

1815

GEOCHEMICAL SURVEY  
OVER PART OF THE UTA - ATU - BON CLAIMS  
NANAIMO MINING DIVISION

for

GALLEON EXPLORATIONS LTD. (NPL)

by

R.K. GERMUNDSON, Ph.D.

April 9, 1969

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Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 1815 MAP.....

GEOCHEMICAL SURVEY  
OVER PART OF THE UTA - ATU - BON CLAIMS  
NANAIMO MINING DIVISION  
(PORT McNEIL, 92 L/11 E, 50° 30' 127° 00' SE)  
R.K. GERMUNDSON, PhD, GEOLOGY  
May 2 - August 25, 1968  
For GALLEON EXPLORATIONS LTD. (NPL)  
835 - 777 Hornby St., Vancouver, B.C.

INTRODUCTION:

The Uta - Atu - Bon Claims are held by Galleon Explorations Ltd. (NPL), 835 - 777 Hornby Street, Vancouver, B.C.. They are comprised of 57 contiguous claims and fractional claims. The claims were staked following preliminary geological investigations of the area by R.H.D. Philp, P. Eng.

This report is based on the results of the geochemical survey; visits to the property by the writer between May and August, 1968; Report on the Uta and Atu Groups by R.H.D. Philp, P. Eng.; and reconnaissance mapping done by the Geological Survey of Canada (Paper 67 - 1).

LOCATION AND ACCESS:

The Uta - Atu - Bon Claims are located 8 miles southwest of Port McNeil on northern Vancouver Island, British Columbia. Co-ordinates near the centre of the claims are 50° 32' north latitude and 127° 10' west longitude.

Access is via road from Port McNeil or Port Hardy. Several branch roads traverse the property, some of which are passable for vehicles. The others were heavily overgrown with second growth and have been cleared for walking.

Most of the area has been logged and the thick second growth of salal bush, along with felled trees and stumps, makes traversing very difficult.

PHYSIOGRAPHY:

The claims are in an area of low to moderate relief. Elevations vary between 500 and 1,200 feet above sea level. The greatest elevations are along the southwest side along the claim line of Uta 5 to 10 where the rocks of the Karmutsen Formation form a steep southwest flank of a valley.

This valley extends northwesterly through the central portion of the claims and is broad but well defined.

Hills are present on the northeastern portion of the claims and may be underlain by the Bonanza Group.

Overburden is extensive and depths to bed rock are difficult to determine.

CLAIMS:

The following are the 55 claims held by Galleon Explorations Ltd. (NPL).

<u>Name</u>	<u>Record Numbers</u>
Uta 1 - 10	24397 - 24406
Uta 13 - 36	24407 - 24430
Atu 1 - 12	24333 - 24444
Bon 1 - 6	24672 - 24677
Bon 1 & 2 fractions	24678 - 24679
Uta 1 fraction	24680
Uta 38 - 39	24431 - 24432

The claim lines over the geochemical survey area were measured by chain and compass.

HISTORY:

Occurrences of copper, lead, zinc, iron, gold and silver on northern Vancouver Island have been explored since shortly after the turn of the century. Within the area production has come from the Coast Copper and Empire Development Properties and the Yreka Property.

Aeromagnetic maps covering the northern end of the Island, released by the Federal Government in 1963, have been used by several companies to set up exploration programs.

A major copper deposit is being explored by Utah Construction and Mining Co. This is about 20 miles northwest of the Uta - Atu - Bon claims.

During the past year extensive staking and exploration has taken place to the northwest and southeast of Utah's ground.

#### GENERAL GEOLOGY:

The northern Vancouver Island is underlain by volcanic and sedimentary rocks which vary in age from Triassic to Tertiary. They generally trend to the northwest, and show shallow to moderate dips.

Numerous small intrusives, varying in general from a granite to dioritic composition, intrude the Triassic rocks.

Most of the major faults which have been mapped strike northwesterly.

Rocks of the Triassic Period are the most extensive and important and are divided, in order of decreasing age, into the Karmutsen and Quatsino Formations and the Bonanza Group.

The Karmutsen Formation is composed of amygdaloidal, andesitic to basaltic flows. The Quatsino Formation consists of massive, grey limestone. Two series make up the Bonanza Group; one is predominantly volcanic; the other mainly sedimentary.

#### LOCAL GEOLOGY:

The geology of the Uta - Atu - Bon claims is included in Geological Survey of Canada Paper 67 - 1. The northern portion of the claims is shown as being underlain by rocks of the Bonanza Group and the southern portion by the Karmutsen Formation. The contact between the two is approximately east - west.

A granitic stock is exposed immediately to the southeast of the claims. A series of these occur in a southeast trending belt from west of Port Hardy.

A northwesterly trending fault extends through the centre of the claims.

The claims area is mostly covered with overburden. Karmutsen volcanics are exposed on the northwest portion of the property. These contain sporadic minor zones of disseminated chalcopyrite. Further northwest on an adjacent property other copper showings occur.

PORT McNEILL

PORT McNEILL

I. SHULMAN

**GALLEON  
EXPLOR-  
ATIONS  
LTD.**

KENNCO

G. W.  
WRIGHT

NORANDA

50°30' N

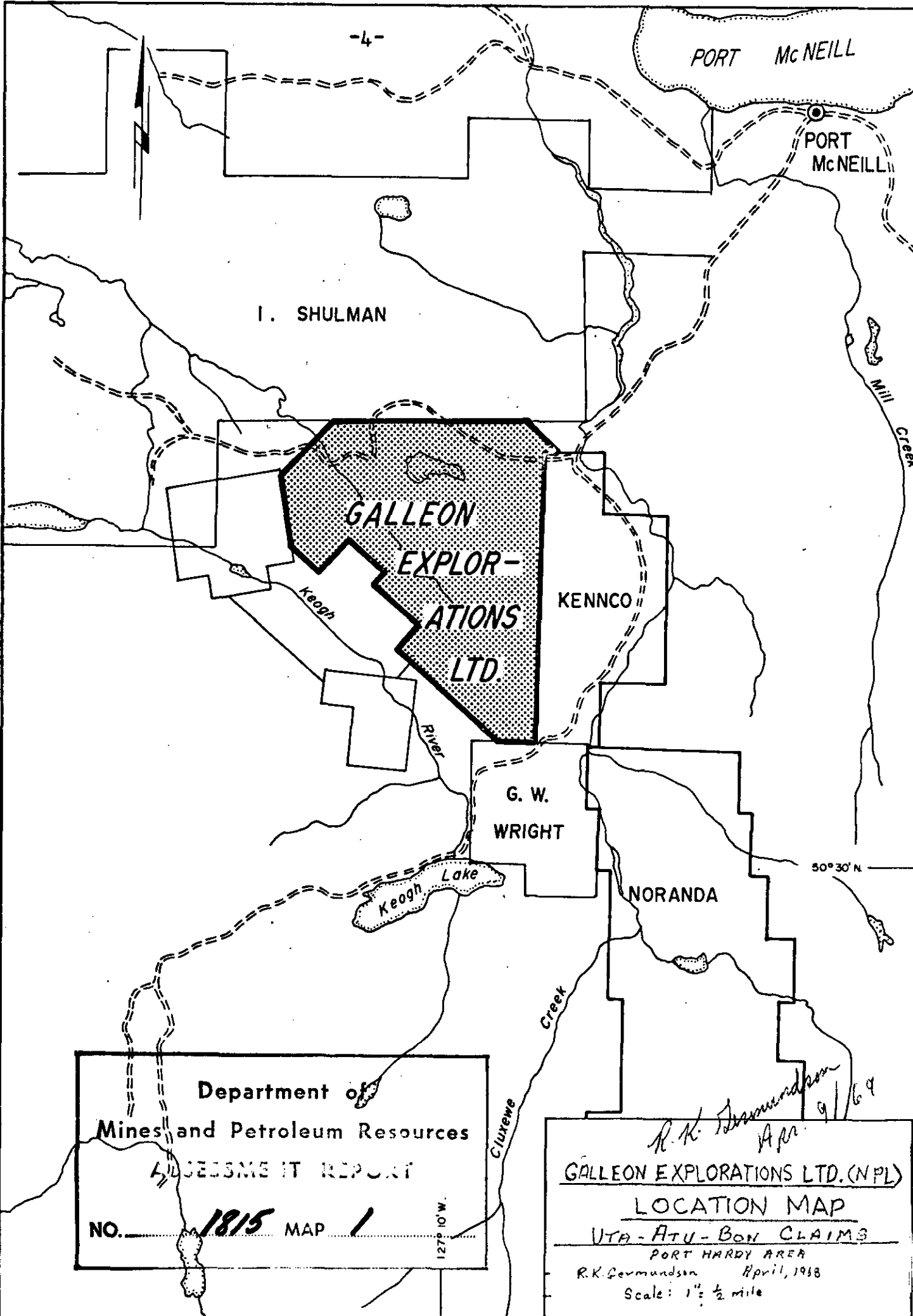
Department of  
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ASSESSMENT REPORT

NO. 1815 MAP 1

127° 10' W.

*R. K. Gunnarsson*  
*Apr. 9/1969*

**GALLEON EXPLORATIONS LTD. (NPL)**  
**LOCATION MAP**  
**UTA - ATU - BON CLAIMS**  
PORT HARDY AREA  
R. K. Gunnarsson April, 1968  
Scale: 1" = 1/2 mile



## GEOCHEMICAL SURVEY:

The survey covers the following 21 claims:  
Uta 5 - 10, 16 - 26; and Atu 3, 6, 10 and 12.

A baseline trending N 45° W was cleared for 8,000 feet adjacent to the fault valley which crosses the claims. In addition control lines were cleared from 60 E ON to 60 E 26N; from 40 E ON to 40E 16N; and from OE ON to OE 30S. Other grid lines were established every 500 feet along the base line and were blazed and flagged every 200 feet. Samples were taken every 200 feet along the grid lines. Where samples were not taken the area was underlain by an unknown thickness of peat or decaying vegetation. Samples were collected each 100 feet in the northwestern part of the claims where anomalous values in copper were indicated.

The S samples were taken along existing roads and trails while measuring with chain and compass.

Sample pits were dug with a shovel into the top of the B soil horizon (depth varied between 6 inches and 40 inches). Samples were placed in wet strength sample envelopes and air dried. These were sent to TSL Laboratories Ltd., 325 Howe Street, Vancouver, for analysis.

Each sample was screened through 80 mesh and the minus 80 fraction was analysed using the Hot HCl - Acid Extraction method. Copper values were obtained by Atomic Absorption by Messrs. Obersteiner and van Engelen.

## INTERPRETATION OF GEOCHEMICAL SURVEY:

(1) The background values for copper in the soil are taken as being between 45 and 60 parts per million. Values between 90 and 120 parts per million copper are considered to be significant if the samples are adjacent to soils with higher values.

(2) The importance of sampling the B soil horizon is indicated by samples S 13 ( 3 ppm), S 14 (6 ppm), and S 19 and 20 (0.5 ppm). The "S" samples were taken by the writer, and the examples referred to were from sample locations where the A soil horizon was sampled. Similarly, values such as those at

OE 4N (12 ppm) and 1OE 27S (12 ppm) are suspect because of the low copper values; 1OE 27S is especially suspect because of its position with respect to 1OE 28S (112 ppm).

(3) Many of the soils are not from a true B soil horizon. In these cases the A soil horizon is immediately underlain by a grey to rusty coloured gravel. The effects of variation in copper concentration for these samples as compared to those taken from a true B soil horizon may be of considerable significance.

(4) The depth of overburden, or the proximity of the sample to an outcrop, appears to control the copper values more than any other factor.

(5) Most of the area northeast (N) of the baseline is heavily covered with overburden. A fairly high hill extends from 2OE to 35E at about 1ON. No outcrops were noted along the top or the southwestern flank. The hill drops steeply off to the northeast and the lake. Altered volcanics were noted along the trail near 55E and 6OE at 26N but no copper mineralization was observed.

(6) The most significant part of the survey is southwest (s) of the base line adjacent to the claim line between Uta 7, 8, 9, and 10; and extending to 2OE on the Cub claims. Throughout this area the Karmutsen volcanics are exposed either in cliffs, gullies or gentle slopes. Chalcopyrite is finely disseminated in small amounts in many of the outcrops.

The anomalous area on 5W between 21S and 26S has a slope to the northeast away from Karmutsen volcanics containing minor amounts of disseminated chalcopyrite. The downslope migration of copper in the soil is significant.

Many of the other anomalous samples are also located downslope from exposures containing minor chalcopyrite. Others, especially those along the southwest edge of the survey area, are not near outcrops.

(7) It is concluded that the sporadic nature of the higher copper values in the soils is typical of anomalies found over the Karmutsen Formation. They reflect zones within certain beds of the volcanics which have been enriched and altered along strike; variations in the thickness of overburden tend to enhance the sporadic effect.



(8) The survey lies in an area of mainly low magnetic susceptibility as indicated by aeromagnetic maps published by the Federal Government in 1963. To the southeast of the survey area there is a slight increase in magnetism. It is recommended that the survey be extended in this direction during the 1969 field season.

SUMMARY:

The 55 Uta - Atu - Bon claims, held by Galleon Explorations Ltd. (NPL) are located 8 miles southwest of Port McNeil on northern Vancouver Island. The property is accessible by road but traversing the claims is difficult due to a thick undergrowth of salal bush over most of the area.

The claims are underlain by the Karmutsen Formation and Bonanza Group (Triassic). A major fault trends northwesterly through the property along a valley. Minor amounts of disseminated chalcopyrite were noted in the northwest portion of the property.

Sporadic but anomalous values in copper from soil samples trend northwesterly through the northwest part of the surveyed area. The Karmutsen, containing chalcopyrite, is exposed over the anomalous zone.

It is felt that the sporadic higher values in copper reflect proximity to bedrock and variations in thickness of overburden and indicate very low grade copper occurrences.

COST:

1: Personnel

<u>Name</u>	<u>Date (1968)</u>	<u>Days Worked</u>	<u>Wage</u>	<u>Amount</u>
M. Cloutier	<del>May 14-31</del>	<del>12</del>	<del>\$70.00/day</del>	<del>\$840.00</del> R.K.D.
	June 1-30	21	\$70.00/day	1,470.00
				<u>\$2,310.00</u> R.K.D.
M. Kennedy	<del>May 20-31</del>	<del>7</del>	<del>\$20.00/day</del>	<del>\$140.00</del> R.K.D.
	June 1-30	21	\$20.00/day	420.00
				<u>\$ 560.00</u> R.K.D.
R. Johnston	June 1-30	21	\$350.00/mo.	\$ 350.00
R. Moffat	June 1-30	21	\$350.00/mo.	350.00
	Aug. 16-25	10	\$350.00/mo.	116.00
R. Frazell	Aug. 16-25	10	\$350.00/mo.	116.00
				<u>\$ 932.00</u>
R.K. Germundson	May 13-18	3½	\$100.00/day	\$ 350.00
	June 3-10	6	\$100.00/day	600.00
	Aug. 16-19	2½	\$100.00/day	250.00
				<u>\$1,200.00</u>
Total Salary				<u><u>\$5,002.00</u></u>

2: Other Expenses

Food, Accommodation, transportation, etc.  
 @ \$4.00/man day  
 135 days  
 116 R.K.D.

~~464.00~~ R.K.D.  
~~\$ 540.00~~

3: Analysis of samples - 400 @ \$1.25/spl.  
 including processing bulk sample

\$ 500.00

Total Cost

4,946.00  
\$6,042.00 R.K.D.

Declared before me at the City  
 of Vancouver, in the  
 Province of British Columbia, this 10  
 day of April, 1969, A.D.

*R.K. Germundson*  
*Apr. 9/69*

*Jean Gunn*  
 A Commissioner for taking Affidavits within British Columbia

SUB-MINING RECORDER

CERTIFICATE

I, Robert Kenneth Germundson, do hereby declare that:

1. I reside at 201 - 1025 Wolfe Avenue, Vancouver 9, B.C.

2. I obtained a B.Sc. (1958) and an M.Sc. in Geology from the University of Alberta.

3. I obtained a Ph.D. (1965) in Geology from the University of Missouri..

4. I have practised Geology in British Columbia since March, 1965 with Noranda Explorations Ltd., Brenda Mines Ltd. (NPL) and as an Independent Geologist.

5. My report is based upon the geochemical survey and my visits to the property between May and August, 1968.

6. I have no interest in the property described herein or securities of Galleon Explorations Ltd. (NPL).

April 9, 1969

R.K. Germundson, Ph.D.

*R. K. Germundson*

TABLE 1: GEOCHEMICAL VALUES for UTA - ATU - BON CLAIMS  
NANAIMO MINING DIVISION, VANCOUVER ISLAND

<u>Line</u>	<u>ppm Cu</u>	<u>Line</u>	<u>ppm Cu</u>
(base line)			
00	25	5E+23N	59
2E	44	24N	63
4E	42	26N	58
6E	34	28N	59
8E	24	32N	57
10E	37	34N	58
12E	40	36N	59
14E	58	38N	52
16E	30	5E+40N	58
18E	21	5E+2S	96
20E	37	6S	45
22E	53	8S	62
24E	32	10S	39
26E	26	12S	64
28E	31	18S	60
30E	23	20S	132
32E	58	21S	85
34E	40	22S	23
36E	39	23S	78
38E	39	24S	73
40E	40	25S	76
42E	50	26S	143
44E	43	27S	62
46E	34	28S	81
48E	35	29S	98
50E	45	5E+30S	160
52E	40	10E+4S	18
54E	48	6S	40
56E	39	12S	94
58E	37	15S	111
60E	38	16S	63
(end base line)		19S	71
5E+2N	76	20S	128
4N	68	21S	25
6N	64	22S	46
8N	51	23S	14
10N	53	24S	15
12N	47	25S	60
14N	137	26S	53
16N	34	27S	12
18N	82	28S	112
5E+20N	57	29S	77
		10E+30S	60

2.....

<u>Line</u>	<u>ppm Cu</u>	<u>Line</u>	<u>ppm Cu</u>
10E+2N	42	25E+2N	43
4N	57	4N	50
6N	73	6N	68
7N	57	8N	45
10N	72	10N	59
12N	53	12N	52
14N	52	14N	58
17N	84	16N	83
18N	67	25E+18N	58
20N	44	30E+2N	48
24N	53	4N	67
10E+30N	42	6N	52
15E+2S	72	8N	63
12S	60	10N	52
14S	40	12N	53
16S	107	14N	47
18S	128	16N	34
20S	252	30E+18N	30
21S	90	35E+2N	34
22S	98	4N	44
23S	52	6N	54
24S	95	8N	56
25S	40	10N	43
26S	50	12N	48
27S	57	14N	49
29S	73	16N	61
15E+30S	60	18N	42
15E+2N	77	20N	50
4N	60	22N	76
6N	59	35E+24N	82
8N	60	40E+2N	53
10N	58	4N	63
12N	83	6N	46
14N	59	8N	55
15E+16N	57	10N	62
20E+14S	47	12N	48
16S	82	14N	45
18S	73	40E+16N	25
20S	90	45E+2N	46
22S	125	4N	64
24S	46	6N	74
26S	38	8N	34
28S	97	10N	70
20E+30S	105	12N	24
20E+2N	57	16N	51
4N	48	18N	50
6N	55	20N	57
8N	45	22N	76
10N	52	45E+24N	53
12N	50		
14N	81		
20E+16N	60		

3.....

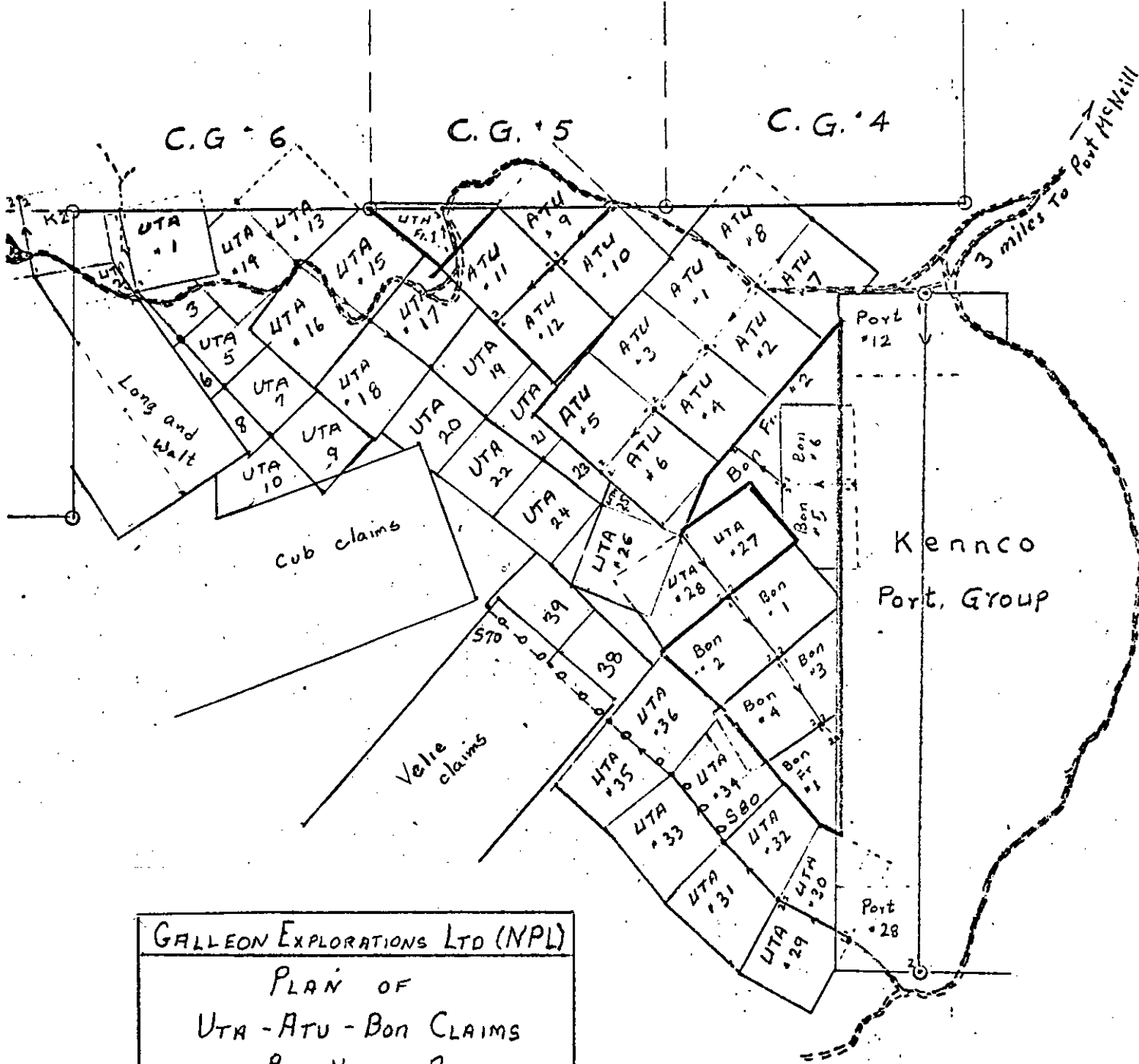
<u>Line</u>	<u>ppm Cu</u>	<u>Line</u>	<u>ppm Cu</u>
50E+2N	48	00+30S	36
4N	59	31S	64
6N	56	32S	43
8N	92	00+33S	29
10N	71	00+2N	46
12N	78	4N	12
20N	65	6N	37
22N	48	8N	32
50E+24N	72	10N	35
55E+2N	72	12N	24
4N	38	14N	16
6N	42	16N	55
8N	40	18N	29
10N	51	20N	44
14N	36	22N	43
18N	54	24N	25
20N	55	26N	38
22N	34	29N	33
24N	85	32N	22
55E+26N	72	00+36N	24
60E+2N	69	5W+2S	96
4N	44	6S	68
6N	58	8S	42
8N	53	10S	67
10N	34	12S	129
12N	43	20S	132
14N	52	21S	287
16N	52	23S	110
18N	51	24S	103
20N	68	26S	98
22N	57	28S	36
24N	51	30S	39
60E+26N	45	32S	64
00+2S	67	34S	95
5S	86	36S	110
6S	82	5W+38S	70
8S	52	10W+4S	57
10S	45	8S	94
12S	62	10S	60
14S	59	12S	94
16S	24	14S	54
18S	192	16S	40
19S	73	18S	56
20S	97	24S	65
21S	58	25S	56
22S	118	26S	91
23S	70	27S	34
24S	34	28S	86
25S	60	29S	70
26S	36	30S(a)	111
27S	73	10W+30S(b)	60
28S	62		
00+29S	120		



5.....

<u>Sample</u>	<u>ppm Cu</u>
S-81	12
82	23
83	23
84	40
85	35
86	53
87	45
88	60
89	50
90	60
91	35
92	35
S-93	33





**GALLEON EXPLORATIONS LTD (NPL)**

**PLAN OF  
UTA - ATU - BON CLAIMS  
PORT HARDY AREA**

RK Germundson April, 1969

Scale: 1" = 1/2 mile

Sample	Ca (ppm)
70	35
71	37
72	15 (35)
73	25
74	36
75	40
76	37
77	45
18	38
19	32
80	22

Department of  
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**ASSESSMENT REPORT**

NO. **1815** MAP **2**

*RK Germundson*

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **1815** MAP **3**

*R. K. Germondson  
Apr 9 1969*

GEOCHEMICAL SURVEY for  
GALLEON EXPLORATIONS LTD (NPL)  
UTA - ATU - BON CLAIMS  
PARTIAL PLAN  
April 7, 1969  
R.K. Germondson, Ph.D.  
To Accompany Report Dated  
April 9, 1969  
Scale: 1 inch = 1,000 feet

LEGEND  
 ■ Claim Post  
 — Line Chained and soil sampled  
 — Line Cleared Chained and Soil Sampled  
 — Cleared Trail  
 — Roads  
 • Sample Station  
 • S1(16) - (ppm Cu)

**1815**  
**18105**

