

84-#808-12867

GEOCHEMICAL REPORT ON THE STUMP CLAIM

NANAIMO MINING DIVISION

NTS 92-L-12

50°43'N 127°55'W

September, 1984

D. B. Petersen

Owner: E. Alionis

Operator: Trawler Petroleum Resources

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,867**

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## 1. Introduction

This report describes the work that was done on the area now covered by the STUMP claim prior to 1984 and the work that was performed in August, 1984 by the writer, assisted by E. Alionis.

The report is being submitted as an assessment report to cover two years work.

## 2. Location and Access

The STUMP claim is located 4km West of the west end of Nahwitti Lake, 29km West of Port Hardy. N.T.S. is 92-L-12. Geographic co-ordinates are  $50^{\circ}43'N$ ,  $127^{\circ}55'W$ . See Fig. 1, "Location Map".

Access is by gravel road that leads from Port Hardy to Holberg, and then by logging road that branches from this road immediately West of Nahwitti Lake to the claim.

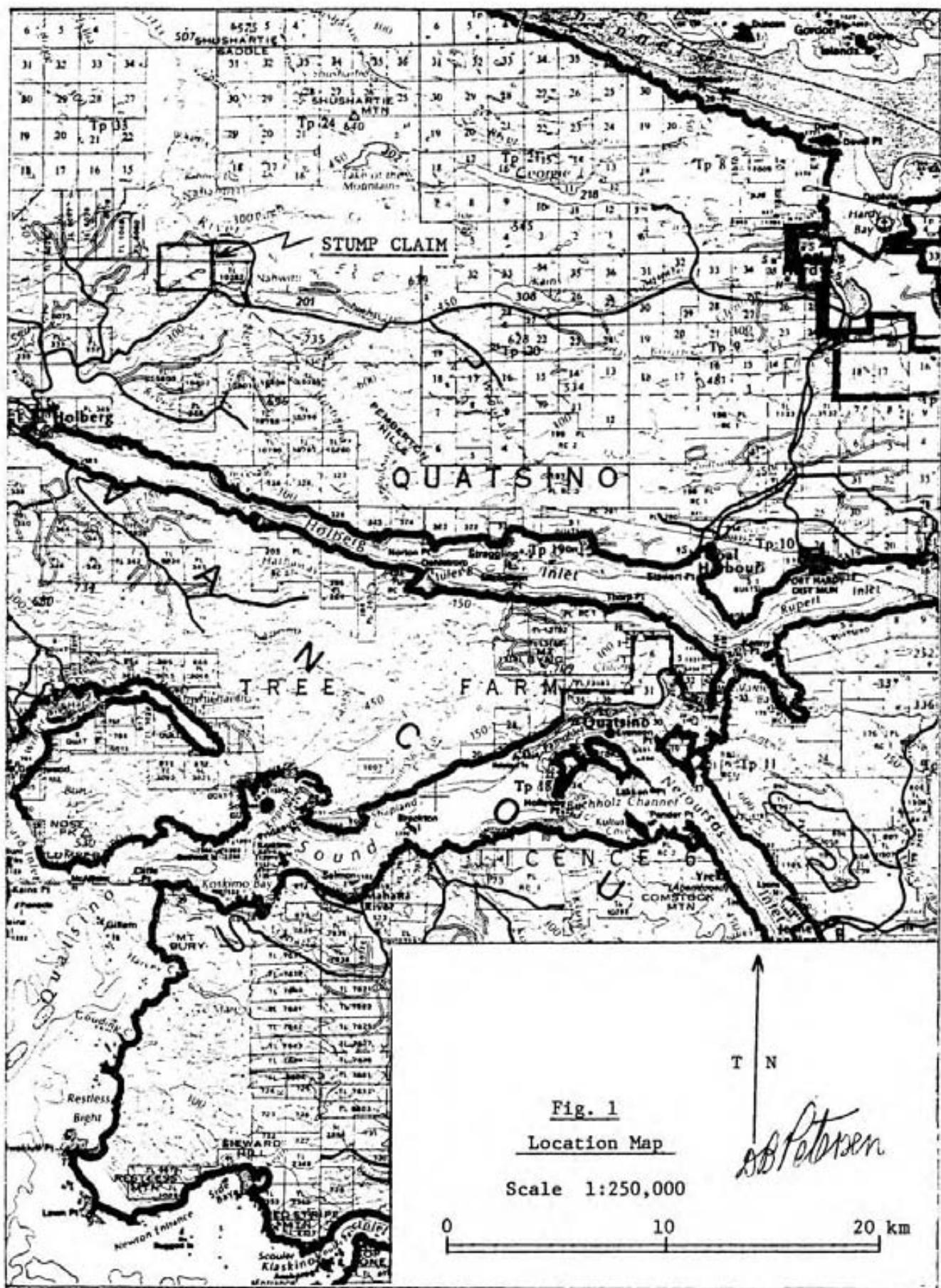
## 3. Topography and Vegetation

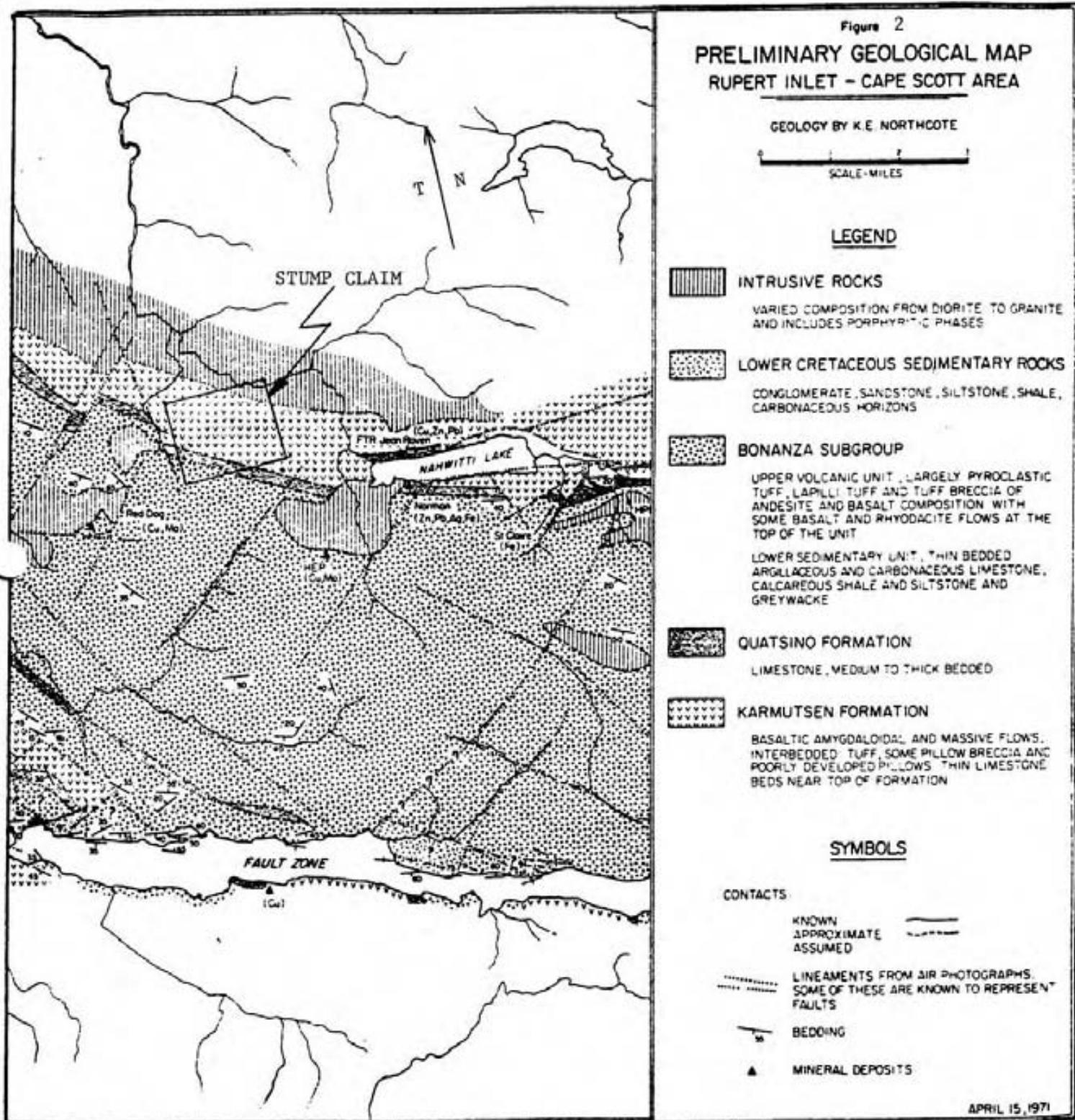
The claim is underlain by moderately steep hills that vary between 250m and 400m in elevation.

Stands of heavy cedar, two-thirds of which have been logged off, cover the claim. The logging operations have not cleaned the slash, so that progress is extremely slow over these areas. The creeks and trenches from previous exploration are in many cases, completely choked with timber and can not be located.

## 4. Local Geology

The Nahwitti Lake region has been mapped by Northcote (1970). The area is underlain by volcanics and sediments of the Upper Triassic to Jurassic Vancouver Group. These rocks are intruded by late Jurassic to Tertiary quartz-diorites and andesitic sills and dykes. See Fig. 2, "Preliminary Geological Map".





4. Local Geology (Cont'd)

Northcote divides the Vancouver Group as follows:

Bonanza Sub-Group: andesitic flows and breccias, felsitic tuffs, greywacke, shale, argillaceous and calcareous shales, and argillaceous limestone.

Quatsino Formation: limestone.

Karmutsen Formation: massive to amygdaloidal flows, breccias, pillow lavas and tuffs of andesitic to basaltic composition, thin limestone beds.

There is extensive block faulting in the area, and lack of exposure of rocks makes the tracing of units difficult.

5. Claim Geology

Mapping by Burgess has shown that the claim is underlain by Vancouver Group volcanic and sedimentary rocks that have been intruded by quartz-diorite. The mineralized trench area between BR45H and BR45K logging roads had been obliterated by logging debris and was inaccessible.

6. Previous Work Done

As described by Holcapek, 1969, 1970, 1975, Taylor, 1973 and Burgess, 1983, previous work included prospecting, geological mapping, geochemical soil sampling, magnetometry and trenching. This work succeeded in revealing two areas of interest, the mineralized trench described above and an area of quartz-diorite float that was mineralized with copper and silver East of the creek at logging road BR45F in the vicinity of soil sample 8,426,240.

7. Work Done in 1984

The object of the 1984 programme was to determine the extent of the trench mineralization and the source of the mineralized quartz-diorite float.

7. Work Done in 1984 (Cont'd)

A soil geochemical sampling programme was, therefore, implemented that covered these two areas.

The writer and E. Alionis spent a total of 8 man-days from the 8th through the 11th, August, flagging 6.0 line km and taking a total of 223 samples. The lines were oriented East-West and spaced 100m apart. Sample spacing along the lines was 25m East of the logging road BR45F, and 20m West of the road. See Fig. 3, "Sample Locations".

Magnetic anomalies in the vicinity of the mineralized trench caused disorientation of some lines.

Because logging operations had caused complete disturbance of the soil in the logged areas, all the samples were taken from the 'C' horizon which was consistently present over the entire area sampled. Each sample was placed in a numbered Kraft paper bag and sent to Acme Analytical Labs in Vancouver for analysis for Ag, As, Cu, Pb, and Zn. There, the samples were dried, screened to -80 mesh and a 0.5gm sample of the fine fraction digested with 3ml 3-1-3 HCL-HNO<sub>3</sub>-H<sub>2</sub>O solution at 90°C for 1 hour. After dilution to 10ml with water, the metal concentrations were determined using I.C.P. analysis.

8. Results of Work Done in 1984

The results show that background values are approximately silver 0.1ppm, arsenic 8ppm, copper 25ppm, lead 20ppm, and zinc 60ppm.

Silver, lead, zinc and copper show accord in demonstrating highs to exist in the trench area in the vicinity of sample 8,426,164, and one-station highs in the vicinity of samples 8,426,227 and 8,426,275, which is close to the area where mineralized float has been recorded. A lead, zinc,

8. Results of Work Done in 1984 (Cont'd)

and copper high is present at sample 8,426,318.

9. Discussion

The geochemical high overlying the trench is indicated by the lead values, which are regarded as being the most reliable short-range indicator to have at least 100m length and possibly more. The three single-station anomalies indicate minor lengths.

Comparison of values in the logged-off areas with those of forested areas, do not indicate spurious effects as a result of the logging.

10. Conclusions

- . As a result of the 1984 geochemical programme, it is concluded that:
  1. a moderately-sized target is present in the area of the trench.
  2. three smaller targets are also indicated.

11. Recommendations

A follow-up programme on the 4 targets is recommended as follows:

1. detailed soil geochemistry and magnetometry (50m line spacing, 10m sample spacing) over the three small anomalies, to determine the strikes and lengths and exact locations.
2. trenching of the large anomaly and the three small anomalies.
3. detailed mapping and sampling of the trenches.

This is estimated to cost:

1. lining flagging, geochemical sampling, magnetometry	
6 man-days, 200 samples	\$ 2,000
2. trenching - 40 hours @ \$60	2,400
3. mapping and sampling - 3 days @ \$150	450
4. supplies, mob and demob, assays, reporting	<u>2,000</u>
	\$ 6,850

12. Title

Particulars of the STUMP claim are as follows:

Name of Claim	Record No.	No. of Units	Record Date
STUMP	1522	20	17 August, 1983

13. Cost Statement

The following costs were incurred in the 1984 programme:

Labour

D. Petersen (8,9,10,11 August)	4 days @ \$250	\$ 1,000
E. Alionis (8,9,10,11 August)	4 days @ \$115	<u>460</u> \$ 1,460

Transport

Truck rental	4 days @ \$ 51	\$ 204
Gasoline		45
Travel		<u>427</u> 676

Meals & Accommodation

Accommodation		\$ 168
Meals		<u>154</u> 322

Supplies 270

Analyses

223 analyses @ \$5.09	1,135
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Reporting

D. Petersen writing and drafting	4 days @ \$250	\$ 1,000
Typing	4 hrs. @ \$ 15	60
Printing		<u>67</u> <u>1,127</u>
	TOTAL:	<u>\$ 4,990</u>

*DB Petersen*

*DB Petersen*  
D.B. Petersen, P. Eng.

14. References

- Burgess, S., 1983, Geological and Geochemical Report on the STUMP claim,  
Nanaimo Mining Division, B. C.
- Holcapek, F., 1969, TI, BUD, MON, MO Claims, Geology and Soil Surveys;  
Acheron Mines Report; B.C.D.M. Assessment Report 1186.
- Holcapek, F., 1970, TI, BUD, MON, MO Claims, Geology, Magnetometer &  
Soil Surveys; Acheron Mines Report; B.C.D.M. Assessment Report 2820.
- Holcapek, F., 1975, MO Claims Geology; Acheron Mines Report; B.C.D.M.  
Assessment Report 5758.
- Jackson, E.V., 1975, Generalized Geological Map of the Canadian Cordillera;  
C.I.M.M. Spec. Vol. 15.
- Northcote, K.E., 1970, Rupert Inlet - Cape Scott Map Area; G.E.M.  
p. 254-258.
- Taylor, D.P., 1973, TI, BUD, MON, MO Claims - Magnetometer and Soil Surveys;  
B.C.D.M. Assessment Report 4251.

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA.

To Wit:

In the Matter of THE GEOCHEMICAL SURVEY CONDUCTED  
ON THE STUMP CLAIM

I, David B. Petersen

of Daiwan Engineering Ltd., #1010 - 409 Granville Street, Vancouver, B. C., V6C 1W9

in the Province of British Columbia, do solemnly declare that the following personnel were employed and costs incurred in conducting the survey:

Personnel

D. Petersen - Geologist	4 days @ \$250/day	\$ 1,000
E. Alionis - Helper	4 days @ \$115/day	<u>460</u>
		\$ 1,460

Field Costs

Truck rental	\$ 204
Gasoline	45
Travel	427
Meals & Accommodation	322
Supplies	270
Analyses	<u>1,135</u>
	2,403

Reporting

Labour and drafting	\$ 1,000
Typing	60
Printing	<u>67</u>
	1,127
TOTAL:	<u>\$ 4,990</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 1st  
day of October 1984, A.D.

David B. Petersen

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

**APPENDIX I**

ACME ANALYTICAL LABORATORIES LTD.  
85 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 14 1984

DATE REPORT MAILED:

*Aug 16/84*

### GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR Mn,Fe,Ca,P,Cr,Mg,Ba,Ti,B,Al,Na,K,W,Si,Zr,CE,Sn,Y,Nb AND TA. Au DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: P1-6 SOIL P7-SOIL & ROCK

ASSAYER: *D. Toye* DEAN TOYE. CERTIFIED B.C. ASSAYER

DAIWAN FILE # 84-2107

PAGE 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM
84-26100S	28	15	98	.2	5
84-26101S	35	13	38	.5	7
84-26102S	14	25	222	.9	30
84-26103S	14	5	56	.3	10
84-26104S	32	20	224	.1	86
84-26105S	20	26	213	1.2	13
84-26106S	10	16	29	.1	2
84-26107S	34	18	69	.5	16
84-26108S	48	15	103	.7	20
84-26109S	25	21	54	.1	4
84-26110S	48	21	73	.1	12
84-26111S	44	22	205	.3	10
84-26112S	52	57	552	.3	24
84-26113S	57	82	1718	.7	36
84-26114S	43	56	1049	.2	22
84-26118S	38	20	86	.7	7
84-26122S	47	21	58	.1	3
84-26123S	50	20	71	.2	5
84-26124S	59	33	113	.4	8
84-26125S	53	32	98	.2	10
84-26130S	30	15	65	.1	6
84-26131S	3	4	62	.1	2
84-26132S	24	20	78	.1	10
84-26133S	31	25	80	.1	14
84-26134S	31	23	76	.1	11
84-26136S	42	24	121	.6	7
84-26137S	45	22	157	.8	11
84-26139S	44	18	84	.5	13
84-26140S	40	16	69	.5	8
84-26141S	35	15	56	.3	10
84-26142S	31	13	57	.2	10
84-26143S	34	10	74	.1	58
84-26144S	24	14	62	.1	8
84-26145S	24	29	77	.2	14
84-26146S	32	34	64	.1	13
84-26147S	43	28	53	.4	14
84-26148S	35	23	80	.2	12
STD S-1	121	114	182	31.3	111

## DAIWAN FILE # 84-2107

PAGE 2

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM
84-26149S	44	27	148	.2	24
84-26150S	47	32	170	.1	27
84-26151S	14	19	51	.2	9
84-26152S	33	25	91	.1	13
84-26153S	12	68	57	.3	4
84-26154S	8	16	27	.2	7
84-26155S	12	7	34	.4	9
84-26156S	14	12	43	.1	12
84-26157S	15	17	124	.2	7
84-26158S	15	29	73	.2	5
84-26159S	39	27	180	.1	8
84-26160S	17	8	85	.5	17
84-26161S	27	32	422	.1	50
84-26162S	35	155	1168	.2	27
84-26163S	199	112	1048	.8	21
84-26164S	288	97	1648	2.7	35
84-26165S	41	20	258	.1	18
84-26166S	8	7	32	.1	8
84-26167S	28	7	21	.3	2
84-26168S	15	4	14	.4	2
84-26169S	22	5	19	.3	3
84-26170S	16	5	20	.3	5
84-26171S	16	5	12	.2	2
84-26172S	24	8	13	.4	4
84-26173S	3	1	12	.3	3
84-26174S	2	1	12	.2	3
84-26175S	2	1	13	.3	2
84-26176S	9	37	51	.2	2
84-26177S	8	36	48	.2	3
84-26178S	6	20	107	.1	6
84-26179S	73	78	779	.2	20
84-26180S	119	30	150	.1	8
84-26181S	18	109	96	.1	8
84-26182S	12	32	25	.1	9
84-26183S	11	13	27	.1	10
84-26184S	10	41	22	.2	7
84-26185S	17	94	75	.3	7
STD S-1	122	114	184	31.3	116

## DAIWAN FILE # 84-2107

PAGE 3

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM
84-26186S	37	48	185	.2	6
84-26187S	13	40	24	.1	2
84-26188S	13	41	23	.1	8
84-26189S	51	39	134	.3	10
84-26190S	20	7	1073	.1	3
84-26191S	16	1	1616	.2	2
84-26192S	12	20	321	.2	6
84-26193S	6	5	25	.4	3
84-26194S	7	10	17	.1	3
84-26195S	6	14	11	.1	4
84-26196S	14	26	39	.1	7
84-26197S	14	26	42	.1	9
84-26198S	13	24	38	.3	10
84-26199S	15	28	46	.3	13
84-26200S	73	29	148	.3	10
84-26201S	58	19	100	.1	11
84-26202S	61	16	104	.1	9
84-26203S	14	5	22	.1	5
84-26204S	40	27	79	.1	9
84-26205S	7	2	94	.5	4
84-26206S	8	21	12	.2	7
84-26207S	6	17	11	.2	3
84-26208S	12	3	119	.2	3
84-26209S	11	16	32	.3	4
84-26210S	15	59	36	.2	2
84-26211S	21	58	48	.1	4
84-26212S	44	76	150	.3	12
84-26213S	8	13	17	.3	4
84-26214S	13	14	28	.1	8
84-26215S	24	19	56	.1	27
84-26216S	7	1	64	.1	6
84-26217S	33	30	316	.1	30
84-26218S	84	24	150	.1	9
84-26219S	17	24	43	.1	3
84-26220S	41	37	111	.1	6
84-26221S	18	29	60	.3	5
84-26222S	17	24	59	.1	2
STD S-1	122	114	183	31.2	116

## DAIWAN FILE # 84-2107

PAGE 4

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM
84-26223S	33	24	1787	.5	12
84-26224S	46	41	546	.2	8
84-26225S	48	78	157	.1	7
84-26226S	19	37	238	.1	4
84-26227S	75	26	2314	.6	16
84-26228S	49	24	1278	.1	12
84-26230S	10	5	49	.1	5
84-26231S	17	21	74	.1	8
84-26232S	64	41	128	.3	12
84-26233S	14	13	19	.3	3
84-26234S	18	9	21	.2	2
84-26235S	7	8	20	.1	6
84-26236S	66	36	91	.1	33
84-26237S	12	5	24	.1	8
84-26238S	5	38	10	.1	7
84-26239S	23	28	55	.1	24
84-26240S	4	9	7	.1	5
84-26241S	53	24	112	.1	12
84-26242S	80	36	148	.1	10
84-26243S	129	87	1290	.4	64
84-26244S	29	27	85	.3	4
84-26245S	72	173	231	.2	6
84-26247S	40	133	106	.6	5
84-26248S	61	50	65	.3	5
84-26249S	34	14	31	.1	4
84-26250S	93	15	63	.2	3
84-26251S	50	20	123	.5	29
84-26252S	50	23	142	.1	25
84-26253S	39	20	112	.1	29
84-26254S	39	25	84	.4	39
84-26255S	25	16	68	.2	16
84-26256S	13	21	63	.3	14
84-26257S	17	17	29	1.0	5
84-26258S	62	29	207	.3	38
84-26259S	37	32	39	.3	15
84-26261S	34	16	44	.4	12
84-26262S	51	29	78	.3	19
STD S-1	122	114	183	31.2	115

## DAIWAN

FILE # 84-2107

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SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM
84-26263S	29	23	54	.1	8
84-26264S	2	21	8	.1	9
84-26265S	1	20	7	.1	5
84-26266S	37	22	31	.1	3
84-26267S	24	14	18	.1	10
84-26268S	62	18	47	.2	7
84-26269S	27	20	28	.1	7
84-26270S	59	33	44	.1	9
84-26271S	13	32	18	.1	4
84-26272S	28	25	37	.1	7
84-26273S	34	11	63	.2	10
84-26274S	33	15	16	.4	2
84-26275S	19	24	26	.5	9
84-26276S	42	16	17	.1	7
84-26277S	12	10	6	.2	7
84-26278S	8	16	10	.1	5
84-26279S	10	13	9	.1	7
84-26280S	10	13	9	.1	7
84-26281S	8	13	8	.1	7
84-26282S	6	15	10	.1	3
84-26284S	4	14	5	.1	6
84-26285S	10	10	10	.1	9
84-26286S	9	13	7	.1	2
84-26288S	32	12	29	.1	6
84-26289S	16	3	6	.3	9
84-26290S	7	5	9	.1	6
84-26291S	5	9	10	.2	9
84-26292S	8	4	12	.6	12
84-26293S	9	14	7	.1	8
84-26294S	59	12	28	.1	2
84-26295S	3	2	9	.1	12
84-26298S	9	6	9	.1	7
84-26299S	6	9	11	.1	8
84-26300S	16	12	11	.1	6
84-26301S	74	13	48	.1	5
84-26302S	50	13	26	.2	3
84-26303S	3	3	12	.6	8
STD S-1	121	114	182	30.7	121

## DAIWAN

FILE # 84-2107

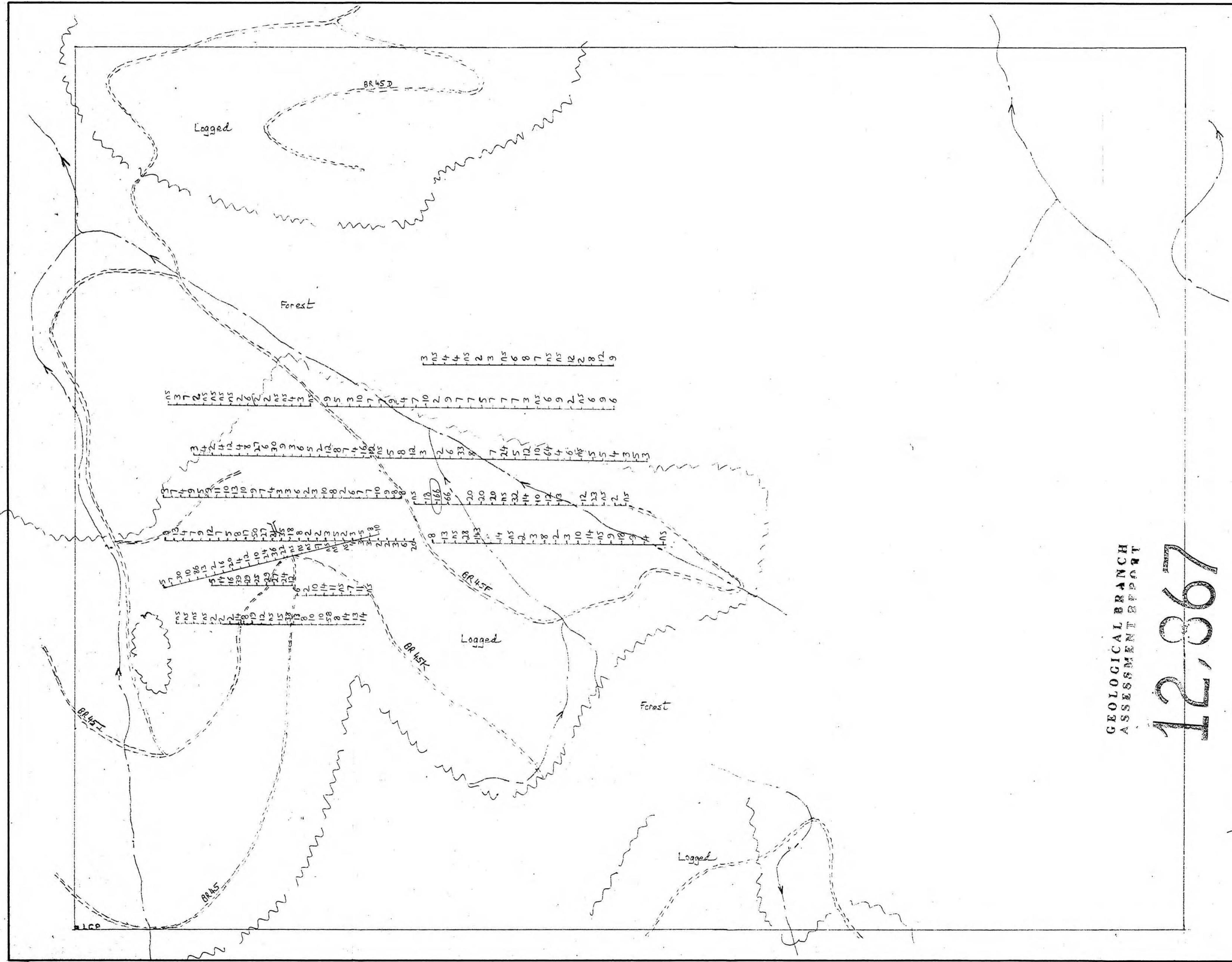
PAGE 6

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM
84-26304S	22	28	62	.1	13
84-26306S	57	61	146	.1	28
84-26307S	29	47	48	.2	143
84-26308S	20	7	19	.1	14
84-26310S	5	13	6	.1	2
84-26311S	13	11	10	.2	3
84-26312S	45	35	77	.1	8
84-26313S	6	23	12	.1	2
84-26314S	6	40	8	.1	3
84-26315S	36	49	55	.1	10
84-26316S	65	32	54	.1	14
84-26318S	26	21	25	.1	9
84-26319S	289	226	495	.1	18
84-26320S	66	33	51	.2	9
84-26321S	18	13	25	.1	4
84-26324S	6	55	28	.3	2
84-26326S	39	52	178	.2	23
84-26327S	27	68	185	.4	12
84-26328S	41	40	64	.1	13
84-26329S	58	26	79	.1	12
84-26330S	35	34	43	.1	10
84-26331S	53	39	51	.6	14
84-26332S	14	50	25	.1	32
84-26334S	38	59	73	.1	20
84-26335S	23	23	49	.1	20
84-26336S	19	24	49	.2	20
84-26337S	61	67	168	.2	66
84-26338S	54	29	131	.1	166
84-26339S	52	31	100	.1	18
84-26502S	11	15	10	.3	3
84-26503S	16	9	7	.4	2
84-26505S	13	14	9	.6	4
84-26506S	23	15	16	.4	4
84-26508S	18	15	17	.3	3
84-26510S	8	29	25	.1	3
84-26511S	25	27	168	.1	4
84-26514S	10	19	43	.1	2
STD S-1	123	116	185	32.3	121

## DAIWAN FILE # 84-2107

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SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
84-26515S	14	26	17	.1	2	-
84-26516S	48	22	54	.1	6	-
84-26517S	4	15	5	.1	2	-
84-26523S	7	25	11	.5	2	-
84-26524S	26	30	41	.1	7	-
84-26525S	6	35	15	.4	3	-
84-26527S	55	17	91	.1	14	-
84-26528S	7	17	12	.3	2	-
84-26529S	14	14	29	.3	2	-
84-26530S	8	6	11	1.0	2	-
84-26549R	64	2	79	.1	23	95
84-26550R	243	11	10929	.6	24	5
84-26551R	260	15	420	.8	35	45
84-26552R	119	11833	14002	34.1	12	10
84-26553R	88	90	289	.3	24	5
84-26554R	1595	58	612	5.2	105	5
84-26555R	35	4	49	.1	2	5
84-26556R	67	4	32	.1	2	5
84-26557R	31	3	27	.1	2	5
84-26558R	2647	87	664	26.0	83	90
84-26559R	744	39	288	5.3	26	25
84-26660R	239	3	52	.6	2	5
84-26661R	3459	17	4656	.9	152	5
84-26662R	142	1	26	.1	17	5
84-26663R	71	4	51	.1	21	5
84-26664R	2827	21	116	3.7	62	5
84-26665R	442	1	509	.1	14	5
STD S-1/AU-0.5	119	112	180	32.0	115	510



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168  
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171

**STUMPF CLAIM**

ppm As

Scale 1:5000

100 200 300 m

8 ← ppm As

$\omega = 1 - \frac{E_{\text{kin}}}{E_{\text{tot}}}$

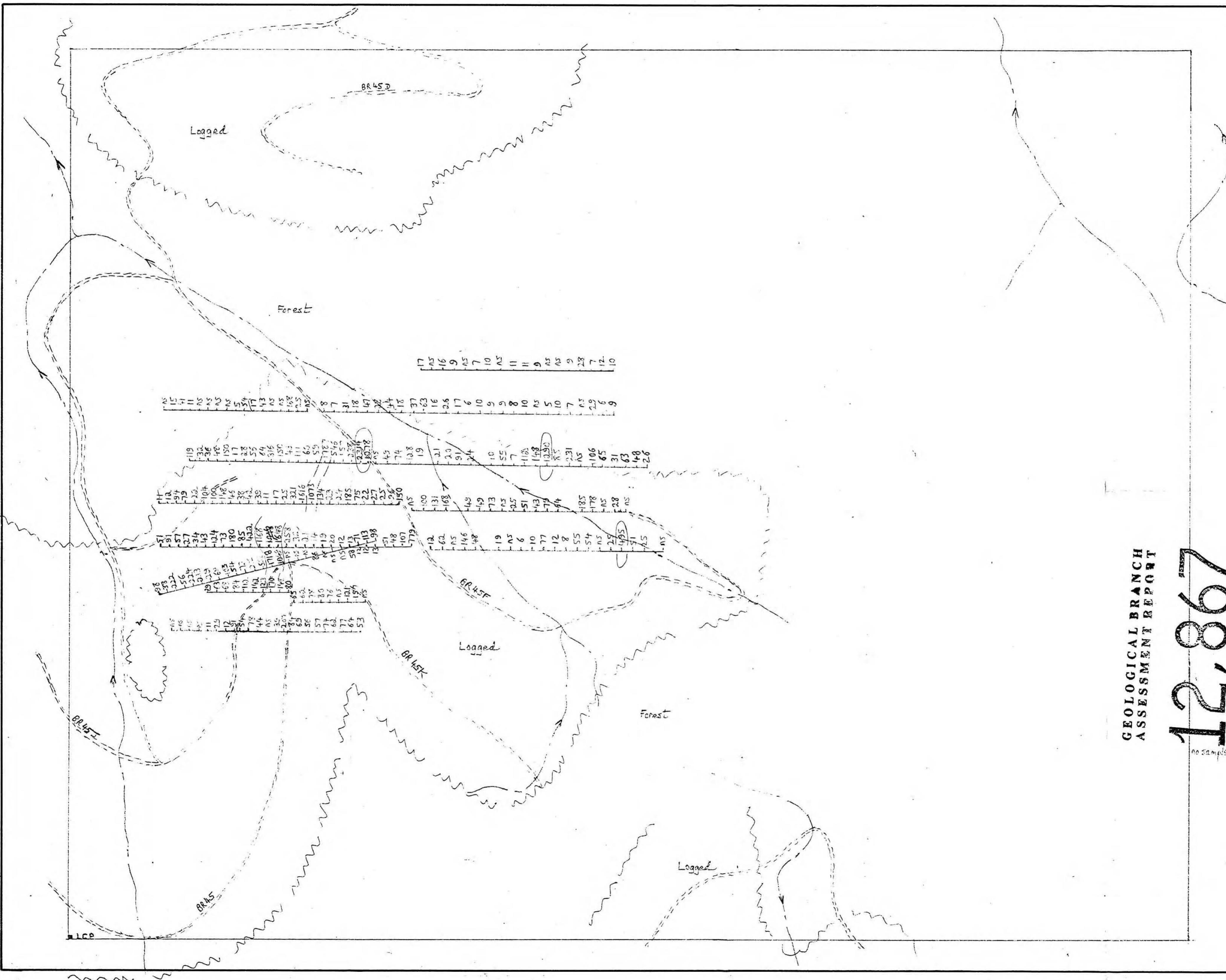
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*S. L. Storer*

108.





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**12,867**

Fig 4  
STUMP CLAIM

ppm Ag

Scale 1:5000

0 100 200 300 m

- ppm Ag ns = no sample
- ==== Logging Roads "
- ||| Tranchers
- > Creeks
- Logged Forest
- Forest Edge

*S. Petersen*

**12,867**

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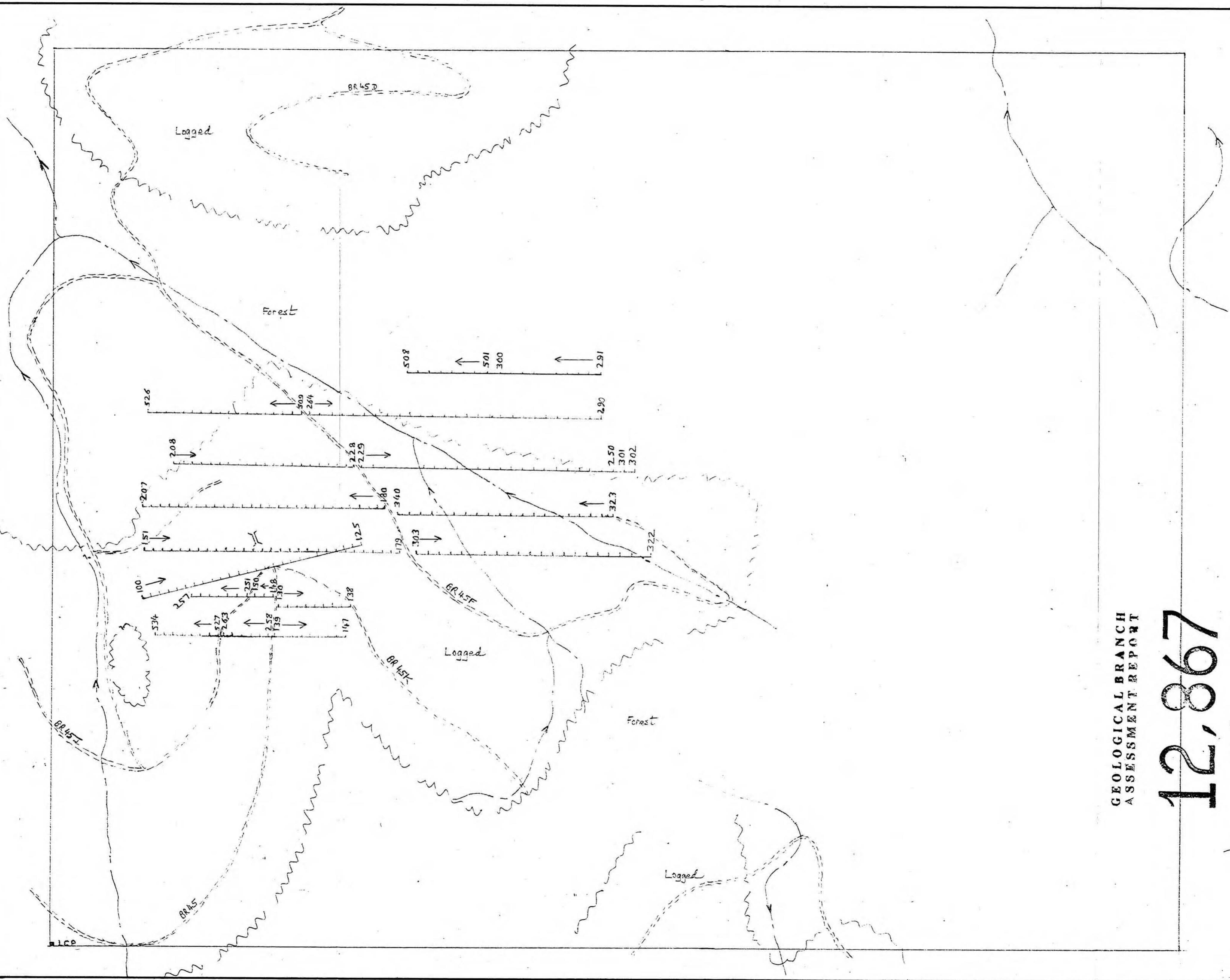
Fig 3  
**STUMP CLAIM**

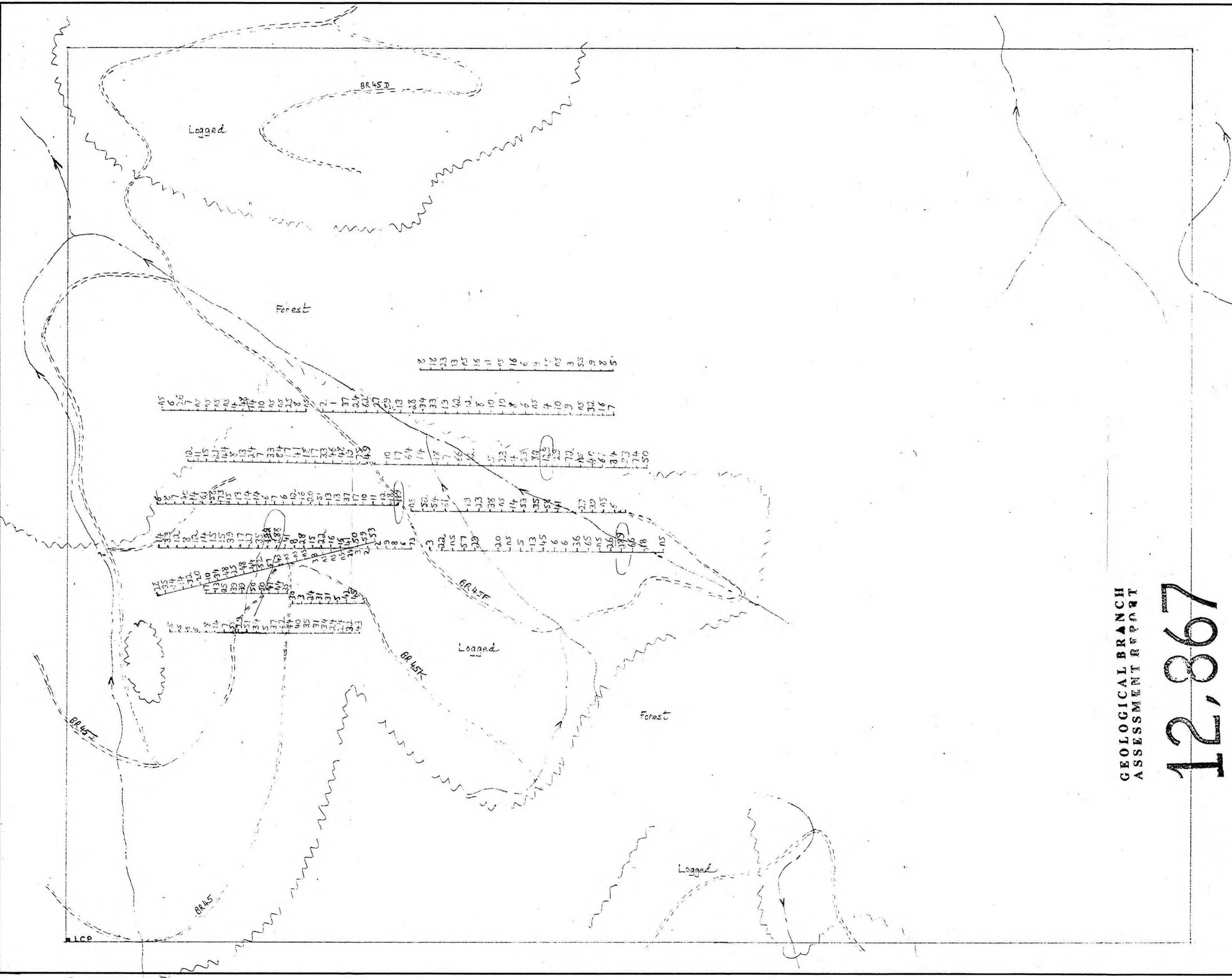
Sample Locations

Scale 1:5000  
100 200 300m

- [Line with arrow] Sample Numbers Preceeded by 8426, - - -
- [Dashed line] Logging Roads
- [Trench symbol] Trenches
- [Creek symbol] Creeks
- [Forest edge symbol] Logged Forest
- [Forest edge symbol] Forest Edge

J.P. Petersen

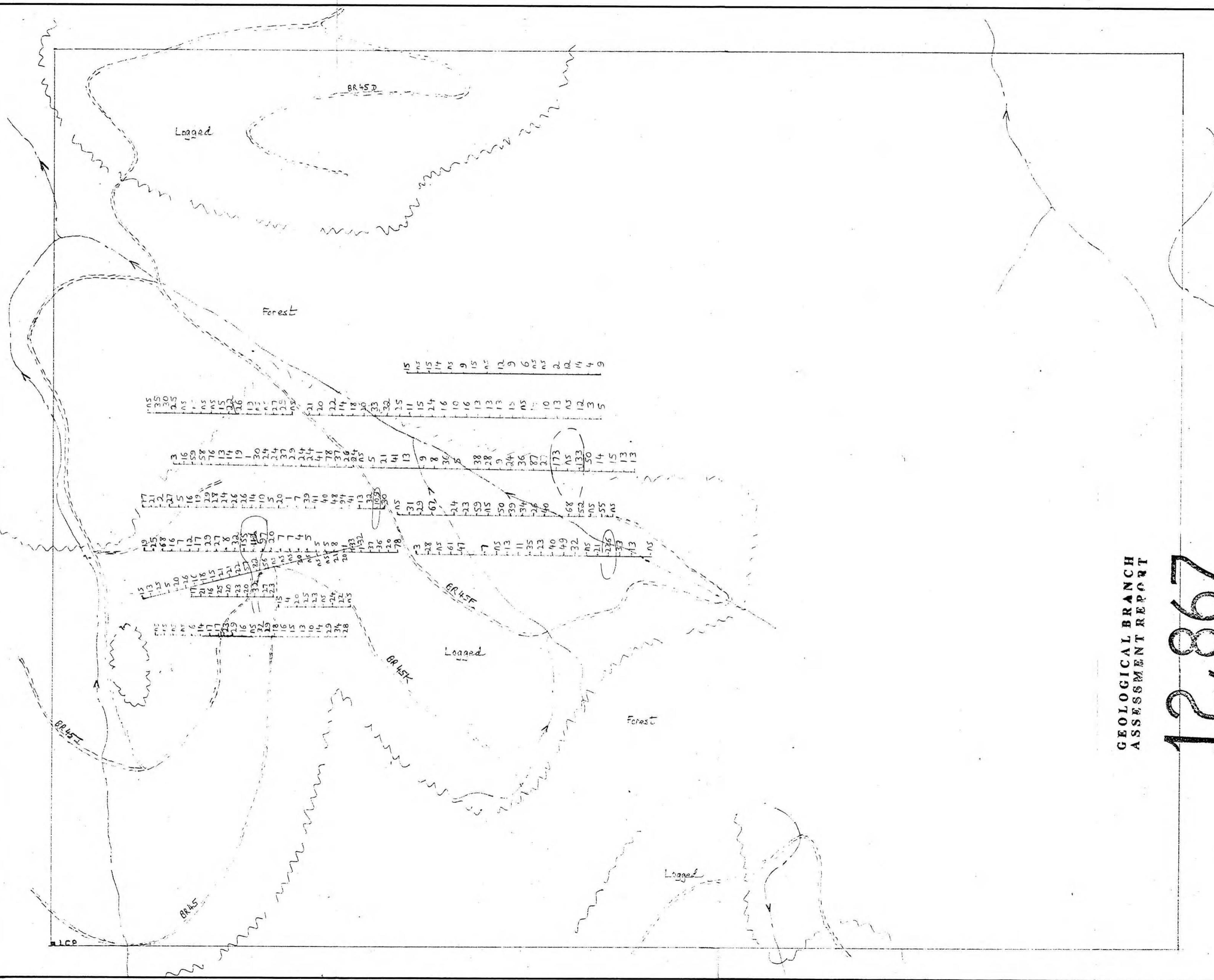




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Fig 6

STUMP CLAIM

ppm Pb

Scale 1:5000

100 200 300 mm

← ppm Pb

== == == Looking Roads

Trenches

## The Snake

Leaged - 1 - 154

## Forest

ANSWER

as Petersen