This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $14,699.45

Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B.R. BAXTER
Supervising Mining Recorder
for Commissioner of Yukon Territory

GEOCHEMICAL REPORT

DOLL GROUP - 116-I-1 SOUTHERN RICHARDSON MTNS.

LATITUDE 66° 05'N LONGITUDE 136° 05' W

Work Completed: May 28, 1975 - July 4, 1975

Field Supervisor: Walter Melnyk , Geol. Engineer

Report Written By: Alvin Jackson, B.Sc.
Project Geologist

Approved by: Paul Maingot
Regional Geologist
Amoco Canada Petroleum Company Ltd.
Toronto, Ontario

I state, as Regional Geologist, Amoco Canada Petroleum Co. Ltd. that I am familiar with the quality of work done by W. Melnyk and A. Jackson and believe it to be commensurate with good geological practice.

Paul Maingot, Regional Geologist

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INTRODUCTION

The Richardson Trough of the Northern Yukon Territory was the site of deep water shale deposition from Late Cambrian to Upper Silurian-Lower Devonian. This sequence of graptolitic shales, argillaceous limestones, cherts, mudstones, and conglomerates has been called the Road River Formation by Jackson and Lenz (1962). Generally the Road River Formation represents deep water basin and basin-slope environments. The deep trough was surrounded by shelf-type carbonates of the Yukon and Mackenzie platforms.

During the summer of 1974 a reconnaissance geochemical and prospecting program was completed by Amoco Canada Petroleum Company Ltd., Mining Division in the Richardson Mountains, mainly within the Road River Formation. The object of the program was to locate lead-zinc mineralization. The program was based out of Margaret Lake, latitude 65°20'N, longitude 135°30'W, and was serviced from Mayo, approximately 128 air miles S.W. of Margaret Lake.

During the reconnaissance stream sampling several streams draining the area centered on longitude 136°05'W and latitude 66°05'N were found to be anomalous in lead and zinc.

On July 25 and 26, 1974, twenty-four claims were staked as the Doll group over part of the anomalous area. On May 24, 25 and 26, 1975, forty-eight claims were added to the Doll group. On June 21, 1975, seven fractional claims were staked on the group.

The soil geochemical program was completed from a four man fly camp located on the group. It was serviced by fixed wing aircraft to Margaret Lake and then helicopter to the property, approximately 30 miles N.W. of Margaret Lake. The work was completed between May 28 and July 4, 1975.

GEOCHEMICAL SURVEY

General Description

A detailed soil geochemical survey was completed over most of the property. A picket line base line was established running at 340° near the claim line common to Doll 25 - 26 and 47 - 48, for a total length of 16,000 feet. Sample lines were run east and west of this line on lines every 400', samples every 100', with these lines being run by chain and compass methods. Where it was possible to differentiate, samples were collected from the B soil horizon. The soils were analysed for total lead and zinc. The analyses were completed by Whitehorse Assay, 1156 First Avenue, Whitehorse. The samples were dried, crushed, seived and the -80 mesh fraction analysed by digestion in concentrated aqua regia, diluting with de-ionized water, and read by atomic absorption.

Interpretation

The soil survey outlined numerous distinct lead anomalies, with variable zinc values associated. Of the several lead

anomalies two stand out as main anomalies while the remainder outline smaller, discontinuous zones. The lead values range from a background of 20-50 ppm to several thousand, with main anomalies being those over 500 ppm with central core zones of over 1000 ppm. The two main anomalies cover areas of 800' x 1600' and 400' x 2000'. The remainder of the anomalies are usually narrower and shorter, in the order of 100 - 200' x 400 - 800'. The lead anomalies are usually defined by very sharp cut-offs, or drops to background levels. The zinc values tend to be much more irregular and more difficult to correlate, but there is still a general correlation between Pb and Zn values.

Conclusions and Recommendations

Most of the lead anomalies have been found to be directly related to minor lead and zinc mineralization in turbidite type breccias and tectonic-calcite vein breccias. However, due to the heavy soil cover and lack of outcrop, it is not possible to say whether the mineralized areas are as extensive as indicated by soil anomalies or what grades of mineralization they reflect. In order to determine if large

bodies of Pb-Zn sulfides are present a gravity survey is recommended over some of the better anomalies, and if results warrant, diamond drilling.

PERSONNEL

The soil sampling was completed by the following people:

W. Melnyk, Suite 2010, 65 Queen St. West, Toronto, Ontario

M. Gill, Apt. 204 - 8231 Elbow Dr., Calgary, Alberta

B. Shepard, 316 Sunset Road, Winnetka, Illinois U.S.A. 60093

R. Black, 4404 Coronation Dr. S.W., Calgary, Alberta.

The work was completed between May 28 - July 4, 1975.

SURVEY COSTS

Geochemical analysis:

#Y99664 - (70) - $63.00
#Y99639 - (45) - $57.60
#Y99640 - (46) - $53.10
#Y89894 - (9) - $62.10
#Y89895 - (10) - $42.30
#Y89893 - (8) - $59.40
#Y89892 - (7) - $114.30
#Y99638 - (44) - $113.40
#Y99637 - (43) - $116.10
#Y99662 - (68) - $121.50
#Y99660 - (66) - $118.80
#Y99635 - (41) - $137.70
#Y99636 - (42) - $140.40
#Y89890 - (5) - $112.50
#Y99652 - (58) - $77.40
#Y99627 - (33) - $102.60
#Y99628 - (34) - $120.60
#Y99626 - (32) - $54.00
#Y99625 - (31) - $108.00
#Y99650 - (56) - $108.00

Y89891 - (6) - $77.40
Y89889 - (4) - $57.60
Y89888 - (3) - $111.60
Y99634 - (40) - $115.20
Y99633 - (39) - $66.60
Y99658 - (64) - $28.80
Y99656 - (62) - $97.20
Y99631 - (37) - $82.80
Y99632 - (38) - $115.20
Y89886 - (1) - $66.60
Y89887 - (2) - $43.20
Y99630 - (36) - $129.60
Y99629 - (35) - $77.40
Y99654 - (60) - $77.20
Y99622 - (28) - $39.60
Y99621 - (27) - $86.40
Y99646 - (52) - $111.50
Y99644 - (50) - $104.40
Y99619 - (25) - $111.60
Y99620 - (26) - $66.60

#Y99648 - (54) - $86.40

#Y99623 - (29) - $90.00

#Y99624 - (30) - $54.00

Total geochem = $3779.70

Aircraft: (float plane and helicopter) = $5,009.75

Salaries: $4,598.00

Fuel: $400.00

Groceries: $912.00

Total = $14,699.45

GROUPING

Group #1:	#68-Y99662	45-Y99639	79-
	43-Y99637	46-Y99640	11-Y89896
	44-Y99638	72-Y99666	12-Y89897
	70-Y99664	47-Y99641	9-Y89894
	7-Y89892	48-Y99642	10-Y89895
	8-Y89893		

Group #2:	66-Y99660	17-Y89902
	64-Y99658	19-Y89904
	41-Y99635	20-Y89905
	39-Y99633	21-Y89906
	42-Y99636	22-Y89907
	40-Y99634	23-Y89908
	5-Y89890	24-Y89909
	6-Y89891	75-

Group #3:	28-Y99622	2-Y89887
	30-Y99624	3-Y89888
	32-Y99626	4-Y89889
	34-Y99628	13-Y89898
	36-Y99630	14-Y89899
	38-Y99632	15-Y89900
	73-	16-Y89901
	1-Y89886	18-Y89903

Group #4:	26-Y99620	37-Y99631
	25-Y99619	62-Y99656
	27-Y99621	59-Y99653
	29-Y99623	61-Y99655
	31-Y99625	63-Y99657

	33-Y99627	65-Y99659
	35-Y99629	67-Y99661
		69-Y99663
		71-Y99665
Group #5:	50-Y99644	57-Y99651
	52-Y99646	55-Y99649
	54-Y99648	53-Y99647
	56-Y99650	51-Y99645
	58-Y99652	49-Y99643
	60-Y99654	

Group #1 - $148.88 - Costs other than assays/claims
53.52 - Assays/claims

$202.40 per claim

Group #2 - $148.88 - Costs other than assays/claims
53.16 - Assays/claims

$202.04 per claim

Group #3 - $148.88 - Costs other than assays/claim
52.80 - Assays/claim

$201.68 per claim

Group #4 - $148.88 - Costs other than assays/claims
51.41 - Assays/claim

$200.29 per claim

Group #5 - $148.88 - Costs other than assays/claims
57.35 - Assays/claim

$200.23 per claim.

LIST OF QUALIFICATIONS

NAME: Alvin Jackson

B.Sc. Geol., 1968, Brandon University

April 1968 - September 1968 - Inco, Mines Geologist

January 1969 - September 1969 - Mattagami Lake Mines,
Exploration Geologist

September 1969 - May 1970 - University of Saskatchewan,
4th year geology, B.Sc.

May 1970 - present(Aug., 1975) - Amoco Canada Petroleum Co. Ltd.
Mineral Exploration Geologist

CAMP

MT. RICHARD
BENCH MARK
3107'

LEGEND

- • SOIL SAMPLE LOCATION
- △ ROCK AND SOIL SAMPLE LOCATION
- • 14.274 LEAD, ZINC (in part per million)
- □ CLAIM POST
- CONTOURS : 50, 500, 1000 p.p.m

AMOCO CANADA PETROLEUM CO. LTD.

090037 MINING DIVISION

DOLL CLAIM GROUP - RICHARDSON MTNS.

SOIL GEOCHEMICAL SURVEY

DRAWN BY	d.o's	SCALE	1 in = 400'
DATE	Aug. 1975	DRAWING NO.	