

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

3282

REPORT

on a

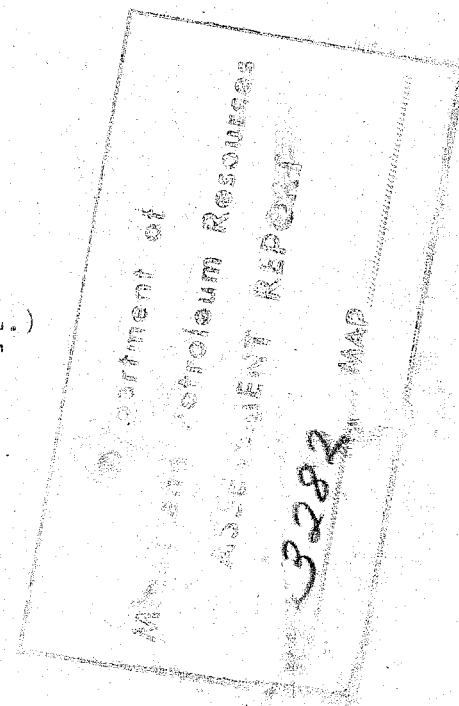
Geochemical Survey

AMANDA-AMIE and PACO CLAIM GROUPS
SIWASH CREEK AREA
SIMILKAMEEN MINING DIVISION
PRINCETON
BRITISH COLUMBIA

92 H / 9 W, 16 W

for

DIANA EXPLORATIONS LTD (N.P.L.)
402-207 WEST HASTINGS STREET
VANCOUVER, B.C.



by

Donald W. Tully, P. Eng.

September 27, 1971

West Vancouver, B.C.

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY.....	2
INTRODUCTION.....	3
PROPERTY.....	4
LOCATION, ACCESS AND TOPOGRAPHY.....	5
PREVIOUS DEVELOPMENT.....	5
REFERENCES.....	6
REGIONAL GEOLOGY.....	7
LOCAL GEOLOGY - MINERALIZATION - ASSAYS.....	7
GEOCHEMICAL SURVEY.....	8
CONCLUSIONS.....	13
RECOMMENDATIONS - WORK PROGRAM.....	14
ESTIMATED COSTS.....	16
CERTIFICATE.....	17
ASSAY CERTIFICATES.....	(End of Report)
WORK REPORT (APPENDIX A).....	(End of Report)

MAPS

- # 1 Figure 1 - Location Map.....(Facing Page 2)
- 2 Figure 2 - Claim Plan.....(Following Page 3)
- 3 Figure 3 - G.S.C. Map No. 888A.....(In Pocket)
- 4 Figure 4 - Geochemical Plan
and Proposed Work Program.....(In Pocket)

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

SUMMARY

A total of 1248 soil samples were taken on the Amanda-Amie and the Paco claim groups. Analyses were done for copper, zinc, lead, and silver in parts per million.

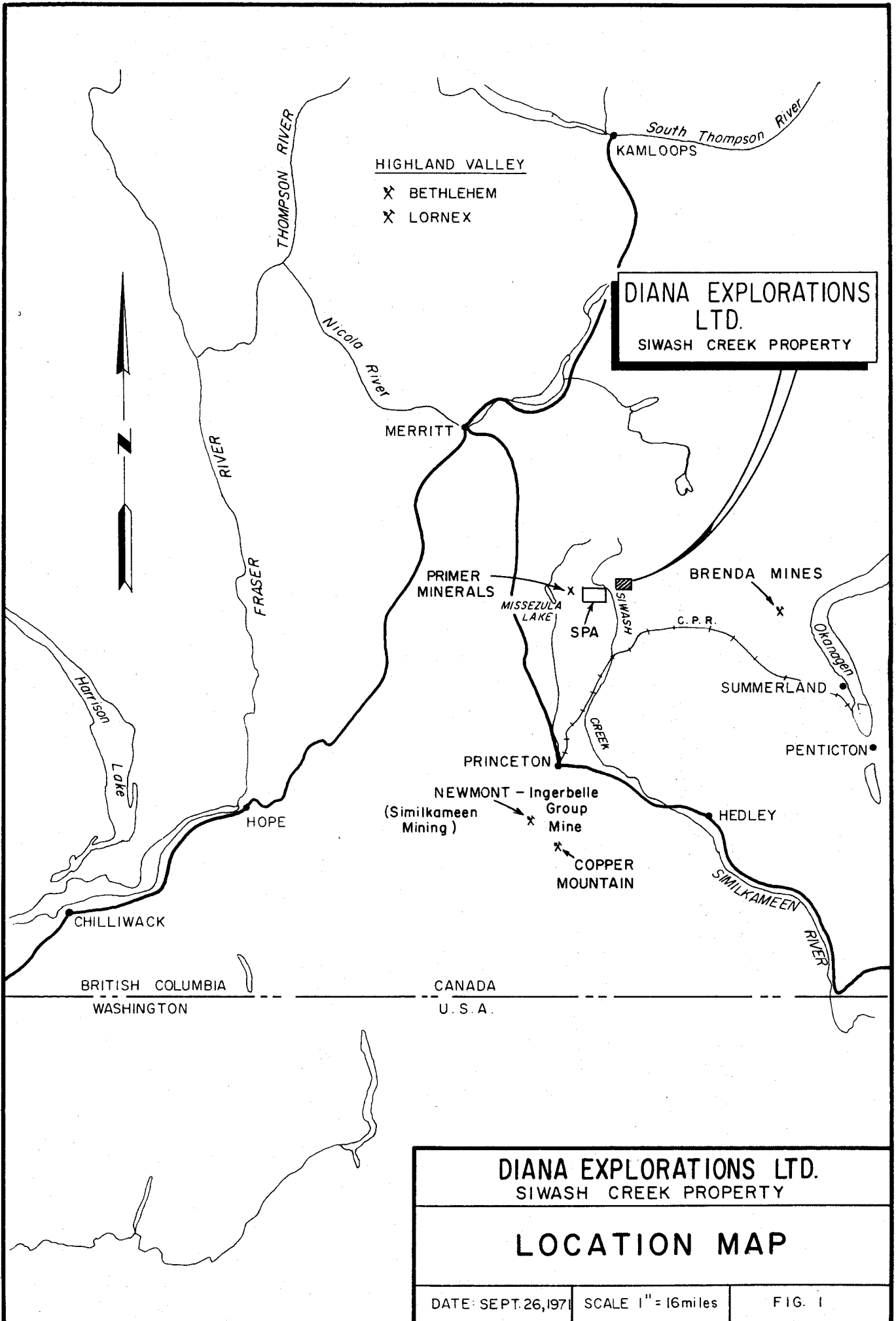
Six zones of sizeable and significant geochemical values in zinc were found.

Four zinc anomalies on the Amanda-Amie claims warrant further exploration. One of these has copper indications, another has anomalous results in lead.

On the Paco claims, a zone of anomalous zinc values covers an area 4100 feet in length, striking south-east and open to the northwest. Interesting anomalous zinc results also occur in the northwest part of the Paco Group.

Insufficient work has been done to determine the cause of the geochemical anomalies.

A two-phase work program totalling \$36,225 is recommended for further geochemical soil check sampling and magnetometer and geological mapping to delimit the target areas preparatory for a proposed diamond drill test.



D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

INTRODUCTION

A geochemical soil sampling survey was performed on the Amanda-Amie and the Paco claim groups during the period July 14 through August 22, 1971, by Strato Geological Ltd, 37-615 West Hastings Street, Vancouver 2, B.C.

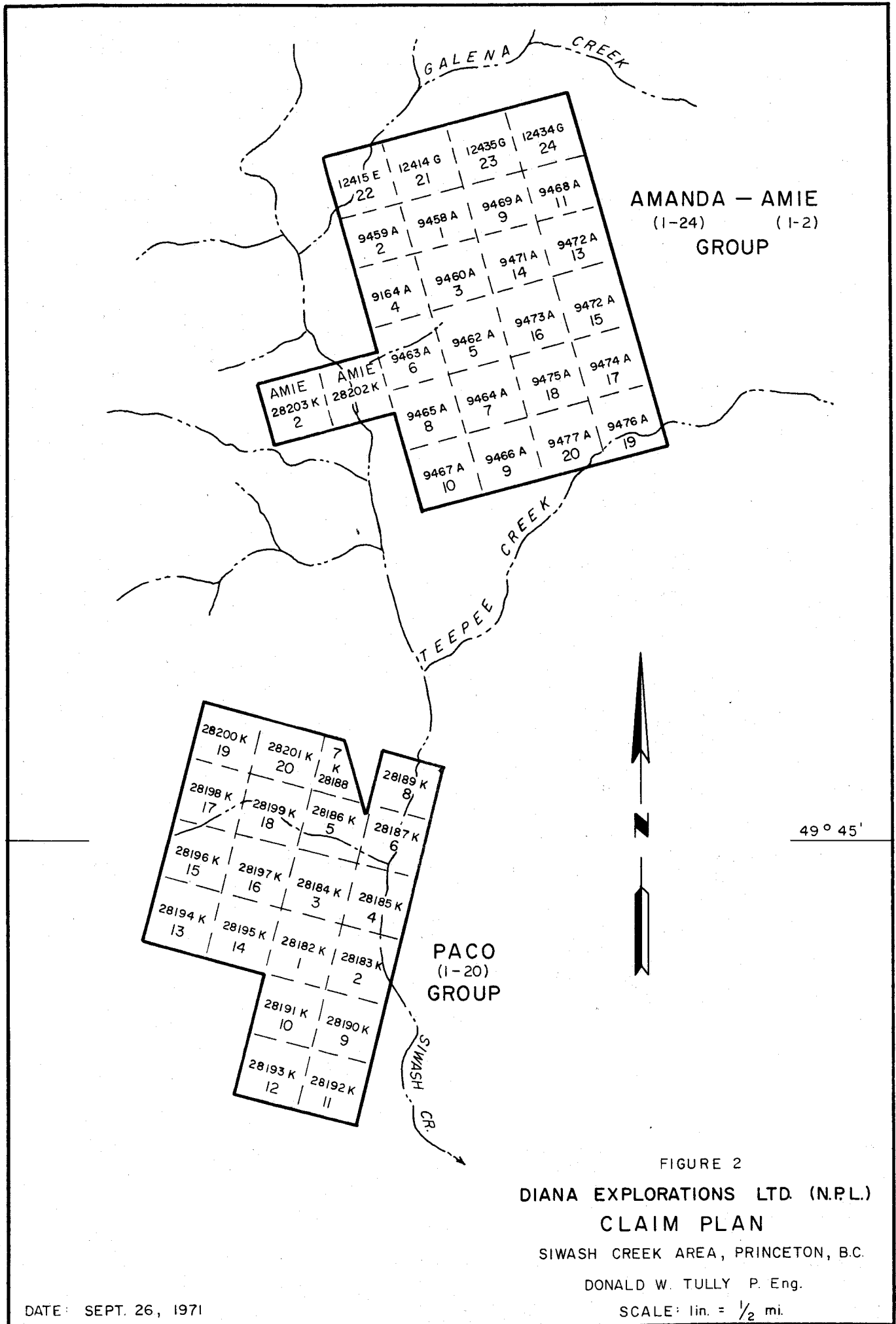
The survey was carried out under the general supervision of the writer at the request of Mr. T.W. Connell, President of Diana Explorations Ltd. A field examination was made on August 20, 1971.

Survey control was provided by blazed lines run on a generally east-west Brunton Compass bearing at 400-foot intervals from north-south base lines. Soil sample locations were marked by pickets and accompanying plastic ribbon markers at 200-foot intervals along each line.

Soil samples were collected of geochemical soil analysis from the "B" soil horizon at 4-8 inches below the humus layer.

Analyses were done by Core Laboratories - Canada Ltd, 325 Howe Street, Vancouver 1, B.C., using the following method:

1. Dried at approximately 125^oF.
2. Crushed and sieved to -80 Mesh.
3. Weighed into test tubes (1 gram).
4. Digested with perchloric-nitric acid.
5. Analyzed by atomic absorption spectrophotometer.



D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

A background correction is incorporated for samples analyzed for lead and silver. This is done in order to eliminate emission, salt, and solid partical effect. The values obtain a more absolute result. As these effects vary between sample there is no direct relationship between corrected and uncorrected results. The uncorrected values would be slightly high by a ratio of between 1.2 up to at least 2.0.

PROPERTY

The property comprises 47 claims in the Similkameen Mining Division in two claim groups, the Amanda 1 - 24, Amie 1 - 2 inclusive and the Paco 1 - 20 with Paco Fraction 101 inclusive (Figure 2). The claims are in good standing at the date of this report.

The Amanda #1 and #2 and the Paco #3 claim posts were examined by the writer and found to be in accordance with the provisions of the Mining Act of the Province of British Columbia.

Record numbers for the Amanda-Amie group are 9458A - 9477A, 12414 - 15, 12435 - 36, and 28202 - 03 inclusive and for the Paco group are 28182K - 28201K inclusive. The record number for Paco Fraction 101 is not known as yet. (34279K)

D. I. T. HOLDINGS LTD.

SUITE 102,
222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

LOCATION, ACCESS AND TOPOGRAPHY

The property is readily accessible by 4 - wheel drive vehicle on bush road from Bankier on the Kettle Valley railroad line. The total distance north of Princeton is 31 miles (Figure 1).

The Amanda-Amie claim group lies on the east side of Siwash Creek at Galena Creek within elevation 3800 - 4200 a.s.l. The local relief is generally rolling. The east half of this claim group is a plateau.

The Paco claims lie on the west side of Siwash Creek opposite Teepee Creek at elevation 3600 - 4000 a.s.l. The topography is moderately undulating.

Overburden is sand and gravel of variable depth within the broad area of the Siwash Creek drainage pattern.

PREVIOUS DEVELOPMENT

Old trenchings were noted at several locations of the Amanda-Amie and Paco claim groups.

Three ancient adits were noted on Amie claims 1 and 2 at Siwash Creek.

Old trenchings were noted on Paco claim no. 1 at the location of the "Agie Pit". This pit is 6 x 8 feet in dimension and has a local underground excavation in rock

D. I. T. HOLDINGS LTD.

SUITE 102,
222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

about 10 x 12 feet. Chip sample Paco No. 1 was taken from a quartz vein about 6 inches wide in this pit. 300 feet south of the "Agie Pit" two drill hole collars were noted in a quartz monzontie outcrop. Chip sample Paco No. 2 was taken here.

REFERENCES

Relevant information is available from the following reports and maps:

1. Geological Survey of Canada Map 888A
2. G.S.C. Memoir 243
3. B.C. Department of Mines - Reports of the Minister for the years 1926, 1927 and 1930
4. Preliminary Geological Report on the Agie Group of Mineral Claims, Siwash Creek, November 9, 1966 by Boris A. Nekrasov.
5. Report on the Amanda-Amie and Paco Claim Groups, January 26, 1971 by Donald W. Tully, P. Eng.

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

REGIONAL GEOLOGY

Two lithological rock units are recognized in the immediate area of the property.

The older Coast intrusives, probably late Jurassic in age, are largely granodiorite quartz monzonite and quartz diorite in composition. Later dikes and masses of feldspar porphyry are in evidence, probably related to the Otter intrusions of late Cretaceous or early Tertiary age.

Tectonically there is evidence of a regional east-west through-going structure from the attendant widespread cross-fracturing of all rock types in the Amanda-Amie claim group area. The writer believes a strong fracture system trends southeasterly into the claim group from the headwaters area of Siwash Creek and probably controls the emplacement of the Otter intrusives locally.

Medium-grained quartz monzonite was noted on Paco claims 2,3 and 4.

LOCAL GEOLOGY - MINERALIZATION - ASSAYS

The Agie Pit on Paco Claim 4 occurs in a coarse to medium grained quartz monzonite with pink feldspar. A vein is exposed in the Agie Pit in an east-west (magnetic)

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

shear dipping 80 degrees north. A chip sample (Paco No. 1) was cut across two feet and assayed:

33.4 ozs Ag. 8.71 %Pb 0.27 %Zn 0.06 %Cu

The mineralization is pyrite, chalcopyrite, tetrahedrite, galena and sphalerite.

Paco No. 2 sample was a grab about 300 feet south of Paco No. 1 sample and at the location of two recent diamond drill holes on Paco #1 claim. Scattered grains of bornite, pyrite, galena and chalcopyrite were noted locally in a vuggy quartz veinlet in a quartz monzonite outcrop.

The sample assayed:

9.0 ozs Ag. 2.80 %Pb 0.07 %Zn 0.32 %Cu

GEOCHEMICAL SURVEY

1. Amanda-Amie Claim Group. (Grid I)

Overburden is generally shallow (1 - 10 feet deep) of sand and boulder gravel.

711 soil samples were collected. Samples were taken at every 200 feet along east west blazed and flagged lines at 400-foot intervals measured from a north-south base line.

On Figure 4 only those values above 400 parts per million zinc, 100 ppm lead, 50 ppm copper and 1.0 silver ppm were plotted.

D. I. T. HOLDINGS LTD.

SUITE 102,
222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

Four zinc anomalies were located. The possibility of mechanical downhill creep, seepage and drain train effect should not be discounted in two of these anomalies on the valley slopes of Siwash Creek.

An anomaly on Amanda claims #1 and #21 at the north end of the claim group measures about 1500 feet north-south by 600 feet east-west. Zinc values range from 400 - 1800 ppm. Copper values ranging between 50 - 154 ppm occur within the zinc zone.

Zinc results occur in an anomalous zone over 4000 feet north-south and 800 feet in width, ranging from 400 - 3000 ppm on Amanda claims 5, 7 and 16 in the south central part of the claim group.

On the east slope of Siwash Creek on Amanda claims 6, 8 and 10, zinc values ranging from 400 - 1700 ppm occur in an anomalous zone at least 4500 feet north-south and 1000 feet east-west. Lead values ranging from 100 - 825 ppm occur at the northern end of this anomaly on Amanda claim #6 within the zone of zinc values.

In the valley and also on the west slope of Siwash Creek a fourth zinc anomaly is open to the west on Amie claim #2. Values in zinc range from 400 - 1300 ppm over an area 1000 x 1400 feet.

D. I. T. HOLDINGS LTD.

SUITE 102,
222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

Examination of the geochemical results shows:

ZINC

<u>Range</u>		<u>%</u>					
0 -399	ppm represents	77.7	of the sample results				
400-599	" "	10.6	" " " "				
600-799	" "	5.6	" " " "				
800 +	" "	6.1	" " " "				

LEAD

<u>Range</u>		<u>%</u>					
0 -99	ppm represents	93.4	of the sample results				
100 +	" "	3.6	" " " "				

COPPER

<u>Range</u>		<u>%</u>					
0 -49	ppm represents	94.2	of the sample results				
50 +	" "	5.8	" " " "				

Silver results are scattered and variable between 1.0 and 4.5 ppm.

2. Paco Claim Group. (Grid 2)

Overburden is generally shallow sand and gravel.

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

537 soil samples were collected. Samples were taken every 200 feet along blazed and flagged east-west lines at 400-foot intervals. A base-line was run from 0 - 0 to line 84 north a distance of 8400 feet as tie control.

Examination of the analyses show the results were as follows:

		<u>COPPER</u>	
<u>Range</u>		<u>%</u>	
0-20	ppm represent	74.3	of the sample results
21-30	" "	16.2	" " " "
31-50	" "	4.7	" " " "
51 +	" "	4.8	" " " "

Only the results of and over 50 ppm copper were plotted on Figure 4.

		<u>ZINC</u>	
<u>Range</u>		<u>%</u>	
0-100	ppm represent	3.8	of the sample results
101-200	" "	21.3	" " " "
201-300	" "	23.9	" " " "
301-400	" "	21.8	" " " "
401-500	" "	12.8	" " " "
501-600	" "	8.5	" " " "
601 +	" "	8.4	" " " "

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

Only the results of an over 400 ppm zinc were plotted on Figure 4.

<u>Range</u>		<u>%</u>					
0-20	ppm represent	28.2	of the sample results				
21-40	" "	48.2	" " " "				
41-60	" "	16.9	" " " "				
61 +	" "	6.7	" " " "				

Only the results of and over 100 ppm lead were plotted on Figure 4. There are no significant lead anomalies.

Silver results were considered generally to be unimportant.

On Paco claims 3,4,5,17,18 a zone of zinc values covers an anomalous area 4100 feet in length striking south-east with a width of 500 - 1000 feet. This anomaly is open to the northwest. Low values in copper also occur within this anomaly. The zinc results vary up to 1600 ppm.

Anomalous zinc results of lower priority occur along the north boundary on Paco claims 7, 19, and 20.

D. I. T. HOLDINGS LTD.

SUITE 102,
222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

CONCLUSIONS

Zinc values of 400 parts per million (ppm) are considered anomalous. Six significant zinc anomalies are evident on both the Paco and Amanda-Amie claim groups.

Lead values of 100 ppm and over only were plotted. One possible anomaly was noted on Amanda claim #6.

Copper results are not considered strong enough to be significant other than the fact they correlate with anomalous zinc.

Geological mapping and magnetometer surveying is warranted since lead-zinc mineralization is known to be associated with magnetite in a breccia-pipe zone on the adjoining Spa Mines property.

Silver results are not considered anomalous.

42,800 lineal feet of check geochemical soil sampling at 200-foot intervals to delimit target areas for diamond drilling is warranted.

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

RECOMMENDATIONS

Additional geochemical sampling with profile soil samples taken at 400-foot intervals as a check on transported fluvio-glacial material is recommended as follows:

PACO GROUP

<u>Line</u>		<u>From</u>	<u>To</u>	<u>Footage</u>
46 W	Check Sample	0	14W	1400'
50 W	" "	0	14W	1400'
50 E	" "	0	8E	800'
54 W	" "	2W	32W	3200'
58 W	" "	2W	40W	3800'
62 W	" "	14W	40W	2600'
72 W	(True West Direc)	0	40W	4000'
76 W	" " "	0	40W	4000'
80 W	" " "	0	40W	4000'
			<u>Total</u>	<u>25,200'</u>

AMANDA-AMIE GROUP

<u>Line</u>		<u>From</u>	<u>To</u>	<u>Footage</u>
18 W	Check Sample	0	6W	600'
22 W	" "	0	10W	1000'
26 W	" "	2W	10W	800'

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

<u>Line</u>		<u>From</u>	<u>To</u>	<u>Footage</u>
46 E	Check Sample	0	10E	1000'
50 E	" "	4E	14E	1000'
54 E	" "	4E	16E	1200'
54 E	" "	28E	38E	1000'
54 W	" "	0	12W	1200'
58 E	" "	8E	18E	1000'
58 E	" "	24E	38E	1400'
58 W	" "	2W	10W	800'
62 E	" "	8E	14E	600'
62 W	" "	2W	10W	800'
66 E	" "	2	14E	1200'
66 W	" "	0	8W	800'
70 E	" "	0	14E	1400'
70 W	" "	0	14W	1400'
74 E	" "	8	14E	600'
		Total		17,800'

Geological mapping and magnetometer surveying is recommended at 200-foot intervals on the present survey control grid at 400-foot line spacings.

The work recommended should delimit diamond drill targets particularly in view of the strong results in zinc obtained so far.

1000 feet of Ax wireline diamond drilling is recommended to test any resultant geochemical and magnetic anomalies.

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

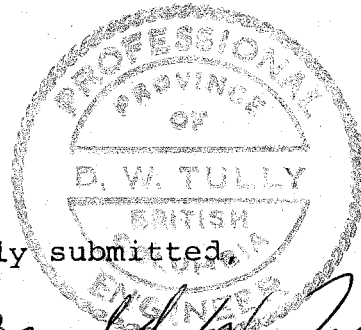
TELEPHONE (604) 926-3715

ESTIMATED COSTS

Line cutting (8½ line miles x \$100/mile).....	\$ 8,500
Check & profile geochemical soil samples (250 x \$4.00 ea.).....	1,000
Geological mapping.....	2,000
Magnetometer survey.....	2,000
Tractor trenching.....	5,000
Mobilization & demobilization.....	2,000
1000 feet Ax wireline diamond drilling @ \$8.50/ft..	8,500
Engineering and travel.....	2,500
	<hr/>
	31,500
Contingency at 15%	4,725
	<hr/>
Total Estimated Cost	\$36,225

Respectfully submitted,

Donald W. Tully, P. Eng.



September 27, 1971

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

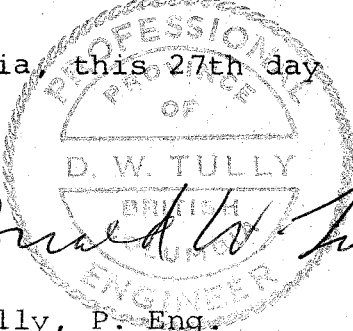
TELEPHONE (604) 926-3715

CERTIFICATE

I, Donald W. Tully, do hereby certify that:

1. I am a Consulting Geologist and with an office at 102-2222 Bellevue Avenue, West Vancouver, British Columbia.
2. I am a graduate of McGill University, 1943, with the Degree of Bachelor of Science.
3. I am a Registered Professional Engineer in the Province of British Columbia and Ontario.
4. I have practiced my profession for twenty-five years.
5. I have no direct, indirect or contingent interest in the shares of Diana Explorations Ltd (N.P.L.) of the claims of Diana Explorations Ltd (N.P.L.) nor do I intend to receive any interest.
6. This report dated September 27, 1971, is based on a personal examination in the field on August 20, 1971 and of the work performed by P. Connell, Uno Leis and Alfred I.L. Hicks of Strato Geological Ltd at 37-615 West Hastings Street, Vancouver, B.C. during the period July 14 through August 22, 1971.

DATED at West Vancouver, British Columbia, this 27th day of September, 1971


Donald W. Tully
Donald W. Tully, P. Eng.
Consulting Geologist

D. I. T. HOLDINGS LTD.

SUITE 102,
2222 BELLEVUE AVENUE,
WEST VANCOUVER, B. C.

TELEPHONE (604) 926-3715

APPENDIX A

Time - Cost Distribution
Geochemical Survey - Diana Explorations Ltd
Amanda-Amie and Paco Claims
Princeton, B.C.

<u>Personnel</u>	<u>Occupation</u>	<u>Date</u>	<u>Wage</u>
D.W. Tully	Geologist	Aug. 20-Sept. 27, 1971	\$ 445.77



ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-4-0	67	190	24	<.5
0-4-2E	11	140	8	<.5
4	11	150	11	<.5
6	14	33	3	<.5
8	13	170	6	<.5
10	13	130	7	<.5
12	12	100	9	<.5
14	9	100	12	<.5
16	15	110	17	<.5
18	10	39	7	<.5
20	12	61	5	<.5
22	13	100	7	<.5
24	14	180	16	<.5
26	29	250	8	<.5
28	14	150	4	<.5
30	9	88	7	<.5
32	10	110	6	<.5
34	13	90	9	<.5
36	8	100	12	<.5
38	8	65	8	<.5
40	10	95	8	<.5
42	17	33	7	<.5
44	30	65	9	<.5
45	19	65	6	<.5
0-8-0	31	330	27	<.5
2E	57	620	36	.9
4	14	520	43	<.5
6	12	100	16	<.5
8	7	200	13	<.5
10	15	180	15	<.5
12	11	98	10	<.5
14	14	120	9	<.5
16	13	130	14	<.5
18	13	140	14	<.5
20	16	100	10	<.5
22	17	61	7	<.5
24	11	140	9	<.5
26	12	140	6	<.5
28	18	170	5	<.5
30	12	100	2	<.5

DATE Sept. 24, 1971.

SIGNED [Signature]

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.

V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-8-32E	97	150	7	<.5
34	22	53	10	<.5
36	14	58	11	<.5
38	13	60	5	<.5
40	10	82	7	<.5
42	12	110	8	<.5
44	11	100	11	<.5
45	39	92	18	<.5
0-12-0	19	650	43	<.5
2E	8	150	8	<.5
4	4	75	10	<.5
6	5	150	6	<.5
8	35	240	19	<.5
10	40	350	14	<.5
12	25	490	65	<.5
14	7	150	9	<.5
16	30	120	15	<.5
18	25	69	9	<.5
20	14	51	12	<.5
22	11	66	8	<.5
24	11	65	6	<.5
26	9	150	6	<.5
28	13	210	11	<.5
30	16	100	14	<.5
32	13	140	5	<.5
34	14	98	3	<.5
36	14	68	7	<.5
38	13	52	6	<.5
40	11	21	5	<.5
42	9	35	10	<.5
44	8	93	3	<.5
45	11	180	9	<.5
0-16-0	20	400	19	<.5
2E	16	400	27	<.5
4	26	1000	11	<.5
6	21	390	19	.5
8	9	260	10	<.5
10	22	1100	34	<.5
12	17	330	11	<.5
14	55	380	49	<.5

DATE Sept. 24, 1971.

SIGNED [Signature]

ASSAYERS
 CHEMISTS
 GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
 STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
 V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-16-16E	27	290	22	<.5
18	15	93	7	<.5
20	18	160	10	<.5
22	15	67	9	<.5
24	11	93	6	<.5
26	12	63	9	<.5
28	21	79	9	<.5
30	17	140	9	<.5
32	10	150	6	<.5
34	11	170	10	<.5
36	22	110	6	<.5
38	11	170	6	<.5
40	13	110	6	<.5
42	14	83	3	<.5
44	12	88	6	<.5
45	13	80	10	<.5
0-20-0	20	650	14	<.5
2E	112	1800	82	1.5
4	57	920	290	4.5
6	154	310	25	<.5
8	17	480	23	<.5
10	38	390	18	<.5
12	54	220	15	<.5
14	68	320	23	.6
16	14	240	8	<.5
18	22	420	26	<.5
20	12	120	12	<.5
22	14	95	8	<.5
24	12	102	13	<.5
26	11	130	12	<.5
28	16	110	6	<.5
30	14	98	12	<.5
32	39	200	7	<.5
34	22	160	8	<.5
36	10	89	3	<.5
38	16	87	3	<.5
40	16	57	4	<.5
42	15	58	9	<.5
44	12	59	8	<.5
45	8	78	4	<.5

DATE Sept. 24, 1971.

SIGNED [Signature]

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.

V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-24-0	8	270	13	<.5
2E	40	630	37	<.5
4	61 ✓	370	48	<.5
6	40	740	36	<.5
8	49	610	36	<.5
10	140 ✓	420	49	.6
12	28	350	76	.8
14	50 ✓	300	23	<.5
16	66 ✓	240	14	<.5
18	24	350	18	<.5
20	25	220	15	<.5
22	10	150	8	<.5
24	17	310	10	.5
26	18	170	10	<.5
28	12	100	8	<.5
30	12	360	13	<.5
32	16	150	8	<.5
34	16	150	6	<.5
36	12	54	3	<.5
38	11	57	2	<.5
40	14	50	3	<.5
42	19	42	5	<.5
44	29	54	8	<.5
45	30	43	6	<.5
0-28-0	33	220	17	<.5
2E	135 ✓	1100 ✓	75	1.5 ✓
4	53 ✓	500 ✓	68	1.5 ✓
6	51 ✓	340	37	<.5
8	50 ✓	390	32	<.5
10	68 ✓	480 ✓	37	.6
12	26	350	23	<.5
14	24	190	13	<.5
16	60 ✓	390	21	<.5
18	61 ✓	300	13	<.5
20	39	310	13	.9
22	55 ✓	290	19	<.5
24	17	230	10	<.5
26	19	240	11	<.5
28	14	97	6	.5
30	17	83	5	<.5

DATE Sept. 24, 1971.

SIGNED *R. G. [Signature]*

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.

V 10721

SAMPLE(S) OF
SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-28-32E	12	65	7	<.5
34	12	71	7	<.5
36	13	80	7	<.5
38	13	45	6	<.5
40	19	51	7	<.5
42	19	53	10	<.5
44	14	45	9	<.5
45	13	36	4	<.5
0-32-2E	22	430	31	<.5
4	14	180	15	<.5
6	23	160	20	<.5
8	8	95	14	<.5
10	44	230	24	<.5
12	19	240	22	<.5
14	19	140	14	<.5
16	13	67	5	<.5
18	16	120	6	<.5
20	49	230	22	<.5
22	42	170	14	.6
24	23	110	11	<.5
26	12	100	7	<.5
28	12	75	8	<.5
32	11	22	6	<.5
38	8	39	4	<.5
40	13	41	2	<.5
42	13	47	3	<.5
44	25	12	6	<.5
45	20	41	5	<.5
0-36-0	12	78	6	<.5
2E	10	110	12	<.5
4	13	230	20	<.5
6	20	240	18	<.5
8	27	250	22	<.5
10	24	190	15	<.5
12	25	180	16	<.6
14	18	130	11	<.5
16	16	120	9	<.5
18	142	120	12	<.5
20	55	180	12	<.5
22	20	62	12	<.5

DATE Sept. 24, 1971

SIGNED [Signature]

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-36-24E	68 ✓	110	11	1.9 ✓
26	13	45	10	<.5
28	35	53	8	<.5
30	16	70	4	<.5
32	17	51	7	<.5
34	13	62	7	<.5
36	15	19	6	<.5
38	15	16	5	<.5
40	46	45	13	<.5
42	14	45	6	<.5
44	14	37	5	<.5
45	11	31	5	<.5
0-40-0	12	52	12	<.5
2E	43	260	17	<.5
4	25	310	35	<.5
6	28	130	10	<.5
8	21	180	14	<.5
10	26	150	16	<.5
12	19	180	11	<.5
14	12	85	5	<.5
16	21	100	8	<.5
18	79 ✓	170	15	<.5
20	26	120	12	<.5
22	18	78	10	<.5
24	15	43	6	<.5
26	7	45	3	<.5
28	14	45	6	<.5
30	21	38	8	<.5
32	15	62	5	<.5
34	15	30	8	<.5
36	6	22	2	<.5
38	10	42	2	<.5
40	14	39	3	<.5
42	12	46	4	<.5
44	20	38	5	<.5
45	13	33	6	<.5
0-44-0	4	260	37	<.5
2E	14	560 ✓	20	<.5
4	65 ✓	830 ✓	37	.5
8	14	240	34	<.5

DATE Sept. 24, 1971.

SIGNED [Signature]

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-44-10E	29	120	11	<.5
12	30	190	10	<.5
14	17	450	33	<.5
16	30	800	29	<.5
18	35	570	45	<.5
20	27	420	12	<.5
22	70	450	16	.8
24	24	200	19	.5
26	14	65	11	<.5
28	21	66	9	<.5
30	8	39	7	<.5
32	15	350	9	<.5
34	15	110	11	<.5
36	14	44	3	<.5
38	15	67	2	<.5
40	16	52	3	<.5
44	17	48	5	<.5
45	10	57	12	<.5
0-48-0	9	550	76	<.5
2E	10	630	30	<.5
4	6	220	20	<.5
6	195	500	59	.8
8	13	480	16	<.5
10	27	250	20	.8
12	27	440	25	.6
14	45	630	23	.5
16	18	670	24	<.5
18	39	300	44	.9
20	14	160	22	<.5
22	45	120	16	<.5
24	11	100	10	<.5
26	16	110	9	<.5
28	13	170	7	<.5
30	9	65	5	<.5
32	10	120	5	<.5
34	18	130	4	<.5
36	10	80	5	<.5
38	17	78	6	<.5
40	19	77	5	<.5
42	12	65	6	<.5

DATE Sept. 24, 1971.

SIGNED [Signature]

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.

V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-48-44E	15	50	2	<.5
45	15	39	5	<.5
0-52-0	10	210	29	<.5
2E	26	670 ✓	42	<.5
4	28	1000 ✓	21	<.5
6	29	490 ✓	18	<.5
8	41	610 ✓	58	<.5
10	18	200	13	<.5
12	41	530 ✓	22	1.8 ✓
14	11	230	24	<.5
16	28	250	29	.7
18	13	140	6	<.5
20	22	200	13	<.5
22	11	130	2	<.5
24	19	140	12	<.5
26	20	420 ✓	18	<.5
28	21	240	12	<.5
30	11	250	2	<.5
32	12	160	7	<.5
34	14	100	3	<.5
36	15	65	3	<.5
38	18	94	2	<.5
40	17	89	6	<.5
42	15	110	4	<.5
44	16	95	2	<.5
45	22	760 ✓	4	<.5
0-56-0	13	110	4	<.5
2E	10	760 ✓	18	<.5
4	10	460 ✓	23	<.5
6	26	650 ✓	34	.9
8	63 ✓	220	28	.5
10	15	400 ✓	24	<.5
12	12	140	9	<.5
14	13	350	10	<.5
16	22	460 ✓	46	<.5
18	14	200	13	<.5
20	12	200	18	<.5
22	13	220	6	<.5
24	11	210	14	<.5
26	18	200	11	<.5

DATE Sept. 24, 1971.

SIGNED *[Signature]*

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-56-28E	16	160	9	<.5
30	11	120	3	<.5
32	13	80	2	<.5
34	14	74	4	<.5
36	16	59	3	<.5
38	13	61	3	<.5
40	14	65	3	<.5
42	11	54	2	<.5
44	12	60	2	<.5
45	11	71	5	<.5
0-60-0	5	140	26	<.5
2	8	420 ✓	17	<.5
4	22	470 ✓	30	<.5
6	38	410 ✓	62	1.0
8	12	380	25	<.5
10	32	410 ✓	32	<.5
12	13	300	26	<.5
14	14	200	13	.5
16	9	160	16	<.5
18	9	220	29	<.5
20	9	200	31	<.5
22	9	120	14	.6
24	12	130	9	.6
26	12	150	14	<.5
28	16	170	14	<.5
30	16	180	10	<.5
32	29	180	15	.7
34	7	77	5	.5
36	12	52	5	<.5
38	13	50	1	<.5
40	7	33	3	<.5
42	8	37	2	<.5
44	21	52	5	<.5
45	10	50	4	<.5
0-64-0	7	270	24	<.5
2E	6	410 ✓	24	<.5
4	9	460 ✓	40	.5
6	9	490 ✓	25	<.5
8	7	340	17	.6
10	13	190	22	.5

DATE Sept. 21, 1971.

SIGNED [Signature]

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-61-12E	12	200	26	.6
14	12	230	18	<.5
16	8	260	20	.5
18	12	300	43	<.5
20	17	290	20	<.5
22	14	270	13	<.5
24	10	220	30	<.5
26	13	300	25	<.5
28	16	210	15	<.5
30	12	120	12	<.5
32	9	60	8	<.5
34	18	63	6	<.5
36	15	47	4	<.5
38	17	65	10	<.5
40	14	57	6	<.5
42	12	63	6	<.5
44	14	50	6	<.5
45	16	58	9	<.5
0-68-0	33	550	39	1.2
2E	8	670 ✓	34	<.5
4	9	570 ✓	46	.6
6	43	1200 ✓	62	.6
8	14	470 ✓	23	<.5
10	17	540 ✓	26	.5
12	10	550 ✓	28	<.5
14	13	390	39	<.5
16	10	160	9	<.5
18	7	150	12	<.5
20	13	210	12	.5
22	12	170	18	<.5
24	8	110	24	<.5
26	12	190	56	<.5
28	14	95	8	.5
30	9	100	9	<.5
32	7	67	10	<.5
34	15	40	6	<.5
36	17	57	6	<.5
38	13	73	6	<.5
40	11	45	3	<.5
42	15	40	3	.5

DATE Sept. 24, 1971.

SIGNED [Signature]

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM

STRATO GEOLOGICAL

SAMPLE(S) OF SOILS

Certificate of Analysis

REPORT NO.
V 10721

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-68-11E	12	45	6	<.5
45	10	47	8	<.5
0-72-0	10	710	22	<.5
2E	12	730	26	.6
4	93	1400	36	2.5
6	10	530	20	.5
8	14	590	21	.6
10	10	380	19	.6
12	44	>3000	51	2.3
14	14	240	28	<.5
16	10	110	10	<.5
18	12	280	19	<.5
20	13	150	22	<.5
22	8	110	14	<.5
24	11	150	12	<.5
26	21	85	10	.5
28	20	90	11	.5
30	16	110	10	<.5
32	8	95	10	<.5
34	10	60	6	<.5
36	45	72	8	<.5
38	11	49	9	<.5
40	9	38	9	<.5
42	12	58	4	<.5
44	16	64	10	<.5
45	12	47	5	<.5
0-76-0	19	510	32	1.2
2E	15	580	27	.6
4	9	270	36	.5
6	9	360	20	<.5
8	9	150	12	<.5
10	16	240	14	<.5
12	10	250	30	<.5
14	8	85	15	<.5
16	10	110	13	<.5
18	9	130	13	<.5
20	22	150	12	<.5
22	16	85	5	<.5
24	12	70	16	.5
26	85	190	22	.8

DATE Sept. 21, 1971.

SIGNED [Signature]

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.

V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-76-28E	13	89	7	<.5
30	17	77	12	.5
32	13	88	11	<.5
34	34	170	8	.5
36	14	65	7	<.5
38	15	53	2	<.4
40	10	110	12	<.5
42	13	65	12	<.5
44	21	100	13	<.5
45	24	120	16	<.5
0-80-0	8	150	13	<.5
2E	8	230	13	<.5
4	14	90	14	<.5
6	11	67	11	<.5
8	5	47	10	<.5
10	8	95	6	<.5
12	10	130	10	.5
14	22	110	13	<.5
16	10	58	15	<.5
18	9	57	13	<.5
20	9	57	7	<.5
22	15	75	10	<.5
24	16	130	11	<.5
26	10	110	11	<.5
28	14	150	22	<.5
30	13	120	12	<.5
32	10	100	10	<.5
34	12	150	8	<.5
36	13	95	10	.5
38	16	140	11	<.5
40	8	54	3	<.5
42	45	150	10	.9
44	14	75	9	<.5
45	37	67	8	.8
0-84-0	9	100	13	<.5
2E	7	180	12	<.5
4	8	210	16	<.5
6	11	110	17	<.5
8	5	85	12	<.5
10	11	170	30	.5

DATE

Sept. 24, 1971.

SIGNED

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF
SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-84-12E	29	160	16	<.5
14	18	110	12	<.5
16	6	75	13	<.5
18	13	100	16	.5
20	16	170	18	<.5
22	11	190	21	<.5
24	12	190	21	<.5
26	11	110	3	<.5
28	11	120	18	<.5
30	10	110	13	<.5
32	10	150	9	<.5
34	11	120	10	<.5
36	11	200	20	<.5
38	16	150	13	<.5
40	34	180	11	.8
42	15	75	4	<.5
44	11	52	9	<.5
45	11	40	4	<.5
0-4-2W	21	68	7	<.5
4	51	150	12	<.5
6	64	360	72	1.2
8	42	350	122	.6
10	13	78	16	<.5
12	9	40	3	<.5
14	16	43	8	<.5
15	12	37	7	<.5
0-8-2W	14	95	5	<.5
4	10	150	10	<.5
6	58	320	89	.8
8	16	37	11	<.5
10	11	30	5	<.5
12	12	30	6	<.5
14	12	35	5	.6
15	11	35	4	<.5
0-12-2W	12	100	5	<.5
4	30	800	40	.7
6	10	240	31	<.5
8	18	45	19	<.5
10	7	100	2	<.5
12	11	69	7	<.5

DATE Sept. 24, 1971

SIGNED [Signature]

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF
SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-12-14W	9	33	2	<.5
15	14	37	3	.5
0-16-2W	17	150	14	.5
4	32	470	50	.5
6	16	210	14	.5
8	17	180	17	.6
10	15	130	5	<.5
12	16	60	6	<.5
14	13	91	9	<.5
15	17	95	15	<.5
0-20-2W	14	220	19	<.5
4	11	410	28	<.5
6	25	610	32	.5
8	11	300	28	.5
10	14	68	6	<.5
12	12	37	6	<.5
14	21	150	28	.5
15	13	60	15	<.5
0-20-24W	24	230	16	.6
0-21-2W	15	150	10	<.5
4	14	90	2	.5
6	7	73	5	<.5
8	18	270	30	.5
10	7	320	41	<.5
12	17	59	6	<.5
14	14	47	6	<.5
15	16	140	10	<.5
0-28-2W	30	250	21	1.0
4	21	190	6	.5
6	8	45	9	<.5
8	15	56	13	<.5
10	12	50	12	.55
12	17	100	10	<.5
14	19	48	19	.5
15	15	55	1	.5
0-32-2W	35	210	6	.6
4	10	120	11	.5
6	14	130	2	<.5
8	8	120	7	<.5
10	20	47	12	<.5
12	10	60	8	<.5
14	9	49	4	<.5

DATE Sept. 24, 1971.

SIGNED R. H. Douglas

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM

STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.

V 10721

SAMPLE(S) OF

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-32-15W	13	80	6	<.5
0-36-2W	12	50	2	<.5
4	11	68	4	<.5
6	7	63	4	<.5
8	15	48	7	<.5
10	9	65	2	<.5
12	15	53	6	<.5
14	16	62	10	.5
15	14	60	2	.6
0-40-2W	9	45	4	<.5
4	10	57	4	<.5
6	13	48	6	.5
8	16	77	4	<.5
10	10	72	7	.6
12	10	100	8	<.5
14	24	110	9	.5
15	17	95	7	<.5
0-44-2W	5	200	10	<.5
4	5	330	103	<.5
6	7	670 ✓	130 ✓	.5
8	13	810 ✓	210 ✓	.7
10	11	220	46	<.5
12	7	230	14	.6
14	13	300	39	<.5
15	12	240	22	<.5
0-48-0	72 ✓	600 ✓	325 ✓	2.5
0-48-2W	59 ✓	390 ✓	440 ✓	.9
4	13	680 ✓	138 ✓	.7
6	13	890 ✓	180 ✓	<.5
8	6	730 ✓	30	.6
10	5	440 ✓	47	.5
12	8	410 ✓	85	1.1
14	8	390	77	.7
15	13	320	65	.5
16	15	280	64	.7
18	32	620 ✓	45	.5
20	21	150	12	.7
22	23	270	17	<.5
24	19	130	6	.5
26	14	240	19	<.5

DATE Sept. 24, 1971.

SIGNED [Signature]

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-48-28W	11	300	45	<.5
30	16	320	109 ✓	1.1 ✓
32	10	490 ✓	90	1.4 ✓
34	10	720 ✓	70	.9
36	16	770 ✓	65	1.4 ✓
37	10	740 ✓	36	.7
0-52-2W	12	320	60	.6
4	10	600 ✓	49	.8
6	32	1200 ✓	560 ✓	1.4 ✓
10	8	480 ✓	175 ✓	1.1 ✓
8	15	610 ✓	160 ✓	<.5
12	8	440 ✓	37	<.5
14	5	500 ✓	52	.5
15	12	680 ✓	66	.9
16	10	380	51	.8
18	12	320	30	<.5
20	16	500 ✓	49	.5
22	12	120	17	<.5
24	20	240	12	<.5
26	32	240	96	.7
28	24	220	206 ✓	.7
30	14	600 ✓	73	1.1 ✓
32	8	640 ✓	55	.8
34	11	880 ✓	64	.5
36	14	1000 ✓	68	.5
37	9	1000 ✓	90	.5
0-56-2W	7	390	18	<.5
4	9	190	22	<.5
6	17	300	185 ✓	.8
8	8	440 ✓	134 ✓	.5
10	12	820 ✓	330 ✓	1.4 ✓
12	9	890 ✓	269 ✓	.7
14	7	690 ✓	50	<.5
15	10	460 ✓	42	<.5
16	150 ✓	1000 ✓	166 ✓	4.3 ✓
18	9	65	3	.5
20	8	110	2	<.5
22	50 ✓	240	199 ✓	3.8 ✓
24	26	580 ✓	85	.6
26	13	640 ✓	304 ✓	1.4 ✓

DATE Sept. 24, 1971

SIGNED [Signature]

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.
V 10721

SAMPLE(S) OF
SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-56-28N	33	660 ✓	151 ✓	.8
30	16	1000 ✓	82	.9
32	12	710	93	.5
34	16	1300 ✓	80	1.0 ✓
36	11	530 ✓	40	.6
57	11	430 ✓	31	.5
0-60-2W	6	220	18	<.5
4	7	160	21	.5
6	6	160	14	.6
8	14	1000 ✓	46	.6
10	8	800 ✓	66	.5
12	10	630 ✓	53	.7
14	8	470 ✓	41	<.5
16	7	500 ✓	37	<.5
18	161 ✓	1300 ✓	1120 ✓	1.7
20	10	130	15	<.5
22	22	210	38	<.5
26	22	680 ✓	25	.9
28	30	550 ✓	189 ✓	1.2 ✓
30	15	410 ✓	15	<.5
32	10	520 ✓	17	.7
34	13	760 ✓	43	.7
3 6	18	170	23	.5
37	20	170	26	<.5
0-64-2W	7	200	19	<.5
4	8	520 ✓	22	<.5
6	12	260	28	.7
8	9	410 ✓	30	.5
10	6	520 ✓	28	.5
12	9	660 ✓	43	<.5
14	15	240	8	.6
15	12	190	8	<.5
0-68-2W	12	500 ✓	12	.6
4	63 ✓	1700 ✓	19	2.0 ✓
6	10	420 ✓	13	1.3 ✓
8	7	630 ✓	40	.6
10	10	730 ✓	47	1.5 ✓
12	10	1000 ✓	26	1.0 ✓
14	6	520 ✓	27	.5
15	9	200	26	<.5

DATE Sept. 24, 1971

SIGNED [Signature]

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

ASSAYERS
CHEMISTS
GEOCHEMISTS



CORE LABORATORIES - CANADA LTD.

325 Howe Street Vancouver 1, B.C. Phone 688-3504

SAMPLE(S) FROM
STRATO GEOLOGICAL

Certificate of Analysis

REPORT NO.

V 10721

SAMPLE(S) OF
SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-72-2W	9	260	11	.7
4	30	1100 ✓	18	1.2 ✓
6	9	580 ✓	44	<.5
8	10	480 ✓	35	.7
10	39	1600 ✓	52	2.3 ✓
12	10	800 ✓	28	<.5
14	9	310	25	<.5
15	5	330	16	<.5
0-76-2W	4	390	24	<.5
4	8	290	22	<.5
6	9	250	40	.9
8	8	480 ✓	50	<.5
10	7	430 ✓	10	<.5
12	12	790 ✓	29	.6
14	6	1300 ✓	184 ✓	.9
15	6	790 ✓	52	<.5
0-80-2W	7	160	7	<.5
4	12	250	16	1.0 ✓
6	6	240	22	.7
8	8	250	41	<.5
10	9	510 ✓	100 ✓	<.5
12	5	630 ✓	49	<.5
14	8	480 ✓	20	<.5
15	6	300	14	<.5
0-84-2W	8	210	10	.5
4	80 ✓	520 ✓	39	1.9 ✓
6	9	310	42	.6
10	13	250	36	.9
12	10	590 ✓	50	<.5
14	6	410 ✓	46	<.5
15	7	480 ✓	70	<.5

HOT PERCHLORIC ACID EXTRACTION
DETERMINED BY A.A.

DATE Sept. 24, 1971.

SIGNED *[Signature]*

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

GRID 2

CORE LABORATORIES-CANADA LTD.
Petroleum Reservoir Engineering

P.O. BOX 5670 POSTAL STATION A
CALGARY 9, ALBERTA
TELEPHONE 253 3391

STRATO GEOLOGICAL SERVICES

SOILS

V 10709

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
1-4-0	22	185	11	<.5
2	26	95	4	<.5
4	25	170	5	<.5
6	26	270	15	<.5
8	20	171	10	<.5
10	18	230	16	<.5
12	20	230	11	<.5
14	23	160	10	<.5
2-8-0	16	200	12	<.5
2W	10	114	12	<.5
4	16	150	18	<.5
6	17	180	14	<.5
8	71	390	46	<.5
10	15	310	27	<.5
12	25	280	18	<.5
14	22	260	20	<.5
2-12-2W	21	200	10	<.5
4	22	139	6	<.5
6-7	120	900	60	<.5
8	74	690	43	<.5
10	12	200	18	<.5
12	14	290	24	<.5
2-16-0	19	200	15	<.5
2W	18	330	24	<.5
4	16	240	28	<.5
6	20	180	16	<.5
8	24	210	15	<.5
10	20	310	15	<.5
12	17	260	12	<.5
2-20-2W	16	320	25	<.5
4	12	260	22	<.5
6	18	270	21	<.5
8	12	310	20	<.5
10	19	250	10	<.5
2-24-0	14	240	13	<.5
2W	16	210	15	<.5
4	16	260	16	<.5
6	11	210	13	<.5
8	10	210	16	<.5
10	16	270	22	<.5

DATE

Sept 20/64

SIGNED

[Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P. O. BOX 5670, POSTAL STATION "A"
CALGARY 9, ALBERTA
TELEPHONE: 253-3391

325 Howe Street, Vancouver 1, B.C.

STRATO GEOLOGICAL SERVICES

SOILS

V 10709

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-28-0	34	360	30	.8
2W	49	550	33	.9
4	17	290	20	.5
6	15	350	22	.5
8	13	290	16	<.5
10	14	280	18	.5
12	11	160	31	<.5
14	13	270	23	<.5
16	14	230	12	<.5
18	93	300	20	.7
20	17	200	10	<.5
22	19	170	20	<.5
24	16	230	17	<.5
26	15	170	28	<.5
28	20	140	30	<.5
30	13	270	31	<.5
32	14	180	23	<.5
34	15	350	27	<.5
36	16	160	13	<.5
38	23	280	31	<.5
40	12	120	17	<.5
42	15	200	34	<.5
2-32-0	12	340	18	<.5
2W	27	250	25	<.5
4	12	250	14	<.5
6	10	300	19	<.5
8	15	210	21	<.5
10	13	160	21	<.5
12	12	170	19	<.5
14	11	220	16	<.5
16	14	140	21	<.5
18	16	100	10	<.5
20	13	180	15	<.5
22	14	200	22	<.5
24	18	150	16	<.5
26	19	150	9	<.5
28	42	180	23	<.5
30	16	110	20	<.5
32	14	160	28	<.5
36	25	330	34	<.5
2-36-0	21	490	32	.7

DATE

SEPT 20/71

SIGNED

[Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P. O. BOX 5670, POSTAL STATION "A"
 CALGARY 9, ALBERTA
 TELEPHONE 253-3391

325 Howe Street, Vancouver 1, B.C.

STRATO GEOLOGICAL SERVICES

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-36-2W	14	250	22	<.5
4	22	350	24	<.5
6	11	300	22	<.5
8	27	310	27	<.5
10	26	270	18	<.5
12	19	200	23	<.5
14	13	250	17	<.5
16	14	170	19	<.5
18	16	180	19	<.5
20	14	160	11	<.5
22	16	180	20	<.5
24	20	110	13	<.5
26	29	100	14	<.5
28	15	290	19	<.5
30	17	210	15	<.5
32	18	210	18	<.5
34	19	230	18	<.5
36	36	330	45	<.5
38	114	510	63	<.5
40	30	310	43	<.5
2-40-0	22	440	49	<.5
2W	16	360	37	<.5
4	13	370	31	<.5
6	14	290	22	<.5
8	17	260	22	<.5
10	17	290	24	<.5
12	11	270	21	<.5
14	12	320	20	<.5
16	14	190	18	<.5
18	18	470	22	<.5
20	16	380	21	<.5
22	16	230	22	<.5
24	19	180	20	<.5
26	27	120	13	<.5
28	13	310	16	<.5
30	14	360	19	<.5
32	17	130	23	<.5
34	10	110	9	<.5
36	37	270	26	<.5
38	18	180	17	<.5

DATE SEPT 20/71

SIGNED [Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P.O. BOX 5670, POSTAL STATION "A"
 CALGARY 9, ALBERTA
 TELEPHONE: 253-3391

325 Howe Street, Vancouver 1, B.C.

STRATO GEOLOGICAL SERVICES

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-40-4.0M	14	310	34	<.5
2-44-0	14	470	43	<.5
2W	15	580	38	<.5
4	11	450	37	<.5
6	20	720	59	.5
8	19	280	30	<.5
10	12	300	17	<.5
12	11	400	39	.5
14	19	610	44	<.5
16	14	390	42	<.5
18	36	540	42	.7
20	12	260	27	<.5
22	7	200	28	<.5
24	13	460	20	<.5
26	17	350	22	<.5
28	15	320	23	<.5
30	19	420	29	.6
32	103	420	25	<.5
34	19	390	40	<.5
36	12	200	13	<.5
38	21	210	13	<.5
40	20	350	19	<.5
2-48-0	15	630	86	.6
2W	13	610	41	.5
4	17	660	35	.5
6	10	580	80	.5
8	21	550	57	.5
10	100	1600	86	<.5
12	10	320	30	<.5
14	14	300	40	<.5
16	12	270	33	<.5
20	19	320	41	<.5
22	15	220	25	<.5
26	10	430	28	<.5
28	12	290	20	<.5
30	17	280	29	<.5
32	17	380	20	<.5
34	12	>3000	20	<.5
36	16	530	30	<.5
38	12	220	31	<.5

DATE

SEPT 20/71

SIGNED

R. H. [Signature]

CORE LABORATORIES - CANADA LTD.
Petroleum Reservoir Engineering

P.O. BOX 5670, POSTAL STATION "A"
 CALGARY 9, ALBERTA
 TELEPHONE: 253-3391

STRATO GEOLOGICAL SERVICES LTD.

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-56-36W	17	180	21	<.5
38	27	480	21	<.5
40	22	190	22	<.5
2-60-0	23	400	29	<.5
2	29	440	35	<.5
4	19	400	30	<.5
6	18	290	23	.5
8	22	210	28	<.5
10	17	460	42	.7
12	20	390	45	<.5
14	52	940	76	.6
16	22	590	65	.5
18	58	590	49	.5
20	45	1220	42	<.5
22	20	490	45	<.5
24	85	870	56	<.5
26	66	740	66	<.5
28	13	220	26	<.5
30	34	430	51	<.5
32	27	540	55	<.5
34	25	670	53	<.5
36	34	520	72	<.5
38	32	450	50	<.5
40	52	330	29	<.5
2-64-2W	16	380	41	<.5
4	17	360	23	<.5
6	22	380	38	<.5
8	17	330	24	<.5
10	16	340	33	<.5
12	19	350	38	<.5
14	17	390	30	<.5
16	16	490	32	<.5
18	22	600	56	<.5
20	22	600	58	<.5
22	16	550	39	<.5
24	19	470	49	<.5
26	17	520	40	<.5
28	22	500	40	<.5
30	16	400	42	<.5
32	33	540	50	<.5

DATE

SEPT 20/71

SIGNED

[Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P.O. BOX 5670, POSTAL STATION "A"
CALGARY 9, ALBERTA
TELEPHONE: 253-3391

STRATO GEOLOGICAL SERVICES LTD.

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-64-34W	25	320	56	<.5
36	56	600	65	<.5
38	60	510	37	<.5
40	54	380	31	<.5
2-68-0	79	730	86	<.5
2W	116	940	86	<.5
4	16	590	28	<.5
6	20	490	45	<.5
8	17	370	30	<.5
10	13	390	36	<.5
12	12	210	24	<.5
14	13	270	22	<.5
16	14	260	27	<.5
18	18	370	21	<.5
20	18	510	41	<.5
22	16	500	42	<.5
24	20	380	52	<.5
26	27	490	58	<.5
28	27	440	34	<.5
30	17	340	31	<.5
32	14	210	35	<.5
34	18	320	41	<.5
36	13	300	26	<.5
38	39	620	46	<.5
40	21	430	36	<.5
2-72-0	22	340	27	<.5
2W	14	500	40	<.5
4	11	540	39	<.5
6	13	310	28	<.5
8	11	480	25	<.5
10	8	270	30	<.5
12	20	570	65	.6
14	12	430	23	<.5
16	18	400	32	<.5
18	12	360	21	<.5
20	11	320	24	<.5
22	18	440	33	<.5
24	14	330	20	<.5
26	12	300	17	<.5
28	17	430	23	<.5

DATE

SEPT 20/71

SIGNED

[Handwritten Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P.O. BOX 5670, POSTAL STATION "A"
CALGARY 9, ALBERTA
TELEPHONE: 253-3391

STRATO GEOLOGICAL SERVICES LTD.

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-72-30W	33	440	33 <	<.5
32	19	360	29	<.5
34	17	700	62	.5
36	15	190	14	<.5
38	30	440	68	.8
40	26	1020	81	.6
2-76-0	50	820	33	<.5
2W	22	520	31	<.5
4	20	690	49	<.5
6	16	390	41	<.5
8	11	480	35	<.5
10	10	430	18	<.5
12	10	370	24	<.5
14	24	790	31	<.5
16	16	330	46	<.5
18	12	650	43	<.5
20	12	550	47	<.5
22	13	420	45	<.5
24	19	400	43	<.5
26	19	260	33	<.5
28	200	1190	103	1.4
30	19	400	36	<.5
32	31	620	55	<.5
34	13	390	32	<.5
36	17	910	58	<.5
38	95	1060	560	<.5
40	20	430	46	<.5
2-80-0	23	870	100	<.5
2W	16	410	20	.5
4	18	330	43	<.5
6	20	390	25	<.5
8	10	500	21	<.5
10	7	300	23	<.5
12	10	430	21	<.5
14	8	360	6	<.5
16	8	330	19	<.5
18	11	540	39	<.5
20	10	520	28	<.5
22	13	460	39	<.5
24	15	350	43	<.5

DATE SEPT 20/71

SIGNED [Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P. O. BOX 5670, POSTAL STATION "A"
CALGARY 9, ALBERTA
TELEPHONE 253-3391

STRATO GEOLOGICAL SERVICES LTD.

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-80-26W	16	320	30	<.5
28	15	330	36	<.5
30	17	400	31	<.5
32	27	370	26	<.5
34	43	710	55	<.5
36	9	420	37	<.5
38	14	530	53	<.5
40	18	360	30	<.5
2-84-0	28	510	42	<.5
2W	12	310	31	<.5
4	61	700	35	<.5
6	27	520	23	<.5
8	9	330	15	<.5
10	17	480	39	<.5
12	15	230	16	<.5
14	51	410	30	<.5
16	10	310	15	<.5
18	10	560	25	<.5
20	10	380	17	<.5
22	22	530	55	<.5
24	7	600	49	<.5
26	10	310	36	<.5
28	9	410	33	<.5
30	9	260	27	<.5
32	14	230	29	<.5
34	27	550	81	<.5
36	8	680	58	<.5
38	12	350	20	<.5
40	19	600	66	<.5
2-0-0	18	120	7	<.5
2E	20	95	4	<.5
4	30	120	9	<.5
6	16	130	7	<.5
8	17	170	20	<.5
10	17	120	7	<.5
12	12	250	27	<.5
14	10	400	32	<.5
16	12	220	20	<.5
2-4-2E	14	110	9	<.5
4	26	130	8	<.5

date 5-12-77

SIGNED [Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P.O. BOX 5670, POSTAL STATION "A"
CALGARY 9, ALBERTA
TELEPHONE 253-3391

STRATO GEOLOGICAL SERVICES LTD.

SOILS

V 10709

Sample No.	Cu ppm	ZN ppm	Pb ppm	Ag ppm
2-4-6E	19	140	10	<.5
8	16	190	9	<.5
10	14	230	17	<.5
12	17	210	20	<.5
14	13	220	18	<.5
16	13	250	14	<.5
2-8-2	13	230	10	<.5
4	17	160	7	<.5
6	14	180	9	<.5
8	13	220	6	<.5
10	14	230	9	<.5
12	10	220	18	<.5
14	14	270	24	<.5
16	13	230	15	<.5
2-12-0	12	130	18	<.5
2E	15	210	5	<.5
4	14	200	14	<.5
6	17	290	26	<.5
8	12	190	20	<.5
10	10	210	27	<.5
12	8	170	26	<.5
14	12	220	32	<.5
16	7	140	18	<.5
18	8	230	20	<.5
2-16-2E	11	200	10	<.5
4	10	120	12	<.5
6	12	180	22	<.5
8	12	250	22	<.5
10	13	150	18	<.5
12	6	200	43	<.5
14	11	290	46	<.5
16	11	400	74	<.5
18	8	260	28	<.5
2-20-0	13	280	14	<.5
2E	12	320	19	<.5
4	14	220	20	<.5
6	15	260	23	<.5
8	15	300	26	<.5
10	13	200	26	<.5
12	10	270	36	<.5

DATE

SEPT 20/71

SIGNED

[Signature]

CORE LABORATORIES - CANADA LTD.
Petroleum Reservoir Engineering

P.O. BOX 5670, POSTAL STATION "A"
 CALGARY 9, ALBERTA
 TELEPHONE 253-3391

STRATO GEOLOGICAL SERVICES LTD.

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-20-14E	14	390	34	<.5
16	10	390	45	<.5
18	10	210	61	<.5
20	12	400	45	<.5
2-21-2E	12	280	14	<.5
4	13	310	19	<.5
6	11	330	26	<.5
8	39	440	42	<.5
10	10	280	26	<.5
12	9	170	29	<.5
14	16	400	62	<.5
16	11	330	33	<.5
18	13	330	53	<.5
20	8	570	31	<.5
2-28-2E	110	780	40	.6
4	15	320	14	<.5
6	9	340	21	<.5
8	12	400	37	<.5
10	12	310	29	<.5
12	7	210	20	<.5
14	15	320	42	<.5
16	13	480	50	<.5
2-32-2E	12	330	18	<.5
4	15	360	20	<.5
6	17	480	23	<.5
8	12	410	27	<.5
10	13	420	40	<.5
12	9	410	38	<.5
14	13	340	32	<.5
16	8	330	33	.5
18	7	270	29	<.5
0-36-2E	6	190	14	<.5
4	10	290	25	<.5
6	15	300	33	<.5
8	7	300	21	<.5
10	9	350	29	<.5
12	7	320	27	<.5
14	8	330	35	<.5
16	12	320	29	<.5
18	6	260	31	<.5

DATE

SEP 1 20/71

SIGNED

[Signature]

CORE LABORATORIES - CANADA LTD.
Petroleum Reservoir Engineering

P.O. BOX 5670, POSTAL STATION "A"
 CALGARY 9, ALBERTA
 TELEPHONE: 253-3391

STRATO GEOLOGICAL SERVICES LTD.

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
0-40-2E	72	740	330	1.2
4	13	390	45	<.5
6	16	350	37	<.5
8	9	310	18	<.5
10	20	360	26	<.5
12	12	180	28	<.5
14	12	250	29	<.5
16	4	260	13	<.5
0-44-2E	15	440	54	<.5
4	7	280	16	<.5
6	10	400	50	<.5
8	9	200	22	<.5
10	8	180	20	<.5
12	10	310	21	<.5
14	13	270	25	<.5
15	16	280	26	<.5
0-48-2E	15	530	55	<.5
4	17	420	58	.5
6	24	530	26	<.5
8	19	590	35	<.5
10	8	130	10	<.5
12	8	90	12	<.5
14	20	160	18	<.5
16	33	290	52	<.5
0-52-2E	68	1380	110	1.3
4	22	520	34	<.5
6	32	590	31	<.5
8	15	300	27	<.5
10	25	220	51	<.5
12	7	210	22	<.5
14	16	230	40	<.5
16	14	140	28	<.5
2-56-2E	16	380	34	<.5
4	31	470	31	<.5
6	17	210	19	<.5
8	20	290	33	<.5
10	33	210	51	<.5
12	27	590	40	<.5
14	28	180	26	<.5
15	13	120	24	<.5

DATE

SEPT 20/71

SIGNED

[Signature]

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

P. O. BOX 5670, POSTAL STATION "A"
CALGARY 9, ALBERTA
TELEPHONE: 253-3391

STRATO GEOLOGICAL SERVICES LTD.

V 10709

SOILS

Sample No.	Cu ppm	Zn ppm	Pb ppm	Ag ppm
2-80-2E	13	210	13	<.5
4	8	120	12	<.5
6	13	460	22	<.5
8	8	90	14	<.5
10	1	110	14	<.5
12	8	70	12	<.5
14	9	40	12	<.5
15	5	80	8	<.5
2-84-2E	8	120	11	<.5
4	6	130	18	<.5
6	30	330	67	<.5
8	8	130	15	<.5
10	5	70	13	<.5
12	8	110	14	<.5
14	6	90	12	<.5
15	6	80	11	<.5
111A	16	940	230	.9

HOT PERCHLORIC ACID EXTRACTION
DETERMINED BY A.A.

DATE

SEPT 20/71

SIGNED

[Signature]

CREST LABORATORIES (B.C.) LTD.

1068 HOMER STREET
VANCOUVER 3, B.C.
PHONE 688-2586

CREST LABORATORIES LTD.
7911 ARGYLL ROAD
EDMONTON 82, ALBERTA
PHONE 469-2391

CERTIFICATE OF ASSAY

TO Diana Explorations Ltd., (NPL)
207 West Hastings Street,
Vancouver, B.C.

Sept. 11, 1971

Lab No. 3237

I hereby certify THAT THE FOLLOWING ARE THE RESULTS OF ASSAYS MADE BY US UPON THE HEREIN DESCRIBED SAMPLES.

MARKED	GOLD		SILVER	COPPER	LEAD	ZINC	Percent	Percent	Percent	Percent	TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent					
PACO # 1			33.4	0.06	8.71	0.27					
PACO # 2			9.0	0.32	2.80	0.07					

NOTE:
Rejects Retained One Month
Pulps Retained Three Months
Unless Otherwise Arranged.

Gold calculated at \$ _____ per ounce

F. O. Burgess

Registered Assayer, Province of British Columbia

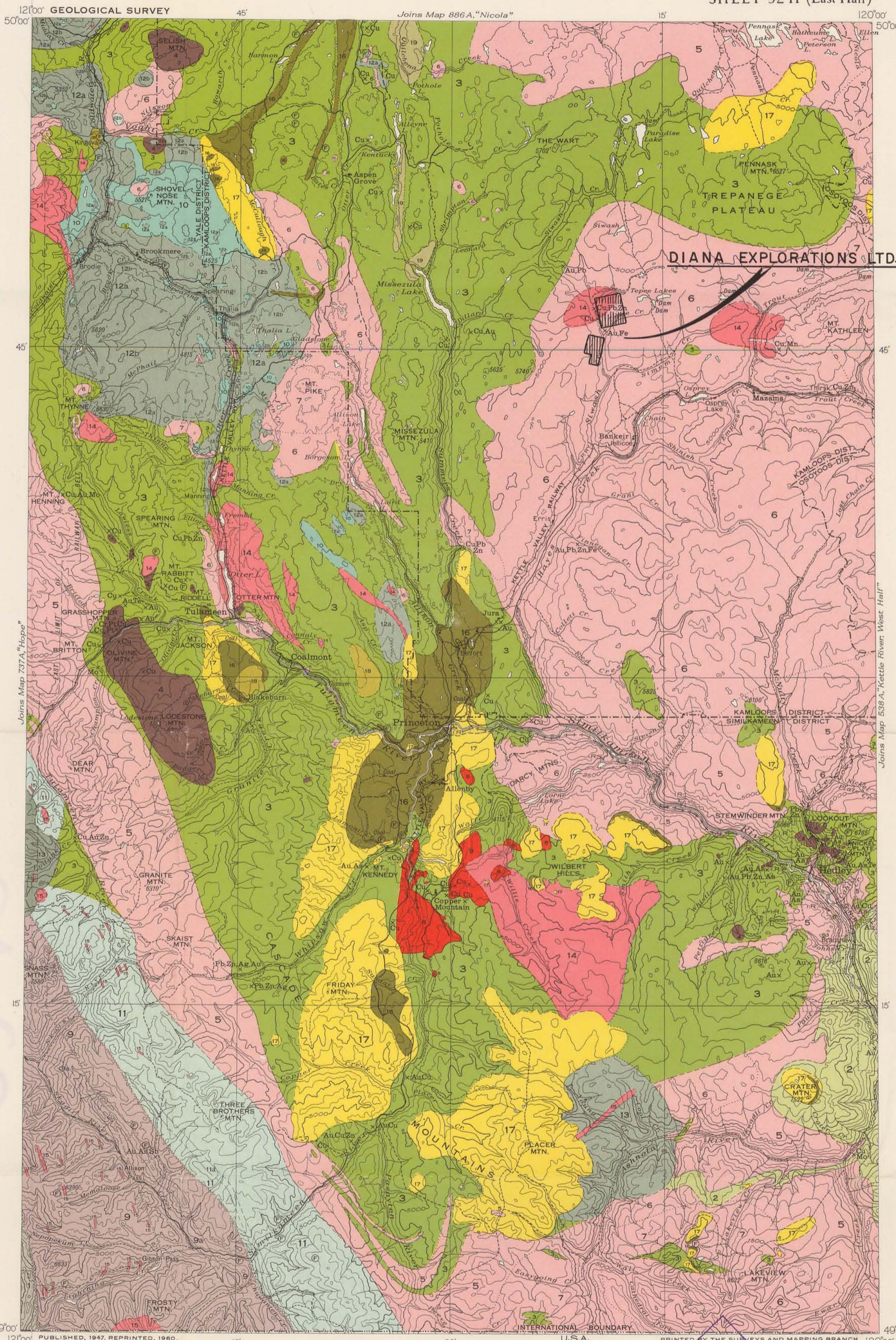
LEGEND

- CENOZOIC**
- TERTIARY**
- MIOCENE OR LATER**
- 19 Valley basalt: vesicular, varicoloured basalt
- 18 Plateau basalt: amygdaloidal, brown basalt
- MIOCENE OR EARLIER**
- PRINCETON GROUP**
- 16, 17 Mainly shale, sandstone, and conglomerate; coal
- 17 Varicoloured andesite and basalt
- CRETACEOUS OR TERTIARY**
- UPPER CRETACEOUS OR LATER**
- 14, 15 OTTER INTRUSIONS: pink and grey granite and granodiorite
- 15 LIGHTNING CREEK INTRUSIONS: grey quartz diorite
- CRETACEOUS**
- LOWER CRETACEOUS**
- KINGSVALE GROUP**
- 12a, mainly volcanic breccia; 12b, mainly andesite and basalt porphyry
- 13 Andesite and basalt porphyry and volcanic breccia
- PASAYTEN GROUP**
- 11a, mainly purple lava, tuff, and breccia
- 11b, mainly grit and shale
- SPENCE BRIDGE GROUP**
- 10 Hard, reddish andesite and basalt
- JURASSIC (?) AND CRETACEOUS**
- UPPER JURASSIC (?) AND LOWER CRETACEOUS**
- DEWDNEY CREEK GROUP**
- 9 Tuff, volcanic breccia, grit, argillite; 9a, mainly conglomerate
- JURASSIC OR LATER**
- 8 COPPER MOUNTAIN INTRUSIONS: syenogabbro, augite diorite, pegmatite
- 5, 6, 7 COAST INTRUSIONS: 5, grey, slightly gneissic granodiorite; 6, mainly reddish, coarse-grained, siliceous granite and granodiorite; 7, light coloured granodiorite, quartz diorite, and gabbro
- 4 Peridotite, pyroxenite, gabbro
- TRIASSIC**
- UPPER TRIASSIC**
- NICOLA GROUP**
- 3 Varicoloured lava; argillite, tuff, limestone; chlorite and sericite schist
- CARBONIFEROUS OR LATER**
- 2 BRADSHAW, INDEPENDENCE, SHOEMAKER, and OLD TOM FORMATIONS: cherty and slaty argillite, green andesite, limestone; quartz-mica schist and gneiss
- HOZAMEEN GROUP**
- 1 Chert, green andesite, limestone

Fault
Fossil locality
Mineral occurrence

- SYMBOLS FOR METALS**
- Silver.....Ag
Arsenic.....As
Gold.....Au
Cobalt.....Co
Chromium.....Cr
Copper.....Cu
Iron.....Fe
Manganese.....Mn
Molybdenum.....Mo
Lead.....Pb
Platinum.....Pt
Antimony.....Sb
Tellurium.....Te
Zinc.....Zn

Geology by H.M.A. Rice, 1939, 1941, 1944.
Approximate magnetic declination, 23° 15' East
For Mining Properties, see Map 889A, "Princeton"



DESCRIPTIVE NOTES

Most of the map-area lies in the Interior Plateaux, with its west and south boundaries in the Cascade Mountains. The plateau topography consists of relatively flat-topped hills and ridges, separated by deep and, in places, steep-walled valleys. The main drainage is along the east-west valley occupied by Tulameen and lower Similkameen Rivers, into which tributary streams flow from north and south. The area is heavily forested except at the northern boundary east from Aspen Grove and along lower Similkameen Valley, which are in open, sage-brush country typical of the "dry belt".

The Nicola group (3) is a large and varied assemblage consisting mainly of many-coloured volcanic rocks ranging from porphyritic and non-porphyritic dacite to basalt. Some types are similar to, and difficult to separate from, members of the Kingsvale group (12b), particularly in the northwest corner of the map-area and along Allison Creek north of Princeton, where, as a result, the identity of the two types is not wholly established. Interbedded with the lavas are belts and lenses of sedimentary and pyroclastic rocks. The largest of these, in the vicinity of Hedley, is host to the most important gold mines in the area. Most of the Nicola rocks are not strongly metamorphosed, but they are sheared into chlorite and sericite schists along a belt as much as 4 miles wide paralleling the east margin of the Eagle granodiorite body (5, in part).

The age of the Dewdney Creek group (9) and its relation to the Pasayten group (11) are not definitely established. Fossils of Lower Cretaceous age have been found in Dewdney Creek beds, but the group may be, in part, as old as Upper Jurassic. The two groups are in fault contact, and although the Pasayten is relatively younger it is not known whether or not it grades downward into Dewdney Creek strata. There is, however, a considerable difference in lithology between the groups, and no marine fossils have been found in the Pasayten.

The Spence Bridge group (10) has a very limited development in the area. Along Nicola River to the west it appears to underlie the Kingsvale group conformably, but in Princeton map-area there is evidence of an erosional unconformity between the two.

The Kingsvale (12) is a thick series of volcanic rocks, with discontinuous patches of greywacke, volcanic breccia, and conglomerate at the base. Fossil plants found near Kingsvale are considered to be of uppermost Lower Cretaceous age, and somewhat younger than those found in the Spence Bridge group near Spences Bridge. Two isolated bodies (13), one on Podunk Creek and one on Young Creek, are correlated with the Kingsvale on lithological grounds. They may, however, be correlative with the Spence Bridge, to some members of which they bear resemblance.

Tertiary sedimentary rocks (16) occur mainly in Princeton and Tulameen coal basins. They are overlain and underlain conformably by lavas (17) that elsewhere occupy considerable parts of the map-area. Together they form the Princeton group, which is correlative with much at least of the Kamloops group in the Nicola map-area to the north. Fossil plants are plentiful in the sedimentary measures, and their age is believed to be Lower Miocene. The group may, however, be in whole or in part somewhat older.

Flat-lying basalts are found along benches (18) and valleys (19). They are younger than the Princeton group, and the valley basalts are believed to be the youngest consolidated rocks in the map-area. Outcrops of the latter have been glaciated, but in Nicola map-area to the north they have been found overlying unconsolidated sediments, so that they may be of interglacial age.

The ultrabasic rocks (4) are believed to be the oldest intrusive bodies of any size in the map-area; they are, however, probably closely related to, and may be an early phase of, the Coast intrusions. The principal body, in the vicinity of Olivine Mountain, is composed of several distinct rock types, but it was not found possible to map these separately.

The Coast intrusions (5, 6, 7) are believed to represent a protracted and, in part, intermittent period of intrusion continuing possibly from Middle Jurassic to Upper Cretaceous time. Three types are recognized and have been mapped separately. In places they cut one another, but in other places the contacts appear to be gradational. All three types are characteristically acidic, with plenty of visible free quartz, and the composition of granodiorite or quartz diorite.

The age of the Copper Mountain intrusions (8) is uncertain. All that has been determined definitely is that they cut the Nicola group and are overlain by the Princeton group. Accordingly they may be either the older or the younger series of intrusive rocks, but differ markedly from both in the almost absence of free quartz.

The Otter intrusions (14) appear very different from the Coast intrusions. For the most part they resemble syenites, with a pink to liver colour, and with quartz, if visible, restricted to well formed phenocrysts. Actually they have the composition of granodiorite or granite, but the quartz of the groundmass is in microscopic intergrowths with feldspar and is rarely visible to the naked eye. Everywhere they, or feldspar porphyries abundantly associated with them, cut the Lower Cretaceous formations, but not the Princeton group, so that their age is either Upper Cretaceous or early Tertiary.

The Lightning Creek intrusions (15) are also younger than the Lower Cretaceous rocks, and although they resemble certain phases of the Otter intrusions they are less clearly distinguishable from the Coast intrusions. Except for the Castle Peak stock on the south edge of the map-area most of the Lightning Creek intrusions are in the form of dykes and sills many of which carry needle-like amphibole crystals.

Rocks of the Nicola group and older formations have been folded into tight, north- to northeast-trending anticlines and synclines. The Cretaceous rocks in the southwest have a similar trend, but to the northwest they show open folds and strike easterly. From the vicinity of Princeton a spray of three or more faults radiates to the north, but could not be traced to the south. Another series of large faults, with a northwest trend, crosses the southwest corner of the area, and several small but economically important faults have been recognized in the vicinity of Hedley. The faults seem to have originated before the Coast intrusions were emplaced, but later movements along them have fractured these intrusive rocks and even members of the much younger Otter group. No evidence, however, is available to indicate that the faults have affected the known Tertiary formations.

The area first became important when, in the early 'sixties, gold and platinum placer deposits were discovered along Tulameen and Similkameen Rivers and their tributaries. In later years placer mining has dwindled in importance with the exhaustion of the easily discoverable deposits.

Gold ore is being mined at Hedley. The orebodies are chiefly deposits of arsenopyrite and lesser amounts of other sulphides occurring in beds of highly altered limestone. The principal ore deposits are those being mined by Kelowna Exploration Company, Limited, and Hedley Mascot Gold Mines, Limited.

Bornite-chalcocopyrite deposits occur mainly at four localities. The most important is Copper Mountain, where many orebodies are known and some are being actively mined by the Granby Consolidated Mining, Smelting and Power Company. Copper deposits also occur within a belt running south from the edge of the map-area, north of Aspen Grove, to the foot of Missequela Lake, in a group of prospects at Law's camp, north of Grasshopper Mountain; and at the Independence mine, close to the edge of the map-area north of Mount Henning, where molybdenite is also an important constituent. Bornite and chalcocopyrite are the principal ore minerals, although chalcocite ore was mined at one prospect near Missequela Lake. Pyrite and, much more rarely, galena and sphalerite occur in some of the deposits. The sulphides replace Nicola volcanic rocks in zones of considerable shearing and alteration. Quartz is not prominent as a gangue mineral. At Copper Mountain the ore is believed to be related to the Copper Mountain stock, a composite intrusion ranging from gabbro to syenite. The source of the ore at Aspen Grove is not so clearly indicated. It is perhaps significant that the Copper Mountain camp lies near the point of convergence of a radiating group of faults, and that the Aspen Grove camp is situated along the line of two northerly branches of this group.

Gold-telluride deposits have been found on Grasshopper Mountain; the two principal occurrences consist of brecciated zones in sheared Nicola rocks partly occupied by quartz and irregularly mineralized with small amounts of chalcocopyrite and pyrite. Native gold and gold telluride have provided high but erratic assays.

Lead-zinc deposits have been found on Similkameen River and Whipsaw Creek near the northeastern edge of the Eagle granodiorite. They occur as quartz veins carrying galena, sphalerite, pyrite, and minor amounts of other sulphides in the belt of highly sheared Nicola rocks that borders this granodiorite. Galena and sphalerite also occur in sheared Nicola volcanic rocks west of Otter Lake.

Lead-zinc deposits occur in a series of parallel shear zones in or close to the small stock of Otter granitic on Siwash Creek.

The principal non-metallic deposits in the area are the coal seams in Tertiary sedimentary rocks of the Princeton group, particularly those in the Tulameen and Princeton basins. The name of Vermilion Forks, by which the settlement of Princeton was originally known, was given in reference to a small but conspicuous deposit of ochre that occurs in the same rocks near the railway about 2 miles west of Princeton. Beds of bentonite are also found in these Tertiary rocks near Princeton.



MAP 888A
PRINCETON
VALE, KAMLOOPS, SIMILKAMEEN,
AND OSOYOOS DISTRICTS
BRITISH COLUMBIA
Scale, 253440 or 1 Inch to 4 Miles
Miles

COPIES OF THIS MAP MAY BE OBTAINED FROM THE
DIRECTOR, GEOLOGICAL SURVEY OF CANADA, OTTAWA

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3282 Map #3

LEGEND
Road, not well travelled
Road, well travelled
Trail
Stream
Post Office
Land District boundary
Lumber Railway belt
Indian Reserve boundary
Stream (flow disappearing in places)
Contours (interval 500 feet)
Height in feet above mean sea-level

3282
M-3

Base-map compiled by the Topographical Survey,
1937, from information supplied by the British
Columbia Department of Lands. Cartography by
the Drafting and Reproducing Division, 1946.



3282 M.4

Proposed work program outlined on pages 14-15 of report

FIGURE 4

PROFESSIONAL PROVINCE OF D. W. TULLY BRITISH COLUMBIA ENGINEER

DIANA EXPLORATION LTD.
 SLASH CREEK, PRINCETON AREA

AMANDA CLAIM GROUP
 PRELIMINARY GEOCHEMICAL PLAN

SCALE: 1" = 500' (Approx) DONALD W. TULLY, P. Eng. DECEMBER, 1970

Department of
 Mineral and Petroleum Resources
 REGISTRATION REPORT
 NO. 3282 MAP