

REPORT
ON
1967 GEOCHEMICAL EXPLORATION PROGRAM
SHARON, SUZIE, TERRY, VERNA & JANET CLAIMS
KETZA RIVER AREA, YUKON

for

NORTHWEST EXPLORERS LTD.

23,900

November 15, 1967

Alan R. Archer

Consultant

Vancouver, B.C.

This report has been examined by
the Geological Evaluation Unit
Approved as to technical worth by:

D. C. ...
RESIDENT GEOLOGIST

Approved as to cost in the amount
of: \$ 23,900

R. F. ...
RESIDENT MINING ENGINEER

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

[Signature]
COMMISSIONER OF YUKON

GEOLOGICAL SURVEY

FEB 14 1968

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FIGURE 5 - GRID C, LEAD GEOCHEMISTRY

SUZIE, TERRY, VERNA OPTION

FIGURE 6 - GRID D, LEAD GEOCHEMISTRY SHARON 65 - 88 CLAIMS

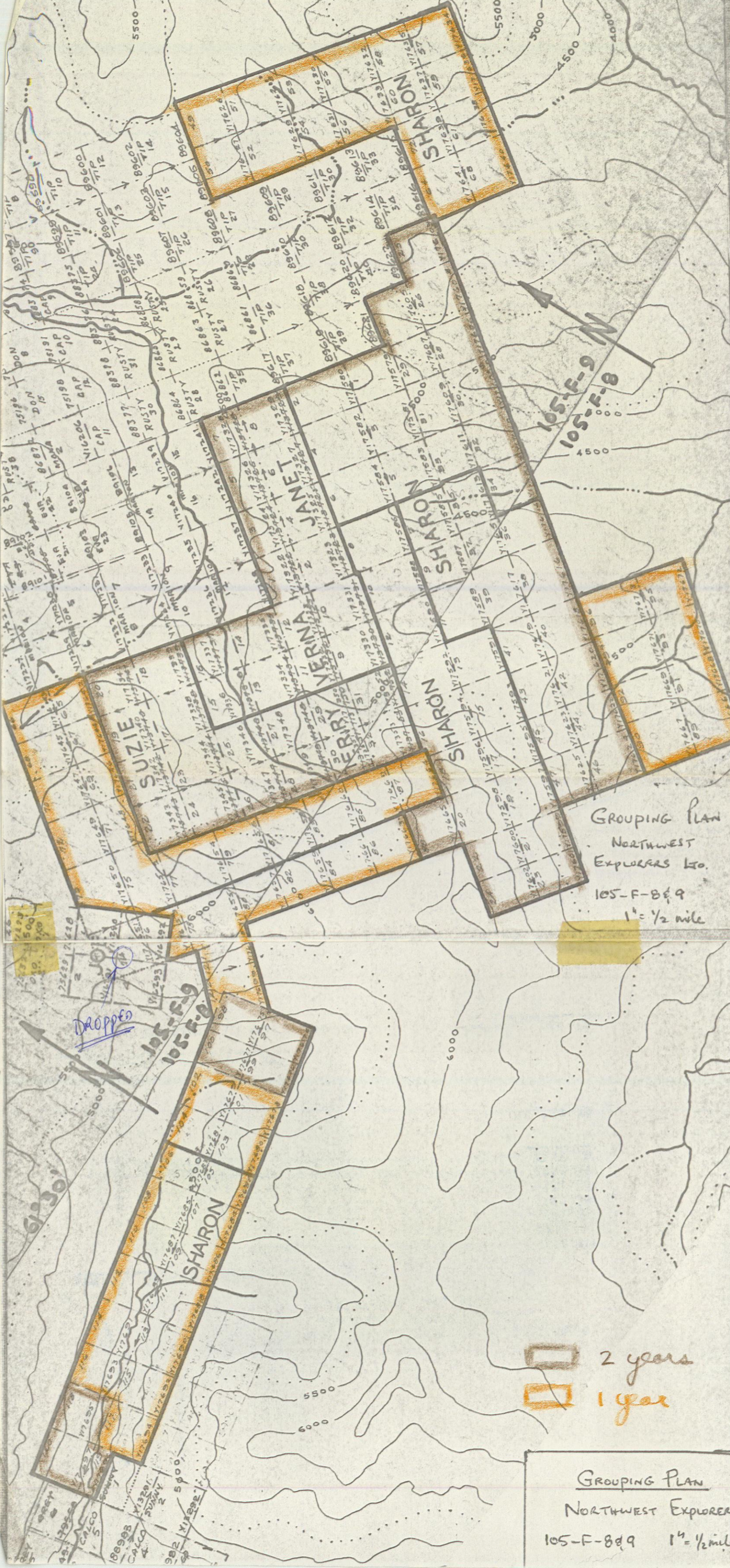
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FIGURE 7 - GRID E, LEAD GEOCHEMISTRY SHARON 97 - 104 CLAIMS

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SHARON 9 - 14 CLAIM AREA



105-F-9 N
105-F-8

GROUPING PLAN
NORTHWEST
EXPLORERS LTD.
105-F-8d9
1" = 1/2 mile

DROPPED

2 years
1 year

GROUPING PLAN
NORTHWEST EXPLORERS
105-F-8d9 1" = 1/2 mile

SUMMARY

Northwest Explorers Ltd. hold 153 contiguous claims in the Ketzka River area, Yukon. The claims adjoin property owned by Silver Key Mines Ltd. and Stump Mines Ltd. where more than twenty silver-lead veins have been discovered. The best of these, the AI vein owned by Stump Mines, has an 810 foot length of surface mineralization grading 24.9 ounces of silver per ton and 22.2 per cent lead over a 4.0 foot width. Underground development of the AI vein, which lies less than two miles to the north, is planned for early 1968.

A reconnaissance soil sampling survey was conducted over the Northwest Explorers property during the 1967 summer season to locate general areas of silver-lead mineralization. A number of anomalous areas were located and more detailed sampling of one of them indicated the possible presence of nine mineralized veins. Ore grade float was discovered near three of the postulated veins.

A \$53,000.00 follow-up program is recommended for 1968 to consist of (a) detailed sampling of other anomalous areas located by the reconnaissance work (b) bulldozer trenching on veins already defined by detailed sampling and (c) analysis of some of the soil sample splits for additional metals.

INTRODUCTION

This report describes a reconnaissance geochemical survey, conducted under the writers direct supervision during the 1967 field season, of 153 contiguous claims owned and optioned by Northwest Explorers Ltd. in the Ketzia River area, Yukon Territory. The purpose of the survey was to rapidly screen the claims to locate general centres of silver-lead mineralization where future exploration efforts should be concentrated. The reader is referred to the April, 1967, issue of the Western Miner for a description, by the writer, of a geochemical survey on adjoining property owned by Stump Mines Ltd.

PROPERTY

The property consists of 121 contiguous wholly owned claims and 32 contiguous optioned claims bounding Stump Mines Ltd. and Silver Key Mines Ltd. to the south (see Figure I). These claims are registered in the Watson Lake, Yukon, mining district as follows -

<u>Claims</u>	<u>Grant Number</u>	<u>Owner</u>	<u>Expiry Date</u>
Sharon I - 47 incl.	YI7579 to YI7625	Northwest Explorers Ltd.	April 6, 1968
Sharon 49 - 122	YI7626 to YI7699	Northwest Explorers Ltd.	April 6, 1968

(2)

Option

Janet I - 8	YI7322 - YI7329	N. MacDonald	Feb. 17, 1968
Verna 9 - 16	YI7330 - YI7337	J.R. Hope	Feb. 17, 1968
Suzie 17 - 24	YI7338 - YI7345	D. Nutt	Feb. 21, 1968
Terry 25 - 32	YI7346 - YI7353	E. Broadhagen	Feb. 21, 1968

LOCATION AND ACCESSIBILITY

The property is located 115 air miles northeast of Whitehorse, between the headwaters of the north flowing Ketzka River and the west flowing White Creek. The Silver Key camp, located 4 miles to the north, is accessible by 24 miles of tote road that turns south from the all-weather Watson Lake-Ross River road about 11 miles southeast of Ross River Settlement. Ross River Settlement is connected to Johnson's Crossing on the Alaska Highway by the all-weather Canal Road.

Road access to Whitehorse via Ross River Settlement and Carmacks will be available in the fall of 1968. This road is being rushed to completion as part of a government aid program to assist Anvil Mining Corp. in bringing its Faro ore body into production. The total road distance to Whitehorse from the Silver Key camp via this improved route will be 260 miles.

(3)

HISTORY

Silver-lead mineralization was first discovered in the Ketzza River area by prospectors working for Hudson Bay Mining and Smelting Co. during 1946. Further discoveries in 1954 attracted Conwest Exploration Co. Ltd. to the area and during the period 1954 to 1957 Conwest did surface stripping, mapping, minor diamond drilling and drove 3 short adits on a showing some 5 miles north of the Sharon claims. Conwest dropped the property in 1957 and no further significant work was done until 1959 when Ketzakey Silver Mines Ltd. acquired property in the area. During 1960 - 1961 this company built a tote road to their property and stripped and shipped 13 tons of hand cobbled silver-lead mineralization to Trail, B.C. In 1964 Silver Key Mines Ltd. acquired the Ketzakey property and staked additional claims. Exploration by this company during 1964 to 1967 consisted of bulldozer stripping, diamond drilling and geochemical surveys. This work has resulted in the discovery of more than 20 separate vein showings all of which merit further surface work and several of which merit underground exploration.

Stump Mines Ltd. acquired property adjoining Silver Key Mines in 1965 and during 1966 conducted a geochemical

(4)

survey on one of the claims. This survey resulted in the discovery of a well mineralized vein, the AI vein, that was explored by bulldozing and diamond drilling during 1967.

The Sharon, Janet, Verna, Suzie and Terry claims were staked during the spring of 1967 to cover favourable ground lying immediately south of the Silver Key and Stump property. Work on these claims during 1967 consisted of reconnaissance geochemical sampling and prospecting followed by detailed geochemical sampling of the most anomalous area. There is no evidence of exploration activity on these claims prior to 1967.

GEOLOGICAL SETTING

General

The property is located in the rugged St. Cyr Range on the southwest margin of the Tintina Trench. These mountains are superimposed on the Yukon Plateau and exhibit relief variations over 3,000 feet with the higher peaks reaching 7,000 feet in elevation. Annual precipitation is higher than average for the central Yukon and probably amounts to 30 or 40 inches. Freezing temperatures and permanent snow cover can be expected in late September and the spring thaw is not complete until

June. Winter temperatures fall as low as -60 degrees F. while summers are cool with numerous rain showers.

Pleistocene glaciation consisted of broad valley glaciers in the major drainage courses with intense alpine glaciation in the higher areas. Glacial deposits are generally restricted to valley bottoms and lower slopes. At higher elevations, outcrops are less abundant than might be expected even on the steeper slopes. Overburden cover is mostly residual material consisting of decomposed and frost broken country rock. Timbered areas are further covered by moss, peat and muskeg-like soil up to 18 inches thick. Permafrost is prevalent and solifluction has been greatly intensified by frost action, particularly in the thin-bedded sediments.

The geology of the district has been mapped by the Geological Survey of Canada on a scale of 1 inch to 4 miles (Map 7 - 1960). Reconnaissance mapping of the property during 1967 indicated that the Geological Survey's mapping was remarkably accurate, considering the scale, and little can be added to their interpretation (see Figure 2). A wide variety of folded and faulted metamorphosed sedimentary and volcanic rocks, from the lower Cambrian to Mississippian, are found with the most abundant rocks being Cambrian limestone

(6)

and phyllites. Several major faults traverse the property in a northwest direction, parallel to and probably related to the Tintina Fault. The Tintina Fault which lies 15 miles to the north has right hand movement exceeding 100 miles and may represent the continuation of the Rocky Mountain Trench into the Yukon.

Mineral Deposits

Mineralization in the district occurs as open space filling in vein faults. These faults are found cutting all of the rock units, usually strike northerly, and are much weaker than the northwest striking faults. No clear relationship has been established between the two sets of faults. Ore minerals are argentiferous galena, freibergite and sphalerite in a gangue of siderite, pyrite, arsenopyrite, quartz and fragmented country rock. Veins with a high content of arsenopyrite occasionally return gold assays as high as 1 ounce per ton. The major controlling feature is probably the competency of the host rock, thus, veins are generally better mineralized and wider in quartzites, dolomite and limestone. However, well mineralized veins have been found in phyllites on the Silver Key property so primary exploration should not be restricted to any particular rock unit. Silver to lead ratios vary widely within the district but are usually

(7)

consistent within each vein. The range is from 0.2 to 4.0 with most of the veins having a ratio of 1.0.

The most significant mineralized vein found to date in the district is Stump Mines Ltd. AI vein. Bulldozer stripping on this vein during 1967 proved an 810 foot length of continuous mineralization grading 24.9 ounces silver per ton and 22.2 per cent lead over an average width of 4.0 feet. Diamond drilling has indicated continuity of mineralization to depth and underground development is planned for late 1967 or early 1968. Two other mineralized veins, both on Silver Key ground, merit underground work. These are (a) the Lap IO, about 2 miles northwest of the AI, where surface sampling indicates 410 feet of mineralized vein grading 35 ounces silver per ton and 38 per cent lead over a 3.5 width and (b) the F.3, about three quarters of a mile north of the AI, where a 120 foot length of mineralized vein assays 86 ounces silver per ton and 38 per cent lead over an average width of 5.0 feet. Other known nearby showings on adjoining property are the F4 and F6 on Silver Key property where galena float assaying as high as 150 ounces of silver per ton has been turned up by bulldozing. Tetrahedrite float assaying 490 ounces of silver per ton is rumoured to have been found on the Calco claims on White Creek owned by P. Verslucce of

Whitehorse.

Galena float was found in a number of areas on the Sharon 9 - I4 claim block during the 1967 soil sampling program (see Figure 9). Float occurrences, with assays, are discussed further in the report.

GEOCHEMICAL SAMPLING

General

The effectiveness of soil sampling as a primary exploration method has been proven in the Ketzka River area. The AI vein was located by soil sampling in an area that had been thoroughly prospected, without success, by conventional methods.

Interpretation is relatively easy. Lead is not readily soluble under Yukon weathering conditions and dispersion is physical rather than chemical. The rapid solifluction produces well-defined lead rich float trains some distance downslope (up to 1,000 feet under favourable conditions) from mineralized veins. Most of the lead consists of particles of the original ore material or its insoluble oxide. Interpretation, therefore, consists simply of postulating mineralized vein faults immediately uphill from a lead-rich float train located by soil sampling. Test surveys in the Ketzka River area and the Keno Hill area, Yukon, where similar geomor-

phological conditions prevail, have proven that reconnaissance sampling on 400 foot centres is sufficient to locate specific areas of interest and that resampling of these specific areas on 100 foot centres will define the location of the mineralized vein for exposure by bulldozer trenching.

Survey procedure

An airphoto mosaic of the claim area at a scale of 1 inch to 1,000 feet was prepared from government photos for ground control. Baselines with stations at 400 foot intervals were established by tape and Brunton compass along the claim baselines. Samples were taken at 400 foot intervals on crosslines between the stations. All baselines and crosslines were well marked with red fluorescent flagging and sample points were marked with a long length of red flagging with the grid coordinate location printed on it with waterproof ink. As most of the claims are located above timberline (see photos in text) this proved more practical than cutting wooden pickets. Sampling crews were moved and serviced at weekly intervals by helicopter obtained on casual charter from Ross River Settlement or the Anvil camp. The Silver Key camp was used as a helicopter fuel storage area and as a jump off point for mobilization of the camp and supplies.

(10)

Soil samples were dug with a mattock to obtain about 4 ounces of soil from the B horizon. Samples were collected in individual Kraft bags, hung to dry in field camp, and sent air express to Chemex Labs Ltd., North Vancouver, where they were analysed for lead by atomic absorption spectrometry of a hot nitric-perchloric acid extraction. A split of each sample has been kept in storage at the laboratory in case analysis for additional metals is required in the future.

Reconnaissance geological mapping and claim post tagging were done during the sampling program. However, as already mentioned, little geological information was gained beyond that already provided by the Geological Survey of Canada mapping.

In September, after most of the reconnaissance sampling results were compiled, several anomalous areas were sampled in detail to define bulldozer targets. A total of 3619 samples were taken during the season.

Results and interpretation

The property was divided into 6 separate grid areas for the reconnaissance sampling and a single grid area for the detailed sampling. The location of the grids and elevation contours is shown on Figure I and the geology for all

(II)

grids is shown on Figure 2. Interpretation of geochemical sampling depends primarily on the knowledge of the geochemical reflection of known mineral deposits in the same area. In the Ketzka River area experience has shown that lead values in excess of 200 parts per million will be found at least 400 feet downslope from most of the mineralized veins. In reconnaissance sampling a value in excess of 200 parts per million can not be considered important unless supported by one or more adjoining value that is well above background. With the above in mind, the results of sampling are discussed separately for each grid as follows -

Grid A (see Figure 3) This grid covers the Sharon 49 - 60 claims and was sampled at 200 foot intervals on lines 400 feet apart. The northern third of the property is underlain by Upper Cambrian phyllites while the remainder is underlain by thick-bedded Devonian dolomite. Outcrop is fairly abundant with the dolomites often forming a series of bluffs and terraces.

The lead background in the dolomite is unusually high for the district but no significantly mineralized veins are indicated. However, several weakly anomalous areas occur that justify detailed sampling on a low priority rating. The best of these is located at Line 60 W. to 68 W. from 4 S. to 6 S. where a northeast trending surface linear substantiates the possibility of a weakly mineralized vein fault. Additional

(12)

sampling is also warranted around the single high values at Line 72 W., 10 S. and at Line I6 W., I2 S.

Grid B (see Figure 4) This grid, initially sampled at 400 foot intervals, covers the Sharon I -47 and 89 - 96 claims. The central part lies in a broad saddle above timberline between steep hillsides to the east and west. Most of the grid is underlain by limy Upper Cambrian phyllites. True outcrop is scarce due to rapid disintegration of these thin-bedded sediments by frost action (see photos in text).

A number of significantly anomalous areas were found by the reconnaissance sampling as follows -

(a) Large area centered on Line 68 S. at 4 E.

This area was resampled in greater detail and the results are discussed further in the report under the heading Grid G (Figure 9).

(b) Area centered on Line I36 S. at 4 E.

A number of isolated high values were found here by reconnaissance sampling. Fill-in sampling was done in September and the results are shown directly on the grid. The anomaly occurs on a very steep talus slope composed of pale green felsic breccias and tuffs (see photo number 4 in text). A source vein has been

(13)

postulated on Figure 4. Further exploration is warranted but should have a low priority because the anomaly is not particularly strong and because of the difficulty of bulldozer trenching on such a steep slope.

(c) Area from Line 44 S. to 48 S. from 36 W. to 28 W.

This anomaly is located in a fairly flat area covered by dense buckbrush and further detailed sampling is required before a vein can be defined.

(d) Line 4 S. at 8 W. and Line 20 S. at 28 W.

These two isolated high values merit additional sampling on a low priority rating.

Grid C (see Figure 5) This grid covers the Suzie, Terry, Verna, Janet option and is underlain by limy phyllites. Outcrop is scarce and most of the claims are covered by a thick growth of buckbrush. The large anomaly on the central part of the southeast joining Grid B extends well onto this grid and part has already been further explored by detailed sampling (see Figure 9). The remainder of this anomalous area, from Line 16 N. to Line 56 N. and 12 E. to 16 W. warrants top priority detailed sampling. Isolated high values at 4 N. - 40 W. and 16 N. - 40 W. also merit additional sampling.

(14)

Grid D (see Figure 6) This grid, covering the Sharon 65 to 88 claims, is situated near the height of land between the Ketzka River and White Creek. The terrain is steep and rugged and outcrop is fairly abundant. Above background lead values are found along the southwestern side of the grid but the general absence of supporting values exceeding 200 parts per million suggest that the source is a lead rich stratigraphic horizon rather than silver-lead vein deposits. The same dolomite formation that produced a high background for lead on Grid A outcrops along the western boundary of this grid. No additional sampling is recommended at the present time.

Grid E (see Figure 7) This grid covers the Sharon 97 - 104 claims and is underlain primarily by Lower Cambrian limestone. Sampling was extended beyond the claim boundaries because of the favourable geology. White Creek terminates in a steep walled cirque on the east side of the grid and the mountain slopes rise steeply on either side of the creek. Most of the area is covered by talus except for the south boundary of the claims where there are steep limestone bluffs. Part of the limestone are pyrite rich and produce extensive red-brown gossans on weathering.

(15)

A significant anomalous area requiring top priority follow-up sampling is centred on Line 4 W. and I2 N. Also, several isolated high values are found to the north and south of the larger anomaly. The area from Line 0 W. to Line I6 W. and 20 S. to 20 N. should be sampled in detail and a few additional samples should be taken at Line 0 W., 28 N. and at Line I6 W., 30 S.

Grid F (see Figure 8) This grid is the extension of Grid E to the west and covers the Sharon I05 to I20 claims. The Sharon claims lie further east than shown on the government claim map and their true location with respect to the previously staked Calco 4 and 5 claims is shown on this figure.

Most of the grid is underlain either by Cambrian limestone or dolomite and because of the favourable geology sampling was extended beyond the claim boundaries. The mountain slopes are generally talus covered and rise steeply on either side of the narrow White Creek valley. A number of limonite gossans similar to those on Grid E are found along the rocky bluffs on the south side of the grid. Selected samples from a gossan area near Line I28 W. at 32 S. assayed .005 ounces gold per ton and 0.25 ounces silver per ton.

A strong and extensive anomaly is located on the

(16)

Calco 4 M.C. The two highest values are found furthest up the slope and presumably are very close to the source of mineralization. Grey copper float assaying 490 ounces of silver per ton is rumored to have been found on the Calco claims and this geochemical anomaly may define the source of the float. No significant work has been done on the ground and the property has been kept in good standing by paying cash to the Mining Recorder in lieu of representation work.

Further detailed sampling should be done around the unusually shaped anomaly on Line I44 W. from the baseline to I6 N. and around the more weakly anomalous area on Line 84 W. at 20 S.

Grid G (see Figure 9) Sampling on this grid was done in September to provide greater detail of a large anomalous area located by reconnaissance sampling earlier in the season. The grid overlaps the boundary of the Sharon claims with the optioned claims in an area of light vegetation on a saddle between higher hills to the east and west. Underlying rocks are Upper Cambrian phyllites with outcrops being scarce due to frost action. Topography consists of a series of irregular gullies and depressions on a moderately sloping hillside (see photo I, 2 and 3 on the following page). Several areas of mineralized float were

(17)

found during sampling and their location and assays are shown on the map.

Much of the area sampled is anomalous and interpretation is difficult because of the irregularly shaped terrains. In this situation a lead rich float train downhill from a mineralized vein could be cut off by a gully thereby preventing a well defined geochemical reflection of the mineralization. Nine veins have been interpreted on the Sharon claims and a single vein on the optioned claims. Proposed bulldozer trenches have been laid out to explore five of the veins on the Sharon claims. The trenches are situated so they will also explore the float locations. An excellent anomaly on the optioned claims requires further sampling to better define the location of the source vein for bulldozing.

CONCLUSIONS AND RECOMMENDATIONS

The soil anomalies outlined by detailed sampling on Grid G are as strong as those found associated with well mineralized veins in the Silver Key-Stump area and in the Keno Hill area. This coupled with the discovery of float with a silver-lead ratio averaging 1.0 makes further

(18)

exploration by bulldozer trenching an excellent bet. Other anomalous areas located by reconnaissance sampling may prove equally attractive with more detailed sampling. A summer program of bulldozing on Grid G along with more detailed sampling, as already outlined in the report, is recommended for 1968. A permanent camp should be established on Grid G in early June. Fuel and supplies can be mobilized by bulldozer from the Silver Key camp which is only 4 miles to the north. Detailed sampling on outlying grids can be done during July from fly camps mobilized by helicopter from the main camp.

It is possible that additional information can be extracted from the samples by analysis for additional metals. It is recommended that samples from Grids A, D, E and F along with 225 samples from the most anomalous part of Grid B be geochemically analysed for silver to provide information on the effectiveness of using silver as an indicator metal and to check for possible areas of tetrahedrite rather than argentiferous galena mineralization. It is also recommended that the samples from Grid E be geochemically analysed for gold because of the possibility of a significant gold content in one or more of the numerous pyrite rich zones in the dolomite in this area.

(19)

It is recommended that the Calco 4 and 5 claims be acquired if a reasonable deal can be made. Work on these claims during 1968 would consist of additional sampling followed by exploration of anomalies by hand trenching.

BUDGET

Winter 1967

Silver geochemical analysis

1,500 samples at 80 cents

each.....\$1,200.00

Gold geochemical analysis

200 samples at \$1.50 each..... 300.00

Drafting, interpretation..... 1,000.00

\$2,500.00

Summer 1968

The following budget assumes a two month program starting June 15 with a field crew consisting of a bulldozer operator, a senior student and two junior students.

Bulldozing - D7 cat with rippers

800 hours at \$30.00 per hour.....\$24,000.00

Crew and camp costs..... 9,500.00

Geochemical analysis..... 2,000.00

Rock assays..... 2,000.00

(20)

Helicopter and fixed wing rental.....	\$4,700.00
Truck rental.....	500.00
Expediting, radio rental.....	800.00
Supervision.....	1,500.00
Drafting, duplicating.....	<u>1,000.00</u>
	\$46,000.00
plus contingencies.....	<u>4,500.00</u>
	\$50,000.00

Total cost for winter
and summer programs....\$53,000.00

Respectfully submitted,

Alan R. Archer

Alan R. Archer, Ba.Sc., P. Eng.

A.R.A:m.a.

ARCHER, CATRO

AND ASSOCIATES LTD.

CONSULTING GEOLOGICAL ENGINEERS

CASCA BUILDING, WHITEHORSE, Y.T. 667-4113

BENTALL CENTRE, VANCOUVER, B.C. 688-3022 OR 522-1562

770 ONE BENTALL CENTRE
505 BARRARD ST.
VANCOUVER 1, B.C.

November 15, 1967.

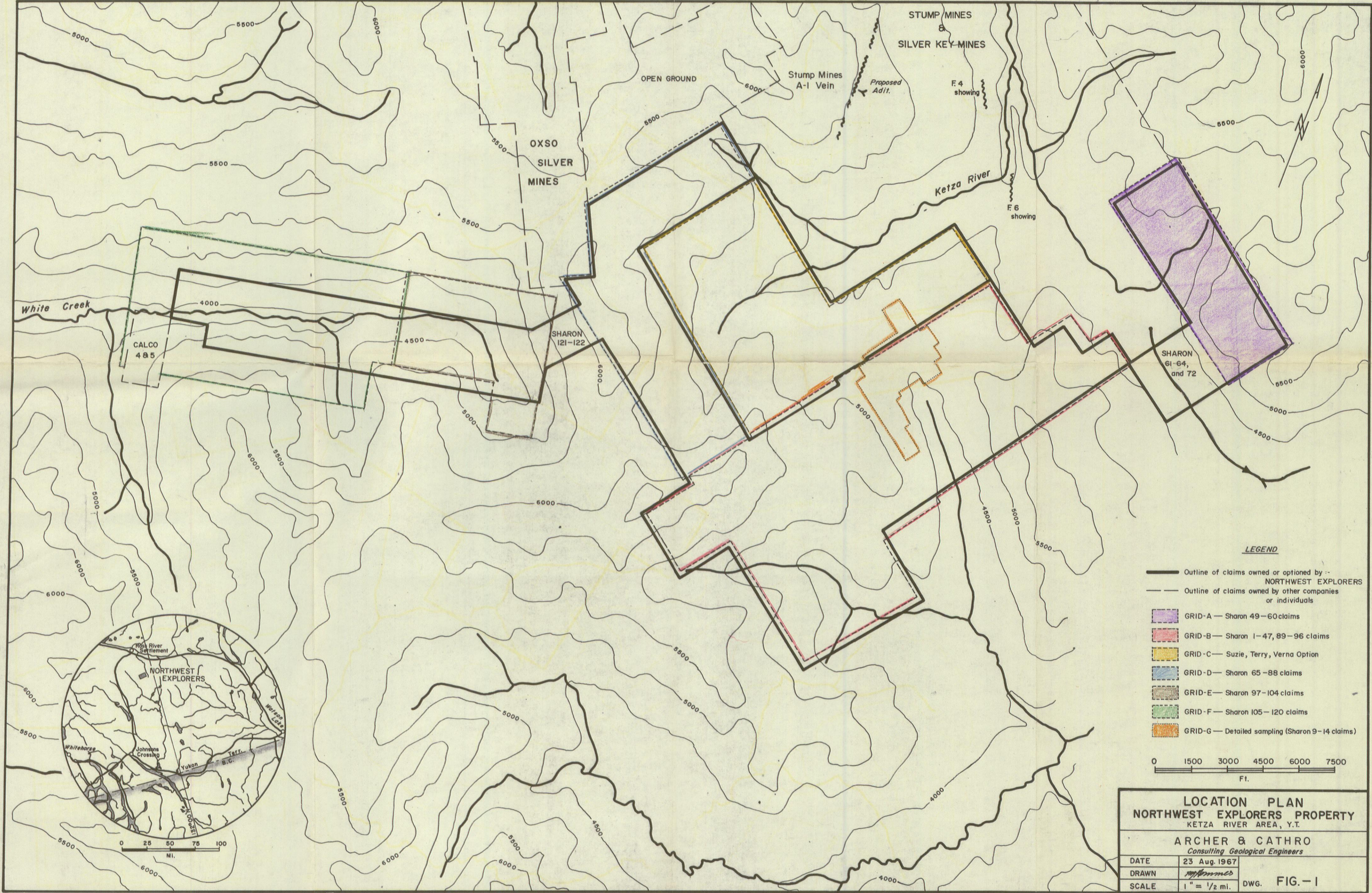
CERTIFICATE

I, Alan R. Archer, with business and residential address in Vancouver, British Columbia, do hereby declare that:

1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia, 1957.
3. I am a registered professional engineer in Yukon Territory and the Province of British Columbia.
4. From 1957 to 1966 I was engaged in mining and mining exploration as a geological engineer for a number of companies. I was chief geologist for United Keno Hill Mines Ltd. when I retired in 1966 to practice as a consulting geological engineer.
5. I have personally examined all maps, data and mineral showings referred to in this report.
6. I have no interest either directly or indirectly in the claims or securities of Northwest Explorers Ltd. nor do I expect to receive any.

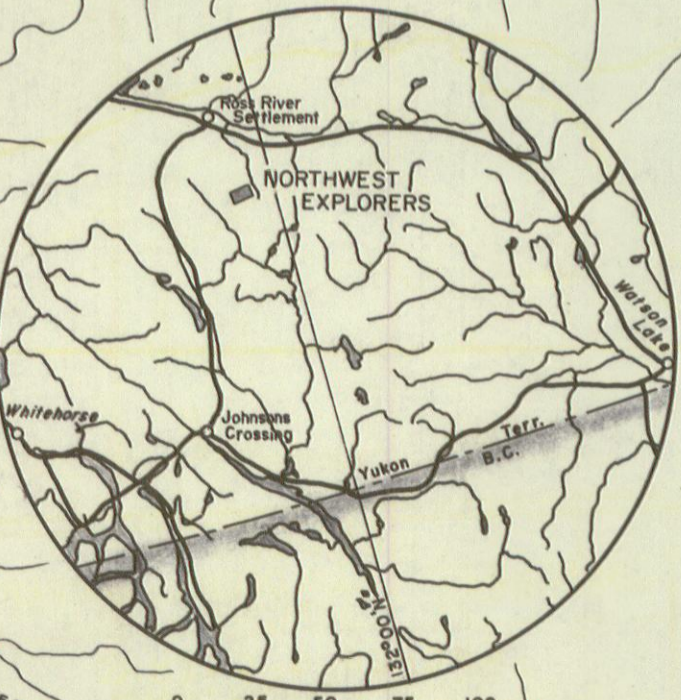
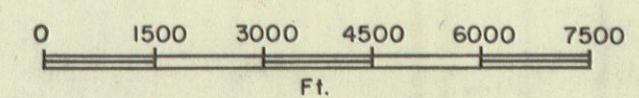
Respectfully submitted,

A.R. Archer, BA.Sc., P. Eng.



LEGEND

- Outline of claims owned or optioned by :- NORTHWEST EXPLORERS
- - - Outline of claims owned by other companies or individuals
- GRID-A — Sharon 49-60 claims
- GRID-B — Sharon 1-47, 89-96 claims
- GRID-C — Suzie, Terry, Verna Option
- GRID-D — Sharon 65-88 claims
- GRID-E — Sharon 97-104 claims
- GRID-F — Sharon 105-120 claims
- GRID-G — Detailed sampling (Sharon 9-14 claims)

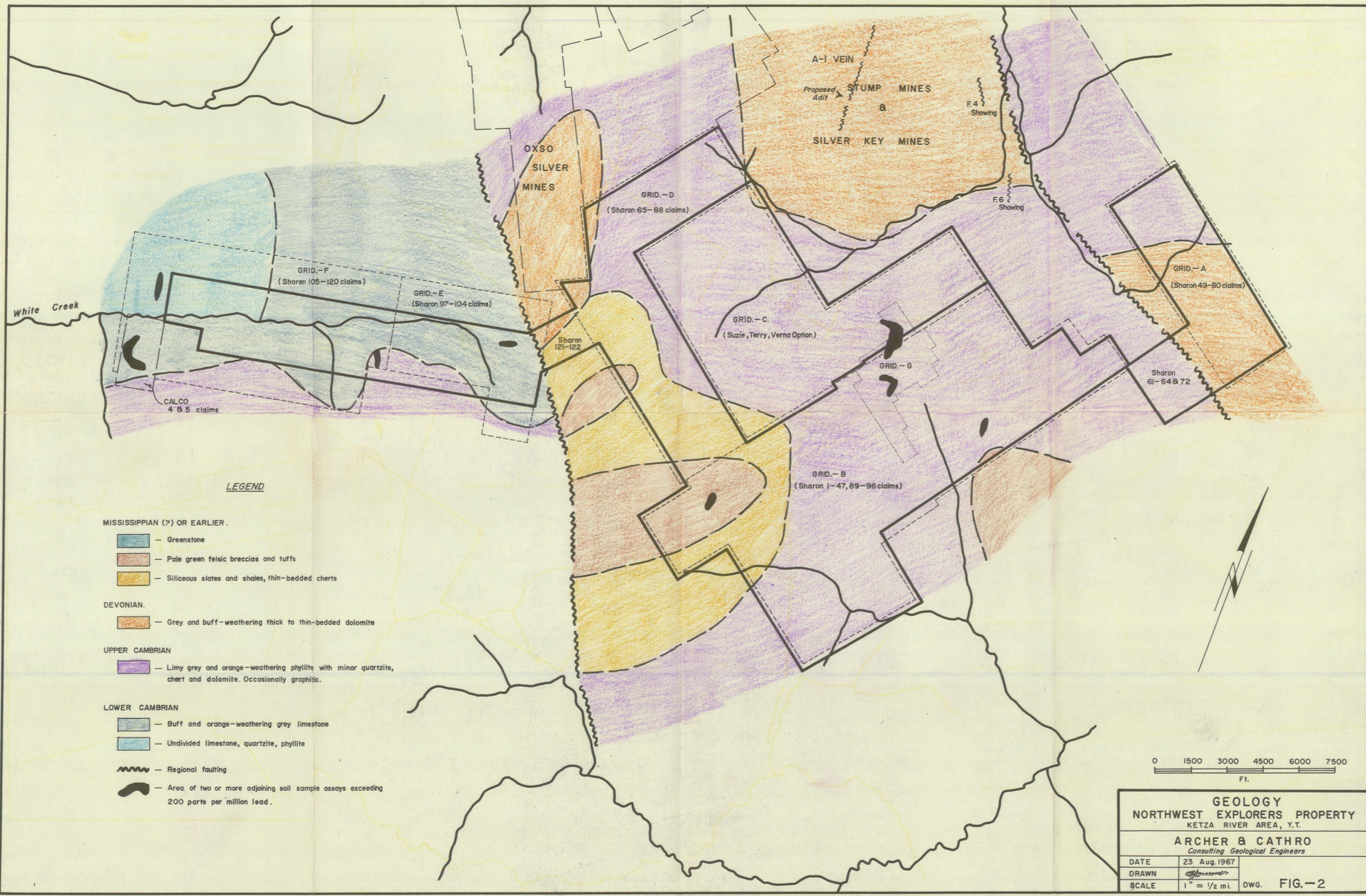


LOCATION PLAN
NORTHWEST EXPLORERS PROPERTY
 KETZA RIVER AREA, Y.T.

ARCHER & CATHRO
Consulting Geological Engineers

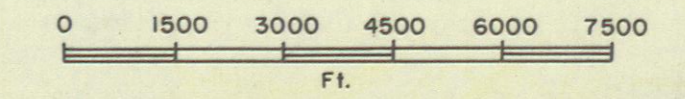
DATE	23 Aug. 1967
DRAWN	<i>[Signature]</i>
SCALE	1" = 1/2 mi.

DWG. FIG. - 1

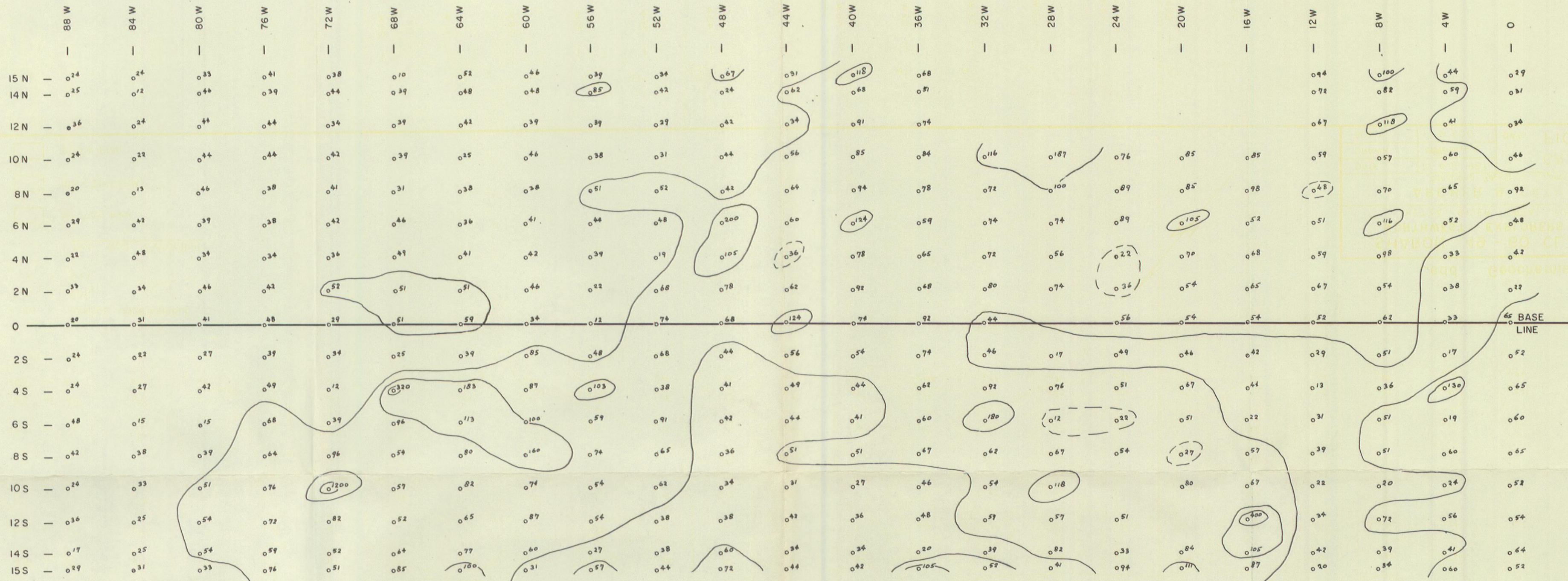


LEGEND

- MISSISSIPPIAN (?) OR EARLIER.
- Greenstone
 - Pale green felsic breccias and tuffs
 - Siliceous slates and shales, thin-bedded cherts
- DEVONIAN.
- Grey and buff-weathering thick to thin-bedded dolomite
- UPPER CAMBRIAN
- Limy grey and orange-weathering phyllite with minor quartzite, chert and dolomite. Occasionally graphitic.
- LOWER CAMBRIAN
- Buff and orange-weathering grey limestone
 - Undivided limestone, quartzite, phyllite
- Regional faulting
 - Area of two or more adjoining soil sample assays exceeding 200 parts per million lead.



GEOLOGY	
NORTHWEST EXPLORERS PROPERTY KETZA RIVER AREA, Y.T.	
ARCHER & CATHRO Consulting Geological Engineers	
DATE	23 Aug. 1967
DRAWN	<i>affonne</i>
SCALE	1" = 1/2 mi. DWG. FIG.-2



SU - SAMPLE UNOBTAINABLE
 o - SOIL
 x - SILT

Hot Acid Extraction

- 50 - 100 PPM.
- 100 - 200 PPM.
- 200 + PPM.

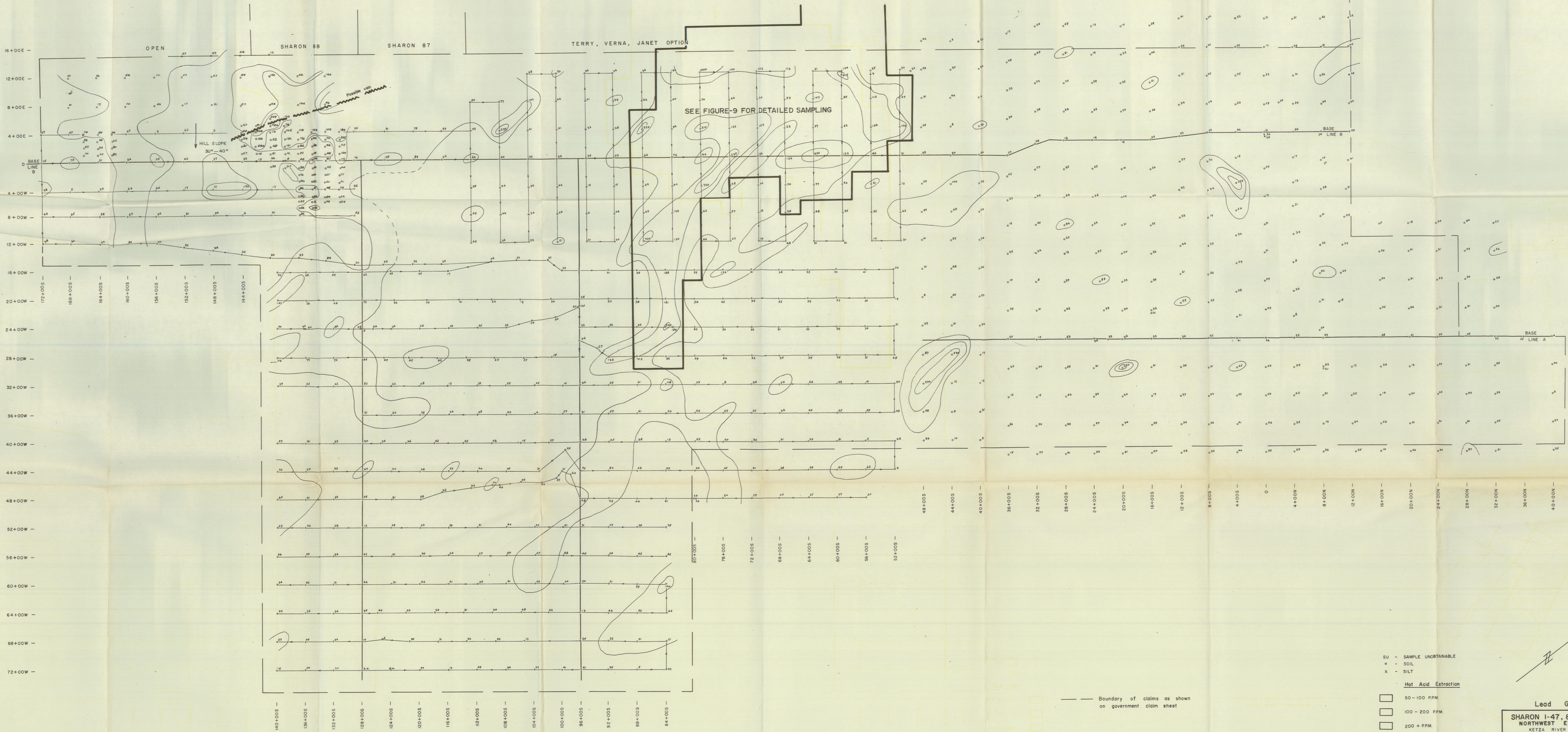
Lead Geochemistry

SHARON 49 - 60 CLAIMS
 NORTHWEST EXPLORERS LTD.
 KETZA RIVER AREA, YUKON

ARCHER & CATHRO
 Consulting Geological Engineers

DATE	10 Aug. 1967
DRAWN	<i>A. Hammer</i>
SCALE	1" = 500'

GRID-A
 DWG. FIG.-3



SEE FIGURE-9 FOR DETAILED SAMPLING

- SU - SAMPLE UNOBTAINABLE
 - o - SOIL
 - x - SILT
- Hot Acid Extraction**
- [] 50 - 100 PPM.
 - [] 100 - 200 PPM.
 - [] 200 + PPM.

Boundary of claims as shown on government claim sheet

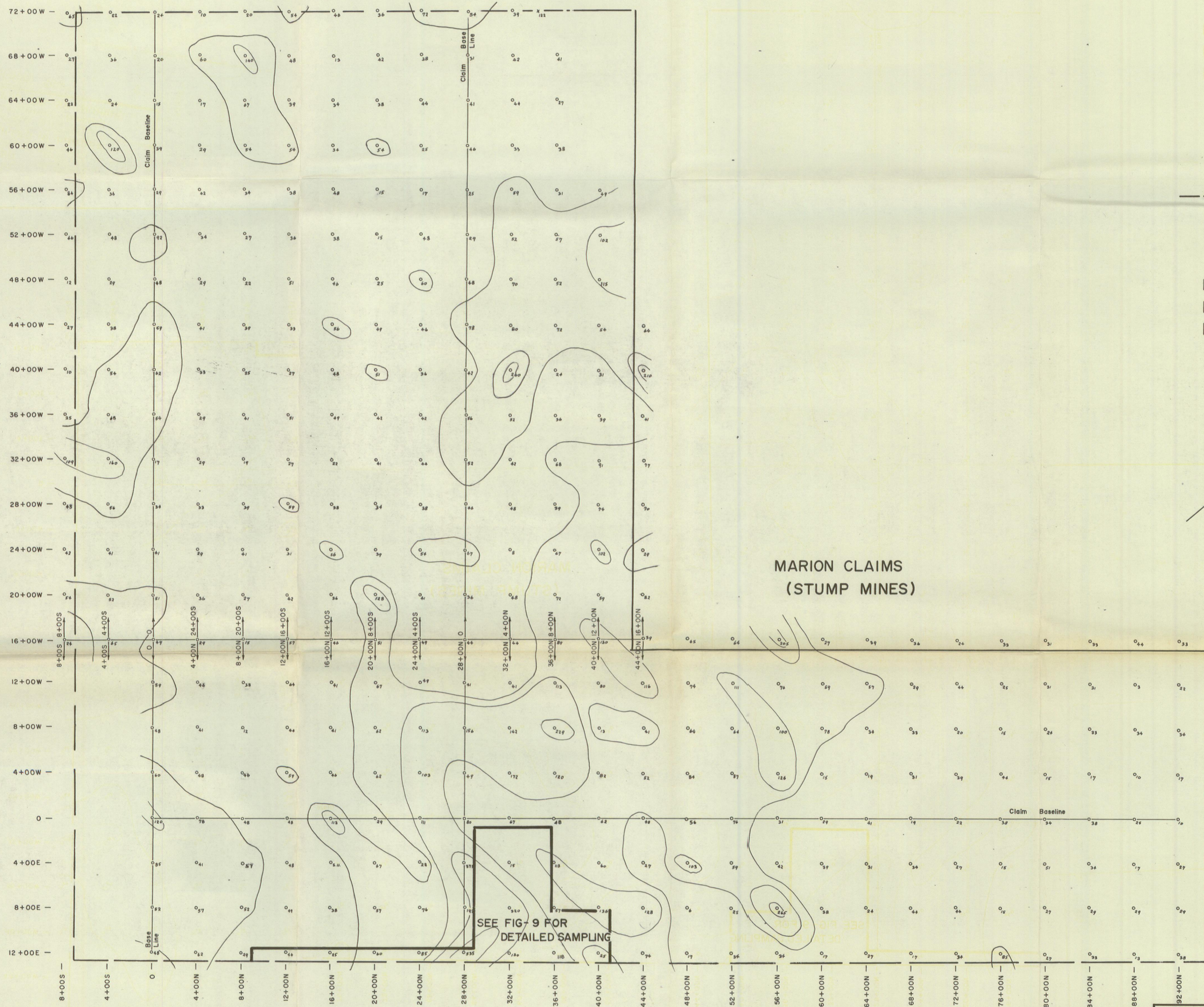
Lead Geochemistry

SHARON 1-47, 89-96 CLAIMS
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ARCHER & CATHRO
 Consulting Geological Engineers

GRID-B

DATE 13 Aug. 1967
 DRAWN [Signature]
 SCALE 1" = 500' DWG. FIG.-4



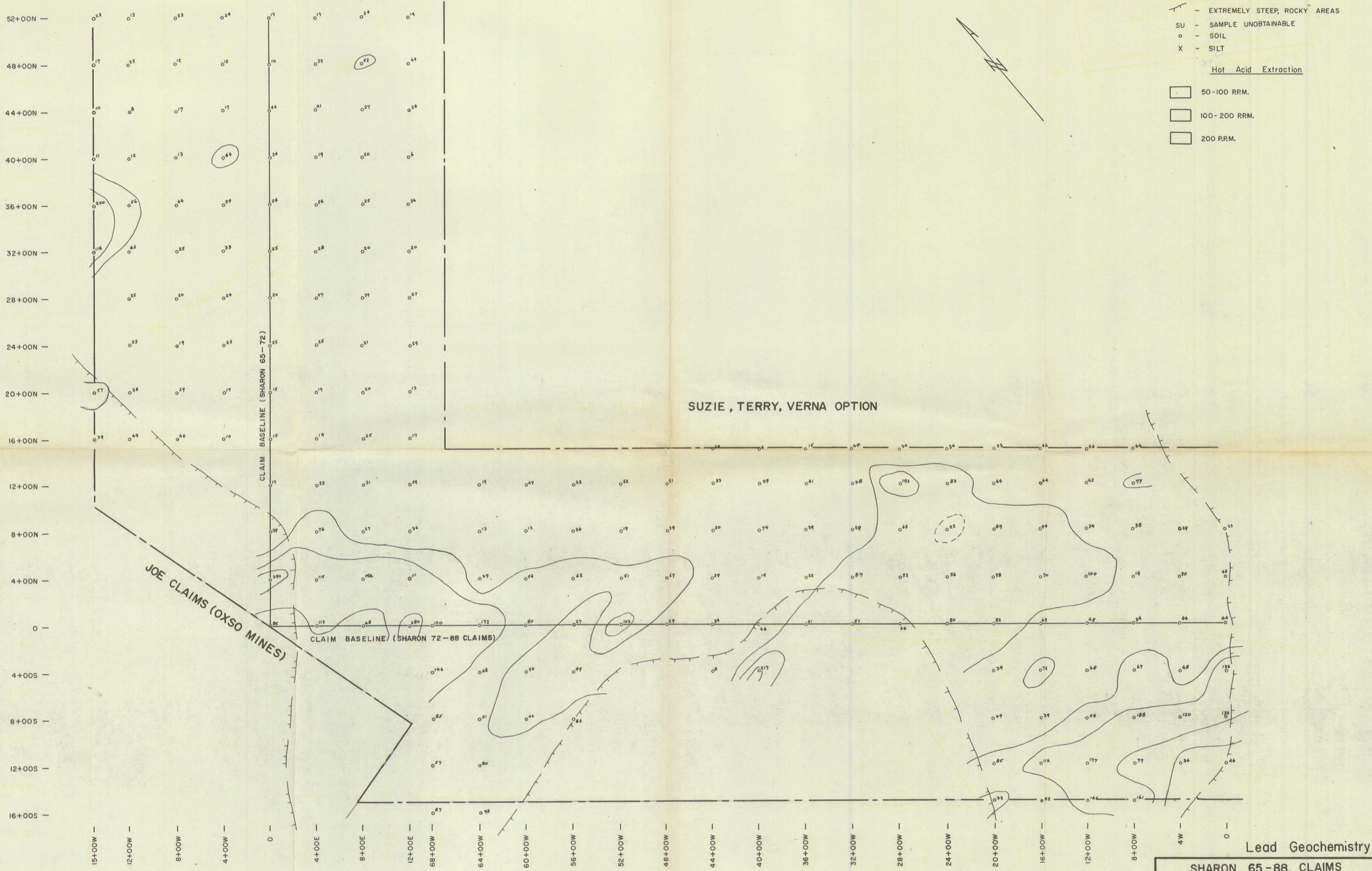
- 50-100 ppm
 - 100-200 ppm
 - 200+ ppm
- Hot Acid Extraction
- 50-100 ppm
 - 100-200 ppm
 - 200+ ppm
- BOUNDARY (Suzie, Terry, Verna Option)
 - SU - SAMPLE UNOBTAINABLE
 - - SOIL
 - X - SILT

MARION CLAIMS
(STUMP MINES)

SEE FIG-9 FOR
DETAILED SAMPLING

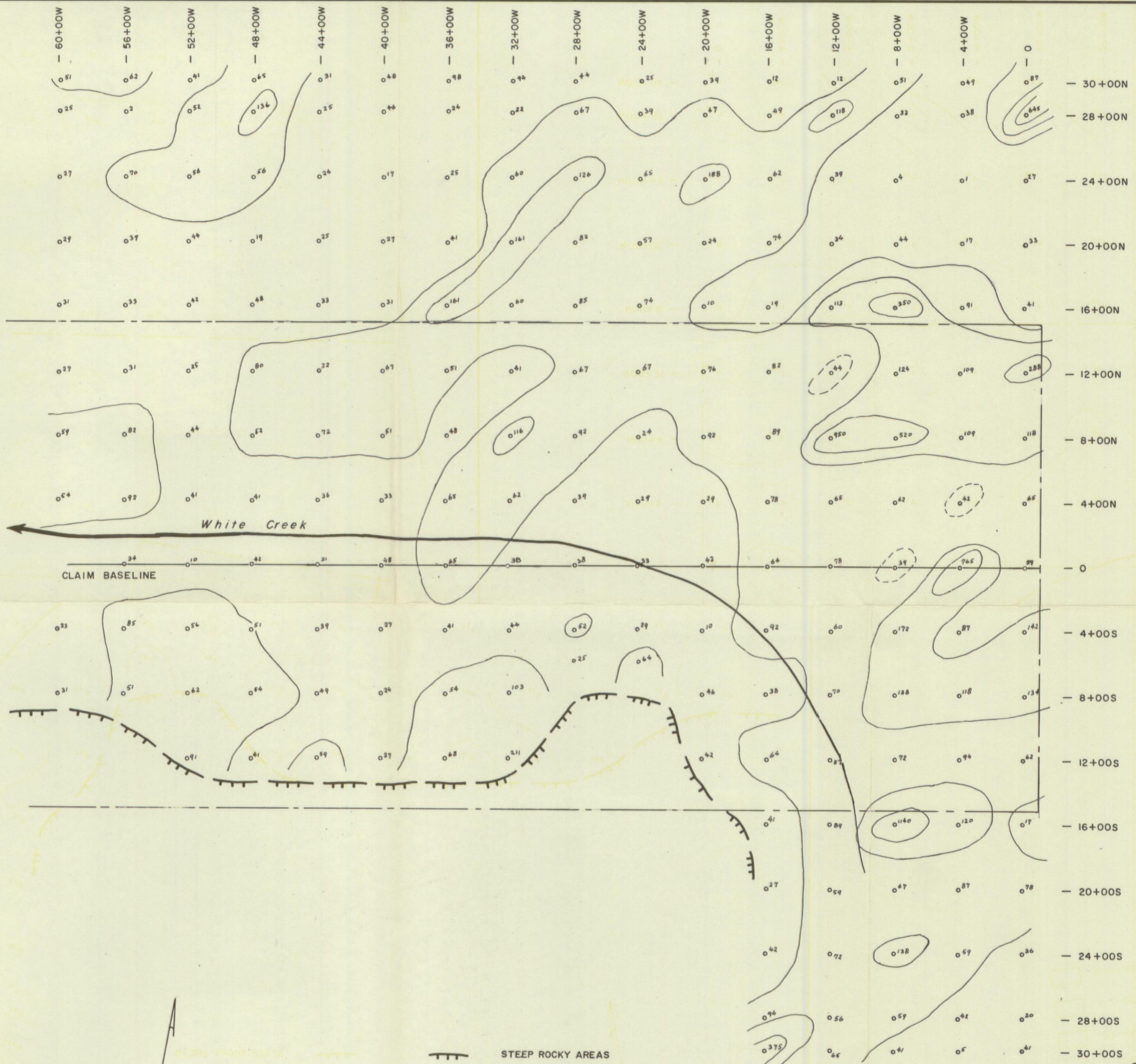
Lead Geochemistry

SUZIE, TERRY, VERNA, JANET OPTION	
Northwest Explorers Ltd.	
KETZA RIVER AREA, Y.T.	
ARCHER & CATHRO	
Consulting Geological Engineers	
DATE	22 Aug. 1967
DRAWN	ARM
SCALE	1" = 500'
	GRID-C
	DWG. FIG.-5



Lead Geochemistry

SHARON 65-88 CLAIMS Northwest Explorers Ltd. KETZA RIVER AREA, Y.T.		
ARCHER & CATHRO Consulting Geological Engineers		
DATE	1 Sept. 1967	GRID-D DWG. FIG.-6
DRAWN	<i>[Signature]</i>	
SCALE	1" = 500'	

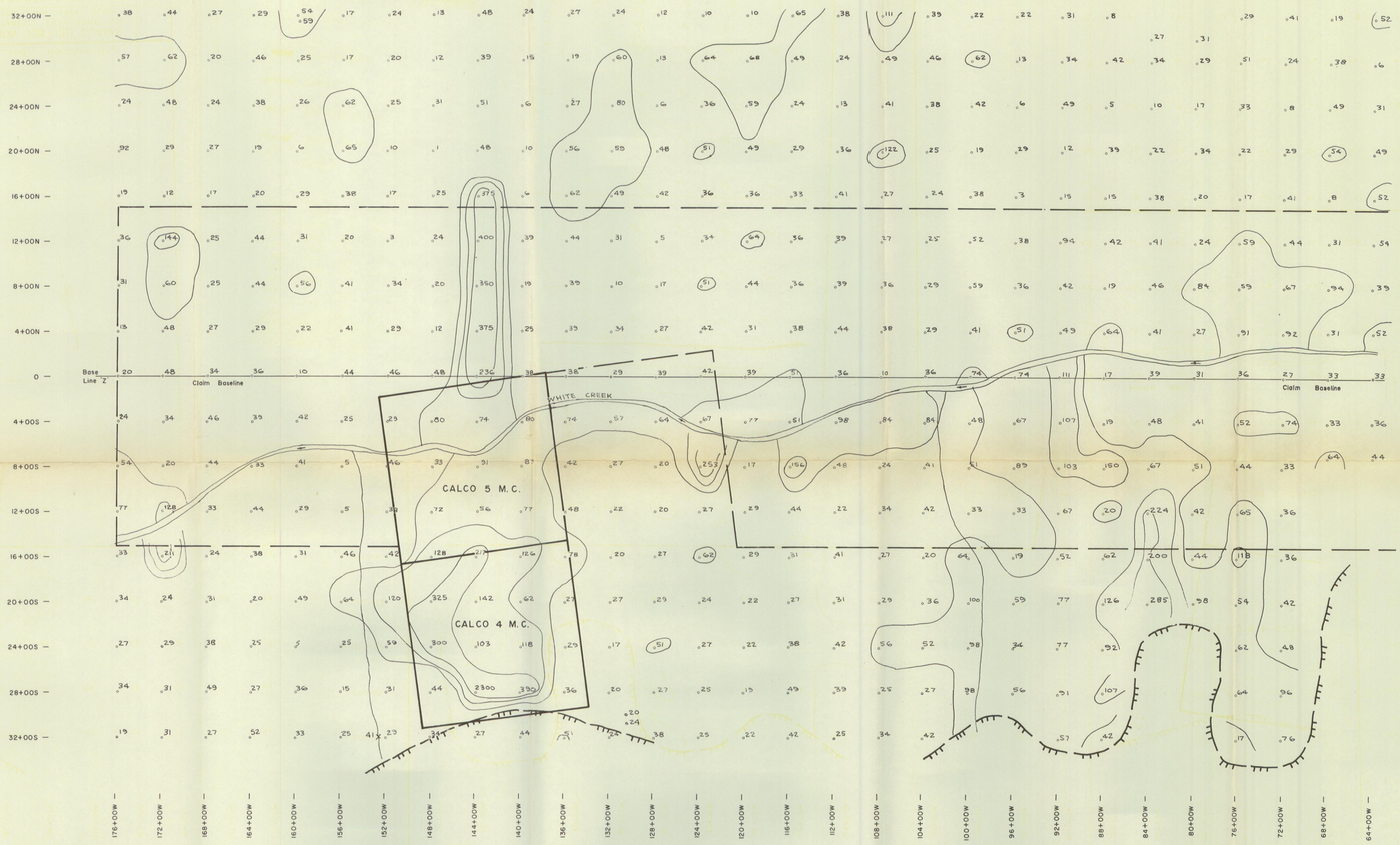


Lead
Geochemistry

- STEEP ROCKY AREAS
- BOUNDARY (Sharon Claims)
- SU - SAMPLE UNOBTAINABLE
- o - SOIL
- X - SILT

- Hot Acid Extraction**
- 50 - 100 PPM.
 - 100 - 200 PPM.
 - 200 PPM.

SHARON 97-104 CLAIMS		GRID-E
Northwest Explorers Ltd. KETZA RIVER AREA, Y.T.		
ARCHER & CATHRO		DWG. FIG.-7
Consulting Geological Engineers		
DATE	1 Sept. 1967	
DRAWN	<i>Atkinson</i>	
SCALE	1" = 500'	



- STEEP ROCKY AREAS
 - BOUNDARY SHARON CLAIMS
 - SU - SAMPLE UNOBTAINABLE
 - o - SOIL
 - x - SILT
- Hot Acid Extraction
- 50-100 ppm
 - 100-200 ppm
 - 200+ ppm

Lead Geochemistry

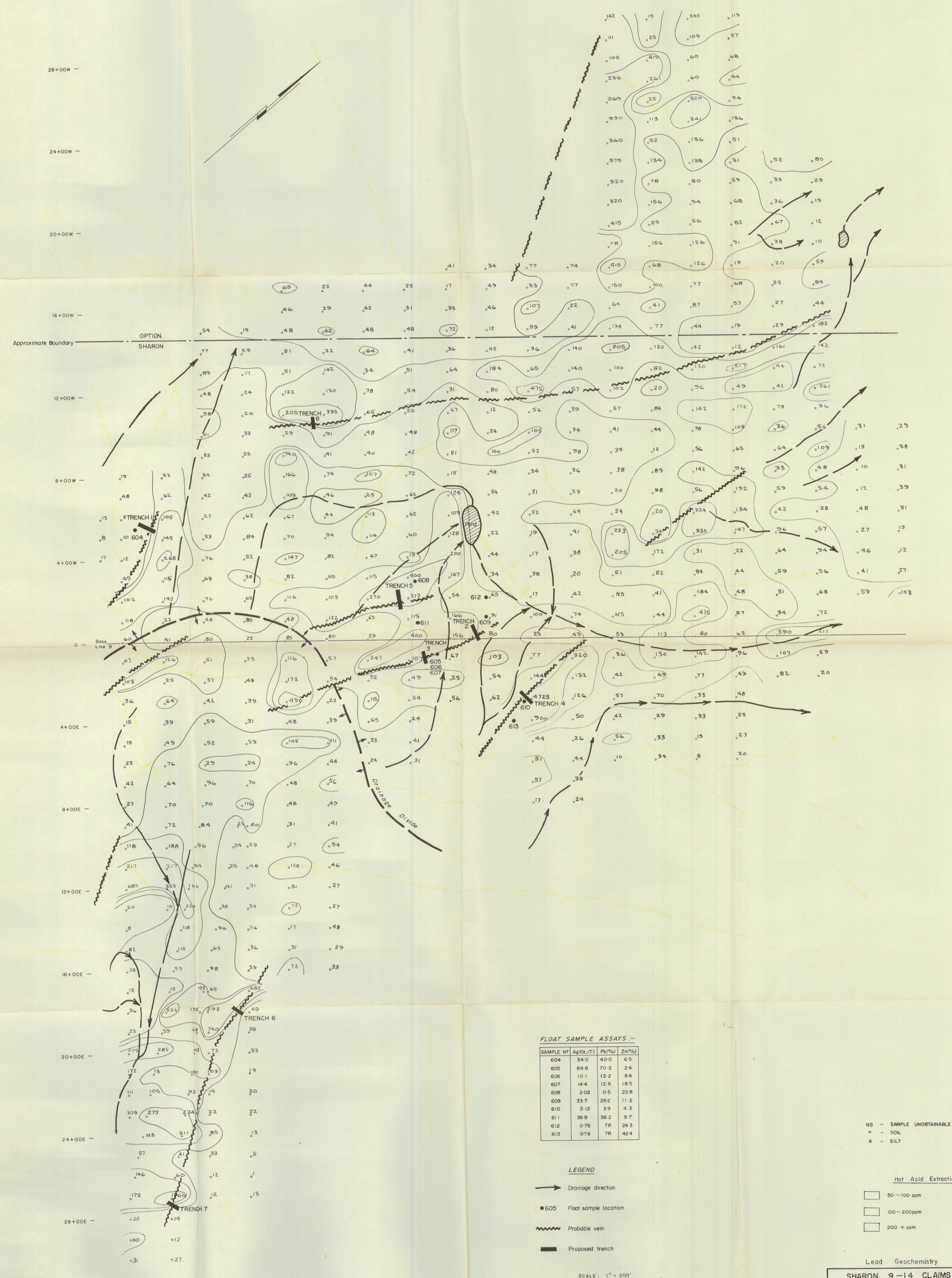
SHARON 105-120 CLAIMS
 NORTHWEST EXPLORERS LTD.
 KETZA RIVER AREA, YUKON

ARCHER & CATHRO
Consulting Geological Engineers

DATE	15 Sept. 1967	GRID-F DWG. FIG-8
DRAWN	<i>[Signature]</i>	
SCALE	1" = 500'	

91+00S — 87+00S — 83+00S — 79+00S — 75+00S — 71+00S — 66+00S — 62+00S — 58+00S — 54+00S — 50+00S —

28+00W — 24+00W — 20+00W — 16+00W — 12+00W — 8+00W — 4+00W — 0 — Base Line — 4+00E — 8+00E — 12+00E — 16+00E — 20+00E — 24+00E — 28+00E —



FLOAT SAMPLE ASSAYS —

SAMPLE NO	Ag (oz./T)	Pb (%)	Zn (%)
604	34.0	40.0	6.5
605	84.8	70.3	2.4
606	10.1	13.2	8.4
607	14.4	12.8	18.5
608	2.02	0.5	22.8
609	33.7	28.2	11.2
610	3.12	3.9	4.3
611	36.9	36.2	9.7
612	0.78	TR	24.3
613	0.78	TR	42.4

NS — SAMPLE UNOBTAINABLE
 o — SOIL
 x — SILT

LEGEND
 → Drainage direction
 ● 605 Float sample location
 ~~~~~ Probable vein  
 — Proposed trench

Hot Acid Extraction  
 □ 50 — 100 ppm  
 □ 100 — 200 ppm  
 □ 200 + ppm

SCALE: 1" = 200'  
 Feet 200 0 200 400 600 Feet

Lead Geochemistry

**SHARON 9-14 CLAIMS**  
 NORTHWEST EXPLORERS LTD.  
 KETZA RIVER AREA, YUKON

**ARCHER & CATHRO**  
 Consulting Geological Engineers

|       |               |             |
|-------|---------------|-------------|
| DATE  | 15 Sept. 1967 | GRID-G      |
| DRAWN |               |             |
| SCALE | 1" = 200'     | DWG. FIG. 9 |