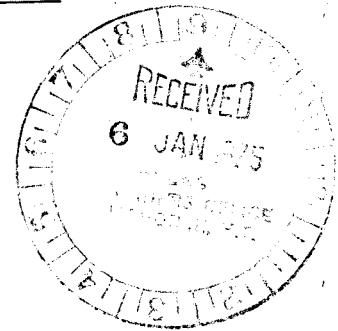


SKYLINE EXPLORATIONS LTD.

MOHAWK GROUP



115-A-3, Whitehorse M. D.



This report has been examined by Yukon Territory  
Geological Evaluation Unit and is  
recommended to the Commissioner to be  
considered as representation work in the amount of  
\$ 5000.00

D. B. Craig  
Resident Geologist or  
~~Resident Mining Engineer~~

Considered as representation work under  
Section 55 (4) Yukon Quartz Mining Act.

P. H. Sevensma  
~~Commissioner of Yukon Territory~~  
ADMINISTRATOR OF THE YUKON TERRITORY

by



P. H. Sevensma, Ph. D. , P. Eng.

Peter H. Sevensma Consultants Ltd.

December 10, 1974

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SKYLINE EXPLORATIONS LTD.

MOHAWK GROUP

115-A-3, Whitehorse M. D.

1. INTRODUCTION

A zone of high-grade silver showings associated with a (quartz) - (hornblende) - feldspar porphyry cutting a highly differentiated diorite to granodiorite intrusive near its contact with the Mush Lake volcanics, has been discovered in the early 1960's about 3 miles west of Dalton Post in the South West Yukon.

The writer spent the period September 8 to September 29, 1974, mapping, sampling, geophysical surveying, soil sampling and bulldozer trenching in the discovery area.

This report summarizes the results of this work.

2. PROPERTY, LOCATION, ACCESS

The property consists of the following claims:

Y21777 - Y21784	STE 113 - 120	January 1, 1975
Y21785 - Y21792	153 - 160	January 1, 1976
Y21793 - Y21798	97 - 102	January 1, 1975
Y21799 - Y21808	103 - 112	January 1, 1976
Y21809 - Y21818	129 - 138	January 1, 1976
Y21819 - Y21828	139 - 148	January 1, 1975
Y21829 - Y21832	149 - 152	January 1, 1976
Y21895 - Y21896	121 & 122	January 1, 1975
Y21897 - Y21902	123 - 128	January 1, 1976
Y78928 - Y78935	Mohawk 1 - 8	May 28, 1975
Y80164 - Y80179	Sky 1 - 16	August 8, 1975

The group is located at about Latitude  $60^{\circ} 07'$  N. and Longitude  $137^{\circ} 07'$  W., between elevations of 1950' and 5000' elevation, on Claim Sheet 115-A-3. The main showings occur between 3100' and 3500' elevation.

The nearest center is Haines Junction. Access is via the Haines road, taking the Dalton Post road about 50 miles south of Haines Junction at about Mile 108. Dalton Post is about 5 miles from the highway, and a 6 mile tote-road, suitable for four-wheel drive, leads to the main showing area.

Access is very easy and the showings lie on an east-facing slope, which is dry and free of permafrost. The formation crosses a canyon in which there is water nearly all summer. There is abundant good spruce in the main Tatshenshini valley up to about a mile from the showings.

### 3. REGIONAL GEOLOGY

The Mohawk Group lies within a belt about 4 to 10 miles wide of late Triassic Mush Lake volcanics stretching for many miles to the northwest, as well as into B. C.

This belt is surrounded by abundant later clastics of the Lower Cretaceous Dezadeash and later Groups, here and there overlain by Tertiary and later volcanic flows and breccias.

The Coast Intrusions are represented by granodiorites, which are at times highly differentiated, ranging from granite to diorite; they invade the Mush Lake volcanics and the Lower Cretaceous Dezadeash Group.

Peridotites also invade the Dezadeash Group; it is believed that they are older than the granodiorites, the former being of Middle Cretaceous age and the granodiorites of Upper Cretaceous age.

Structurally, the above described formations lie west of the Shakwak Fault, which is of continental significance. This fault is north-south about 4 miles east of Dalton Post, swinging to a NW trend near Dezadeash Lake, some 20 air miles further north. It separates the Yukon Schists on the east from the Carboniferous to Tertiary formations on the west.

Minerals of potential economic interest are mainly associated as copper with the Mush Lake volcanics and as placer gold occurring in areas underlain by either the Mush Lake or the Dezadeash.

The elongated narrow belt of Mush Lake is essentially a regional anticline, with the Pre-Triassic Carboniferous to Permian basement exposed irregularly along its core, marked by the Silver-Creek-Duke Depression.

This volcanic Mush Lake belt appears to have formed a regional high as early as Jurassic times, and the presently outcropping areas have

at various times been affected by deep weathering. For instance, the bornite-chalcopyrite showings near Sockeye Lake have a texture reminiscent of a fossil zone of secondary enrichment, at the base of a fossil zone of deep weathering.

This concept should be borne in mind, as it could be of significance in assessing the continuity either at depth or laterally of specific mineral deposits within the Mush Lake structural high.

The Mohawk area is part of a little explored mineral belt extending to the south along the Jackpot Copper showings into the Squaw Range, to the Paddy Creek Copper and the Squaw Creek placer gold.

The Squaw Range is about at the junction of the N. 40°W. trending Musk Lake main belt and a N. 70°W. trending belt of Mush Lake rocks heading into the St. Elias Ice Fields.

In the fork between these belts there is a deep Paleocene basin of conglomerates, sandstone and shale intruded by soda-syenite south-south-east of Bates Lake.

This regional structural anomaly is believed to enhance the potential of the showings in the Dalton Post area.

#### 4. LOCAL GEOLOGY

The Mohawk Group covers part of the easterly contact of an 8 x 3 mile differentiated granodiorite with the Mush Lake volcanics.

To the southwest this intrusive has a one by two mile granitic core. The southwest portion of the Mohawk claims is underlain by various hornblende diorites. Some of the latter are coarse grained and dark, others are light coloured and fine grained. Some form late dykes and most are exceptionally strongly fractured and sheared. The contact with the volcanics lies a short distance east of the showings, crossing the claim group in about a N. 25°W. direction, but this contact was not pinpointed during the 1974 program.

The lower slopes of the 5400' high mountain rising to the west of the showings are covered by fairly coarse talus below about the 3000' level, apparently interfingering with remnants of glacial and lacustrine till reaching up to about 3100'.

The upper slopes are quite strongly dissected, and present the appearance of being underlain by volcanics. This is due to the great variety of highly fractured dioritic rocks, containing small roof-pendants of volcanic remnants at the higher elevations.

The silver-bearing showings lie along both sides of, and occasionally within, a N. 15°-30°W. striking light orangey-grey hornblende-feldspar porphyry dyke up to about 70' wide.

Where mapped, this dyke is very continuous and quite sinuous, strikes varying locally from about north-south to N. 40°W., with an overall average of about N. 25°W. and a steep SW dip of some 65°-75°.

The silver showings lie along both walls of, and occasionally within, the porphyry dyke. When well exposed by trenching,

they are seen to lie within a zone of cream-yellow-white clay alteration up to 2' - 4' wide. The original rock cannot be identified, but the alteration appears to affect both the porphyry and the diorite.

## 5. HISTORY

In the early 1960's, J. Johns and Associates discovered high-silver galena float in the canyon of the east flowing creek which cuts the mineralized zone. Subsequently, mineralization in place was found and some hand trenching was done in the south canyon slope.

In 1969, the property was optioned by a syndicate who built a road into the property and did some bulldozer trenching on a shoulder in the east-west ridge, and reportedly shipped some hand-cobbed ore, said to total about 10 - 15 tons.

Early 1974, Jackpot Copper drilled three short core-holes at about -50° to the west. These holes failed to intersect the 70° west dipping vein, being collared too far east in the footwall.

Later in the season, the writer conducted a small field program on behalf of Skyline Explorations Ltd. , consisting of trenching by hand and bulldozer, gridding, geophysical surveying, soil sampling, and preliminary mapping.

The four old trenches driven some years ago gave the following assay results as sampled by G. Gutrath on July 17, 1974:

<u>Sample Nos.</u>	<u>Trench No.</u>	<u>Width</u>	<u>oz/t Au</u>	<u>oz/t Ag</u>	<u>% Pb</u>	<u>% Zn</u>
5-1 to 5-3	1	6'	. 01	14. 44	. 49	. 56
5-4	2	5'	. 01	2. 88	. 05	. 17
5-5	3	5'	. 02	20. 3	. 78	. 28
5-7	4	3. 4'	. 07	196. 6	26. 8	1. 03

The highest reported examination sample is by Atlas Explorations Ltd., No. 484, July 8, 1969, as follows:

Oz/t Ag.	335.7	% Pb	18.7	% Zn	.48
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## 6. DESCRIPTION OF SHOWINGS

The showing area crosses a short shoulder on the main E-W ridge along the south bank of a deeply incised creek. Trenching, either by hand or by bulldozer on the steep north slope of this ridge towards the creek is impossible, as talus fills any cut practically immediately, and short rock ribs do not allow the use of a bulldozer.

On the ridge itself, a 200' long flat bench has been bulldozed clear and hand trenched, but effective trenching would require a heavy bulldozer with a ripper, as the porphyry is solid and hard in this location, and the vein zone weathered.

On the south slope, bulldozer trenching proved satisfactory, although much of the rock is strongly weathered. Cuts up to 22' deep were made, and in trench 285 South, the character of the vein could be followed down for this distance.

The vein zones within the argillic alteration consist of a hard siliceous gangue with irregular lenses of high sulphide material. Identifiable sulphides consist of highly variable amounts of galena, some sphalerite, very minor chalcopyrite and more complex minerals like stibnite, jamesonite, and probably others. The gangue may contain scattered specks of any of the preceding minerals and usually assays between 1 and 3 oz/t silver.

The following table lists the samples taken by the writer and assayed by the Whitehorse Assay Office.

List of Vein Samples

		<u>Width</u>	<u>% Zn</u>	<u>% Pb</u>	<u>% Ag</u>
001	Hand trench point 4	6"	n. a.	49.7	288.3
525	North, hand trench 3	8"	n. a.	9.23	117.8
526	North, hand trench 3	4"	.79	33.95	298.8
527	South, hand trench 1	22"	2.52	2.85	91.0
529	285 S tr. , 5' down	8"	6.12	10.95	136.8
530	" 6' down	10"	2.46	2.93	124.8
531	" 8' down	12"	5.64	12.77	281.1
532	" 10' down	8"	5.76	5.12	180.8
537	" 15' down	10"	.34	.38	44.9
544	" 20' down	5"	2.40	12.0	88.6
551	" 22' down	6"	3.66	4.35	122.3
553	Trench BL+ 165 S	8"	3.72	18.89	187.7
	Total	107"	33.41	163.12	1963.0
	Arithmetical Average	9"	3.34	13.6	163.6
	Weighted Average	9"	3.30	10.5	151.0

Assays of Hard Siliceous Gangue

					<u>oz/t Au</u>
528	285 S tr. , 5' down	float	n. a.	n. a.	1.54 .005
545	" 20' down	12"	.28	.07	1.92 .005

These are representative of the average gangue.

Other arithmetical averages:

	Au .044	Cu .17	As 3.34	Sb 2.71
(No. of samples)	(11)	(8)	(4)	(9)

In summary, the trenched occurrences contain sulphides in discreet lenses within a low-grade siliceous gangue usually at least about 1'-1-1/2' wide and enclosed in argillic walls, the total zone usually measuring

from 3' - 6' wide. The structures and gangue are continuous, but the high sulphide zones are lensy where opened up so far; in trench 4 at station 3, however, the sulphide width is much greater, but the length is unknown.

The areas trenched recently are only those that were accessible and the old high grade trenches on the canyon slope, where the zone is up to 3.4' wide assaying 196.6 oz/t Ag, could not be further opened. It is believed that only core-hole drilling can be used to assess true width and grade in these locations.

Recent sampling of sulphides covers a horizontal length of about 500', from trench 285 S to trench 4 at station 3 in the canyon.

To the southeast, the zone is reported to exist in a road cut about 500' to the southeast and 200' in elevation below the bench.

In this direction, the lower road is about 600' from the bench and about 350' lower, but the reported occurrence could not be located, due to sloughing of the road bank. One soil sample I in this area showed 38 ppm Pb and 4.2 ppm Ag and is anomalous in comparison to all other samples taken along this old road. Also, two samples on line 460 S, 150' W. and 200' W., are anomalous, both with 21 ppm Pb, and respectively 6.0 and 6.2 ppm Ag. This again is directly below sample G-55 on the new road, about elevation 3400', 22 ppm Pb and 4.8 ppm Ag. These five samples and above reconnaissance sample F of the same magnitude may reflect the presence of another zone west of the dry gully. The latter is thought to reflect a fault, as it appears to cut off the porphyry lying on its east side.

To the NNW across the canyon, no clear porphyry was observed but at the top of the steep slope north of the canyon, the following two soil samples are anomalous and some altered porphyry was observed:

G 24	2550 ppm Pb	73.0 ppm Ag
G 25	52 ppm Pb	4.2 ppm Ag

G 24 is at about 400' N. from the last trench on the bench, and this highest assay encountered in all soil sampling suggests strongly that significant silver values continue north of the canyon.

We may conclude that although the continuity of the sulphide mineralization opened up so far has not been established, the average grade on, and southeast of, the bench, is of the order of 150 oz/t across 9", corresponding to about 20 oz/t across 6', which is considered a commercial value. To the north in the canyon the intersection increases to 196.6 oz/t Ag across 3.4'. The veins and porphyry dyke structure are persistent and continuous and in view of the sinuosity of the porphyry dyke, the latter is expected to control significantly the distribution of the sulphides.

The probability of finding higher grade and wider shoots than those opened up recently is therefore considered excellent.

## 7. SOIL SAMPLING

Soil samples were taken on grid lines 50' apart, with sample spacing of 25' - 50', after initial reconnaissance had shown several high values southeast of the bench.

All samples were taken below the organic cover, in soils often charged with local rock fragments, which were rejected in the course of sampling.

One relatively widespaced traverse G-1 to G-67 was made by G. Gutraht, and a more restricted one by the writer, A to N, for a total of 81 samples.

The grid was then established and another 84 samples taken, using a pick and a stainless steel trowel to depths of as much as 24" below the existing root system and in a mixture of B and C horizon. Samples were collected in kraft paper bags, dried in camp and submitted for analysis to the Whitehorse Laboratory of Barringer Research.

All samples were assayed for Pb, Ag, Cu and Mo. Hot extraction on 500 mgm by  $\text{HClO}_4$  was used, and analysis in ppm was obtained by Atomic Absorption.

As the survey was made under good geological control, a statistical analysis of the assay data is not required.

Values fell in the following categories:

Background:	1 - 2.9 ppm Ag	10 - 29 ppm Pb
Threshold:	3 - 5.9 ppm "	30 - 59 ppm "
Anomalous:	6 - 12 ppm "	60 - 119 ppm "
Strongly anomalous:	Over 12 ppm	Over 120 ppm

Silver values definitely spread beyond the lead values of the same class.

Great care was taken not to sample any areas that may have been contaminated by mining activities.

The survey (figure 3) revealed a very well defined anomaly with five central silver values between 10.4 and 25.5 ppm Ag and 42 to 830 ppm Pb, surrounded by a halo of from 6.0 - 9.6 ppm Ag and 66.0 - 190 ppm Pb along the dry gully. The anomalous values were found specifically over or near fractured diorite and coarse diorite from 40 - 100' east of the sulphides, and not over the latter.

Subsequent rock sampling in bulldozer trenches 285 S and 385 S confirmed that both the creamy clay and an altered red diorite invaded by the porphyry show the highest lead and silver values in the footwall rocks.

The porphyry itself lies within the threshold zone in the soil, and assays of this rock showed background values only; it is devoid of sulphides, but carries frequently very thin 2 - 5 mm needles of hornblende.

Significant rock samples are as follows, as assayed by the Whitehorse Assay Office:

<u>No.</u>	<u>Location</u>	<u>Length</u>	<u>ppm Zn</u>	<u>ppm Pb</u>	<u>ppm Ag</u>
538	285 S tr. , FW vein	2'	200	416	40.0
540	285 S tr. 8'E. of vein	15'	184	200	17.2
549	385 S tr.	3'	120	272	19.0
552	285 S tr.	10'	304	328	9.2

Rock types of the above samples are:

- 538 Cream-white clay alteration in FW of vein.
- 540 15' wide cream-white clayey zone.
- 549 3' wide altered dark diorite, some blue quartz, adjoining a clay zone.
- 552 10' wide red altered diorite, capping some hornblende-feldspar porphyry.

All 12 other rock samples taken in the trenches showed from 0.6 to 5.0 ppm Ag, 8 to 48 ppm Pb, and 48 to 720 ppm Zn, as assayed by Whitehorse Assay Office.

The assay report of these 16 samples is attached as an appendix.

Total geochemical samples taken are:

Soil Samples: G1-67, A - N and 84 on the grid	=	165
Rock Samples		<u>16</u>
Total Geochemical samples		<u>181</u>

The most remarkable soil sample of 2550 ppm Pb and 73. 0 ppm Ag was found on strike north of the canyon at G-24, and it is obvious that the follow up further to the northwest of this sample should have the first priority in a further program.

This assay indicates that soil sample values increase from south to north from a maximum of 830 Pb/25. 5 Ag to 2550 Pb/73. 0 Ag. , the Pb/Ag ratio being respectively 32 and 35.

Similarly, the average of the sulphides on and south of the bench is 9" of 10. 5% Pb and 151. 0 oz/t Ag compared to the trench at survey point 3 of 3. 4' of 26. 8% Pb and 196. 6, also suggesting an improvement to the north. The weighted average of these two is 25. 9% Pb and 188. 4 oz/t Ag across 25", or about 8% Pb and 63 oz/t Ag across 6'.

Values of Cu and Mo were not found to be significant, except for a value of 11 ppm Mo at the high Pb + Ag point G-24.

## 8. GEOPHYSICAL SURVEY

The grid was laid out on the basis of the strike of the indicated porphyry dyke and of the presence of some significantly anomalous reconnaissance soil samples. Grid soil-sampling was undertaken after the EM survey.

Lines 110 S, 160 S, 260 S, 360 S and 460 S were surveyed with the Crone shootback instrument, Model CEM, at 50' and 100' spacing.

The following responses were obtained: 100 S, 25 W (near vein) and 175 W (fault in gully? ); 160 S, 125 W, 12 (fault in gully? ); 260 S, 25 E, 14, strong and clear; 360 S, 25 E and 460 S, 175 E, both very weak and sub-anomalous.

The strongest response of 14 occurred on line 260 S, station 25'E. Subsequently it was found that this station revealed the strongest soil anomaly in the grid, i. e. , 830 ppm Pb and 25.5 ppm Ag.

Subsequent trenching on 285 S showed a vein striking N. 45°W, dip 70° SW at about station 8'W, a 15' wide clay zone from 2'E to 17'E, and red altered diorite penetrated by some porphyry from 17'E to 34'E.

Rock assays were:

15' Clay:	No. 540	220 ppm Pb	17.2 ppm Ag
10' Diorite:	No. 552	328 ppm Pb	9.2 ppm Ag

The coincidence of the strongest EM response with the strongest silver-lead soil anomaly is remarkable. As clay usually forms both walls of the sulphides, there is a distinct possibility that both coinciding responses are due to a significant concentration of sulphides rather than to a clay body. The north face of the trench is 25' south of 260 S.

This should be investigated by one or two core holes drilled in a NE direction from a point in Trench 285 S.

Similarly, the vein in trench No. 1 on the bench, as well as the porphyry, can easily be cut by a hole drilled to the NE from a point on the old road where our trenching was started.

## 9. TRENCHING

An old International cat with hydraulic blade was used to cut two main trenches across the area visually estimated to be of interest, and a shallower trench on the bench. A total of 800' of trenching was completed, with a minimum width of 12' and to a maximum depth of 22'. About 300' of the deepest part was in rock, the surface sloping about 35°. Estimated yardage is  $800 \times 12 \times 10 \div 27$ , or about 3600 cubic yards.

Yards of soil:	$5/8 \times 3600$	=	2250 cubic yards
Yards of rock:	$3/8 \times 3600$	=	<u>1350 cubic yards</u>
	Total		<u>3600 cubic yards</u>

Trench 285 S provided an excellent section, including a 12" wide vein alternating between low-grade gangue and high-grade with about 50% sulphide mineralization in lenses; porphyry, clay and diorite, the total section of interest being about 140' long.

Trench 385 S intersected disjointed vein gangue and clay between sandy porphyry and diorite, but no sulphides. A 3' wide zone of light brown to cream clay assayed: No. 548, 272 ppm Pb, 19 ppm Ag.

The porphyry is adjacent to the gully, with only about 8' identifiable east of the gully.

The shallower trench on the bench, about 8' deep and 50' long, exposed a narrow high-grade lens in a low-grade gangue with about one foot of clay on either side, the sulphides assaying 18.89% Pb and 187.7 oz/t Ag.

## 10. ORE POSSIBILITIES AND FURTHER PROGRAM

The position of the known showings in relation to the diorite-volcanics contact (figure 1), as well as the indicated increasing amounts of silver-lead in a northerly direction, suggest very strongly that the intersection of the porphyry dyke with the diorite-volcanics contact may well be the principal control of the mineralization in the area. The known showings would, in that case, represent the southerly tail-end of the mineralization.

The potential of this intersection cannot be assessed at this time, but it could be very significant. The sketch on figure 5 shows diagrammatically what may occur at this contact.

In view of the fact that all sulphides present average at least 150 oz/t Ag, i. e. , a gross value in excess of \$600 per ton, this property has a potential for the discovery of a high-grade bonanza. As this is as yet only a working hypothesis, it would be rash to assign any tonnage figure to this possibility.

However, a body of these sulphides 5' wide by 120' long and 120' deep would represent 10,000 tons, and a body 5' wide, 400' long and 400' deep would represent 100,000 tons.

In the writer's view, the curving contact zone and the strong porphyry dyke, which is also widening towards the north, suggest a very significant structure at their intersection. In order to provide an order of magnitude of what may be found, the writer thinks that a potential of 100,000 tons is a very conservative estimate, and that one may reasonably assume anything between 100,000 and 500,000 tons.

This possibility can be assessed at a very low cost by simply extending the base line from point 24 to the north until the volcanics-diorite contact is found, soil sampling at close spacing of 50' the full length of this distance and using grid lines east and west 500' long every 200'.

The writer therefore recommends an aggressive program of surface exploration towards the north, as well as more accurate and more extensive surveying, geological mapping and soil-sampling beyond the immediate showing area between the upper and the lower road.

There are two easily drillable targets available now by setting up in the gully where it crosses trenches 285 S and 385 S, but more attractive targets are expected to be found towards the north. No less than 2000' of drilling should be allocated to the project. Drilling should, however, not start until surface exploration of the extension to the north has been completed, and a balanced evaluation of the complete area has been obtained.

11. ESTIMATED COST

Our cost estimate is as follows:

A. Phase 1 - Surface Exploration

Airphoto topo map	\$ 1,000.00
Geologist and helper, 2 man-months	4,500.00
Surveyor and helper, 2 man-months	4,000.00
Cook, 1 man-month	1,000.00
Camp construction	2,000.00
Camp operation, 150 man-days @ \$15.00	2,300.00
Transportation, 4-wheel drive	1,500.00
C. P. Air	1,200.00
Soil samples, 500 @ \$6.00	3,000.00
Assaying	500.00
Communications, phone, radio	<u>500.00</u>
	\$21,500.00
Contingencies, 10%	2,200.00
Engineering, 10%	<u>2,500.00</u>
Total field budget, Phase 1 . . . .	<u>\$ 26,200.00</u>

B. Phase 2 - Core Drilling

Bulldozer, 150 hrs. @ \$50.00	\$ 7,500.00
Drilling, 2000' @ \$16.00 overall	32,000.00
Mobilization, camp	<u>3,000.00</u>
	\$42,500.00
Contingencies, 10%	4,250.00
Engineering, 10%	<u>4,750.00</u>
Total field budget, Phase 2 . . . .	<u>\$ 51,500.00</u>

## 12. SUMMARY AND RECOMMENDATIONS

The Mohawk Group, accessible by about 11 miles of truck road from the Haines Highway at Mile 108, covers a significant occurrence of high-silver sulphides associated with a 30' - 70' wide sinuous (hornblende)-feldspar porphyry dyke invading a highly differentiated diorite intrusive some 2000' away from the latter's NE contact with the Mush Lake volcanics.

The 1974 program has established high silver values in veins of up to 298.8 oz/t and in soils up to 2550 ppm Pb and 73.0 ppm Ag for a length of about 600 feet, and lying along both walls of the porphyry dyke. This dyke dips about 70° to the southwest. Values and widths increase to the north; the south end is believed cut off by a fault, beyond which other weak but significantly anomalous silver values have been found in reconnaissance work. The total length, open to the north, of silver values, exceeds 1200'.

The occurrence forms part of a belt of showings extending northward close to volcanic-intrusive contacts from Squaw Creek gold placers, Paddy Creek Copper and Jackpot Copper to the Mohawk.

The 1974 field work indicates that the amount of valuable minerals in the Mohawk structure increases towards the north and an aggressive program of surface exploration is recommended to trace the veins towards the volcanic-intrusive contact several thousand feet to the north, which is likely to be the major control of the mineralization.

The probability of finding a high-grade bonanza type deposit in the vicinity of this contact is judged to be sufficiently high by the writer to rate this property as an outstanding prospect with sulphide occurrences averaging of the order of 150 oz/t Ag, i. e., a gross value per ton of the order of \$600.00.

It is estimated that, providing there are no metallurgical problems, a mill feed of 40 oz/t Ag would be highly profitable at \$4. 00 per ounce of silver in this exceptionally easily accessible location.

A firm two-phase program is recommended, to consist of further surface exploration with a field budget of \$26, 200. 00 and of bulldozer work and core-hole drilling with a field budget of \$51, 000. 00, for a total budget of \$87, 200. 00.

Respectfully submitted,

A handwritten signature in cursive script, reading "P. H. Sevensma", written over a horizontal line.

P. H. Sevensma, Ph. D. , P. Eng.

PETER H. SEVENSMA CONSULTANTS LTD.

Burnaby, B. C.

December 10, 1974

CERTIFICATE

I, Peter H. Sevensma, of 7052 Sierra Drive, Burnaby,  
B. C. , DO HEREBY CERTIFY:

1. That I am a Consulting Geologist with business address as above.
2. That I am a graduate of the University of Geneva, Switzerland, where I graduated in 1937 and obtained my Ph. D. in Geology and Mineralogical Sciences in 1941.
3. That I am a Registered Professional Engineer, member of the Association of Professional Engineers of British Columbia and of the Association of Professional Engineers of Yukon Territory.
4. That I have practised my profession for the past 36 years.
5. That I have personally conducted the work program described in the Mohawk Report between September 8th and 29th, 1974.
6. That I have no interest, directly or indirectly, in any of the securities or properties of Skyline Explorations Ltd. and do not expect to acquire or receive any.

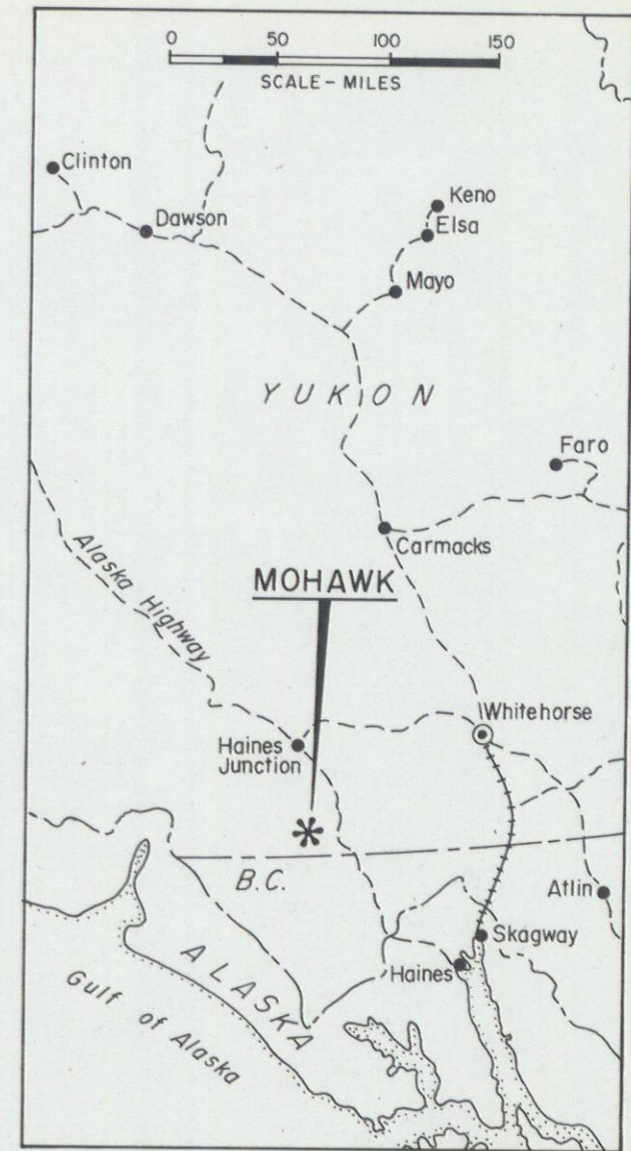
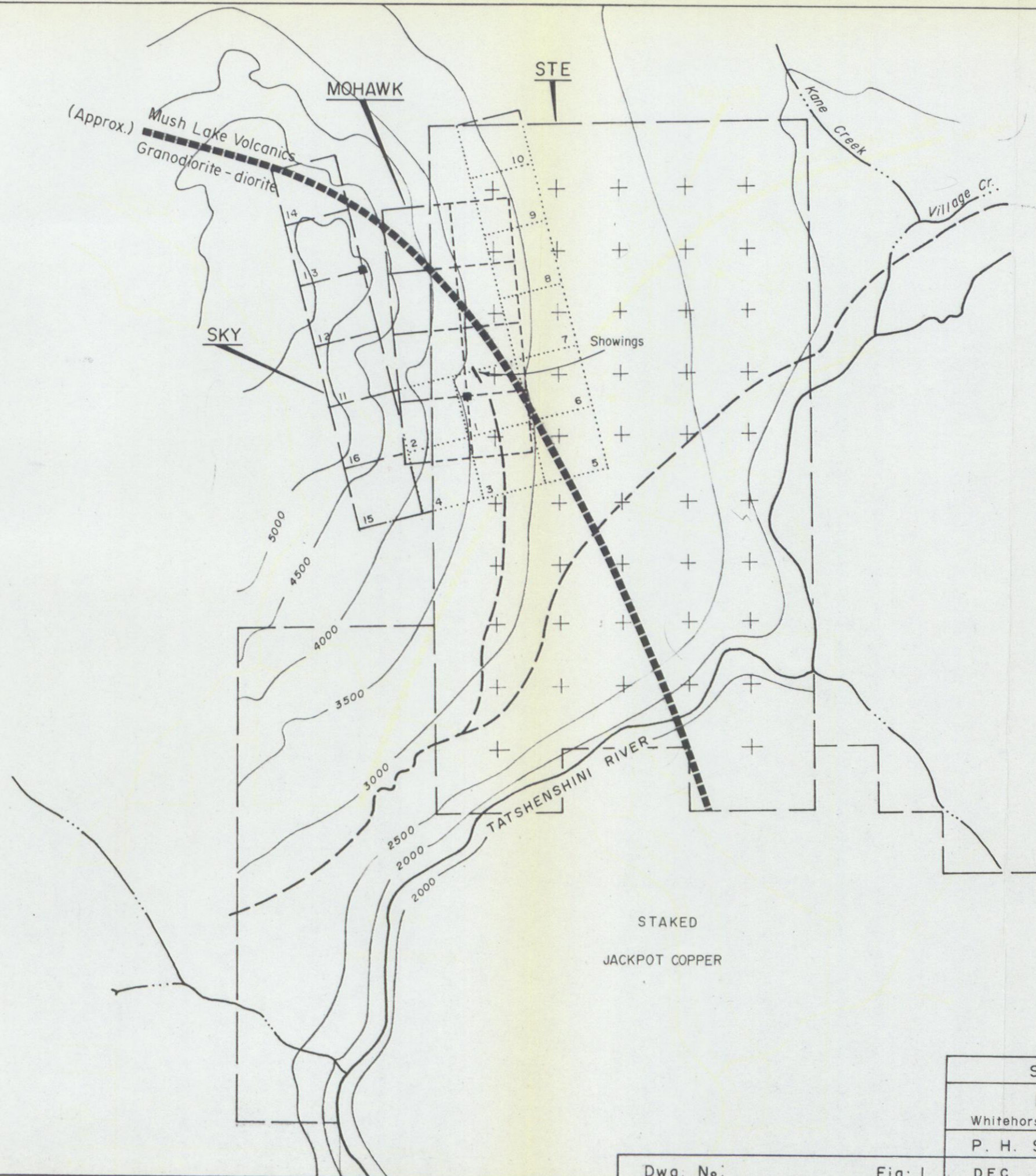
A handwritten signature in black ink, appearing to read 'P. H. Sevensma', with a horizontal line underneath it.

P. H. Sevensma, Ph. D. , P. Eng.

APPENDIX 'A'

Statement of Costs incurred in a combined Geological-Geochemical-Geophysical Survey on the Mowhawk, Sky and STE mineral claims.

Peter H. Sevensma Consultants Ltd.	
Professional Services, Field Work .....	\$ 3,000.00
"                    "            Report Preparation.....	600.00
Field and Travel Expenses.....	712.81
Typing and Printing Costs.....	60.00
M. Cloutier, Prospector.....	300.00
W. Shiftlet, Equipment Operator.....	550.00
B. Ver Wilgher, Blaster.....	850.00
Barringer Research, Assays.....	163.80
Avis Rent-A-Truck .....	428.42
Altair Drafting Services Ltd.....	34.34
G. Gutrath, P.Eng. Fees and Services.....	2,650.82
H.S. Aikins Explorations Services Ltd.....	143.50
	<hr/>
<u>TOTAL</u>	<u>\$9,493.69</u>

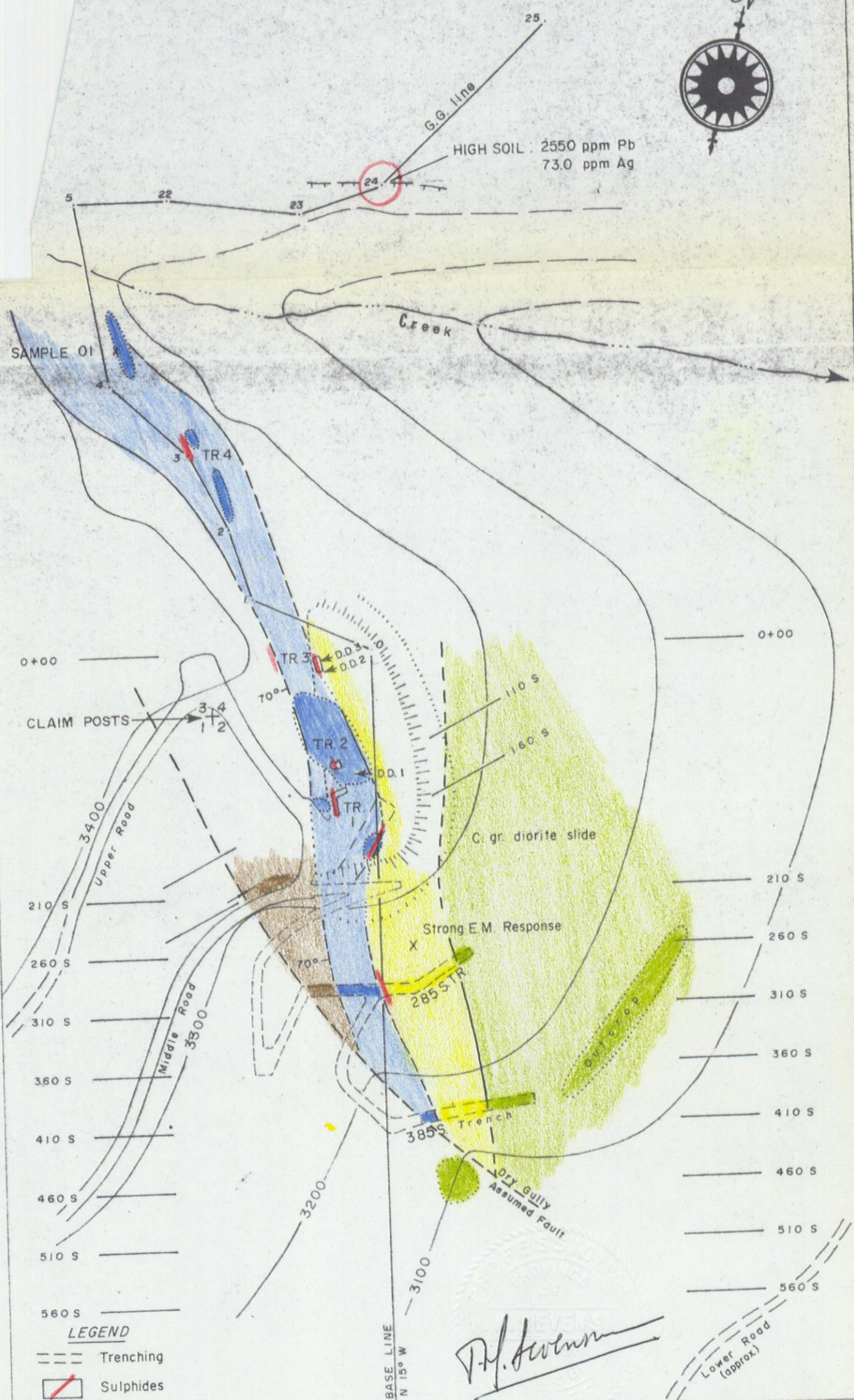


*P. H. Sevensma*

STAKED  
JACKPOT COPPER

SKYLINE EXPLORATIONS LTD. (N.P.L.)	
MOHAWK GROUP - CLAIM LOCATION	
Whitehorse M.D., Y.T.	115 A-3
P. H. Sevensma Consultants Ltd. Vancouver, B.C.	
DEC. 1974	Scale: 0 2640 ft.

Dwg. No. Fig: 1

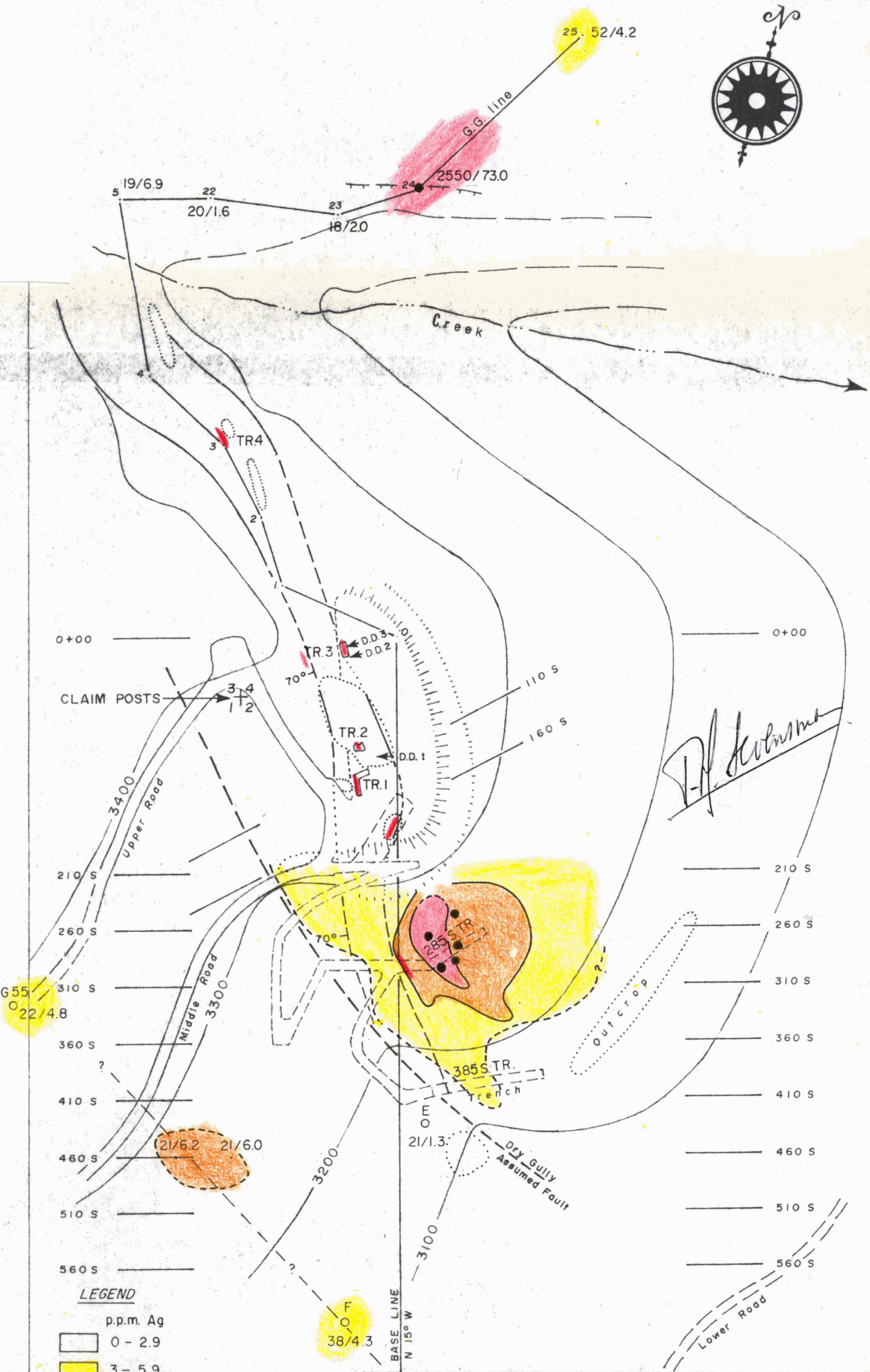


**LEGEND**

- Trenching
- Sulphides
- Porphyry
- Altered diorite
- Fract. f.gr. diorite
- Coarse diorite
- Roads

SKYLINE EXPLORATIONS LTD. (N.P.L.)		
MOHAWK GROUP-GEOLOGY		
Whitehorse M.D., Y.T.	115 A-3	
Peter H. Sevensma Consultants Ltd., Vancouver, B.C.		
DEC. 1974	Scale:	Fig: 2



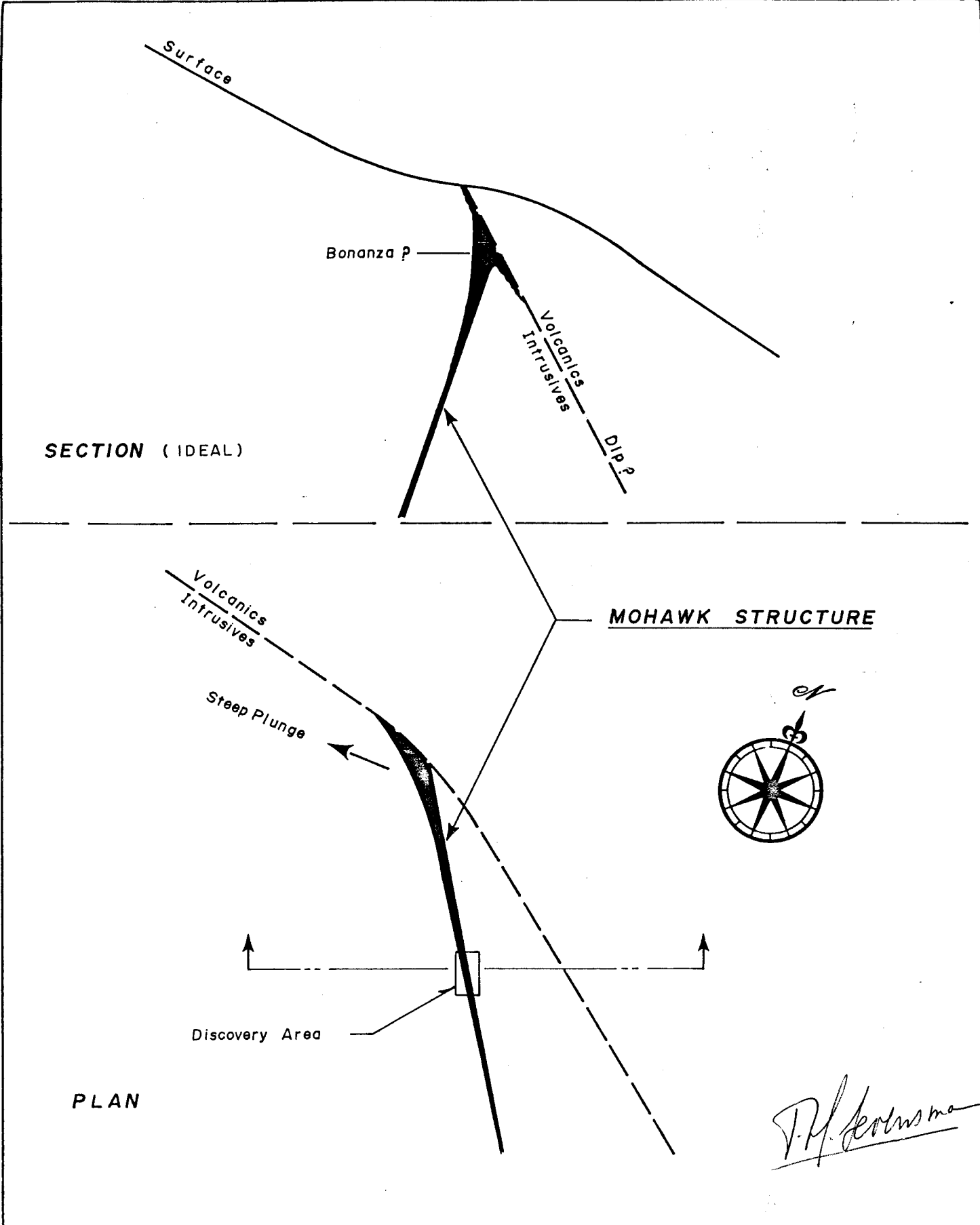


**LEGEND**

- p.p.m. Ag
- 0 - 2.9
- 3 - 5.9
- 6 - 11.9
- > 12
- Sulphides
- Rec. Traverse Pb/Ag
- 190 - 830 p.p.m. Pb

G  
○ 23/1.5

SKYLINE EXPLORATIONS LTD. (N.P.L.) <b>MOHAWK-SOIL ANOMALIES, Ag</b> Whitehorse M.D., Y.T. <span style="float: right;">115 A-3</span>	
Peter H. Sevensma Consultants Ltd., Vancouver, B.C.	
DEC. 1974	Scale:  Fig: 4



SKYLINE EXPLORATIONS LTD. (N.P.L.)

Diagrammatic View

Whitehorse M.D.

115 A-3

P. H. Sevensma Consultants Ltd. Vancouver, B.C.

Dwg. No.:

Fig: 5

Dec. 1974

Scale:



DATE Sept. 27/74

LOT No. -----

**ASSAY CERTIFICATE**

SAMPLE No.	Au	Ag	Pb	Zn	Cu	Sb	SAMPLE No.	Au	Ag				
526	.09	298.8	3395	.79	.19								
527	.06	910	2.85	2.52	.07								
528	.005	1.54	-	-	-								
525	<del>W</del>												
526	.03	1178	9.23	-	.15	4.26							

DATE SEPTEMBER 11, 1974

**ASSAY CERTIFICATE**

FILE NO. 8663-1

WHITEHORSE ASSAY OFFICE LTD.  
 BOX 4518 WHITEHORSE Y. T.  
 PHONE 667 2694 Y1A 2R8

SAMPLE RECEIVED FROM

SKILLINE EXPLORATIONS

SAMPLE NO.	GOLD Oz. Per Ton	SILVER Oz. Per Ton	LEAD					
002		288.3	49.7					

*[Handwritten Signature]*

ASSAYER. Ray L. for G. Spalding

DATE Sept 27/74

LOT No. -----

### ASSAY CERTIFICATE

SAMPLE No.	Au	Ag	Pb	Zn	Cu	Sb	SAMPLE No.	Au	Ag				
526	.09	298.8	3395	.79	.19								
527	.06	91.0	2.85	2.52	.07								
528	.005	1.54	-	-	-								
525	<i>W</i>												
526	.03	1178	9.23	-	.15	4.26							

DATE SEPTEMBER 11, 1974

# ASSAY CERTIFICATE

FILE NO. 8663-1

WHITEHORSE ASSAY OFFICE LTD.  
BOX 4518 WHITEHORSE Y. T.  
PHONE 667 2694 Y1A 2R8

SAMPLE RECEIVED FROM

SINKING EXPLORATIONS

SAMPLE NO.	GOLD Oz. Per Ton	SILVER Oz. Per Ton	LEAD					
002		288.3	49.7					

*D. Johnson*

ASSAYER. Ray E. for G. Spalding

DATE. OCTOBER 4, 1974.

FILE NO. A- 741- 16

Geochemical Analysis

# ASSAY CERTIFICATE

WHITEHORSE ASSAY OFFICE LTD.  
BOX 4518 WHITEHORSE Y.T.

PHONE 667 2

SAMPLE RECEIVED FROM

SKYLINE EXPLORATIONS

SAMPLE NO.	GOLD Oz. Per Ton	SILVER Oz. Per Ton	SILVER PPM	LEAD PPM	ZINC PPM			
533			.6	8	64			
534			2.3	32	56			
535			1.7	20	112			
536			.7	20	48			
538			4.0	416	200			
539			4.7	32	720			
540			17.2	200	184			
541			1.5	24	308			
542			1.2	16	424			
543			.7	20	528			
546			1.8	44	224			
547			5.0	48	376			
548			19	272	120			
549			3.9	24	128			
550			1.2	8	336			
552			9.2	328	304			

*[Handwritten signature]*

ASSAYER.

*[Handwritten signature: K. Hayward]*

DATE. OCTOBER 6, 1971.

FILE NO. 8731-9

# ASSAY CERTIFICATE

WHITEHORSE ASSAY OFFICE LTD.  
BOX 4518 WHITEHORSE Y.T.

PHONE 667 2694

SAMPLE RECEIVED FROM

SKYLINE EXPLORATIONS

SAMPLE NO.	GOLD Oz. Per Ton	SILVER Oz. Per Ton	LEAD	ZINC	COPPER	ANTIMONY	ARSENIC	TOTAL W. IN GMS.
529	.06	136.8	10.95	6.12	.22	2.64	3.61	2755
530	.03	124.8	2.93	2.46	.12	1.44	2.54	4015
531	.06	281.2	12.77	5.64	.25	3.28	3.91	3585
532	.04	180.8	5.12	5.76	.16	2.40	3.28	1220
537	.03	44.9	.38	.34	-	-	-	3150
544	.02	88.6	12.0	2.40	-	2.80	-	2150
545	.005	1.92	.07	.28	-	.27	-	2510
551	.02	122.3	4.35	3.66	-	4.00	-	3300
553	.04	187.7	18.89	3.72	.20	3.28	-	4020

*D. H. Stevens*

ASSAYER. *L. Howland for H. Spalding*

DATE. OCTOBER 4, 1974.

FILE NO. A-741-16

Geochemical Analysis

# ASSAY CERTIFICATE

WHITEHORSE ASSAY OFFICE LTD.  
BOX 4518 WHITEHORSE Y.T.

PHONE 667 2

SAMPLE RECEIVED FROM

SKYLINE EXPLORATIONS

SAMPLE NO.	GOLD Oz. Per Ton	SILVER Oz. Per Ton	SILVER PPM	LEAD PPM	ZINC PPM			
533			.6	8	64			
534			2.3	32	56			
535			1.7	20	112			
536			.7	20	48			
538			40	416	200			
539			4.7	32	720			
540			17.2	200	184			
541			1.5	24	308			
542			1.2	16	424			
543			.7	20	528			
546			1.8	44	224			
547			5.0	48	376			
548			19	272	120			
549			3.9	24	128			
550			1.2	8	336			
552			9.2	328	304			

*[Handwritten signature]*

ASSAYER.

*[Handwritten signature: K. Hayland]*

DATE. OCTOBER 6, 1971.

FILE NO. 8731-9

# ASSAY CERTIFICATE

WHITEHORSE ASSAY OFFICE LTD.  
BOX 4518 WHITEHORSE Y.T.

PHONE 667 2694

SAMPLE RECEIVED FROM

SKYLINE EXPLORATIONS

SAMPLE NO.	GOLD Oz. Per Ton	SILVER Oz. Per Ton	LEAD	ZINC	COPPER	ANTIMONY	ARSENIC	TOTAL W. IN GMS.
529	.06	136.8	10.95	6.12	.22	2.64	3.61	2755
530	.03	124.8	2.93	2.46	.12	1.44	2.54	4015
531	.06	281.2	12.77	5.64	.25	3.28	3.91	3585
532	.04	180.8	5.12	5.76	.16	2.40	3.28	1220
537	.03	44.9	.38	.34	-	-	-	3150
544	.02	88.6	12.0	2.40	-	2.80	-	2150
545	.005	1.92	.07	.28	-	.27	-	2510
551	.02	122.3	4.35	3.66	-	4.00	-	3300
553	.04	187.7	18.89	3.72	.20	3.28	-	4020

*D. M. Sevensma*

ASSAYER. *K. Hoyland for G. Spalding*



# BARRINGER RESEARCH

GEOCHEMICAL LABORATORY REPORT NO. 1111 0

SAMPLE TYPE: SOILS	HClO <sub>4</sub> Cu ppm	Pb ppm	MO ppm	Ag ppm	SAMPL No.
SAMPLE NUMBER					
G-1	75	16	2	1.6	G-18
2	46	25	2	1.8	19
3	35	29	2	2.0	20
4	84	14	2	1.4	21
5	53	19	2	1.9	22
6	31	18	2	2.1	23
7	45	17	2	1.2	24
8	47	18	4	1.6	25
9	31	15	2	1.6	26
10	37	15	2	1.3	27
11	10	17	12	1.8	28
12	42	16	4	1.6	29
13	57	21	5	1.8	30
14	37	15	3	1.6	31
15	44	18	4	1.7	32
16	40	17	4	1.6	33
17	35	17	4	1.4	34

# BARRINGER RESEARCH

# GEOCHEMICAL LABORATORY RE

SAMPLE TYPE: <i>Soils.</i>	<i>Ni</i> <i>Cu</i> <i>ppm</i>	<i>Pb</i> <i>ppm</i>	<i>Mn</i> <i>ppm</i>	<i>Ag</i> <i>ppm</i>	SAMPLE No
SAMPLE NUMBER					
<i>G-35</i>	<i>60</i>	<i>19</i>	<i>4</i>	<i>1.6</i>	<i>G-48</i>
<i>36</i>	<i>31</i>	<i>22</i>	<i>2</i>	<i>1.8</i>	<i>49</i>
<i>37</i>	<i>23</i>	<i>17</i>	<i>2</i>	<i>1.8</i>	<i>50</i>
<i>37A</i>	<i>32</i>	<i>18</i>	<i>3</i>	<i>2.2</i>	<i>51</i>
<i>38</i>	<i>29</i>	<i>14</i>	<i>2</i>	<i>1.6</i>	<i>52</i>
<i>39</i>	<i>54</i>	<i>13</i>	<i>3</i>	<i>1.8</i>	<i>53</i>
<i>40</i>	<i>92</i>	<i>19</i>	<i>4</i>	<i>1.9</i>	<i>54</i>
<i>41</i>	<i>33</i>	<i>15</i>	<i>3</i>	<i>1.5</i>	<i>55</i>
<i>42</i>	<i>88</i>	<i>17</i>	<i>2</i>	<i>2.2</i>	<i>56</i>
<i>43</i>	<i>120</i>	<i>25</i>	<i>4</i>	<i>1.8</i>	<i>57</i>
<i>43A</i>	<i>42</i>	<i>18</i>	<i>2</i>	<i>1.8</i>	<i>58</i>
<i>44</i>	<i>39</i>	<i>20</i>	<i>3</i>	<i>1.6</i>	<i>59</i>
<i>44A</i>	<i>56</i>	<i>17</i>	<i>2</i>	<i>1.3</i>	<i>60</i>
<i>45</i>	<i>57</i>	<i>31</i>	<i>2</i>	<i>4.3</i>	<i>61</i>
<i>46</i>	<i>72</i>	<i>20</i>	<i>2</i>	<i>2.8</i>	<i>62</i>
<i>47</i>	<i>56</i>	<i>59</i>	<i>2</i>	<i>3.4</i>	<i>63</i>
					<i>64</i>
					<i>65</i>
					<i>66</i>
					<i>67</i>

*[Signature]*



# BARRINGER RESEARCH

304 Carlingview Drive  
Rexdale, Ontario  
Phone (416) 677-2491  
Telex 06-217893

1170 Hornby Street  
Vancouver, B.C.  
Phone (604) 685-4231  
Telex 04-507739

307 Alexander at 4th  
Whitehorse, Yukon.  
Phone (403) 667-2661

GEOCHEMICAL LABORATORY REPORT NO. *114-A*

FROM: *Skyline Exploration Inc.*  
-----  
-----

P.O. NO. \_\_\_\_\_ PROJECT NO. \_\_\_\_\_

DATE RECEIVED *Sept 12/74* DATE COMPLETED \_\_\_\_\_

ANALYSED FOR	WEIGHT SAMPLE USED	EXTRACTION	METHOD OF ANALYSIS
<i>Cu Pb Mo Py</i>	<i>500 mg</i>	<i>HClO<sub>4</sub></i>	<i>A.A.</i>

REMARKS:

APPROVED BY: *[Signature]*

SAMPLE TYPE: SOILS	HClO4 Cu ppm	Pb ppm	MO ppm	Ag ppm	SAMPLE No.	Cu ppm	Pb ppm	MO ppm	Ag ppm
SAMPLE NUMBER									
G-1	75	16	2	1.6	G-18	35	18	2	1.6
2	46	25	2	1.8	19	46	17	2	1.4
3	35	29	2	2.0	20	57	19	3	1.6
4	84	14	2	1.4	21	39	20	2	1.6
5	53	19	2	1.9	22	84	20	3	1.6
6	31	18	2	2.1	23	17	18	2	2.0
7	45	17	2	1.2	24	105	2550	11	73.0
8	47	18	4	1.6	25	46	52	5	4.2
9	31	15	2	1.6	26	40	28	6	2.1
10	37	15	2	1.3	27	37	24	2	1.8
11	10	17	12	1.8	28	15	22	2	1.8
12	42	16	4	1.6	29	31	25	4	1.8
13	57	21	5	1.8	30	84	21	5	1.6
14	37	15	3	1.6	31	49	20	6	1.6
15	44	18	4	1.7	32	37	14	4	1.6
16	40	17	4	1.6	33	28	18	4	1.5
17	35	17	4	1.4	34	60	28	4	2.1

*[Handwritten signature]*

SAMPLE TYPE: Soils.	Mo Cu ppm	Pb ppm	Mo ppm	Ag ppm	SAMPLE No	Cu ppm	Pb ppm	Mo ppm	Ag ppm
SAMPLE NUMBER									
G-35	60	19	4	1.6	G-48	30	17	2	2.0
36	31	22	2	1.8	49	26	18	2	1.9
37	23	17	2	1.8	50	19	16	2	1.6
37A	32	18	3	2.2	51	12	17	2	2.1
38	29	14	2	1.6	52	35	21	2	2.0
39	54	13	3	1.8	53	61	20	2	1.6
40	92	19	4	1.9	54	54	14	2	1.1
41	33	15	3	1.5	55	37	22	2	4.8
42	88	17	2	2.2	56	70	15	4	1.6
43	120	25	4	1.8	57	51	22	4	1.7
43A	42	18	2	1.8	58	35	27	2	2.4
44	39	20	3	1.6	59	75	49	4	4.2
44A	56	17	2	1.3	60	60	190	2	9.6
45	57	31	2	4.3	61	32	30	2	3.6
46	72	20	2	2.8	62	65	16	2	1.4
47	56	59	2	3.4	63	72	17	2	2.0
					64	61	22	2	1.8
					65	49	15	2	2.0
					66	75	19	3	2.4
					67	110	16	2	1.6



# BARRINGER RESEARCH

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Telex 04-507739

307 Alexander at 4th  
Whitehorse, Yukon  
Phone (403) 667-2661

GEOCHEMICAL LABORATORY REPORT NO. 125-A

FROM: Skyline Exploration

P. Swanson

P.O. NO. \_\_\_\_\_ PROJECT NO. \_\_\_\_\_

DATE RECEIVED Sept 20/74 DATE COMPLETED Sept 24/74

ANALYSED FOR	WEIGHT SAMPLE USED	EXTRACTION	METHOD OF ANALYSIS
<u>Cu Pb Zn Ag</u>	<u>500mg</u>	<u>HClO<sub>4</sub></u>	<u>A.A.</u>

REMARKS:

APPROVED BY: [Signature]



SAMPLE TYPE: Soils	Cu ppm	Pb ppm	Mn ppm	Ag ppm	SAMPLE NO	Cu ppm	Pb ppm	Mn ppm	Ag ppm
SAMPLE NUMBER									
330S-50E	66	26	4	4.0	360S-100W	60	15	2	2.4
335S-3L	35	37	3	4.0	150W	59	14	2	1.6
20W	50	40	3	4.2	200W	69	17	3	2.0
30W	58	17	2	2.4	360S-10E	57	41	2	3.8
50W	46	15	2	1.8	25E	42	35	2	4.8
75W	89	14	2	2.4	50E	36	43	2	4.0
100W	77	14	2	1.9	70E	55	30	5	3.6
335S-20E	37	61	2	<del>5.9</del>	80E	51	29	4	2.6
40E	26	41	2	5.6	100E	43	26	6	2.4
60E	34	34	4	4.4	380S	48	22	4	2.6
80E	33	66	2	6.2	80E	51	17	3	1.6
100E	33	63	2	5.8	410S	56	34	5	5.2
130E	62	35	5	3.2	130E	59	24	4	2.8
360S-10W	44	13	2	1.8	180E	42	38	3	4.6
25W	64	11	4	2.0	450S	66	36	4	6.0
35W	58	11	2	2.0	30E	60	15	4	1.6
50W	56	13	2	2.6	460S	70	18	4	1.4
					13L				

*[Handwritten signature]*

28

SAMPLE TYPE: Soils	Cu ppm	Pb ppm	Mn ppm	Pg ppm														
SAMPLE NUMBER																		
4605-50W	63	15	3	1.9														
100W	66	15	4	1.8														
150W	66	21	3	6.0														
200W	74	21	3	6.2														
250W	76	13	4	2.0														
4605-50E	52	13	4	1.8														
9SE	69	15	3	2.3														
11SE	51	33	3	2.4														
130E	70	22	3	2.0														
150E	81	23	3	2.0														
G-61-3'	24	15	2	2.2	3' below G-61													
4'	25	700	3	17.5	15' East of G-61, 4'deep													
5'	30	350	3	9.0	10' East of G-61, 5'deep													
6'	17	15	2	2.6	6' below G-61													
Δ(Delta)	51	150	2	4.2														

*[Signature]*