

ASSESSMENT REPORT

1983 Geochemical & Heavy Sediment Survey

RUSTY 1, 2 and 3 CLAIMS

Lardeau River Area Slocan Mining Division, B.C.

CLAIMS:	RUSTY 1	RECORD # 1453
	RUSTY 2	RECORD # 1538
	RUSTY 3	RECORD # 1454

LATITUDE 50° 28' North, LONGITUDE 117° 10' West

N.T.S. 82K 6E and 6W

OWNER: C. GRAF

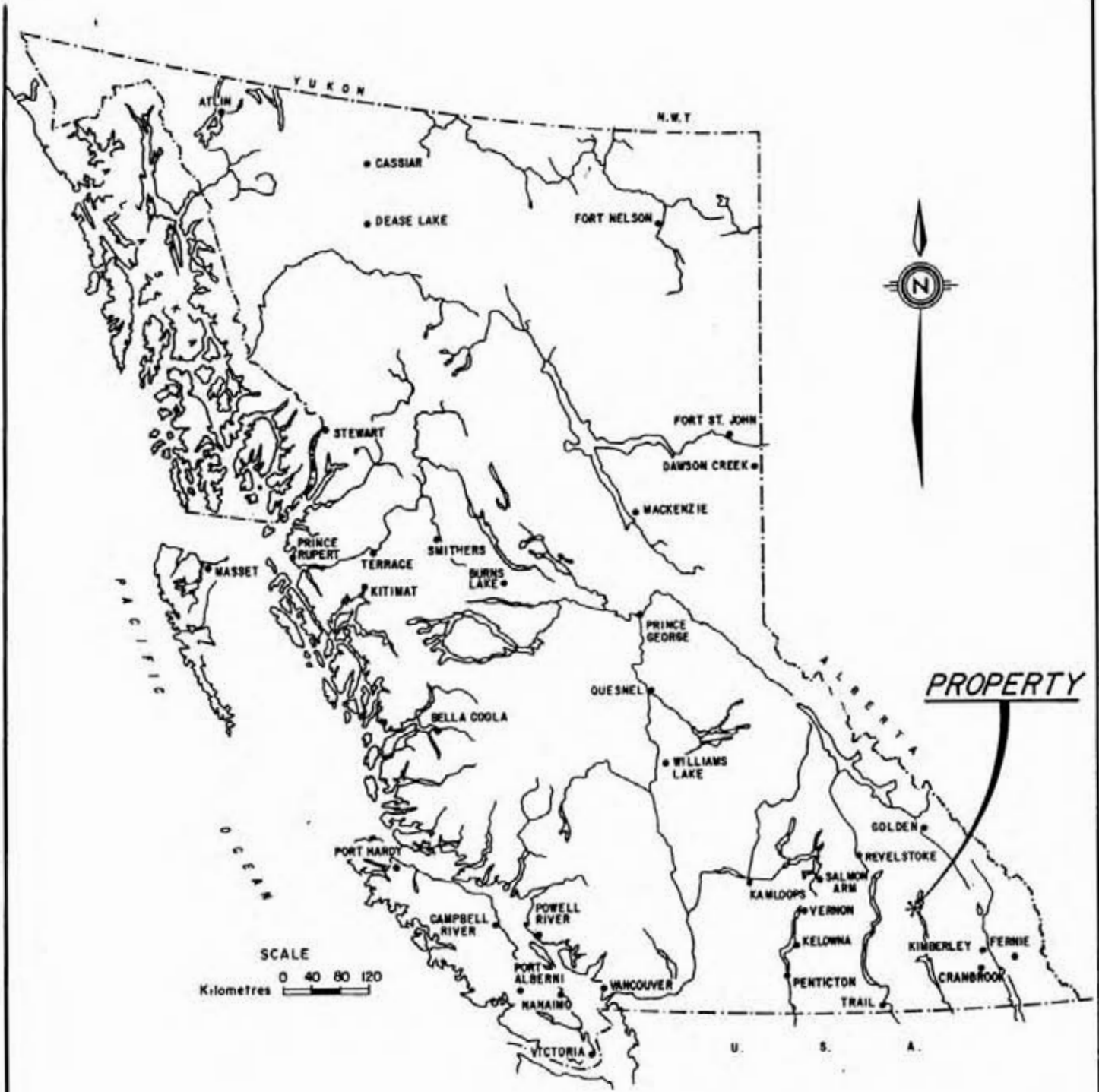
OPERATOR: HARDY INTERNATIONAL LTD.,
 903-1030 West Georgia Street,
 Vancouver, B.C. V6E 2Z4

DATE: SEPTEMBER 30, 1983

PREPARED BY: BURTON CONSULTING INC.,
 810 - 626 West Pender Street
 Vancouver, B.C.
 V6B 1V9

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,813



HARDY INTERNATIONAL LTD.	
POPLAR CREEK PROJECT	
<i>LOCATION MAP</i>	
M.D. SLOCAN	SCALE : 1 : 8,000,000
NTS:	DATE : SEPTEMBER, 1983
BURTON CONSULTING INC. 810 - 626 West Pender Street, Vancouver, B.C. V6B 1V9	FIGURE NO. 1

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INTRODUCTION

The Rusty 1,2 and 3 Claims are located on Highway 31, 80 km. north of Kaslo, B.C., south of Trout Lake. A forestry road gives access to the property from the junction of Rusty Creek and Highway 31. Topography of the area in general is moderately rugged varying from 850 metre elevation at the Lardeau River to over 1,800 metre elevation in the claims area.

Rusty 1,2 and 3 were located by Chris Graf in October, 1979 and were previously optioned to Western Mines & Armco Mineral Exploration Ltd. in May of 1980. A geochemical soil sampling program was undertaken and filed in Assessment Report #8483 by H. Meade of Western Mines Ltd.

In this survey (September, 1983) soil samples were taken in anomalous areas as defined by H. Meade to detail the zones. Heavy sediment samples were taken from the streams draining through the claims to determine if gold was present in the watercourses. The sample lines from the 1980 survey were difficult to locate due to both topography and bush conditions. Several attempts to locate old lines were unsuccessful. Considerable time was required on the survey.

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CLAIMS INFORMATION

RUSTY 1 RECORD # 1453 12 Units An.date Oct.'83

RUSTY 2 RECORD # 1538 12 Units An.date Nov.'83

RUSTY 3 RECORD # 1454 12 Units An.date Oct.'83

Grouped as Rusty Group.

DESCRIPTION OF WORK

A total of 75 geochemical soil samples were taken on Rusty 1,2, and 3. The existing grid at Line 124 + 00 NW station 1550 SW to Station 1750 SW was resampled at 25 metre intervals. An intermediate line was run 50 metres NW from station 1750 SW to 1550 SW at 25 metre intervals.

Line 123 NW was resampled from 1550 SW to 1400 SW at 25 metre intervals with a fill in line at 123 + 50 SW from 1400 SW to 1550 SW, Line 124 NW from 1550 SW to 1400 SW. Sample interval 25 metres.

Line 129 + 00 NW station 1650 SW was sampled with 9 step out samples at 25 metre intervals around the location also taken.

Line 114 + 00 NW was resampled from 1350 SW to 1050 SW with an intermediate line 50 metres NW also run from 1400 SW to 1050 SW at 25 metre intervals.

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Soil samples were taken with a mattock from the "B" horizon approximately .1 to .2 metres deep. The samples were placed in kraft paper bags and sent to Acme Analytical Laboratories, 852 East Hastings Street, Vancouver, B.C. for analysis.

All sample locations were identified by sample number and flagged.

ANALYTICAL PROCEDURE

All samples were analysed by Acme Analytical Labs as follows. The samples were dried, pulverised to minus 100 mesh and then analysed.

Pb, Ag: .5 gram sample is digested with 3 ml of 3:1:3 HCl to with water then analysed by Atomic Absorption.

Au: 10 Gm, ignited, hot aqua regia extraction, then analysed by Atomic Absorption.

Hg: standard base metal digestion, cold vapour reduction, then analysed by Atomic Absorption.

Gold and mercury values are in parts per billion (P.P.B.). All others are in parts per million (P.P.M.)

GEOCHEMICAL RESULTS & INTERPRETATION

Assessment Report 8483 in Figure 10 shows lines 113 + 00 NW to 129 + 00 NW with spotty single or paired anomalous gold soil values.

The three tests done by Hardy within this area also shows similar spotty anomalous gold soil values.

At only one sample site (Z-27 from this survey and the 1980 report grid line 129 + 00 NW at J-638) are gold soil anomalies coincident.

Most of the 1983 samples were taken from the same hole dug by the soil samplers in 1980. The poor fit of values could represent natural variation in the soil, differences in sample handling and preparation, and differences in analytical procedure.

Sample collectors commented on the non homogenous nature of the soils. The heavy sediment survey confirms the coarse nature of the gold which increases the "nugget effect" and thus the variability.

CONCLUSIONS

Anomalous gold soil values are difficult to replicate with later surveys and are difficult to interpret, but do represent gold bearing rocks.

HEAVY SEDIMENT SURVEY

The creeks draining Rusty 1,2 and 3 were sampled with the following method.

Using a Keene 2 1/2" suction concentrator sediments and stream gravels were drawn through a 2 1/2" venturi and expelled into a riffle box setup with 70 to 90 of slope. At each location material was run through the riffles for 10 minutes. The resultant "heavies" were panned using a panning machine to recover concentrates which were analysed by Acme Analytical Ltd. for gold, silver, lead & mercury.

ANALYTICAL PROCEDURE

The concentrates and stream sediment samples were run as geochemical samples - being pulverized to 100 mesh minus, and run using Atomic Absorption techniques previously discussed. The results are in Appendix 1.

HEAVY SEDIMENT RESULTS AND INTERPRETATION

The heavy sediment technique of stream sampling enhances the recovery of metals from the watercourse making tracing of these minerals less difficult. A visual estimate of the concentrate is possible during the final panning which enables a subjective value to be made. From these on site values new targets can be selected in the field. The concentrates were analysed to give a numerical value.

Stream sediment samples were taken at the same locations as the Heavy Sediment for comparison. They are listed as the "S" series in the following.

	Pb	Ag	Au	Hg
HS1	13	.3	70	.200
S1	17	.1	5	.060
HS2	14	.3	1400	1.000
S2	20	.1	5	.030
HS3	19	.1	20	.800
S3	18	.1	5	.005
HS4	20	.1	2100	.300
S4	21	.1	5	.010
HS5	22	.8	1250	.300
S5	22	.1	5	.050
HS6	25	.7	15	.400
S6	17	.1	5	.010
HS7	33	.8	660	1.200
S7	22	.1	5	.010
HS8	34	.3	1600	.020
S8	30	.1	5	.010
HS9	30	.1	70	.010
S9	31	.1	5	.030
HS10	35	.2	30	.020
S10	20	.1	5	.020

All values are in P.P.M.

The anomalous metal contents are significantly emphasised in the Heavy sediment concentrates when compared to the values of a standard stream silt sample. Gold shows the greatest contrast, mercury the next greatest. Silver shows increases in 70% of the samples tested, whereas the lead values are not effectively enhanced at all.

Visually the heavy sediments that carried the highest amount of sulfides; magnetite, galena, hematite, pyrite; were also the highest gold carriers - HS 4,8,2,5 and 6.

While only HS 7 and 10 were on the claim group, they were part of a regional survey that demonstrated good gold values in the watercourses.

COST STATEMENTWages:

J. Ziegler, technician Sept. 16-20,22-30	
12 days @ \$150/day	\$1,800.00
M. Hampson, helper Sept. 28,29,30	
3 days @ \$100/day	300.00
B. Ziegler, Sept. 17,18,19	
3 days @ \$135/day	<u>405.00</u>

TOTAL WAGES	\$2,505.00
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Rentals

4 x 4 - Global Assessments	
Sept. 17,18,19 3 days @\$45	\$ 135.00
4 x 4 - Mike Hampson	
Sept. 28,29,30 3 days @\$45	135.00
Keene Concentrator	
Sept. 16-20,22-30 12 days @\$10	120.00
Dodge Van	
Sept. 16-20,22-30 12 days @\$25	<u>300.00</u>

TOTAL RENTALS	\$ 690.00
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Accommodation

18 man days Sept.16-30 incl.@\$4/day	\$ 72.00
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Board

18 man days Sept. 16 - 30 incl.	
@\$11.69/day	\$ 210.43

Fuel: gasoline & oil	417.89
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Sample shipping: Nelson - Vanc.	6.36
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Repairs: Tire repair	16.00
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Consumables: (hip chain thread, flagging, bags, office supplies)	66.44
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Supervision - field A. Burton 1 day	375.00
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Analysis: 75 geochem @ \$10.45	783.75
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2 heavy sediment @ \$10.45	20.90
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2 stream sediment @\$10.45	20.90
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Drafting & photocopies	250.00
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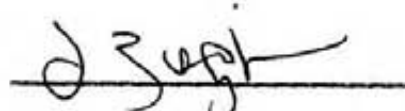
Telephone	23.99
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Report	<u>375.00</u>
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	\$5,833.66
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STATEMENT OF QUALIFICATIONS

I have worked as a geotechnician for 18 years. For the past 5 years as an associate and under the direction of Mr. Alex Burton, P. Eng.



JOHN ZIEGLER

209 - 1045 Haro Street,
Vancouver, B.C.

STATEMENT OF QUALIFICATIONS

I, ALEX BURTON do hereby certify that I am an independent Consulting Geologist with offices at 810 - 626 West Pender Street, Vancouver, B.C. V6B 1V9.

I FURTHER CERTIFY THAT:

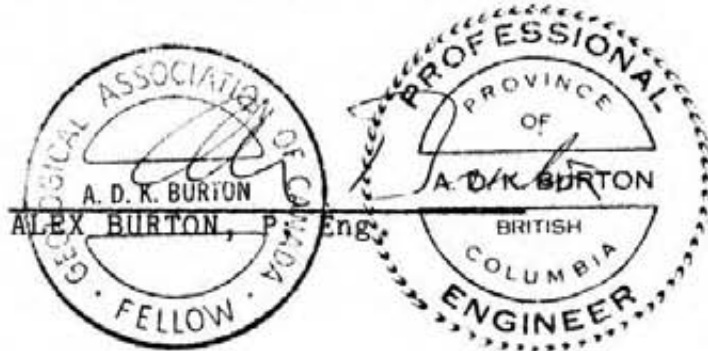
1. I am a graduate geologist and a Registered Professional Engineer in B.C. with certificate No. 6262.

2. I am a member of the Association of Exploration Geochemists.

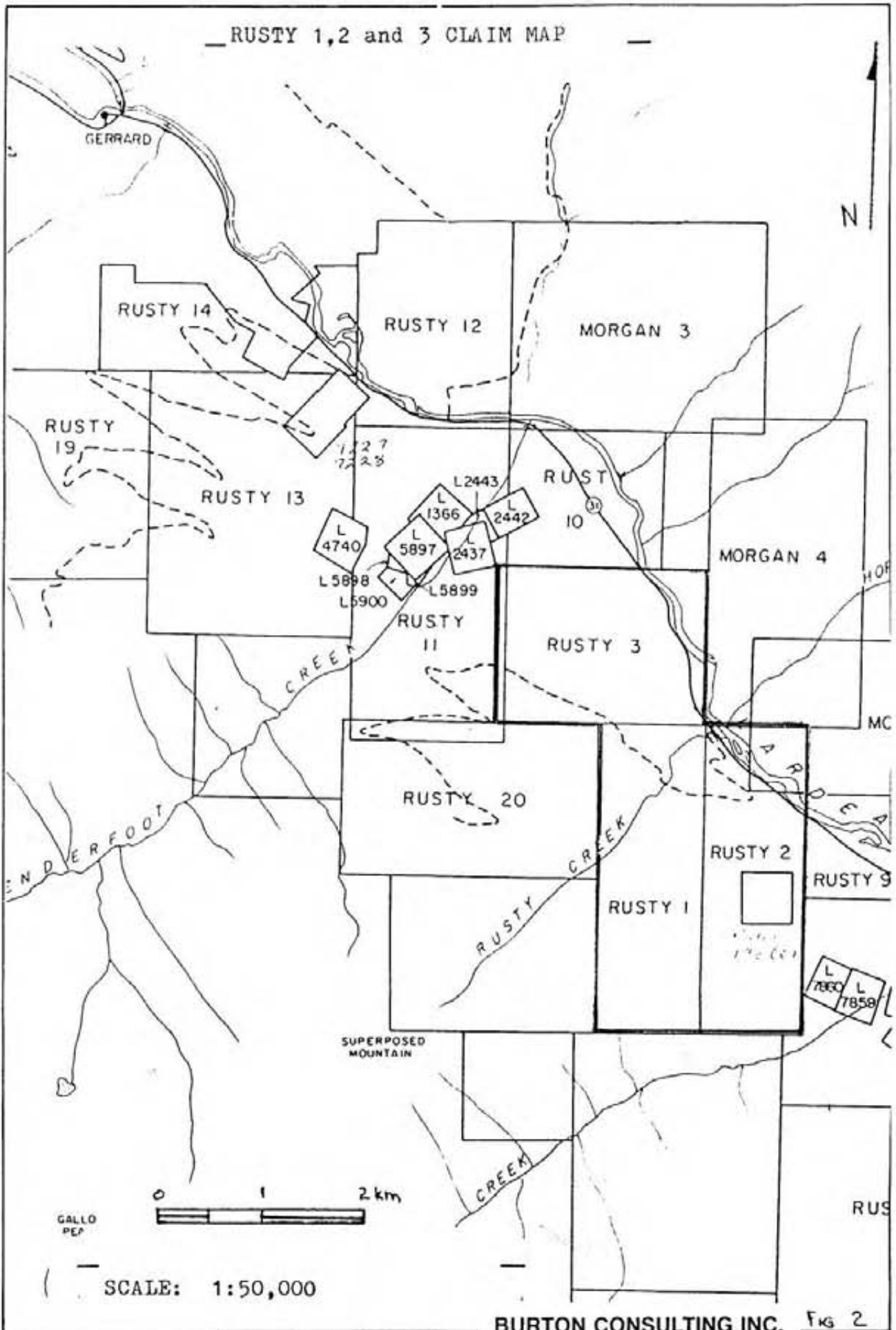
3. I am a fellow of the Geological Association of Canada.

4. I supervised the work on the RUSTY 1, 2 and 3 CLAIMS carried out by Mr. John Ziegler, a geological technician in my employ.

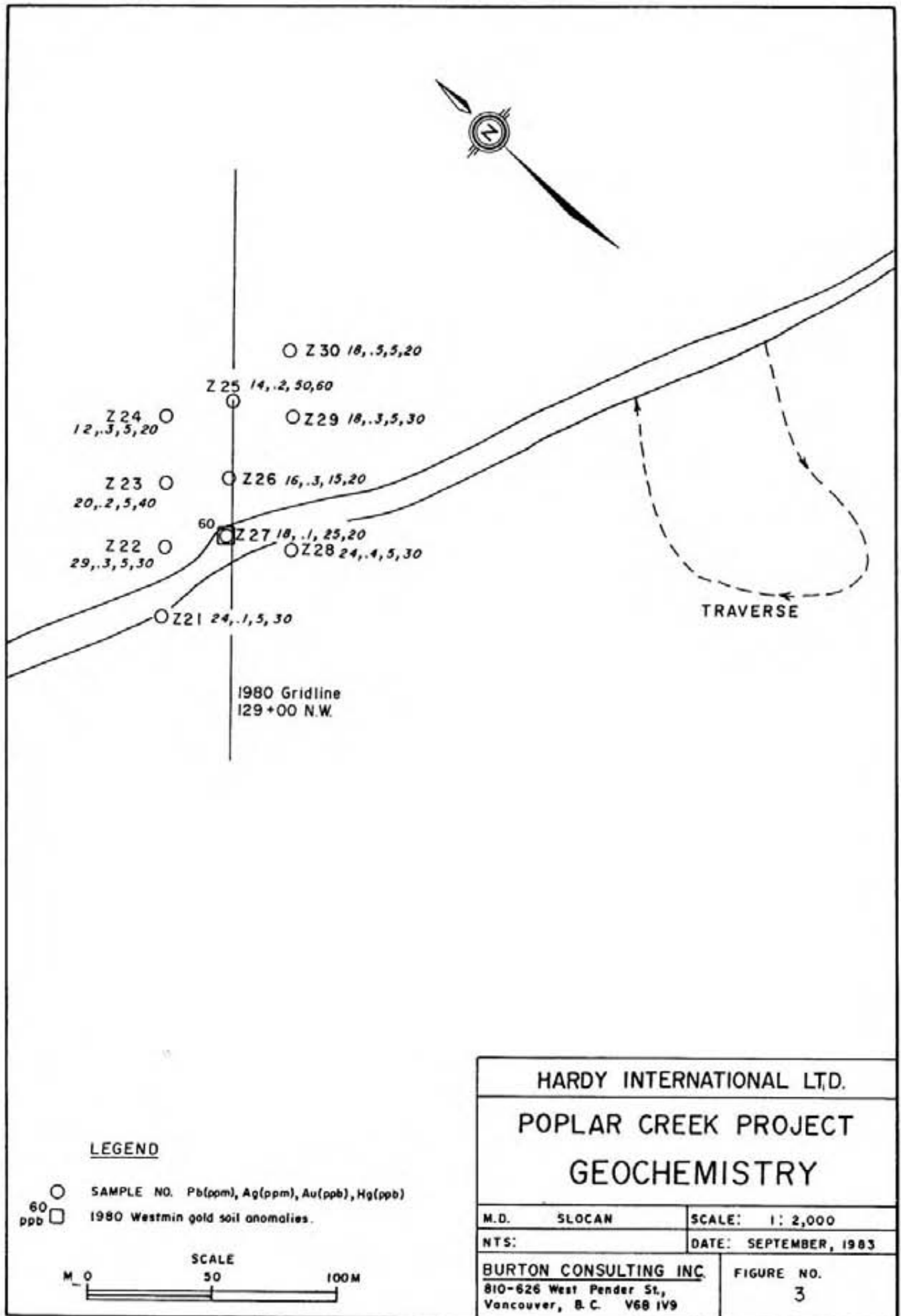
5. I have examined the RUSTY 1, 2 and 3 CLAIMS.

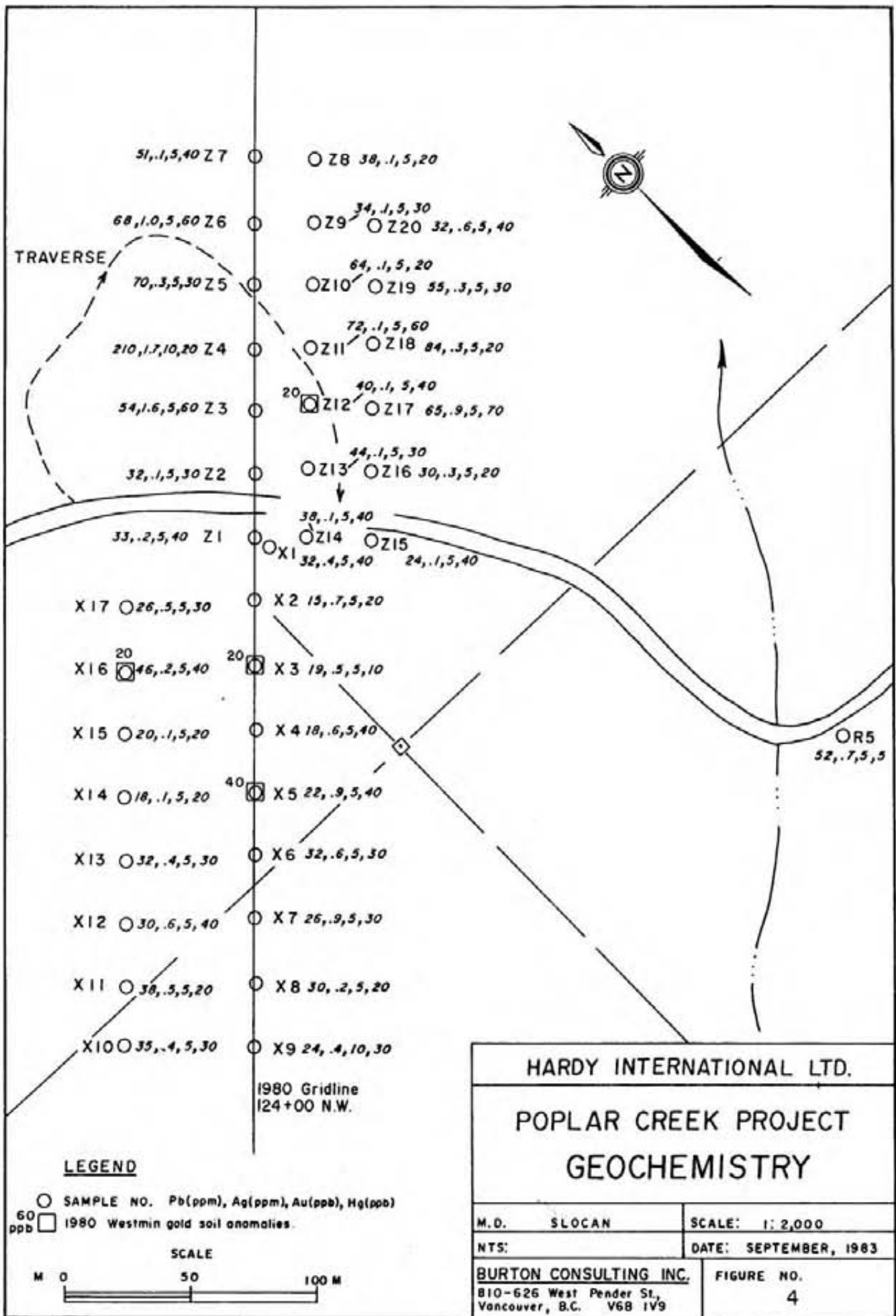


RUSTY 1, 2 and 3 CLAIM MAP



BURTON CONSULTING INC. FIG 2





51, .1, 5, 40 Z7 ○ Z8 38, .1, 5, 20

68, .1, 0, 5, 60 Z6 ○ Z9 ^{34, .1, 5, 30} ○ Z20 32, .6, 5, 40

TRaverse

70, .3, 5, 30 Z5 ○ Z10 ^{64, .1, 5, 20} ○ Z19 55, .3, 5, 30

210, .1, 7, 10, 20 Z4 ○ Z11 ^{72, .1, 5, 60} ○ Z18 84, .3, 5, 20

54, .1, 6, 5, 60 Z3 20 □ Z12 ^{40, .1, 5, 40} ○ Z17 65, .9, 5, 70

32, .1, 5, 30 Z2 ○ Z13 ^{44, .1, 5, 30} ○ Z16 30, .3, 5, 20

33, .2, 5, 40 Z1 ○ Z14 ^{38, .1, 5, 40} ○ Z15 ^{32, .4, 5, 40} ^{24, .1, 5, 40}

X17 ○ 26, .5, 5, 30 ○ X2 15, .7, 5, 20

X16 ²⁰ □ 46, .2, 5, 40 20 □ X3 19, .5, 5, 10

X15 ○ 20, .1, 5, 20 ○ X4 18, .6, 5, 40

X14 ○ 18, .1, 5, 20 40 □ X5 22, .9, 5, 40

X13 ○ 32, .4, 5, 30 ○ X6 32, .6, 5, 30

X12 ○ 30, .6, 5, 40 ○ X7 26, .9, 5, 30

X11 ○ 38, .5, 5, 20 ○ X8 30, .2, 5, 20

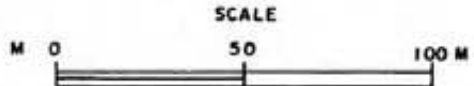
X10 ○ 35, .4, 5, 30 ○ X9 24, .4, 10, 30

OR5 52, .7, 5, 5

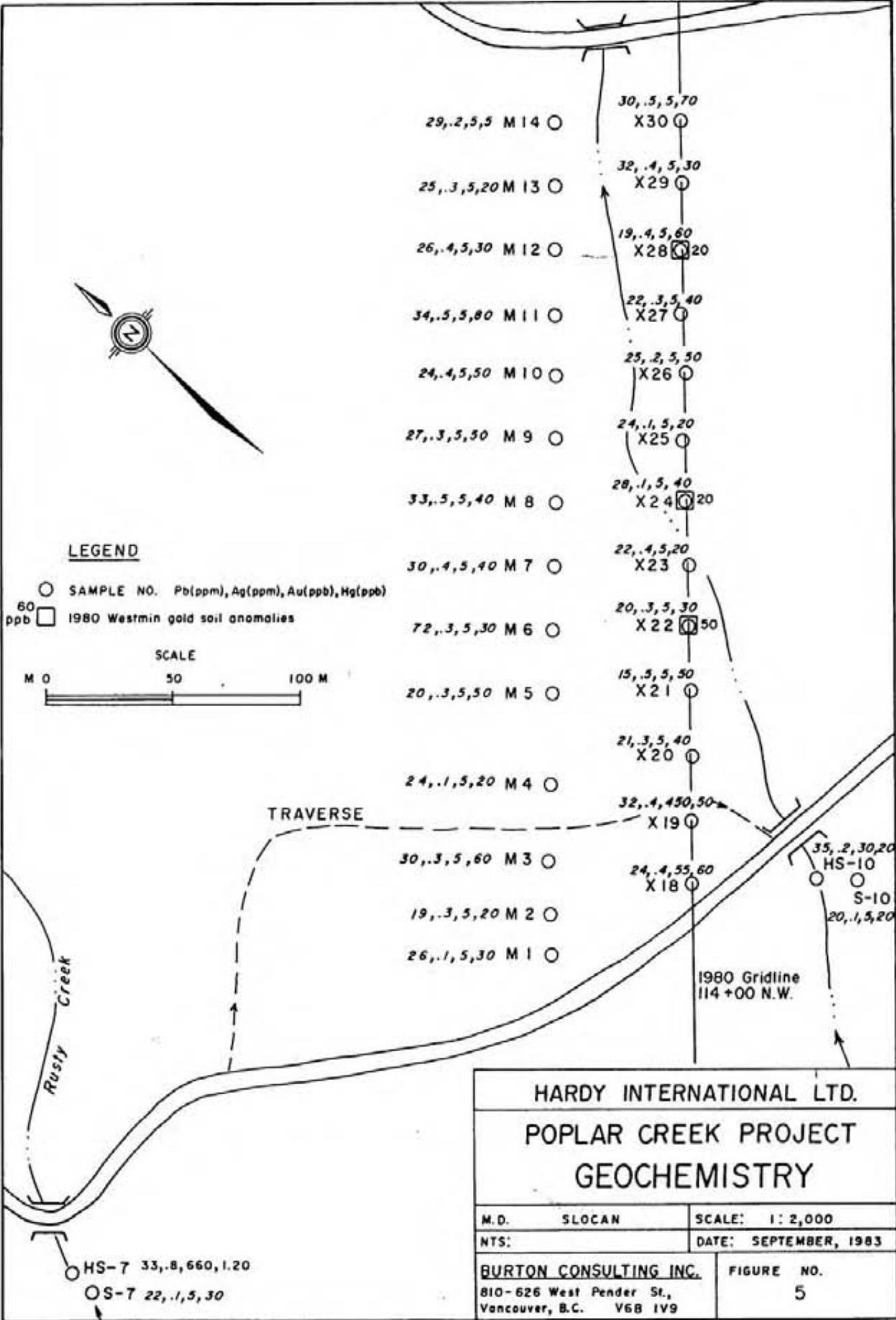
1980 Gridline I24+00 N.W.

LEGEND

○ SAMPLE NO. Pb(ppm), Ag(ppm), Au(ppb), Hg(ppb)
 60 ppb □ 1980 Westmin gold soil anomalies.

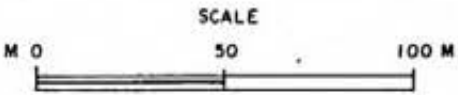


HARDY INTERNATIONAL LTD.	
POPLAR CREEK PROJECT GEOCHEMISTRY	
M.D. SLOCAN	SCALE: 1:2,000
NTS:	DATE: SEPTEMBER, 1983
BURTON CONSULTING INC. 810-626 West Pender St, Vancouver, B.C. V6B 1V9	FIGURE NO. 4



LEGEND

- SAMPLE NO. Pb(ppm), Ag(ppm), Au(ppb), Hg(ppb)
- 60 ppb □ 1980 Westmin gold soil anomalies



29,.2,5,5 M 14 ○	30,.5,5,70 X30 ○
25,.3,5,20 M 13 ○	32,.4,5,30 X29 ○
26,.4,5,30 M 12 ○	19,.4,5,60 X28 □ 20
34,.5,5,80 M 11 ○	22,.3,5,40 X27 ○
24,.4,5,50 M 10 ○	25,.2,5,50 X26 ○
27,.3,5,30 M 9 ○	24,.1,5,20 X25 ○
33,.5,5,40 M 8 ○	28,.1,5,40 X24 □ 20
30,.4,5,40 M 7 ○	22,.4,5,20 X23 ○
72,.3,5,30 M 6 ○	20,.3,5,30 X22 □ 50
20,.3,5,50 M 5 ○	15,.5,5,50 X21 ○
24,.1,5,20 M 4 ○	21,.3,5,40 X20 ○
30,.3,5,60 M 3 ○	32,.4,450,50 X19 ○
19,.3,5,20 M 2 ○	24,.4,55,60 X18 ○
26,.1,5,30 M 1 ○	

TRAVERSE

1980 Gridline
114 +00 N.W.

Rusty Creek

HS-7 33,.8,660,1.20
S-7 22,.1,5,30

HARDY INTERNATIONAL LTD.		
POPLAR CREEK PROJECT GEOCHEMISTRY		
M.D. SLOCAN	SCALE: 1:2,000	
NTS:	DATE: SEPTEMBER, 1983	
BURTON CONSULTING INC. 810-626 West Pender St., Vancouver, B.C. V6B 1V9		FIGURE NO. 5

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GR SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
 THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : PB, AG.
 SAMPLE TYPE : P1 SILT & SOIL P2&3 SOIL R4 ROCK *All pulverized to -100 mesh*
 AU* - 10 GR, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.
 HG - STANDARD BASE METAL DIGESTION, COLD VAPOUR REDUCTION AA ANALYSIS.

ASSAYER Dean Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

HARDY INTERNATIONAL PROJECT # POPLAR CR FILE # 83-2472A PAGE# 1

SAMPLE	PB PPM	AG PPM	AU* PPB	HG PPB
S-1 SILT	17	.1	5	60
S-2 SILT	20	.1	5	30
S-3 SILT	18	.1	5	5
S-4 SILT	21	.1	5	10
S-5 SILT	22	.1	5	50
S-6 SILT	17	.1	5	10
S-7 SILT	22	.1	5	30
S-8 SILT	30	.1	5	10
S-9 SILT	31	.1	5	30
S-10 SILT	20	.1	5	20
S-11 SILT	28	.1	5	30
Z-1	33	.2	5	40
Z-2	32	.1	5	30
Z-3	54	1.6	5	60
Z-4	210	1.7	10	20
Z-5	70	.3	5	30
Z-6	68	1.0	5	60
Z-7	51	.1	5	40
Z-8	38	.1	5	20
Z-9	34	.1	5	30
Z-10	64	.1	5	20
Z-11	72	.1	5	60
Z-12	40	.1	5	40
Z-13	44	.1	5	30
Z-14	38	.1	5	40
Z-15	24	.1	5	40
Z-16	30	.3	5	20
Z-17	65	.9	5	70
Z-18	84	.3	5	20
Z-19	55	.3	5	30
Z-20	32	.6	5	40
Z-21	24	.1	5	30
Z-22	29	.3	5	30
Z-23	20	.2	5	40
Z-24	12	.3	5	20
Z-25	14	.2	50	60
Z-26	16	.3	15	20

SAMPLE	PB PPM	AG PPM	AU* PPB	HG PPB
Z-27	18	.1	25	20
Z-28	24	.4	5	30
Z-29	18	.3	5	30
Z-30	18	.5	5	20
X-1	32	.4	5	40
X-2	15	.7	5	20
X-3	19	.5	5	10
X-4	18	.6	5	40
X-5	22	.9	5	40
X-6	32	.6	5	30
X-7	26	.9	5	30
X-8	30	.2	5	20
X-9	24	.4	10	30
X-10	35	.4	5	30
X-11	38	.5	5	20
X-12	30	.6	5	40
X-13	32	.4	5	30
X-14	18	.1	5	20
X-15	20	.1	5	20
X-16	46	.2	5	40
X-17	26	.5	5	30
X-18	24	.4	55	60
X-19	32	.4	450	50
X-20	21	.3	5	40
X-21	15	.5	5	50
X-22	20	.3	5	30
X-23	22	.4	5	20
X-24	28	.1	5	40
X-25	24	.1	5	20
X-26	25	.2	5	50
X-27	22	.3	5	40
X-28	19	.4	5	60
X-29	32	.4	5	30
X-30	30	.5	5	70
HS-8	34	.3	1600	20
HS-9	30	.1	70	10
HS-10	35	.2	30	20

SAMPLE	PB PPM	AG PPM	AU* PPB	HG PPB
M-1	26	.1	5	30
M-2	19	.3	5	20
M-3	30	.3	5	60
M-4	24	.1	5	20
M-5	20	.3	5	50
M-6	72	.3	5	30
M-7	30	.4	5	40
M-8	33	.5	5	40
M-9	27	.3	5	50
M-10	24	.4	5	50
M-11	34	.5	5	80
M-12	26	.4	5	30
M-13	25	.3	5	20
M-14	29	.2	5	5

SAMPLE	Rock	PB PPM	AG PPM	AUM PPB	HG PPB
SPY-1		22	2.1	-	60
SPY-2		720	21.6	-	10
SPY-3		2720	50.0	-	30
SPY-5		36500	43.8	-	5
R-1		56	21.5	5	10
R-2		50	4.9	5	20
R-3		48	1.8	5	10
R-4		30	1.0	5	10
R-5		52	.7	5	5
R-6		54	.5	5	10
R-7		24	.6	5	5
R-8		15	.4	5	5
R-9		25	.2	5	5
R-10		19	.1	5	5
R-11		28	.4	5	5
R-12		17	.6	5	20

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: 253-3158 TELEX: 04-53124

DATE RECEIVED SEPT 26 1983

DATE REPORTS MAILED *Sept 29/83*

ASSAY CERTIFICATE

SAMPLE TYPE : SOIL - DRIED AT 60 DEG C., -80 MESH, PULVERIZED.
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.
HG - STANDARD BASE METAL DIGESTION, COLD VAPOUR REDUCTION AA ANALYSIS.

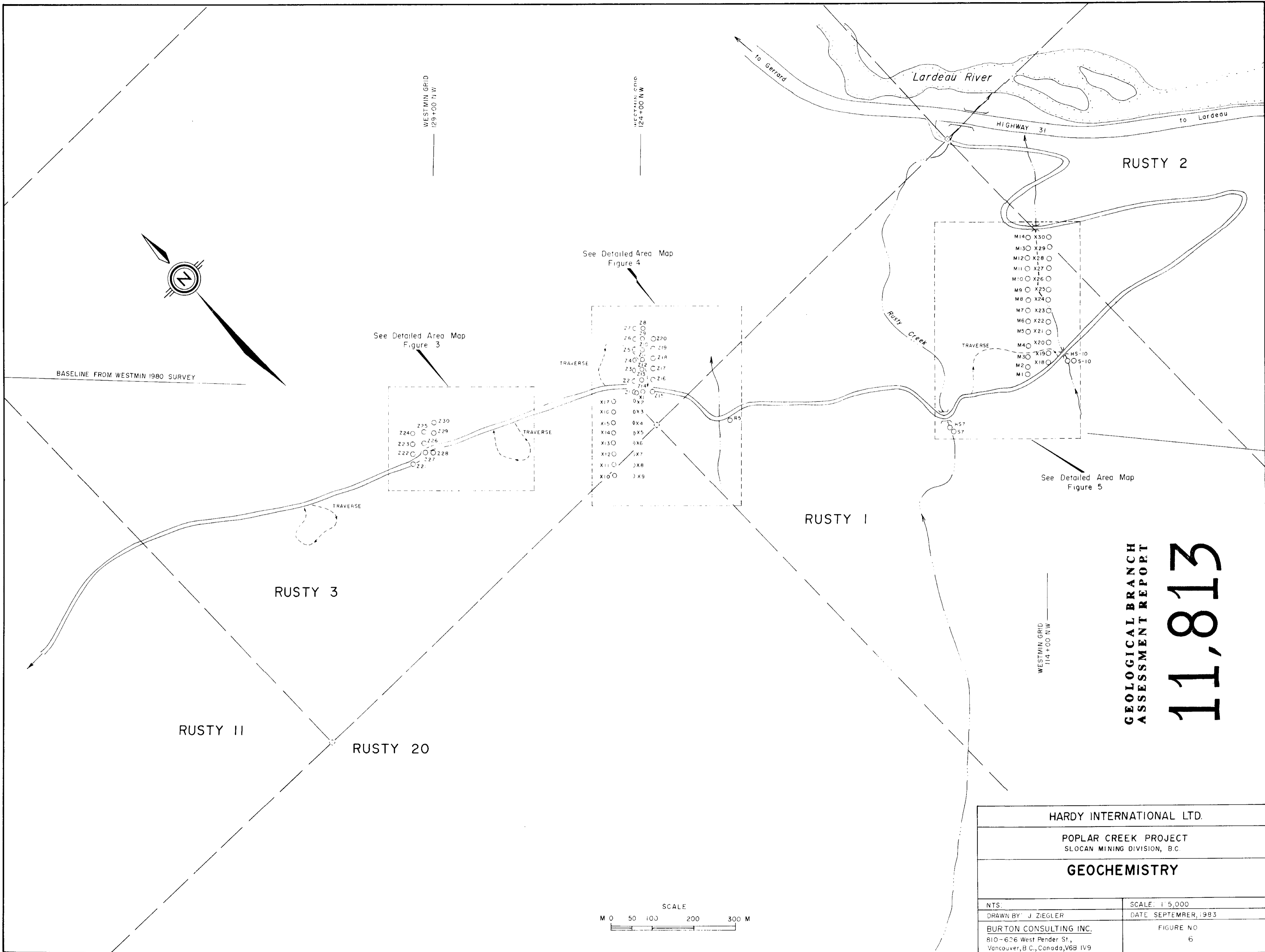
ASSAYER *D. Jeps* DEAN TOYE, CERTIFIED B.C. ASSAYER

HARDY INTERNATIONAL

FILE # 83-2315

PAGE# 1

SAMPLE	PB PPM	AG PPM	AU* PPB	HG PPM
HS-1	13	.3	70	.20
HS-2	14	.3	1400	1.00
HS-3	19	.1	20	.80
HS-4	20	.1	2100	.30
HS-5	22	.8	1250	.80
HS-6	25	.7	15	.40
HS-7	33	.8	660	1.20



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,813

HARDY INTERNATIONAL LTD.	
POPLAR CREEK PROJECT SLOCAN MINING DIVISION, B.C.	
GEOCHEMISTRY	
NTS.	SCALE: 1:5,000
DRAWN BY: J. ZIEGLER	DATE: SEPTEMBER, 1983
BURTON CONSULTING INC. 810-626 West Pender St., Vancouver, B.C., Canada, V6B 1V9	FIGURE NO. 6