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#060181

Maps

1. Surface Geology
2. Sample Assay Plan
3. Soil Sample Grid Zinc
4. Soil Sample Grid Copper
5. Soil Sample Grid Lead

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $12,180

D. F. Craig RG
~~Resident Geologist~~ or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

Commissioner of Yukon Territory

Location and Access.

The Solo group is located 8 miles east of Mount Selous, in the Clearwater Creek area. Both the above topographic features are shown on the Tay River sheet, 105-K, National Topographic series, 4 miles equals 1 inch. More specifically they are located on Claim Sheet 105-K-16, latitude 62°58'N, longtitude 132°10'W. (See accompanying map).

Access to the group for preliminary work has been by helicopter, based at either Fairweather or Sheldon Lakes. Atlas Exploration constructed a winter road from Dragon Lake on the Canol Road to their Lad group which could be extended to service the Solo claims.

General.

In 1968, J. St. Godard and G. Hogarth Sr, prospectors in the employ of Hudson Bay Exploration and Developement Company, Toronto, Ontario, located significant geochem values in lead and silver while reconnaissance sampling just east of Clearwater Creek. Subsequent investigation uncovered silver lead mineralization.

In October 1968, 9 Solo Claims were staked to cover their showing. In June 1969, 36 additional claims were staked for additional protection. Title for all claims

has been transferred to Hudson Bay Exploration and Developement Company.

Following the initial discovery a grid was run covering Solo 1 to 6 claims and detailed soil sampling carried out. Creeks in the immediate vicinity were alsosampled. This preliminary work outlined a significant lead, silver anomaly. Based on the above it was decided that in the 1969 field season a detailed geological survey of the anomaly be carried out and that additional soil sampling be done.

Geological Mapping.

Geological mapping and sampling in the 1969 field season was carried out by L.E. Larsen, assisted by B. Smith. J. St Godard and E. Skoda did additional sampling prior to the prospecting season.

All work was under the direct supervision of R.T. McIntosh. The mailing address of the above is: Hudson Bay Exploration and Developement Company, Box 2480, Whitehorse, Y.T..

A base map on a scale of one inch equals two hundred feet was prepared from aerial photographs. Geology was tied in to a base line and grid at 200 foot intervals. (see accompanying map). Elevations were

established using a survey altimeter and contours run with a hand level.

The main purpose of the mapping program was to locate drill targets for future exploration.

Geology.

The consolidated rocks underlying the Solo claims are sedimentary in origin, comprising argillite, quartzite and interbedded argillite and conglomerate and conglomerate. (See accompanying map).

Hodderiek 1958 and Green 1960, Map 13-1961) describe these rock types and classify the sedimentry assemblage as Ordivician or Silurian in age and the intrusive as Cretaceous.

Argillite.

Argillite and its altered phases, is the predominant rock type on the Solo claims. Megascopically it is a fine grained, dense, grey to black in color. Sections are slightly graphitic. Clevage is developed in varying degrees. The argillite is silicified and altered to hornfels in close proximity to the intrusive. Locally considerable oxidization was noted, due to fine disseminated pyrite.

Quartzite.

The quartzite is typically a dense fine grained

buff to grey rock. Interbedded with the quartzite are thin beds of argillite, up to 15 feet in width. The whole assemblage is approximately 700 feet wide.

Conglomerate.

Conglomerate underlies the western section of the mapped area. Typically it is greyish to dark greyish in color with angular to subangular to rounded cherty pebbles. It has been described as an intraformational conglomerate by D.C. Findlay. (Personal communication)

Granodiorite.

The granodiorite intrusive is roughly eliptical in shape. approximately 1,800 by 2,400 feet. It is massive, medium coarse to coarse grained, greyish in color, weathering to light grey or buff. Predominant minerals are quartz, biotite and plagioclase feldspar.

Quartz Porphyry.

Occasional narrow dikes of quartz porphyry cut across the sedimentary sequence at varying angles.

Mineralization.

Minerals identified to date are argentiferous galena, boulangerite, sphalerite and pyrite and possibly stibnite. Assays indicate the presence of cadmium, tin up to 0.3% and traces of tungsten.

Nothing of economic importance has been located to date. Best section is the original showing on the claim line between Solo 2 and 6. Here argentiferous galena is found in a fault zone up to 8" wide. In the same area narrow fractures contain boulangerite and sphalerite.

Grab samples of the original discovery ran: 87.98 ozs. silver, 0.2% zinc, 75% lead, 0.11% tin and 0.9% antimony, 19.30 ozs. silver, 6.6% zinc, 34.3% lead, 0.14%tin, 18.0% antimony, and 12.42 ozs. silver, 2.6% zinc, 6.6% lead, 0.25% tin and 0.3% antimony. The above are selected samples are are not representative.

Mineralization located to date is confined to fracturing and fault zones. All occurrences are north to northeast trending faults which dip to the east. Best sections are in quartzite. This mineral assemblage and its occurrence is believed to be somewhat similar to Mayo.

Sampling.

Some 197 samples were collected, mainly character samples of the various rock types. Chip channel samples were taken of the original showing. Results are plotted on the accompanying map.

Geochemical Survey.

The geochemical survey in the 1969 season was an extension of that carried out in 1968. Soil samples were collected from a grid run parallel to a creek on the north east side of Solo 26, 24 and 22 claims. Samples were collected of silt every 100' on a grid laid out at 200' intervals along

the base line. Samples were dried, screened and run for lead; zinc and copper on the atomic absorption spectrometer by Whitehorse Assay Office. A total of 338 samples were collected Results are plotted on the three accompnaying maps in parts per million.

Conclusions and Recommendations.

Geological mapping confirmed earlier observations that mineralization is confined to fault zones in quartzite. Further exploration should be concentrated on this horizon.

Geochemical sampling produced no anomalous results. Some scattered values, slightly above background are attributed to known mineralization at higher elevations.

Two possible targets for future exploration are the original showing between Solo 6 and 2 and the other on Solo8 which was picked up in mapping.

Approved:

R.T. McIntosh, B.Sc, F.G.A.C.

R. L. Price,
Western Supt. Exploration

STATEMENT OF COSTS IN CONNECTION WITH GEOLOGICAL MAPPING AND SAMPLING OF THE SOLO CLAIMS

Flying Time (fixed wing)	$5,613.47
Mapping & Sampling Labor	3,558.45
Camp Operation	974.85
Board Credit	50.50
Total	$10,096.27
Add 25% Overhead	2,524.06
TOTAL	$12,620.33
Estimated Assaying charges (300 samples)	300.00
TOTAL	$12,920.33

MIB/la
November 19, 1969

Certified Correct:

C. C. Merrell,
Chief Accountant.

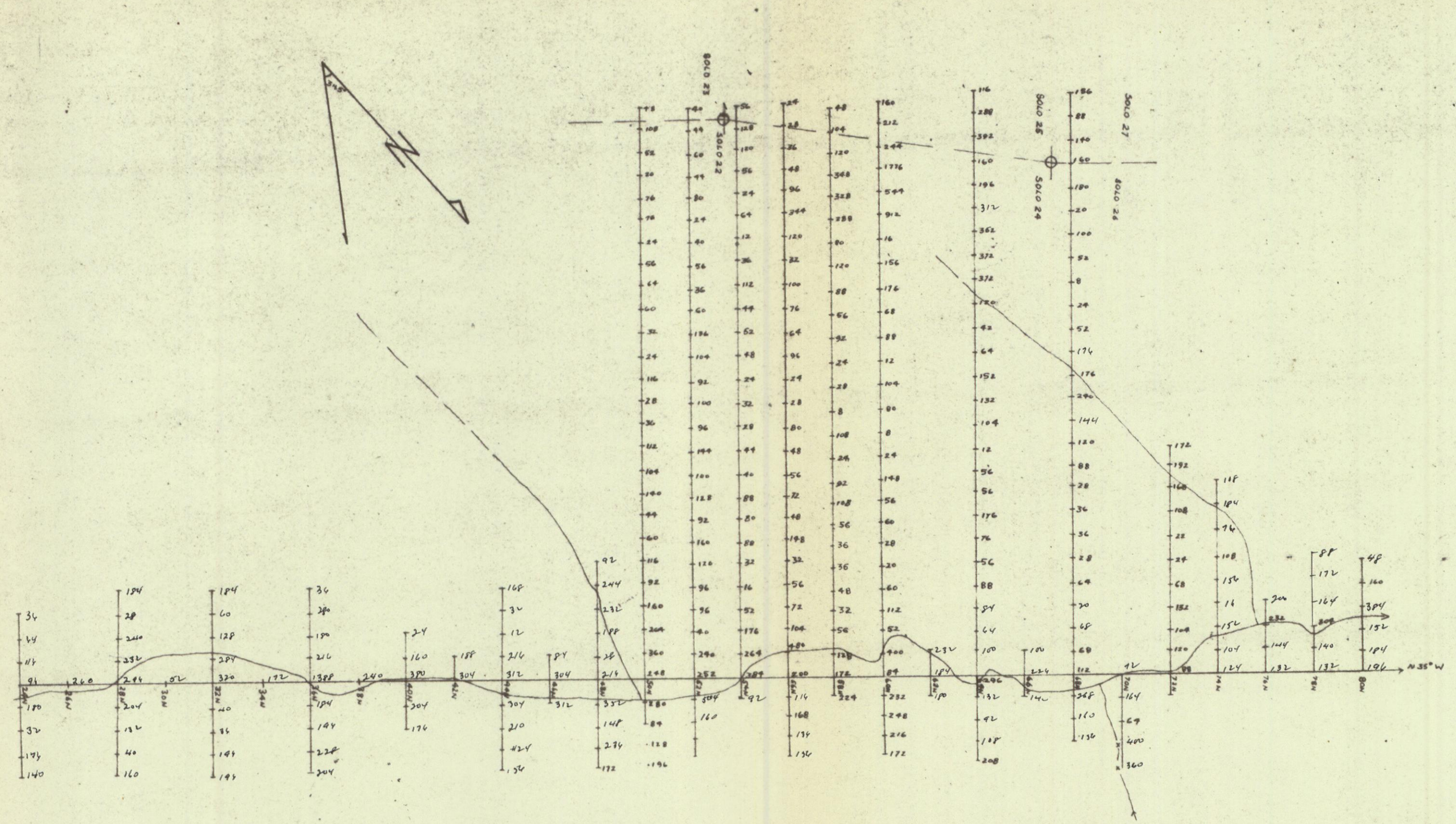

SOLO CLAIMS LOCATION MAP
TAY RIVER 105-K, LANSING 105-N
SCALE 1"=4 MILES
SOLO CLAIMS
SCALE 1/2 MILE = 1" OCT. 1969
LAD CLAIMS
SOLO 42
SOLO 35
SOLO 34
SOLO 25
SOLO 24
SOLO 22
SOLO 3
SOLO 4
SOLO 5
SOLO 6
SOLO 1
SOLO 2
SOLO 23
SOLO 21
SOLO 7
SOLO 8
SOLO 9
SOLO 10
MAGNETIC N
-LEGEND-
BEDDING
FAULTS AND SHEARS, (MEAS. ATTITUDE)
OUTCROP AREA
CONTACT (APPROXIMATE)
PLUNGE OF FOLD AXIS
CLAIM BOUNDARY, POSTS
BASE LINE
CONTOUR INTERVAL 100'
ORDOVICEAN SILURIAN
CRETACEOUS
1 ARGILLITE, SLATE
2 CHERT PEBBLE CONGLOMERATE
3 INTERBEDDED CHERTY QUARTZITE AND ARGILLITE
4 HORNFELSIC AND SILICIFIED ARGILLITE
5 LIGHT GRANULAR SILICEOUS HORNFELS
6 DENSE GREY SILICEOUS SKARN
7 GRANODIORITE INTRUSIVE
8 FELSITIC QUARTZ PORPHYRY DIKES
DRAWN BY: L.R. Larson
DATE Aug 69
HUDSON BAY EXPLORATION & DEVELOPMENT CO
FLIN FLON OFFICE
SURFACE GEOLOGY
SOLO CLAIMS
CLEARWATER CREEK AREA, YUKON TERR.
SCALE: 1" = 200

80N
78N
76N
74N
72N
70N
68N
66N
64N
62N
60N
58N
56N
54N
52N
50N
48N
46N
44N
42N
40N
38N
36N

WIDTH - Au, Ag, Cu, Zn, Pb, Sn, Ni

(FLOAT SAMPLES IN BRACKETS)

	DATE			
DRAWN BY: L.A. Lawson	SEPT., 1969	HUDSON BAY EXPLORATION & DEVELOPMENT CO. FLIN FLON OFFICE	SAMPLE ASSAY PLAN SOLO CLAIMS CLEARWATER CREEK AREA, YUKON TERR.	SCALE: 1"=200'

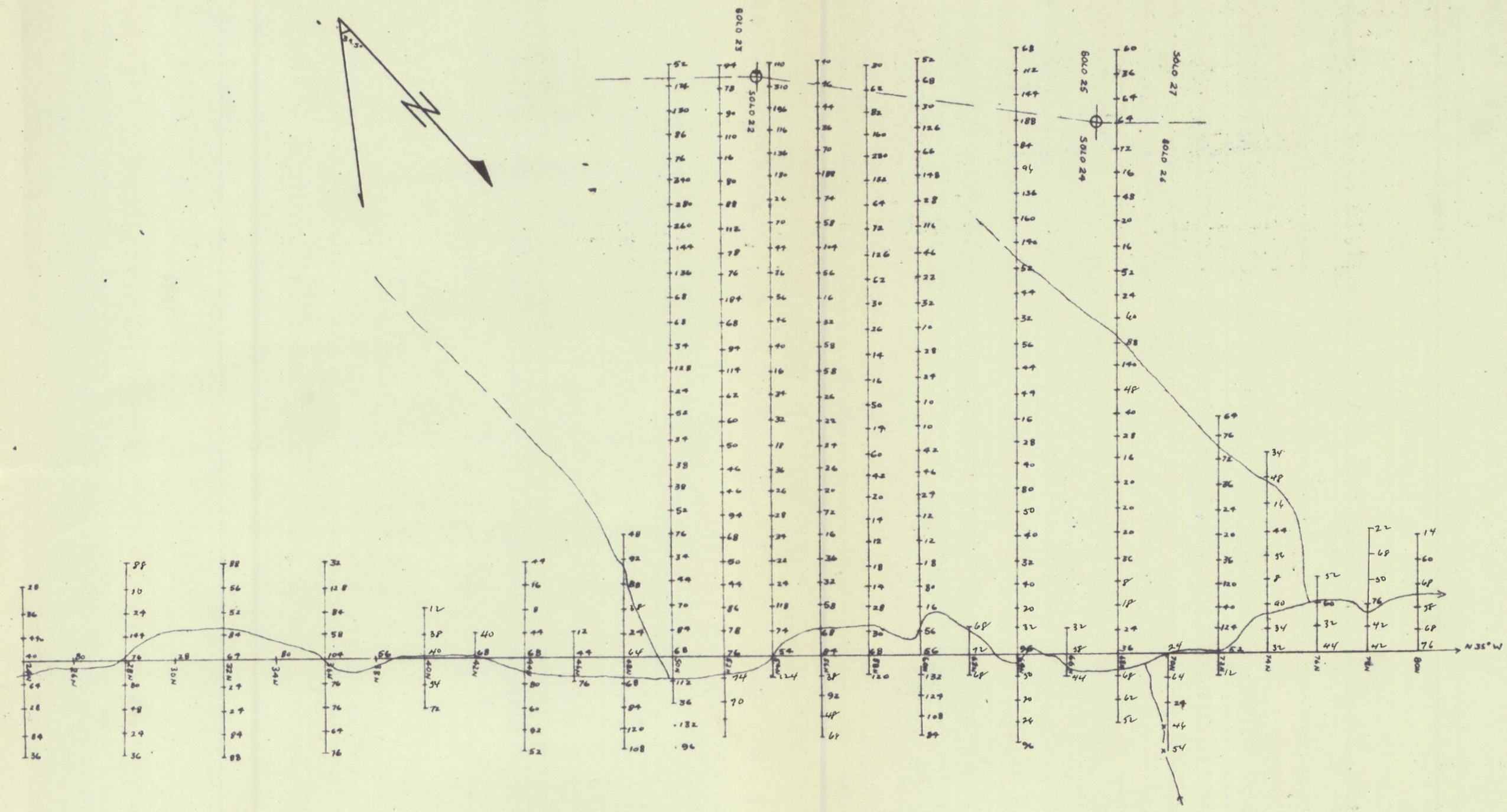


SOIL SAMPLE GRID

SOLO CLAIMS - CLEARWATER CREEK, YUKON

SCALE 1"=400'

ZINC ASSAYS

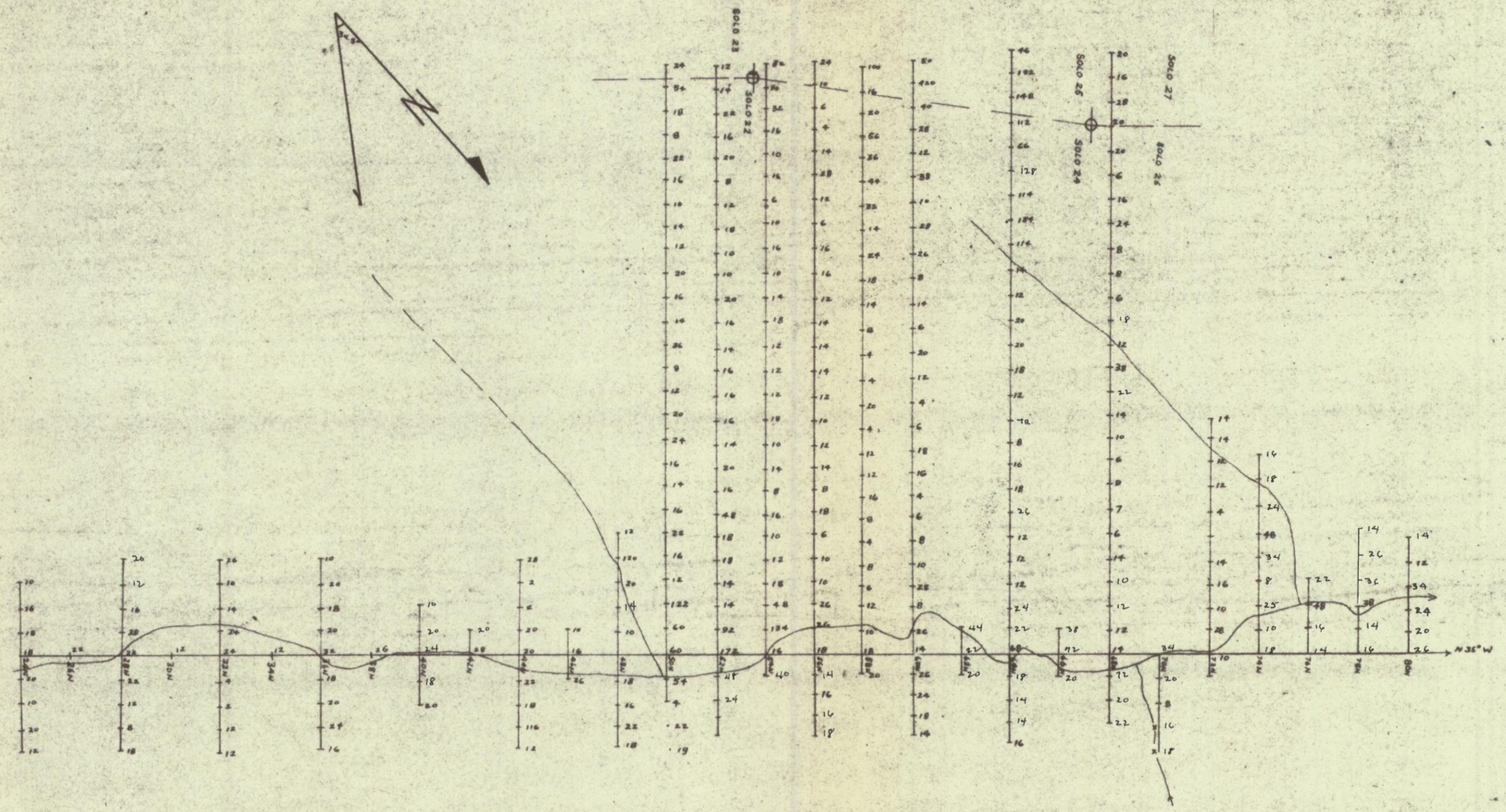


SOIL SAMPLE GRID

SOLO CLAIMS – CLEARWATER CREEK, YUKON

SCALE 1"=400'

COPPER ASSAYS

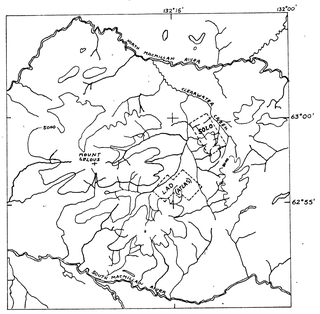


SOIL SAMPLE GRID

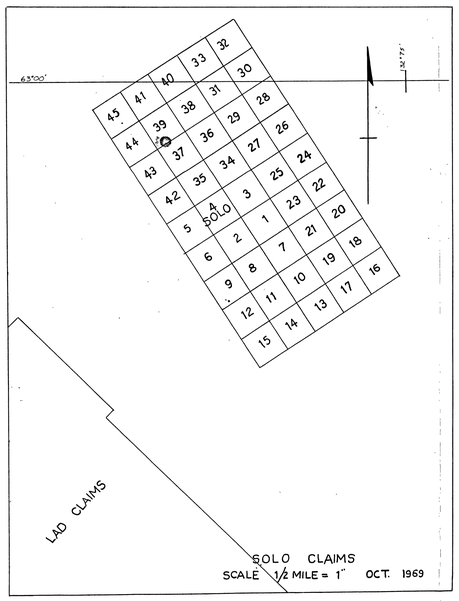
SOLO CLAIMS - CLEARWATER CREEK, YUKON

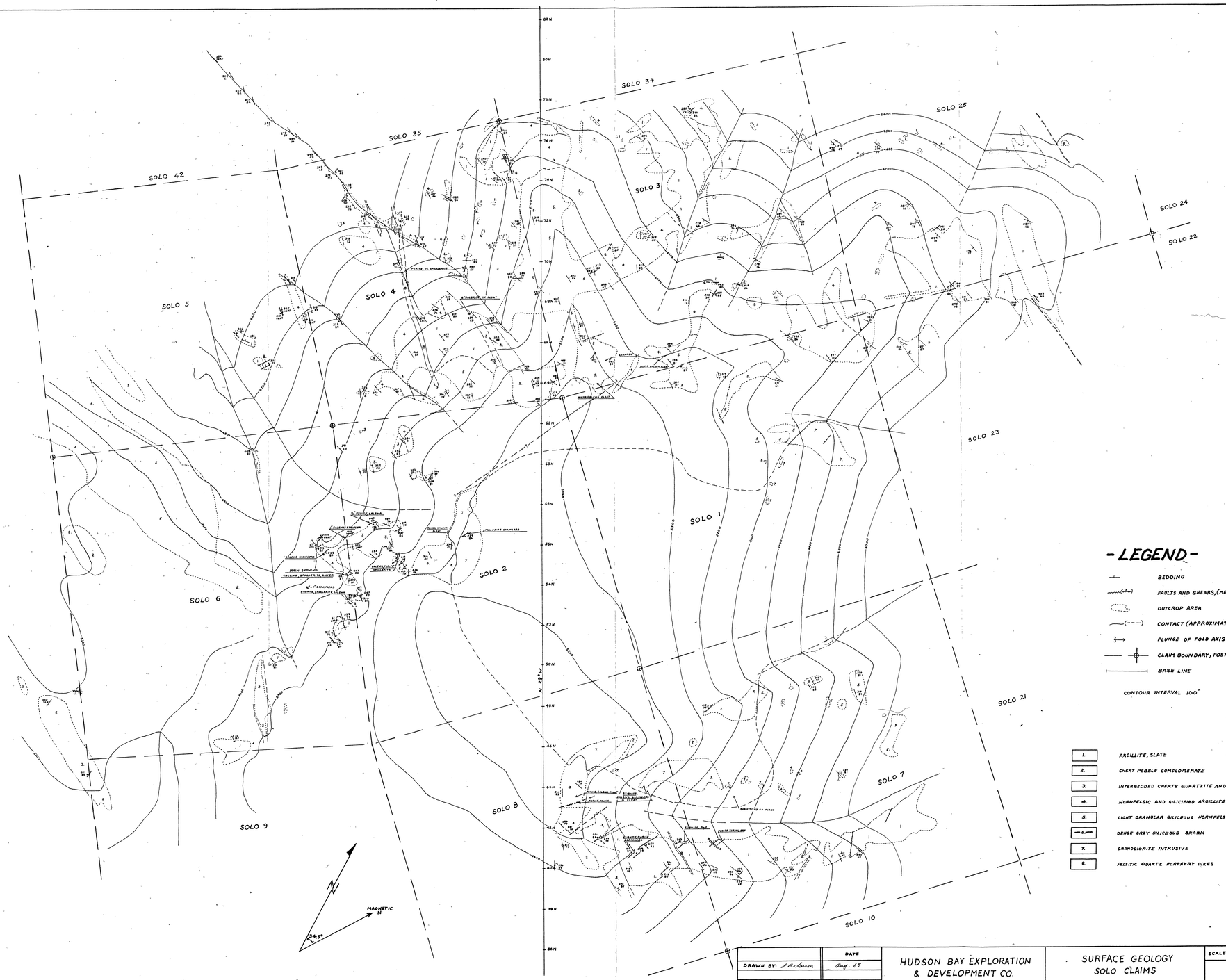
SCALE 1"=400'

LEAD ASSAYS



SOLO CLAIMS LOCATION MAP
TAY RIVER 105-K, LANSING 105-N
SCALE 1"=4 MILES





-LEGEND-

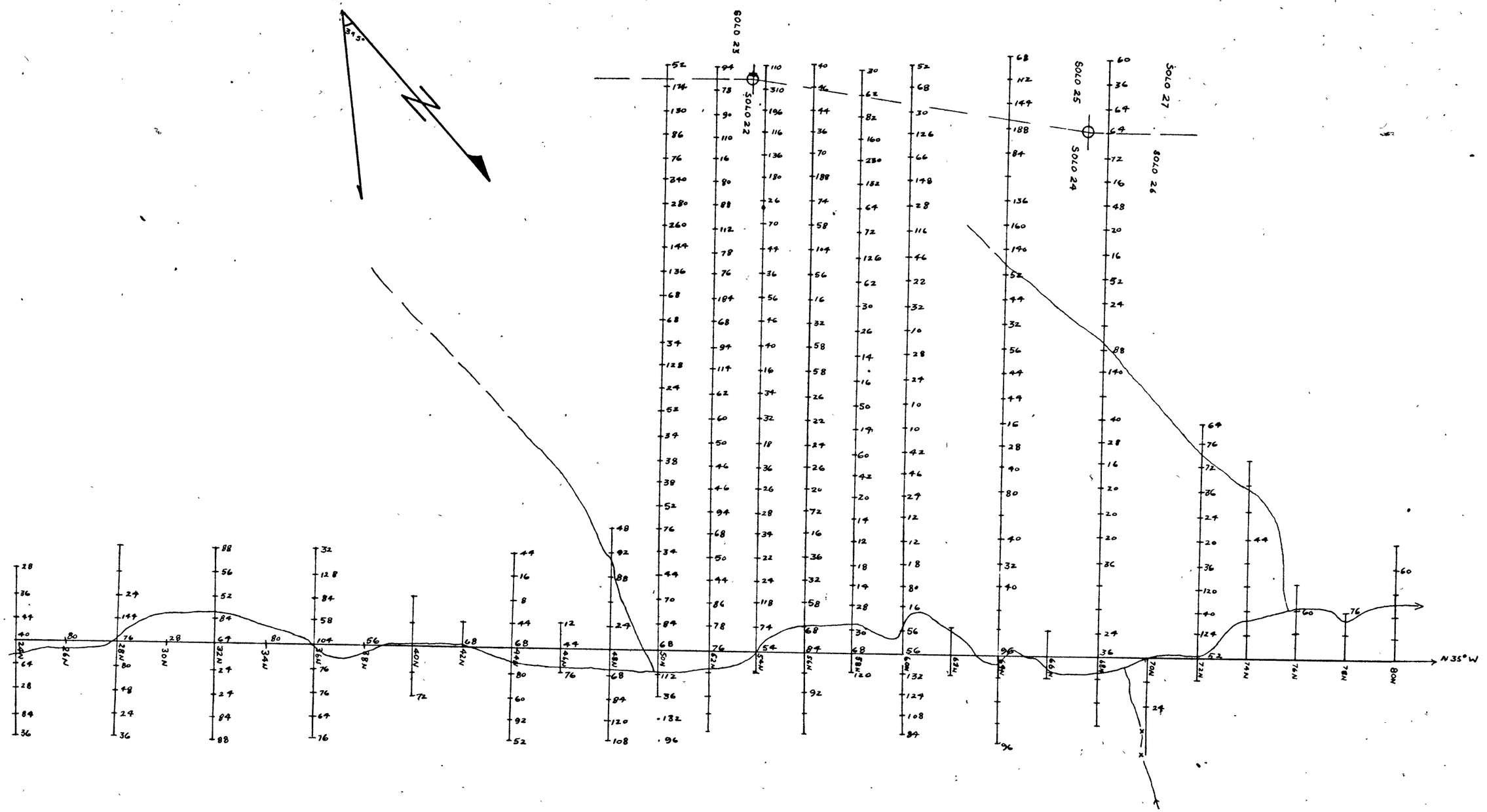
- BEDDING
- FAULTS AND SHEARS,(MEAS. ATTITUDE)
- OUTCROP AREA
- CONTACT (APPROXIMATE)
- PLUNGE OF FOLD AXIS
- CLAIM BOUNDARY, POSTS
- BASE LINE

CONTOUR INTERVAL 100'

1. ARGILLITE, SLATE
2. CHERT PEBBLE CONGLOMERATE
3. INTERBEDDED CHERTY QUARTZITE AND ARGILLITE
4. HORNFELSIC AND SILICIFIED ARGILLITE
5. LIGHT GRANULAR SILICEOUS HORNFELS
6. DENSE GREY SILICEOUS SKARN
7. GRANODIORITE INTRUSIVE
8. FELSITIC QUARTZ PORPHYRY DIKES

	DATE	HUDSON BAY EXPLORATION & DEVELOPMENT CO. FLIN FLON OFFICE	SURFACE GEOLOGY SOLO CLAIMS CLEARWATER CREEK AREA, YUKON TERR.	SCALE: 1"=200'
DRAWN BY: J.A. Larsen	Aug. 69			060181

3/



SOIL SAMPLE GRID

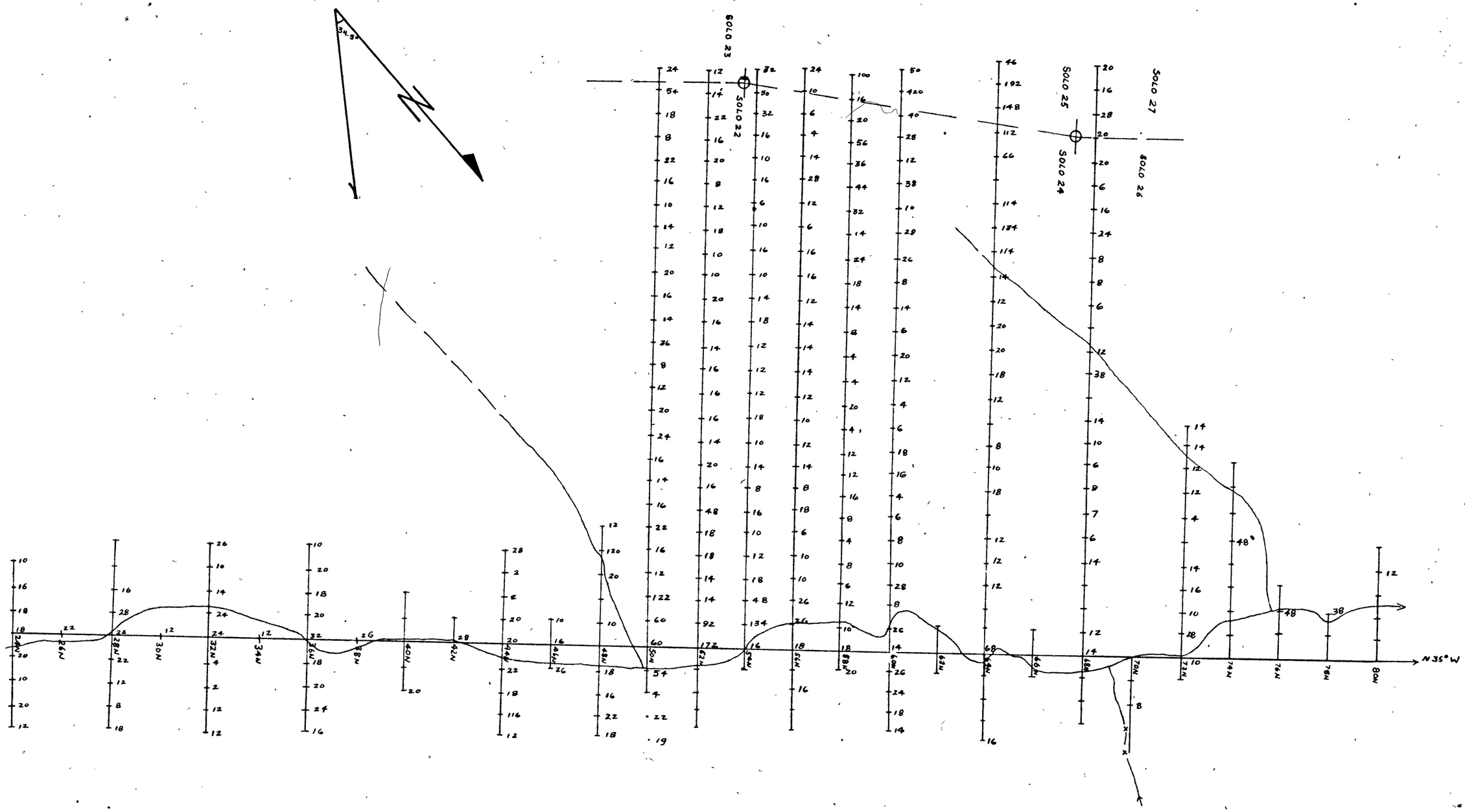
SOLO CLAIMS - CLEARWATER CREEK, YUKON

SCALE 1"=400'

060181

COPPER ASSAYS

3/



SOIL SAMPLE GRID

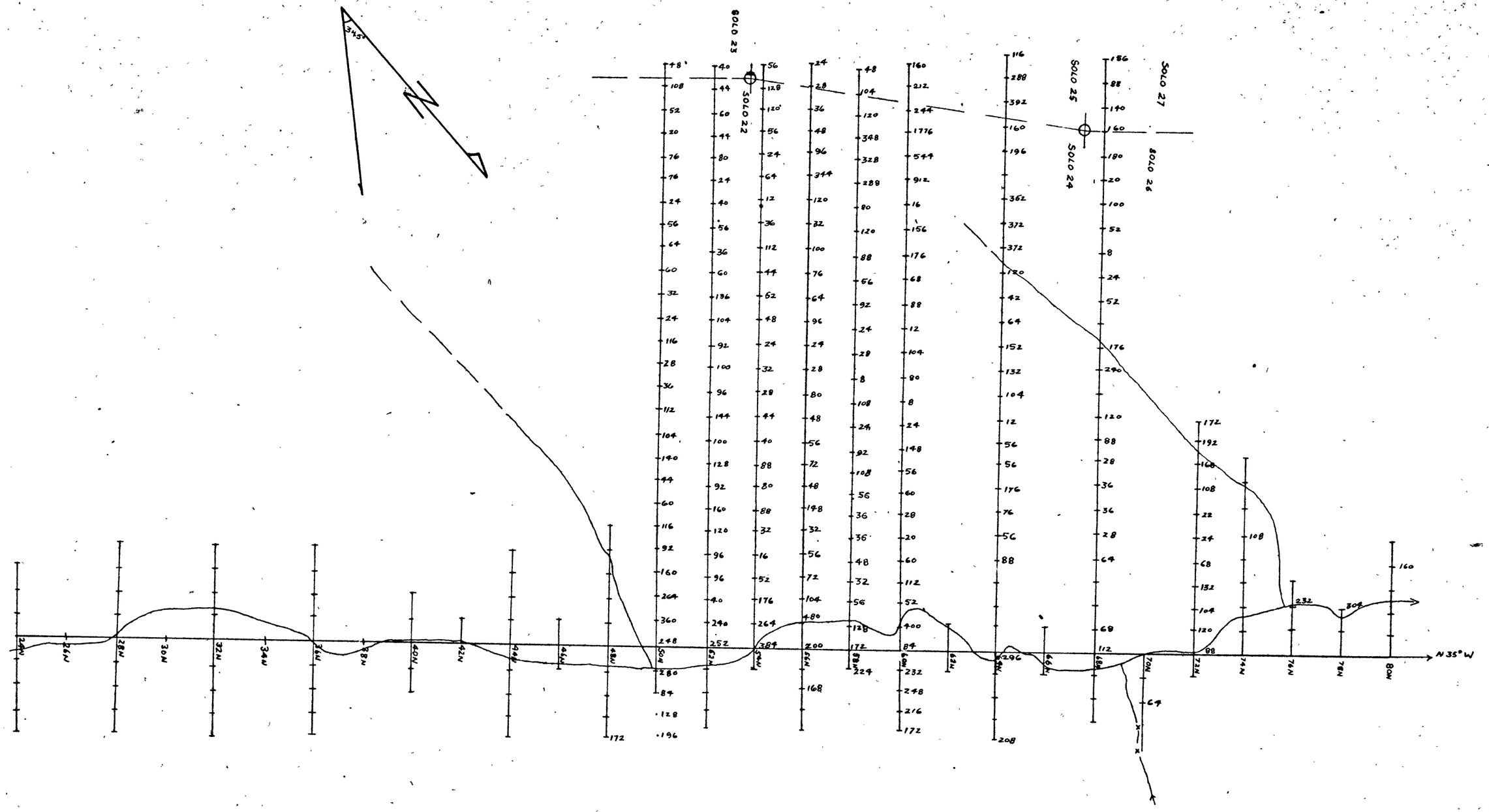
SOLO CLAIMS - CLEARWATER CREEK, YUKON

SCALE 1"=400'

060181

LEAD ASSAYS

3/



SOIL SAMPLE GRID

SOLO CLAIMS – CLEARWATER CREEK, YUKON

SCALE 1"=400'

060181

ZINC ASSAYS