3962

REPORT ON A

GEOCHEMICAL SOIL SURVEY

ON THE

AHDATAY PROPERTY

(SOONER CLAIMS)

55° 19' N 124° 51' W

OMINECA MINING DIVISION

NORANDA EXPLORATION COMPANY, LIMITED

(NO PERSONAL LIABILITY)

BY

G.E. DIROM, P. Eng.

W.A. HOWELL

July 29, 1972 to August 16, 1972

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REPORT ON THE GEOCHEMICAL SOIL SURVEY ON THE AHDATAY PROPERTY, 55° 19' N 124° 51' W OMINECA MINING DIVISION, BRITISH COLUMBIA NORANDA EXPLORATION COMPANY LIMITED

INTRODUCTION:

The Ahdatay property referred to in this report is located approximately 34 miles southwest of Germansen Landing, B.C. and covers the headwaters of Ahdatay Creek which flows southerly to the east end of Tchentlo Lake (see Fig 1). Access to the property is by contract or charter helicopter from Germansen Landing to helicopter landing pads within the claim group.

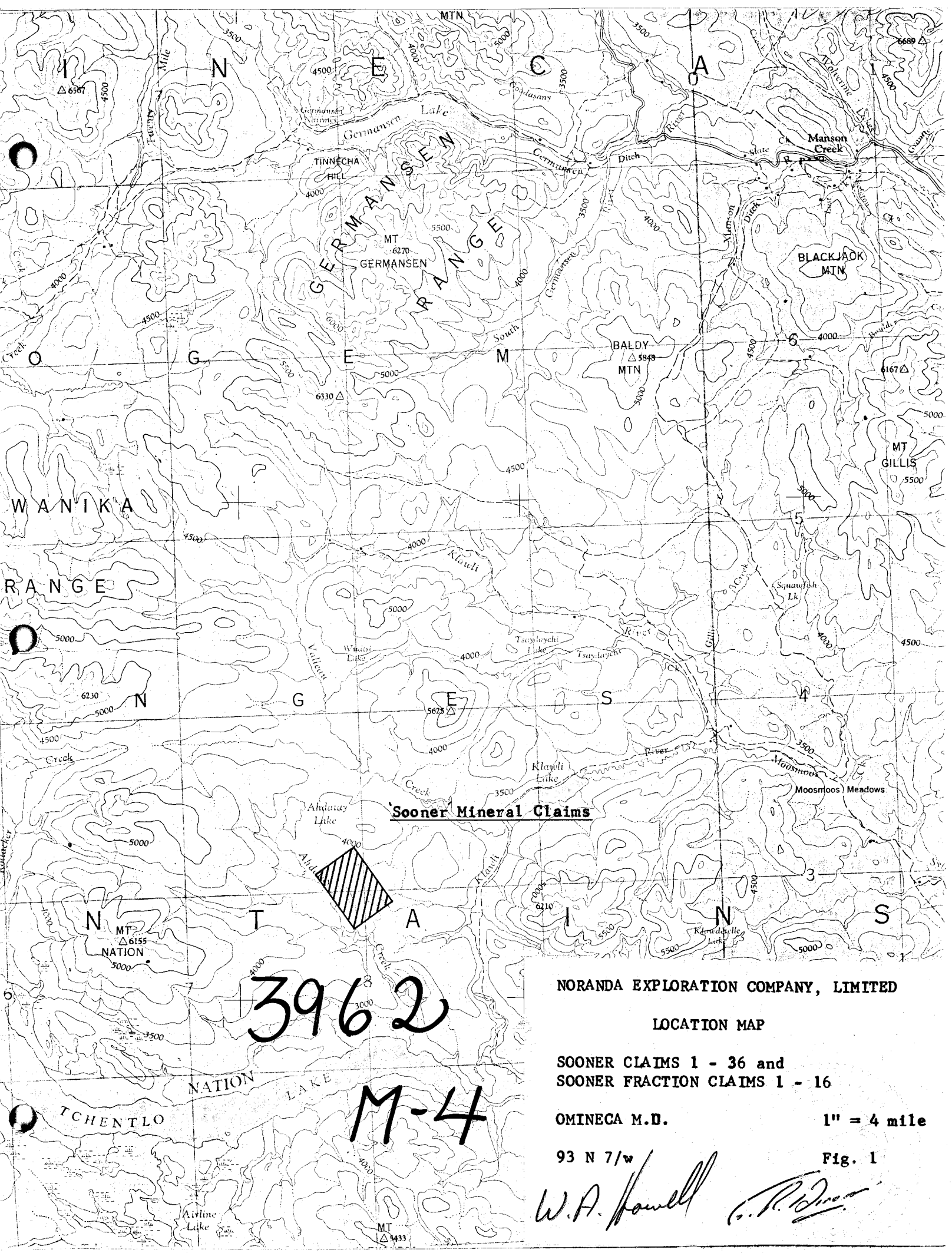
Elevations range from 3500 to 4000 feet above sea level.

The property consists of 52 contiguous mineral claims in the Omineca Mining Division of British Columbia. Claims were staked following a reconnaissance geochemical program completed in August, 1972.

The claims are as follows:-

Claims	Record #	Record Date	Owner
Sooner #1	105224	Oct. 4, 1971	Noranda Exploration Company Limited
Sooner #2	105225	"	" " " "
Sooner #3	105226	"	" " " "
Sooner #4	105227	"	" " " "
Sooner #5	105228	"	" " " "
Sooner #6	105229	"	" " " "
Sooner #7	105230	"	" " " "
Sooner #8	105231	"	" " " "

Claims	Record #	Record Date	Owner
Sooner #9	105232	Oct. 4, 1971	Noranda Exploration Company Limited
Sooner #10	105233	"	" " " "
Sooner #11	105234	"	" " " "
Sooner #12	105235	"	" " " "
Sooner #13	105236	"	" " " "
Sooner #14	105237	"	" " " "
Sooner #15	105238	"	" " " "
Sooner #16	105239	"	" " " "
Sooner #17	105240	"	" " " "
Sooner #18	105241	"	" " " "
Sooner #19	105242	"	" " " "
Sooner #20	105243	"	" " " "
Sooner #21	105244	"	" " " "
Sooner #22	105245	"	" " " "
Sooner #23	105246	"	" " " "
Sooner #24	105247	"	" " " "
Sooner #25	105248	"	" " " "
Sooner #26	105249	"	" " " "
Sooner #27	105250	"	" " " "
Sooner #28	105251	"	" " " "
Sooner #29	105252	"	" " " "
Sooner #30	105253	"	" " " "
Sooner #31	105254	"	" " " "
Sooner #32	105255	"	" " " "
Sooner #33	105256	"	" " " "
Sooner #34	105257	"	" " " "
Sooner #35	105258	"	" " " "
Sooner #36	105259	"	" " " "
Sooner #1 Fr.	105260	"	" " " "
Sooner #2 Fr.	105261	"	" " " "
Sooner #3 Fr.	105262	"	" " " "
Sooner #4 Fr.	105263	"	" " " "
Sooner #5 Fr.	105264	"	" " " "
Sooner #6 Fr.	105265	"	" " " "
Sooner #7 Fr.	105266	"	" " " "
Sooner #8 Fr.	105267	"	" " " "
Sooner #9 Fr.	105268	"	" " " "
Sooner#10 Fr.	105269	"	" " " "
Sooner#11 Fr.	105270	"	" " " "
Sooner#12 Fr.	105271	"	" " " "
Sooner#13 Fr.	105272	"	" " " "
Sooner#14 Fr.	105273	"	" " " "
Sooner#15 Fr.	105274	"	" " " "
Sooner#16 Fr.	105275	"	" " " "



NORANDA EXPLORATION COMPANY, LIMITED

LOCATION MAP

SOONER CLAIMS 1 - 36 and
SOONER FRACTION CLAIMS 1 - 16

OMINECA M.D. 1" = 4 mile

93 N 7/w Fig. 1

W.A. Howell

The geochemical survey and necessary line preparation was carried out by a 2-man Noranda Exploration Company geochemical sampling crew and a 2-man contract line cutting crew under the direction and supervision of G.E. Dirom, P.Eng. between July 29, 1972 and August 16, 1972, following a preliminary survey completed between September 15, 1971 and September 20, 1971 (see Supplementary Report appended).

GENERAL GEOLOGY:

The Ahdatay property covers part of an area of extensive overburden masking almost all bedrock in the vicinity. The projected eastern boundary of the Hogem Batholith with the Takla Group of volcanic rocks (from G.S.C. Map 971-A, J.E. Armstrong 1949) either passes through or very close to the property.

The Hogem Batholith is a composite pluton extending approximately 75 miles northwest of the Nation Lakes. It is bounded on the west by the Pinchi-Omineca fault system and on the east by rocks of the Takla Group.

The claims are covered with glacial rubble and detritus of chiefly an intrusive nature. The intrusive float includes granodiorite, granodiorite porphyries, syenites and diorites. Volcanic rocks present as float include andesite and andesite porphyry. G.S.C. Memoir 252 Fort St. James Map Area, Cassiar and Coast Districts, British Columbia. (J.E. Armstrong) 1949 provides an insight into the regional geological setting of the Ahdatay property.

GRID PREPARATION:

The grid was laid out with a 4800' cut baseline running north-south and designated 100 + 00 E. Thirteen 4000 foot long side lines spaced at 800' intervals were then established. Two tie lines designated 120 + 00 E and 80 + 00 E were utilized for grid control.

The base line and side lines were chained, flagged and picketed with stations established at 100 foot intervals where practical.

GEOCHEMICAL SOIL SURVEY:

All samples were analysed for copper, molybdenum and zinc in the Noranda Exploration Company Limited laboratory, located at 1050 Davie Street, Vancouver, B.C., analyst, Evert VanLeeuwen.

Sampling Method:-

Samples were obtained by digging holes with a shovel to a depth at which the visible "C" horizon or sub-outcrop was encountered. The "C" and "B" horizons were both sampled over the majority of the grid, however, where this was not possible the best sample available was taken. The samples were placed in "Hi Wet Strength Kraft 3½ x 6 1/8 Open End" envelopes and the grid station marked on the envelopes with indelible felt pens. Soil samples were taken at 200 foot intervals along the grid lines.

Laboratory Determination Method:-

The samples are first hung in a drying cabinet for a period of 24 to 48 hours. They are then mechanically screened and sifted to obtain a -80 mesh fraction.

The determination procedure for total copper, zinc and molybdenum is as follows: 0-200 grams of -80 mesh material is digested in 2 ml. of $HClO_4$ and 0.5 ml. of HNO_3 for approximately four hours. Following digestion each sample is diluted to 5 ml. with demineralized H_2O. A Varian Techtron Model AA-5 Atomic Absorption spectrophotometer was used to determine the parts per million Cu, Zn, and Mo in each sample.

The theory of Atomic Absorption spectrophotometry is fully described in the literature and will not be described in this report.

Presentation of Results:-

Results of the geochemical soil survey are contoured and presented on 1" = 400' scale topographic base maps designated Drawing No.'s 1 and 2. Drawing No. 1 presents copper and molybdenum values. Drawing No. 2 presents copper and zinc values. Copper is included on both presentations to facilitate correlation of anomalous areas.

Discussion of Results:-

The values for total copper range from a low of less than 20 ppm to a high of 370 ppm. One area in particular, located

north-centrally on the grid near 168 N 100 E, contains anomalous values greater than 100 ppm over an area approximately 2200' by 1100'.

Several smaller copper anomalous areas exist over the gridded area, some of which consist of only a single sample location, others consist of several locations but of a much more limited areal extent than the previously mentioned primary anomalous region.

Values for molybdenum range from lows of 0 ppm to a high of 500 ppm. A value of 10 ppm molybdenum has been chosen as the lower limit of threshold or possibly anomalous values. All values over 25 ppm molybdenum are considered definitely anomalous. Several possibly anomalous and anomalous areas are outlined by the survey, however an area, roughly 3000 feet by 1000 feet and centered approximately over 168 N 100 E is distinctive for its high values.

Values for zinc range from less than 20 ppm to 160 ppm. Considering values of 100 ppm and greater as possibly anomalous and anomalous, the survey has outlined an area approximately 2000 feet by 800 feet centered roughly over 164 N 100 E.

Several other smaller anomalous areas for zinc have been outlined, many of which consist of 1 or 2 sample sites only.

It is noteworthy that the major area of interest defined by each metal expression is closely correlatable. Areas of secondary interest show a lesser degree of correlation.

Soil development over the Ahdatay grid is variable from organic marsh types to well developed "A", "B" and "C" type horizons. Much of the grid area is underlain by sandy to gravelly soils supporting pine, spruce, and balsam timbered areas separated by narrow somewhat sinuous, marshes or swamps.

No conclusive indication of overburden depths were found although several of the soil holes reached angular fragmental "C" type soils.

RECOMMENDATIONS AND CONCLUSIONS:

The results of the soil survey indicate that an area of prime interest lies centered roughly over location 168 N 100 E. Other areas of secondary interest are scattered over the grid area but for the most part appear restricted to the northern portion of the grid. Because of the lack of outcrop, geological mapping is of limited value. Geophysical surveys in conjunction with geochemical sampling on intermediate lines is considered the best method of further delineating the areas of major concern and importance.

An extension of the grid to the south is also warranted in order to close an anomaly of secondary importance occurring in that region.

Such a program of closer geochemical sampling in conjunction with an induced polarization survey will determine the course and nature of future work on this property.

Respectfully submitted,

G.E. Dirom, P. Eng.

W.A. Howell, Geologist.

APPENDIX

SUPPLEMENTARY REPORT

The survey referred to in this supplementary report was conducted on the Ahdatay Property (Sooner Claims) following aquisition of the property in September, 1971.

This preliminary geochemical survey consisted of soil sampling each of three claim location lines at 400 foot intervals.

The sampling method and treatment of the samples was identical to that previously described in the context of the Adhatay Report.

Results are presented on drawing number 3 located in the map pockets following this report.

Data achieved through the implementation of the preliminary survey confirmed, in the soils, anomalous values indicated by the regional silting program. The location of the grid was largely determined as a result of the data obtained through the preliminary survey.

QUALIFICATIONS OF FIELD PERSONNEL

Mr. Malcom Vetterli and Mr. John Harrison were employed by Noranda Exploration Company, Limited as senior field assistants and have worked a minimum of 3 field seasons in this capacity.

Mr. Jaime Price and Mr. John Sobkowicz were employed by Noranda Exploration Company, Limited as field assistants.

Gavin E. Dirom, P.Eng.

STATEMENT OF QUALIFICATIONS

I, WILLIAM A. HOWELL, of the Town of Smithers, Province of British Columbia, do certify that:

1. I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geology, (1971).

2. I am a member of the Geological Association of Canada.

3. I have been employed by Noranda Exploration Company, Limited (N.P.L.) since March, 1972.

Dated this 25th day of October, 1972.

W.A. Howell

W.A. HOWELL, Geologist

CERTIFICATE

I, GAVIN EWAN DIROM, of the Town of Smithers, Province of British Columbia, do certify that:

1. I am a Geological Engineer residing at 52 North 14th Avenue, Smithers, B.C.

2. I am a graduate of the University of British Columbia with a B.A.Sc Degree (1962) in the geophysical option of Geological Engineering and a M.A. Sc Degree (1965) in Geophysics.

3. I am a Member of the Canadian Institute of Mining and Metallurgy.

4. I am a registered Professional Engineer in the Province of British Columbia and Ontario.

5. I have been employed as a geologist for Noranda Exploration Company, Limited since June, 1962 and have held the position of District Geologist - Northern B.C. since March, 1967.

Dated at Smithers this 25th day of October, 1972.

GAVIN E. DIROM, M.A.Sc., P.Eng.

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA.

TO WIT:

In the Matter of a statement of exploration expenses on 35 contiguous mineral claims in the Omineca Mining Division, having record numbers 105224 to 105233, 105236 to 105240, 105261 to 105264, 105268, 105269, 105275, 105248, 105241 to 105244, 105249 to 105252, 105266, 105267, 105273, 105274 (Sooner Claims).

I, William A. Howell (F.M.C. 109124, issued April 28, 1972 at Vancouver, B.C.) of P.O. Box 2169, Smithers, B.C., agent for Noranda Ezploration Company, Limited, (No Personal Liability), (F.M.C. 109102, issued April 28, 1972 at Vancouver, B.C.) of 1050 Davie Street, Vancouver, B.C.
of

in the Province of British Columbia, do solemnly declare that the cost of geochemical surveys on the above listed mineral claims between September 15, 1971 and August 16, 1972 were:

1.	Line Cutting - P.F. Bland, Contractor		
	July 27, 1972 to Aug 5, 1972		
	9600 ft. (1.8 mi) cut and picketed	240.00	
	69,400 ft. (13.14 mi) flagged and blazed	1,041.00	
	Field costs - 20 man days @ $10.00/man day	200.00	
	Transportation Bell 206B 1.833 hrs @ $258.00/hour	473.00	1,954.00
2.	Topographic Mapping - Lockwood Surveys		
	May 31, 1972		232.76
3.	Preliminary Geochemical Survey		
	Sept 15, 1971 to Sept 20, 1971		
	Labour - J. Harrison, J. Price, 12 man days @ $26.90 per man day	322.80	
	Field Costs - 12 man days @ $10.00/man day	120.00	
	Lab Costs - 68 samples (3 determinations each) @ $1.40/sample	95.20	
	Transportation - Bell 206B .8 hours @ $250.00/hour	200.00	738.00
4.	Geochemical Soil Survey		
	Aug 9, 1972 to August 16, 1972		
	Labour - M. Vetterli, J. Sobkowicz - 16 man days @ $25.31/man day	404.96	
	Field Costs - 16 man days @ $10.00/man day	160.00	
	Transportation - Bell 206B .89 hours @ $258.00/hour	230.99	
	Lab costs - 702 samples (3 determinations each) @ .85/sample	596.70	1,392.65
5.	Supervision - G.E. Dirom - 2 days @ $50.00/day		100.00
6.	Draughting & Report Prep - 4 man days @ $30.00/day		120.00
			$4,537.41

Of this amount, credit for $3,500.00 is applied for.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the Town of Smithers, in the Province of British Columbia, this 26th day of October, 1972, A.D.

W. A. Howell

A Commissioner for taking Affidavits for British Columbia or
~~A Notary Public in and for the Province of British Columbia.~~


3962
M-2
Zn. contoured at 100 ppm
Cu. contoured at 100 ppm
LEGEND
Read 22 ppm Cu, 0 ppm Mo, 50 ppm Zn.
1st level sampled
2nd level sampled
Ahdatay
Cr.
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3962 MAP #2
To accompany Geochemical Report by W.A. Howell, Geologist
on the Ahdatay Property, Omineca Mining Division.
Work supervised by G.E. Dirom, P.Eng. Dated Oct. 19, 1972.
W.A. Howell
REVISED
SOIL GEOCHEMISTRY
PROJECT: AHDATAY (SOONER CLAIMS)
PROJ. Nº
N.T.S. 93N/7W
DWG. Nº 2
SURVEYED BY:
DATE: MAY 1972
DRAWN BY: a.p.
SCALE: 1" = 400'
NORANDA EXPLORATION CO. LTD.
OFFICE: SMITHERS

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3962 MAP #3

To accompany Geochemical Report by W. A. Howell, Geologist, on the Ahdatay Property, Omineca Mining Division.

Work supervised by G.E. Dirom, P.Eng. Dated Oct. 19, 1972.

W.A. Howell

note: claim locations are approximate

36
24
38

Read 36 ppm Cu, 24 ppm Zn, 38 ppm Mo.

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M-3

REVISED	PRELIMINARY GEOCHEMICAL SOIL SURVEY
	PROJECT: AHDATAY (SOONER CLAIMS)
PROJ. No	SURVEYED BY: J.H. DATE: MAY 1972
N.T.S. 93 N/7 W	DRAWN BY: A.P. SCALE: 1" = 1000'
DWG. No 3	NORANDA EXPLORATION CO. LTD.
	OFFICE: SMITHERS


3962
M-1
Cu. contoured at 100 ppm
Mo. " " 10 ppm-25ppm
Mo. " " >25 ppm
LEGEND
Head 22 ppm Cu, 0 ppm Mo, 50 ppm Zn.
1st level sampled
2nd level sampled
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3962 MAP #1
Ahdatay
To accompany Geochemical Report by W.A. Howell, Geologist
on the Ahdatay Property, Omineca Mining Division.
Work supervised by G.E. Dirom, P.Eng. Dated Oct. 19, 1972.
W.A. Howell
REVISED
SOIL GEOCHEMISTRY
PROJECT: AHDATAY (SOONER CLAIMS)
PROJ. Nº
N.T.S. 93 N/7W
DWG. Nº 1
SURVEYED BY:
DATE: MAY 1972
DRAWN BY: a.p.
SCALE: 1" = 400'
NORANDA EXPLORATION CO. LTD.
OFFICE: SMITHERS