COMINCO LTD.

EXPLORATION

WESTERN CANADA

NTS: 104G/4

30 November 1988

ASSESSEMENT REPORT

GEOCHEMICAL SURVEY ON THE SADDLEHORN PROPERTY

LIARD MINING DIVISION

BRITISH COLUMBIA

LATITUDE: 57° ~~20~~ 08' N LONGITUDE: 131° ~~40~~ 34' W

REPORT BY

I.A. PATERSON

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SUMMARY

A geochemical survey involving soil, silt and rock sampling was performed as a follow-up program to locate and evaluate the source for a 236 ppb Au silt anomaly. The survey revealed two anomalous areas, one of which explains the original silt anomaly.

At the headwaters of the drainage from which the anomalous silt was taken, anomalous gold values ranging from 30 ppb-186 ppb were returned from the analyses of soils. The soil anomaly, present over an area of 200 m x 300 m, is believed to be derived from narrow quartz veins and pyritic shears in the underlying greenstones and argillites.

A contour soil line across a gossanous zone near an intrusive-greenstone contact, revealed a silver, lead, copper anomaly. Maximum values attained over the three sample anomaly are: 3300 ppm Cu, 10.6 ppm Ag and 131 ppm Pb.

No further work is recommended on the property.

INTRODUCTION

The Saddlehorn claim was staked on the 23rd September 1987 to cover a 236 ppb Au silt anomaly near the margin of a Jurassic-Cretaceous quartz-diorite intrusive. A gossan is present along the margin of the intrusive.

Work done on the property included the collection of 218 soil geochemical samples collected along three contour lines at different elevations. Fifteen rock samples were also collected for geochemistry in a prospecting traverse up the creek which gave the silt anomaly.

Work on the property was carried out by G. Wober, R. Van Egmond, D. Owens (samplers) and I.A. Paterson (Geologist) between July 14 and July 17, 1988.

The southern part of the claim group abuts against a mining and placer reserve associated with possible access to the Stikine River from the Galore Creek Property. Ground to the north and west of the property is staked.

LOCATION AND ACCESS

The Saddlehorn claim is located 7 km west of Galore Creek and 64 km north of the Snip property in the valley of the Anuk River which flows into the Stikine River. Access is by helicopter from Bronson strip.

The property covers a steep south facing slope, which is covered by dense scrub alder below 3500' in elevation.

TENURE

The Saddlehorn Claim contains 20 units and is 100% owned by Cominco. The claim was staked on the 23 September 1987 and recorded on 5 October 1987.

GEOLOGY

The claims are located astride the eastern contact zone of Jura-Cretaceous granodiorites and quartz diorites of the Coast Range Batholith. The intrusive rocks are in contact with greenstones and minor argillite (Stuhini Group?) which have been extensively bleached, pyritized and epidotized along the contact zone. The greenstones are cut by several 1 to 4 m wide quartz syenite (5% quartz) dykes, occasional narrow quartz veins (80 cm thickness) and several pyritic shear zones.

GEOCHEMISTRY

All soil samples were taken at 25 m spacing from the B Horizon on the contour lines or from talus fines along the sides of steeply incised creeks. Analyses for Au, Ag, Cu, Pb, Zn and As were carried out by Cominco Ltd.'s Exploration Research Laboratory in Vancouver using standard analytical techniques.

Au: DIBK solvent extraction/AA
Ag: Hot 20% HNO_3/AA
Cu: Hot 20% HNO_3/AA
Pb: Hot 20% HNO_3/AA
Zn: Hot 20% HNO_3/AA
As: Colorimetric

Results are shown on Maps 1-4 and are tabulated in Appendix II and III.

Background values for all elements are low. A large majority of the silt and soil samples have Au, Ag, As, and Pb in concentrations less than their detection limits.

Gold values ranging from 116 ppb-187 ppb were attained from four samples taken along the same drainage that yielded 236 ppb Au in 1987. Three of the four anomalous samples were taken within a 100 m x 200 m area near the headwaters of the drainage.

250 m west of the main drainage, the 3000' contour soil line identified a 75 m wide zone anomalous in copper, silver and lead. The three consecutive samples yielded values of 840, 2440 and 3300 ppm Cu; 10.6, <.4 and 5.1 ppm Ag; 131, 4 and 94 ppm Pb.

Results from the 15 rock samples are consistently poor. The highest values returned for each of the elements are: 74 ppb Au, 3.2 ppm Ag, 810 ppm Zn, 291 ppm Cu and 29 ppm As.

CONCLUSIONS

Soil samples taken along three contour lines and over the length of the main drainage on the property, have revealed two small anomalous zones.

A gold anomaly in the upper portion of the main drainage is highlighted by three samples yielding gold values of 120 ppb, 130 ppb and 186 ppb. The soil anomaly covers an area underlain by greenstones which have been cut by syenitic dykes, quartz veins and pyritic shears. The quartz veins and pyritic shears, which are likely genetically related to the Coast Range intrusive body 400 m to the west, are the probable source for the gold anomaly. The silt sample yielding 236 ppb Au, in 1987, was taken down stream from the forementioned anomalous zone. Tributaries to the main drainage were not anomalous in gold, indicating the source for the anomalous silt is most probably the anomalous zone near the top of the drainage.

A 75 m wide soil anomaly is defined by three consecutive soil samples taken along the 3000' contour. Silver and lead are anomalous in two of the three samples while copper is anomalous in all three samples. The samples are taken near a bleached, pyritized gossanous zone, along the contact between quartz diorite intrusive and greenstones. Soils taken within the gossanous zone are generally not anomalous, indicating a very local source for the observed anomaly.

RECOMMENDATION

No further work is recommended on the property.

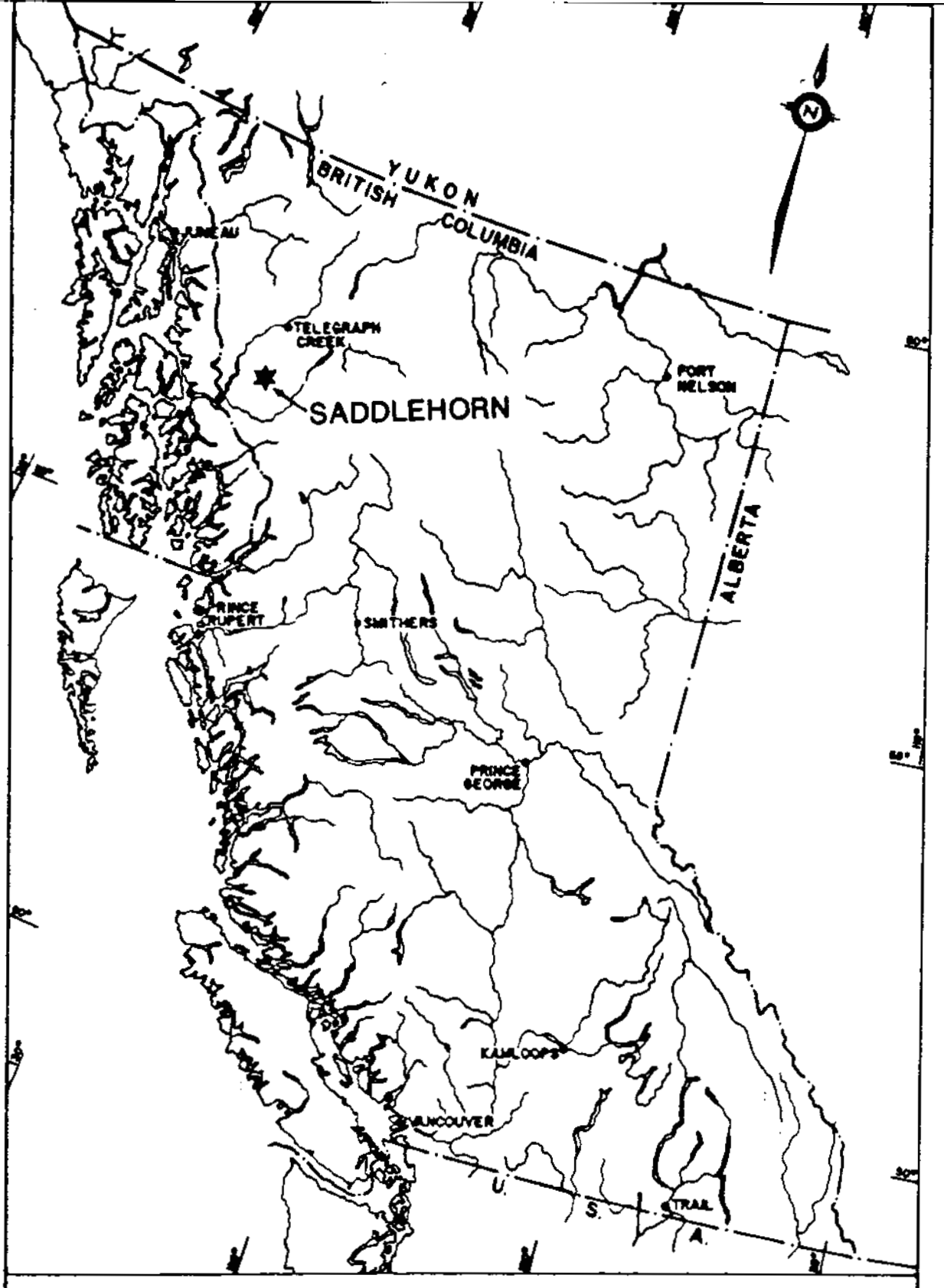


FIGURE 1

Drawn by:	Traced by:	SADDLEHORN PROPERTY INDEX MAP		
Revised by / Date	Revised by / Date			
		Scale: AS ABOVE	Date: NOV 29,1988	Plate:

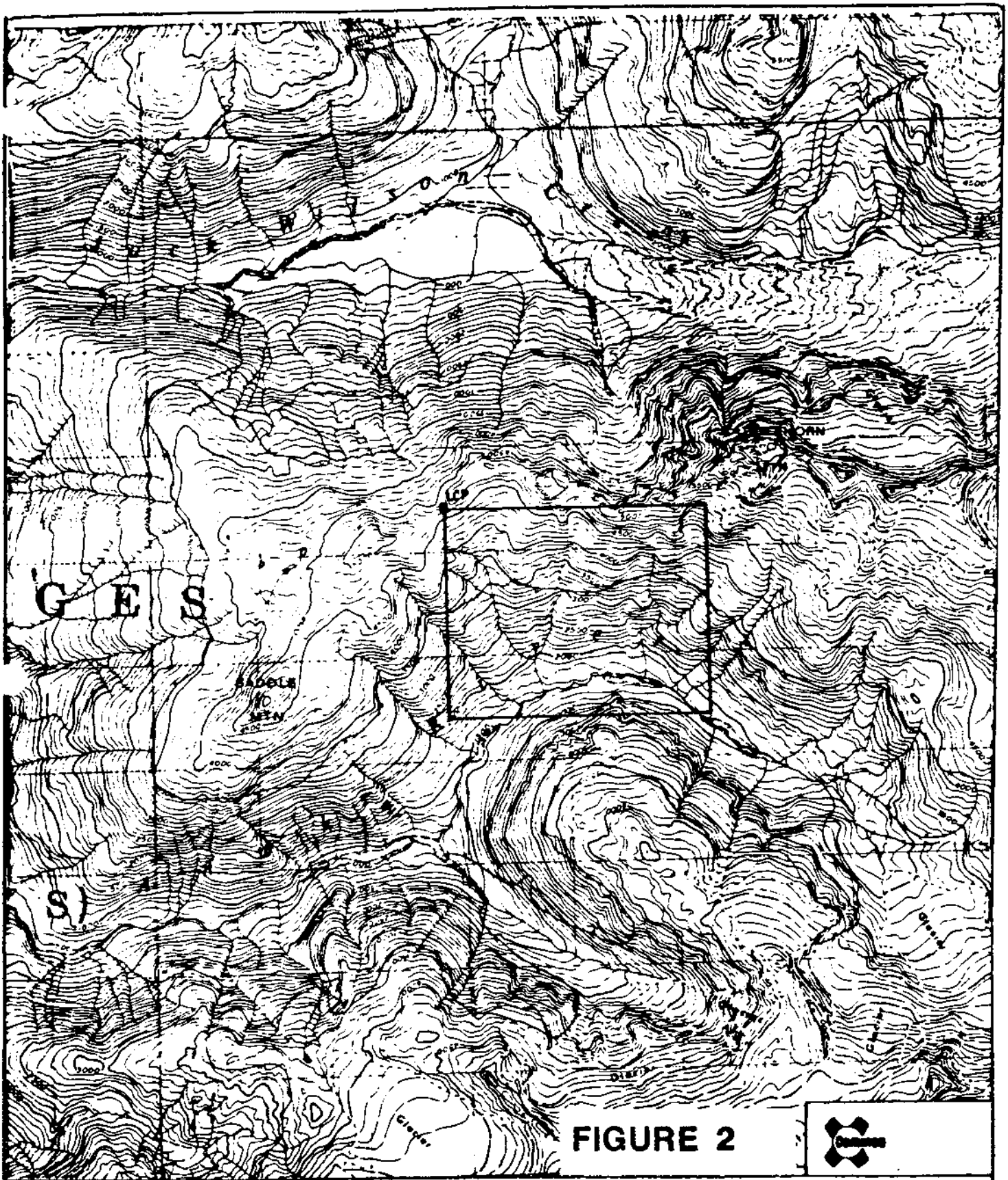


FIGURE 2

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

SADDLEHORN PROPERTY
CLAIM MAP

Scale: 1:50000	Date: NOV 29,1988	Plate: 104G/4

Report by: I.A. Paterson,
Senior Geologist,
Exploration

Endorsed for
Release by: W.J. Wolfe,
Manager, Exploration-
Western Canada

IAP/MGW/pm
1 December 1988

APPENDIX I

IN THE MATTER OF A GEOCHEMICAL SURVEY CARRIED OUT ON THE MINERAL CLAIMS OF THE SADDLEHORN PROPERTY, LOCATED IN THE LIARD MINING DIVISION, BRITISH COLUMBIA, MORE PARTICULARLY NTS 104G/4

A F F I D A V I T

I, IAN A. PATERSON of the City of Vancouver in the Province of British Columbia, hereby declare:

1. THAT I am employed as a geologist by Cominco and, as such, have personal knowledge of the facts to which I hereinafter depose;

2. THAT annexed to this affidavit is a true copy of expenditures incurred in connection with a geochemical survey on the Saddlehorn property.

3. THAT the said expenditures were incurred between the 14th July and 30th September 1988 for the purpose of conducting a geochemical survey on the Saddlehorn Property.

I.A. Paterson,
Senior Geologist.

Dated this 6 day of December 1988.
at Vancouver, British Columbia.

STATEMENT OF EXPENDITURES

SADDLEHORN PROPERTY

Salaries

I.A. Paterson	1 day at $350 (field)	$ 350.00
	2 days at $350 (office)	700.00
G. Wober	3 days at $138 (field)	414.00
R. Van Egmond	3 days at $128 (field)	384.00
D. Owens	3 days at $100 (field)	300.00

Analyses

189 soils at $15.50 each	(prep + Au,Ag,Cu,Pb,Zn,As)	$2,929.50
29 soils at $11.75 each	(prep, Au,Ag,Cu,Pb,Zn)	340.75
15 rocks at $12.50 each	(prep, Au,Ag,Cu,As)	187.50

Helicopter

7 hours at $550/hour	$3,850.00

Domicile

13 Man days at $55/day	$ 715.00
Total expenditures:	$10,170.75

Signed: 

I.A Paterson

APPENDIX II

SADDLEHORN PROPERTY
1988 SILT AND SOIL GEOCHEMISTRY RESULTS

sample type: 1=soil, 2=silt

FIELD#	LAB#	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	TYPE 1/2
64670	6221	10	.4	70	11	66	9	1
64671	6222	10	.4	37	8	39	7	1
64672	6223	10	.4	69	10	75	13	1
64673	6224	10	.4	15	8	35	2	1
64674	6225	10	.4	29	8	48	11	1
64675	6226	10	.4	155	9	71	9	1
64676	6227	10	.4	122	8	65	6	1
64677	6228	26	.4	140	10	58	7	1
64678	6229	10	.4	83	11	53	4	1
64679	6230	20	.4	212	34	113	10	1
64680	6231	10	.4	63	9	54	4	1
64681	6232	37	.4	110	7	51	7	1
64682	6233	28	.4	149	11	58	2	1
64683	6234	47	.4	124	6	40	2	1
64684	6235	10	.4	21	5	17	2	1
64685	6236	10	.4	42	5	17	2	1
64686	6237	22	.4	40	7	20	2	1
64687	6238	20	.4	205	9	59	6	1
64688	6239	10	.4	230	4	46	20	1
64689	6240	10	.4	227	4	43	2	1
64690	6241	10	.4	271	4	60	4	1
64691	6242	10	.4	146	5	59	4	1
64692	6243	16	.4	128	9	60	5	1
64693	6244	16	.4	170	8	56	5	1
64694	6245	17	.4	239	6	73	2	1
64695	6246	10	.4	56	8	37	10	1
64696	6247	23	.4	184	4	47	2	1
64697	6248	10	.4	54	4	41	2	1
64698	6249	68	.4	126	4	49	2	1
64699	6250	14	.4	66	6	31	13	1
64700	6251	20	.4	65	8	36	5	1
64729	6384	10	.4	143	5	55	2	1
64730	6385	10	.4	96	8	48	4	1
64731	6386	12	.4	128	12	63	2	1
64732	6387	10	.5	77	10	65	2	1
64733	6388	12	.4	166	4	55	2	1
64734	6389	10	.4	55	6	51	2	1
64735	6390	10	.4	39	4	52	2	1
64736	6391	16	.4	61	9	37	2	1
64737	6392	11	.5	210	6	71	2	1
64738	6393	12	.5	217	10	79	2	1
64739	6394	10	.4	28	5	61	2	1
64740	6395	10	.4	132	7	66	5	1
64741	6396	10	.4	42	11	81	2	1
64742	6397	10	.4	22	6	49	2	1
64743	6398	10	.4	64	6	102	2	1
64744	6399	10	.4	31	8	64	2	1
64745	6400	10	.4	23	6	39	2	1
64746	6401	10	.4	596	5	64	4	1
64747	6402	10	.4	18	5	30	2	1

64748	6403	10	.4	65	4	51	2	1
64749	6404	14	.4	71	4	47	3	1
64750	6405	12	.4	73	4	62	2	1
64751	6406	10	.4	60	4	68	2	1
64752	6407	10	.4	39	4	75	2	1
64753	6408	10	.4	13	4	46	2	1
64754	6409	10	.4	24	4	114	2	1
64755	6410	10	.4	22	4	43	2	1
64756	6411	10	.4	50	4	55	2	1
64757	6412	13	.4	21	4	42	2	1
64758	6413	16	.4	19	4	35	2	1
64759	6432	10	.4	107	4	63	2	1
64760	6433	10	.4	57	4	39	2	1
64761	6434	10	.4	104	4	67	2	1
64762	6435	10	.4	71	4	59	2	1
64763	6436	10	.4	60	4	73	2	1
64764	6437	10	.4	76	4	66	3	1
64765	6438	10	.4	182	4	57	4	1
64851	6414	10	.5	302	4	82	2	1
64852	6415	17	.4	122	7	63	12	1
64853	6416	10	.6	21	4	14	2	1
64854	6417	10	1.4	48	4	10	3	1
64855	6418	10	.4	22	5	13	2	1
64856	6419	10	.8	12	4	10	2	1
64857	6420	10	.4	23	8	14	2	1
64858	6421	16	.6	51	20	85	9	1
64859	6422	10	.6	39	13	39	2	1
64860	6423	10	1.1	115	23	36	5	1
64861	6424	16	.4	61	22	11	2	1
64862	6425	27	1.2	810	26	80	2	1
64863	6426	13	.8	78	4	34	2	1
64864	6427	10	.4	24	8	11	2	1
64865	6428	15	1	17	8	10	2	1
64866	6429	10	10.6	840	131	71	5	1
64867	6430	10	.4	2440	4	149	2	1
64868	6431	13	5.1	3300	94	41	2	1
64869	6450	10	.5	19	6	20	2	1
64870	6451	10	.4	61	4	30	3	1
64871	6452	10	.5	41	7	18	5	1
64872	6453	10	.6	28	15	14	2	1
64873	6454	30	1.2	273	31	131	5	1
64874	6455	67	2.3	123	15	77	6	1
64875	6456	11	.6	191	16	119	3	1
64876	6457	10	.8	19	4	22	2	1
64877	6458	10	.8	28	36	68	5	1
64878	6459	10	.4	28	4	21	2	1
64879	6460	10	.7	20	5	19	3	1
64880	6461	10	.4	31	5	52	7	1
64881	6462	10	.7	50	11	31	2	1
64882	6463	10	.4	24	8	24	5	1
64883	6464	10	.4	18	4	11	5	1
64884	6465	10	.4	16	7	12	6	1
64885	6466	10	.4	33	4	20	2	1
64886	6467	10	.7	56	7	26	7	1
64887	6468	10	.7	17	4	38	3	1
64888	6469	10	.4	16	4	41	2	1
64889	6470	10	1.1	18	4	17	3	1
64890	6493	10	.5	57	4	11	2	1
64891	6494	10	.7	25	4	13	2	1
64892	6495	10	.4	52	4	50	7	1

64893	6496	10	.6	43	4	18	2	1
64894	6497	10	.4	31	9	22	3	1
64895	6498	10	.6	84	5	27	2	1
64896	6499	10	.7	66	4	30	2	1
64897	6500	10	.5	14	8	25	2	1
64898	6501	10	.8	68	98	101	18	1
64899	6502	10	.5	63	4	18	4	1
64900	6503	10	.7	175	36	149	33	1
64558	6471	10	.4	311	27	110	26	1
64559	6472	10	.4	119	14	78	9	1
64560	6473	10	.4	114	19	91	7	1
64562	6474	10	.4	110	11	84	2	1
64563	6475	10	.4	80	8	93	3	1
64564	6476	10	.4	57	4	73	2	1
64565	6477	10	.4	131	6	83	2	1
64566	6478	10	.4	19	4	21	3	1
64567	6479	10	.4	53	4	57	2	1
64568	6480	10	.4	41	7	86	5	1
64569	6481	10	.4	126	6	72	2	1
64570	6482	10	.4	125	4	63	2	1
64571	6483	10	.4	88	4	60	2	1
64572	6484	10	.4	29	4	39	2	1
64573	6485	10	.4	20	4	27	2	1
64574	6486	19	.4	171	4	70	2	1
64575	6487	10	.4	98	4	60	2	1
64576	6488	10	.5	93	4	20	2	1
64577	6489	10	.4	57	4	15	2	1
64578	6490	10	.4	74	4	79	2	1
64579	6491	10	.4	65	4	22	2	1
64580	6492	10	.4	40	4	41	2	1
64581	6504	10	.4	66	4	26	2	1
64582	6505	10	.4	31	4	15	3	1
64583	6506	10	.4	42	4	11	4	1
64584	6507	10	.4	49	4	27	5	1
64585	6508	10	.4	126	4	85	8	1
64586	6509	10	.4	157	4	62	5	1
64587	6510	10	.4	48	4	34	5	1
64588	6511	10	.4	209	4	118	5	1
64589	6512	10	.4	182	4	121	4	1
64590	6513	10	.4	140	11	220	2	1
64591	6514	10	.4	91	22	261	3	1
64592	6515	10	.4	59	13	72	6	1
64593	6516	10	.4	112	48	440	3	2
64901	6442	10	.6	47	10	14	3	1
64902	6443	10	.4	38	4	11	2	1
64903	6444	19	.4	105	4	51	2	1
64904	6445	10	.4	45	4	44	2	1
64905	6446	10	.7	23	4	24	2	1
64906	6447	10	.5	17	8	9	2	1
64907	6448	10	.4	11	4	13	2	1
64908	6449	10	.7	95	4	15	2	1
64909	6364	14	.4	31	7	13	2	1
64910	6365	10	.5	12	4	6	2	1
64911	6366	10	.4	20	4	6	3	1
64912	6367	10	.6	1850	11	257	2	2
64913	6368	10	.4	55	4	17	2	1
64914	6369	10	.4	31	6	12	2	1
64915	6370	10	.4	108	4	64	2	1
64916	6371	10	.4	18	5	15	2	1
64917	6372	10	.4	32	5	9	2	1

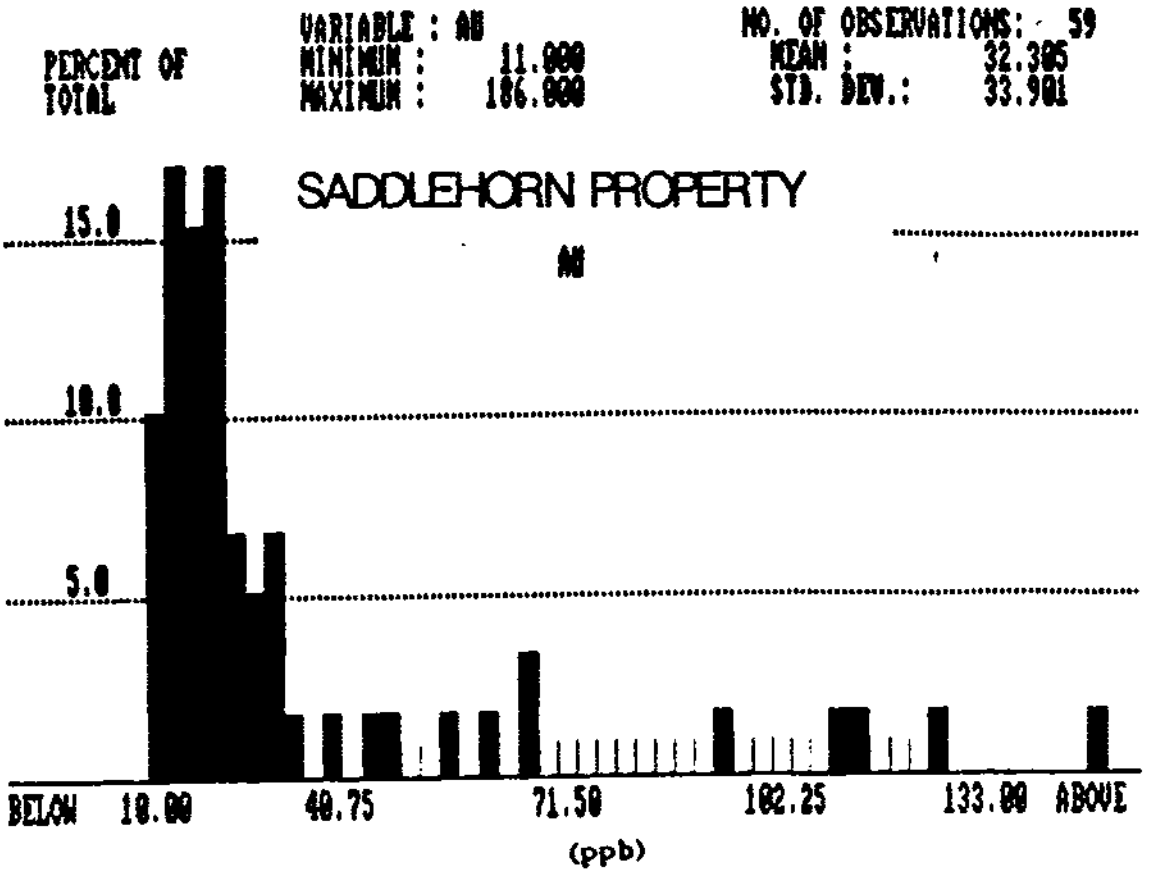
64918	6373	10	.4	31	4	16	2	1
64919	6374	10	.5	28	4	10	2	1
64920	6375	10	.4	29	4	49	2	1
64921	6376	10	.4	8	4	13	2	1
64922	6377	10	.4	11	4	19	2	1
64923	6378	10	.4	87	4	62	2	2
64924	6868	116	.4	600	11	177		2
64925	6869	10	.4	95	7	103		2
64926	6870	20	.4	730	12	187		2
64927	6871	21	.4	730	14	186		2
64594	6517	10	.4	17	4	36	3	1
64595	6518	10	.4	17	4	11	2	1
64596	6519	10	.4	27	4	11	2	1
64597	6520	10	.4	14	4	14	4	1
64598	6521	10	.4	24	4	32	4	1
64599	6522	10	.8	97	4	32	3	1
64600	6523	10	.4	18	4	11	5	1
51537	6866	18	.4	182	13	65		1
51538	6867	17	0.4	920	36	242		1
64766	6883	30	0.9	182	12	65		1
64767	6884	23	1.1	99	30	111		1
64768	6885	24	.4	203	5	65		2
61520	6526	10	.7	312	4	120	5	1
61521	6527	10	.4	56	4	50	2	1
61522	6528	10	.4	64	4	22	2	1
61523	6529	10	.4	110	13	56	5	1
61524	6530	10	1	24	4	13	7	1
61525	6531	10	.9	49	4	27	6	1
51527	6856	186	4.2	501	870	105		1
51528	6857	43	.4	80	10	19		1
51529	6858	15	.4	307	4	54		1
51530	6859	57	0.7	266	8	64		1
51531	6860	120	1.1	315	9	67		1
51532	6861	62	.4	288	4	95		1
51533	6862	30	.4	920	12	102		1
51534	6863	97	.4	316	7	72		1
51535	6864	26	0.5	850	13	49		1
51536	6865	32	.4	800	7	86		1
64389	6872	20	.4	316	5	83		1
64390	6873	130	3.2	2110	33	167		1
64391	6874	10	.4	81	17	48		1
64392	6875	10	.4	158	25	92		1
64393	6876	20	.4	750	8	428		1
64394	6877	10	0.6	99	33	66		1
64395	6878	13	.4	114	37	49		1
64396	6879	10	.4	188	7	51		1
64397	6880	20	.4	217	8	67		1
64398	6881	14	0.6	249	8	78		1

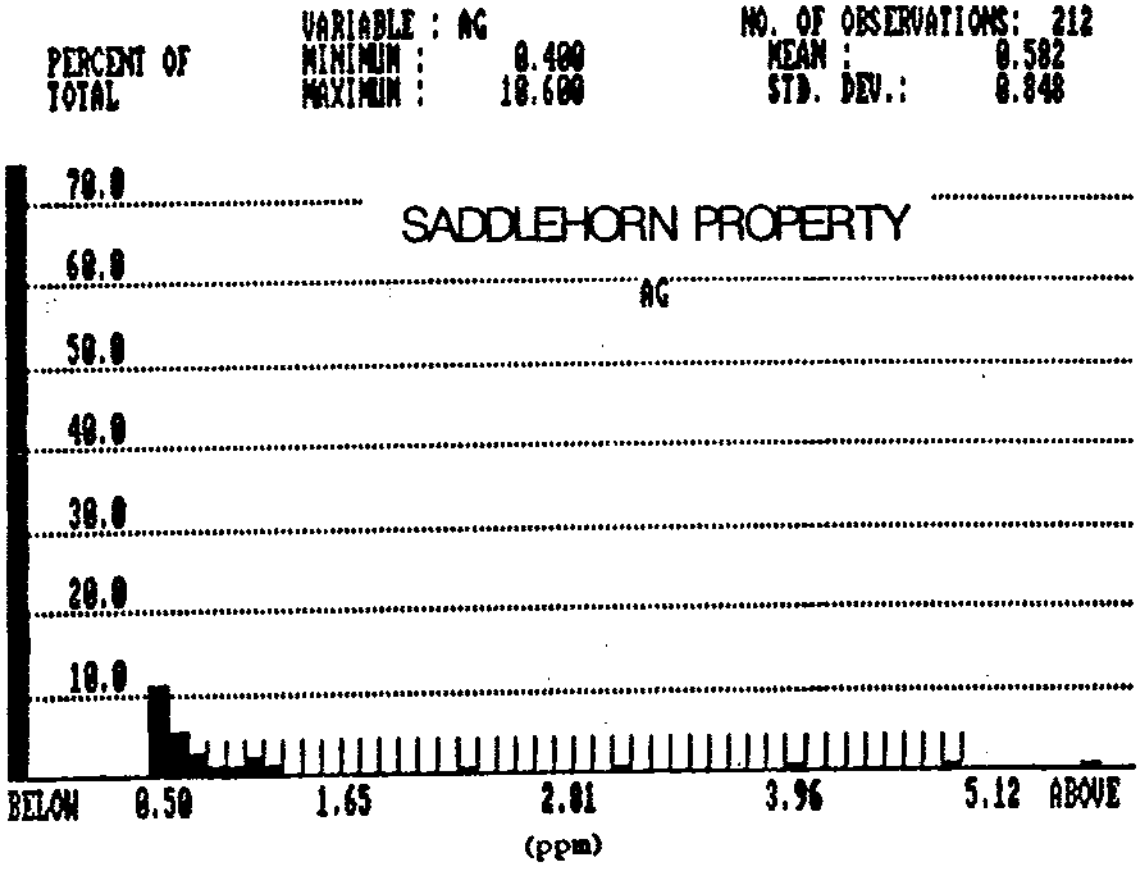
APPENDIX III

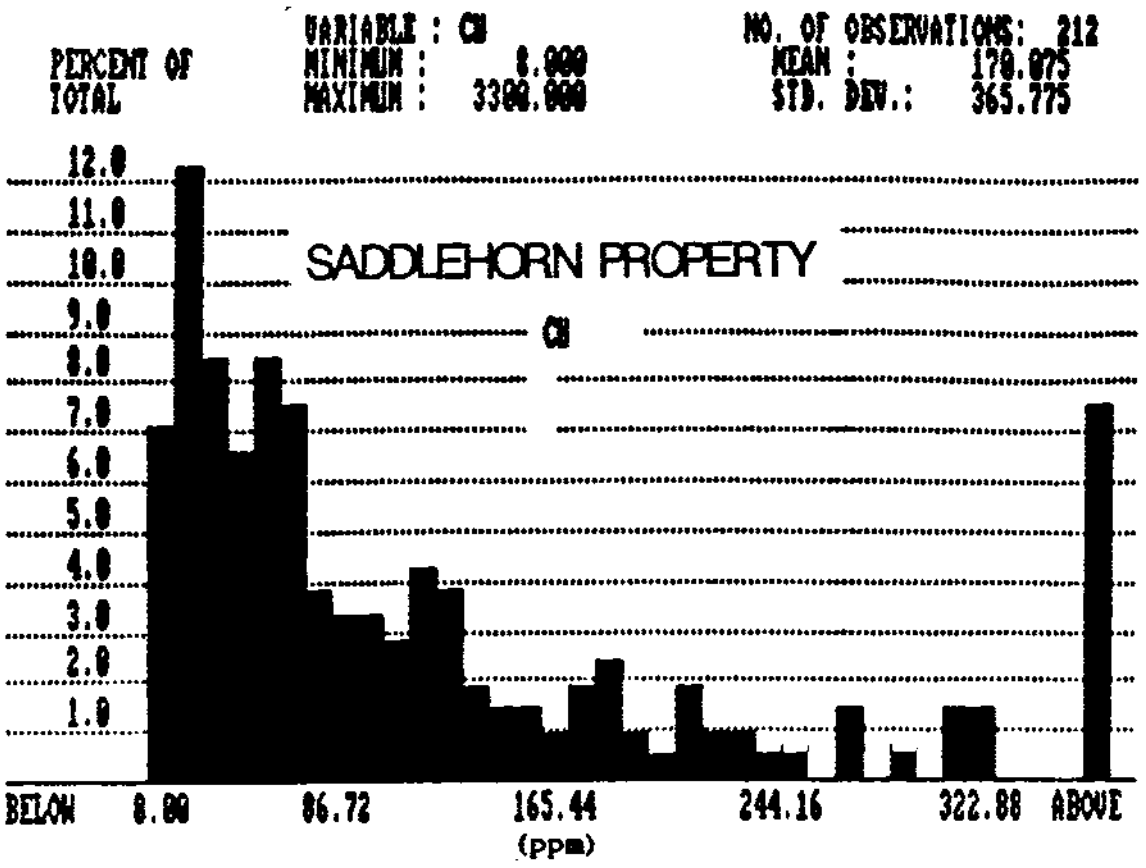
1988 SADDLE ROCK SAMPLE RESULTS

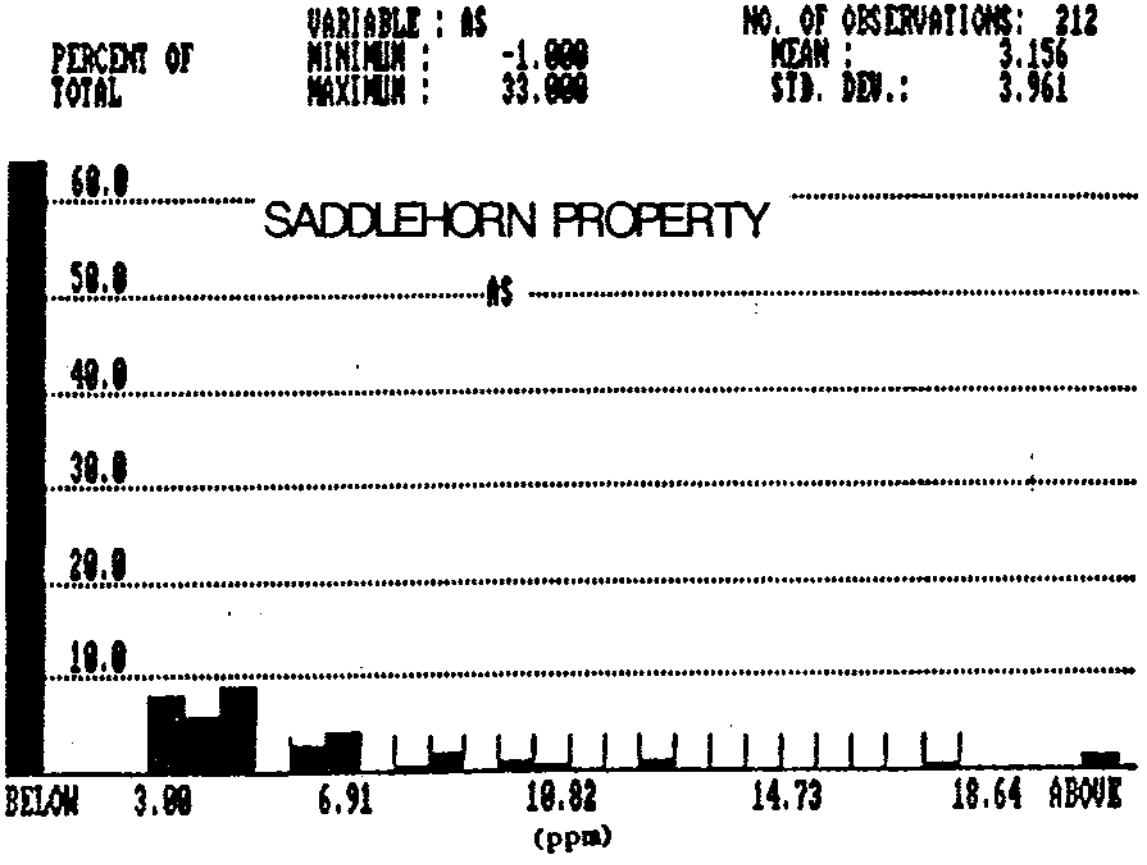
FIELD #	LAB #	AU ppb	AG ppm	ZN ppm	CU ppm	AS ppm
PR8206	9460	20				
PR8207	9442	10	3.2	42	44	
PR8208	9461	20				
VR8898	8201	20	.9		219	2
VR8899	9462	10	.4	119	131	29
VR88100	9463	20	.4	69	170	2
VR88101	9464	10	.4	17	45	2
VR88102	9465	10	.4	76	116	2
VR88103	9466	26	1.6	411	118	3
VR88104	9467	10	1.2	810	78	5
VR88105	9468	10	.7	105	57	4
ER8834	8198	60	1.4		291	3
ER8835	8199	74	1.5		116	6
ER8836	9469	20	.5	34	61	12
ER8837	9470	32	.4	66	69	2

APPENDIX IV


VARIABLE : AU
MINIMUM : 11.000
MAXIMUM : 186.000
NO. OF OBSERVATIONS: 59
MEAN : 32.305
STD. DEV.: 33.901
PERCENT OF TOTAL
SADDLEHORN PROPERTY
AU
15.0
10.0
5.0
BELOW 10.00
40.75
71.50
102.25
133.00
ABOVE
(ppb)


VARIABLE : AG
MINIMUM : 0.400
MAXIMUM : 18.600
NO. OF OBSERVATIONS: 212
MEAN : 0.582
STD. DEV.: 0.848
PERCENT OF TOTAL
SADDLEHORN PROPERTY
AG
70.0
60.0
50.0
40.0
30.0
20.0
10.0
BELOW 0.50
1.65
2.81
3.96
5.12
ABOVE
(ppm)

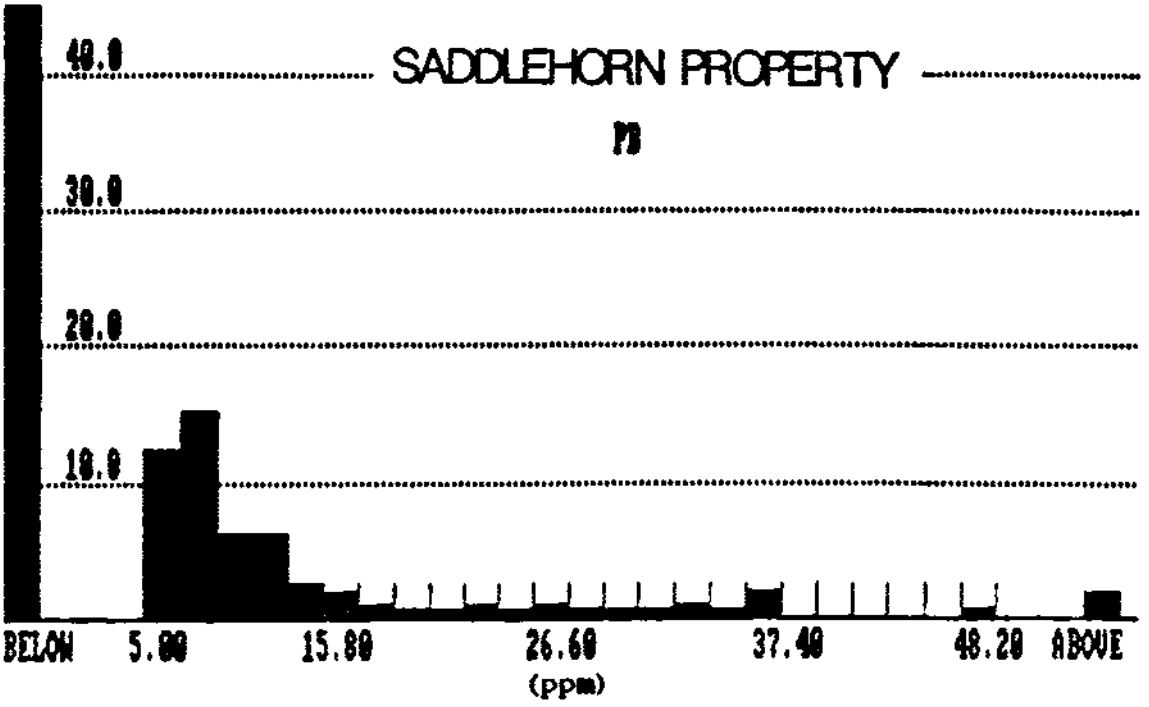

VARIABLE : CU
MINIMUM : 8.000
MAXIMUM : 3300.000
NO. OF OBSERVATIONS: 212
MEAN : 170.075
STD. DEV.: 365.775
PERCENT OF TOTAL
SADDLEHORN PROPERTY
CU
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
BELOW 8.00
86.72
165.44
244.16
322.88
ABOVE
(ppm)


VARIABLE : AS
MINIMUM : -1.000
MAXIMUM : 33.000
NO. OF OBSERVATIONS: 212
MEAN : 3.156
STD. DEV.: 3.961
PERCENT OF TOTAL
SADDLEHORN PROPERTY
AS
60.0
50.0
40.0
30.0
20.0
10.0
BELOW 3.00
6.91
10.82
14.73
18.64
ABOVE
(ppm)

PERCENT OF TOTAL

VARIABLE : PB
MINIMUM : 4.000
MAXIMUM : 870.000

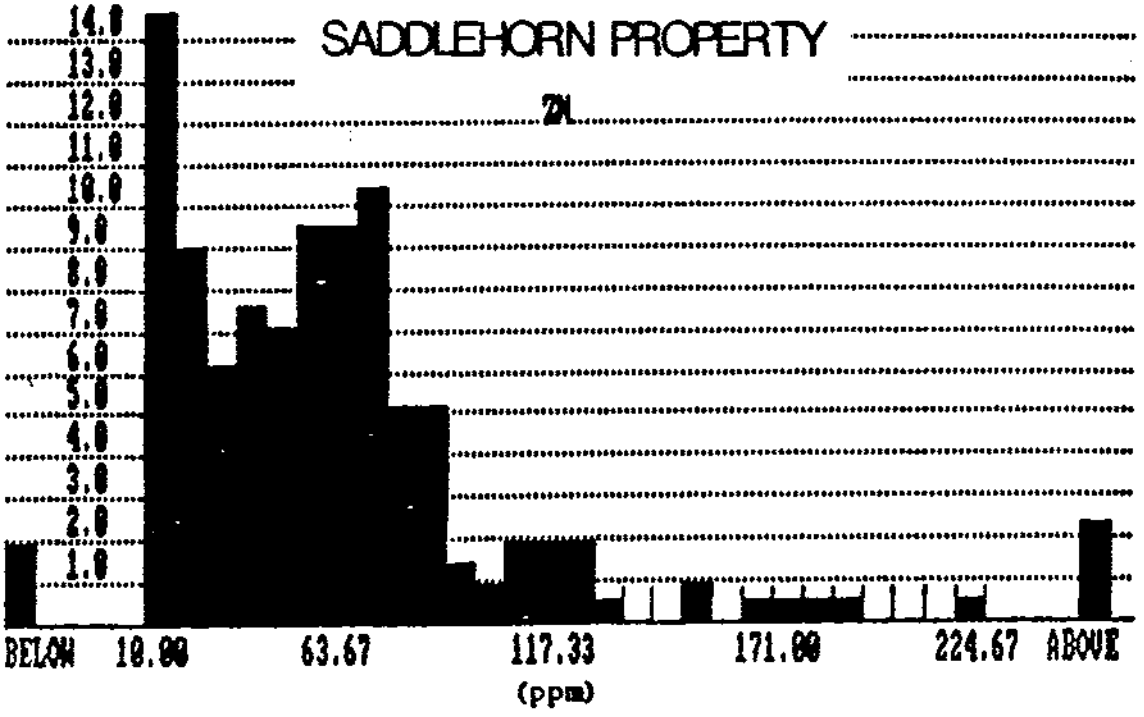
NO. OF OBSERVATIONS: 212
MEAN : 13.788
STD. DEV.: 60.741



PERCENT OF TOTAL

VARIABLE : ZN
MINIMUM : 6.000
MAXIMUM : 448.000

NO. OF OBSERVATIONS: 212
MEAN : 59.858
STD. DEV.: 56.703



APPENDIX V

I, IAN A. PATERSON, WITH BUSINESS ADDRESS AT 700-409 GRANVILLE STREET, VANCOUVER, BRITISH COLUMBIA, DO HEREBY CERTIFY THAT:

1. I graduated from the University of Aberdeen, Scotland with a B.Sc. (Hons.) Degree in 1967.

2. I graduated from the University of British Columbia with a Ph.D. degree in 1973.

3. I am a registered Professional Engineer of the Province of British Columbia, a Fellow of the Gelogical Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.

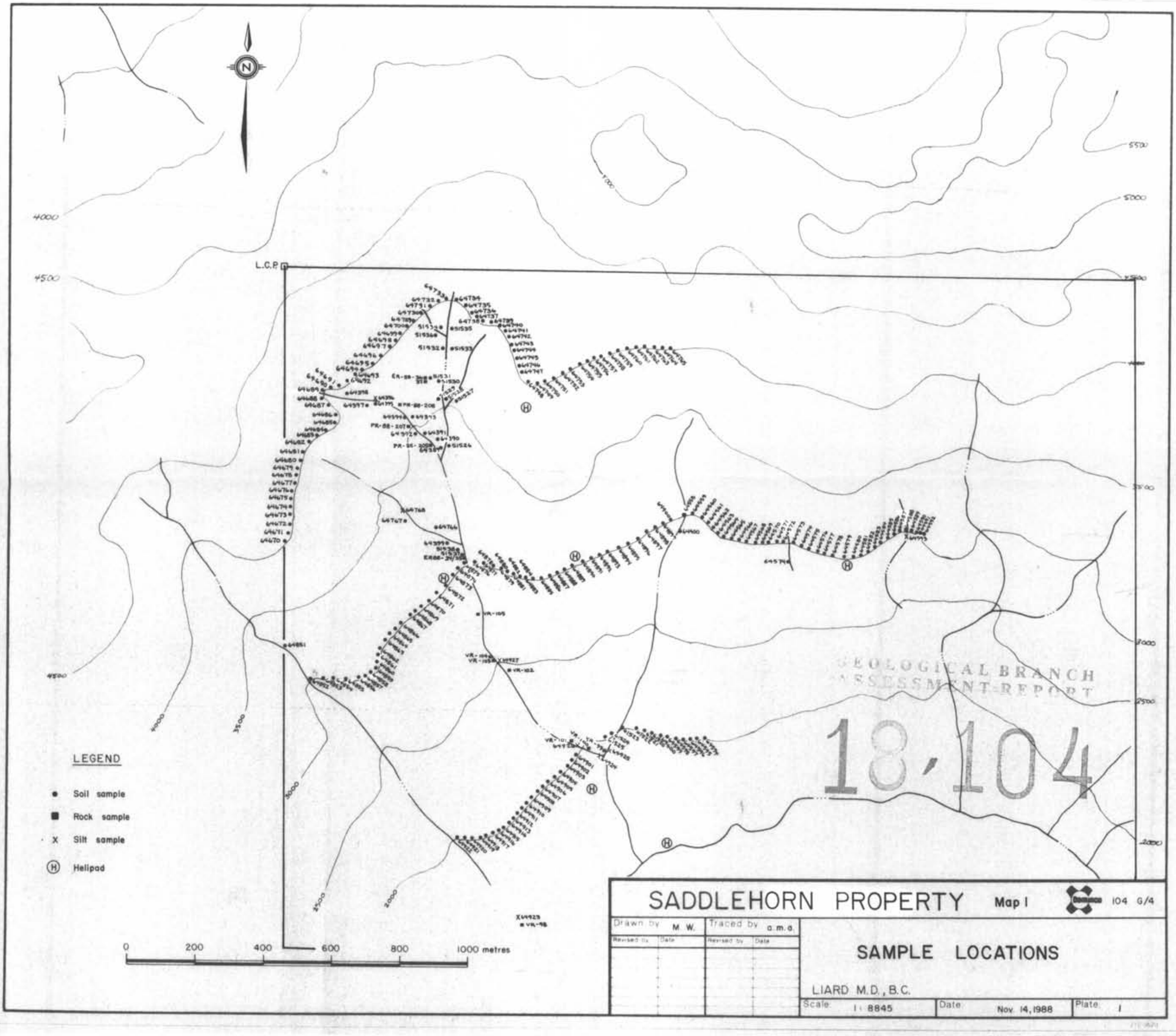
4. I have been engaged in my profession since my graduation in 1973.

5. I have been employed by Cominco Ltd. since 1974.

Respectfully submitted:

IAN A. PATERSON
SENIOR GEOLOGIST

Dated this 6 day of December 1988
at Vancouver, British Columbia



SADDLEHORN PROPERTY

Map 1

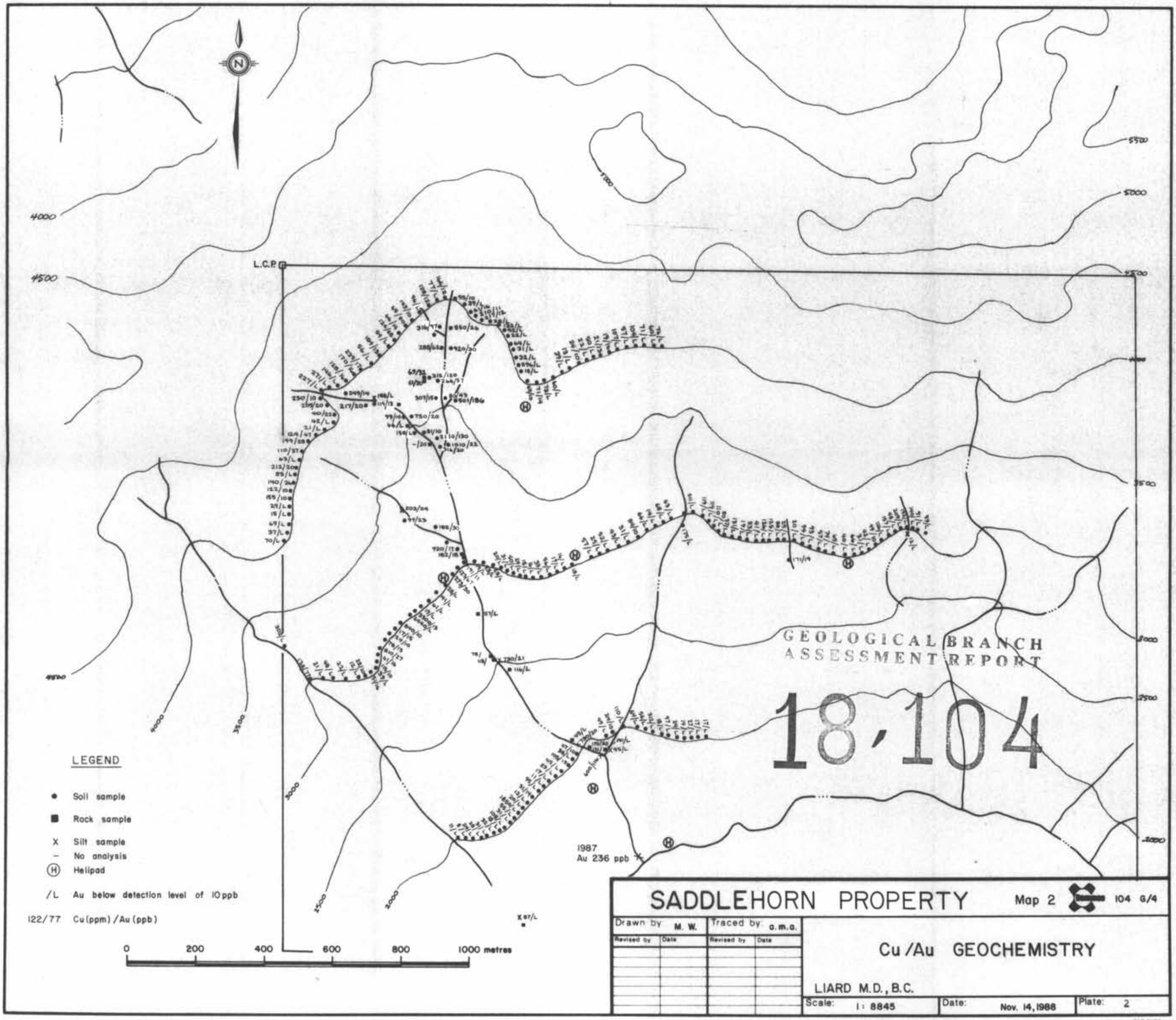
104 G/4

Drawn by	Traced by
M. W.	a.m.e.
Revised by / Date	Revised by / Date

SAMPLE LOCATIONS

LIARD M.D., B.C.

Scale: 1:8845 | Date: Nov. 14, 1988 | Plate: 1



SADDLEHORN PROPERTY

Map 2 — 104 G/4

Drawn by: M. W.		Traced by: a.m.a.	
Revised by	Date	Revised by	Date

Cu / Au GEOCHEMISTRY

LIARD M.D., B.C.

Scale: 1 : 8845 | Date: Nov. 14, 1988 | Plate: 2

210-0620

L.C.P.

LEGEND

- Soil sample
- Rock sample
- X Silt sample
- Ⓗ Helipad
- — No analysis
- L/ Ag below detection level of 0.4 ppm
- 0.8/4 Ag (ppm) / Pb (ppm)

0 200 400 600 800 1000 metres

SADDLEHORN PROPERTY

Map 3

104 G/4

Drawn by: M. W.	Traced by: a.m.a
Revised by: / Date:	Revised by: / Date:

Ag / Pb GEOCHEMISTRY

LIARD M.D., B.C.

Scale 1 : 8845 | Date Nov. 14, 1988 | Plate 3