020313

104P/3E

REPORT

ON THE

ATAN LAKE PROPERTY

Including the 43 full sized
AUGUST, ADAIR, SKI, WOLF and ATAN MINERAL CLAIMS
and A, B, and C Fractional Claims

Situated
Immediately east of the Abandoned Settlement
of

McDAME POST
Cassiar District
LIARD MINING DIVISION
Northern British Columbia
Latitude 59°15'N: Longitude 129°15'W
N.T.S. 104 P/3

and Owned by

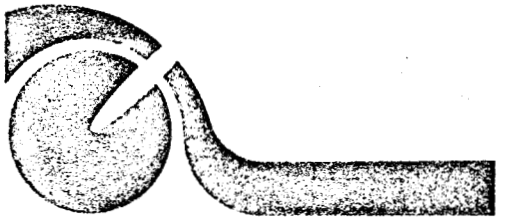
TOURNIGAN MINING EXPLORATIONS LTD.

of

Vancouver, British Columbia

February 23rd, 1973,
Delta, B.C.

Report by:
D.R. COCHRANE, P.Eng.



Cochrane Consultants Limited
4882 Delta Street, Delta B.C. (604) 946 · 9221

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PART A

1. INTRODUCTION:

The barite, lead, zinc and copper occurrences in and around Atan Lake are covered by the 43 Adair, Ski, Wolf, August and Atan mineral claims and are owned outright by Tournigan Mining Explorations Ltd. This "Atan" property was the subject of a previous report by the author, entitled "Intermediate Economic Geology Report on the Atan Lake Property", dated July 20th, 1971. This 1971 report formed a portion of a prospectus dated 21st October, 1971.

In the summer of 1972, Geological mapping followed by bulldozer trenching indicated the presence of rather widespread barite mineralization, and this discovery has substantially altered the priorities and the cost estimate of further exploration work on the property. Consequently, this report is an updated version of the 1971 report, and contains a revised recommended program and revised estimate of cost of newly recommended work. It is based on the author's personal experience with the property since the summer of 1968, and on references tabulated in appendix II, the Bibliography.

NOTE: Numbers in parentheses at the end of sentences refer to the various references in Appendix II

2. SUMMARY AND CONCLUSIONS:

a. Tournigan Mining Explorations Ltd., owns outright title to a total of 43 located, contiguous, full sized claims, and 3 fractions, situated in and around Atan Lake, near McDame Post, in the Liard Mining Division of northern British Columbia. The British Columbia Railway Company has established a right of way corridor across the south end of the Atan Property and this reserve is for the proposed rail link between Dease Lake, the new rail head, and Lower Post. A decision on this proposed route, and the scheduling of the extension is expected from the Northern Transportation Commission shortly. (Ref. 8)

b. The claims cover a favourable limestone-dolomite horizon which trends northwesterly through the claims for just over one mile in length. The band is approximately 400 feet wide. Several lenses within the horizon contain abundant barite, and knots and clusters of medium to coarse-grained galena. Erratic amounts of chalcopyrite, tetrahedrite and chalcocite occur in shears and brecciated zones, and is sometimes associated with barite and galena mineralization.

c. The host rock is the younger (upper) Atan subgroup, a lower Cambrian sequence which is situated on the west flank of the McDame synclinorium. Between McDame Post, and Mount Haskin (a distance of 16 miles), the Atan Group is host to five mineral occurrences. These occurrences are characterized by similar mineral assemblages, including sphalerite, galena, pyrite, pyrrhotite and chalcopyrite. The southern two occurrences, the Bill Group (owned by Dresser Industries) and the Atan Property of Tournigan Mining Explorations Ltd., contain abundant barite. Conventional prospecting in this belt is severely hampered by the widespread mantle of glacial and lacustrine drift.

d. Previous exploration work on the Atan Lake property, covering just under half the claims area, has included induced polarization, geochemical soil sampling, geological mapping, and a gravity test survey. The IP survey outlined 3 strong chargeability anomalies. Anomaly No. 1 was partially tested by drilling and Anomaly No. 3 was partially tested by bulldozer trenching. Laboratory tests show that the barite is non-polarizing and therefore the cause of the strong IP effects is, as yet, unknown.

e. The gravity test indicated four excess mass anomalies that show excellent correlation with the induced polarization anomalies and weak geochemical response. Coincident induced polarization and gravity anomalies Number 1 and 3, occur in areas of known barite and copper and lead showings. The limited gravity work shows that heavy material in the order of about 6½ million tons of excess mass could cause anomalies 1, 2 and 4(9). Additional gravity work is necessary to confirm these estimates and to explore the remainder of the property.

f. Gravity surveying appe. .o be a most definitive exploration tool, whe s geochemical soil sampling is of limited use because of the calcareous nature of the bedrock and overlying soil.

g. Barite is the most abundant mineral discovered to date on the Atan Property and therefore requires some economic consideration. Since 80% of the barite consumption is used in the oil and gas exploration, and since the oil and gas search is expanding into the north with deeper wells, the demand for barite will certainly increase. Finally, the possibility of a rail line less than ¾ of a mile from Anomaly No. 3 and the northernmost barite-lead-copper shows, certainly alters the economic considerations.

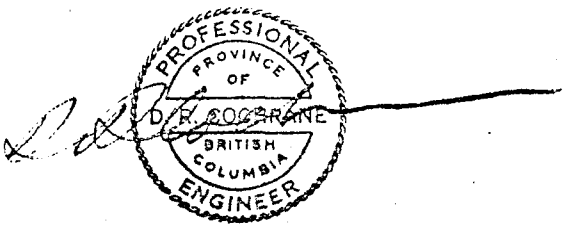
An exploration program is recommended on the Atan property to:

(i) Explore the remainder of the claims area;

(ii) Estimate the grade and tonnage of the barite-galena bearing zones.

The estimated cost of the program is $80,000.00.

Respectfully submitted,



D.R. Cochrane, P.Eng.

February 23rd, 1973
Delta, B.C.

PART B

1. LOCATION AND ACCESS:

The Atan Lake property is situated immediately east of the now abandoned settlement of McDame Post on the Dease River, Northern British Columbia. Normal access is by 4x4 truck, as follows: west from the town of Watson Lake, Yukon, to Mile 650 of the Alaska Highway; south from this point on the Cassiar road, and past Good Hope Lake to the McDame Post Road (a distance of approximately 60 miles); thence southeast on the McDame Post Road to Dease River and east one mile to the camp. The Alaska Highway and Cassiar Roads are all-weather gravel roads; however, some washouts do occasionally occur during the spring run-off. The McDame Post Road is a narrow dirt track often impassable after a heavy rain. A network of cat roads has been constructed from camp and provide facile access to most parts of the claim group. Atan Lake and the Dease River are sufficiently large to accomodate a float-equipped light aircraft. The nearest air base is in Watson Lake, approximately 70 miles north of McDame Post (Figure 1, Location Map).

2. CLAIMS and OWNERSHIP:

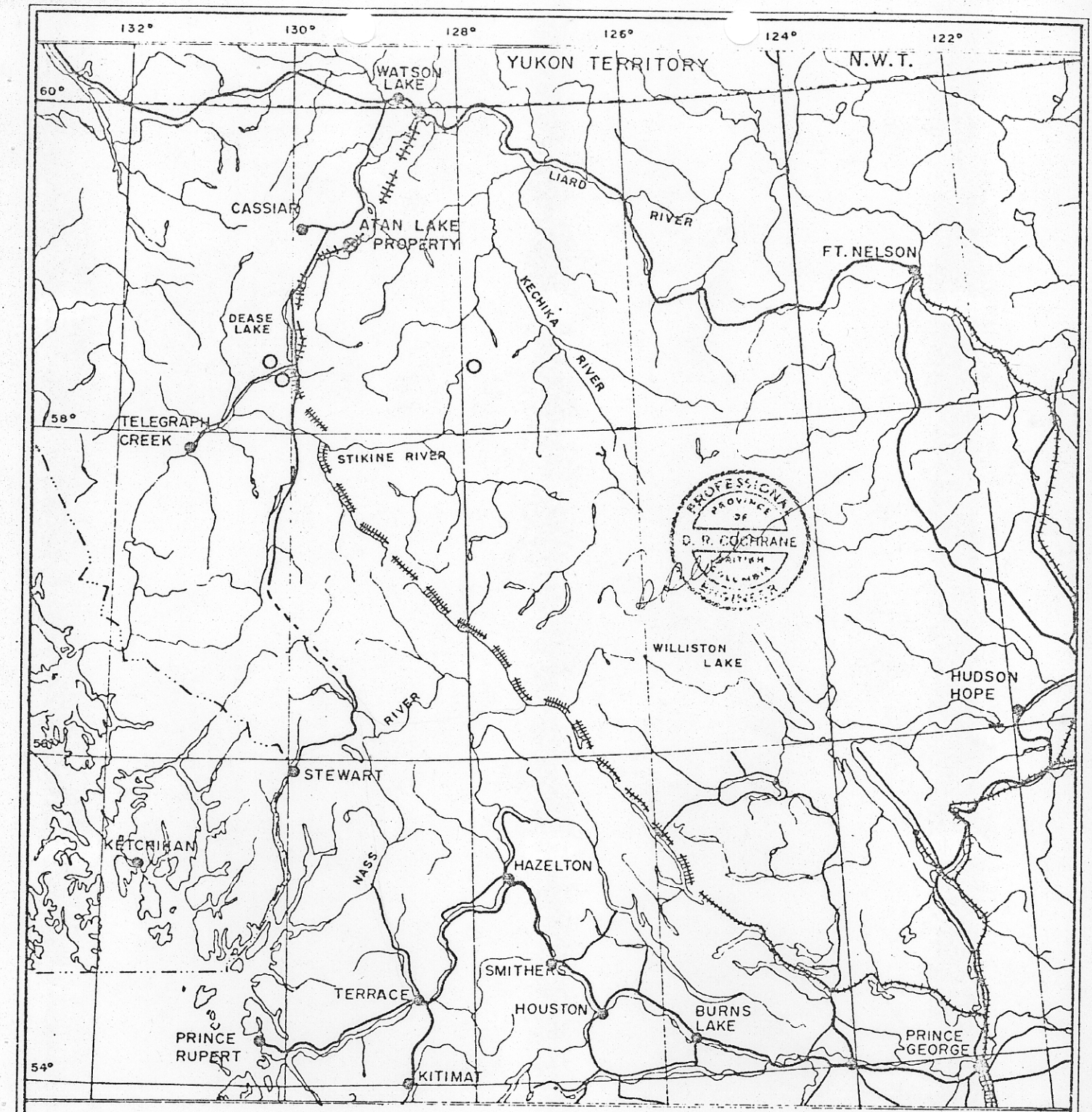
Tournigan Mining Explorations Ltd., with an office at 704-535 Thurlow Street, Vancouver, B.C., owns outright 43 located contiguous, full-sized claims and 3 fractions in the Liard Mining Division. The claims are grouped, and the record numbers are as follows:

ATAN GROUP:

Claim Name	Record Numbers	Expiry Dates
Atan No. 1-4	28358-28361	Sept. 28/'78
Atan No. 5 & 6	28362-28363	Sept. 28/'77
Fox No. 1	26935	May 16/'77
Adair No. 1-8	26936-26943	May 16/'77
Ski No. 1 & 2	26948-26949	May 16/'79
Ski No. 3	26950	May 16/'80
Ski No. 4	26951	May 16/'79
Ski No. 5-18	26952-26965	May 16/'77
Wolf No. 1	26927	May 16/'78
Wolf No. 3	26929	May 16/'78
Wolf No. 5	26931	May 16/'78
Wolf No. 7	26933	May 16/'78
Fraction "A" Fr.	38159	June 24/'76
Fraction "B" Fr.	38160	June 24/'76
Fraction "C" Fr.	38161	June 24/'76

AUGUST GROUP:

August No. 1-6	31212-31217	Aug. 5/'73



LEGEND

- P.G.E. Rlwy.
- P.G.E. (proposed)
- Highways
- Cities and Towns
- Properties

FIGURE 1

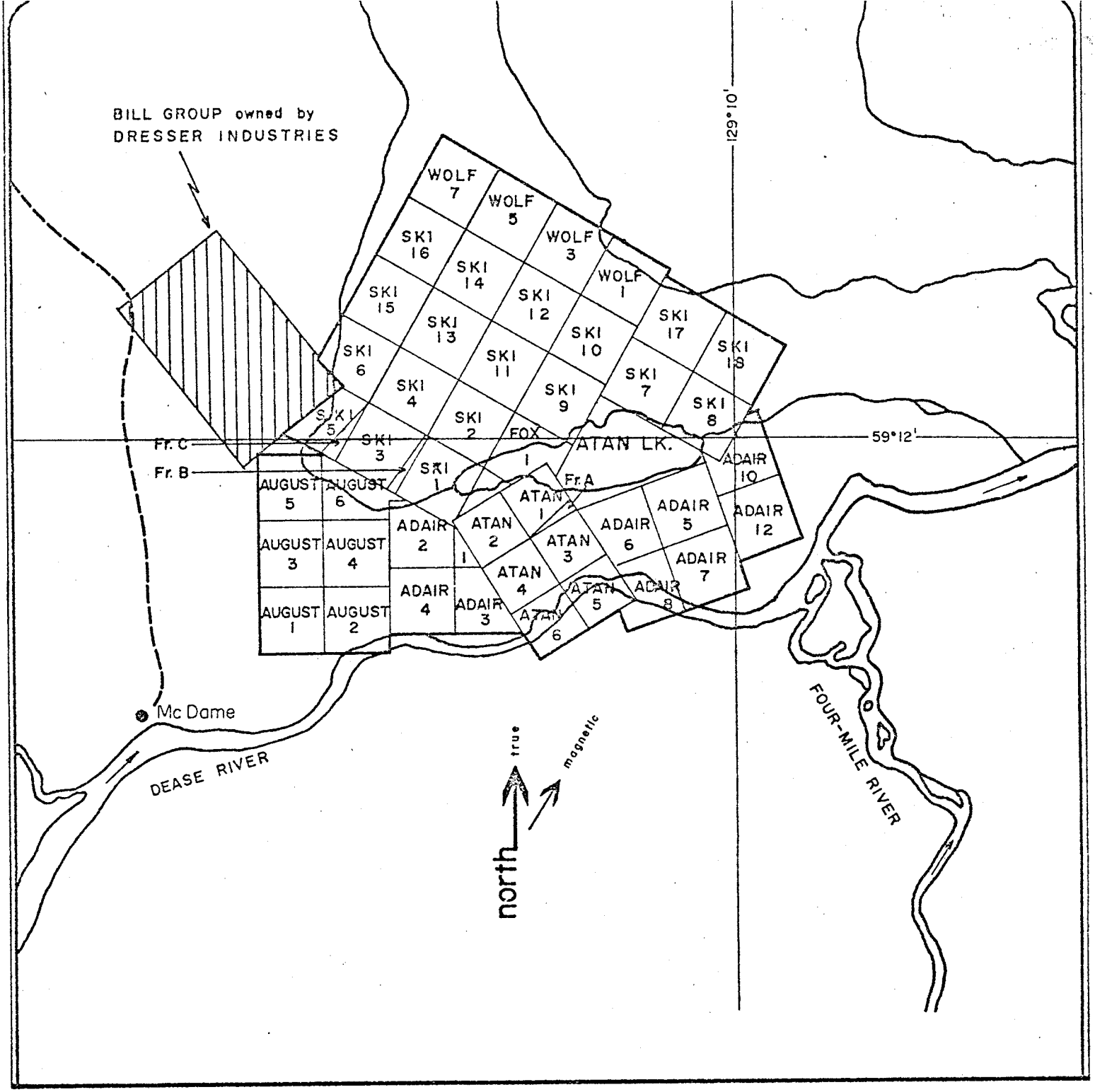
TOURNIGAN MINING EXPLORATIONS LTD.

LOCATION MAP
ATAN LAKE PROPERTY

Scale of miles

40 30 20 10 0 40 80 120

To accompany report by D. R. Cochrane, P. Eng. on the Atan Lake Property in the Liard M.D. located 58 miles N.N.E from Dease Lake, B.C. Dated FEB 23 1973 at Delta, B.C.



Tournigan Mining Explorations Ltd.

ATAN LAKE PROPERTY
Claims Map

0 1 mile

to accompany a report
by D.R. COCHRANE PEng.
dated february 23, 1973

Cochrane Consultants Limited
4882 Delta Street —— Delta B.C.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. R. COCHRANE

FIGURE 2

Several Claim posts were inspected by the author, and claims appear to be staked in accordance with the regulations set out in the Mineral Act of the Province of British Columbia. Some slight overlap of the Ski No. 5 claim occurs in the west property sector, with the Bill claims owned by Dresser Magcobar Industries Ltd. (See Figure 2, Claims Sketch).

There has been a restriction placed on staking mineral claims along the Dease River, as this area is reserve; for the British Columbia Railway. The reserve is a right-of-way for the proposed northerly rail extension from Dease Lake.

3. GENERAL SETTING:

The Atan claim group is situated close to the east boundary of the Stikine Range of the Cassiar Mountain Physiographic Division of British Columbia; and immediately west of the Liard Plain. The immediate area is a reasonable rugged mountainous region exhibiting many features characteristic of a complex geologic history and alpine glaciation. The highest peak in the vicinity is Blackfox Mountain, rising to 7,022 feet above mean sea level. The Dease River flows northeasterly through the mountains within a broad "U" shaped valley (elevation just less than 2,500 feet above mean sea level). The property is situated within this valley, at the foot of an unnamed peak which rises to over 6,000 feet to the north of the area surveyed. Geological mapping by H. Gabrielse (2) shows that the claims lie on the west flank of an anti-clinorium, composed of a lower Paleozoic and upper Proterozoic miogeosynclinal rock sequences. The area close to the claims was mapped as Upper Atan Group, consisting mainly of limestones and dolomites with minor interbedded shales.

Exploration interest is centered primarily on a fairly narrow dolomite-limestone member which, in places, is quite oolitic and sometimes brecciated. It is similar in many respects to a "reef type" limestone. This member, between McDame and Mt. Haskin (a distance of 16 miles) is host to five mineral occurrences (including Tournigan Mining's) (Ref. 2, ppg. 113-116). These prospects are characterized by similar mineral assemblages, and include galena, sphalerite, pyrite, chalcopyrite and pyrrhotite. In the case of the most southerly two prospects (Carlick Group or the Bill claims, and the Tournigan Mining showings) barite is abundant and occurs with minor siderite.

4. PREVIOUS WORK:

The first recorded observation of the Atan Lake occurrence was by G.M. Dawson (ref. Appendix II) in 1887. He reported an "agrentiferous lead occurrence", situated a mile down river from McDame Post, and on what is now the Adair and Atan claims. Gabrielse (2) reports that in 1949, Beal Carlick staked a group of claims 2 miles north of McDame on what is now the Bill Claims, owned by Dresser-Magcobar Ltd. Gabrielse visited the showings, and described the occurrence as follows: "Galena is the chief metallic mineral and is commonly coarse grained. Minor pyrite, sphalerite, azurite and malachite occur in the deposit. Coarse-grained barite is abundant and occurs with minor siderite" (ref. 1, p.113). A few claims were staked in the Atan Lake area by local prospectors in the 60's, but allowed to lapse in 1967. During the same year, Tournigan Mining Explorations Ltd. located claims in the Atan Lake area, and added a few claims and fractions in subsequent years.

In August, 1968, a field crew employed by Geo-X Surveys Ltd., and supervised by the author, completed a total of 12 line miles of an induced polarization and geochemical soil sampling survey over the southwest half of the property (ref. 3). Several strong chargeability anomalies were discovered and some of these correlated with weak Zn, Cu and Pb geochemical soil anomalies. Computer processing of this data is described in a paper presented at a Symposium on Decision Making (Ref. 5).

In the summer of 1969, a program of trenching, geological mapping and diamond drilling was carried out on two of the three chargeability anomalies, (ref. 4). The three drill holes, which tested the southern IP anomaly, immediately south of Atan Lake, encountered minor barite, pyrite, magnesite and scattered amounts of malachite, chalcopyrite and pyrrhotite in a brecciated oolitic dolomite-limestone sequence. Bulldozer trenching on IP Anomaly No. 3 situated just over 3,000 feet northwest of IP Anomaly No. 1 exposed lenses and patches of barite, in an impure limestone member, with knots of galena, and traces of chalcocite, tetrahedrite and chalcopyrite. Trenching on chargeability Anomaly No. 2 was attempted but bedrock was not exposed.

In the fall of 1970, New Jersey Zinc Exploration Company (Canada) Ltd. optioned the claims and conducted a gravity test survey over a portion of the grid area, (ref. 6) The results showed a residual gravity peak of 2.17 milligals coinciding with the high chargeability anomaly designated No. 3. H.E. Swanson, (Geophysicist with New Jersey Zinc Co.) estimated 4½ million tons of excess mass in the IP anomaly No. 3 area, assuming that there is no overburden correction (that is, the overburden is only a few feet thick throughout). Mr. M. Lewis "guesstimated" an excess mass of greater than 3 million tons (ref. 9).

In the fall of 1972, a bulldozer trenching and geological mapping program was initiated and most of the work was centered on the north zone coincident with IP and Gravity anomaly No. 3. One trench, excavated to a depth of 7 feet, cut 24 feet of massive barite with minor copper stain and blebs of galena. Pods and lenses of barite have now been partially exposed within an area approximately 1,000 feet long and 500 feet wide in the north zone, and within an area approximately 400 feet in diameter on Barite hill, which is 3,500 feet southeast of the North zone. The area inbetween these showings is overburden covered and partially flooded by Atan Lake.

PART C

1. GEOLOGY:

(a) Local Stratigraphy and Structure:

The geophysical surveying, and subsequent computer data processing of the information suggested that the chargeability anomalies were lithologically controlled. Subsequent geological mapping, after trenching to bedrock, has shown that this is most likely the case. Therefore, the stratigraphy and structure are most important to exploration. Mr. H. Naylor (ref. 4) divided the local series into a Younger Atan Group, composed chiefly of limestone and dolomite with minor interbedded argillite, sandstone and quartzite, and an Older Atan Group composed of quartzite and shale. Oolitic limestone and breccia are common in the mineralized area, and there is one fossiliferous horizon in the sequence.

The strike of the bedding varies from 300° to 315° (azimuth) and dips vary between 45° to 60° to the southwest. The local structure is complex, and with the addition of such variables as facies changes, swelling and pinching of limestone members, selective dolomitization of some of the bands, and paucity of outcrops, further complicate the overall picture. Faulting is common, and predominantly southwesterly directed. It dissects the sedimentary sequence into a number of blocks, in some cases, with considerable strike separation. Faulting parallel to the bedding has also been reported.

(b) Mineralization:

There are three types of mineralization present at Atan Lake and these include:

1. Pods, lenses and stringers of pure barite, both parallel to and cross cutting bedding planes;
2. Knots and blebs of medium to coarse grained galena associated with the carbonate sequence and sometimes associated with the barite;
3. Copper mineralization, predominantly composed of small specks of tetrahedrite and secondary copper minerals. Minor chalcopyrite and chalcocite are also present.

There is considerable overlap of the three classes of mineralization, as for example in one trench in the north zone area (anomaly No. 3) lenses of barite contain knots of galena, and these in turn often contain traces of fine grained tetrahedrite and specks of chalcopyrite and secondary copper minerals. Other trenched areas in the north zone, however, expose quite massive and pure barite. Assays of 99.67% $BaSO_4$ have been reported (sampled by N. Mistry, August, 1970).

Mineralization is exposed in four main areas within the favourable limestone-dolomite horizon, and these are scattered over a distance of almost two miles. Three of the barite-lead-copper showings occur on the Atan Lake claims and a fourth is located on the Bill Claims, owned by Dresser Industries, which adjoins the Atan property on the northwest (see Fig. 2). These mineral occurrences appear to be the southern limit of an, as yet, poorly defined belt of lead and zinc occurrences which can be traced for 16 miles and include northwesterly from McDame Post to Mount Haskin.

2. REVIEW OF THE GEOPHYSICS TO DATE:

In 1968 a test line of magnetometer surveying was conducted across IP Anomaly No. 2, but magnetic susceptibility contrast between the various lithologic units was insufficient for mapping purposes. The induced polarization survey was successful in that the trenching of No. 3 anomaly exposed barite, lead and copper mineralization. The amount of sulphides, however, is much less that the high amplitude chargeability (IP) anomaly suggests. The response was in excess of 30 milliseconds, indicated ±4% sulphides. However, a dark grey dolomite member which may contain fine graphite could be responsible for some portion of the anomalous chargeability. Graphite was encountered in one, shallow drill hole located on the flank of IP Anomaly No. 1, however, the cause of the other IP anomalies is as yet not entirely clear. The D.C. resistivity survey conducted in conjunction with the IP work serves as a good guide to overall structure.

The gravity test survey conducted by New Jersey Zinc Company, was successful in outlining the northern (No. 3) anomaly. Gravity data had additional value in that tonnage estimates of any excess mass anomaly may be

made. Accurate interpretation, however, requires quite precise levelling (elevation control on stations) and a reasonably accurate idea of the overburden depth. Thus, the most accurate method of outlining barite-galena mineraliation is by gravity surveys, with levelling and hammer seismic surveys as interpretational aids. In order to obtain reliable excess mass estimates, a detailed gravity survey must be carried out over the favourable horizon, as well as in areas outside the property (in order to determine regional effects).

3. REVIEW OF GEOCHEMISTRY TO DATE:

The geochemical soil sampling survey conducted by Geo-X Surveys Ltd. was not overly successful. This is believed to be due to the fact that calcareous bedrock "fixes" the metals and consequently only minor amounts of these metals are available for migration and redeposition into the upper B soil horizon. The best example occurs over the No. 3 anomaly where the following peak metal contents occur and are compared with the "mean" (background) values:

Metal	Peak over No. 3 anomaly (p.p.m.)	Background (arithmetic Mean, p.p.m.)
Copper	20	13
Zinc	320	84
Lead	48	14
Silver	0.5	approx. 0.5

Thus, it is clear that with respect to Cu, Pb and Ag at least, geochemical soil sampling surveys are quite limited in value in the Atan Lake area.

4. RECOMMENDATIONS:

The Atan Lake property is heavily drift covered and to date, about 50 percent of the claim area has been explored by indirect methods. Previous work has indicated massive barite, lead and copper mineralization apparently confined to a single favourable belt, over one mile long and approximately 400 feet wide. It is not known if parallel bands exist to the east, or west; or if the horizon continues southeast across the Dease River.

Barite appears to be the most abundant mineral present, and the possible extension of the British Columbia Railway from Dease Lake to Lower Post will alter considerably the economics of the occurrence. It would be advisable to estimate the tonnage, by gravity methods, and the grade by drilling and trenching in order that an overall economic view of the situation may be obtained.

The following exploration program is recommended on Tournigan Mining's Atan Lake property:

(a) Establish camp and rechain old lines (if necessary). Extend the grid to the outside claims boundaries. Approximately 20 additional line miles should adequately cover the property, with cross lines spaced 400 feet apart. The grid lines should be well cleared to facilitate recommendations B and C below.

(b) Establish the elevations of the base line stations, and all 100-foot stations on the cross lines, and establish stations outside the present claims area to provide regional gravity control.

(c) Conduct a gravity survey of the old and new grid with meter readings at 100 feet intervals along all cross lines and base lines.

(d) Conduct a hammer seismic survey over anomalously high gravity zones to permit the accurate interpretation of the gravity data.

(e) Construct drill access roads to areas of deep overburden and bulldozer trench anomalous areas with shallow overburden (as determined by overburden seismic work).

(f) Diamond drill IP anomalies No. 2(a) and 3, and any anomalous gravity highs.

5. COST ESTIMATE:

The estimated cost of the above described recommended program is:

1.	Refurbishing old grid		$ 1,000.00
2.	20 line miles of new grid @ $100/line mile		2,000.00
3.	35 line miles of levelling and gravity work including work over Atan Lake (complete with maps, reports, interpretation)		14,000.00
4.	15 line miles of hammer seismic surveying over gravity anomalies @ $500/line mile		7,500.00
5.	Bulldozer trenching and drill hole set up roads: 200 hrs @ $35/hr.		7,000.00
6.	Consulting, supervision		3,500.00
7.	2,000 feet of diamond drilling @ $15/foot		30,000.00
8.	Transportation and communication		3,000.00
9.	Camp supplies		2,000.00
10.	Assays, chemical analysis and testing		2,500.00
		Sub total	$72,500.00
11.	Contingencies @ 10%		7,250.00
		Total	$79,750.00
		Say	$80,000.00

If, after completion of the above described program, the results are sufficiently encouraging, additional funds will be required to conduct fill-in drilling.

Respectfully submitted,

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D.R. COCHRANE

February 23rd, 1973,
Delta, B.C.

D.R. Cochrane, P.Eng.

APPENDIX I

Certificate

I, D.R. Cochrane, of the Municipality of Delta, Province of British Columbia, hereby certify that:

1. I am a geological engineer with an office at 4882 Delta Street, Delta, B.C.

2. I am a graduate of the University of Toronto (B.A.Sc.) in 1962, and a graduate of Queen's University (M.Sc.Eng.) in 1964.

3. I have practiced my profession since 1962 while employed with U.S. Steel, Noranda Explorations and Meridian Syndicate.

4. I am a member of the Association of Professional Engineers of British Columbia and also the Association of Professional Engineers of Ontario and Saskatchewan.

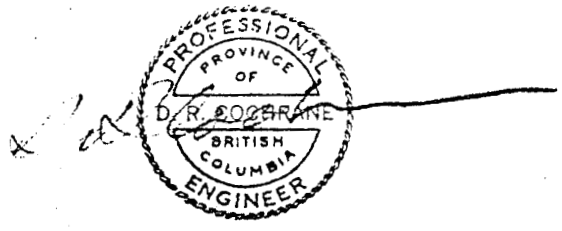
5. I have no interest, direct or indirect, in the property or securities of Tournigan Mining Explorations Ltd., nor do I expect to receive any such interest.

6. The foregoing report is based on my association with the Atan Property since 1968, and personal visits to the property in 1968, 1970 and 1971.

7. I hereby consent to have the information contained herein used by Tournigan Mining Explorations Ltd., or in any official or unofficial communications they might have.

4882 Delta Street,
Delta, B.C.

D.R. Cochrane, P.Eng.



APPENDIX II

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7. B.C. Department of Mines Mineral Claims Map No. 123M-1.

8. British Columbia Railway, Head Office Vancouver, Personal communication.

9. LEWIS, M.J. (1972), Atan Lake Property Gravity Survey (Private Report).

March 20, 1973.

Mr. Vernon L. Hembling,
Harbord Insurance Ltd.,
1220 Broad Street,
VICTORIA, British Columbia.

Dear Mr. Hembling:

Thank you for your letter dated March 12, 1973.

I have asked Dr. Jim Fyles, Deputy Minister of Mines and Petroleum Resources, to peruse the enclosures and comment to me. As soon as I have heard from Dr. Fyles, I will contact you.

Yours very truly,

L. C. Hempsall.

cc: Dr. J. Fyles,
Deputy Minister,
Department of Mines and Petroleum Resources,
BUILDINGS.

HARBORD
INSURANCE Ltd.

Mr. L C Hempsall
Deputy Minister of Industrial Development
Trade & Commerce
Parliament Buildings
Victoria, British Columbia

Dear Mr. Hempsall,

With reference to our telephone discussion this morning concerning the Barite deposit at Atan Lake, here is the copy of a letter which I asked my son, John, to furnish as an assistance to me in discussions with your Department. Also enclosed is an engineering report with respect to the Atan Lake property which will provide additional information to you and your colleague.

From my own discussions with an officer of Messrs. Harrison & Crossfield, a large chemical company, it appears that there is a strong demand for Barite products in Canada at this time and the supply is rapidly becoming short.

I trust you and your colleague in the Department of Industrial Development could be available for a meeting with John and myself next week and I will look forward to hearing from you concerning the time and place. John needs just one or two days notice to make himself available so perhaps you could take this into account in arranging any meetings.

Thank you very much for your courtesy on the telephone this morning and I look forward to meeting you personally.

Sincerely yours,

Vernon L Hembling

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VICTORIA, B.C.
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J. N. HEMBLING
PRESIDENT

TEL. 684-7266

TOURNIGAN MINING EXPLORATIONS LTD.

703 - 535 THURLOW STREET, VANCOUVER 5, BRITISH COLUMBIA, CANADA

March 8, 1973 .

Mr. Vernon L. Hembling,
c/o Harbord Insurance Ltd.,
1220 Broad Street,
VICTORIA, B.C.

Dear Dad:

The following should suffice to give you enough information for any preliminary discussions with Mr. Macdonald, the Attorney General.

1. Our Atan Lake property which is 23 miles east of Cassiar B.C. probably contains the largest deposit of Barite ($BaSO_4$) in North America. Preliminary figures show that we have something in the neighbourhood of 10-20 million tons of high quality material.

2. The amount of associated lead & zinc sulfides which underlies the Barite is not yet known but may be considerable.

3. Until 2 weeks ago we did not know, nor was it common knowledge that there is an immediate shortage of Barite in Alberta.

4. Barite is used mainly for manufacturing oil-drilling mud, and sells in Lethbridge, Alberta for $28.00 - $35.00 per ton.

5. We have been approached by the President of a large chemical marketing Co. called Van Waters & Rogers Ltd. to supply large tonnages of Barite from our Atan Lake Property.

/2

6. At the present time we have plenty of Barite in the ground but require about $250,000 to put this property into production.

7. The projected revenue in the first year of operation would be approximately $400,000 - $500,000 witha sizeable increase in this amount foreach following year.

8. The Barite drilling-mud which we could manufacture would be consumed in the oil-exploration industry within Canada's borders.

9. It is considered most practical to haul raw Barite by truck from the Atan Lake Property near Cassiar to Fort Nelson, B.C. where it would be ground, processed, and bagged.

10. Jobs would be created at Fort Nelson in the grinding plant which would have to be set-up, and at the mine-site.

11. A considerable profit would be almost immediate and would carry on for many years, since we have literally hundreds of years supply of Barite at the current rate of useage.

12. Alberta alone consumes approximately 80,000 tons per year and this amount is estimated to double in the next few years as the north slope oil search increases.

13. Current producers in Alberta and B.C. can only supply 60,000 tons of Barite and their reserves are fast running out.

14. If we had the bagged Barite on hand today, we could sell at least 10,000 and more likely 20,000 tons immediately to Van Waters and Rogers Ltd., for approximately $ 30. per ton or $300,000 - $600,000.

In view of the above points I wonder if you could find out from Mr. Macdonald ~~if there is any chance of getting some financial assistance from the B.C. government~~. Our only other alternatives are either to allow a large U.S. company to take over on an option basis or to sell to Dresser Minerals which is also an American based agglomerate.

I am enclosing a recent engineers report on the Atan Lake property which explains a great deal of the technical background on the property.

It is no problem to come to Victoria with one or two days notice if it will help.

Most sincerely,

John.