

4484

AQUITAINE COMPANY OF CANADA LTD.

Geological and Geochemical Survey

RUST Claims

Redfern Lake Area, B.C.

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4484	MAP

H. Salat
Calgary, Alberta
July 10, 1973

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INTRODUCTION

1. General

An agreement was reached between Tyee Lake Resources Ltd., Mountain Pass Company, Sheba Copper Mines Ltd. (the owners of the RUST claims), and Aquitaine Company of Canada Ltd. for the latter to perform exploratory work in order to gain an interest in the said claims.

The RUST claims are located north of Redfern Lake, B.C., between Keily Creek and Richards Creek, tributaries of Besa River, and their co-ordinates are approximately $57^{\circ} 30' N$ and $123^{\circ} 53' W$ (re: fig. 1). The 114 claims, consisting of RUST 1-112 inclusive, RUST 117 and RUST 118, adjoin to form a single group.

2. Geography

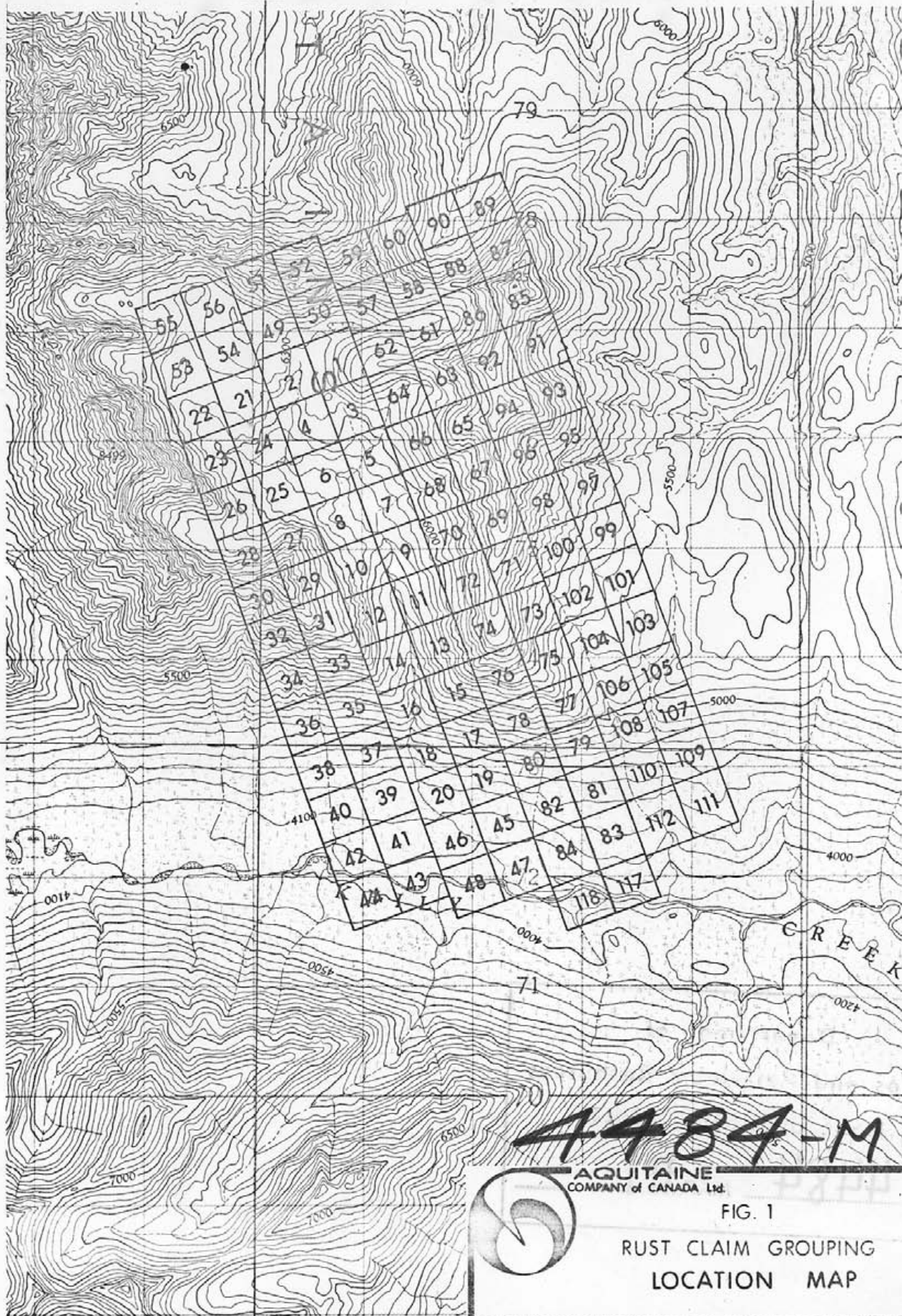
The topography is very steep consisting of high ridges of limestone reaching a height of 7,925 feet. The slopes, sheer cliffs and scree, are barren of any vegetation. The lower slopes are flatter and covered with alpine vegetation composed of Rhododendron, Vaccinum, lichens and moss. To the south, the general topography slopes down toward Keily Creek which flows along an ancient glacier valley; the steep flank of the valley is covered by a relatively light forest of stunted spruce, fir and aspen trees.

The beginning of June to the end of September is normally the snow-free period. However, in the northern portion of the

123°55'

123°50'

57°30'



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AQUITAINE
COMPANY of CANADA Ltd.

FIG. 1

RUST CLAIM GROUPING
LOCATION MAP

DATE	JULY 10, 1973	SCALE	1 : 50 000
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To accompany report: GEOLOGICAL & GEOCHEMICAL SURVEY
 RUST Claims
 Redfern Lake Area, B.C.
 July 10, 1973 - H. SALAT

property, packed snow was still present and hampered any type of geological reconnaissance.

3. Access

The property is situated approximately 50 miles directly west of Mile 162 on the Alaska Highway. There is no access apart from some meandering pack-horse trails, and the only means of approach is by air. As the area is void of lakes or flat ground, a helicopter is absolutely essential for travel there and to move from one valley to the next.

GEOLOGY

No previous work has ever been done in this area and the general geological map of the Trutch area (94G) by D. F. Stott (Map 12-1963) does not differentiate between the Paleozoic strata. The only information provided is by Taylor and Mackenzie in their paper (GSC Bulletin 186) "Devonian Stratigraphy of Northeastern British Columbia". Actually, they give a very approximate outline of the zones where the different Devonian stages outcrop.

All geological work had to be done and the property explored for the location of any mineralization. Fortunately, the high relief existing on the property provides enough outcrop to map the whole area accurately.

1. Stratigraphy

The nomenclature of the formations being based upon available reports dealing with the stratigraphy of northeastern

British Columbia, i.e. Taylor and Mackenzie (1969) and Tkatchyk (1966), the geological succession can be set out as follows:

a) Silurian (Nonda?)

This starts with a thick series of dark brown dolomitic limestone containing many oncholites, generally well graded-bedded. The size of these oncholites varies from one inch to one tenth of an inch; often, the top of a sequence is clean if oncholites are not present.

Some facies variations were noted where there is only dark grey, microcrystalline dolomite with some pyrite and tiny brown spots (algae?). The weathering helps to give a very rugged "cellular" surface, probably caused by irregular silicification. Locally, silicified zones are laminated and the dolomites therefore show apparent strong layering.

The upper unit is characterized by a well-marked bar of white quartzite and quartzitic sandstone, reaching a thickness of 100 feet. Quartzite shows up very clearly in the surroundings in the good green tint caused by lichens.

b) Muncho-McConnell Formation (Lower Devonian)

Above quartzite there is a thick dolomite, well-recrystallized, and containing some rare fossils (crinoids, Halysites). Some intercalations of lithographic, azoic dolomite are present.

The dolomite then becomes sandy and the Quartz grain content increases until it grades into a real sandstone bed. This gradation can be repeated. The sandy layers, always dark grey, have been weathered out into prominent laminae, contrasting the featureless underlying dolomite. The sandstone beds evolve from a dirty sand into a well-classified unit.

Thick layers of dark grey "scoria" dolomite overlie the sandy dolomite and are easily recognizable by the irregular white "lenses" on a dark background. Frequently, an interlayer of dark, rusty, fetid dolomite can be found.

The Muncho-McConnell is topped by a very interesting reefal limestone, a "bioherm", extremely rich in lamellar organisms (Stromatopora, algae) as well as other fossils. Their structure is difficult to determine as they are completely silicified. The dark limy matrix is also partially silicified which make the surface very rugged and sharply cut.

c) Wokkash Formation (Upper Lower Devonian)

This unit would exist only locally and has been found along the southern ridge and the promontory dividing the central glacial cirque. It would include a layer of quartzite then sandstone, intercalated with beds of "bird's eye" limestone. The reduced thickness of these beds and their erratic nature compel them to be grouped into the Muncho-McConnell.

d) Stone Formation (Lower Middle Devonian)

This unit is not only well-characterized by its light grey to beige colour when freshly broken, but also by the constant presence of dolomite. A typical section could be described as follows:

- at the base, a cryptocrystalline (lithographic), beige to greenish dolomite, interbedded with cherty dolomite layers.

- then, sandy dolomite becomes more and more prevalent with their typically rounded sand grains (eolian origin).

- a layer of brecciated sandy dolomitic limestone, cryptocrystalline, light grey, gradually changing into a graded microbreccia.

- above a bed of lithographic limestone, we again find sandy dolomite, locally so rich in quartz grain that it changes into a sandstone unit. This member is very thick and displays many emersion features such as "bird's eye" or "laminoid fenestrae", also, compaction laminae and gypsum casts.

- the top of the Stone Formation is indicated by a series of large sedimentary breccia with intraformational angular elements. The contact with the overlying formation is locally underlined by barite mineralization.

The features found within the Stone Formation such

as "bird's eye", gypsum cast and many ripple marks and flute casts are indicative of a supra-tidal deposition environment, or one above constant emersion since this facies remains azoic. However, the general porosity and permeability of most sandy units appears to be excellent and can be considered as having good reservoir properties.

e) Dunedin Formation (Upper Middle Devonian)

Its presence is reduced to the outcrops on the southeastern corner of the claim group and consists mainly of grey to dark grey, microcrystalline limestone, generally fetid when freshly broken.

Bedding is not well-marked and some rare brachiopods and crinoids speckle the rocks. A few layers have an enriched fauna consisting of brachiopods (Stringocephalus) and corals (Amphipora, Stromatopora, Thammopora). As we approach the top of the formation, the dolomite tends to become silicified until it forms real chert beds. At the same time, more layers are richer in carbon (bitumen) and clay, and display slaty bedding. The Dunedin Formation transcends to the Besa River Shales.

In this area, north of the known Redfern Lake reefal facies, a back-reef lagoon deposit is seen at the end of the reefal cycle. Immersion and a clayish environment were already influential at that period.

f) Besa River Shale Formation (Upper Devonian to Mississippian)

Contact with the underlying Dunedin Formation is

gradual. At the bottom, very dark grey limestone beds, 10 to 20 inches thick, alternate with black, rusty shales. The limestone beds still contain some amphipora and thammopora in particular.

The formation then becomes more shaly, bituminous and pyritic. Several horizons were found containing great amounts of marcassite nodules and pouch-like gypsum casts.

The shales are very unreliable and flowed under the stress of mountain building. They served as a lubricant and allowed the eastward movement of thrust plates. Consequently, it is rather impossible to establish any sort of stratigraphic succession within the formation.

2. Structural Geology

After the stratigraphy of the area was sorted out (re: fig. 2), the different structural units were more easily recognized. The first main tectonic structure in the claim area consisted of an abnormal contact--a thrust fault-- which resulted in a huge pile of Stone Formation, slightly overturned, right above the Besa River Shale to the east and on top of the Dunedin Formation to the southeast.

A major fault, running straight north-south, constitutes the second major feature. It is well-marked by an alignment of tectonic breccia filled with barite. It repeats the stratigraphic series and is offset approximately 500 feet.

The general thrust was oriented eastward and most folds have a vertical or overturned eastern limb, while the western

flanks show near horizontal beds. Fold axes are generally north-south, dipping to the south.

3. Mineralization

Some blebs of galena were reported by Dolmage and Campbell, consulting agents from Vancouver, to occur in the northern part of the claim group. They were located in vuggy, medium-grey dolomite which outcrops on the east-west ridge, just south of Richards Creek. However, packed snow in the valley and draws, as well as strong winds and storms, kept us from exploring the area further.

Nevertheless, stream sediments sampling and soil sampling led us to another mineralized zone, located in the southeastern corner of the claims. Some galena and minor sphalerite were encountered in a cherty horizon, strongly folded and contorted at the top of the Dunedin Formation where it transcends with the Besa River Shales. The mineralized zone is rather thin (up to 5 inches) and can be traced over a distance of one mile.

GEOCHEMISTRY

Geochemical prospecting was done in two stages: a stream sediment sampling to rapidly determine more favourable areas and then soil sampling over selected ground. To appraise the relative values of samples, a small field laboratory was installed and a chemist analysed samples using the Bloom and Holman tests for metallic elements.

1. Stream Sediments (re: fig. 3)

All creeks with flowing water were sampled taking silt fraction from the active bed whenever possible. If no active silt was available, a sample from the bank or collapsed material was taken, and reported as such. The pH of the water was also noted.

The results from the stream sediments show that one system of creeks and tributaries has a background higher than the similar surrounding area. All the samples along these streams located on the eastern side of the claims, are consistently high in zinc and copper, averaging 174 ppm Zn and 27 ppm Cu. This led to detailed soil sampling.

2. Soils

a) Type

Soils in this part of the property are developed on slopes underlain by limestone and shale. They are very rich in organic matter as this readily decomposes and is incorporated in the soil: "moder" humus type. A mineral horizon develops where the slope is not too steep; it incorporates bedrock rubble and strongly transformed humus, everything wrapped in clay. The soil profiles vary from a rendzina soil (a simple humic soil) into a calcimorphic alpine brown soil where horizons tend to differentiate. Locally, where drainage is poor, the soil grades into a hydromoder alpine rendzina soil or a stagnogley (a reduced, clayey soil).

b) Metal distribution

As described above, organic matter is rapidly transformed into an A₁ horizon and clay is readily present as an absorbing agent for metallic ions. The general uniformity of soil development allows results to be very comparable and sampling should not have introduced any bias as all the soil sampled was under the vegetation horizon (A₀).

The contour maps (re: fig. 4 & 5) showing the distribution of zinc and lead in soils indicate a strong correlation between the two elements. This relationship is not casual if due to bedrock, but shows that geochemical anomalies are probably caused by mineralization.

The contour lines show a strong leaching downslope, more pronounced for zinc than lead. However, the sharpness and continuity of anomalies prove that their location must be in direct relationship to mineralized zones. Above a background of 140 ppm Zn and 35 ppm Pb, three main anomalous zones stand out: one in the southwest corner, another in the northwest corner and one large anomaly in between which has leached downslope to the east.

In addition, a small, rather sharp Zn anomaly (Lines 31S, 32S and 2W, 3W) is certainly in close relationship with the anomalous zone directly to the west. However, a Zn anomaly in the southeast corner, slightly enhanced by above normal lead, indicates a probable extension to the east.

These anomalies are not directly related to visible mineralization checked out in the field. As a matter of fact, the anomaly open to the southwest (profiles 6W, 5W) could be explained by mineralized rubble which had tumbled down from the cliff. This explanation does not, however, apply to the other anomalies. Moreover, mineralized outcrops found in the creek (see stream sediment sample TESS 10 to 15) do not seem to have any effect on the surrounding soil samples (30S/1 to 3W down to 33S/00 and 1W). This would suggest that the mineralized source should be searched for in more detail, probably in a geographical position closely related to the anomalies themselves. One should, however, take into account the rendzina soils which are constantly eluviated as one can expect some local transport of fine to colloidal elements.

CONCLUSION

Observed mineralization is associated with the Dunedin Formation. The sedimentological facies of this formation corresponds with a back-reef environment, somewhat silicified and argillaceous. The reduced aspect and lack of good porosity do not induce favourable reservoir characteristics. However, lead and zinc indications are present and should not be overlooked as back-reef facies (Dunedin) and shales (Besa River Shales) constitute a good source of mineralization.

Reported mineralizations, though not checked thoroughly, are seen in the Stone Formation which contains horizons with good

reservoir potentiality. For that reason, the Stone Formation can be considered as a primary target for exploration.

Interesting geochemical anomalies do not seem to be directly related to mineral showings found in the Dunedin Formation and therefore, their relationship must be investigated further. As they extend farther north than Dunedin outcrops, a possible correlation with the Stone Formation might be possible. Again, this enhances the interest already mentioned regarding the Stone Formation.

A handwritten signature in cursive script, appearing to read "H. Salat". The signature is written in dark ink and is positioned above a horizontal line.

H. Salat

REFERENCES

- Pelletier, B.R. and Stott, D.F. - 1963 - Trutch Map Area (94G); GSC Paper 63-10
- Taylor, G.C. and Mackenzie, W.S. - 1969 - Devonian Stratigraphy of Northeastern British Columbia; GSC Bulletin 186
- Tkatchyk, M.A. - 1966 - Surface Geological Reconnaissance of Selected Areas in Northeastern British Columbia and in the Northwest Territories; Confidential Report, Banff Oil Ltd.

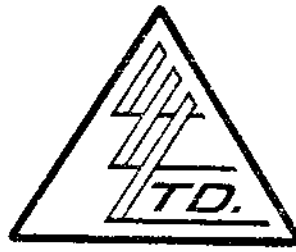
APPENDIX I

Geochemical

Laboratory

Assays

To: AQUITAINE COMPANY OF CANADA
 LTD.,
 540-5th Ave. S.W.,
 CALGARY, Alta.
 ATTENTION: Mr. H. Salat



File No. 6555
 Date June 21, 1973
 Samples Chip

Certificate of
 ASSAY of
 LORING LABORATORIES LTD.

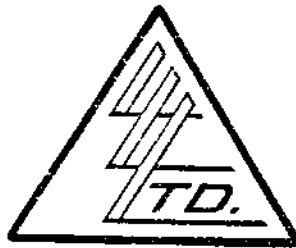
SAMPLE No.	% Cu	% Pb	% Zn
TL-1A	.01	.68	.02
TL-1B	.005	.03	.05
TL-3	.03	.04	.35
TL-5	.01	.68	.02
TL-5A	.01	1.26	.01
TL-5B	.005	.04	.03
TL-5C	.01	.09	.02

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

E. L. McIsaac
 Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA
 LTD.,
 540-5th Ave. S.W.,
 CALGARY, Alta.
 ATTENTION: Mr. H. Salat



File No. 6553
 Date June 21, 1973
 Samples Geo-chems

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-1-

SAMPLE No.	PPM		PPM
	Cu	Pb	Zn
TE 00/00S	25	20	100
01W/00S	21	33	113
02W	29	29	130
03W	36	45	212
TE 00/01S	18	23	90
01W	27	26	113
TE 05W/01S	22	94	371
06W	20	74	315
TE 00/02S	26	33	116
01W	22	29	270
02W	21	45	121
03W	20	65	252
04W	27	102	335
05W	21	104	356
TE 00/03S	25	29	130
01W	19	29	113
02W	22	51	135
03W	23	55	235
04W	18	87	252
05W	20	130	356
TE 00/04S	18	36	135
01W	20	25	111
02W	22	45	235
03W	25	42	235
04W	22	68	356
05W	20	145	501
TE 01W/05S	22	33	113
TE 03W/05S	22	51	221
04W	23	74	416
05W	25	104	425
TE 00/06S	16	29	120

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Ed McJannet
 Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA

LTD.,

540-5th Ave. S.W.,

CALGARY, Alta.

ATTENTION: Mr. H. Salat



File No. 6553

Date June 21, 1973

Samples Geo-chems

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-2-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
01W	20	65	175
02W	23	39	106
03W	27	45	224
04W	25	45	259
05W	25	74	303
TE 00/07S	27	31	126
01W	21	40	207
02W	22	38	113
TE 03W/07S	22	62	185
TE 05W/07S	22	48	218
TE 00/08S	25	23	116
02W	27	42	224
03W	27	42	180
04W	18	62	290
TE 00/095	29	36	207
01W	20	20	116
02W	22	51	165
03W	18	50	195
04W	16	33	113
05W	22	44	207
TE 00/10S	25	26	108
02W	18	72	150
03W	16	42	116
04W	18	39	130
TE 00/11S	15	23	111
01E	22	42	259
01W	18	34	155
02W	20	53	185
03W	20	31	126
04W	17	36	126
TE 00/12S	20	36	265

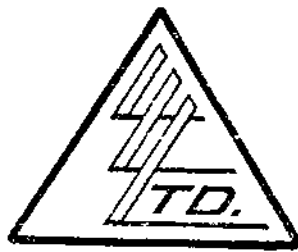
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Licensed Assayer of British Columbia

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 540-5th Ave. S.W.,
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 Date June 21, 1973
 Samples Geo-chems

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-5-

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn
03W	28	33	170
04W	25	48	329
05W	17	62	378
06W	21	165	335
07W	27	58	259
08W	27	29	185
TE 00 /18S	30	55	335
01E	20	36	150
TE 01W/18S	22	48	218
02E	31	42	259
02W	25	68	322
03E	22	33	303
03W	28	78	473
04W	27	68	343
05W	22	72	378
06W	18	65	356
07W	22	360	548
08W	28	51	241
TE 00 /19S	26	58	315
01E	20	65	350
01W	27	68	425
02E	18	36	190
02W	20	180	207
03E	25	42	230
03W	15	50	175
04W	46	195	432
05W	29	130	416
06W	20	350	526
07W	27	45	207
08W	36	42	224

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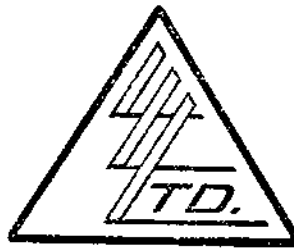
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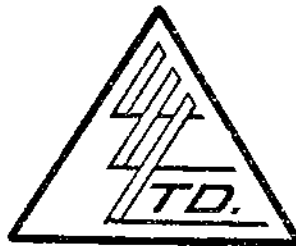
SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
01W	20	65	175
02W	23	39	106
03W	27	45	224
04W	25	45	259
05W	25	74	303
TE 00/07S	27	31	126
01W	21	40	207
02W	22	38	113
TE 03W/07S	22	62	185
TE 05W/07S	22	48	218
TE 00/08S	25	23	116
02W	27	42	224
03W	27	42	180
04W	18	62	290
TE 00/09S	29	36	207
01W	20	20	116
02W	22	51	165
03W	18	50	195
04W	16	33	113
05W	22	44	207
TE 00/10S	25	26	108
02W	18	72	150
03W	16	42	116
04W	18	39	130
TE 00/11S	15	23	111
01E	22	42	259
01W	18	34	155
02W	20	53	185
03W	20	31	126
04W	17	36	126
TE 00/12S	20	36	265

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 Samples Geo-chems

ATTENTION: Mr. H. Salat

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-6-

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn
TE 00 /20S	25	51	536
01E	14	45	230
01W	27	55	394
02E	25	46	212
02W	20	31	180
03E	29	36	224
03W	22	72	150
04E	23	36	235
04W	21	180	409
05W	28	185	386
06W	16	340	700
07W	25	170	425
TE 00 /21S	14	51	295
01E	13	33	121
01W	14	23	247
02E	29	68	315
02W	17	62	135
TE 03E/21S	25	33	160
03W	29	48	165
04E	22	38	230
04W	20	74	160
05E	30	29	165
05W	26	87	207
06W	22	130	259
TE 00 /22S	16	55	125
01E	12	48	160
01W	12	26	117
02E	7	55	145
02W	14	55	93
03E	20	36	170
03W	23	58	130

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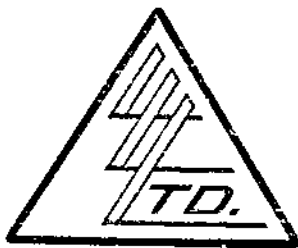
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-7-

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn
04E	22	29	165
04W	18	48	224
05E	27	25	170
05W	31	125	322
06W	30	63	322
TE 00 /23S	13	53	93
01E	12	55	73
01W	13	50	84
02E	8	23	170
02W	14	65	103
03E	10	26	212
03W	25	51	155
04E	27	46	224
04W	17	65	112
05E	20	33	190
05W	22	145	224
06W	30	62	303
07W	42	50	160
TE 01E/24S	20	40	97
01W	10	55	90
02E	12	28	180
02W	34	36	130
03E	12	33	165
03W	20	65	195
04W	20	60	155
TE 05E/24S	20	20	109
05W	25	62	322
06E	5	25	84
06W	32	38	160
07W	29	39	165

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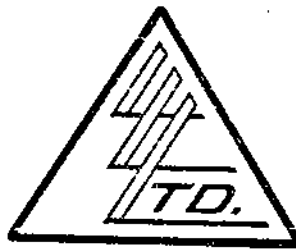
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E. L. M. J. J. J.

Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA,
 540-5th Ave. S.W.,
 CALGARY, Alta.



File No. 6553
 Date June 21, 1973
 Samples Geo-chems

ATTENTION: Mr. H. Salat

Certificate of
ASSAY OF
LORING LABORATORIES LTD.

-10-

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn
TE 06W/29S	16	140	650
TE 00 /30S	10	115	97
01E	20	57	165
01W	14	50	84
02E	5	39	135
03E	25	36	117
03W	10	42	130
04E	14	34	93
04W	14	72	259
05E	13	31	109
05W	12	87	185

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

e L m e s a a c

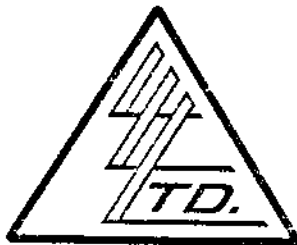
Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA

540-5th Ave. S.W.

CALGARY, Alta.

ATTENTION: Mr. H. Salat



File No. 6553

Date June 21, 1973

Samples Geo-chems

Certificate of ASSAY of

LORING LABORATORIES LTD.

-4-

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn
TE 02E/14S	25	36	185
02W	25	36	185
03W	27	29	190
04W	30	85	322
05W	38	31	224
06W	26	55	283
TE 00 /15S	28	39	218
01E	26	48	265
01W	18	29	270
02E	27	33	247
02W	21	36	371
03W	18	145	371
04W	20	45	212
05W	28	48	200
06W	29	36	140
TE 00 /16S	29	42	200
01E	31	39	218
01W	31	39	212
02E	18	48	235
02W	20	31	121
03E	16	25	270
03W	29	115	394
04W	17	100	350
05W	18	55	283
06W	25	78	241
TE 00 /17S	26	42	247
01E	27	25	160
01W	22	33	200
02E	14	26	224
02W	16	23	207
03E	22	36	212

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

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Pulps Retained one month unless specific arrangements made in advance.

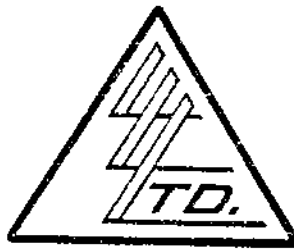
C. L. M. J. O. A. A.

Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA,

540-5th Ave. S.W.,

CALGARY, Alta.



File No. 6553

Date June 21, 1973

Samples Geo-chems

ATTENTION: Mr. H. Salat

Certificate of
ASSAY of
LORING LABORATORIES LTD.

-8-

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn
TE 00 /25S	10	78	100
01E	16	36	165
01W	14	72	130
02E	10	25	160
02W	20	40	130
03E	8	26	100
03W	31	45	170
04E	10	25	155
04W	34	51	218
05E	16	36	170
05W	20	55	200
06E	10	39	112
TE 00 /26S	12	79	97
01E	12	81	112
01W	16	490	135
02E	14	53	77
02W	22	48	252
03E	5	28	207
03W	14	46	135
04E	10	25	109
04W	36	42	150
05E	20	23	135
TE 05/26S	29	65	235
06E	34	39	235
06W	31	40	160
TE 00 /27S	8	39	103
01E	8	40	97
01W	12	55	84
02E	16	45	97
02W	31	39	130
03E	13	20	73

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
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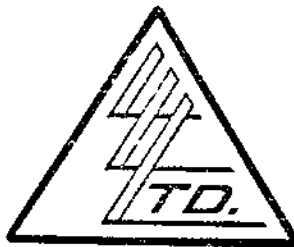
Rejects Retained one month.

Pulps Retained one month
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made in advance.

E. L. McJannet

Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA,
 540-5th Ave. S.W.,
 CALGARY, Alta.



File No. 6553
 Date June 21, 1973
 Samples Cheo-chems

ATTENTION: Mr. H. Salat

Certificate of
 ASSAY of
LORING LABORATORIES LTD.

-9-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
TE 03W/27S	16	45	100
04E	12	46	86
04W	20	31	93
05E	22	26	175
05W	18	42	130
06E	11	33	93
06W	22	58	309
TE 00 /28S	10	68	55
01E	10	45	165
01W	12	51	60
02E	20	17	73
02W	20	48	145
03E	11	14	50
03W	21	51	145
04E	15	17	103
04W	20	44	145
05E	16	23	121
TE 05 /28S	16	34	103
06E	10	34	103
06W	22	57	224
07E	10	23	130
TE 00 /29S	10	58	140
01E	20	51	100
01W	27	39	170
02E	10	42	180
02W	18	45	140
03W	23	34	135
04E	42	40	155
04W	18	29	84
05E	12	26	103
05W	12	155	409

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 Pulps Retained one month
 unless specific arrangements
 made in advance.

E. L. McFadden
 Licensed Assayer of British Columbia

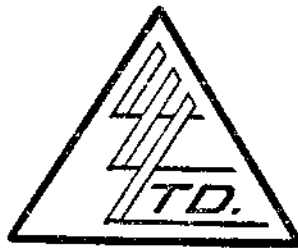
To: AQUITAINE COMPANY OF CANADA

LTD.,

540-5th Ave. S.W.,

CALGARY, Alta.

ATTENTION: Mr. Hughes Salat



File No. 6553

Date June 21, 1973

Samples Geo-chems

Certificate of
ASSAY of
LORING LABORATORIES LTD.

-3-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
01E	15	28	259
01W	30	42	247
02W	21	38	350
03W	28	42	200
04W	28	28	130
TE 00/13S	21	40	160
01E	22	40	180
01W	25	39	207
02E	25	39	130
02W	28	42	195
03W	23	38	200
04W	29	36	195
05W	23	55	241
TE 00/14S	20	28	218
01E	27	36	200
01W	25	33	195

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Pulps Retained one month
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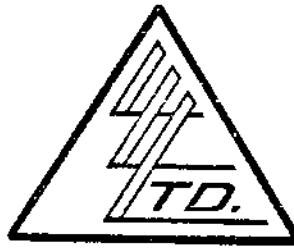
Licensed Assayer of British Columbia

To: AQUILAINE COMPANY OF CANADA

540-5th Ave. S.W.,

Calgary, Alta.

ATTENTION: Mr. H. Salat



File No. 6553

Date June 21, 1973

Samples Geo-chems

Certificate of
ASSAY of
LORING LABORATORIES LTD.

-11-

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn
TE 06E/30S	18	20	448
06W	18	155	425
07E	14	20	200
TE 00 /31S	10	72	81
01E	8	29	108
01W	10	55	190
02E	10	38	117
02W	15	31	170
03E	16	36	207
03W	45	48	1,090
04E	5	26	47
04W	14	66	180
05E	40	39	247
05W	13	78	343
06E	12	25	112
06W	18	78	800
07E	29	20	155
TE 00 /32S	8	48	86
01E	12	44	33
02E	8	42	195
02W	16	42	277
03E	10	45	100
03W	14	48	315
04E	11	55	109
04W	12	72	145
05E	10	39	456
05W	13	51	190
06E	8	23	283
06W	16	87	516
TE 00 /33S	5	26	73
01E	7	33	109

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

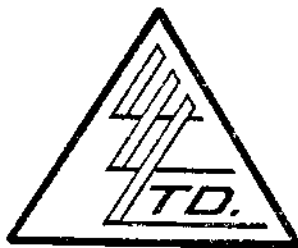
Rejects Retained one month.

Pulps Retained one month
unless specific arrangements
made in advance.

E. M. Isaac

Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA
 540-5th Ave. S.W.
 Calgary, Alta.



File No. 6553
 Date June 21, 1973
 Samples Geo-chems

ATTENTION: Mr. H. Salat

Certificate of
ASSAY of
LORING LABORATORIES LTD.

-12-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
TE 02E/33S	8	48	160
02W	7	55	218
03E	11	48	190
03W	9	42	121
04E	5	33	81
04W	10	63	35
05E	10	55	145
05W	12	58	140
06W	16	68	550
TCSS/01	10	42	36
02	11	44	67
03	9	39	35
04	10	44	67
5A	8	42	25
06	10	42	39
07	9	44	36
08	8	39	38
09	7	39	31
TCSS/10	7	39	35
11	7	39	36
12	8	39	38
13	9	38	39
13A	11	39	84
13C	8	36	71
13D	10	29	84
14	10	33	62
15	10	38	64
15A	14	55	86
15B	14	62	75
15C	16	58	86
15D	16	58	86

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

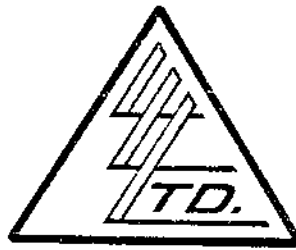
Rejects Retained one month.

Pulps Retained one month
 unless specific arrangements
 made in advance.

E. M. Isaac

Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA,
 540-5th Ave. S.W.,
 CALGARY, Alta.



File No. 6553
 Date June 21, 1973
 Samples Geo-chems

ATTENTION: Mr. H. Salat

Certificate of
 ASSAY of
LORING LABORATORIES LTD.

-13-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
TCSS/16	11	36	66
17	15	53	90
18	14	55	75
19	14	55	79
20	14	51	93
21	13	51	64
22	13	48	66
23	12	51	66
24	9	48	66
24A	10	45	77
25	9	46	69
26	10	51	77
27	9	51	73
28	12	58	93
29	10	53	73
30	10	51	77
TCSS/31	8	48	77
32	8	48	75
33	9	48	75
34	10	55	84
36	10	48	79
37	10	51	88
38	10	55	84
41	12	55	81
42	11	51	73
43	11	51	86
44	10	55	88
45	10	51	67
46	12	58	111
49	12	55	77
51	10	45	75

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 Pulps Retained one month
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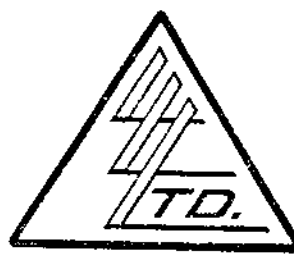
E. L. McIsaac
 Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA

540-5th Ave., S.W.,

CALGARY, Alta.

ATTENTION: Mr. H. Salat



File No. 6553

Date June 21, 1973

Samples Geo-chems

Certificate of
ASSAY of

LORING LABORATORIES LTD.

-14-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
TCSS/52	10	45	75
53	11	51	90
54	11	48	93
55	12	55	103
56	10	44	71
57	9	45	66
58	10	48	75
59	11	48	81
60	11	42	84
61	12	48	100
62	12	45	103
63	10	39	57
64	12	39	95
65	12	45	100
TCSS/66	11	51	86
67	12	45	95
68	12	48	79
69	14	51	130
70	10	50	86
71	12	48	93
72	10	48	77
73	10	45	84
74	12	46	98
75	11	46	93
76	10	42	93
77	10	55	71
78	11	51	106
79	12	45	111
80	10	45	81
81	10	42	86
82	10	45	69

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

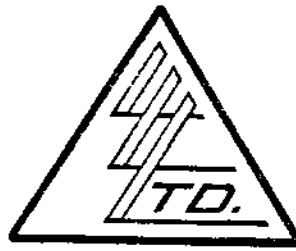
Rejects Retained one month.

Pulps Retained one month
unless specific arrangements
made in advance.

Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA
 540-5th Ave. S.W.,
 CALGARY, Alta.

File No. 6553
 Date June 21, 1973
 Samples Geo-chems



ATTENTION: Mr. H. Salat

Certificate of
 ASSAY OF
 LORING LABORATORIES LTD.

-15-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
TCSS/83	11	45	98
84	7	25	36
TESS/01	30	36	235
02	29	42	241
03	29	51	283
04	37	58	218
05	31	26	103
05A	36	29	241
06	30	27	121
07A	23	29	100
07S	31	33	150
08	23	29	109
TESS/09	28	36	140
10	26	36	117
11	26	33	117
12	29	45	135
13	27	26	109
14	26	39	117
15	32	39	135
16	27	34	121
17	26	38	125
18	26	38	117
19	29	39	135
TESS/24	25	40	125
25	25	108	125
26	25	42	121
27	26	60	125
28	27	39	117
29	27	40	125
30	29	40	130
31	40	34	117

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . .

Rejects Retained one month.
 Pulps Retained one month
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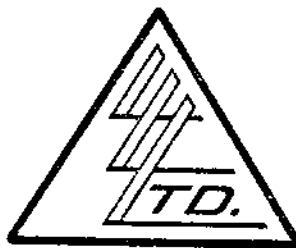
E. M. Isaac
 Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA

540-5th Ave. S.W.,

CALGARY, Alta.

ATTENTION: Mr. H. Salat



File No. 6553

Date June 21, 1973

Samples Geo-chems

Certificate of
ASSAY of
LORING LABORATORIES LTD.

-16-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
TESS/32	28	36	125
33	22	38	126
34	21	38	180
35	22	39	175
36	26	38	190
37	20	51	180
38	22	42	190
39	22	40	207
TESS/39A	18	45	270
40	22	39	265
41	25	33	207
42	22	39	224
43	25	42	295
TESS/46	31	33	235
47	27	43	212
48	29	43	277
49	27	36	364
50	27	36	207
51	26	39	252
52	8	29	52
TKSS/01	7	21	28
02	6	25	31
03	7	29	32
04	7	23	31
05	7	23	29
06	6	17	31
TKSS/09	8	21	38
10	8	17	30
11	6	25	29
12	7	25	38
13	7	23	35

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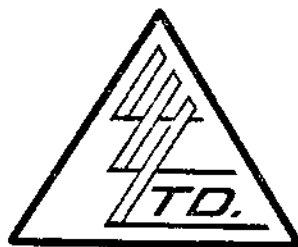
Rejects Retained one month.

Pulps Retained one month
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Licensed Assayer of British Columbia

To: AQUITAINE COMPANY OF CANADA
 540-5th Ave. S.W.,
 CALGARY, Alta.

File No. 6553
 Date June 21, 1973
 Samples Geo-chems



ATTENTION: Mr. H. Salat

Certificate of
ASSAY OF
LORING LABORATORIES LTD.

-17-

SAMPLE No.	PPM	PPM	PPM
	Cu	Pb	Zn
TKSS/14	7	26	34
17	8	20	38
19	7	23	31
20	7	23	27
21	6	21	28
22	6	23	33
23	7	23	32
24	8	31	42
25	11	48	66
26	6	21	36
27	7	25	36
28	6	17	36
29	7	17	32
30	6	23	35
31	6	17	30
32	6	20	39
TKSS/36	6	20	34
37	7	29	38
38	6	25	33
39	6	20	34
40	7	23	36
TKSS/43	8	42	54
44	7	26	47
45	6	29	38
46	7	33	44
47	7	26	39
48	6	25	42
49	7	25	32

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Rejects Retained one month.
 Pulp Retained one month
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 made in advance.

CLM J. J. J.
 Licensed Assayer of British Columbia

APPENDIX II

RUST CLAIMS

ROCK SAMPLE DESCRIPTIONS

<u>Sample No.</u>	<u>Location</u>	<u>Description</u>
TL-1	Approx. Line 29S, Profile 2W	Tectonic and sedimentary breccia veined with calcite and barite
TL-2	re: geological map (figure 2)	Grey limestone, containing <u>Halysites</u> , <u>Aulopora</u> , <u>Thamnopora</u>
TL-3	re: geological map (figure 2)	Limonitic crust with iron stalagmites and botryoidal formations
TL-4	re: geological map (figure 2)	Microcrystalline, dark grey dolomite, very rich in silicified fossils (reefal facies)
TL-5	1750' straight west from stream sample TESS-05	Dark grey, silicified dolomite containing barite and locally some galena

APPENDIX III

COST BREAKDOWN

Air Transportation	\$ 9,077.30
Labour -	
Field	5,335.00
Office and report	1,400.00
Expenditures -	
Chemical analysis	948.25
Field geochemical analysis	177.48
Food and lodging	1,644.00
Field supplies	218.82
Reproduction	75.74
	<hr/>
Total	18,876.59
Administration and supervision at 10%	1,887.66
Audit fee	80.00
	<hr/>
	\$ 20,844.25

APPENDIX IV

CERTIFICATE

As provided under the "Mineral Act" Chapter 244, revised statutes of British Columbia, 1960, Paragraph 12, I, Hugues Salat, do hereby certify that:

1. I am a geologist residing at 3 Mackay Drive S.W., Calgary, Alberta.
2. I was a graduate of the National Superior School of Geology (Nancy, France) and of the Earth Sciences Faculty (the University of Nancy, France) in 1965.
3. I have attended and worked as a research assistant at the University of Southern California (Hancock Foundation) from 1965 to 1967.
4. I worked as an exploration oil geologist for Société Nationale des Pétroles d'Aquitaine (France) from 1968 to 1969 and have been with Aquitaine Company of Canada Ltd. since then.
5. I personally directed and supervised the geological and geochemical programs concerning the RUST claims.



H. Salat



To accompany report:
 GEOLOGICAL and GEOCHEMICAL SURVEY
 RUST Claims
 Redfern Lake Area - B.C.
 July 10 1973 - H. SALAT

- [BS] Besa River Shale Fm.
- [DUN] Dunedin Fm.
- [ST] Stone Fm.
- [MC] Muncho/McConnell Fm.
- [SIL] Silurian

Department of Mines and Petroleum Resources AQUITAINE COMPANY OF CANADA LTD.	
ASSESSMENT REPORT NO. 4484	RUST CLAIMS GEOLOGICAL MAP #2
INTERPRETED BY: H. SALAT DATE: JULY 10, 1973 REVISED:	CONTOUR INTERVAL: SCALE: 1 : 10 000 FILE NO.:

Fig. 2

4484-12



Legend:

Department of Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4484 MAP #3

TCSS-70 ● 86 = Sample Nb. ZN ppm
 50 ● 50 = Sample Nb. PB ppm

AQUITAINE COMPANY OF CANADA LTD.

GEOCHEMICAL SURVEY
 STREAM SEDIMENTS
 & SOIL SAMPLE GRID

To accompany report: "GEOLOGICAL and GEOCHEMICAL SURVEY" RUST Claims Redfern Lake Area - B.C. July 10 1973 H. SALAT

INTERPRETED BY	CONTOUR INTERVAL
DATE	SCALE
REVISED	FILE NO.

Fig. 3



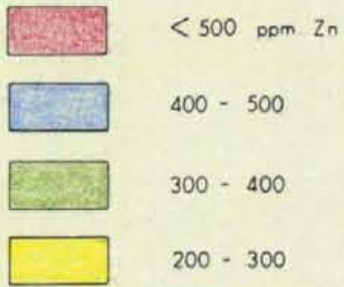
AQUITAINE
COMPANY of CANADA Ltd

FIG. 4

GEOCHEMICAL SURVEY
'TE' SOIL SAMPLES
ZINC

DATE	JULY 10, 1973	SCALE	1 : 6 000 appr.
Prep. by	H. SALAT	FILE	

LEGEND



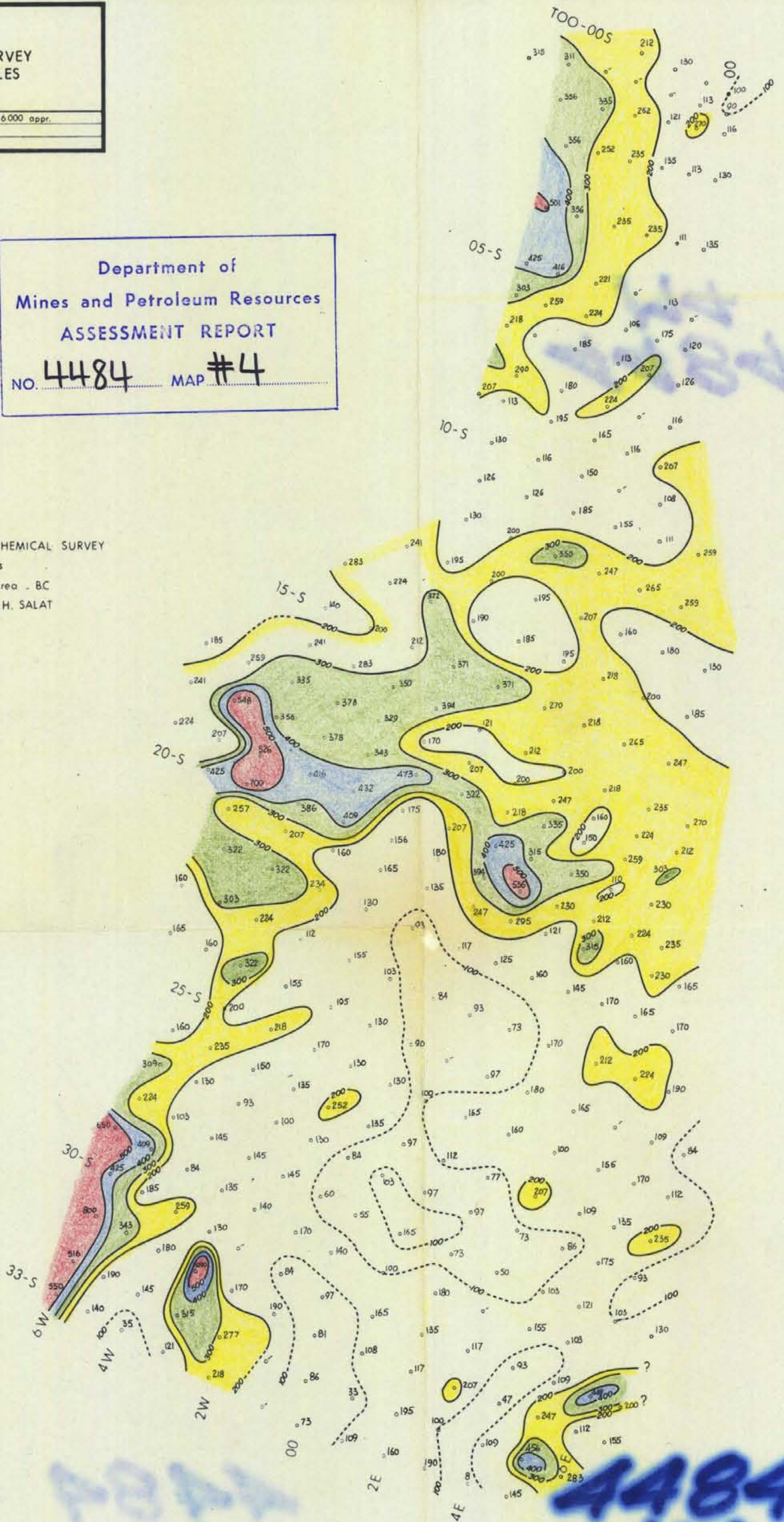
RE - Soil sample grid fig. 3

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **4484** MAP #4

— To accompany report :

'GEOLOGICAL and GEOCHEMICAL SURVEY
RUST Claims
Redfern Lake Area - B.C.
July 10 1973 - H. SALAT



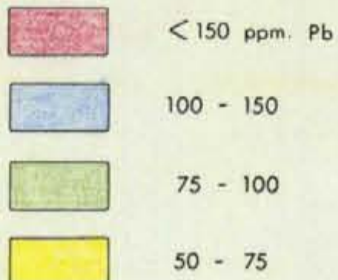


AQUITAINE
COMPANY of CANADA Ltd.

FIG. 5
GEOCHEMICAL SURVEY
'TE' SOIL SAMPLES
LEAD

DATE	JULY 10, 1973	SCALE	1 : 6000 appr.
Prep. by	H. SALAT	FILE	

LEGEND



RE - Soil sample grid fig. 3

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **4484** MAP **#5**

— To accompany report :

'GEOLOGICAL and GEOCHEMICAL SURVEY
RUST Claims
Redfern Lake Area - BC
July 10 1973 - H. SALAT

