micro claims by P. Verslucce & Assoc. Surface work was undertaken on the Canalask orebody but no significant exploration took place on the surrounding claims.

In 1987 rising base metal and PGE prices prompted another pulse of exploration activity in the Kluane Ranges. Marjay Exploration Ltd. staked the WR claims in June, 1987 and performed grid development and geophysical surveys in the spring of 1988.

#### 1990 EXPLORATION PROGRAM

On June 15, 1990 R. Stack and the writer examined several of the stronger VLF-EM anomalies generated in the 1988 work program. A strong linear anomaly trending north west across claim WR 4 outcrops along the banks of a narrow creek gully. Black quartz pebble conglomerate and chert horizons were exposed in two pits beneath the trace of the anomaly. The pits were initially cleaned out by hand and then blasted to expose fresh bedrock. Three rock samples were analyzed for Au-Ag-Cu-Pb-Zn-As-Sb. Figure 4 shows the sample locations and the local geology.

Prospecting on other VLF anomalies was inconclusive because of a lack of outcrop. Two soil samples, collected on a strong anomaly at grid line 4+80E, 11+00S and 11+20S returned background values.



SAMPLE NUMBER	Au OZ/T	Ag PPM	Cu PPM
R 90-1	< 0.002	1.2	64
R 90-2	< 0.002	2.1	91
R 90-3	< 0.002	0.9	27
11+00 S	<10	0.5	46
11+20 S	<10	0.4	40

<b>WR CLAIMS PROPERTY MAP</b>		
WHITE RIVER, YUKON		
NTS 115 F 15		Date NOV_90
Scale 1" = 10,000'		Fig. 4

## CONCLUSIONS AND RECOMMENDATIONS

The VLF-EM anomalies on the WR property are probably caused by layers of pyritic sedimentary rock. Analyses of samples of quartz pebble conglomerate containing up to 5% pyrite produced background gold values.

The property should be held in good standing due to its close proximity to the Canalask property. If any further work is undertaken it should include soil sampling of anomalous areas.

CERTIFICATE

I, GRAHAM DAVIDSON, of the City of Whitehorse, in the Yukon Territory, HEREBY CERTIFY:

1. That I am a consulting geologist and that I worked on the subject property on June 15, 1990.
2. That I am a graduate of the University of Western Ontario (H. BSc., Geology, 1981).
3. That I am registered as a Professional Geologist by the Association of Professional Engineers, Geologists & Geophysicists of Alberta (No. 42038).
4. That I have been engaged in mineral exploration on a full time basis for nine years in the Yukon and Northwest Territories, and British Columbia.

SIGNED at Whitehorse, Yukon this 14th day of December, 1990.

G.S. DAVIDSON, P.Geol.

A handwritten signature in cursive script, appearing to read "G. Davidson", written in dark ink.

STATEMENT OF COSTS

June 15, 1990

Geologist, G. Davidson	\$ 300
Prospector, R. Stack	225
Truck, mileage, gas	210
NAL, assays	80.75
Report preparation	500
Total Costs	\$ 1,315.75

#### REFERENCES

- Antoniuk, T., 1967: Report on the Micro Nickel Project
- Campbell, S.W., 1976: Open File 1976-10, Nickel-Copper Sulphide Deposits in the Kluane Ranges
- Davidson, G.S., 1988: Exploration Report on the CT and WR Claims
- Hulbert, L.J. et al, 1988: Geological Environments of the Platinum Group Elements
- Open File #829, 1984: Geology of the 115 F Map Sheet, GSC



November 22, 1990

Work Order # 13008

Graham Davidson  
 17 - 4078 - 4th Ave.  
 Whitehorse, Yukon  
 Y1A 4K8

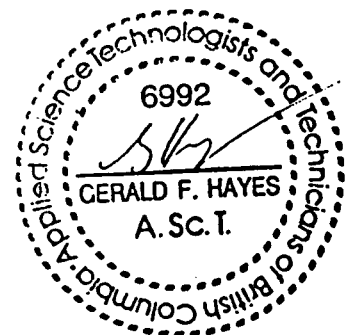
File # 13008b

Sample: Rock  
 Project: WR Claims

Assay Certificate for Samples Provided

Sample	oz/t Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
R90-1	<0.002	1.2	64	11	129	<1	6
R90-2	<0.002	2.1	91	17	73	24	2
R90-3	<0.002	0.9	27	45	82	35	8

Au -- 1AT Fire Assay/Grav.  
 Metals -- Aqua Regia Digestion/AAS Geochem



November 22, 1990

Work Order # 13008

Graham Davidson  
 17 - 4078 - 4th Ave.  
 Whitehorse, Yukon  
 Y1A 4K8

File # 13008c

Sample:  
 Project: WR Claims

Assay Certificate for Samples Provided

Line: 4+80E

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
11+00S	<10	0.5	46	6	44	12	18
11+20S	<10	0.4	40	5	63	7	19

Au -- 15g Fire Assay/AAS  
 Metals -- Aqua Regia Digestion/AAS Geochem

