

4466

92H/10W
 GEOLOGICAL AND GEOCHEMICAL REPORT
 on the BIC, CJH, IRA
 IRISH BRITCO PROPERTY

by
 D.B. Petersen & D. Maynard

For
 LTD TENTO CANADIAN EXPLORATION LIMITED

Claims

IRA 1, 2, 4, 6
 IRA 8-24 (incl.)
 BIC 1-3 (incl.)
 CJH 1-20 (incl.)

Owner

S. Young
 1651 Harwood St.
 Vancouver, B.C.

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT

Location:

NO. 4466 MAP

Nine miles west-northwest of Tulameen, B.C.
 Similkameen Mining District
 49°36'N, 120°56'W. N.T.S. 92 H 10/W

Dates:

May 29, 1972, June 5-7, 1972, Aug. 1-2, 1972

TABLE OF CONTENTS

	<u>Page No.</u>
INTRODUCTION	1
SUMMARY	1
LOCATION	1
ACCESS	2
TOPOGRAPHY	2
PREVIOUS WORK	2
PROPERTY & OWNERSHIP	2-3
CURRENT WORK	4
GEOLOGY	4
GEOCHEMISTRY	4
Overburden and Soil Type	4-5
Sampling Method	5
Analytical Method	5
Interpretation	6
REFERENCES	7
ASSESSMENT DATA	8
QUALIFICATIONS - D. MAYNARD	13

LIST OF MAPS

<u>Map No.</u>		<u>Scale</u>
DWG-L-6125	#3 Location Map and Claim Map	1" = ½ mile
Fig. 1	#1 Sample and Station Location Map	1" = ½ mile
Fig. 2	#2 Soil Sample Grid Locations	1" = 100 ft.

LIST OF TABLES

<u>Table No.</u>		<u>Page No.</u>
1	Geochemical Results	9 - 10
2	Consecutive List of Sample and Station Locations	11 - 12

Geological and Geochemical Report
on the
Irish Britco Property
N.T.S. 92-H-10/W

INTRODUCTION:

The Irish Britco property was examined in three separate visits during the 1972 field season. The purpose of these visits was to examine and evaluate mineralized showings with a view to finding a possible location for a more extensive porphyry body. Included in the examination was a collection of 44 soil samples for geochemical analysis and 19 rock samples, some for petrographic analysis (Fig. 1). Geological mapping was carried out to check the validity of previous work. Mapping was done on a reconnaissance scale over approximately six square miles.

SUMMARY:

A quartz-vein stockwork with molybdenite and copper mineralization was found on Irish Creek by the original property owners. Subsequent exploration work by them concentrated on identifying an extension of this zone of interest.

The presence of the well developed stockwork in a feldspar porphyry which is moderately to intensely altered is encouraging. High Cu, Mo values were obtained in soils east and south-east of the showing.

LOCATION:

The property is located around the junction of Irish and Skwum Creeks upstream of the junction of Skwum and Lawless Creeks. ⁶⁴⁹³⁰⁰
(DWG-L-6125) UTM of the Irish Britco adits and showing is 649200/
5497000/10. Mt. Henning lies about two miles to the north-northwest of the property.

5496600²

ACCESS:

Access is from Princeton via Coalmont, Tulameen, and the Lawless Creek logging road. The drive from Princeton takes about one hour. Four wheel drive is advisable.

TOPOGRAPHY:

The property lies in moderately hilly country between 4,000 and 5,000 feet. Much of the area has been logged. The rest is covered by large, mature timber, some of it with extensive deadfall. Logging operations are continuing.

PREVIOUS WORK:

Approximately \$180,000 was spent by the Copper Range-Britco Syndicate between 1969 and 1971. An account of this work is contained in a report for the Copper Range Exploration Company by D.E. Hopkins titled "Geological Report Irish Britco Property". Work by this Syndicate included geological mapping, stream geochemical sampling, soil geochemistry, airborne magnetics, 1,000 ft. of diamond drill hole, and 4,000 feet of percussion hole.

PROPERTY & OWNERSHIP:

The area is well covered by claims most of which were staked in 1969. (DWG-L-6125). Towards the south there are Crown grants of the Law's Camp. The located claims belong to Seamus Young, prospector. These claims were originally staked by two separate groups and both subsequently unitized by Copper Range for exploration purposes. There are several contiguous claim blocks in the area. Expiry dates range from June 16th, 1973 to June 16th, 1974.

<u>Claim Name</u>	<u>Record Number</u>	<u>Expiry Date</u>
IRA 1	25124	June 16, 1974
IRA 2	25125	June 16, 1973
IRA 4	25127	June 16, 1973
IRA 6	25129	June 16, 1973
IRA 8	25131	June 16, 1973
IRA 9	25132	June 16, 1973
IRA 10	25133	June 16, 1974
IRA 11	25134	June 16, 1973
IRA 12	25135	June 16, 1973
IRA 13	25136	June 16, 1973
IRA 14	25137	June 16, 1973

PROPERTY & OWNERSHIP: (cont'd)

<u>Claim Name</u>	<u>Record Number</u>	<u>Expiry Date</u>
IRA 15	25138	June 16, 1973
IRA 16	25139	June 16, 1973
IRA 17	25140	June 16, 1973
IRA 18	25141	June 16, 1973
IRA 19	25142	June 16, 1973
IRA 20	25143	June 16, 1973
IRA 21	25144	June 16, 1973
IRA 22	25145	June 16, 1973
IRA 23	25146	June 16, 1973
IRA 24	25147	June 16, 1973
BIC 1	36096	June 19, 1973
BIC 2	36097	June 19, 1973
BIC 3	36098	June 19, 1973
CJH 1	36723	July 14, 1973
CJH 2	36724	July 14, 1973
CJH 3	36725	July 14, 1973
CJH 4	36726	July 14, 1973
CJH 5	36727	July 14, 1973
CJH 6	36728	July 14, 1973
CJH 7	36729	July 14, 1973
CJH 8	36730	July 14, 1973
CJH 9	36731	July 14, 1973
CJH 10	36732	July 14, 1973
CJH 11	36733	July 14, 1973
CJH 12	36734	July 14, 1973
CJH 13	36735	July 14, 1973
CJH 14	36736	July 14, 1973
CJH 15	36737	July 14, 1973
CJH 16	36738	July 14, 1973
CJH 17	36739	July 14, 1973
CJH 18	36740	July 14, 1973
CJH 19	37446	August 14, 1973
CJH 20	37447	August 14, 1973

Total number of claims in group is 44.

CURRENT WORK:

Work carried out by Rio Tinto Canadian Exploration Ltd. consisted primarily of checking previous work, both geological and geochemical. Figure 1 outlines the geology as mapped by Copper Range, however the sample numbers shown indicate geological and geochemical samples and observations taken at that point by Rio Tinto. Information on structure and lithology noted at these points plus trace metal content obtained in the soils afford a useful independent check on previous interpretations.

GEOLOGY:

The oldest rocks in the area are the Nicola volcanics with associated sediments. These have been intruded by a series of north-northwest-trending felspar and quartz porphyry dikes. The dominant structural trend in the area is along the same direction as the dikes. The latest major rock type in the area is the Eagle granodiorite lying to the west. This is an apparently anatectic, foliated, somewhat gneissic rock varying from intermediate to felsic. The quartz felspar porphyry contains pyrite in most outcrops and drill holes. Moderate to intense alteration, including pervasive sericitization, with kaolinization along fractures is evident near the junction of Irish and Skwum creeks and both north and south of this. Further to the south, near the Law's Camp, alteration appears to be much less intensive. Near the Irish Creek showing a spectacular quartz vein stockwork with molybdenite and traces of copper is developed. Figure 1 shows the outcrops as mapped and identified by the Copper Range geologists.

GEOCHEMISTRY:

A total of 44 soil samples were collected during the property examination. (Fig. 1 & 2). Included in this total are soil profile samples and soil samples collected over a small grid which was established to check the extent of a highly anomalous Cu, Mo zone.

OVERBURDEN AND SOIL TYPE:

Glacial till and remnants of outwash deposits cover a large part of the area and in some places attain a thickness of greater than 100 feet. Outcrops are generally scarce except for exposures along ridge lines, road cuts and locally in streams.

The predominant soil type appears to be of the podzolic order, with the ferro-humic podzol group encountered most often. A relatively

OVERBURDEN AND SOIL TYPE: (cont'd)

thick (greater than 3 inches) Ah horizon is overlain by thin organic surface material. A distinct Ae horizon is generally lacking over the Bhf horizon. Usually the Ah-Bhf boundary is gradual. The Bhf horizon grades through a Bf horizon to a C horizon. Some soils underlying swampy areas near the creeks may be of the gley-solic order. However it is also possible that these are podzols which remain saturated for only part of the year.

SAMPLING METHOD:

Profile samples were taken to a depth of two feet by use of a shovel, discarding the coarser rock debris and retaining the finer soil fraction. The Ah horizon and Bf horizon soils were always sampled, however in some cases the C horizon was not intersected. Profile samples were taken in areas outlined to be anomalous by the previous soil survey.

Sampling of the Bf horizon was done on a small grid centered in the main anomaly. Twenty two samples were collected at 50 foot intervals along two lines 400 feet apart (Fig. 2).

Samples were placed in water resistant Kraft paper envelopes and numbered. Sample numbers, location and physical characteristics were noted in a field book.

ANALYTICAL METHOD:

Analysis of the samples was done in the Rio Tinto Canadian Exploration Limited Laboratory located at 1115 West 15th Street, North Vancouver, B.C.

Samples were first oven dried at approximately 60°C for a period of 24 hours to 48 hours. The dried samples were then sieved through -80 mesh bolting cloth and the oversized material discarded. Analyses were carried out on the -80 mesh fraction by atomic absorption spectrophotometer after digestion with hot concentrated nitric acid/perchloric acid. The Ag, Cu, Mo, Pb, Zn concentrations in ppm were obtained by company analyst, Mr. E. Paski, Jr.

INTERPRETATION:

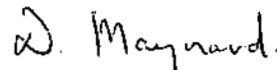
The purpose of taking soil profiles on the property was two-fold; to test values obtained by a previous soil sampling program, and to attempt to evaluate whether their soil anomalies were of transported or of local origin.

Results obtained correspond to previous results. It is reasonable therefore to assume that their soil anomalies are valid. It also appears that their sampling program involved only the 'B' soil horizon.

Field observations and results suggest that the copper anomaly $\frac{1}{2}$ mile east of the Irish Creek showing is essentially of local origin. A side hill bog sampled near the center of the anomaly gave values of 1600 ppm (#2037) in the inorganic material (below interface) and 2300 ppm (#2038) in the organic material. (Fig. 1). The value of 3800 ppm (#2052) was obtained from an organic sample downslope from the main anomaly. Although some enrichment of copper content is expected from downward migrating ground waters the topography and Copper Range's values suggest the strong possibility that much of the metal content could be derived from bedrock below the valley floor. Samples collected on the grid in this area (Fig. 2) confirmed the high Cu and Mo content of the Bf horizon soils (up to 750 ppm Cu and 16 ppm Mo).



D.B. Petersen



D. Maynard

REFERENCES:

- 1 Geological Survey of Canada, Map 888A
Princeton East 1/2.
- 2 Hopkins, D.E. (Feb, 1971) Geological Report of the
Irish-Britco Property; unpublished manuscript.
- 3 Rice, H. (1960) Geology and Mineral Deposits of the
Princeton Map Area, B.C., G.S.C. Memoir 243.
- 4 B.C. Dept. of Mines and Petroleum Resources Annual
Reports.
1960, 1969-70.

ASSESSMENT DATA

Work Completed:

Geological Mapping
 Rock Specimens Collected - 19
 Soil Samples collected and assayed - 44

<u>Personnel</u> <u>Employed</u>	<u>Dates</u>		<u>Wage</u>
R. Longe	May 29, June 5-7, 1972	4 days	\$200.00
D. Maynard	May 29, June 5-7, Aug. 1-2, 1972	6 days	210.00
S. Young	May 29, June 5-7, Aug. 1-2, 1972	6 days	180.00
D. Petersen	July 8, Aug. 9, 1972	2 days	100.00
J. McClintock	Aug. 1-2, 1972	1 day	40.00
		Total	20 days
			\$730.00

Equipment Rentals:

4 wheel drive 3/4 ton truck, 6 days @ \$15/day \$ 90.00

Food and Lodging:

19 man days @ \$20/day \$380.00

Analysis of Soil Samples:

44 samples @ \$3.95/sample \$173.80

Total \$1373.80

Declared before me at the City
 of Vancouver, in the
 Province of British Columbia, this 29th
 day of June, 1973, A.D.

[Handwritten Signature]

[Handwritten Signature]

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

TABLE I GEOCHEMICAL RESULTS
(values in ppm)

<u>Sample No.</u>	<u>Ag</u>	<u>Cu</u>	<u>Mo</u>	<u>Pb</u>	<u>Zn</u>	<u>Soil Horizon</u>
2032	0.1	265	5	3	53	Bf
2033	ND	24	10	2	62	Ah
2034	0.1	190	5	5	72	Bf
2035	0.3	255	7	3	69	C
2036	0.2	155	3	3	43	C
2037	0.1	1600	4	4	200	C
2038	0.8	2300	21	ND	150	Ah
2039	ND	14	4	16	57	Ah
2040	0.3	69	1	8	71	Bf
2041	0.2	100	1	15	69	C
2042	ND	18	2	12	18	Ah
2043	0.2	53	1	7	42	Bf
2044	0.3	58	0.5	5	26	C
2045	ND	10	ND	6	88	Ah
2046	0.2	49	1	6	47	Bf
2047	0.1	90	2	7	77	C
2048	0.2	34	6	20	44	Ah
2049	0.4	105	8	6	48	Bh
2050	0.6	160	12	16	108	Ah
2051	0.3	295	3	7	150	Bf
2052	ND	3800	6	10	205	Ah
2053	0.1	84	2	7	100	Bf

TABLE I GEOCHEMICAL RESULTS
(Values in ppm)
(cont'd)

<u>Sample No.</u>	<u>Ag</u>	<u>Cu</u>	<u>Mo</u>	<u>Pb</u>	<u>Zn</u>	<u>Soil Horizon</u>
2550	0.2	26	3	9	78	Bf
2551	0.1	96	3	10	75	Bf
2552	0.2	750	6	10	170	Bf
2553	0.2	230	4	7	175	Bf
2554	0.6	119	12	8	49	Bf
2555	ND	58	4	8	50	Bf
2556	2.4	230	8	9	66	Bh
2557	0.5	103	3	10	125	Bf
2558	ND	38	6	7	59	Bf
2559	0.4	670	15	9	96	Bf
2560	0.4	350	16	8	69	Bf
2561	0.3	52	1	10	110	Bf
2562	0.2	44	1	7	83	Bf
2563	0.2	41	1	10	135	Bf
2564	0.2	150	3	8	190	Bf
2565	0.5	670	12	10	240	Bf
2566	0.3	140	2	8	106	Bf
2567	0.1	69	1	9	67	Bf
2568	0.1	62	1	9	94	Bf
2569	0.2	95	2	9	155	Bf
2570	0.3	93	3	10	153	Bf
2571	0.2	55	3	12	82	Bf

TABLE 2
CONSECUTIVE LIST OF
SAMPLE AND STATION LOCATIONS

<u>Sample No.</u>	<u>Type of Sample</u>	<u>Type of Record</u>
2001	Porphyry	Sample
-	-	-
2003	"	"
2004	"	"
-	-	-
2006	Chlorite Schist	"
2007	Silicified Nicola	"
2008	Porphyry	Station
-	-	-
2010	Eagle granodiorite	Station
2011	Porphyry	Sample
2012	"	"
2013	"	"
2014	"	"
2015	Aplite Dike	"
-	-	-
-	-	-
2018	?Eagle granodiorite	Station
-	-	-
2020	Porphyry	Station
2021	"	"
2022	"	Sample
2023	"	Station
2024	Felsic dike	Sample
2025	Intermediate dike	Station
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
2031	Soil	Sample Lost
2032	Soil Bf	Sample
2033	Soil Ah	"
2034	Soil Bf	"
2035	Soil C	"
2036	Soil C	"
2037	Soil C	"
2038	Soil Ah	"
2039	Soil Ah	"
2040	Soil Bf	"

CONSECUTIVE LIST OF
SAMPLE AND STATION LOCATIONS
(cont'd)

<u>Sample No.</u>	<u>Type of Sample</u>		<u>Type of Record</u>
2041	Soil	C	Sample
2042	Soil	Ah	"
2043	Soil	Bf	"
2044	Soil	C	"
2045	Soil	Ah	"
2046	Soil	Bf	"
2047	Soil	C	"
2048	Soil	Ah	"
2049	Soil	Bh	"
2050	Soil	Ah	"
2051	Soil	Bh	"
2052	Soil	Ah	"
2053	Soil	Bf	"
2550	Soil	Bf	"
2551	Soil	Bf	"
2552	Soil	Bf	"
2553	Soil	Bf	"
2554	Soil	Bf	"
2555	Soil	Bf	"
2556	Soil	Bh	"
2557	Soil	Bf	"
2558	Soil	Bf	"
2559	Soil	Bf	"
2560	Soil	Bf	"
2561	Soil	Bf	"
2562	Soil	Bf	"
2563	Soil	Bf	"
2564	Soil	Bf	"
2565	Soil	Bf	"
2566	Soil	Bf	"
2567	Soil	Bf	"
2568	Soil	Bf	"
2569	Soil	Bf	"
2570	Soil	Bf	"
2571	Soil	Bf	"

Qualifications of Geology Staff Member.

Rio Tinto Canadian Exploration Limited

D. Maynard

Academic

1972	B.Sc.	Honours Geology	University of British Columbia.
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Practical

1969-1971		Summer Field Work	Rio Tinto Canadian Exploration Limited
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1972-1973		Full Time Employment	Rio Tinto Canadian Exploration Limited
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June, 1973

D. Maynard

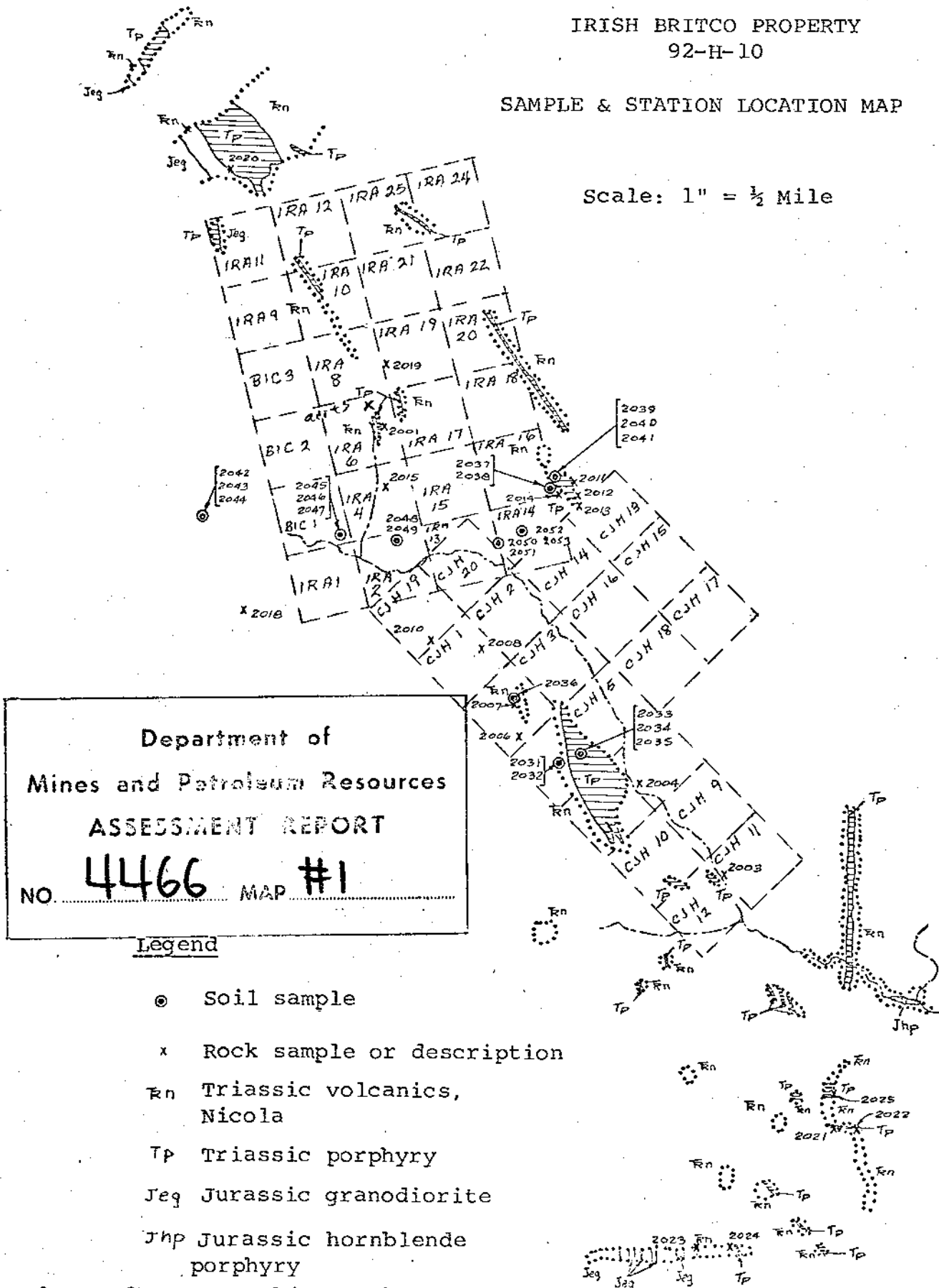
D. Maynard

FIGURE 1

IRISH BRITCO PROPERTY
92-H-10

SAMPLE & STATION LOCATION MAP

Scale: 1" = 1/2 Mile

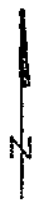
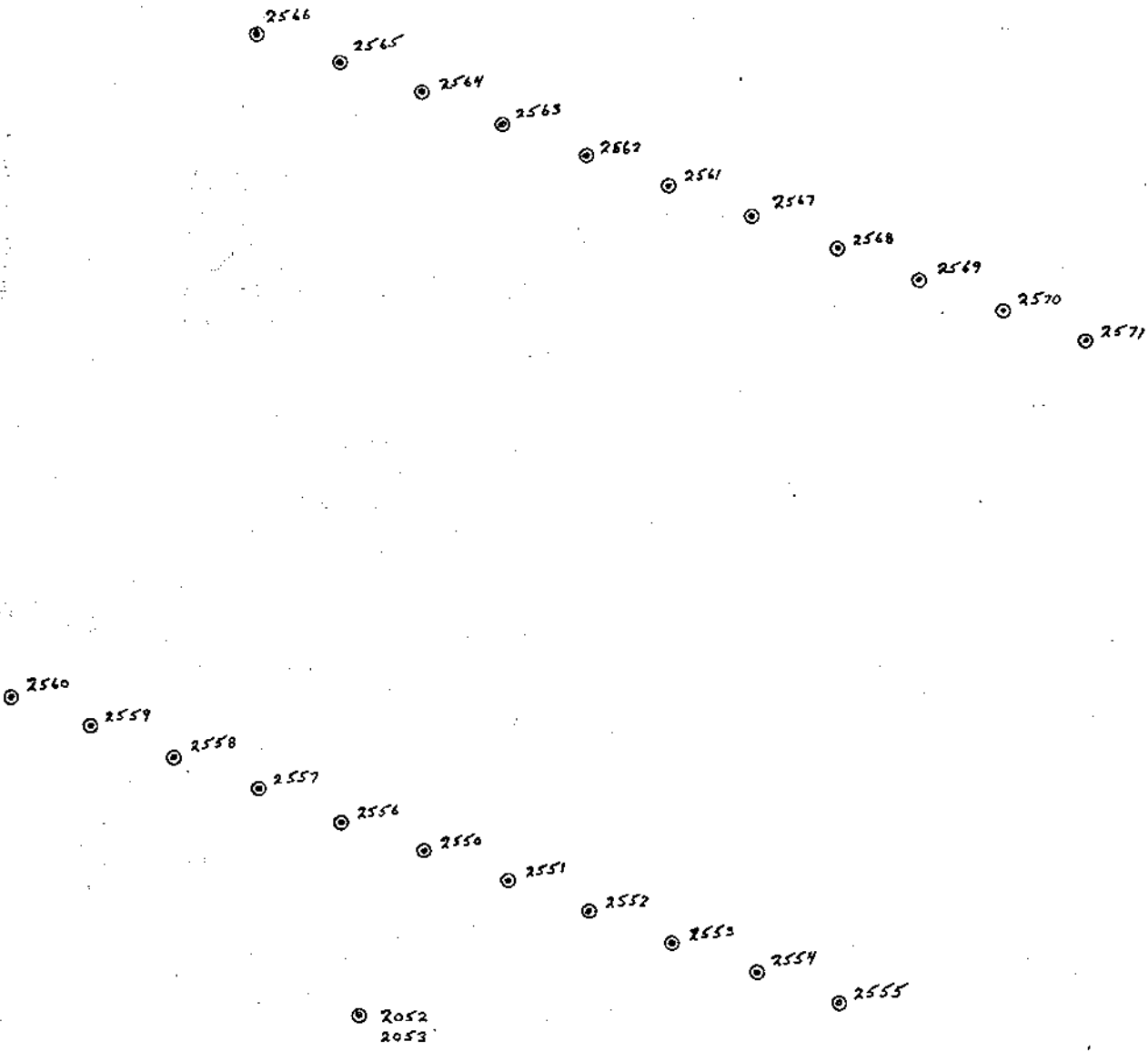


Department of
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ASSESSMENT REPORT
NO. 4466 MAP #1

Legend

- Soil sample
- x Rock sample or description
- Rn Triassic volcanics,
Nicola
- Tp Triassic porphyry
- Jeg Jurassic granodiorite
- Jhp Jurassic hornblende
porphyry

Geology after D. Hopkins, Feb., 1971

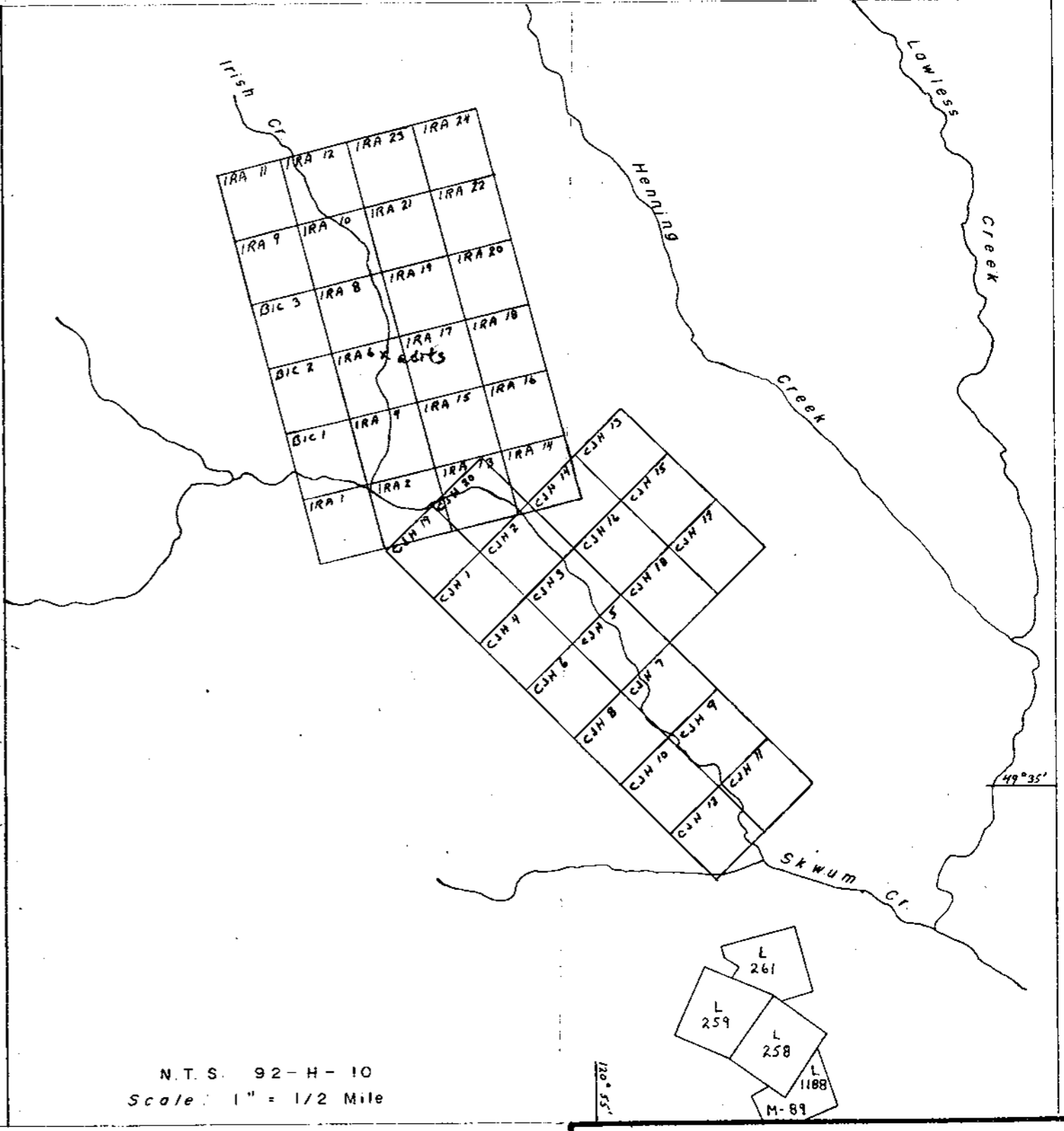
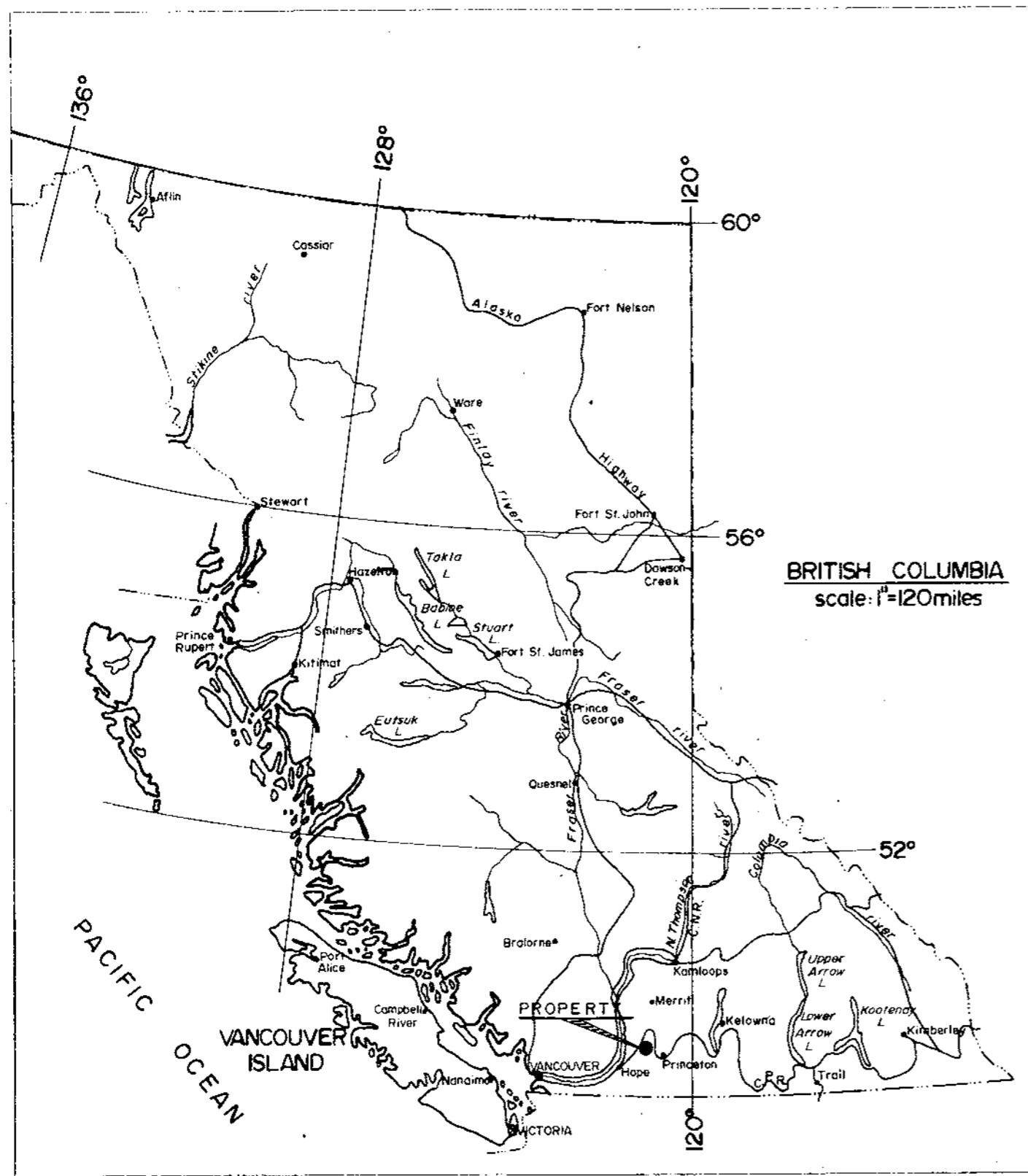


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 ASSESSMENT REPORT
 NO. 4466 MAP # 2

FIGURE 2

Irish Britco Soil Grid
 Sample Locations

Scale: 1" = 100 ft.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4466 MAP #3

RIO TINTO CANADIAN EXPLORATION LTD.
IRISH BRITCO PROPERTY, B.C.
LOCATION MAP
MAY 1973 D.M./r.h. DWG. L-6125