# ASSESSMENT REPORT

# 1980 SOIL GEOCHEMICAL SURVEY

# RUSTY CLAIM GROUP

# POPLAR CREEK, BRITISH COLUMBIA

CLAIMS: RUSTY 1, 2, 3, 10 to 14, 19 and 20

MINING DIVISION: SLOCAN

N.T.S.: 82K/6E, 6W

LATITUDE & LONGTITUDE: 50°28'N; 117°10'W

OWNER OF CLAIM: C. GRAF

OPERATOR: WESTERN MINES LIMITED & ARMCO MINERAL EXPLORATION LTD.

H. D. MEADE

WESTERN MINES LIMITED

DATE: NOVEMBER 13, 1980

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## INTRODUCTION

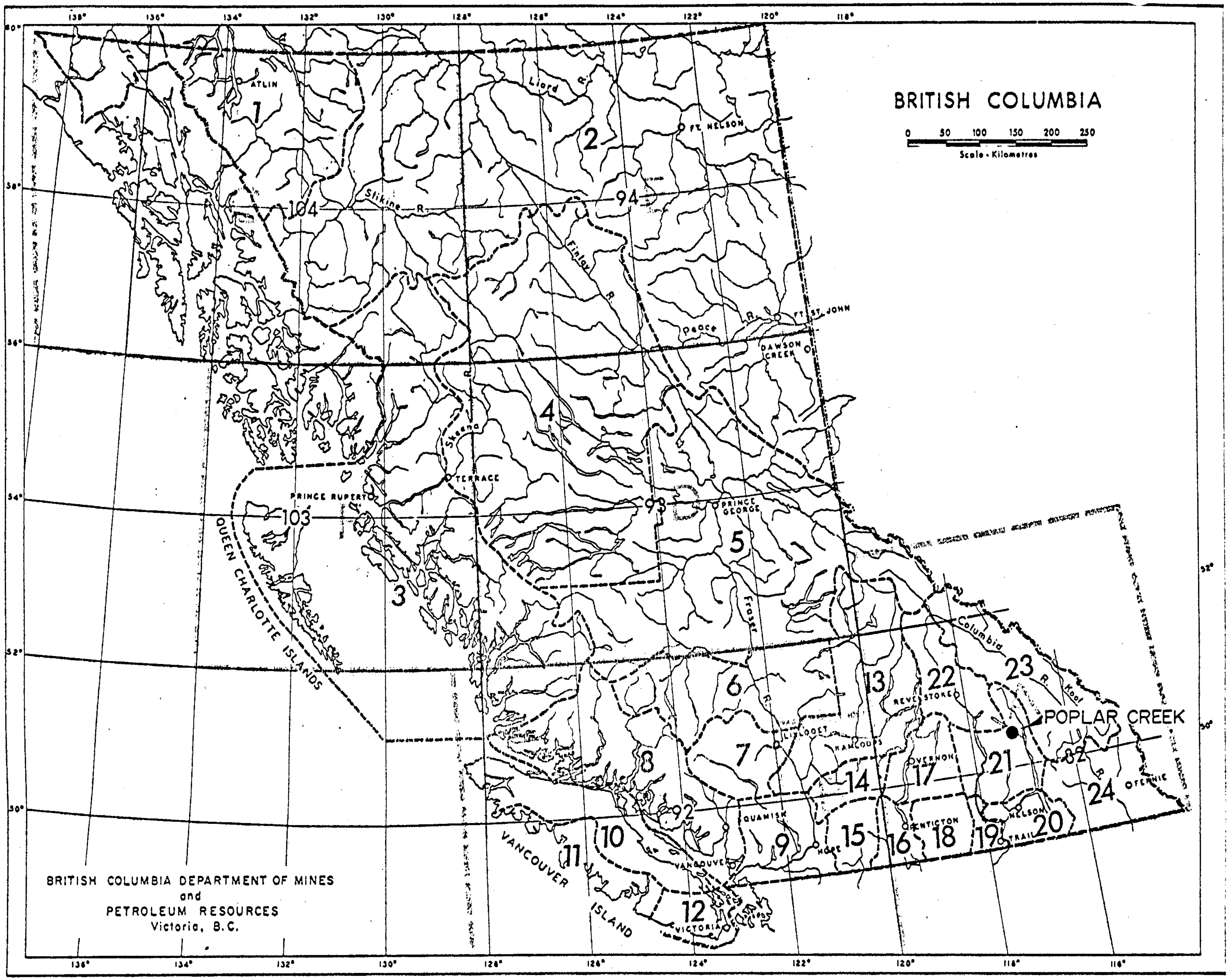
The Rusty claims are located at Poplar Creek south of Trout Lake and 50 miles (80 km) north-northwest of Kaslo. The claims straddle Highway 31 paralleling the Lardeau River. Topographic relief varies from 2800 (850 m) to greater than 6000 (1800 m) feet in the claims area. Numerous logging roads provide additional access to the claims.

Discovery of gold in the Poplar Creek area began with the locating of the Lucky Jack claim in 1900 (Emmens, 1914 ). High-grade gold found in 1903 resulted in the discovery of most of the other showings. Numerous open cuts and short adits were made during the early 1900's but exploration had almost ceased by 1915. Work was conducted on Bullock and Senorita in the mid 1920's. No serious exploration work has been conducted on gold prospects of the Poplar Creek area by major mining companies in recent years.

Chris Graf located the Rusty 1, 2 and 3 claims in October 1979 and located Rusty 4 through 20 in February, March and April of 1980. A joint venture between Western Mines Ltd. and Armco Mineral Exploration Ltd. optioned the claims from Graf May 23, 1980.

Previous operators were primarily interested in the numerous quartz veins as small tonnage high-grade type gold deposits; however, there is considerable potential, in areas where the quartz veins and veinlets are close spaced, to develop moderate tonnage low grade reserves amenable to open-pit mining.

Grid soil sampling conducted in June through August has defined numerous Au, Ag, Cu, Pb and Zn anomalies. Cut base line(s) served as control for topofil cross lines; approximately 3460 soil samples were taken. The irregular and discontinuous nature of the anomalies is interpreted as reflecting the extensive overburden cover.




LOCATION MAP, POPLAR CREEK AREA

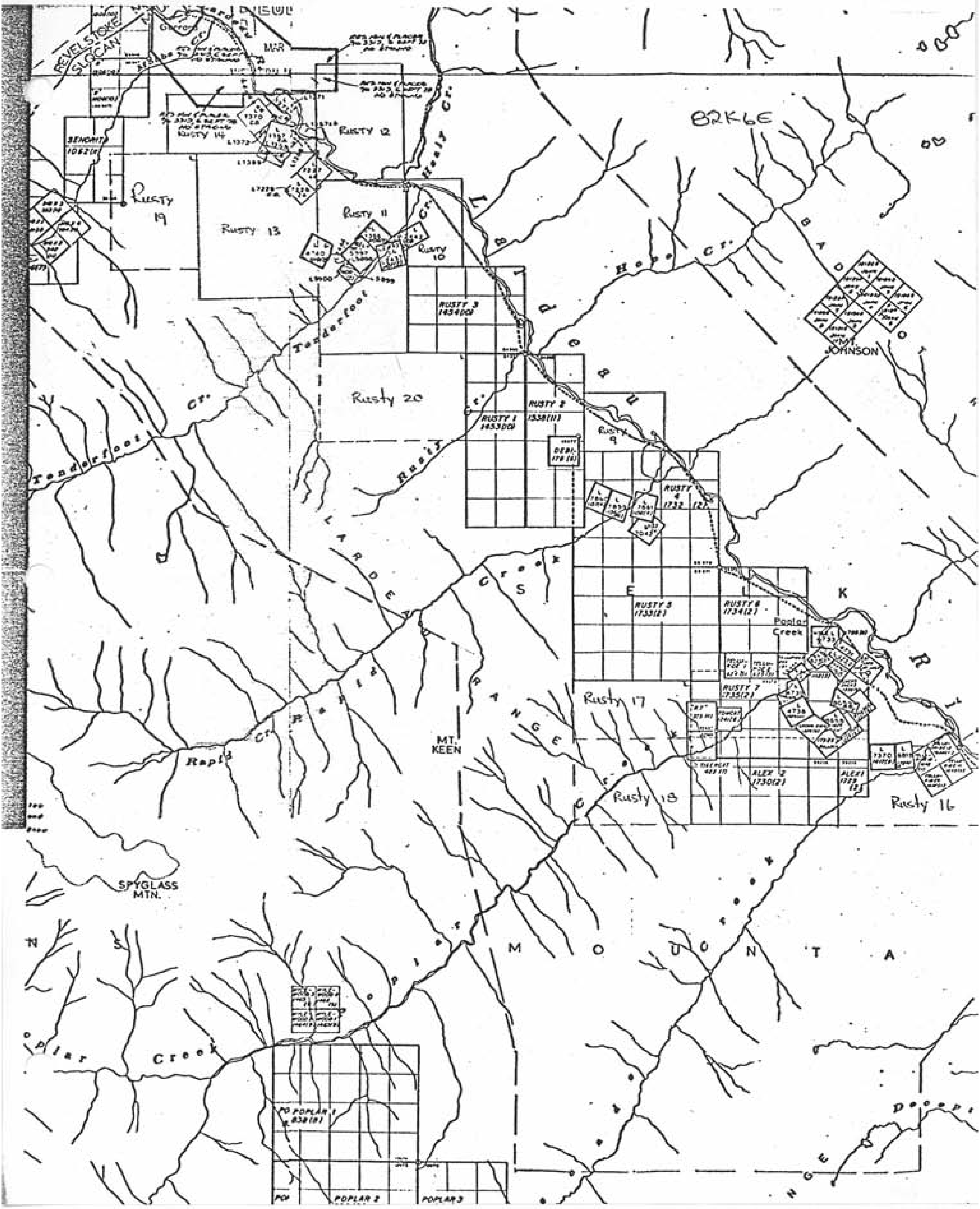
CLAIMS INFORMATION

| | No. of Units | Record No. | Anniversary Date |
|---|---|---|---|
| Rusty 1 | 12 | 1453 | October 15, 1980 |
| Rusty 2 | 12 | 1538 | November 1, 1980 |
| Rusty 3 | 12 | 1454 | October 15, 1980 |
| Rusty 10 | 9 | 1867 | March 24, 1981 |
| Rusty 11 | 18 | 1868 | March 24, 1981 |
| Rusty 12 | 12 | 1869 | March 24, 1981 |
| Rusty 13 | 20 | 1870 | March 24, 1981 |
| Rusty 14 | 10 | 1871 | March 24, 1981 |
| Rusty 19 | 12 | 1898 | April 29, 1981 |
| Rusty 20 | 15 | 1899 | April 29, 1981 |

Group A Rusty 3 and 10

Group B Rusty 1, 2 and 20

Group C Rusty 11, 12, 13, 14 and 19


REVELSTOKE
SLOCAN
82K6E
Rusty 12
Rusty 14
Rusty 19
Rusty 13
Rusty 11
Rusty 10
Healy Cr.
Hope Cr.
RUSTY 3
RUSTY 1
RUSTY 2
Rusty 20
Rusty 9
RUSTY 4
RUSTY 5
RUSTY 6
RUSTY 7
Poplar Creek
Rusty 17
Rusty 18
Rusty 16
ALEX 2
MT. JOHNSON
MT. KEEN
SPYGLASS MTN.
Tenderfoot Cr.
Rapid Cr.
Rusty Cr.
LARDEAU RANGE
SELKIRK
MOUNTAINS
Poplar Creek
POPLAR 1
POPLAR 2
POPLAR 3

## SOIL GEOCHEMICAL SURVEY

### DESCRIPTION OF WORK

A total of 1723 soil samples were taken on Rusty 1, 2, 3, 10 to 14, 19 and 20. A cut baseline bearing 135 degrees, and picketed at 50 meter intervals, occurs at 15+00SW from 90+NW to 144+00NW (Poplar Central Grid); and from 147+00NW to 170+00NW the baseline is at 10+00SW (Poplar North Grid). Cross-lines were run with topofil hip-chains generally at 100 meter spacings with 50 meter sample intervals along the lines (Figs. 3 to 14). On Rusty 11 and 13 a more detailed grid was made with a base line at 15+00SW and 50 meter line spacing from 151+00NW to 162+00NW, and 25 meter sample interval from 14+00SW to 17+00SW (Figs. 15 to 20). A 25 meter sample interval was also used on lines 148+00, 149+00, 149+50, 150+50 from 7+00NW to 0+00NW. All sample sites were flagged with sample number and grid location.

Soil sampling was conducted by up to six junior assistants at any one time under the direct supervision of H. Meade and A. Neale (Appendix 1).

Soil samples were taken from the B horizon with a mattock and placed in kraft paper sample bags. The B horizon was generally encountered at a depth 10 to 20 cm. Soil profile development is variable over the property as the depth and abundance of till changes. At lower elevations in the main valley till cover is thick with till and alluvial deposits greater than 20 meters thick, although the claims area in general is 90 percent covered with 2 to 10 meters of overburden. Massive mafic volcanic units are generally moderately well exposed whereas tuffaceous and sedimentary rocks are generally recessive and poorly exposed.

ANALYTICAL PROCEDURE

All the soil samples were analyzed by Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B. C. Soils were sieved to 95 percent minus 80 mesh and then digested and analysed by the following methods.

Au - 5 g sample is ashed at 800°C to remove organics.
- sample is then digested with Aqua Regia and taken to volume with 25% HCl.
- bromide complex is extracted with MIBK.
- atomic absorption finish with background correction.

Cu-Pb-Zn-Ag - 1 g sample dissolved in concentrated perchloric and nitric acid solution for 1½ to 2 hours.
- sample taken to 25 ml volume and analyzed by atomic absorption.
- Pb and Ag are corrected for background.

As - concentrated HCl and KI are added to an aliquot of digested sample from Cu-Pb-Zn-Ag digestion and diluted to volume.
- analysis is by atomic absorption hydride finish.

Results of gold are given in ppb whereas Cu, Pb, Zn, Ag and As are given in ppm.

GEOLOGY

Geology of the Poplar Creek area is well described by Read (1973). The claims area is underlain mainly by the Index Formation (Read, 1976, later regrouped this as Jowett Formation, a facies equivalent of the Index Formation) which is overlain by calcareous and argillaceous rocks of the Broadview Formation. Both these formations are part of the Lardeau Group of Lower Cambrian to Middle Devonian or older age.

The Index Formation in this area consists of grey and light green phyllite with minor phyllitic limestone and quartz grit, overlain by massive basalt flows and pillow lava (greenstones) in turn overlain by a mixed volcanic-sedimentary assemblage including sericite-chlorite schist, sericite schist, grey-green phyllite, carbonaceous phyllite, limey chlorite schist and chloritic marble. Locally weakly porphyritic mafic rocks, probably sills or dykes, cut these rocks and are probably the same as the "diabase schist" rocks referred to by Emmens, 1914. These rocks are weakly to moderately schistose and are cut by numerous quartz veins which have been mined for their gold; they also contain minor pyrite, arsenopyrite, galena, sphalerite, chalcopyrite and pyrrhotite.

## RESULTS AND INTERPRETATION

No attempt will be made to describe all the anomalous values, however, some general interpretation of soil geochemical anomalies and the character of the anomalies is discussed. Background values and contour intervals for Au, Ag, As, Cu, Pb and Zn are as follows:

| | Au in ppb | Ag in ppm | As in ppm | Cu in ppm | Pb in ppm | Zn in ppm |
|---|---|---|---|---|---|---|
| background | $<10$ | 0.1 | 15 | 15-25 | 6-12 | 80-110 |
| slightly anomalous | 20-100 | 0.4-1.0 | 20-40 | 40-70 | 20-30 | 150-200 |
| anomalous | 100-200 | 1.0-2.0 | 40-60 | 70-100 | 30-60 | 200-300 |
| very anomalous | $>200$ | $>2.0$ | $>60$ | $>100$ | $>60$ | $>300$ |

Contour intervals were arbitrarily determined to best define anomalous zones.

Gold and to a lesser degree silver are for the most part one to three sample anomalies scattered along the Poplar North and Poplar Central grids. It is difficult to attach a significance to these anomalies without considering Cu, Pb, Zn or As values. Similarily over large parts of these two grid areas Cu, Pb and Zn anomalies are small and discontinuous whereas elsewhere broad weakly anomalous Cu-Zn zones are apparent.

Lithologies over the grid areas are thought to be essentially the same, with the divergent geochemical response attributable to depth and extent of overburden cover. Steeper areas have higher background to slightly anomalous values of Cu and Zn.

In general, Cu values are expected to be higher in areas of mafic volcanic rocks and Zn higher in areas of argillaceous rocks. Lead anomalies are interpreted as being related to galena mineralization, commonly observed in quartz veins which may contain gold. Arsenic may have a mixed rock association, as arsenopyrite has been noted as disseminated grains in "diabase schist" and schistose mafic volcanics and disseminated in carbonaceous argillite and quartz veins in argillite. Gold occurs associated with arsenopyrite in argillaceous and volcanic rocks and quartz veins, and also in quartz-pyrite-galena-chalcopyrite ± pyrrhotite veins and therefore should and does show a positive correlation with Cu, Pb and As. Silver anomalies do not show a close spatial association with anomalous gold values but commonly exhibit a moderate correlation with Pb and Zn but elsewhere there is no correlation with Au, Cu, Pb or Zn. A few anomalies will be discussed.

<u>117+00NW & 20+00SW to 107+00NW & 12+00SW Anomaly</u>

This anomaly is a good example of Cu and Pb defining the trend of single sample Au anomalies with up to 840 ppb Au. A well defined east-west trending narrow anomaly is indicated by lead. Since this anomaly cuts across the strike of the rocks it is interpreted as reflecting Cu-Pb-Au quartz vein mineralization. Copper gives a broader anomaly with the same trend. The east end of this anomaly appears to correlate with that on line 103+00NW indicating a possible fault offset of the interpreted quartz vein. A similar east-west trending anomaly cuts the 15+00SW base line at 135+00NW.

112+00NW & 10+50SW to 107+00NW & 11+00SW Anomaly

This Cu-Pb-Au anomaly trends northwest-southeast paralleling the strike of the rocks and reflects either a quartz vein with this attitude or perhaps stratabound mineralization. The anomaly may extend further northwest to line 124+00NW.

Several other less well defined zones paralleling the strike of the rocks occur from 122+00NW to 110+00NW paralleling the 15+00SW baseline and near the ends of lines at 20+00SW from 117+00NW to 107+00NW.

Lines 148+00NW to 150+50NW from 10+00 to 0+00SW

In this area there is a complex mix of east-west trending Cu-As-Zn-Au anomalies and northwest trending Cu-As-Zn $\pm$ Au, Pb anomalies. For these lines the soils were also analyzed for As. Arsenic here defines more continuous anomalous zones hosting the spot anomalous Au values. It's close association with gold makes it a good pathfinder in this overburden terrane. A good correlation of As with anomalous Zn values would suggest an association with argillaceous rocks. At 6+00SW the Cu anomaly is slightly downslope from As anomaly and may reflect either downslope dispersion or a band of mafic volcanic rocks.

The Zn-Ag anomaly at 1+00SW contains no associated anomalous Cu, Pb or Au values and is interpreted as a hydromorphic accumulation of these two mobile elements at the break of slope where the water table comes to surface.

Tenderfoot Grid

There are few anomalous Au, Ag or Pb values in this grid area, however, there is a large area of anomalous Cu values on the north end of the grid (Fig. 18) with samples up to 1300 ppm Cu. The Cu anomalies trend northwest-southeast, parallel the stratigraphy, and correspond in part to areas anomalous in Zn (line 159+00NW at 18+00SW) and on line 159+00NW and 159+50NW at 14+50SW to areas of anomalous gold in soils. Interpretation of this anomaly is less clear, however, some Cu and Zn mineralization with Au is suggested, probably within mafic volcanic rocks.

Anomalous As values are difficult to interpret but locally correspond to samples also anomalous in Au.

In summary, in the Poplar Creek area a multi-element approach to soil geochemistry has defined areas of anomalous gold values corresponding with coincidental and more continuous Cu, Pb, Zn or As anomalies;and allows interpretation of the controls on this mineralization. Lead and arsenic are particularily useful in defining mineralization and Cu and Zn in defining lithologies. These interprerations need to be supported and refined by examining the anomalies on the ground and relating them to the topography, geology and mineralization.

BIBLIOGRAPHY

Emmens, N.W., 1914, The Mineral Resources of the Lardeau and Trout Lake Mining Divisions, B.C. Bureau of Mines Bulletin No. 2, 1914, 65 p.

Read, P.B., 1973, Petrology and Structure of Poplar Creek Map-Area, British Columbia, Canada Geol. Surv. Bull. 193, 144 p.

Read, P.B., 1976, Geology Lardeau West-Half, British Columbia, Canada Geol. Surv. OF 432.

## COST STATEMENT

### PHASE 1 SAMPLING - GENERAL

A unit cost per sample for the location of the grid and taking of the samples is determined for use in the respective Statement of Exploration and Development forms. This initital stage of sampling was done from June 14 to July 22, 1980 and resulted in the taking of 2850 samples. A second stage of sampling is determined in a second unit cost calculation.

### SOIL SAMPLING AND GRID LOCATION

| Site Personnel | Period | No. of Days | Day Rate | Total |
|---|---|---|---|---|
| R. Arthur | June 14-July 13 | 29 | $52.10 | $ 1,510.90 |
| B. Jefferson | June 17-July 22 | 36 | 40.50 | 1,458.00 |
| P. Meade | June 17-July 22 | 36 | 40.50 | 1,458.00 |
| A. Neale | June 14-July 22 | 39 | 56.25 | 2,278.10 |
| G. O'Brien | June 17-July 22 | 36 | 41.65 | 1,499.40 |
| P. Hammer | June 30-July 10 | 11 | 40.50 | 445.50 |
| A. Young | July 13-July 20 | 8 | 41.70 | 333.60 |
| Senior Supervision | | | | |
| H. Meade | June & July | 10 | $125.00 | 1,250.00 |
| | | (205) | | $10,233.50 |
| Line Cutting(contract on per day rate) | | | | 7,735.00 |
| Room and Board (205 man days @ $15.00) | | | | 3,075.00 |
| Transportation - on site (2 vehicles & gas) | | | | 1,400.00 |
| - other (airfare) | | | | 1,000.00 |
| Freight | | | | 250.00 |
| Field Equipment | | | | 500.00 |
| | | | | $24,193.50 |

Phase I Sampling Unit Cost = $8.40

PHASE 2 - GENERAL

Follow-up and fillin soil sampling was done from August 11 to August 28, 1980 with a total of 606 samples taken.

SOIL SAMPLING

| Site Personnel | Period | No. of Days | Day Rate | Total |
|---|---|---|---|---|
| G. O'Brien | August 11 to 15 | 5 | $41.65 | $ 208.25 |
| P. Meade | August 11 to 22 | 12 | 40.50 | 486.00 |
| A. Young | August 11 to 16 | 6 | 41.70 | 250.20 |
| A. Neale | August 11 to 15 | 5 | 56.25 | 281.25 |
| R. Arthur | August 17 to 22 | 6 | 52.10 | 312.60 |
| Senior Supervision | | | | |
| A. Galley | August 14 to 28 | 7½ | 66.30 | 497.25 |
| H. Meade | August 14, 15, 16 | 1½ | 125.00 | 187.50 |
| | | 43 | | $2,223.05 |
| Room and Board (43 man days at $15.00) | | | | 645.00 |
| Transportation - on site (2 vehicles & gas) | | | | 900.00 |
| - other (airfare) | | | | 500.00 |
| Freight | | | | 50.00 |
| Field Equipment | | | | 100.00 |
| | | | | $4,418.05 |

Phase 2 Sampling Unit Cost = $7.30

Rusty 3 and 10 (21 units)

| | |
|---|---|
| Soil Sampling and Grid Location | |
| Phase 1 - 356 samples @ $8.40 | $ 2,990.00 |
| Phase 2 - 18 samples @ $7.30 | 131.40 |
| Assays - 356 samples for Cu, Pb, Zn, Ag & Au @ $7.20 | 2,560.00 |
| 18 samples for Cu, Pb, Zn, Ag, Au & As @ $9.90 | 178.20 |
| Report Preparation | 300.00 |
| | $ 6,159.60 |

Rusty 1, 2 and 20 (39 units)

| | |
|---|---|
| Soil Sampling and Grid Location | |
| Phase 1 - 596 samples @ $8.40 | 5,006.00 |
| Assay - 596 samples for Cu, Pb, Zn, Ag & Au | 4,291.00 |
| Report Preparation | 303.00 |
| | $ 9,600.00 |

Rusty 11, 12, 13, 14 and 19 (72 units)

| | |
|---|---|
| Soil Sampling and Grid Location | |
| Phase 1 - 365 samples @ $8.40 | 3,066.00 |
| Phase 2 - 388 samples @ $7.30 | 2,832.40 |
| Assay - 365 samples for Cu, Pb, Zn, Ag & Au @ $7.20 | 2,628.00 |
| 388 samples for Cu, Pb, Zn, Ag, Au & As @ $9.90 | 3,841.20 |
| Report Preparation | 500.00 |
| | $12,867.60 |

APPENDIX 1

STATEMENT OF QUALIFICATIONS, HARLAN D. MEADE

- University of British Columbia, Vancouver, British Columbia, May 1972, B.Sc. Honors Geology.

- University of Western Ontario, London, Ontario, 1977, Ph.D. Geology.

- I am a member of the Canadian Institute of Mining and Metallurgy and a Fellow of The Geological Association of Canada.

- I have been employed by Western Mines Limited, Ste. 1103-595 Burrard Street, Vancouver, B. C., V7X 1C4, since December 1978.

- I supervised the taking of samples and recording of data in the field.

Respectfully submitted,

Harlan Meade

Harlan Meade

## CHEMEX LABS

## GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES

1. Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.

2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% $HClO_4$ and concentrated $HNO_3$. Digestion time = 2 hours.

3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.

4. Detection limits using Techtron A.A.5 atomic absorption unit.

   Copper - 1 ppm
   Molybdenum - 1 ppm
   Zinc - 1 ppm
   *Silver - 0.2 ppm
   *Lead - 1 ppm
   *Nickel - 1 ppm
   Chromium - 5 ppm

   *Ag, Pb & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, ie. Ag - 0.1 ppm

GEOCHEM PROCEDURES

PPM Antimony: a 1.0 gm sample digested with conc. HCl in hot water bath. The iron is reduced to $Fe^{+2}$ state and the Sb complexed with $I^-$. The complex is extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption 0.2 ppm ± 0.2 Detection limit.

PPM Arsenic: a 1.0 gram sample is digested with a misture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with Kl and mixed. A portion of the reduced solution is converted to arsine with $NaBH_4$ and the arsenic content determined using flameless atomic absorption.
Detection limit - 1 PPM

PPB Gold: 5 gm samples ashed @800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% $HCl^-$, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.
Detection limit - 10 PPB

PPM Tungsten: 0.50 gm sample is fused with potassium bisulfate and leached with hydrochloric acid. The reduced form of tungsten is complexed with toluene 3,4 dithiol and extracted into an organic phase. The resulting color is visually compared to similarly prepared standards.
Detection Limit: 2 ppm W.

PPM Tin: 1.00 gm of sample is sintered with ammonium iodide. The resulting tin iodide is leached with a dilute HCL-ascorbic acid solution. The TOPO complex is then extracted into MIBK and analyzed via A.A.
Detection Limit: 1 ppm Sn.

PPM Fluorine: 0.25 gms is fused with a 2:1 $NaCO_3$-$KNO_3$ mixture. The melt leached with water and citric acid, adjusted to pH 5.5 and the activity measured with a fluoride specific ion electrode.
Detection Limit: 10 ppm F.

3500
3800
LARDEAU RIVER
31
Creek
L 366
L 1371
L 1370
L 1367
L 1368
L 1227
L 1369
L 1228
L 1366
3000
L 5897
L 4740
RUSTY 12
RUSTY 10
RUSTY 11
LEGEND
Corner Post and Claim Boundary
Legal Corner Post
Sample Stations
Sample Name Au, Ag, As
RUSTY12 Claim Name
Assay Information
Au,Ag,As-order of appearance
Au in ppb*
Ag in ppm
As in ppm
Contour Interval
Au
20 - 100
100 - 200
>200
* A value of 3, corresponds to a laboratory value of less than 10 ppb.
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8483
NO.
WESTERN MINES LIMITED
POPLAR CREEK PROJECT
GOLD GEOCHEMISTRY
POPLAR NORTH
0 50 100 150 200 metres
Scale-1:5,000
Date: Nov, 1980
Drawn by: L. Connor
FIGURE: 3

3500
3800
LARDEAU RIVER
31
L 366
Creek
L 1370
L 1371
L 1367
L 1368
L 7227
L 1369
L 7228
L 1368
L 965
3000
5897
4740
5888
5900
3500
L 1948
LEGEND
Corner Post and Claim Boundary
Legal Corner Post
Sample Stations
Sample Name Au, Ag, As
RUSTY 12 Claim Name
Assay Information
Au,Ag,As-order of appearance
Au in ppb*
Ag in ppm
As in ppm
Contour Interval
Ag
0.4 - 1.0
1.0 - 2.0
>2.0
* A value of 3, corresponds to a laboratory value of less than 10 ppb.
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8483
NO.
WESTERN MINES LIMITED
POPLAR CREEK PROJECT
SILVER GEOCHEMISTRY
POPLAR NORTH
0 50 100 150 200 metres
Scale-1:5,000
Date: Nov, 1980
Drawn by: L. Connor
FIGURE: 4


LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post and Claim Boundary | Au, Ag, As-order of appearance | As |
| Legal Corner Post | Au in ppb* | 20 - 40 |
| Sample Stations | Ag in ppm | 40 - 60 |
| Sample Name Au, Ag, As | As in ppm | >60 |
| RUSTY 12 Claim Name | | |

* A value of 3, corresponds to a laboratory value of less than 10 ppb.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8483

WESTERN MINES LIMITED

POPLAR CREEK PROJECT
ARSENIC GEOCHEMISTRY
POPLAR NORTH

0 50 100 150 200 metres
Scale - 1:5,000

Date: Nov, 1980 | Drawn by: L. Connor | FIGURE: 5


3800
3500
LARDEAU RIVER
31
Creek
L 366
L 1371
L 1370
L 1367
L 1369
L 1372
L 7227
L 7228
L 368
L 365
L 5897
L 5898
L 5900
L 4740
L 2948
3000
RUSTY 10
RUSTY 11
RUSTY 12
RUSTY 13
RUSTY 14
RUSTY 19
LEGEND
Corner Post and Claim Boundary
Legal Corner Post
Sample Stations
Sample Name Cu, Pb, Zn
RUSTY12 Claim Name
Assay Information
Cu, Pb, Zn-order of appearance
Cu in ppm
Pb in ppm
Zn in ppm
Contour Interval
Cu
40-70
70-100
>100
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8483
WESTERN MINES LIMITED
POPLAR CREEK PROJECT
COPPER GEOCHEMISTRY
-POPLAR NORTH-
0 50 100 150 200 metres
Scale-1: 5,000
Date: Nov, 1980
Drawn by: L. Connor
FIGURE: 6

LARDEAU RIVER
31
Creek
L 366
L 1371
L 1370
L 1367
L 1368
L 7227
L 1369
L 1372
L 7228
TL 2948
L 4740
L 5898
L 5900
L 5897
L 1366
L 965
3500
3800
3000
RUSTY 12
RUSTY 11
RUSTY 10
RUSTY 13
RUSTY 14
LEGEND
Corner Post and Claim Boundary
Legal Corner Post
Sample Stations
Sample Name Cu, Pb, Zn
RUSTY 12 Claim Name
Assay Information
Cu, Pb, Zn-order of appearance
Cu in ppm
Pb in ppm
Zn in ppm
Contour Interval
Pb
20 - 30
30 - 60
>60
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8483
NO.
WESTERN MINES LIMITED
POPLAR CREEK PROJECT
LEAD GEOCHEMISTRY
POPLAR NORTH
0 50 100 150 200 metres
Scale-1:5,000
Date: Nov, 1980
Drawn by: L. Connor
FIGURE: 7


3500
3800
LARDEAU RIVER
31
Creek
L 366
L 1371
L 1370
L 1367
L 1368
L 1221
L 1369
L 1372
L 1228
L 3000
L 1366
L 5897
L 2948
L 4740
L 5898
L 5900
RUSTY 12
RUSTY 11
RUSTY 10
RUSTY 14
RUSTY 13
LEGEND
Corner Post and Claim Boundary
Legal Corner Post
Sample Stations
Sample Name Cu, Pb, Zn
RUSTY12 Claim Name
Assay Information
Cu, Pb, Zn-order of appearance
Cu in ppm
Pb in ppm
Zn in ppm
Contour Interval
Zn
150 - 200
200 - 300
>300
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8483
NO.
WESTERN MINES LIMITED
POPLAR CREEK PROJECT
ZINC GEOCHEMISTRY
POPLAR NORTH
0 50 100 150 200 metres
Scale-1:5,000
Date: Nov, 1980
Drawn by: L. Conner
FIGURE: 8


## LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post and Claim Boundary | Au, Ag, As-order of appearance | Au |
| Legal Corner Post | Au in ppb * | 20 - 100 |
| Sample Stations | Ag in ppm | 100 - 200 |
| Sample Name Au, Ag, As | As in ppm | >200 |
| RUSTY 12 Claim Name | | |

* A value of 9, corresponds to a laboratory value of less than 10 ppb.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8483

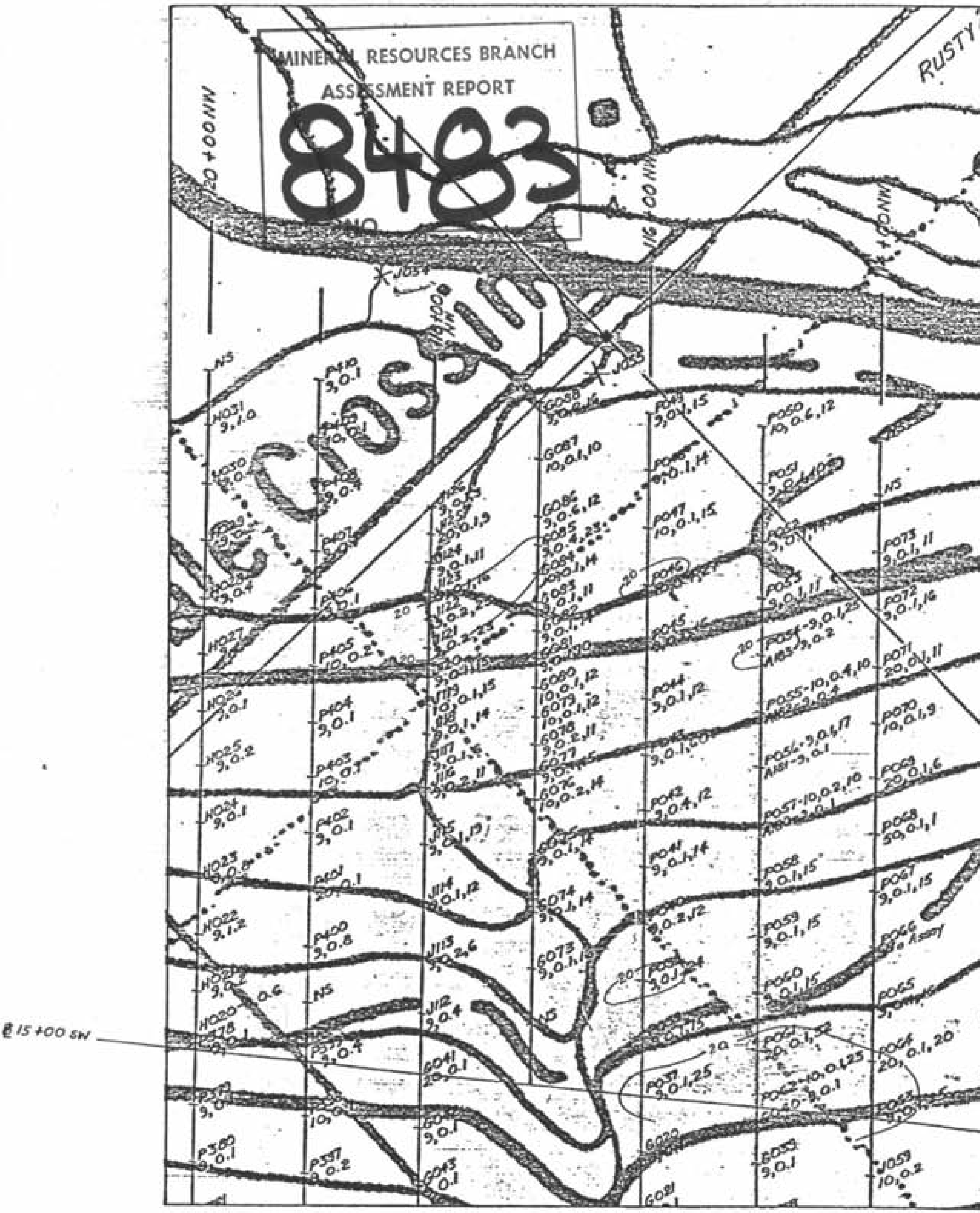
WESTERN MINES LIMITED

POPLAR CREEK PROJECT
GOLD GEOCHEMISTRY
POPLAR CENTRAL

0 50 100 150 200 metres
Scale - 1:5,000

Date: Nov. 1980 | Drawn by: L. Connor | FIGURE: 9

L A R D E A U
Cable Crossing
3100
3000
2232
2199
2443
31
L 838
L 839
L 5475
L 7860
L 7859
RUSTY 1
RUSTY 4
RUSTY 10
RUSTY 11
RUSTY 12
RUSTY 19
RUSTY 20
LEGEND
Corner Post and Claim Boundary
Legal Corner Post
Sample Stations
Sample Name Au, Ag, As
RUSTY 12 Claim Name
Assay Information
Au, Ag, As-order of appearance
Au in ppb *
Ag in ppm
As in ppm
Contour Interval
Ag
0.4 - 1.0
1.0 - 2.0
>2.0
* A value of 9, corresponds to a laboratory value of less than 10 ppb.
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 8483
WESTERN MINES LIMITED
POPLAR CREEK PROJECT
SILVER GEOCHEMISTRY
POPLAR CENTRAL
0 50 100 150 200 metres
Scale - 1:5,000
Date: Nov. 1980
Drawn by: L. Connor
FIGURE: 10




## LEGEND

| | | Assay Information | Contour Interval |
|---|---|---|---|
| ▙ | Corner Post and Claim Boundary | Au, Ag, As - order of appearance | As |
| ◻ | Legal Corner Post | Au in ppb * | 20 - 40 |
| † | Sample Stations | Ag in ppm | 40 - 60 |
| †P337 3,0.1,20 | Sample Name Au, Ag, As | As in ppm | >60 |
| RUSTY13 | Claim Name | | |

* A value of 9. corresponds to a laboratory value of less than 10.

## WESTERN MINES LIMITED

POPLAR CREEK PROJECT
ARSENIC GEOCHEMISTRY
POPLAR CENTRAL

0 50 100 150 200 metres
Scale 1:5,000

| Date: Nov. 1980 | Drawn by: L. Connor | Revised: | FIGURE 11 |
|---|---|---|---|


31
LARDEAU
RUSTY 10
RUSTY 11
RUSTY 12
RUSTY 20
RUSTY 4
L 6475
3200
3000
LEGEND
Corner Post and Claim Boundary
Legal Corner Post
Sample Stations
Sample Name Cu, Pb, Zn
RUSTY 12 Claim Name
Assay Information
Cu, Pb, Zn-order of appearance
Cu in ppm
Pb in ppm
Zn in ppm
Contour Interval
Cu
40 - 70
70 - 100
>100
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WESTERN MINES LIMITED
POPLAR CREEK PROJECT
COPPER GEOCHEMISTRY
POPLAR CENTRAL
0 50 100 150 200 metres
Scale - 1:5,000
Date: Nov. 1980
Drawn by: L. Connor
FIGURE: 12


LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post and Claim Boundary | Cu, Pb, Zn-order of appearance | Pb |
| Legal Corner Post | Cu in ppm | 20 - 30 |
| Sample Stations | Pb in ppm | 30 - 60 |
| Sample Name Cu, Pb, Zn | Zn in ppm | >60 |
| RUSTY 12 Claim Name | | |

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WESTERN MINES LIMITED

POPLAR CREEK PROJECT
LEAD GEOCHEMISTRY
POPLAR CENTRAL

0 50 100 150 200 metres
Scale - 1:5,000

Date: Nov. 1980 | Drawn by: L. Connor | FIGURE 13


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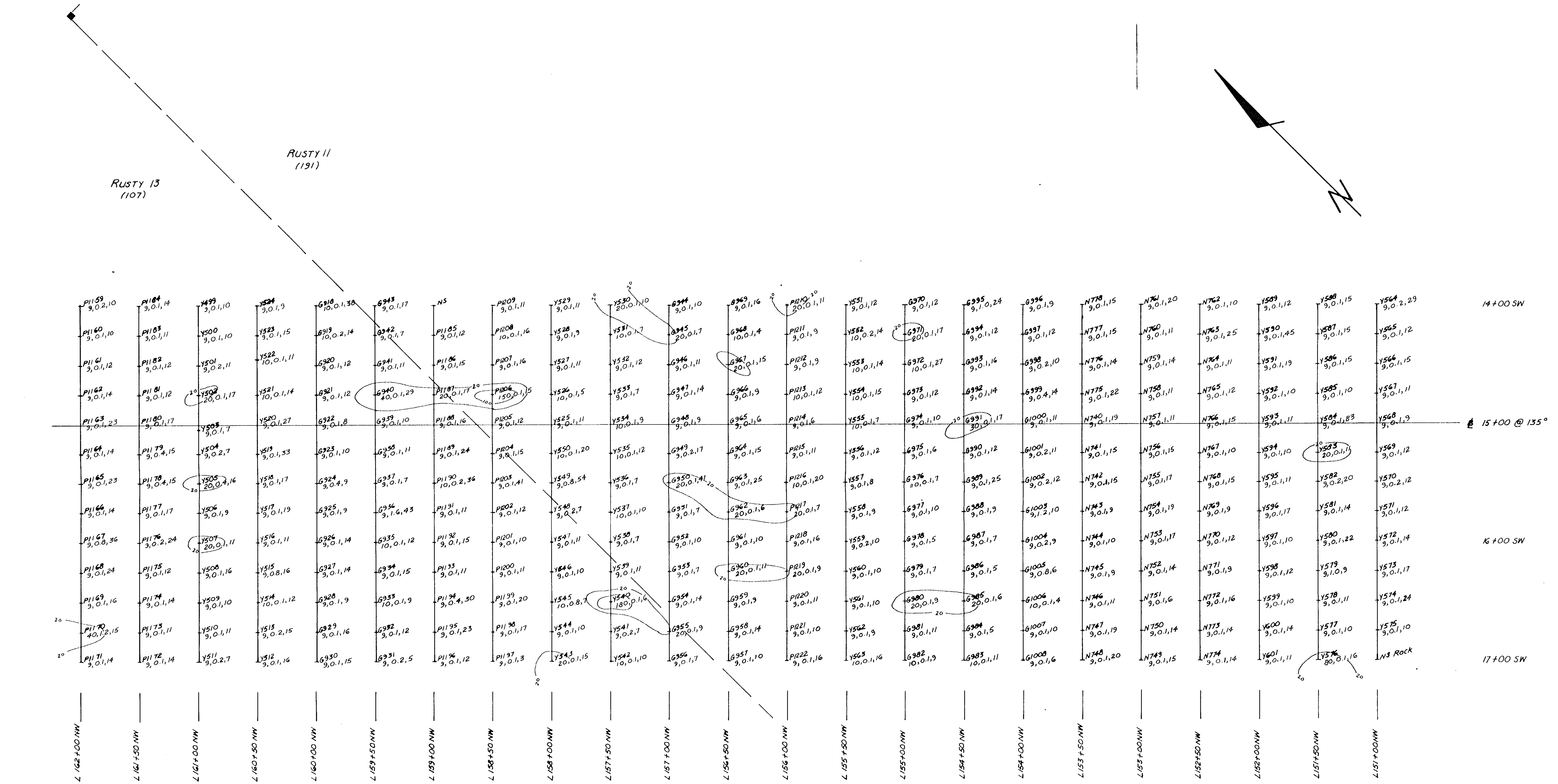
WESTERN MINES LIMITED

POPLAR CREEK PROJECT
ZINC GEOCHEMISTRY
POPLAR CENTRAL

0 50 100 150 200 metres
Scale - 1:5,000

| Date: Nov. 1980 | Drawn by: L. Connor | FIGURE: 14 |
|---|---|---|




## LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post & Claim Boundary. | Au, Ag, As - order of appearance | Au |
| Legal Corner Post | Au in ppb * | 20 - 100 |
| Sample Stations | Ag in ppm | 100 - 200 |
| Sample Name Au, Ag, As | As in ppm | >200 |
| Rusty 11 Claim Name | | |

* A value of 9. corresponds to a laboratory value of less than 10.

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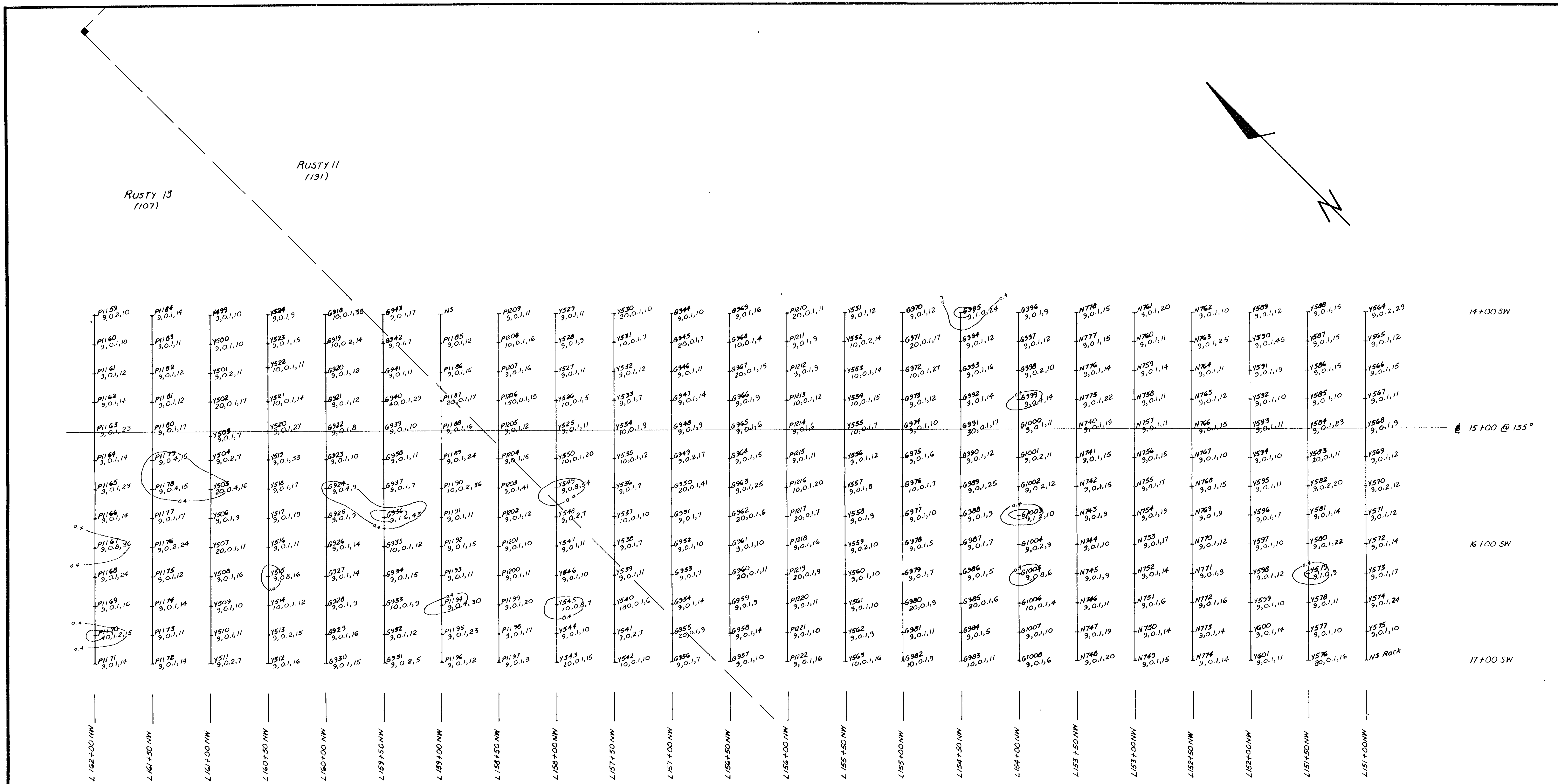
# WESTERN MINES LIMITED

## POPLAR CREEK PROJECT
## TENDERFOOT GRID
## GOLD GEOCHEMISTRY

0 25 50 75 100 metres
Scale 1:2,500

DATE - NOV. 1980 | DRAWN BY - L. Connor | FIGURE 15




## LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post & Claim Boundary. | Au, Ag, As - order of appearance | Ag |
| Legal Corner Post | Au in ppb * | 0.4 - 1.0 |
| Sample Stations | Ag in ppm | 1.0 - 2.0 |
| Sample Name Au, Ag, As | As in ppm | > 2.0 |
| RUSTY 11 Claim Name | | |

* A value of 9. corresponds to a laboratory value of less than 10.

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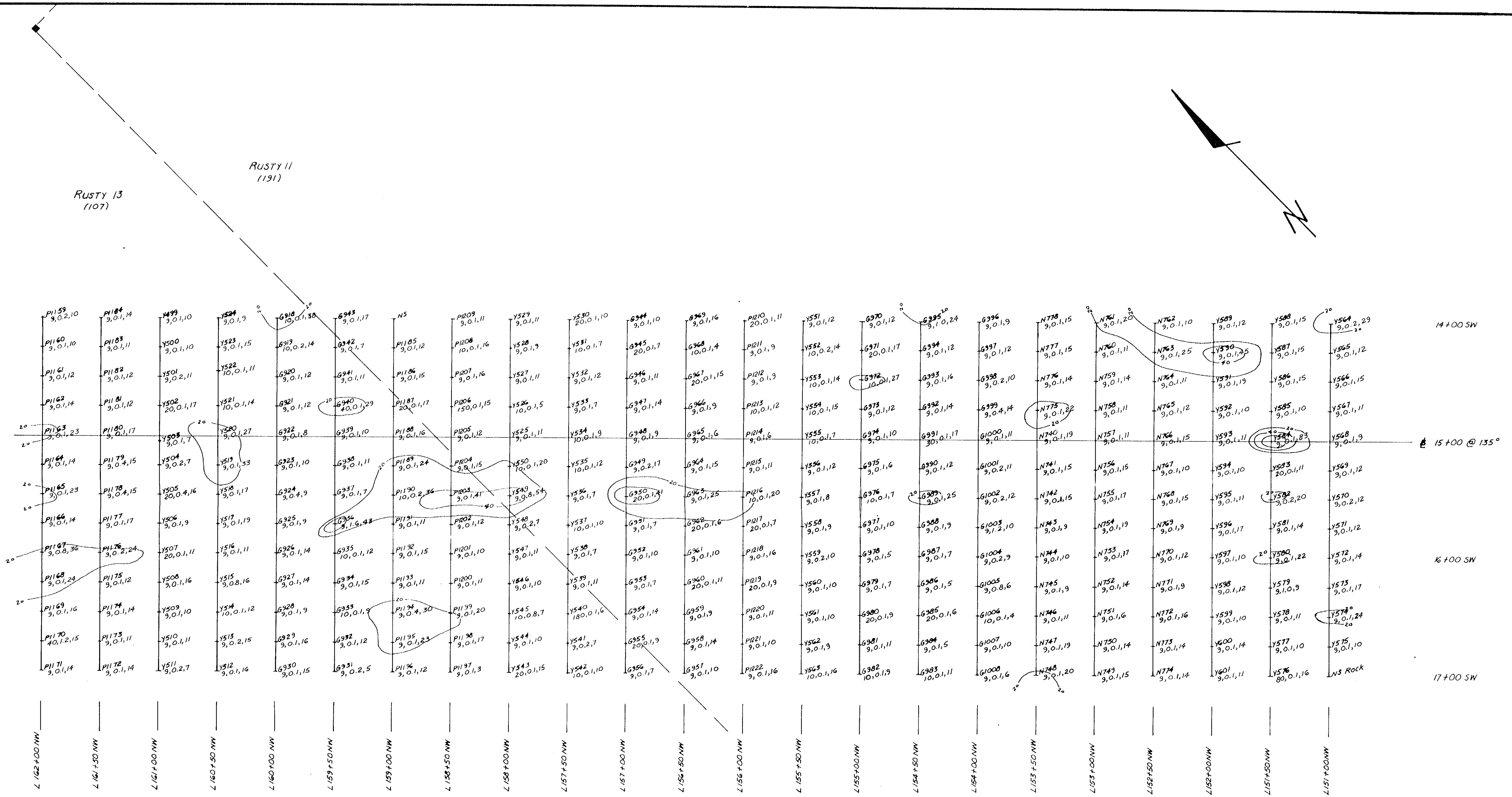
# WESTERN MINES LIMITED

## POPLAR CREEK PROJECT
## TENDERFOOT GRID
## SILVER GEOCHEMISTRY

0 25 50 75 100 metres
Scale 1:2,500

DATE - NOV. 1980 | DRAWN BY - L. Connor | FIGURE 16




## LEGEND

| | | Assay Information | Contour Interval |
|---|---|---|---|
| | Corner Post & Claim Boundary. | Au, Ag, As - order of appearance | As |
| | Legal Corner Post | Au in ppb * | 20 - 40 |
| | Sample Stations | Ag in ppm | 40 - 60 |
| N561 9,0.1,10 | Sample Name Au, Ag, As | As in ppm | >60 |
| Rusty 11 | Claim Name | | |

* A value of 9, corresponds to a laboratory value of less than 10.

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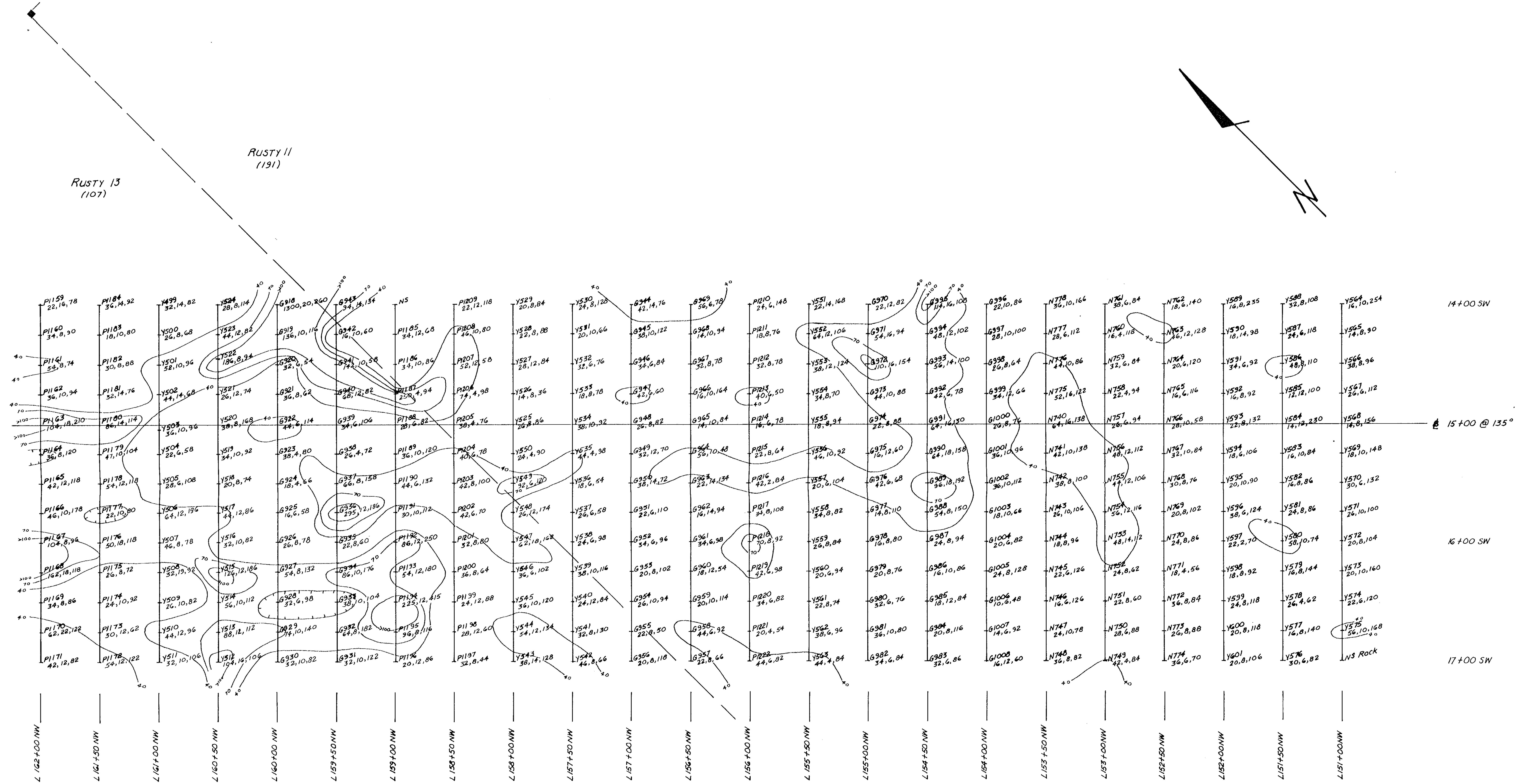
WESTERN MINES LIMITED

POPLAR CREEK PROJECT
TENDERFOOT GRID

ARSENIC GEOCHEMISTRY

0 25 50 75 100 metres
Scale 1:2,500

DATE - NOV. 1980 | DRAWN BY - L. Connor | FIGURE: 17




## LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post & Claim Boundary. | Cu, Pb, Zn-order of appearance | Cu |
| Legal Corner Post | Cu in ppm | 40 - 70 |
| Sample Stations | Pb in ppm | 70 - 100 |
| Sample Name Cu, Pb, Zn | Zn in ppm | >100 |
| Rusty 11 — Claim Name | | |

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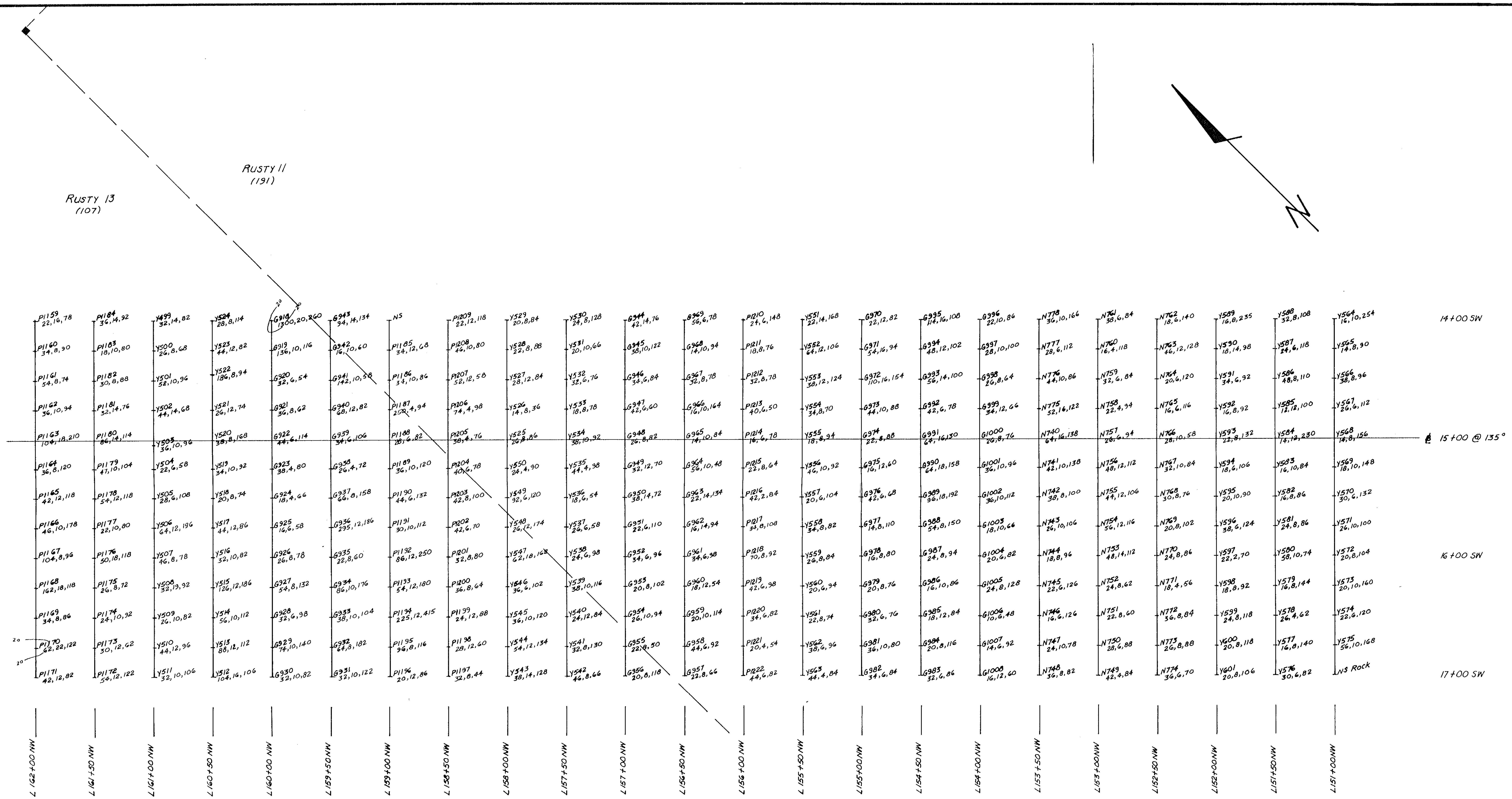
# WESTERN MINES LIMITED

## POPLAR CREEK PROJECT
## TENDERFOOT GRID

COPPER GEOCHEMISTRY

0 25 50 75 100 metres
Scale 1:2,500

DATE-NOV. 1980 | DRAWN BY-L. Connor | FIGURE 18




## LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post & Claim Boundary. | Cu, Pb, Zn-order of appearance | Pb |
| Legal Corner Post | Cu in ppm | 20 - 30 |
| Sample Stations | Pb in ppm | 30 - 60 |
| Sample Name Cu, Pb, Zn | Zn in ppm | >60 |
| RUSTY 11 Claim Name | | |

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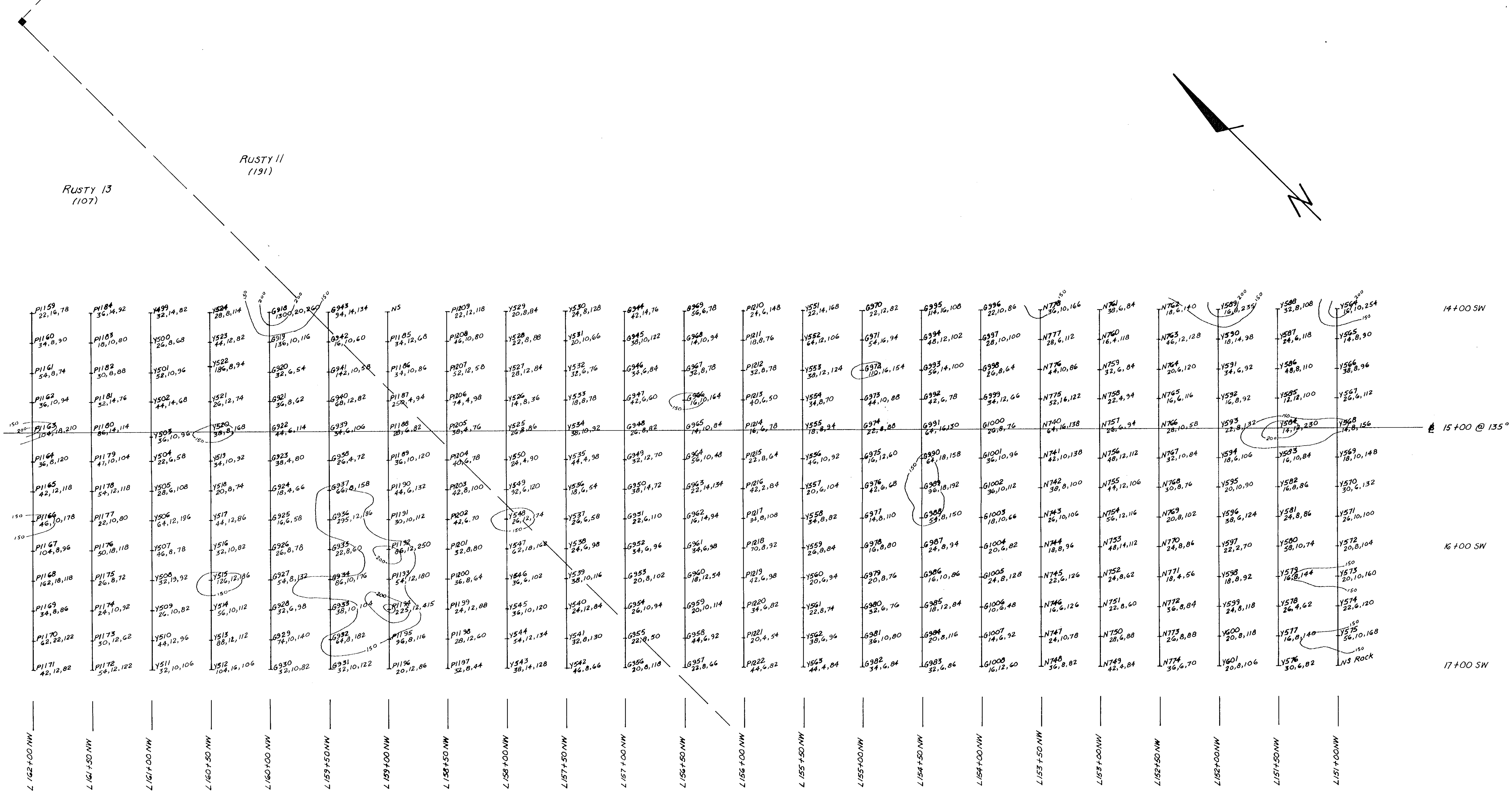
# WESTERN MINES LIMITED

## POPLAR CREEK PROJECT
## TENDERFOOT GRID
## LEAD GEOCHEMISTRY

0 25 50 75 100 metres
Scale 1:2,500

DATE-NOV. 1980 | DRAWN BY-L. Connor | FIGURE: 19




## LEGEND

| | Assay Information | Contour Interval |
|---|---|---|
| Corner Post & Claim Boundary. | Cu, Pb, Zn-order of appearance | Zn |
| Legal Corner Post | Cu in ppm | 150 - 200 |
| Sample Stations | Pb in ppm | 200 - 300 |
| Sample Name Cu, Pb, Zn | Zn in ppm | >300 |
| RUSTY 11 — Claim Name | | |

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ASSESSMENT REPORT
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# WESTERN MINES LIMITED

## POPLAR CREEK PROJECT
## TENDERFOOT GRID
## ZINC GEOCHEMISTRY

0 25 50 75 100 metres
Scale 1:2,500

DATE-NOV. 1980 | DRAWN BY-L.Connor | FIGURE: 20