LOG NO: 0309 RD.
ACTION:
FILE NO:

ASSESSMENT REPORT
GEOLOGY & GEOCHEMISTRY

HUCKLEBERRY PROPERTY
(KENNCO OPTION)
INNER LENS, OUTER LENS GROUPS

OMINECA MINING DIVISION
BRITISH COLUMBIA
N.T.S. 93 E/11E

Latitude: 53 degrees 40.5 minutes N
Longitude: 127 degrees 10 minutes W

Work Performed:
5 September 1989 to 11 September 1989

NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)
3A - 1750 Quinn Street
Prince George, B. C.
V2N 1X3

Report by:
Chris T. Roney, Field Geologist
Del Myers, Senior Project Geologist

FEBRUARY, 1990

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SUMMARY

The Huckleberry property was under option from Kennco. Work by Kennco and Granby up to 1974 has outlined a porphyry-type deposit of 77.7 million tonnes grading 0.401% Cu and 0.025% Mo. An area of arsenopyrite mineralization about 2 km E of the porphyry Cu-Mo deposit was studied in detail by Noranda in 1988 and 1989.

The property is underlain by Jurassic Hazelton Group volcanics and sediments. Andesite underlies most of the East grid. Lesser dacite to rhyolite also outcrop. Argillaceous siltstone outcrops at the top of Huckleberry Mountain. Minor dikes cut the volcanics. A sheeted arsenopyrite veinlet zone strikes E-W across the centre of the East grid. Grab samples of this zone have graded as high as 3380 ppb Au, and 99999+ ppm As, however, better gold values are spotty.

Mapping done in September 1989 on the East Grid shows that the arsenopyrite veinlet zones are more continuous than shown previously (Roney et al., 1990), but that surface grades are subeconomic.

INTRODUCTION

PURPOSE

An area of arsenopyrite veinlets is noted on a 1970 Kennco geology map of the Huckleberry property. It is hoped that this area hosts economic gold mineralization. The purpose of the work was: 1. to see if the arsenopyrite veinlet zone was more continuous than previously reported (Roney, et al., 1989), and, 2. to further sample the better areas found by previous work.

LOCATION AND ACCESS

The Huckleberry property is located in central British Columbia (Figure 1). It lies 80 km SSW of Houston, B.C. The property covers Huckleberry Mountain and the area south to Tahtsa Reach (Figure 2).

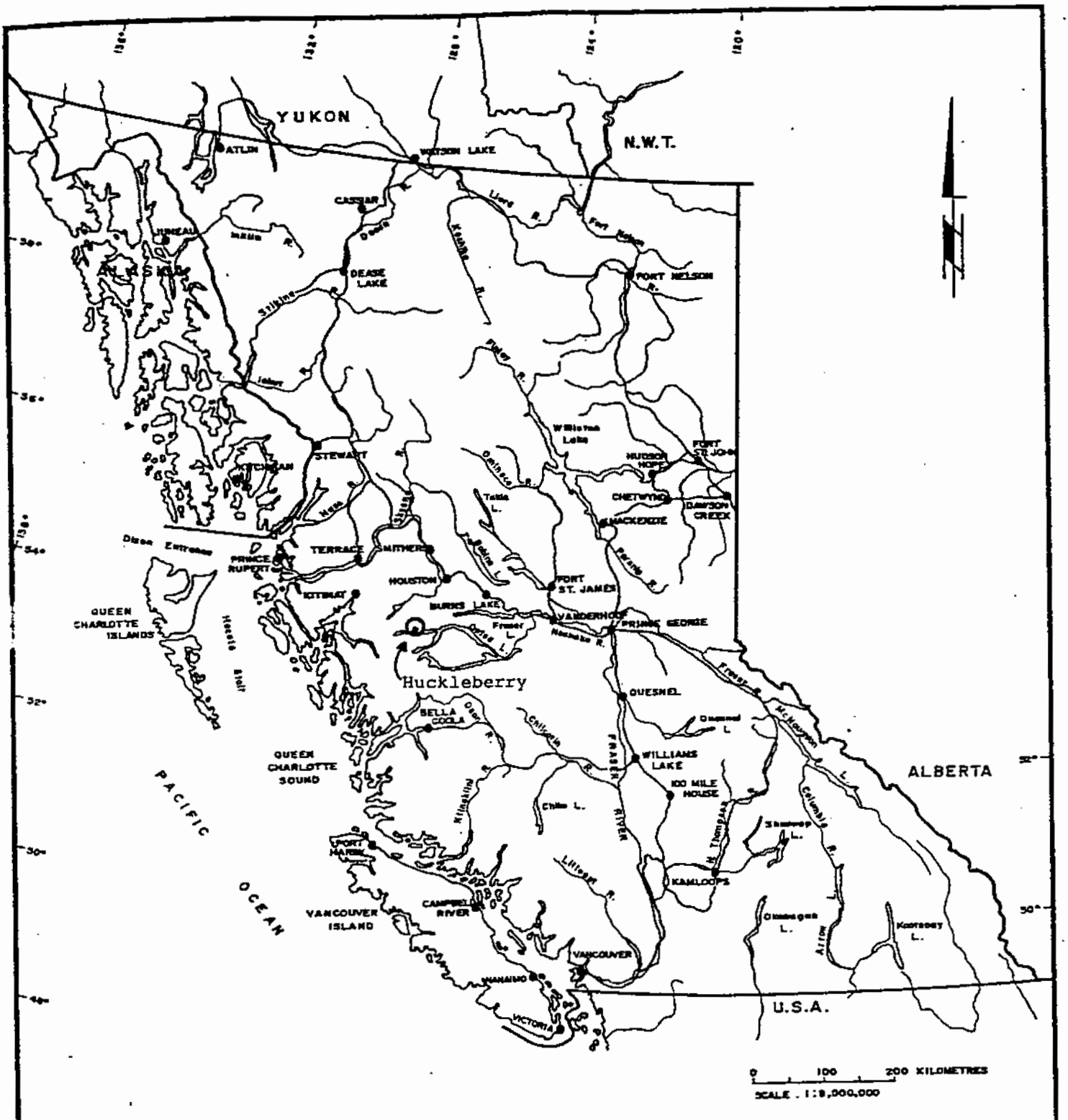
The property lies on the northern edge of the valley of the former Tahtsa River, which has been flooded behind the Kemano Dam to the east. Elevations on the property range from 1543 m, the summit of Huckleberry Mountain, to the fluctuating level of the Nechako Reservoir (Tahtsa Reach) at about 853 m a.s.l.

The claims are covered by spruce, balsam, and pine forest which is unlogged and by common swamps and ponds on the flatter parts of the property. Forests on the southern face of Huckleberry Mtn. are less dense and more pine-rich than others on the property. All streams flow into Tahtsa Reach.

Access to the property is via all-weather gravel roads from Highway 16 just west of Houston. It is a three hour drive to the property from Houston. Persons working on the property camped on the claims.

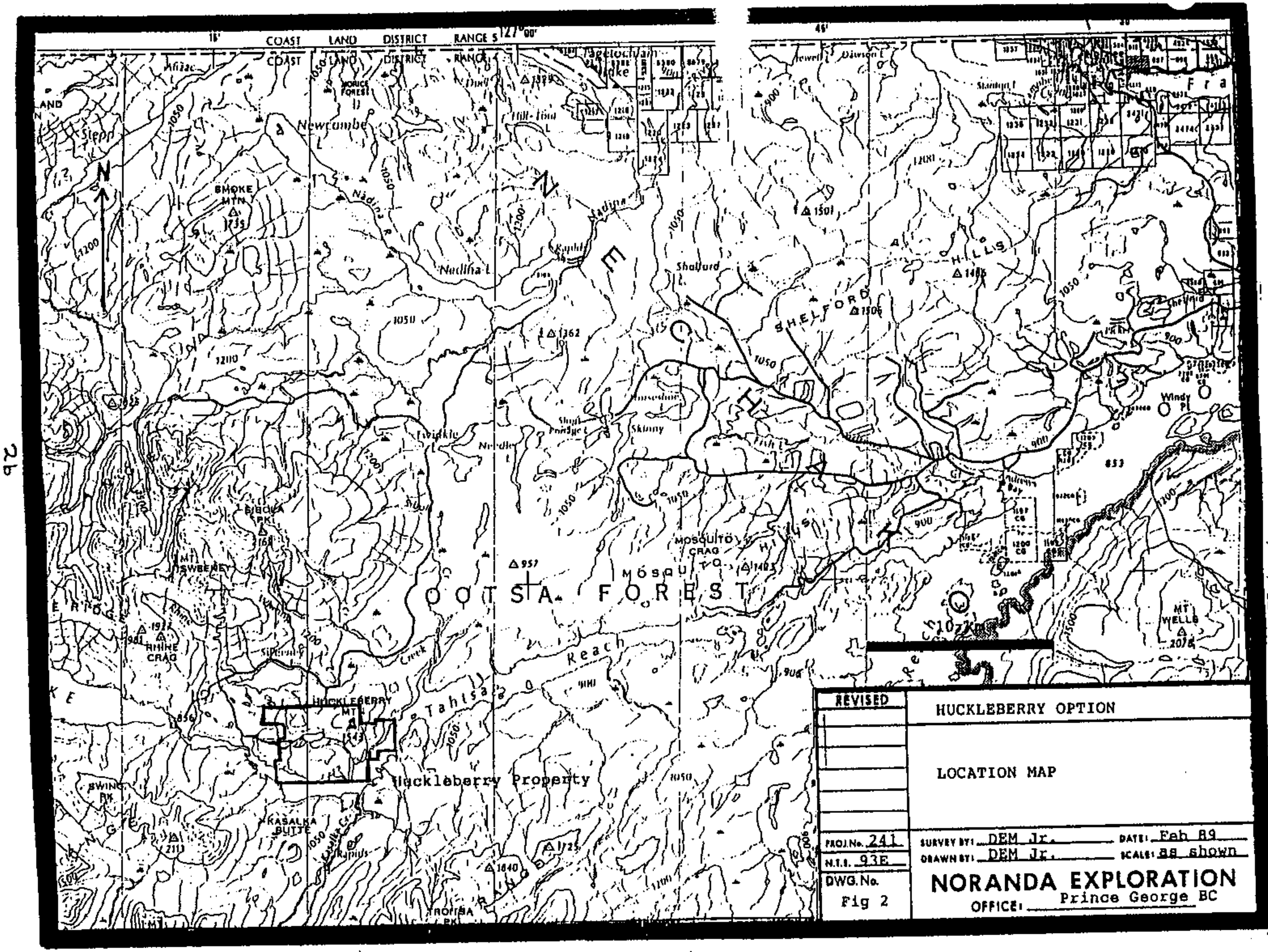
PROPERTY

The property consists of ninety-seven claims listed in Table 1. Noranda Exploration holds, by its purchase of Granby Mining, an option to form a joint venture on the claims from the owners, Kennco Exploration, (Western) Ltd. The option expires on 31 December 1989 unless certain conditions are met. The claims are shown on Figure 3. The three Do-Over claims were staked for Noranda in 1988.



REVISED	HUCKLEBERRY OPTION
	LOCATION MAP
PROJ No. 241	SURVEY BY: DEM Jr DATE: Feb 80
N.T.S. 93E	DRAWN BY: S.K.B. SCALE: 1:8,000,000
DWG. No. Fig 1	NORANDA EXPLORATION
	OFFICE: PRINCE GEORGE, B.C.

VANCAL 11927



HUCKLEBERRY OPTION

LOCATION MAP

REVISED

PROJ.No. 241

N.T.S. 93E

DWG.No. Fig 2

SURVEY BY: DEM Jr. DATE: Feb 89

DRAWN BY: DEM Jr. SCALE: as shown

NORANDA EXPLORATION

OFFICE: Prince George BC

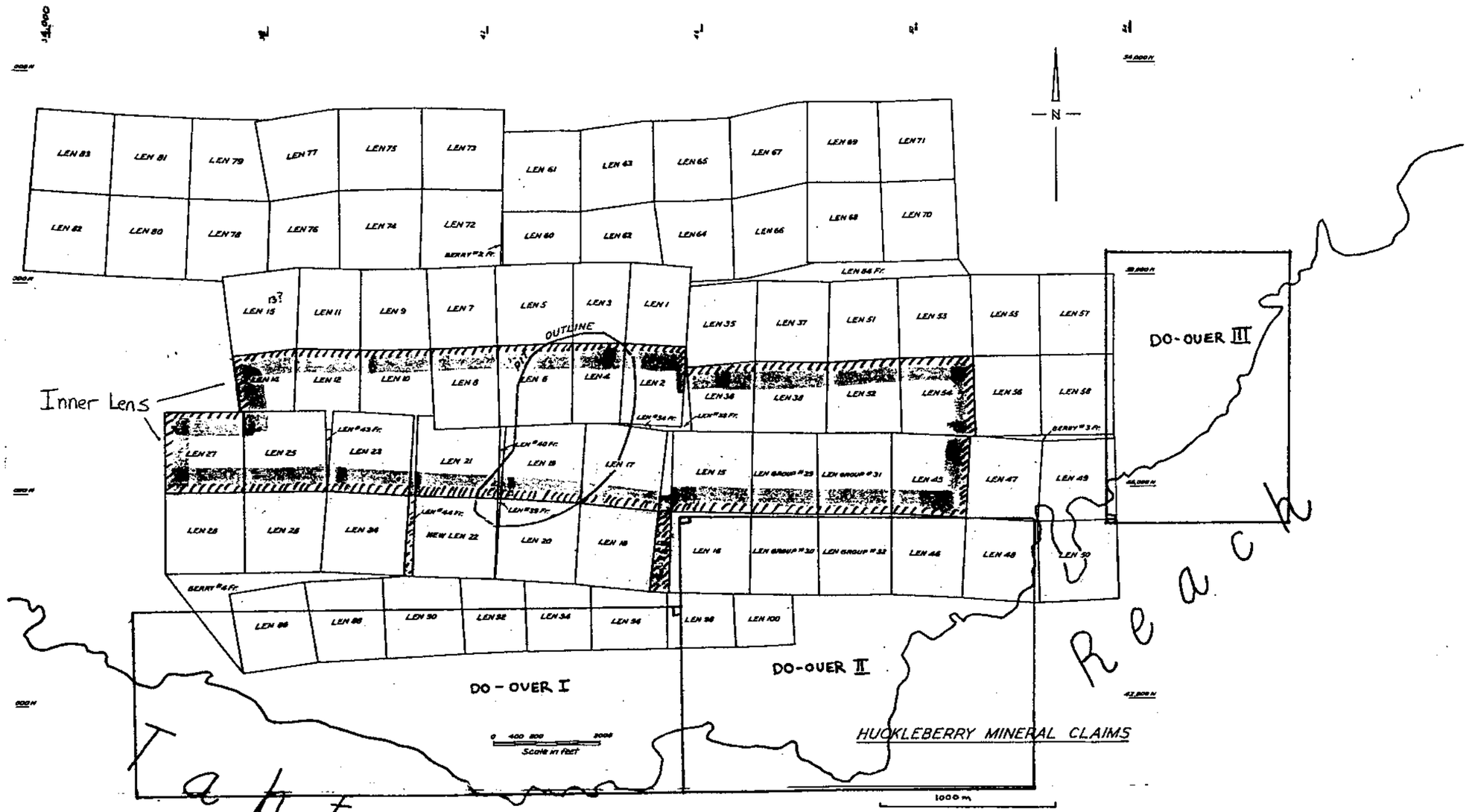


Fig. 3 Claim map, Huckleberry Option,
1:25,000 dm Feb. 90

NORANDA EXPLORATION COMPANY, LIMITED - CORDILLERA DIVISION
File: CENTRAL
Report: PROPERTY STATUS

Property	NTS	Claim Name	R/P	Record	TY	UN	Rec Date	DUE	A	Owner	B/S Date	H/O	Record Year	Group Name	Group Date	Area	Status	Proj #	Mnemonic
HUCKLEBERRY	093E11	BERRY 2		116893	FR	1	Oct 6	1995	N	KENNCO		OWIN	1972	OUTER LENS	Dec 8 89	10.50	C	3240	HUCKLE
	093E11	BERRY 3		116894	FR	1	Oct 6	1995	N	KENNCO		OWIN	1972	OUTER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	BERRY 4		116895	FR	1	Oct 6	1995	N	KENNCO		OWIN	1972	OUTER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 1		015522	TP	1	Jul 12	1996	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 2		015523	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 3		015524	TP	1	Jul 12	1998	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 4		015525	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 5		015526	TP	1	Jul 12	1998	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 6		015527	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 7		015528	TP	1	Jul 12	1997	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 8		015529	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 9		015530	TP	1	Jul 12	1997	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 10		015531	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 11		155532	TP	1	Jul 12	1997	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 12		015533	TP	1	Jul 12	1999	P	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 13		015534	TP	1	Jul 12	1997	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 14		015535	TP	1	Jul 12	1999	P	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 15		015536	TP	1	Jul 12	1999	P	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 16		015537	TP	1	Jul 12	1997	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 17		015538	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 18		015539	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 19		015540	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 20		015541	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 21		015542	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 23		015544	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 24		015545	TP	1	Jul 12	2000	N	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 25		015546	TP	1	Jul 12	1999	P	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 26		015547	TP	1	Jul 12	1997	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 27		015548	TP	1	Jul 12	1999	P	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 28		015549	TP	1	Jul 12	1997	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 29		015817	TP	1	Aug 24	1995	P	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 30		015818	TP	1	Aug 24	1995	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 31		015819	TP	1	Aug 24	1995	P	KENNCO		OWIN	1962	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 32		015820	TP	1	Aug 24	1995	P	KENNCO		OWIN	1962	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 33		021389	FR	1	Jul 30	2000	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 34		021390	FR	1	Jul 30	2000	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 35		021506	TP	1	Aug 2	1995	P	KENNCO		OWIN	1963	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 36		021507	TP	1	Aug 2	1995	P	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 37		021508	TP	1	Aug 2	1995	P	KENNCO		OWIN	1963	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 38		021509	TP	1	Aug 2	1995	P	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 39		021628	FR	1	Aug 15	2000	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 40		021629	FR	1	Aug 15	2000	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 41		021630	FR	1	Aug 15	1993	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 42		021631	FR	1	Aug 15	1994	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 43		021632	FR	1	Aug 15	2003	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 44		021633	FR	1	Aug 15	1994	N	KENNCO		OWIN	1963	INNER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 45		078767	TP	1	Aug 18	1994	N	KENNCO		OWIN	1969	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 46		078768	TP	1	Aug 18	1995	P	KENNCO		OWIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 47		078769	TP	1	Aug 18	1995	N	KENNCO		OWIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 48		078770	TP	1	Aug 18	1995	N	KENNCO		OWIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 49		078771	TP	1	Aug 18	1995	N	KENNCO		OWIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 50		078772	TP	1	Aug 18	1995	N	KENNCO		OWIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE

TABLE 1. List of Claims, Huckleberry Property

TABLE 1. continued

Property	NTS	Claim Name	R/P	Record	TY	UH	Rec Date	DUE	A	Owner	B/S Date	M/D	Record Year	Group Name	Group Date	Area	Status	Proj #	Mnemonic
HUCKLEBERRY	093E11	LEN 51		078773	TP	1	Aug 18	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C	3240	HUCKLE
	093E11	LEN 52		078774	TP	1	Aug 18	1994	N	KENNCO		ONIN	1969	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 53		078775	TP	1	Aug 18	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 54		078776	TP	1	Aug 18	1994	N	KENNCO		ONIN	1969	INNER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 55		078777	TP	1	Aug 18	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 56		078778	TP	1	Aug 18	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 57		078779	TP	1	Aug 18	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 58		078780	TP	1	Aug 18	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 60		078781	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 61		078782	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 62		078783	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 63		078784	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 64		078785	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 65		078786	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 66		078787	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 67		078788	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 68		078789	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 69		078790	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 70		078791	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 71		078792	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 72		078793	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 73		078794	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 74		078795	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 75		078796	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 76		078797	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 77		078798	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 78		078799	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 79		078800	TP	1	Aug 19	1995	P	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 80		078801	TP	1	Aug 19	1994	N	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 81		078802	TP	1	Aug 19	1994	N	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 82		078803	TP	1	Aug 19	1994	N	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 83		078804	TP	1	Aug 19	1994	N	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 84		080145	FR	1	Sep 9	1994	N	KENNCO		ONIN	1969	OUTER LENS	Dec 8 89	10.50	C		HUCKLE
	093E11	LEN 86		099525	TP	1	Jun 23	1999	P	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 88		099526	TP	1	Jun 23	2007	N	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 90		099527	TP	1	Jun 23	1999	P	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 92		099528	TP	1	Jun 23	1999	P	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 94		099529	TP	1	Jun 23	1999	P	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 96		099530	TP	1	Jun 23	1999	P	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 98		099531	TP	1	Jun 23	1999	P	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	LEN 100		099532	TP	1	Jun 23	1999	P	KENNCO		ONIN	1971	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
	093E11	NEW LEN 22		117776	TP	1	Oct 24	2000	N	KENNCO		ONIN	1972	OUTER LENS	Dec 8 89	20.90	C		HUCKLE
						94										1839.80			

MORANDA EXPLORATION COMPANY, LIMITED - CORDILLERA DIVISION
File: CENTRAL
Report: PROPERTY STATUS

Property	NTS	Claim Name	R/P	Record	TY	UN	Rec Date	DUE	A	Owner	B/S Date	M/D	Record Year	Group Name	Group Date	Area	Status	Proj #	Mumonic
HUCKLEBERRY - NOREX	093E11	00 OVER I		010043	MG	12	Nov 26	1992	N	NOREX		ONIN	1988	OUTER LENS	Dec 8 89	300.00	C	3240	HUCKLN
	093E11	00 OVER II		009987	MG	12	Oct 29	1993	N	NOREX		ONIN	1988	LEN EAST	Jun 23 89	300.00	C		HUCKLN
	093E11	00 OVER III		010044	MG	6	Nov 26	1993	N	NOREX		ONIN	1988	LEN EAST	Jun 23 89	150.00	C		HUCKLN
						30										750.00			

TABLE 1. continued

REGIONAL GEOLOGY

The Huckleberry property lies near the southern edge of a broad structural high known as the Skeena Arch, within the Intermontaine Belt of the Canadian Cordillera. The property is only 25 km east of the Coast Plutonic Complex, a high metamorphic grade zone of deformation and intrusion.

Regional mapping by the GSC (Woodsworth, G.J. et al, unpublished) (figure 4) indicated the following rock units in the property area:

uKk — rhyolite to andesite flows, breccia, tuff, and lahar; minor red conglomerate and sandstone at the base; belongs to the Upper Cretaceous Kasalka Group;

lKss — micaceous sandstone, siltstone, shale; minor conglomerate; belongs to the Middle Albian Skeena Group (Cretaceous);

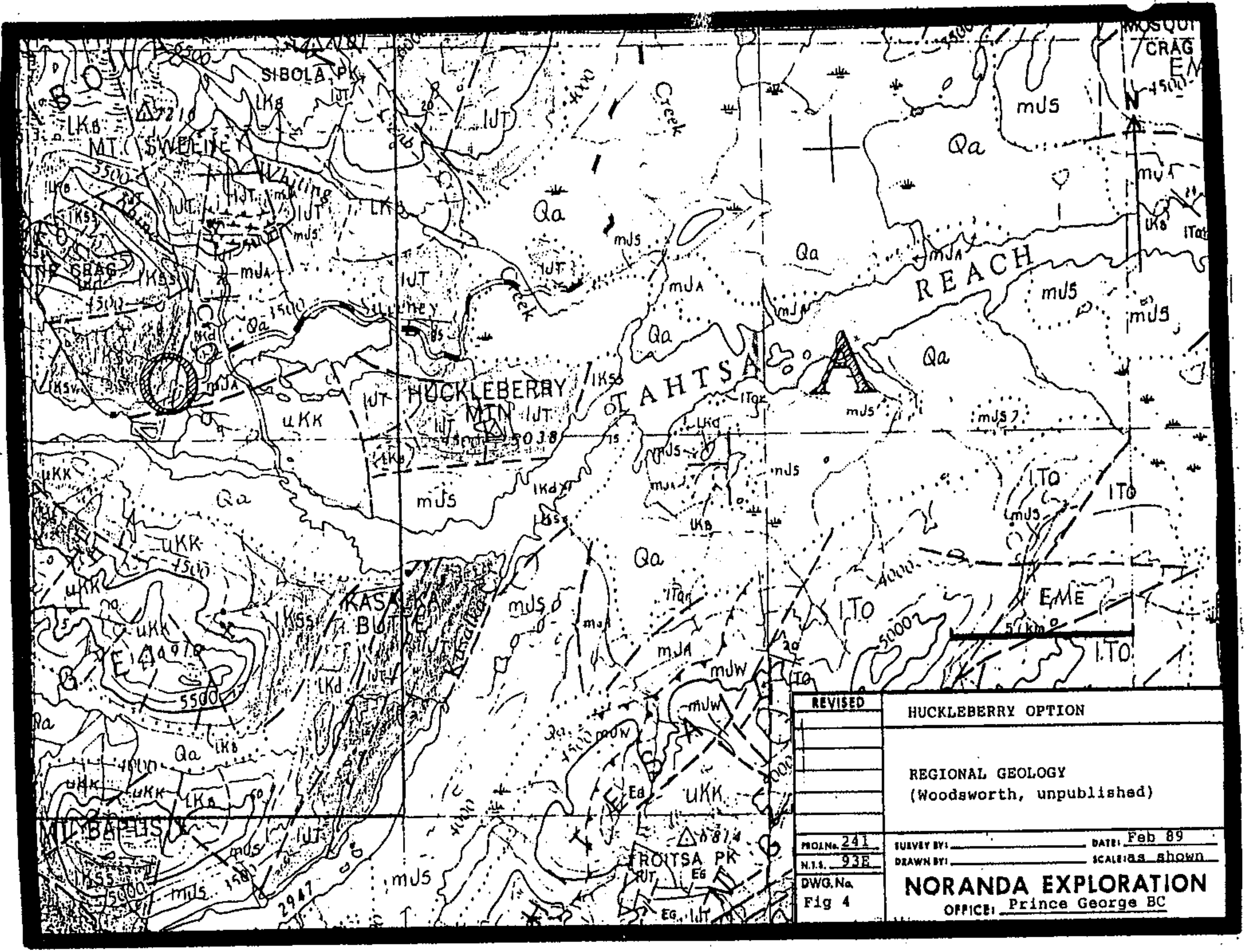
mJs — feldspathic volcanic sandstone, greywacke, tuff, breccia, tuffaceous sediments; minor conglomerate, limestone, and flows; belongs to Lower Bajocian Smithers Fm.; and

lJt — variegated red, maroon, grey, green tuff, breccia, and flows of basaltic to rhyolitic composition; lesser volcanic conglomerate, red mudstone, red siltstone, argillite; belongs to the Upper Triassic and Sinemurian(?) Telkwa Fm.

A Late Cretaceous stock is mapped within Telkwa Formation volcanics on the property. Such intrusives range in composition from granodiorite to quartz diorite to monzodiorite to monzonite in the area and are partly equivalent to the Bulkley intrusives of the Smithers (93L) map area (Tipper and Richards, 1976).

Nearby mineral showings include:

1. various Cu-Mo showings of porphyry-style related to various (mainly Bulkley) intrusives and
2. related polymetalic veins at a distance from the porphyry showings (BCMEMPR, 1987).



HUCKLEBERRY OPTION

REGIONAL GEOLOGY
(Woodsworth, unpublished)

PROJ.No. 241	SURVEY BY:
N.T.S. 93E	DRAWN BY:
DWG.No. Fig 4	DATE: Feb 89
	SCALE: as shown

NORANDA EXPLORATION
OFFICE: Prince George BC

PREVIOUS WORK

The property was discovered and explored by Kennco in the 1960's and early 1970's. Kennco drilled some 29 diamond drill holes on the property in 1963, 1964, 1970, and 1971. Kennco optioned the property to Granby Mining Corp. in 1972.

Granby drilled 65 diamond drill holes in 1972 and 1973. Granby prepared a preliminary feasibility study on the property. The property has been in inventory since that time. Drill indicated, open-pit mineable, reserves are 77.7 million tonnes of 0.401% copper and 0.025% molybdenum at a waste:ore ratio of 1.7:1 (based on a cutoff grade declining to 0.25% Cu with time) (Anonymous, 1974).

Noranda acquired rights to the property by its purchase in 1979 of Granby Mining Corp.

In July 1988, a 400 meter north by 500 meter east soil grid was established over an area of quartz-pyrite-arsenopyrite veinlets. These veinlets outcrop 1.0 km SE of the summit of Huckleberry Mtn. This is approximately 800 meters east of Kennco Explorations DDH-18. The N-S side lines were placed at 100 meter intervals and soil sampled at 20 meter stations. Stations were marked by blue and orange flagging and white teflon tags.

Ninety-five soil and fourteen rock samples were collected. All samples were analyzed by AA for gold and by ICP methods for 30 elements (Myers, 1989).

In September and October 1988, 12 sidelines were added to the 20,000 grid. They were also soil samples. A new grid, (the 30,000 Grid) was also put in and soil sampled. Reconnaissance soil and silt sampling was also carried out on the property. 515 soil, 108 rock, 45 silt and 2 pan samples were collected. All samples were analyzed by AA for Au and by ICP methods for 30 elements. As well, 15 composite drill core samples were collected from Kennco DDH-17 and DDH-18 for geochemical analysis.

In December 1988, selected diamond drill hole sample pulps and rejects were re-analyzed (Myers, 1989).

In June 1989, lines were added and extended on the 30,000 and 20,000 grids, together called the East grid. As well, reconnaissance sampling was continued from last year. 55 rock, 1 silt, 4 humus, and 787 soil samples were collected. Lines on the 20,000 and 30,000 grids were cut. A new grid (the Copper grid) was also put in and cut over the porphyry copper deposit.

In July 1989, a magnetometer survey of the East and Copper grids was done. The area of arsenopyrite veinlets was remapped in more detail (1:500). An additional 131 rock samples were collected. (Roney et al., 1989).

WORK UNDERTAKEN

Three men spent 7 days (5-11 September 1989) working on the East grid. New, more accurate, control lines were put in over the area of arsenopyrite veinlets and tied into BL30,000N. These were used to re-map part of the detail map area. The walls of Arsenic Creek canyon were sampled in more detail. The trail to the East grid was cut out better and parts of BL30,000N were cut as well. 64 rock chip samples were taken, 58 were analyzed for 30 elements by ICP and Au by AA by Acme Analytical Labs in Vancouver. The 6 remaining samples were assayed for 15 elements by ICP by Acme. 87 reconnaissance soil samples were rerun for 30 elements by ICP at Acme Analytical Labs.

RESULTS

GEOLOGY

Outcrop on the East grid is abundant north of BL30,000N, but south of the baseline outcrop is less abundant because the slopes are gentler.

Three rock types were noted during September's work. Andesites to dacites (V2/3) are the most common unit and range from fine grain and massive to feldspar porphytic and to lapilli tuffs. These textural varieties can probably be mapped, but not enough time was available to do this in September. These volcanics appear to be hornfelsed to some extent. Quartz-arsenopyrite-pyrite veinlets occur in this unit parallel to a strong E-W striking, moderately N-dipping sheeted joint set. Veinlets range up to 10 cm or so in thickness but average less than 1 cm thick. In most places there are only one or a few veinlets per cubic metre. In a few places, there are a hundred or more veinlets per cubic metre.

A wide dacitic dike (H3) justs through the centre of the grid at a strike of about 100 degrees. (Figures 6, 7) It appears to be post-mineralization in age.

A one metre wide, NW-striking rhyolite dike or bed (H4/V4) was noted in several places along the eastern top of cliffs overlooking Arsenic Creek (see Figure 7).

Earlier attempts to map silicious andesite (V2S), andesites (V2), and dacite (V3) do not appear to have been successful (Figure 5). These units should be grouped into the andesite to dacite (V2/3) unit described above.

The mapping in Figure 5 was based on the assumption that although the azimuths of the 20,000 and 30,000 grid sidelines were in error, the chainage on the sidelines was ok. This was shown to be grossly untrue by work in September 1989. Hence the locations in Figure 5 generally are too far from the baseline, resulting in serious position errors.

Figures 6 and 7 show the start of mapping based on proper control lines. Locations on Figures 6 and 7 are more accurate.

Mapping in June and July 1989, (Figure 5, Roney et al, 1990) showed the arsenopyrite veinlet zones as relatively discontinuous, lensoidal-shaped zones. Although this mapping was not revised in September it was recognized that the veinlet zones are more continuous than shown in June and July.

GEOCHEMISTRY

Soils

Eighty-seven reconnaissance soils collected in June 1989 were re-run by 30 element ICP analysis at Acme Analytical. Originally they had been analyzed only for Au, Cu, and As.

Anomalies were detected for Mo, Pb, Zn, Ag, Co, Mn, Fe, Sb, Bi, V, P, Cr, Ti, Al, and W. Interpretation has not been made of this data (Appendix 5). Sample locations are given in Figure 8 so that this data may be interpreted in the future.

Figure 8 also shows the outline of the +100 ppm copper in soil (B-horizon) contour from both reconnaissance and grid soil samples.

Note that the copper anomaly is over 4.5 km long and open to the west. The results of sampling for the line with samples 52540 to 52554 and 100607 to 100620 appears inconsistent with

other results. This line should be resampled in the future or new lines should be sampled nearby.

Rocks

A total of 64 rock samples were analyzed from the Huckleberry property. 58 of the rocks were analyzed for 30 elements by ICP and for Au by AA at Acme Analytical Labs. Six of the rocks were analyzed for 15 elements by ICP at Acme Analytical Labs in Vancouver.

Sample locations are shown on Figures 6 and 7. Analytical reports are included in Appendix 5.

The 58 rock samples were chip samples taken of quartz-arsenopyrite veinlets and surround wall rock. These were taken N-S, perpendicular to the strike of the veinlets. They were all taken over a 1 metre width, except for one 1.5 metre chip sample (#108040).

59% of the rocks are anomalous (>100 ppm) in As. More than 50% of the rocks are anomalous in Cu (>100 ppm) or Pb (>30 ppm). More than 40% of the rocks are anomalous in gold (>10 ppb).

The only highly anomalous sample was 107075 with 12441 ppm As and 920 ppb Au.

The other six rock chip samples were analyzed by 15 element ICP assay. They are chip samples taken along a small (less than 3 metre) strike length of six different quartz-arsenopyrite veinlets. These veinlets ranged in width from 4 to 70 mm. These six samples represent the grades of the veinlets, but not the grades that could be mined, as the veinlets always represent 20% or much less of the volume of any sizeable block of rock.

The six samples analyzed for 15 elements were all highly anomalous in As and Au:

Sample #	Cu (%)	Ag (gmt)	As (%)	Au (gmt)
10639			6.58	2.50
10640			2.55	1.20
10641			5.08	2.47
10642	1.03	86.74	3.86	2.02
10643		256.46	8.24	6.34
10644		40.11	10.64	3.60

All these chip samples were taken from the weathered outcrop surfaces, so results may not be representative of fresh bedrock.

CONCLUSIONS

1. Detailed mapping and chip sampling in the East grid area indicates that the best gold values are associated with the sheeted arsenopyrite veinlets.

2. The arsenopyrite veinlet zones appear to be more continuous that previously shown (Roney, 1990, Figure 5).

3. Grades over mineable widths of the arsenopyrite veinlets are sub-economic at surface.

4. A large copper soil anomaly covers much of the centre of the property (Figure 8).

5. Potential exists for additional Cu-Mo reserves on the W, N, and S sides of the porphyritic granodiorite, between the porphyritic granodiorite and the sub-cropping intrusive near 30,000mN, 30,000mE, and along faults underlying the broad copper soil anomaly.

RECOMMENDATIONS

1. With the current interest in porphyry copper deposits, a further look at the existing deposit and the surrounding area should be undertaken. Mapping, rock sampling, and geophysics (IP and Magnetic surveys) should be done to define drill targets.

2. The values of the arsenopyrite veinlet zones are not encouraging at surface. The zone has never been tested by trenching or drilling. It should be trenched, or better yet, drilled.

REFERENCES

Anonymous, 1974. Huckleberry Project: Preliminary Feasibility Study, Granby Mining Company Limited, Vancouver, B.C.

BCMEMPR, 1987. Revised Mineral Inventory Map, 93E, 1:250,000. BCMEMPR, Victoria, B.C. (November, 1987).

Myers, D., 1989. Year End Report, Geochemistry and Prospecting Huckleberry Property. Noranda Exploration Company, Limited, Prince George, B.C. (March 1989).

Roney, C.T., Myers, D., & Bradish, L., 1989. Assessment Report. Geology, Geochemistry, & Geophysics; Huckleberry Property. Noranda Exploration Company, Limited, Prince George, B.C. 18 pp and appendices. (August, 1989).

Tipper, H.W. and Richards, T.A., 1976. Geologic Map, Smithers, B.C., NTS 93 L, GSC Open File 351, Ottawa, Ont., 1 sheet.

Woodsworth, G.J. et al., - . Unpublished geological map, NTS 93E, Geological Survey of Canada, Vancouver, B.C., 1 sheet.

APPENDIX 1. List of Field Personnel, 1989
Huckleberry Property

NAME/ADDRESS	POSITION	DATES WORKED ON CLAIMS	MANDAYS
Brian Harders Prince George, B.C.	Assistant	5-11 Sept. 1989	7
Del Myers Prince George, B.C.	Sr. Project Geologist	5-11 Sept. 1989	7
Chris Roney Wawanesa, MB	Field Geologist	5-11 Sept. 1989	7
		TOTAL:	21

APPENDIX 2: Statement of Costs
Work completed 5 to 11 September, 1989

Field Personnel		
21 man-days at $145		$ 3,045.00
Consultant		--
Food & Accommodation:		
21 man-days at $50		$ 1,050.00
Mob/Demob within B.C.:		--
Truck Rentals:		
2 trucks for 1 week at $230.00		$ 460.00
Equipment & Supplies:		
12 man-days at $25		$ 300.00
Laboratory Analysis:		
87 soil pulps by 30 element ICP at $6.25		$ 543.00
58 rocks by 30 element ICP & Au by AA at $13.75		$ 798.00
6 rocks by 15 element ICP at $25.00		$ 150.00
Report Preparation:		
3 man-days at $130		$ 390.00
Management:		
1 man-day at $220		$ 220.00
	TOTAL	$ 6,956.00

90% of work on Outer Lens Group	$ 6,260.40
10% of work on Inner Lens Group	$ 695.60
	$ 6,956.00

APPENDIX 3

STATEMENTS OF QUALIFICATIONS

C. T. Roney

D. E. Myers

APPENDIX III

STATEMENT OF QUALIFICATIONS

RELEVANT TRAINING:

B.Sc. (1986)	Brandon University Brandon, Manitoba Geology

RELEVANT EXPERIENCE:

1984-1986	Geological Assistant Falconbridge Ltd., Winnipeg, Man. Manitoba Energy & Mines, Winnipeg, Man.
1987	Exploration Geologist Falconbridge Ltd. Winnipeg, Man.
1987-1989	Exploration & Mine Geologist Granges Exploration Ltd. Flin Flon, Man. & Timmons, Ont.
1989 -	Exploration Geologist Noranda Exploration Company, Limited Prince George, B. C.

Chris T. Roney
Geologist
September, 1989

APPENDIX Statement of Qualifications

Relevant Training

B.Sc. (1970) Pennsylvania State University
University Park, Pa., USA
Geological Sciences

M.Sc. (1973) University of Toronto
Toronto, Ontario, Canada
Geochemistry

Relevant Experience

1973 - 1980 Exploration and Mine Geologist
Cominco Ltd.
Vancouver and Yellowknife

1980 - 1982 Exploration Geologist
Noranda Exploration Co., Ltd.
Yellowknife, N.W.T.

1982 - 1983 Exploration Geologist
Noranda Exploration Co., Ltd.
Smithers, B.C.

1983 - Exploration Geologist
Noranda Exploration Co., Ltd.
Prince George, B.C.

Professional Affiliations

Fellow, Geological Association of Canada

Member, Association of Professional Engineers, Geologists, and Geophysicists of the Northwest Territories

Member, Canadian Institute of Mining and Metallurgy

Delbert E. Myers, Jr.
Sr. Project Geologist

APPENDIX 4

SAMPLE REPORTS

(in numerical order)

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93 E/11E

AREA / PROPERTY Huckleberry Option — Collection DATE 9 Sept. 89

GCI # — **SAMPLE REPORT** — Lab Code: — PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	16 element ICP assay ppb Au	SAMPLED BY
10639	quartz-arsenopyrite veinlet only	–	rock	chip		dm
	9 mm thick 89°/78°N			along veinlet		
	weathered and rusty, drusy quartz					
10640	quartz-arsenopyrite veinlet only	–	rock	chip		"
	30-70 mm thick 108°/80°N			along		
	weathered and rusty, drusy quartz			veinlet		
10641	quartz-arsenopyrite veinlet only	–	rock	chip		"
	10-20 mm thick 108°/83°N			along		
	weathered and rusty, drusy quartz			veinlet		

report by: dm 9 Sept 89

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93 E/11E

AREA / PROPERTY Huckleberry Option — Collection DATE 10 Sept. 89

GCI # — **SAMPLE REPORT** — Lab Code: — PROJECT: 241

16 element ICP assay

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au							SAMPLED BY
10642	quartz - pyrite - arsenopyrite (⅓, ⅓, ⅓) veinlet only	67	rock	chip								dm
	4-8 mm thick 82°/61°N			along								
	weathered and rusty, drusy quartz			veinlet								
10643	quartz - arsenopyrite veinlet only	—	rock	chip								"
	10 mm thick 88/69°N			along								
	weathered and rusty, drusy quartz			veinlet								
10644	quartz - arsenopyrite veinlet only	40	rock	chip								"
	20-40mm wide 83°/74°N			along								
	weathered and rusty, drusy quartz			veinlet								
	resampling of 100983 chip (SIC)											

report by: dm 10 Sept. 89

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area collection DATE Sept 7/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
107057	→ silicified tuff andesite		Rock	1m		CT.R/B.H.
	- one small As veinlet, tr Py in host					
	rock, north of # 100676					
107058	- silicified tuff andesite		Rock	1m		C.T.R/B.H.
	- 2 Py - Qtz veinlets, tr Py in andesite					
	→ b/w 100676 + 100701					
	between					
107059	→ silicified andesite tuff		Rock	1m		CT.R/B.H.
	→ tr py in host					
	- south of 100701					
107060	→ silicified andesite tuff		Rock	1m		CTR/BH
	→ 1 Py - Qtz veinlet					
	→ north of 100678					
107061	→ silicified andesite tuff		Rock	1m		CT.R/BH
	→ tr Py					
	- south of 100710					

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, White sail Area Collection DATE Sept 7/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
107062	→ silicified andesite tuff V_{zs}		Rock	1m		CT.R/B.H.
	→ 1-3 Py Qtz veinlets, tr Py in And					
	→ 2m south of 100710					
107063	- silicified andesite tuff V_{zs}		Rock	1m		CT.R/BH
	→ 1 Py Qtz veinlet, tr Py in and					
	1m north of 100706					
107064	- silicified andesite tuff V_{zs}		Rock	1m		CTR/BH
	1 As, Py, Qtz veinlet, tr Py in and					
	north of 100706					
107065	- silicified andesite tuff V_{zs}		Rock	1m		C.TR/BH.
	- Py-Qtz veinlet, tr Py in and					
	south of 100703					
107066	- silicified andesite tuff V_{zs}		Rock	1m		C.TR.B.H
	- tr Py in and					
	- 1m south of 100703					

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Collection DATE Sept 7/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
107067	- silicified andesite tuff V_{2S}		Rock	1m		CTR/BH
	- tr Py in and					
	- 2m south of 100703					
107068	- silicified andesite tuff V_{2S}		Rock	1m		CTR/BH
	- tr Py in and					
	north of 100685					
107069	- as above		Rock	1m		CTR/BH
	south of 100685					
107070	→ silicified andesite V_{2S}		Rock	1m		CTR/BH
	→ 1 As Qtz veinlet, tr Py in and					
107071	- silicified andesite V_{2S}		Rock	1m		CTR/BH
	→ Py veinlets, tr Py in and					
	→ south of 100718					
107072	- as above		Rock	1m		CTR/BH
	→ north of 100718					

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area collection DATE Sept 7/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
107073	- silicified andesite V_{cs}		Rock	1m		C.T.R/B.H
	- Py veinlet, tr Py in and					
	- south of ~~100746~~ 100746					
107074	- silicified andesite V_{cs}		Rock	1m		CTR/BH
	- Py veinlets, tr Py in and					
	- north of 100749					
107075	silicified andesite V_{cs}		Rock	1m		CTR/BH
	- As veinlet, tr Py in and					
	- 1m north of 100749					
~~107076~~						

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area Collection DATE Sept 7/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
108026	· silicified andesite Vzs		Rock	1m		CTR/BH
	→ Py fitz veinlets, tr Py in and					
	→ 2m north of 100749					
108027	- as above		Rock	1m		CTR/BH
	3m north of 100749					
108028	- as above		Rock	1m		CTR/BH
	4m north of 100749					
108029	- as above		Rock	1m		CTR/BH
	5m north of 100749					
108030	- silicified andesite Vzs		Rock	1m		CTR/BH
	→ Py veinlets, tr Py in and					
	- north of 100721					

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area collection DATE Sept 7/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
108031	- silicified andesite, V_{2S}		Rock	1m		CTR/BH
	→ Py veinlets, tr Py in and					
	- north of 100729					
108032	20100E 20200N		Rock	1m		CTR/BH
	- highly fractured & rusty					
	- V_{2S}, tr Py					
	- few small Py vnlts					
108033	20100E 20201N		Rock	1m		CTR/BH
	- as above					
	- 1 qtz - Py vnlt with tr As					
108034	20102E 20210N		Rock	1m		CTR/BH
	- highly fractured & rusty					
	- V_{2S} minor V_3					
	- numerous qtz-py veinlets					
108035	20103E 20211N		Rock	1m		CTR/BH
	- as above					

report by: G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area collection DATE Sept 9/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
108036	20107E 20216N		Rock	1m		CTR/BH
	- highly fractured & rusty					
	- Vzs + Vs, tr Py					
	- numerous qtz-py veins, chl alteration around them					
108037	20107E 20217N		Rock	1m		CTR/BH
	- as above					
108038	20115E 20225N		Rock	1m		CTR/BH
	- as above					
108039	20115E 20226N					
	- as above					
108040	20222N 20227N		Rock	1.5m		CTR/BH
	- as above					
108041	20116E 20231N		Rock	1.0m		CTR/BH
	- as above					
108042	20100E 20254N		Rock	1.0m		CTR/BH
	- as above					

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area Collection DATE Sept 9/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
108043	20100E 20255N		Rock	1m		CTR/BH
	- highly fractured & rusty					
	- Vzs + Vs, tr Py					
	- numerous qtz-py vnlts, chl alteration around them					
108044	20081E 20297N		Rock	1m		CTR/BH
	- as above					
108045	20078E 20307N		Rock	1m		CTR/BH
	- as above					
108046	20077E 20316N		Rock	1m		CTR/BH
	- as above					
108047	19995E 20385N		Rock	1m		CTR/BH
	- highly fractured & rusty					
	- Vzs, tr Py					
	- numerous qtz-py vnlts					
108048	19995E 20386N		Rock	1m		CTR/BH
	- as above					

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, White Sail Area Collection DATE Sept 9/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au							SAMPLED BY
108049	19993E 2035/N		Rock	1m								CTR/BH
	- very fractured & rusty											
	- Vzs, trPy											
	- numerous qtz-py vnlts											
108050	19993E 2035zN		Rock	1m								CTR/BH

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area collection DATE Sept 9/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au								SAMPLED BY
108201	20020E 20315N		Rock	1m									CTR/BH
	- highly fractured + rusty												
	- V_{2S}, trPy												
	- numerous qtz-py vnlts												
108202	20020E 20316N		Rock	1m									CTR/BH
	- as above												
108203	20021E 20292N		Rock	1m									CTR/BH
	- as above												
108204	20021E 20291N		Rock	1m									CTR/BH
	- as above												
108205	20021E 20290N		Rock	1m									CTR/BH
	- as above												
108206	20036E 20284N		Rock	1m									CTR/BH
	- as above												

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93E/11E

AREA / PROPERTY Huckleberry Property, Whitesail Area Collection DATE Sept 9/89

GCI # **SAMPLE REPORT** Lab Code: PROJECT 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au	SAMPLED BY
108207	20055E 20234N		Rock	1m		CTR/BH
	- v. highly fractured & rusty					
	- Vzs, tr Py					
	- numerous qtz-Py & py vnlts					
108208	20054E 20232N		Rock	1m		CTR/BH
	- no alteration					
108209	20056E 20220N		Rock	1m		CTR/BH
	- no alteration					
	→ 2 Py ~~vnlts~~ vnlts (5-10mm wide)					

report by:
G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93 E/11E

AREA / PROPERTY Huckleberry Option Collection DATE 10 Sept. 89

GCI # **SAMPLE REPORT** Lab Code: PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / float	% SULPHIDES	TYPE material	WIDTH m	ppb Au							SAMPLED BY
	same location as 100994 and 100995											
108210	V3 DX fsp w. qz-as veinlets		rock	1.0								dm
108211	do		rock	1.0								CR
108212	do		rock	1.0								BH

report by dm 10 Sept 89

G = GEOCHEM A = ASSAY

NORANDA EXPLORATION COMPANY, LIMITED

N.T.S. 93 E/11E

AREA / PROPERTY Huckleberry Option

Collection DATE 10 Sept. 89

GCI #

SAMPLE REPORT

Lab Code:

PROJECT: 241

SAMPLE NO.	LOCATION & DESCRIPTION outcrop / Float	% SULPHIDES	TYPE material	WIDTH m	ppb Au							SAMPLED BY
	taken 2 m W of 100983 and 10644											
	along L 30,475E											
108213	30156.5 → 57.5 mN		rock	1.0								~~CR/BH~~
	rusty siltstone w. qz-aspy veinlets											BH
108214	30157.5 → 30158.5 mN		rock	1.0								~~CR/BH~~
	rusty siltstone w. qz-aspy veinlets											CR

report by: [illegible] 10 Sept. 89

G = GEOCHEM A = ASSAY

APPENDIX 5

ANALYSIS REPORTS

(in chronological order)

RK Huckleberry (CR)

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)25 1716

GEOCHEMICAL ANALYSIS CERTIFICATE

RECEIVED SEP 19 1989 GEOLOGY

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL PULP

DATE RECEIVED: SEP 13 1989 DATE REPORT MAILED: Sept 15/1989 SIGNED BY .D. Toye .D.TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Noranda Exploration Co. Ltd. PROJECT 8906-085 189 File # 89-3637 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM
Follow-up 57484 35281	1	63	30	156	.1	9	19	1106	6.29	194	5	ND	1	12	1	2	2	85	.16	.151	5	17	.62	99	.08	2	[illegible]	.01	.10	1
35282	1	58	22	163	.5	8	14	937	6.08	99	5	ND	3	10	1	6	2	87	.10	.067	6	16	.54	75	.07	4	2.93	.01	.06	1
35283	1	36	29	142	.1	6	8	384	5.84	195	5	ND	2	30	1	2	2	96	.09	.078	7	15	.42	67	.05	2	2.95	.01	.04	1
35284	1	38	12	105	.2	10	10	641	6.36	86	5	ND	2	12	1	2	2	68	.17	.076	6	19	.48	74	.12	2	2.41	.01	.05	1
35285	1	36	23	157	.2	16	9	267	4.43	887	5	ND	2	15	1	2	2	72	.21	.053	5	28	.53	73	.11	2	[illegible]	.01	.04	1
35286	1	15	14	187	.1	6	7	271	3.15	122	5	ND	1	17	1	2	2	67	.27	.021	5	14	.30	120	.05	2	1.41	.01	.05	1
35287	1	25	16	76	.1	10	8	213	3.88	18	5	ND	2	16	1	2	2	74	.20	.031	5	21	.35	65	.09	2	2.11	.01	.05	1
35288	1	47	17	88	.2	6	12	789	4.06	22	5	ND	1	12	1	3	2	67	.15	.059	3	12	.42	136	.06	2	2.32	.01	.14	1
35289	1	36	13	85	.2	17	11	343	3.87	18	5	ND	3	13	1	2	2	67	.14	.075	6	27	.56	58	.09	3	[illegible]	.01	.03	1
27,470E 35291	91	557	18	95	.2	11	7	196	4.35	24	5	ND	2	14	1	[illegible]	2	[illegible]	.21	.024	4	26	.55	123	.15	2	2.15	.01	.04	1
35292	34	601	2	58	1.2	2	1	10	.14	3	5	ND	1	76	1	5	2	4	1.95	.035	2	1	.04	77	.01	2	.13	.01	.01	1
* 27410E 35294	23	3156	22	82	.7	16	9	333	6.56	20	5	ND	3	24	1	6	3	74	.22	.028	13	25	.87	94	.06	2	[illegible]	.01	.06	1
35295	4	307	13	61	.5	12	8	364	3.61	21	5	ND	2	17	1	2	2	65	.15	.050	9	23	.36	44	.06	2	1.47	.01	.04	1
35296	8	150	11	87	.2	13	12	468	3.48	13	5	ND	2	18	1	2	2	56	.26	.029	7	19	.51	77	.01	2	1.91	.01	.04	1
35297	2	76	15	111	.3	12	10	245	4.47	18	5	ND	2	17	1	3	2	81	.20	.077	5	26	.51	64	.09	2	2.43	.01	.05	1
35298	6	1327	68	125	1.5	21	21	1021	[illegible]	22	5	ND	2	20	1	3	2	86	.17	.133	4	31	.77	125	.15	2	[illegible]	.01	.09	[illegible]
35299	6	943	63	193	.7	30	[illegible]	1599	9.08	27	5	ND	3	24	1	3	2	[illegible]	.20	.113	3	39	1.00	70	.13	2	[illegible]	.01	.16	[illegible]
35300	1	284	49	273	.4	19	21	921	5.70	32	5	ND	1	31	3	2	2	[illegible]	.71	.027	3	49	1.05	179	.16	2	[illegible]	.05	.14	3
36239	3	59	[illegible]	82	1.2	16	8	207	3.77	17	5	ND	1	28	1	2	2	71	.24	.036	5	19	.36	57	.07	3	1.49	.01	.03	1
Follow-up 51311 36240	3	84	19	85	.6	11	10	246	4.32	19	5	ND	3	18	1	3	6	76	.16	.042	5	22	.53	65	.09	2	2.61	.01	.05	2
36241	2	86	20	92	.7	13	10	326	5.06	12	5	ND	2	32	1	2	2	90	.40	.043	6	20	.59	71	.06	2	2.39	.01	.07	1
36242	1	91	14	58	.6	17	10	276	3.21	9	5	ND	1	35	1	2	2	65	.30	.038	12	22	.63	64	.07	2	1.87	.02	.04	1
36243	3	134	19	73	.8	15	10	226	4.29	25	5	ND	3	18	1	5	2	64	.16	.056	6	23	.56	65	.05	3	[illegible]	.01	.05	1
36244	3	167	14	77	.3	17	14	322	4.16	20	5	ND	3	19	1	3	2	67	.18	.063	6	25	.65	86	.06	2	[illegible]	.01	.06	1
36245	3	159	16	84	1.1	16	15	415	4.14	27	5	ND	2	24	1	2	5	65	.21	.068	5	25	.76	101	.05	3	[illegible]	.01	.07	1
36246	4	127	16	81	.8	13	16	[illegible]	3.63	13	5	ND	1	38	1	3	2	58	.38	.064	13	21	.52	63	.03	2	2.39	.01	.05	1
36247	2	83	14	92	.3	15	14	566	3.67	10	5	ND	2	31	1	2	2	69	.29	.031	8	24	.74	63	.06	2	2.64	.01	.05	1
28450E 100601	21	2888	15	68	.5	16	11	993	5.65	9	5	ND	2	20	1	3	2	69	.25	.042	14	27	.57	42	.10	2	[illegible]	.01	.03	1
100602	3	68	11	23	.1	3	2	67	.70	4	5	ND	1	17	1	2	2	22	.24	.026	7	11	.19	40	.05	2	1.02	.01	.04	1
100603	4	323	19	85	.7	11	6	207	3.96	16	5	ND	3	14	1	2	2	61	.26	.045	5	30	.40	46	.13	2	[illegible]	.01	.03	1
100604	1	15	4	66	.2	1	3	23	.15	4	5	ND	1	50	1	2	2	2	1.53	.047	2	1	.03	11	.01	2	.07	.01	.04	1
100605	3	249	15	76	.5	15	10	195	3.87	27	5	ND	2	23	1	2	2	65	.12	.103	6	25	.45	74	.06	3	[illegible]	.01	.05	1
100606	6	150	17	52	.8	9	14	277	6.32	21	5	ND	3	14	1	2	2	[illegible]	.12	.082	4	26	.38	43	.14	3	2.64	.01	.05	1
27,930E 100777	6	333	10	43	.2	9	6	154	3.24	18	5	ND	2	21	1	2	2	59	.20	.025	8	22	.37	53	.08	6	1.81	.01	.03	1
100778	21	194	25	70	1.5	11	7	211	3.71	27	9	ND	3	21	1	2	2	76	.17	.052	8	26	.36	64	.19	2	1.89	.01	.04	1
STD C	11	59	38	132	7.1	68	30	1020	3.96	37	19	6	36	47	17	15	22	56	.40	.086	37	55	.86	174	.07	34	1.90	.06	.14	11

* 35293 28.

IP Sep 26

Soils n=35

Copy to Del

27,930E

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM
100779	4	54	19	45	.3	8	6	191	3.26	15	5	ND	1	19	1	4	2	96	.20	.041	6	23	.36	74	.12	2	1.40	.01	.01	2
100780	11	515	59	74	.8	15	32	456	4.31	23	5	ND	2	38	1	4	2	75	.44	.047	11	38	.65	92	.10	3	2.38	.02	.09	1
100781	12	386	15	63	.6	10	7	220	3.20	16	5	ND	2	22	1	6	2	75	.23	.019	6	21	.51	73	.12	6	1.87	.01	.05	1
100782	39	947	28	101	.6	11	22	955	4.75	12	5	ND	1	37	1	2	2	82	.45	.074	9	23	.68	110	.01	2	2.74	.01	.06	2
100783	10	366	16	105	.6	11	13	391	[illegible]	10	5	ND	2	20	1	2	2	231	.24	.027	3	20	1.38	61	.17	2	[illegible]	.04	.16	1
100784	54	4303	28	108	1.5	10	[illegible]	962	6.50	17	5	ND	3	18	1	7	2	[illegible]	.37	.115	26	16	1.08	14	.12	2	[illegible]	.02	.11	1
100785	5	1849	18	71	.6	12	6	217	3.80	13	5	ND	3	16	1	6	2	68	.29	.062	10	23	.51	33	.10	3	[illegible]	.01	.05	1
100786	13	2321	21	82	.2	14	22	514	5.13	19	5	ND	2	17	1	4	2	84	.21	.131	7	26	.79	34	.10	2	[illegible]	.01	.06	1
100787	6	612	28	98	.4	13	10	256	4.79	15	5	ND	3	16	1	6	2	92	.17	.072	6	25	.52	51	.11	4	2.03	.01	.05	2
100788	3	56	20	87	.4	10	6	245	3.55	8	5	ND	2	20	1	3	2	79	.26	.053	6	22	.26	86	.10	2	1.27	.01	.06	1
100789	2	51	16	113	.3	16	11	297	4.73	17	5	ND	3	19	1	4	2	86	.20	.055	6	28	.60	61	.10	2	2.06	.01	.05	1
100790	1	137	31	105	.9	19	17	405	4.83	33	5	ND	2	28	1	6	2	80	.29	.058	5	29	.95	80	.07	3	[illegible]	.01	.07	1
100791	2	83	25	118	.6	21	12	313	5.35	42	5	ND	2	25	1	5	2	95	.65	.046	5	30	.60	66	.08	4	2.72	.01	.09	1
100792	2	86	25	165	.5	17	14	389	5.79	44	5	ND	2	32	1	2	2	[illegible]	.73	.051	12	35	.70	62	.12	8	[illegible]	.03	.05	1
100793	1	102	21	128	.4	17	10	515	6.43	21	5	ND	1	16	1	6	2	[illegible]	.20	.054	5	31	.29	73	.07	2	[illegible]	.01	.06	1
100794	1	15	19	95	.4	13	14	435	4.01	14	5	ND	1	38	1	3	2	83	.05	.055	9	24	.48	82	.07	2	2.63	.01	.04	1
100795	1	295	21	185	[illegible]	22	15	[illegible]	4.41	13	5	ND	1	69	5	2	3	65	1.37	.081	28	24	.33	209	.08	2	2.31	.01	.05	1
100796	1	19	23	151	.6	31	21	[illegible]	4.10	5	5	ND	1	65	1	6	2	60	.78	.097	11	17	.52	263	.05	2	[illegible]	.01	.08	1
100797	3	88	26	196	.6	16	13	628	5.79	31	5	ND	2	30	1	5	2	93	.36	.047	7	27	.66	109	.10	2	[illegible]	.01	.09	1
100798	1	84	24	157	.3	19	16	691	4.84	11	5	ND	2	14	1	4	2	73	.16	.124	6	28	.73	95	.06	2	[illegible]	.01	.07	1
100799	2	39	18	167	.6	13	10	691	4.49	11	5	ND	3	13	1	7	2	76	.17	[illegible]	5	27	.59	80	.10	1	[illegible]	.01	.06	2
100800	2	67	22	134	.5	17	14	524	4.94	19	5	ND	3	19	1	6	2	80	.20	.037	7	26	.80	111	.06	3	[illegible]	.01	.10	1
100887	1	120	13	76	.3	13	9	348	3.24	14	5	ND	1	23	1	4	2	65	.23	.031	16	26	.53	79	.10	2	2.14	.01	.05	1
100888	3	89	33	74	.4	12	16	640	3.20	13	5	ND	1	26	1	5	2	56	.24	.057	12	22	.46	69	.06	2	2.02	.01	.05	1
100889	2	102	11	60	.2	15	11	516	3.30	12	5	ND	1	34	1	3	2	63	.58	.053	10	31	.69	65	.10	2	1.78	.03	.08	1
100890	8	252	22	98	[illegible]	21	26	975	4.44	39	5	ND	2	27	1	4	2	77	.28	.063	22	37	.60	141	.06	2	[illegible]	.01	.08	1
100891	3	389	15	90	.6	11	34	530	3.90	8	5	ND	2	19	1	8	2	33	.20	.057	9	24	.47	75	.10	4	2.36	.01	.05	1
100892	4	184	16	96	1.1	14	8	289	4.09	13	5	ND	1	35	1	2	2	71	.57	.054	17	29	.54	62	.15	3	2.26	.01	.06	1
100893	3	184	20	173	.6	18	23	1076	4.73	31	5	ND	1	27	1	2	2	82	.49	.041	15	25	.34	88	.14	2	1.99	.01	.06	1
100894	2	256	25	214	.7	34	28	[illegible]	4.77	10	5	ND	3	46	1	4	2	64	.91	.093	16	35	.68	107	.05	2	[illegible]	.01	.10	1
100895	2	309	[illegible]	130	.5	17	18	465	6.46	25	5	ND	3	19	1	3	2	[illegible]	.25	.036	5	38	.74	92	.10	2	[illegible]	.01	.05	1
100896	1	111	25	133	.4	24	18	550	5.24	25	5	ND	1	35	1	7	3	92	.50	.049	5	37	1.27	60	.07	4	[illegible]	.01	.07	3
100897	2	340	22	163	.9	17	19	1320	4.31	36	5	ND	1	50	1	5	2	72	1.35	.101	15	29	.68	73	.06	3	[illegible]	.01	.07	1
100898	1	101	28	154	.4	17	16	744	5.03	34	5	ND	1	30	1	3	2	93	.49	.055	5	31	.68	94	.12	2	2.72	.01	.08	1
100899	1	196	29	[illegible]	.4	25	31	663	[illegible]	33	5	ND	1	31	2	6	2	133	.62	.044	11	50	1.49	119	[illegible]	4	[illegible]	.02	.10	1
100900	1	101	13	153	.2	41	15	463	[illegible]	14	5	ND	1	21	1	2	3	[illegible]	.52	.013	3	87	1.60	53	[illegible]	2	[illegible]	.04	.07	1
STD C	19	61	41	132	7.1	67	31	1070	3.97	38	18	7	36	47	17	15	21	56	.48	.084	37	54	.86	175	.07	31	1.93	.04	.14	12

26,950E

Soils n = 36

26,950E

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPK	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM
100901	1	65	20	151	.1	12	13	928	5.29	27	5	ND	1	18	1	2	2	99	.24	.060	5	27	.57	134	.11	2	2.27	.01	.06	1
100902	6	212	539	968	1.3	16	85	5059	1.66	273	5	ND	1	19	4	2	6	68	.35	.094	28	22	.65	119	.07	4	[illegible]	.01	.11	5
100903	1	82	21	629	.5	18	25	3467	6.98	59	5	ND	1	34	1	2	2	80	.53	.160	7	33	.78	142	.06	6	2.57	.01	.09	2
100904	1	74	59	370	.7	37	20	2656	5.95	31	5	ND	1	36	3	2	2	126	.88	.089	20	162	1.66	173	.14	5	[illegible]	.02	.14	1
100905	3	49	29	337	.5	18	15	549	5.07	43	5	ND	1	18	1	2	2	66	.30	.068	18	29	.67	116	.17	3	[illegible]	.01	.06	1
100906	2	74	45	316	.5	15	15	452	6.02	31	5	ND	2	12	1	2	2	56	.24	.031	5	25	.83	96	.15	4	[illegible]	.01	.10	1
100907	2	47	43	265	.1	21	13	435	6.10	44	5	ND	3	23	1	2	2	103	.34	.089	6	36	.68	73	.22	2	[illegible]	.01	.07	3
100915	35	2812	15	59	1.1	26	9	135	3.49	31	5	ND	1	15	1	2	2	66	.23	.090	3	29	.15	29	.06	2	[illegible]	.01	.06	1
100914	46	1362	11	62	1.0	21	8	199	4.08	38	5	ND	2	13	1	2	2	84	.15	.191	6	37	.65	59	.12	2	[illegible]	.01	.09	1
100915	46	2071	17	90	1.2	30	11	215	4.37	35	5	ND	2	13	1	2	2	74	.15	.172	6	42	.69	63	.09	7	[illegible]	.01	.06	2
100916	20	201	11	97	.6	22	14	1823	3.59	31	5	ND	1	30	1	2	4	48	.29	.055	24	24	.52	132	.03	3	2.95	.01	.09	2
100917	2	80	13	136	.4	16	11	557	4.12	31	5	ND	1	36	1	3	3	72	.45	.060	7	27	.59	109	.06	5	2.22	.01	.07	1
100918	5	53	19	79	.6	8	6	297	3.90	18	5	ND	2	18	1	3	11	85	.18	.027	7	24	.35	69	.10	2	1.76	.01	.04	1
100919	2	66	15	106	.3	18	10	276	3.65	20	5	ND	2	17	1	2	4	67	.20	.050	6	25	.53	89	.08	5	2.39	.01	.05	1
100920	30	305	12	123	.5	24	10	269	5.88	43	5	ND	2	19	1	2	3	83	.21	.043	9	33	.60	67	.07	2	[illegible]	.01	.07	3
100921	311	534	13	171	.9	42	75	1400	0.65	123	5	ND	2	54	1	2	2	85	.45	.073	20	34	.73	177	.04	2	[illegible]	.01	.14	1
STD C	18	63	38	153	6.5	69	32	1014	4.04	41	22	8	38	49	18	16	22	58	.50	.085	39	51	.88	174	.07	35	1.95	.06	.14	12

follow-up

57530

Soils n = 16

Σ = 87

Huckleberry (#1)

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVE. B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-171

ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK

DATE RECEIVED: SEP 13 1989 DATE REPORT MAILED: Sept 20/89 SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Noranda Exploration Co. Ltd. PROJECT 8909-048-2411 File # 89-3682A

SAMPLE#	Mo %	Cu %	Pb %	Zn %	Ag OZ/T	Ni %	Co %	Mn %	Fe %	As %	U %	Th %	Cd %	Sb %	Bi %	Au OZ/T
10639	.001	.06	.07	.02	.75	.01	.01	.02	9.89	5.58	.002	.01	.01	.01	.01	.073
10640	.001	.01	.02	.11	.07	.01	.01	.01	4.85	2.55	.002	.01	.01	.01	.01	.035
10641	.001	.04	.02	.01	.40	.01	.01	.01	8.28	5.08	.002	.01	.01	.01	.01	.072
10642	.001	1.03	.29	.11	2.53	.01	.01	.03	17.64	9.86	.002	.01	.01	.01	.08	.059
10643	.001	.54	.23	.01	7.48	.01	.01	.01	11.02	8.24	.002	.01	.01	.02	.19	.185
10644	.001	.28	.01	.01	1.17	.01	.01	.01	10.69	10.64	.002	.01	.01	.01	.04	.105

Rocks n = 6

Copy to Del

RECEIVED
SEP 26 1989
MINERAL DEVELOPMENT

25 kg DG

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-171

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEP 13 1989 DATE REPORT MAILED: Sept 20/89 SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Noranda Exploration Co. Ltd. PROJECT 8909-048-241 File # 89-3682 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPB	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
107057	1	15	32	595	.2	1	8	1122	4.11	1105	5	ND	1	11	3	2	2	86	.60	.054	2	37	.93	110	.13	2	1.72	.07	.36	1	[illegible]
107058	1	33	133	771	.7	6	10	1088	4.65	124	5	ND	1	12	3	2	2	95	.64	.058	3	35	1.15	130	.18	5	1.92	.09	.46	2	[illegible]
107059	1	31	79	661	.4	5	12	925	4.24	75	5	ND	1	12	2	2	2	94	.72	.073	3	20	1.14	181	[illegible]	8	2.01	.09	.55	2	2
107060	1	17	53	448	.3	5	7	831	4.29	210	5	ND	1	16	2	2	2	62	.77	.062	4	16	1.01	97	[illegible]	[illegible]	2.23	[illegible]	.33	2	1
107061	1	22	168	696	.6	5	9	790	4.51	516	5	ND	1	15	2	2	2	64	.76	.063	2	22	.99	107	.18	2	2.05	[illegible]	.39	1	[illegible]
107062	1	29	156	169	.6	6	7	903	4.71	512	5	ND	1	17	2	4	2	74	.72	.072	3	20	1.07	111	[illegible]	[illegible]	2.33	[illegible]	.42	1	[illegible]
107063	1	22	102	348	.5	7	8	1119	5.65	50	5	ND	1	16	1	2	2	92	.70	.074	3	27	1.17	96	[illegible]	2	2.19	[illegible]	.35	1	[illegible]
107064	1	31	68	488	.5	7	9	956	5.63	62	5	ND	1	18	1	2	2	78	.68	.065	3	22	1.04	103	[illegible]	3	2.31	[illegible]	.41	1	7
107065	1	36	203	567	1.1	5	9	1749	(7.28)	82	5	ND	1	13	1	3	2	[illegible]	.43	.065	4	28	1.35	153	.15	8	[illegible]	[illegible]	.76	1	3
107066	1	33	109	526	.8	1	12	1591	7.26	[illegible]	5	ND	1	19	1	2	2	[illegible]	.74	.070	3	25	1.35	202	.19	[illegible]	[illegible]	[illegible]	.94	1	1
107067	1	35	101	726	.9	5	8	[illegible]	5.36	[illegible]	5	ND	1	9	3	2	2	80	.53	.063	3	28	1.25	52	.11	[illegible]	2.65	.06	.22	2	1
107068	1	17	22	181	.3	1	8	936	4.47	24	5	ND	1	24	1	2	[illegible]	[illegible]	1.26	.056	2	16	.86	107	.19	2	2.75	[illegible]	.62	1	[illegible]
107069	1	28	20	229	.3	5	12	943	5.54	[illegible]	5	ND	1	16	1	2	2	[illegible]	[illegible]	.059	2	21	1.09	261	[illegible]	2	[illegible]	[illegible]	[illegible]	1	[illegible]
107070	1	60	[illegible]	[illegible]	.4	5	5	1014	5.35	[illegible]	5	ND	1	33	1	2	2	34	.80	.026	3	10	.55	41	.06	2	2.52	[illegible]	.26	1	[illegible]
107071	1	99	160	616	1.2	7	8	[illegible]	[illegible]	327	5	ND	1	14	1	3	2	[illegible]	.52	.076	3	23	1.43	96	.12	2	[illegible]	[illegible]	.39	1	[illegible]
107072	1	[illegible]	[illegible]	374	[illegible]	1	6	1856	[illegible]	621	5	ND	1	24	1	[illegible]	4	[illegible]	.62	.073	2	19	1.11	56	.09	4	[illegible]	[illegible]	.27	1	[illegible]
107073	1	73	[illegible]	219	.6	5	6	1158	5.65	151	5	ND	1	6	1	2	2	[illegible]	.46	.162	5	21	1.00	96	.11	[illegible]	1.98	.65	.23	5	9
107074	1	92	[illegible]	326	1.2	5	7	1479	6.33	[illegible]	5	ND	1	5	1	2	5	[illegible]	.39	.096	5	18	1.30	69	.13	7	2.23	.03	.24	2	[illegible]
107075	1	[illegible]	299	213	[illegible]	2	5	1665	[illegible]	[illegible]	5	ND	1	2	1	[illegible]	[illegible]	86	.10	.074	4	21	1.04	22	.02	4	2.13	.02	.12	[illegible]	[illegible]
108026	1	89	[illegible]	[illegible]	.8	5	6	1168	5.70	6236	5	ND	1	5	1	2	2	[illegible]	.32	.085	5	18	.94	42	.10	2	1.81	.04	.13	1	[illegible]
108027	1	75	[illegible]	[illegible]	.6	8	9	1146	5.60	[illegible]	5	ND	1	8	1	2	2	[illegible]	.36	.091	6	18	1.16	152	.11	2	2.10	.05	.39	1	[illegible]
108028	1	58	[illegible]	240	.5	6	9	1129	6.10	[illegible]	5	ND	1	10	1	2	2	[illegible]	.37	.071	5	16	1.15	181	.11	2	2.18	.05	.45	1	[illegible]
108029	1	79	[illegible]	[illegible]	.8	7	10	1555	[illegible]	75	5	ND	1	7	1	2	4	[illegible]	.43	.094	6	21	1.29	148	.12	2	2.38	.04	.41	1	2
108030	1	39	[illegible]	351	.6	7	12	1569	7.27	[illegible]	5	ND	1	16	1	2	2	[illegible]	.32	.063	4	20	1.93	[illegible]	[illegible]	2	[illegible]	.05	[illegible]	1	2
108031	1	67	[illegible]	321	.9	5	7	1256	[illegible]	[illegible]	5	ND	1	6	1	2	2	[illegible]	.25	.099	7	16	1.06	102	.08	3	2.21	.03	.30	1	7
108032	1	[illegible]	10	[illegible]	.6	6	4	827	5.18	[illegible]	5	ND	1	13	1	3	6	92	.64	.033	3	17	.59	23	.11	4	2.32	[illegible]	.14	1	6
108033	1	[illegible]	16	[illegible]	[illegible]	5	7	1329	5.71	37	5	ND	1	23	1	2	[illegible]	[illegible]	.83	.038	4	27	1.19	107	[illegible]	2	[illegible]	[illegible]	.76	1	1
108034	1	85	17	115	.6	5	4	840	6.19	6	5	ND	1	8	1	2	[illegible]	78	.78	.063	3	19	.48	24	.16	2	1.61	.07	.10	[illegible]	2
108035	1	[illegible]	10	93	.4	4	4	1019	[illegible]	5	5	ND	1	7	1	2	1	56	.82	.095	2	18	.52	19	.14	[illegible]	1.07	.07	.08	2	5
108036	3	[illegible]	20	152	[illegible]	5	5	890	[illegible]	73	5	ND	1	6	1	3	[illegible]	[illegible]	.47	.063	2	22	.67	22	.12	2	2.39	.06	.13	1	[illegible]
108037	1	[illegible]	17	144	.7	4	3	724	[illegible]	41	5	ND	1	5	1	2	[illegible]	85	.65	.046	2	15	.30	17	.12	2	1.73	.05	.15	1	7
108038	1	[illegible]	21	110	.5	3	3	616	[illegible]	[illegible]	5	ND	1	5	1	4	[illegible]	82	.39	.057	3	13	.27	21	.07	2	1.32	.04	.15	2	1
108039	1	[illegible]	27	83	1.5	4	6	836	[illegible]	86	5	ND	1	6	1	2	[illegible]	73	.65	.091	3	16	.38	19	.06	7	1.57	.05	.17	[illegible]	[illegible]
108040	1	[illegible]	16	111	.6	4	5	1321	[illegible]	[illegible]	5	ND	1	5	1	2	[illegible]	89	.13	.030	1	19	.98	75	.09	5	2.36	.03	.55	1	4
108041	1	97	14	146	.2	5	8	1313	[illegible]	[illegible]	5	ND	1	16	1	3	[illegible]	[illegible]	.73	.044	3	25	1.01	59	.15	6	[illegible]	.13	.12	2	[illegible]
108042	1	[illegible]	9	76	.5	1	1	366	[illegible]	19	5	ND	2	6	1	2	8	16	.21	.043	4	9	.33	25	.07	2	1.14	.06	.19	1	3
STD C/AU-R	17	58	41	132	6.5	67	29	1036	4.12	41	17	7	37	49	17	15	18	58	.48	.091	36	55	.95	173	.07	33	1.95	.06	.14	11	455

Rocks n = 36

/ASSAY REQUIRED FOR CORRECT RESULT -

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
108043	3	162	70	96	1.8	6	3	416	6.00	15	5	ND	1	4	1	2	286	39	.13	.043	6	9	.31	44	.06	31	1.47	.03	.26	1	9
108044	1	97	5	59	.2	4	6	718	5.61	21	5	ND	1	15	1	2	12	79	.39	.053	4	13	1.10	157	.24	2	2.64	.08	[illegible]	2	4
108045	1	234	9	104	.8	3	4	1655	4.39	15	5	ND	1	33	1	6	3	78	.95	.291	6	29	1.67	55	.13	2	3.01	.05	.31	1	3
108046	5	377	2	51	1.9	5	5	646	6.36	14	5	ND	1	8	1	4	3	72	.28	.063	5	15	.87	100	.20	2	1.71	.03	.48	[illegible]	4
108047	1	192	19	62	1.7	2	1	293	4.73	31	5	ND	1	5	1	2	13	3	.14	.118	6	3	.26	48	.02	2	1.12	.01	.31	1	5
108048	1	319	29	178	4.1	2	2	501	5.02	116	5	ND	1	5	1	6	2	3	.09	.139	6	3	.05	45	.01	2	.78	.01	.27	1	4
108049	1	93	16	56	1.0	1	1	399	4.41	67	5	ND	1	6	1	3	13	5	.15	.125	6	3	.42	71	.03	3	1.41	.02	.28	1	8
108050	3	51	5	73	.3	2	2	634	5.36	48	5	ND	1	8	1	4	5	5	.20	.134	7	7	.62	56	.04	2	1.66	.02	.28	1	1
108201	1	246	18	67	1.5	1	1	324	8.09	3412	5	ND	1	4	1	11	37	1	.06	.105	6	1	.17	30	.03	11	1.10	.01	.26	1	9
108202	1	119	13	27	.6	1	1	115	5.31	390	7	ND	1	3	1	19	6	2	.03	.096	8	1	.03	36	.01	4	.71	.01	.32	1	3
108203	1	206	5	71	1.2	2	1	707	5.21	163	5	ND	1	3	1	6	4	3	.12	.110	8	4	.39	33	.01	2	1.59	.01	.32	1	7
108204	2	317	72	78	5.47	2	1	426	5.15	306	5	ND	1	3	1	10	31	2	.10	.112	6	5	.27	36	.03	2	1.25	.01	.32	1	20
108205	3	151	7	37	.9	1	1	256	6.48	149	5	ND	1	3	1	7	7	5	.07	.117	4	4	.39	46	.07	2	1.45	.02	.30	1	27
108206	10	76	17	36	.7	2	1	112	5.38	107	5	ND	1	1	1	8	20	1	.02	.057	4	2	.06	40	.01	2	.55	.01	.27	4	4
108207	1	120	13	72	.9	2	1	639	5.76	116	5	ND	1	3	1	5	41	34	.06	.077	7	9	.40	25	.01	8	1.14	.01	.28	1	5
108208	1	141	21	127	1.1	5	4	1070	7.31	104	5	ND	1	9	1	6	20	64	.31	.085	4	16	.77	51	.10	3	2.24	.05	.33	2	3
108209	1	177	130	201	1.2	5	5	1671	7.91	95	5	ND	1	8	1	4	[illegible]	68	.26	.079	4	20	.96	44	.07	2	2.74	.04	.40	1	5
108210	1	231	136	213	1.16	64	7	1522	7.83	242	5	ND	1	17	1	8	[illegible]	33	.19	.086	4	126	[illegible]	27	.08	8	[illegible]	.02	.10	1	13
108211	1	1097	103	222	1.1	91	14	1277	6.29	728	9	ND	1	35	1	9	2	107	.45	.096	3	135	[illegible]	49	.09	2	[illegible]	.07	.07	1	152
108212	1	99	186	245	1.3	57	19	1034	6.73	95	5	ND	1	25	1	7	3	117	.31	.082	2	124	[illegible]	23	.10	7	[illegible]	.05	.10	1	15
108213	1	82	56	243	.7	77	11	934	5.33	57	5	ND	1	35	1	5	3	85	.53	.086	2	104	2.53	29	.13	7	[illegible]	.07	.13	1	7
108214	1	254	62	169	1.5	30	12	671	4.37	1862	5	ND	1	50	1	3	6	89	.47	.057	3	77	1.13	98	.11	13	2.54	[illegible]	.35	1	6
STD C/AU-R	18	57	42	133	6.8	69	31	1023	4.13	41	17	8	36	47	19	16	21	59	.48	.095	37	59	.89	173	.07	34	1.96	.06	.14	12	510

Rocks n = 22


limit of detailed mapping
Legend
Symbols
Outcrop
Chip sample location
Rock sample location, grab
Rock sample location, Float
Stream
Fracture/Jointing (Direction, Dip)
Arsenopyrite veinlet zone
Break in Slope
CP
Clearing (chopper pad/drill site)
qv quartz vein
py pyrite
As Arsenopyrite
Po Pyrrhotite
chl Chlorite
ep Epidote
Rock Types
H2 Intermediate (Andesitic) Hypabyssal Intrusives
H2mg - equigranular medium grained
H2 por - Feldspar - bio - porphyry dykes
S Argillite, siltstone, & Bedded Tuffs
v.fn. to fn grained, gray to black
S1 shale or argillite
V2 Andesite
mainly feldspar porphyritic, andesite tuff and lapilli tuffs, breccia's & flows
V3 Dacite to Rhyolite, v.fn. gr., mass, v. fractured
V3a v. light gray / lt tan
V3b med gray / tan
V3c dark gray
GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,764
Note: Numerous chainage errors found in 1988 sidelines (mainly underchainage), hence absolute positions shown on this map are inaccurate - dm, Sept. 1989
24°E magnetic declination used
HUCKLEBERRY PROJECT
GEOLOGY MAP AND SAMPLE LOCATION PLAN
0 10 20 30 40 50
Scale 1:500
Map by: C.T. Roney, A.J. Turner
Date: July 89
Figure 5
30,000 N BL
71-133
71-134
30,600E
which dimensions do we use for plotting the sidelines along the baseline? dm 2 Aug. 89
where the 20,000 grid sidelines rechained from the 30,000N BL? with new station numbers? (apparently not)

N

Legend

Symbols

- Outcrop
- I 69999 Chip sample location
- X Rock sample location, grab
- • Rock sample location, float
- Stream
- Fracture/Jointing (direction, dip)
- Arsenopyrite veinlet zone
- Break in Slope
- cp Clearing (chopper pad/drill site)

qv quartz ± vein
py pyrite
As Arsenopyrite
Po Pyrrhotite
chl Chlorite
ep Epidote

Rock Types

H_2 Intermediate (Andesitic) Hypabyssal Intrusives
- H_2mg - equigranular medium grained
- H_2 por - feldspar - bio - porphyry dykes

S Argillite, Siltstone, ± Bedded Tuffs
- v.fn. to fn grained, gray to black
- Sl shale or argillite

V_2 Andesite
mainly feldspar porphyritic, andesite tuff and lapilli tuffs, breccia's ± flows

V_3 Dacite to Rhyolite, v.fn. gr., mass, v. fractured
- V_{3a} v. light gray / lt tan
- V_{3b} med gray / tan
- V_{3c} dark gray

Note: Numerous chainage errors found in 1988 sidelines (mainly undercharnage), hence absolute positions shown on this map are inaccurate - dm, Sept. 1989

24°E Magnetic declination used

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,764

HUCKLEBERRY PROJECT
GEOLOGY MAP AND SAMPLE LOCATION PLAN

0 10 20 30 40 50

Scale 1:500

Map by: C.T. Roney, A.J. Turner
Date: July 89

Figure 5A

VANCAL 11917

N

L 19,800 E
20,475 E
$V_{2/3}$ DX
Fsp
V_3 r
$V_{2/3}$ DX
Fsp
$V_{2/3}$ DX
Fsp
L 19,900E
20,425N
V_4 Dpo
TL 30,200N
79/17
$V_{2/3}$ DX
Fsp
L19,800E
20,425N
$V_{2/3}$ DX
Fsp
S1/2
dk gray
S_2 po
med gray
talus
L19,900E
V 61/82
V_3
10642
TL 30,200N
53623
$V_{2/3}$ DX
Fsp
$V_{2/3}$ DX
Fsp
L19800E
20,380N
(108210-12)
100994
100995
V_3 DX
Fsp
100992 V 69/88
10643 92-as
S_2
S_2 med gray
L19,800E
20,360N
108214
108213
100983
10644
94/83
53608
100982
57426
$V_{2/3}$ D r
$V_{2/3}$ po
gray
$V_{2/3}$ S_2
VFg
talus
30,100N
talus
talus
V_3 chl-py vn
V_3 Fsp-bio por
BL 30,000N
71-134
(cut) L30,475E
$V_{3/2}$ Dr
$V_{2/3}$ D py
30,500E
V_3 DL
r
LM,900E
20,179N
L19,925E
20,175N
talus
slide alder
30,600E
cut to E
L20,000E
20,183.5N
20,160N
trail
50 meters

HUCKLEBERRY LEGEND - September 1989

Geological Units

H3	Dacitic hypabyssal intrusive
H4	Rhyolitic hypabyssal intrusive
V2	Andesite
V2/V3	Andesite to dacite
V3	Dacite
V4	Rhyolite

Modifiers

D	Tuff
L	Lapilli
X	Crystal

Abbreviations

as	arsenopyrite
bio	biotite
chl	chlorite
fsp	feldsper
por	porphyry
py	pyrite
qv	quartz vein
qz	quartz
r	rusty
v	vein or veinlet
wth	weathered or weathering

Symbols

- baseline and station
- sideline and station
- 59430 — rock chip sample
- , x — outcrop; large, small
- x 59430 — rock grab sample
- bedding, vein: strike and dip
- jointing: strike and dip
- vein
- talus
- +, ⊕ — station
- top of cliff, base of cliff
- geological contact
- tree
- stream

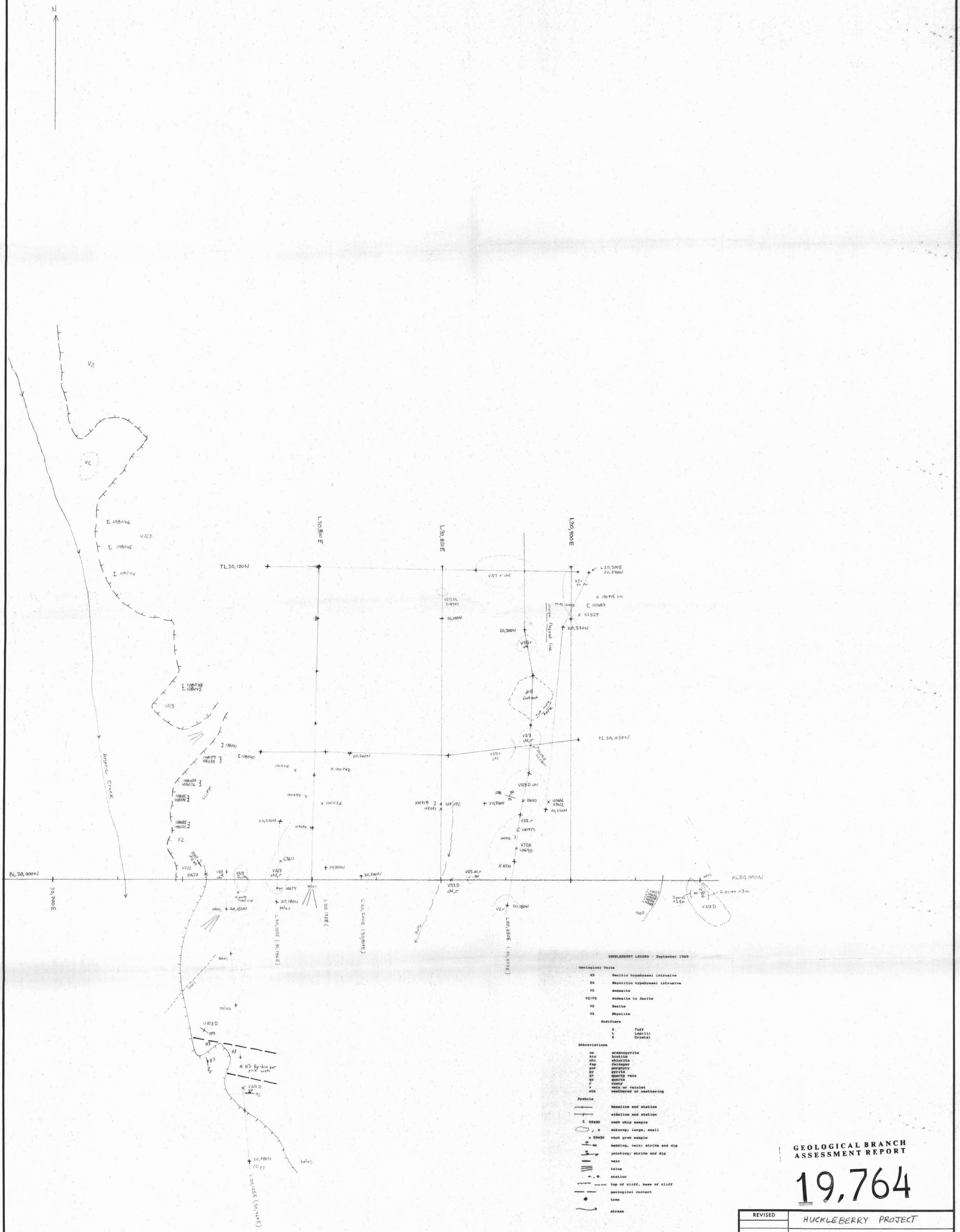
108048
108047
108050
108049
52522
108201
108202
108203
108204
108205
108206
108207
108208
108209

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,764

REVISED	HUCKLEBERRY PROJECT
	GEOLOGICAL DETAIL OF 30,000 GRID, WEST OF ARSENIC CREEK (UNFINISHED)
PROJ. No. 241	SURVEY BY: DEM Jr, CR DATE: SEPT. 1989
N.T.S. 93E/11E	DRAWN BY: dm SCALE: 1:500
DWG. No. Fig. 6	NORANDA EXPLORATION OFFICE: PRINCE GEORGE, B.C.

ASSESS - 0365



HUCKLEBERRY LEGEND - September 1989

Geological Units

H3	Dacitic hypabyssal intrusive
H4	Rhyolitic hypabyssal intrusive
V2	Andesite
V2/V3	Andesite to dacite
V3	Dacite
V4	Rhyolite

Modifiers

D	Tuff
L	Lapilli
X	Crystal

Abbreviations

aa	arsenopyrite
bio	biotite
chl	chlorite
fsp	feldspar
por	porphyry
py	pyrite
qv	quartz vein
qz	quartz
r	rusty
v	vein or veinlet
wth	weathered or weathering

Symbols

- baseline and station
- sideline and station
- rock chip sample
- outcrop; large, small
- rock grab sample
- bedding, vein; strike and dip
- jointing; strike and dip
- vein
- talus
- station
- top of cliff, base of cliff
- geological contact
- tree
- stream

50 meters

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,764

REVISED	HUCKLEBERRY PROJECT
	DETAILED GEOLOGICAL MAP EAST OF ARSENIC CREEK (UNFINISHED)
PROJ. No. 241	SURVEY BY: DEMJr, CR DATE: SEPT. 89
N.T.S. 93 E/11E	DRAWN BY: DEMJr SCALE: 1:500
DWG. No. Fig. 7	NORANDA EXPLORATION OFFICE: PRINCE GEORGE, B.C.


LOCATION MAP
SWEENEY LAKE
WHITING CREEK
TAHTSA REACH
HUCKLEBERRY MTN
SURVEYED LEN CLAIMS
DO-OVER 2
DO-OVER 3
DO-OVER
L E G E N D
Soil Sample Location (Recon)
Rock Sample Location
Float Sample Location
Copper soil anomaly, + 100 ppm
GEOLOGICAL BRANCH ASSESSMENT REPORT
19,764
SCALE 1 10,000
0 500 1000 metres
REVISED
DM Sept., 1989
HUCKLEBERRY PROJECT
SOIL GRID AND RECON.
SAMPLE LOCATIONS
+100 ppm Copper Anomaly
PROJ. No. 241
N.T.S. 93E/11E
DWG. No.
FIG. 8
SURVEY BY C.R.
DRAWN BY S.K.B.
DATE: JULY, 1989
SCALE: 1 10,000
NORANDA EXPLORATION
OFFICE: PRINCE GEORGE, B.C.