

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,474

DON CLAIMS REPORT #1
REPORT ON GEOLOGY AND GEOCHEMISTRY
FOR ASSESSMENT PURPOSES

DON CLAIM GROUP
LILLOOET MINING DIVISION
N.T.S. MAPSHEETS 92J/10 & 11
L.C.P. CO-ORDINATES 56/04400 m North
4/97330 m East

Author: David Bent
Owner: Noranda Exploration Company, Limited (N.P.L.)
Operator: Noranda Exploration Company, Limited (N.P.L.)
Date: November, 1983

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I ABSTRACT

The Don 1 and Don 2 claims were staked in 1982 to cover a geochemical anomaly revealed by the Governmental Release of the 92J N.T.S. mapsheet geochemical data. During the 1983 field season, two gossan zones were identified on the claims, and a number of geochemically anomalous areas were indicated. The No.1 Gossan Zone (Fig.3) proved to be of no significance, but Gossan No.2 (Fig.4) indicated highly anomalous copper and zinc values in silts from two small drainages.

1.1 Introduction

The Don claim group is comprised of the Don 1 and Don 2 mineral claims totalling 40 units (1,000 hectares). The claims were staked in 1982 to cover highly pyritized volcanic roof pendants in quartz dioritic intrusives. Field work to date has included geological mapping and sampling of one of the gossans along with reconnaissance mapping and silt sampling of the major drainages.

1.2 Location and Access

Situated approximately 34.3 kilometers from Pemberton on a bearing of N30 degrees W, the Don claims are accessible along the eastern boundary via the Pemberton-Bralorne road over Railroad Pass. Due to the steep topography, routine field work on the claims requires helicopter support.

1.3 Claim Description

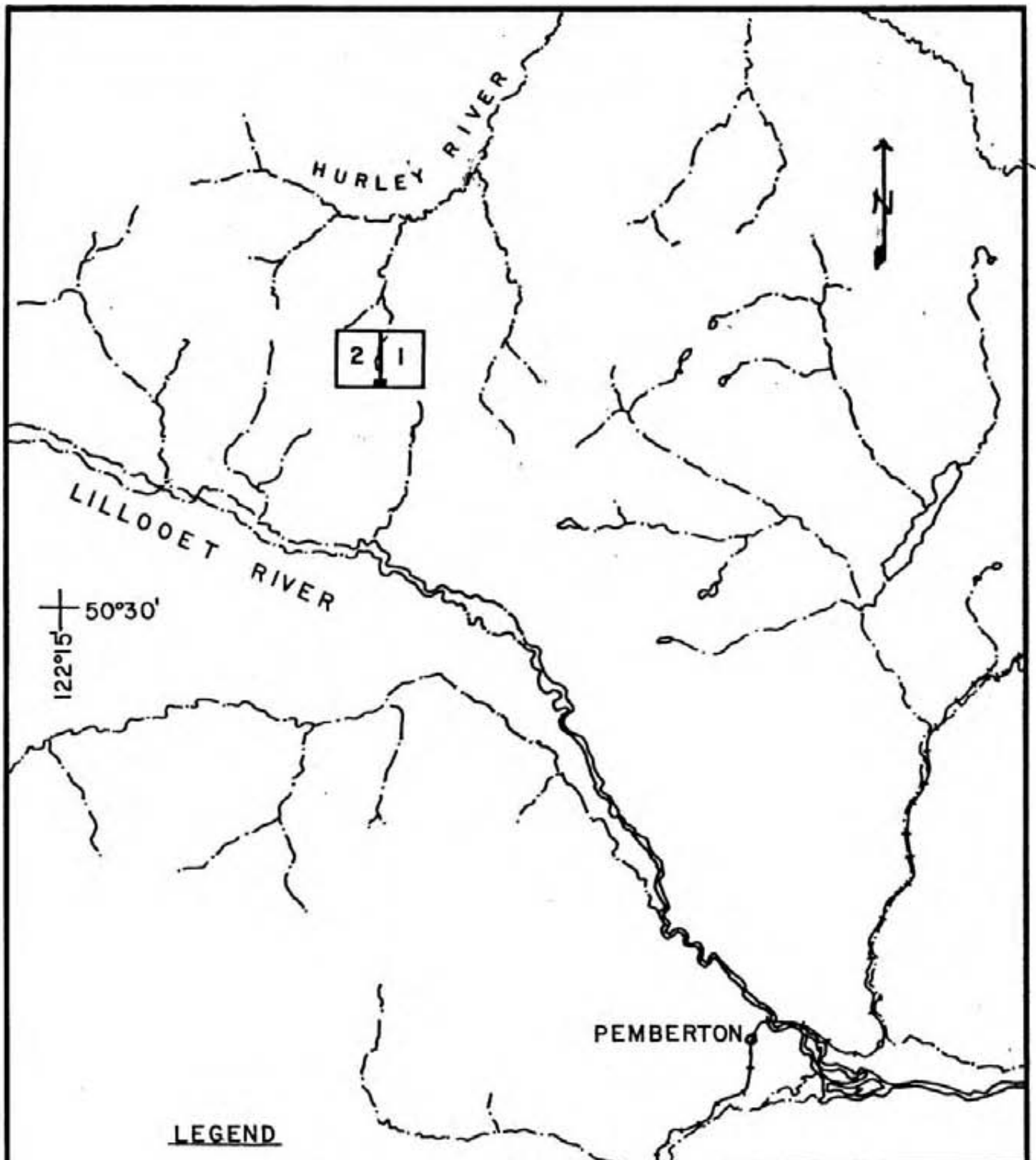
The following claims comprise the Don Mineral Claim Group:

- 1) Don 1:
Record No.: 2121
Units: 5N x 4E (20 units)
LCP Co-ordinates: 56/04400 m North
 4/97330 m East
Expiry Date: August 20, 1983
- 2) Don 2:
Record No.: 2122
Units: 5N x 4W (20 units)
LCP Co-ordinates: 56/04400 m North
 4/97330 m East
Expiry Date: August 20, 1983

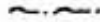



1.4 Physiography

The Don claims are centered on Railroad Pass which is a saddle between Chipmunk Mountain to the east and a high un-named mountain to the west. The western mountain is capped by several large glaciers and has a peak elevation of 7845 feet.

The claims are drained to the south by Railroad Creek which flows into the Lillooet River about 15 kilometers east of Pemberton. To the north the claims are drained by Donnelly Creek which is a tributary of the Hurley River.



LEGEND

-  Creeks
-  Rivers
-  Railway
-  DON Claims



REVISED	LILLOOET PROJECT	
	CLAIMS LOCATION MAP	
	DON 1 & 2	
PROJ. No. _____	SURVEY BY: _____	DATE: Nov. '83
N.T.S. 92 J	DRAWN BY: _____	SCALE: 1:250,000
DWG. No. 1	NORANDA EXPLORATION	
	OFFICE: _____	

VANCAL 1197

In general, the topography is very steep with a 4000 foot difference in elevation between the saddle and the ridge tops. Streams are very rapid with a high content of rock flour.

2. GEOLOGY

2.1 Regional Geology

The area is underlain by Cadwallader Group rocks of Upper Triassic age intruded by rocks of quartz dioritic to granodioritic composition which are of possible Jurassic age. The Cadwallader Group includes a wide range of Volcanic and sedimentary rocks including acid to intermediate volcanics intercalated with argillites, limestones and conglomerates. This group of rocks forms lenticular, northwesterly trending pendants in the batholithic Coastal Intrusives.

Later Tertiary dykes (quartz monzonite, dacite) have intruded along zones of weakness, especially in the structurally complex Railroad Pass area.

2.2 Geology of the Don Claims

The principal rock type underlying the Don claims is a granodiorite to quartz diorite intrusive which is part of the Jurassic Coastal Intrusives. Several roof pendants of Cadwallader volcanics (lesser sediments) have been located on the claims in the south central portion of the Don 2 and in the southwestern portion of Don 1. The major gossanous volcanic outcrop south of the claims (Gossan No.1) occurs as banded acid and intermediate volcanics striking 265 degrees and dipping 70 degrees south. The volcanics are hornfelsed and pyritized near the intrusive contacts and have been intruded by Tertiary dacitic dykes.

The No.2 Gossan occurs in similar skarnified volcanics but appears to be affected to a greater extent by faulting. Large northerly trending faults appear to be loci for major pyritization and possible base metal deposition.

In the southwestern portion of Don 1, a series of Tertiary quartz feldspar porphyry dykes have intruded the older rocks. They are silicified and pyritized which could explain the Cu-Zn anomalies in this area.

2.3 Geological Summary

Targets on the Don Claim Group are centered on highly gossanous zones within volcanic roof pendants. One major gossan with anomalous Cu-Zn values has been located and will require further geological and geochemical studies. Other gossans have been noted to the northwest of Don 2 which will require more detailed examination.

3. GEOCHEMISTRY

3.1 Analytical Results

During 1983 a total of 18 heavy mineral pan concentrate, 24 stream sediment, and 18 rock samples were collected from the Don claims. The samples were assayed in Vancouver at the Noranda Exploration Company, Limited lab. and

Roszbacher Laboratories. The samples were analysed for Cu, Zn, Mo and Ag utilizing an HClO₃ digestion-extraction technique with readings obtained on a Varian Techtron AA475 Atomic Absorption machine. Gold values were obtained on the AA machine following digestion-extraction by Aqua Regia-MIBK solution.

Preparation of the silt samples involved drying followed by screening to the -80 mesh fraction. Rock samples were crushed and then pulverized to the -200 mesh fraction prior to assaying. The pan samples were digested in their entirety and results were expressed in ppb relative to a 20 gram weight.

Geochemical results are given below in Table 2 with the values and locations on Fig. No's 2,3 and 4.

Sample Type	Elements	Analytical Methods
Pan Concentrate (18)	Au	Noranda - AA
Silts (24)	Cu-Pb-Zn-Mo-Ag-Au	Noranda - AA
Rocks (18)	Cu-Pb-Zn-Mo-Ag-Au	Roszbacher - AA

3.2 Field Programme and Results

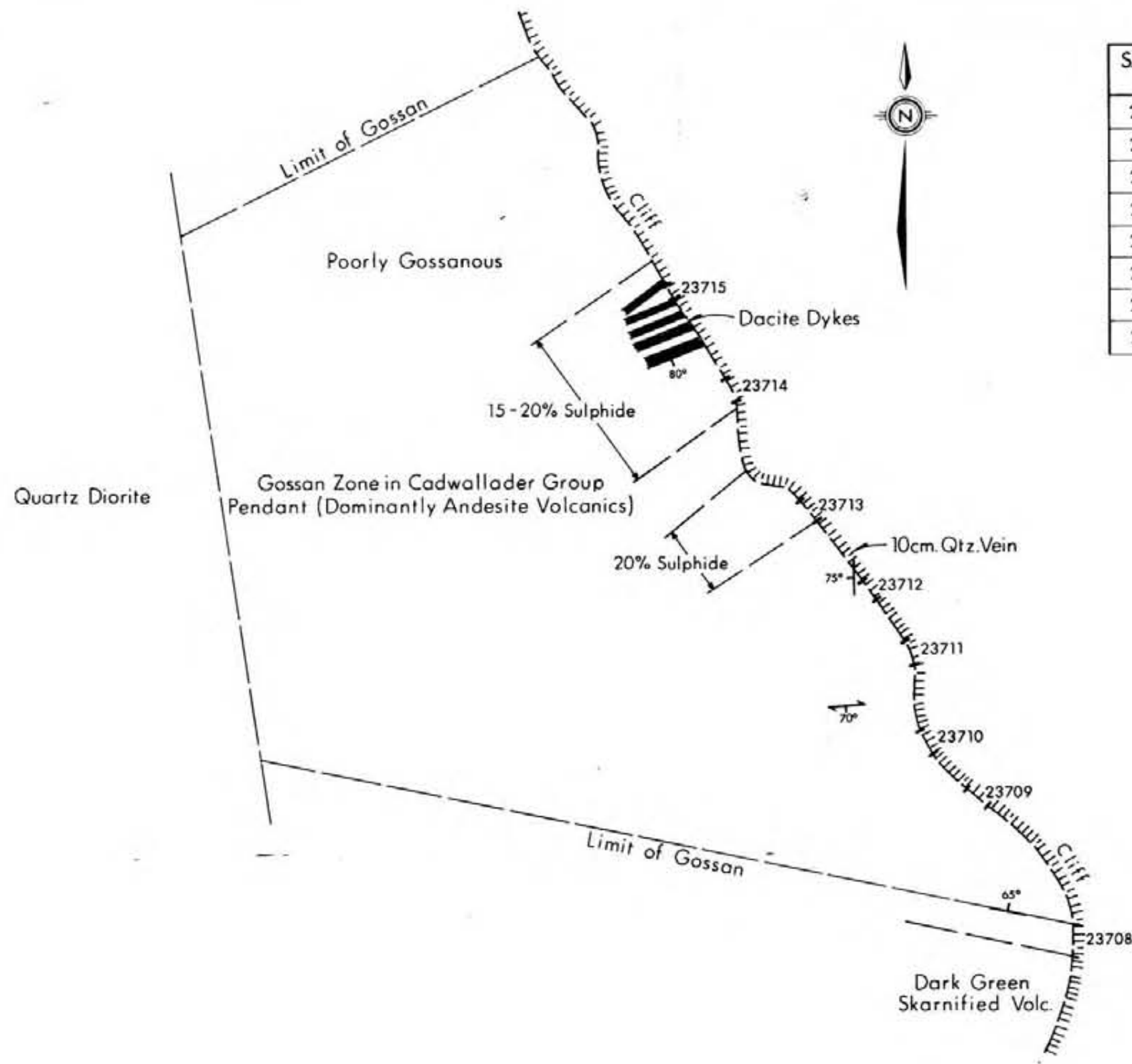
Silt and pan concentrate samples were collected in the major streams draining the Don claims. Several interesting anomalies were indicated at:

- 1) Southeast corner of Don 1 (silts with 440 ppm Cu, 180 ppm Zn and 350 ppm Cu, 200 ppm Zn)
- 2) Gossan No.2 on Don 2 claim (silts with 230 ppm Cu, 240 ppm Zn 1.0 ppm Ag and 500 ppm Cu, 750 ppm Zn)
- 3) Branch of Donnelly Creek northwest of Don 2 claim (pan concentrates with 3400 ppb Au and 150 ppb Au)

4. CONCLUSIONS AND RECOMMENDATIONS

Geological mapping and rock geochemical sampling is recommended for the Cu-Zn anomalous Gossan No.2. Further preliminary silt sampling is required in drainages to the north of Gossan No.2 and sampling should be extended to the west of the Claim Group to follow-up Au anomalies.

The geology and alteration are favourable for shear zone related base and precious metal mineralization within the volcanic roof pendant rocks.



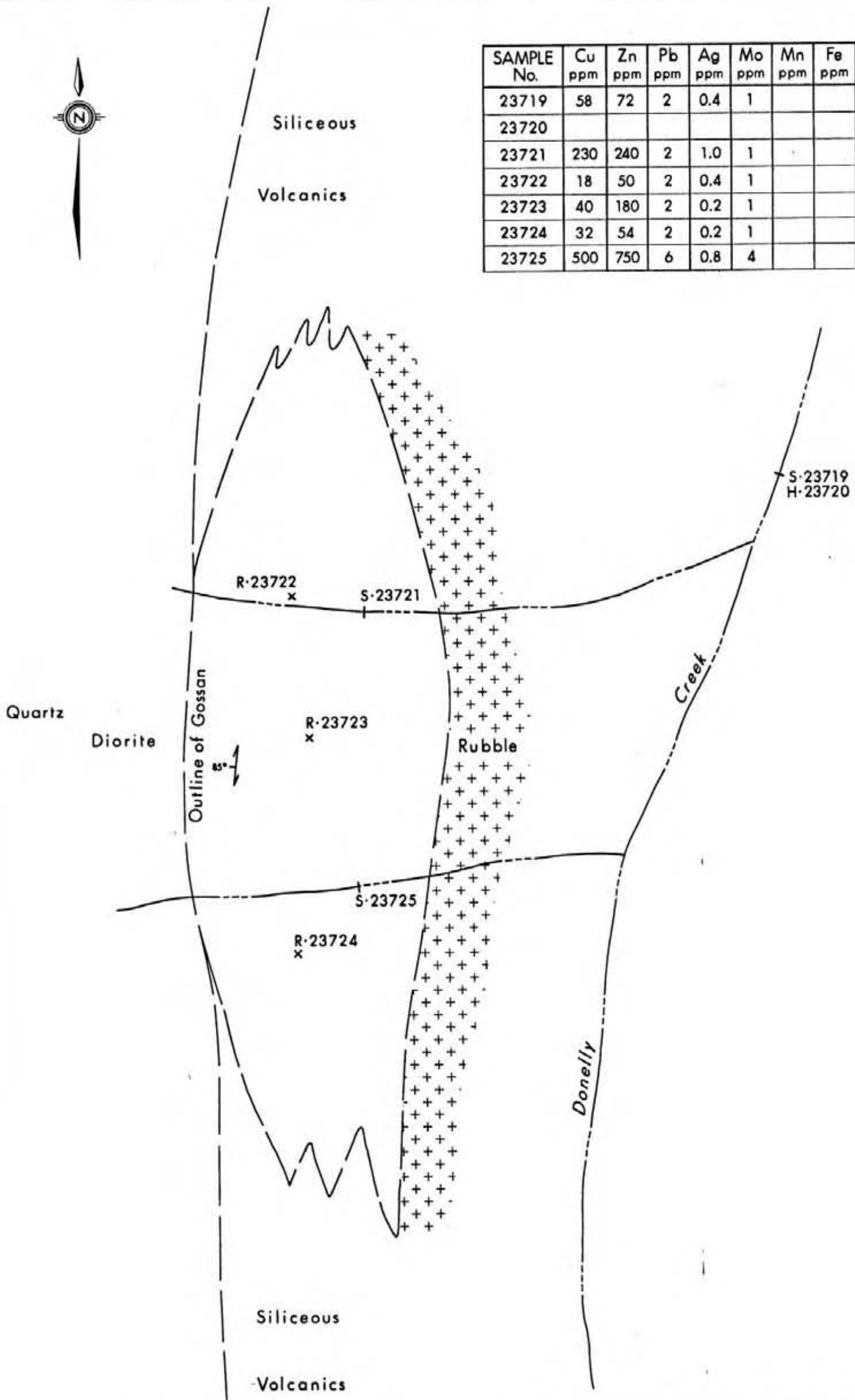
SAMPLE No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Mo ppm	Mn ppm	Fe ppm	As ppm	Au ppb
23708	6	34	10	0.2	<2			84	10
23709	88	280	4	0.2	20			16	10
23710	120	170	8	0.4	<2			<2	10
23711	70	240	20	0.2	8			<2	10
23712	90	130	2	0.2	<2			<2	10
23713									
23714	14	38	2	0.2	<2			<2	10
23715	26	32	2	0.4	<2			<2	10

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REVISED	DON 1 & 2 CLAIMS	
	DETAILED PLAN OF GOSSAN No.1	
PROJ No. 1081	SURVEY BY: D. Bent	DATE: Aug./83
N.T.S. 921/11	DRAWN BY: <i>gathur</i>	SCALE: 1:1000
DWG. No. 3	NORANDA EXPLORATION OFFICE: Vancouver	



SAMPLE No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Mo ppm	Mn ppm	Fe ppm	As ppm	Au ppb
23719	58	72	2	0.4	1				10
23720									10
23721	230	240	2	1.0	1				10
23722	18	50	2	0.4	1				10
23723	40	180	2	0.2	1				10
23724	32	54	2	0.2	1				10
23725	500	750	6	0.8	4				10



**GEOLOGICAL BRANCH
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REVISED	DON 1 & 2 CLAIMS	
	DETAILED PLAN OF GOSSAN No.2	
PROJ.No. 1081	SURVEY BY: D. Bent	DATE: Aug./83
N.T.S. 92/1/11	DRAWN BY: J. Athy	SCALE: 1:3000
DWG.No. 4	NORANDA EXPLORATION	
	OFFICE: Vancouver	

STATEMENT OF QUALIFICATIONS

CERTIFICATE OF QUALIFICATIONS

I, David Bent, of the City of Richmond, Province of British Columbia do hereby certify:

1. I am a geologist residing at 7631 Cheviot Place, Richmond.
2. I am a graduate of Acadia University, Wolfville, Nova Scotia with a BSc (1968) in geology.
3. I have been practicing my profession since May, 1968 and at present hold the position of District Geologist with Noranda Exploration Company, Limited.
4. I am a member of the Canadian Institute of Mining and Metallurgy.

David Bent

STATEMENT OF COSTS

- | | |
|--|--------|
| f) Analysis
(See attached schedule) | 632.60 |
| g) Cost of preparation of Report and Supervision | |
| Author D. Bent | 200.00 |
| Drafting | |
| Typing | |
| h) Other: | |
| Contractor | |

Total Cost	<u>\$3,667.24</u>
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e) Unit costs for	GEOLOGY	
No of days	4	
No of units	4 Man/Days	
Unit costs	\$487.292 / Man Day	
Total Cost	4 x \$482.292	\$1,949.17

UNIT COST FOR GEOCHEM

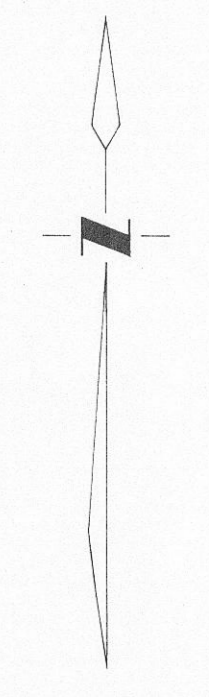
No. of Units	42 Samples	
Unit Cost	\$40.9064/Sample	
Total Cost	42 x \$40.9064	<u>\$1,718.07</u>
		<u><u>\$3,667.24</u></u>

NORANDA EXPLORATION COMPANY, LIMITED
(WESTERN DIVISION)

DETAILS OF ANALYSES COSTS

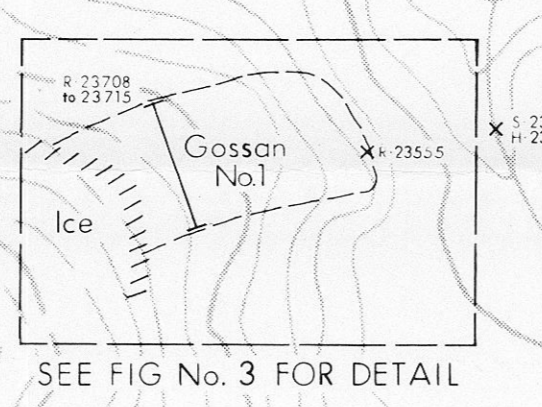
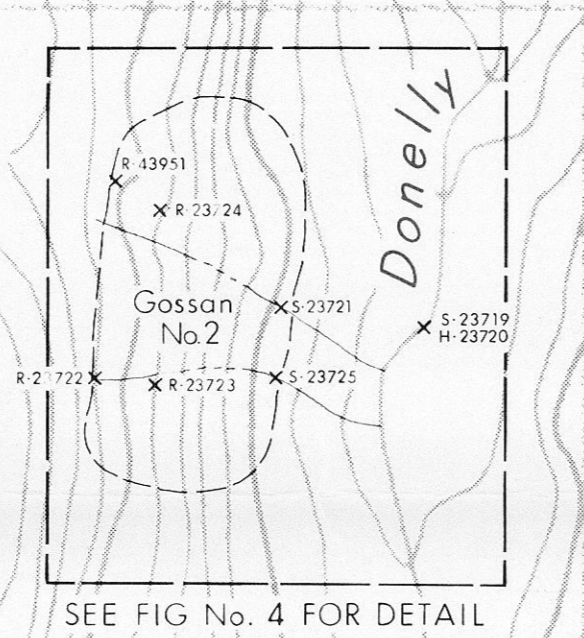
PROJECT: DONNELLY CREEK

<u>ELEMENT</u>	<u>NO. OF DETERMINATIONS</u>	<u>COST PER DETERMINATION</u>	<u>TOTAL</u>
Cu	40	1.60	64.00
Zn	40	.60	24.00
Pb	40	.60	24.00
Ag	40	.60	24.00
Mo	40	.60	24.00
Fe	23	.60	13.80
Mn	23	.60	13.80
As	40	2.00	80.00
Au	40	4.00	160.00
Au	19	9.00	171.00
Sample Prep.	17	2.00	34.00
		TOTAL:	<u>\$632.00</u>



GEOCHEM RESULTS

Sample No	Au (ppb)	Ag (ppm)	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)
SILTS						
22532	10	0.2	22	1	2	36
22533	10	0.2	42	1	2	76
22534	10	0.2	92	1	2	220
23551	10	0.2	26	1	4	44
23553	10	0.2	34	1	6	48
23667	10	0.2	36	1	2	56
23716	10	1.6	30	1	4	50
23717	10	0.4	58	1	2	68
23719	10	0.4	58	1	2	72
23721	10	1.0	230	1	2	240
23725	10	0.8	500	4	6	750
23751	10	0.2	54	1	2	44
23753	40	0.2	36	1	2	38
43924	10	0.2	26	4	10	56
43926	10	0.2	30	6	44	62
43928	10	0.2	38	16	52	84
43930	10	0.2	16	2	20	60
43934	10	0.2	40	8	20	88
43963	10	0.2	110	2	12	260
43945	10	0.2	62	1	8	260
43947	10	0.2	52	6	2	62
43949	10	0.2	68	2	6	310
46237	10	0.2	330	36	44	200
46239	10	0.6	440	34	38	180
PAN CONCENTRATES						
22535	10					
23552	10					
23668	10					
23718	20					
23720	10					
23752	3400					
23754	150					
43925	10					
43927	10					
43929	10					
43931	20					
43935	10					
43944	10					
43946	3400					
43948	10					
43950	10					
46238	10					
46240	10					
ROCKS						
23554	10	0.4	34	1	2	170
23555	10	0.4	18	1	2	54
23708	10	0.2	6	1	10	34
23709	10	0.2	68	20	4	280
23710	10	0.4	120	1	8	170
23711	10	0.2	70	8	20	240
23712	10	0.2	90	1	2	130
23714	10	0.2	14	1	2	38
23715	10	0.4	26	1	2	32
23722	10	0.4	18	1	2	50
23723	10	0.2	40	1	2	180
23724	10	0.2	32	1	2	54
43932	10	0.2	300	1	2	840
43933	10	0.2	62	4	2	68
43951	10	0.2	48	1	2	74
46241	10	0.2	300	1	2	30
46242	10	0.2	42	1	2	14
46243	10	0.4	180	8	2	62



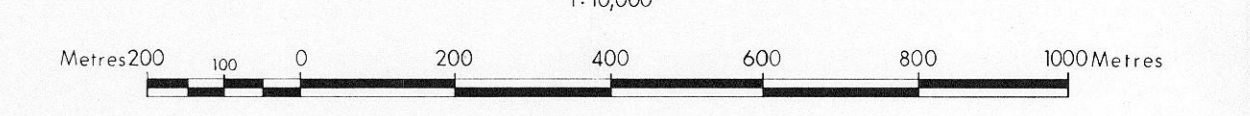
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LEGEND

- Gossan Outline
- Outcrop
- Sample Location
- Silt Sample
- Pan "
- Rock "

SCALE



REVISED	'DON' CLAIM GROUP	
	GEOCHEM SAMPLING	
	NOTE: P.F.U. 57101	
PROJ. No. 1081	SURVEY BY: P. J. [Signature]	DATE: Aug/83
N.T.S. 92/10/11	DRAWN BY: [Signature]	SCALE: 1:10,000
DWG. No. 2	NORANDA EXPLORATION	
	OFFICE: Vancouver	