85-342-13710
5/86

1984 EXPLORATION REPORT

ON THE

UNION MINE PROPERTY

GREENWOOD MINING DIVISION

LATITUDE 49°34'
LONGITUDE 118°22'
N.T.S. 82 E/9W

FOR

PEARL RESOURCES LTD.
1027 - 470 GRANVILLE ST.
VANCOUVER, B.C. V6C 1V5

January, 1985

BY: Thomas J. Drown
WELCOME NORTH MINES LTD.
1027 - 470 Granville St.
Vancouver, B.C. V6C 1V5

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SUMMARY

The Union Mine project was initiated to explore for strike extensions, dip projections and fault offsets of attractive gold-silver mineralization within the former producing Gold, Schulz and Union stopes.

Much of the work was conducted through underground diamond drilling following the rehabilitation of the No. 4 level and its northwest extension.

In total, 480 metres (1,578 feet) of the No. 4 level was rehabilitated along with 107 metres (350 feet) of vertical raises. One hundred and ninety-two metres (630 feet) of underground 2.1 m x 2.1 m (7'x7') drifting was added to the length of the No. 4 level. Percussion test holing in the walls of the new drift, as well as, 1,076 metres (3,530 feet) of underground diamond drilling was completed.

The immediate mine surface and all accessible underground workings were geologically mapped and sampled.

The extension of the Gold Stope Vein was encountered, but did not carry gold values. Although only one drill hole was drilled beneath the Schulz Vein, its extension to depth was not intersected.

The Main Vein below the No. 3 level proved to be barren of gold except for attractive values at the western end of the vein structure. Here, the best intercept, DDH PU-8, holds promise for a limited high grade shoot containing about 7,000 tonnes (7,700 tons) grading 0.95 oz Au/ton and 54.3 oz Ag/ton over a width of 1.5 metres (5 feet).

Surface sampling delineated a narrow parallel zone south of the main lode, called the South Zone. Approximately 8,000-10,000 tonnes (8,800-11,000 tons) are indicated with grades up to 1.22 oz Au/ton and 37.30 oz Ag/ton with an average of 0.255 oz Au and 8.59 oz Ag/ton over a 1.5 metre (5 foot) width.

In sampling all tailings and dumps a potentially significant heap-leachable reserve was recognized. Approximately 70,000 tonnes (77,000 tons) of tailings grading 0.044 oz Au/ton and 1.43 oz Ag/ton were outlined.

From the work to date it is recommended that a final feasibility study be completed for determining viability of extraction of gold from former tailings and dumps.

It is also recommended that a limited delineation drilling of the Main vein extension, west of DDH PU-8 and limited drilling for the elusive, but attractive Schulz vein extension be considered.

INTRODUCTION

This report summarizes work completed at the Union Mine property during 1984. Work was performed by Welcome North Mines Ltd., as operator for Pearl Resources Ltd. Work on the Union, Union Fraction, Paper Dollar, Idaho, Par and Dodge claims includes 480 metres (1,578 feet) of rehabilitation of the No. 4 level, 107 metres (350 feet) of raise rehabilitation, 192 metres (630 feet) of 2.1 m x 2.1 m (7'x7') drifting, 1,076 metres (3,530 feet) of underground diamond drilling, 397 metres (1,302 feet) of underground percussion drilling, and limited surface geological mapping and sampling.

The field program commenced April 15, 1984, and terminated December 31, 1984.

LOCATION AND ACCESS

The Union Mine property lies 72 kilometres (45 miles) north of Grand Forks in southern British Columbia at lat. 49°34', long. 118°22', N.T.S. 82E/9W (Figure 1).

Access to the property is by paved road for 43 km, then by good gravel road to within 2 km of the property. From here, access is by one-lane, dry weather road.

Elevations range from 850 metres (2,788 feet) a.s.l. in Burrell Creek to 1,430 metres (4,690 feet) a.s.l. on Franklin Mountain. The area of work was mostly the lower eastern slopes of Franklin Mountain at the 853 metre (2,800 foot) level.

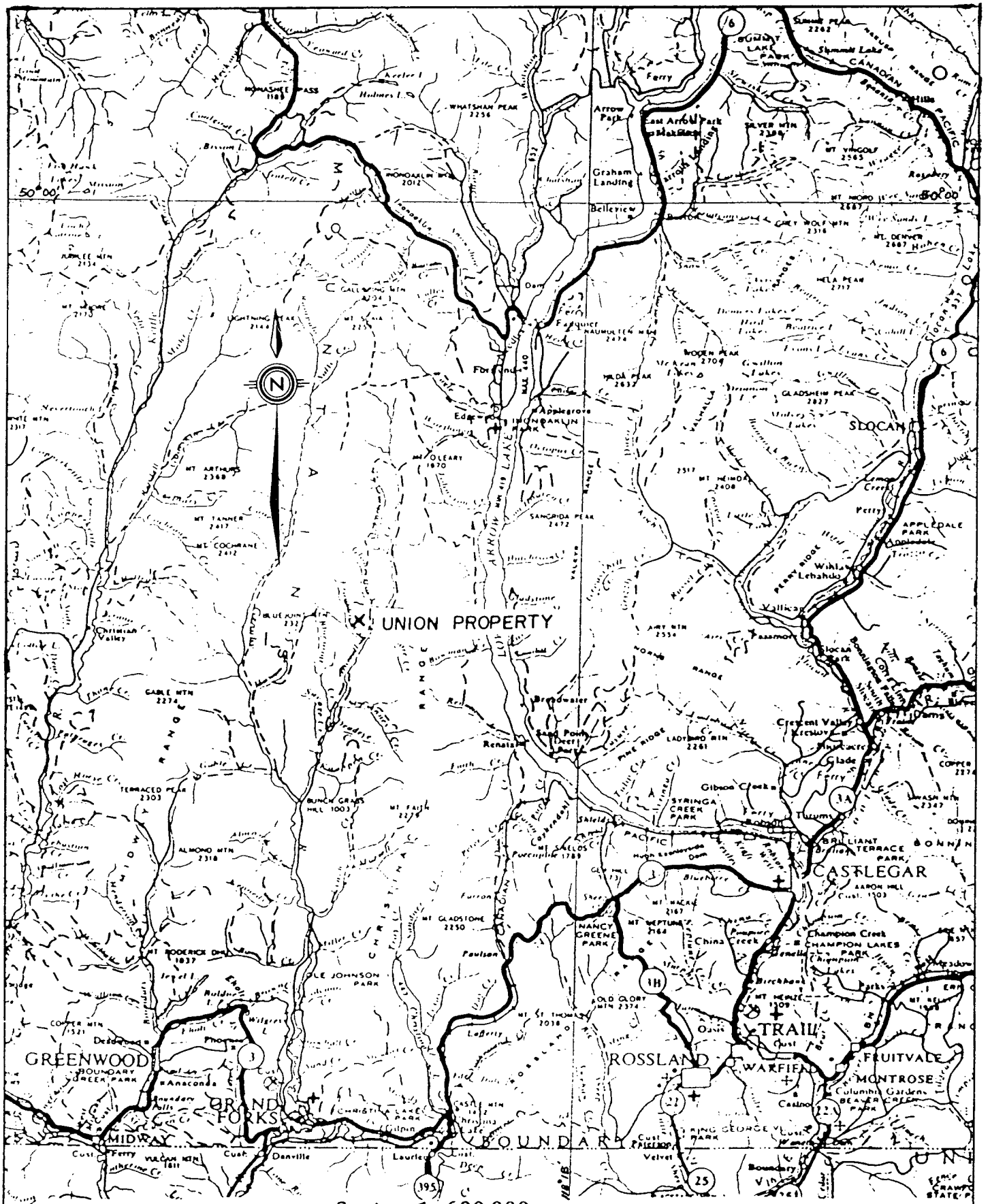

UNION PROPERTY
SLOCAN
CASTLEGAR
TRAIL
ROSSLAND
GREENWOOD
GRAND FORKS
MIDWAY
BOUNDARY
FRUITVALE
MONTROSE
WARFIELD
Scale – 1 : 600 000
(1 cm = 6km)
10 0 10 20 30 40 50 60 70 kilometres

Fig. No. I

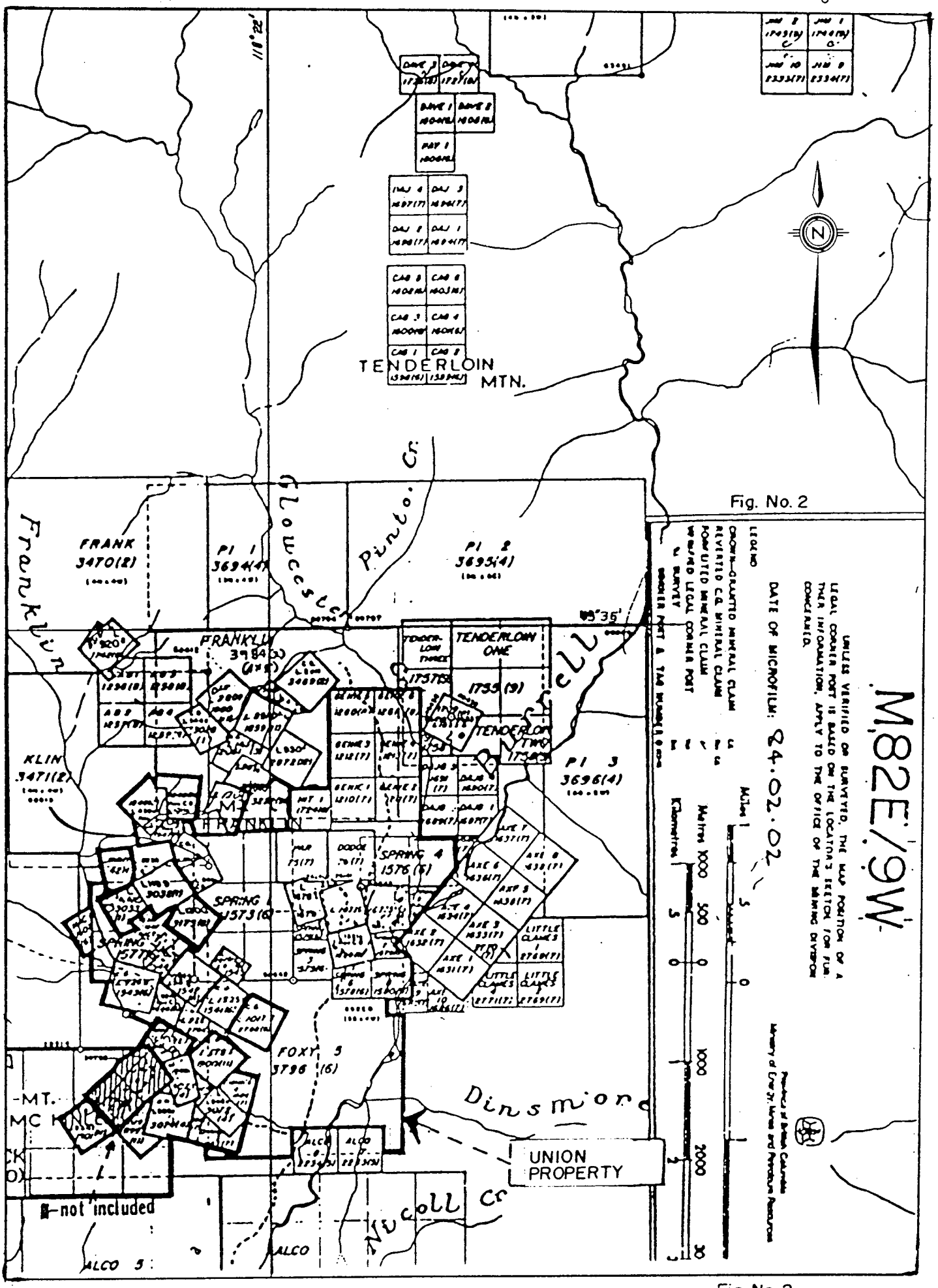
CLAIM STATUS (Figure 2)

The property is comprised of the following claims located in the Greenwood Mining Division.

	Units	Record		Anniversary
Spring 1	6	1573 (6)		Jun. 12, 1987
2	1	1574 (6)		Jun. 12, 1987
3	1	1575 (6)		Jun. 12, 1987
4	2	1576 (6)		Jun. 12, 1987
5	4	1577 (6)		Jun. 12, 1987
6	1	1578 (6)		Jun. 12, 1987
7	1	1579 (6)		Jun. 12, 1987
8	1	1580 (6)		Jun. 12, 1987
9	1	1581 (6)		Jun. 12, 1987
*Eclipse	R.C.G.	1543 (6)		Jun. 6, 1987
*Athelstan	"	1541 (6)		Jun. 6, 1987
*Ax	"	1542 (6)		Jun. 6, 1987
*Alto Fr.	"	1544 (6)		Jun. 6, 1987
*Eganville	"	1545 (6)		Jun. 6, 1987
*Yellow Jacket	"	1546 (6)		Jun. 6, 1986
*Violet Fr.	"	1547 (6)		Jun. 6, 1986
*Hennekinn	"	1548 (6)		Jun. 6, 1986
*Verde	"	1549 (6)		Jun. 6, 1986
*Evening Star	"	1550 (6)		Jun. 6, 1986
*Mac No. 1	"	1607 (6)		Jun. 19, 1986
*May Fr.	"	1611 (6)		Jun. 29, 1986
**Union		1022	Optioned Crown Grants	Taxes Due in June
**Union Fr.		1678		" " "
**Idaho		1679		" " "
**Paper Dollar		1677		" " "
**Homestake		589S		" " "
**Dead Wood		590S		" " "
Par		75 (7)		Jul. 7, 1987
Dodge		76 (7)		Jul. 7, 1987
Hit		1724 (8)		Aug. 16, 1987
Genie 1-4		1210-1213 (7)		Jul. 26, 1987
Genie 5-6		1260-1261 (8)		Aug. 9, 1987
Jimmy		42H(7)		Jul. 21, 1987
Foxy 5	20	3796 (6)		Jun. 20, 1985

*R.C.G. - Reverted Crown Grants
**Claims Optioned from Hecla Mining

The property comprises 32 staked and/or recorded mineral claims and 6 optioned Crown granted claims for a total of 38 claims (Figure 2).


TENDERLOIN MTN.
Fig. No. 2
Franklin
Flowers Cr.
Pinto Cr.
FRANK 3470(2)
PI 1 3694(4)
PI 2 3695(4)
PI 3 3696(4)
FRANKLIN 3984(3)
TENDERLOIN ONE 1739 (9)
TENDERLOIN TWO 1740(9)
KLIN 3471(2)
SPRING 4 1576 (6)
SPRING 1573(6)
FOXY 3 3796 (6)
Dinsmore
UNION PROPERTY
Nicoll Cr
ALCO 5
-not included
M82E/9W
DATE OF MICROFILM: 84.02.02
Fig. No. 2

HISTORY

The first claims were staked at Franklin Camp in 1896 and the exploration has continued on an intermittent basis since that time. C.W. Drysdale mapped the geology of the camp and published Memoir 56, "Geology of the Franklin Mining Camp" in 1915.

The bulk of production [less than 181,400 tonnes (200,000 tons)] of gold, silver, lead and zinc ore was derived from the Union Mine in the period 1931 to 1933 by Hecla Mining Company Ltd. During the period 1933 to 1936 some of the tailings were retreated and a limited program of exploration was carried out.

The mine was leased to W.G. McArthur from 1940 to 1942, who, completed 61 metres (200 feet) of drifting, 62 metres (205 feet) of raising and 838 metres (2,750 feet) of drilling, and shipped approximately 8,170 tons of gold-silver ore to the smelter at Trail. The nature of the surface workings indicate that some of the ore may have been from pillars; however, the precise location of McArthur's work is unknown.

An unsuccessful attempt to heap leach the tailings using a cyanide system was made in 1970 by Mr. Ditto.

1984 WORK PROGRAMME

Field work on the Union property was carried out from April 15, 1984 to December 31, 1984. Expenditures on the project up to December 31, 1984 totalled $600,000.

Work completed is as follows:

1. Rehabilitation: A total of 480 metres (1,578 feet) of the No. 4 level was rehabilitated.

Approximately 107 metres (350 feet) of vertical raises were rehabilitated to allow access for personnel.

2. Drifting: A total of 192 metres (630 feet) of underground drifting, measuring 2.1 m x 2.1 m (7'x7'), was completed on the No. 4 level.

3. Percussion Drilling: Test holes totalling 397 metres (1,302 feet) in 34 holes were drilled in the walls of the new drift at roughly 15 metre (50 foot) spacings.

4. Diamond Drilling: A total of 1,076 metres (3,530 feet) of underground diamond drilling (BQ size) was completed in 19 holes from 3 drill stations. (Plates 1-6, and Appendix A).

5. Geological Mapping: Where accessible, underground workings including the No's. 4, 4 inter, 3, 2 and 1 levels were remapped at 1:240 (1"=20') scale. (Plates 1-3, and 7-9). Walls and back in the No. 4 level were pressure washed prior to mapping. All levels were resampled where quartz veining was encountered.

Surface geological mapping (Plate No. 10) was completed over a limited area at 1:480 (1"=40') scale. Survey control and establishment of mine grid coordinates were established on surface to provide continuity with underground exploration.

Open stopes near the surface were mapped on underground 1:240 scale plans.

6. Geochemical Surveys: Approximately 2.2 line km of soil sampling was completed over a portion of the geologically mapped surface. (Plates 11, 12). A total of 204 samples were collected and geochemically analyzed for gold.

7. Trenching: Approximately 113 metres (370 feet) of backhoe trenching was completed in 4 trenches. All trenches were mapped and sampled (Plate 10). Samples are geochemically analyzed for gold.

8. Road and Bridge Work: Approximately 2 km of access road was widened and resurfaced to allow for passage of heavy mining equipment. A 14 metre (45 foot) bridge was constructed over Burrell Creek to access the mine property from the Burrell Creek logging road.

GEOLOGY

General

The earliest geological mapping of the Union Mine area was carried out by R.W. Brock from 1900 to 1906. The area was later examined in more detail by C.W. Drysdale in 1911. Mapping and data compilation by H.W. Little resulted in publication of the Kettle River, East Half 4 mile map sheet in 1956. Much of the area was remapped in detail by Newmont Mining Corp., (Norman, 1968, 1969) following similar, but more areally restricted work by Franklin Mines Ltd. (Lisle and Chilcott, 1965).

The Union Mine Property occurs on the eastern margin of a fault bounded basin of Paleozoic to Cenozoic volcanic and sedimentary rocks and Mesozoic to Tertiary granitic rocks of the Nelson, Valhalla and Coryell intrusions.

The volcanic and sedimentary rocks are divisible into an older package of greenstone, greywacke and limestone correlatible regionally with the Upper Paleozoic (Permian) 'Anarchist' Group, which are overlain by younger (Eocene) units, include conglomerates, rhyolites, dacites, sandstones and shale of the Kettle River Formation which, in turn are overlain by the 'Phoenix Volcanic Group' of andesites, trachytes and basalt, plus minor shales, tuff and siltsone.

The intrusive rocks are separable into: grandiorite and quartz-diorites of the Cretaceous-age Nelson intrusions; granites of the early Tertiary Vahalla intrusions; and Miocene-age dykes and plugs of pulaskite, pyroxenite, basalt and syenite.

The rocks present in the Union Mine area are an erosional remnant occupying a graben bounded on the west and east by the steep-angle, normal Granby River and Burrell Creek faults, respectively. This graben may be a northward extension of the economically important Republic Graben in Washington State which contains similar vein-type deposits.

LOCAL

Surface geological mapping of the Union Mine area was carried out by Pearl Resources in 1980 (Lisle and Seraphim, 1980) and in more detail during the current program (Plate No. 10).

The predominant rock types present in the vicinity of the Union Mine workings are silty-tuff, cherty conglomerate, argillite, andesite, basalt and dacite of the Upper Paleozoic-age Anarchist Group.

Determination of a stratigraphic succession in the Anarchist Group rocks is difficult due to a lack of top determinations. Some evidence of stratigraphic tops is indicated by a multilithic conglomerate that contains fragments of rock units lying to the east, suggesting the stratigraphic top lies to the west. If this is the case, the oldest rocks in the immediate mine are dacitic to andesitic flows and tuffs formerly reported as the "Volcanic Unit" (Lisle and Seraphim, 1980).

Overlying the dacite is a relatively thin sequence of andesite flows with minor tuffs. Above this are interbedded sequences of cherty tuffs and silty tuffs, frequently showing thin laminations with slump or flow breccias. Frequently mixed with these tuffs are thin lenses of andesite flows and tuffs, and occasional argillite beds, blocks and lenses. Lying above and interbedded with the tuffaceous sequence is a thick sequence of multi-lithic conglomerate containing clasts of almost all of the above units as well as quartz and limestone. Underground, the conglomerate appears to be semi-conformable with the enclosing sediments and volcanics.

Cutting across all of the above units is a massive and/or brecciated quartz vein. This vein is the host to gold-silver mineralization at the Union. Cutting the quartz vein is a feldspar porphyry dyke. Overall, this dyke parallels the vein along the footwall, but in one location on surface, cuts into the central portion of the vein.

Underground, the feldspar porphyry dyke and quartz vein are cut by later, fine-grained syenite dykes.

To the west of the mapped area, Tertiary conglomerates of the Kettle River Formation have a gentle westward dip and unconformably overlie all of the above interbedded sedimentary and volcanic units.

Lithological Descriptions

Syenite (TEsy)

This rock, seen only on the No. 4 inter. levels, is a medium to fine grained syenite. The grain size varies from coarser near its interior to finer near its margins. Chilling occurs at contacts with wall rocks. The syenite varies from gray near contacts to pink in the interior. Euhedral to subhedral blades of 0.2 to 2 mm hornblendes occur throughout. Finer grained biotites occur away from the margins. Feldspars are mostly pink with white-gray varieties where chilling occurs. The nature of the syenite occurrence suggest a late stage dyke cutting the vein and feldspar porphyry dyke.

Feldspar Porphyry Dyke (TEpd)

This rock occurs intimately with the lode quartz vein, east of the Union Fault. It frequently forms the hanging wall or footwall of the vein and at one location, on surface (Figure No. 3), cuts the vein. It is post mineralization with widths varying from 15 cm to 2 m. The dyke is green, with white mottling caused by 0.5 to 3 mm euhedral plagioclase phenocrysts. Minor 0.5 mm subhedral chloritized amphiboles are present. About 40 percent of the felspar matrix is sericitized imparting the rock's light green colour.

Quartz Vein (q.v.)

A detailed description of the vein prior to mining is given by Pike (Pike, 1935). The remaining vein is best described as a fissure filling of white, gray or gray-green mottled massive to brecciated quartz. Detailed petrographic descriptions of type vein samples are appended (Appendix B).

The vein, overall, has a west-northwest strike and a 75 degree northerly dip with typically sharp or faulted contacts.

The vein is cut by numberous minor faults having less than one metre offsets. Major displacements occur across the No. 1 and Union Faults. The No. 1 fault has shifted the vein from its original position above the Gold stope to its present location at the Schulz stope, a horizontal offset of 70 metres, and a vertical offset of 70 to 80 metres. The horizontal offset along the Union fault is 120 to 150 metres, with an unknown vertical displacement.

Cherty Tuff (PCT)

This rock occurs throughout the area mapped. It is generally massive or thinly laminated, with frequent breccia zones of either slump or flow origin. The unit weathers brown, but is gray, black or green on fresh surfaces. Thin laminae are frequently vari-coloured with shades of light green, beige or gray and display excellent bedding, particularly where encountered underground.

Silty Tuff (PST)

This unit is differentiated from the cherty tuff by its granular texture and lack of laminae. Locally, the silty tuff has a dust-tuff appearance. On fresh surfaces it is typically gray-brown, but weathers to a beige colour. This rock is common on surface, but is rarely seen underground.

Cherty Conglomerate (PCG)

This rock is dark gray to black with grain-size varying from 2 mm to 30 mm. The pebble to cobble-sized grains are composed of variable amounts of cherty tuff, silty tuff, quartz, limestone and argillite. Overall, constituents are rounded; however, angular clasts are common in some instances. Variations in grain sizes, along with shape variations, reflect distinct facies within the conglomerate.

The groundmass of the conglomerate is dominated by quartz and calcite. Frequent hematitic zones were observed during diamond drilling. No significance is given to the hematitic zones as yet.

Argillite (PAG)

Black, calcareous argillite occurs in several locations underground, mostly as isolated fault blocks within cherty tuff units. On surface this unit occurs only as angular and rounded blocks/boulders within the conglomerate and agglomeratic andesitic rocks.

The argillite is typically black and massive with numerous (irregular criss crossing) 1 mm thick calcite veinlets.

Andesite (PVA)

This unit is common in the map area, usually as discontinuous lenses within thicker sequences of cherty tuff or silty tuff. This rock is fine-grained, with visible 1 to 2 mm plagioclase phenocrysts and minor dark green <1 mm mafics. The rock usually contains finely disseminated pyrite.

On fresh surfaces this unit is gray-black weathering to beige. Weathered surfaces have tiny bumps of resistant plagioclase making this rock distinctive and easily mapped.

Basalt (PVB)

Noted on surface and in diamond drill core is a fragmental unit containing abundant euhedral and broken augite phenocrysts. This unit is composed of labradoritic plagioclase, augite and chlorite, with up to 25 percent fragments of other volcanics such as andesite, dacite and minor argillite and limestone.

Weathered surfaces are mostly beige-green in colour, with obvious fragmental texture visible. Fresh surfaces are dark green, with frequent white calcite veinlets up to 1 mm wide.

Dacite (PVD)

On surface, this unit occurs east of the No. 1 level dump and appears to be continuous below to the No. 4 level. It is dark green on weathered surfaces. Fresh surfaces are gray-green with very fine-grain plagioclase phenocrysts visible locally. Its groundmass is siliceous, and overall, the dacite is much harder than the andesite.

In part, this rock is tuffaceous with angular clasts of green, gray and beige dacite, andesite and cherty tuff. On occasion, the tuffaceous sections are thinly laminated over 1 to 2 metre widths.

Previous mapping labelled this unit as the "Volcanic Unit."

Felsic Volcanics (PVF)

This unit is found in only one area on the No. 4 level. It is beige to pinkish in colour, well bedded, containing elongated, ovoid clasts of similar rock and white limestone clasts. The rock is very fine grained with no identifiable grains. For the most part, this rock may be clay altered basaltic or andesitic agglomerate as seen on surface (PVB). Highly bleached (altered) 1-2 cm envelopes occur parallel to bedding.

The close proximity of this unit to the Union fault suggests hydrothermal alteration may be related to the fault.

Structure

The Union Mine area is structurally complex and dominated by steep angle faults that disrupt the generally northerly trending, steeply dipping units. Both bedding plane and oblique normal faults, have been noted. Several strike-slip faults were observed on the No. 1 level with clay gouge occuring along bedding planes, often with slicken-sides, but with no obvious displacement evident.

The most significant faults are the Union and Number One faults. The Union fault strikes northwesterly and dips steeply (80°-85°) to the southwest. The Union fault appears to cut off the ore bearing vein at all levels of the mine.

On the No. 1 and No. 4 levels, the vein is seen to change direction and roll into the Union fault. Although not documented on other levels, due to poor access, this suggests the Union fault may be contemporaneous with the mineralized quartz vein.

The No. 1 fault has only been observed by the writer on the No. 1 and No. 1 + 70 levels (underground). The surface trace of the No. 1 fault lies immediately west of the Par/Dodge claims' legal corner post. From cross sections and three dimensional model construction, the No. 1 fault displaces the Schulz stope ore vein from its original position overlying and attached to the Gold Stope vein some 73 metres (240 feet) to the north-northwest. This would mean the Schulz vein has travelled about 100 metres (330 feet) down the dip slope of the fault.

In addition to the Union and No. 1 faults, several flat-lying faults, observed on the No's. 4, 3 and 1 levels, further complicate the continuity of the mineralized quartz veins.

The major west-northwest fault containing the Union vein persists beyond the end of the vein. Brecciated, sheared and silicified country rock along with the quartz vein indicate movement during deposition.

Mineralization

Gold-silver mineralization is confined to the quartz vein and its immediate margins. Associated sulphides include pyrite, sphalerite, chalcopyrite, galena and argentite.

Pyrite occurs as irregular patches, disseminations and stringers.

Sphalerite occurs in minor amounts as isolated grains or 1 to 2 mm wide stringers. Most sphalerite observed is of the amber variety.

Chalcopyrite is not common in the vein. It appears to be most abundant where gold values occur suggesting coeval deposition. Chalcopyrite occurs as patches and/or 0.5 mm stringers, usually with pyrite and sphalerite.

Galena is rare, but where present occurs along with sphalerite, frequently as envelopes to sphalerite stringers.

Argentite was identified by Harris (Appendix B) in trace amounts.

Gold identified by Harris (Appendix B) occurs as isolated grains up to 200 microns, as composite grains with pyrite, as intimate mixtures with ruby silver and as inclusions in magnetite (possibly tetrahedrite). No visible gold was observed in hand specimens.

Zones of potentially economic gold and silver mineralization occur above the No. 4 level, just east of the Union fault (Plate 13) and in a zone called the "South Zone," Figure No. 3.

The first zone is indicated by diamond drill hole No. 8. Potential exists for approximately 7,500 tons having a grade of 0.66 oz Au/ton and 36.5 oz Ag/ton over a 1.5 metre (5 foot) mining width.

The South Zone is estimated to contain approximately 7,000 tons, over a 1.5 metre (5 foot) width, with assays ranging up to 1.218 oz Au/ton and 37.30 oz Ag/ton, although the average grade is 0.255 oz Au/ton and 8.59 oz Ag/ton.

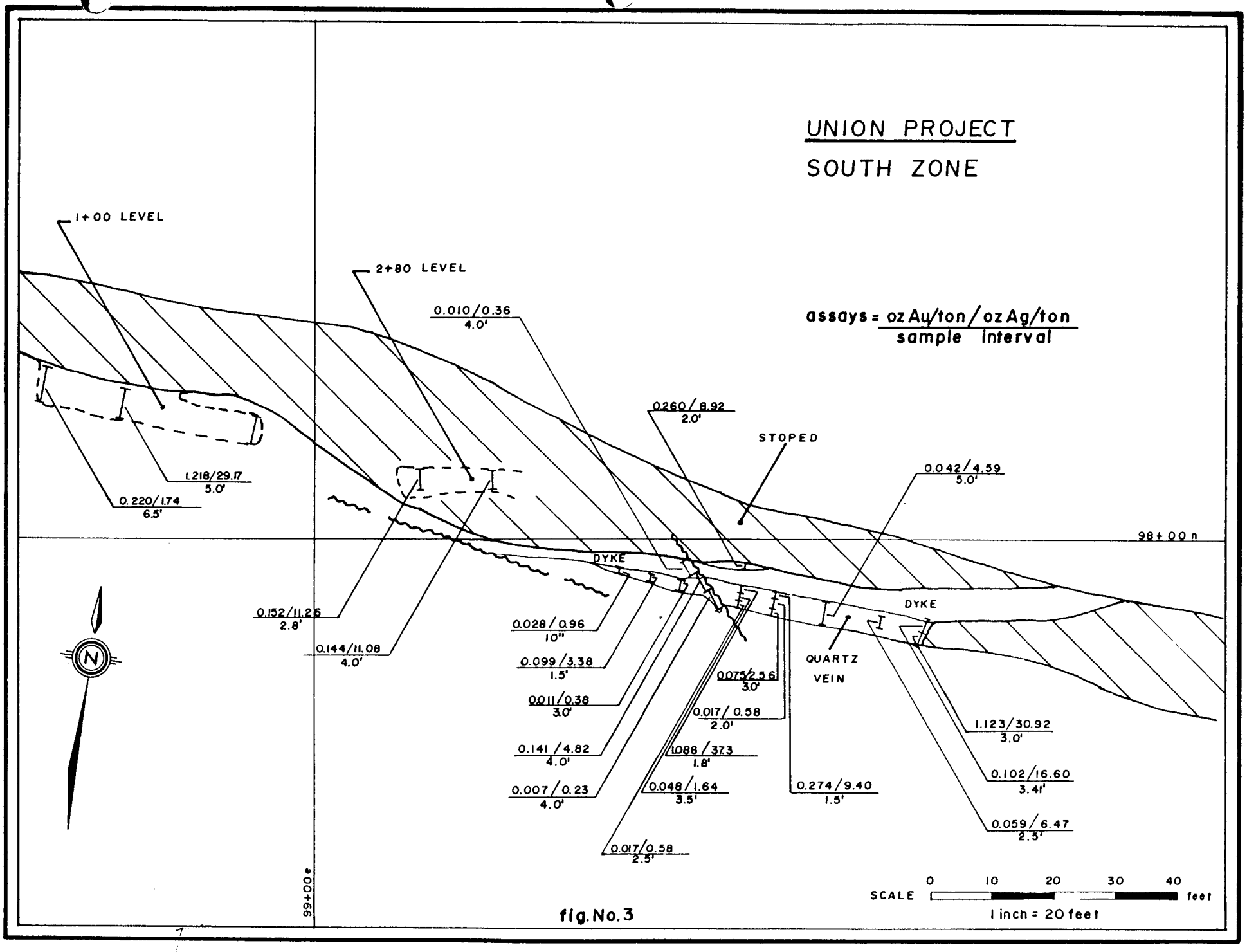

UNION PROJECT
SOUTH ZONE
assays = oz Au/ton / oz Ag/ton
sample interval
1+00 LEVEL
2+80 LEVEL
0.010/0.36
4.0'
0.260/8.92
2.0'
STOPED
0.042/4.59
5.0'
1.218/29.17
5.0'
0.220/1.74
6.5'
98+00 n
DYKE
DYKE
0.152/11.26
2.8'
0.144/11.08
4.0'
0.028/0.96
10"
0.099/3.38
1.5'
0.011/0.38
3.0'
0.141/4.82
4.0'
0.007/0.23
4.0'
0.075/2.56
3.0'
0.017/0.58
2.0'
1.088/37.3
1.8'
0.048/1.64
3.5'
0.017/0.58
2.5'
QUARTZ
VEIN
0.274/9.40
1.5'
1.123/30.92
3.0'
0.102/16.60
3.41'
0.059/6.47
2.5'
N
99+00 e
SCALE
0 10 20 30 40 feet
1 inch = 20 feet

fig. No. 3

A complete summary of gold bearing diamond drill holes is given in Table 1.

TABLE I

DDH No.	FROM (feet)	TO (feet)	INTERVAL (feet)	INTERVAL (metre)	Oz Au/Ton	Oz Ag/Ton
PU-5	172.8	176.4	3.6	1.1	0.284	3.41
	176.4	180	3.6	1.1	0.091	2.86
	182.5	185	2.5	0.78	0.154	3.32
	185	190	5.0	1.5	0.402	10.73
	190	193.7	3.7	1.1	0.432	11.20
	195.1	201.4	6.3	1.9	0.283	25.08
	201.4	205	3.6	1.1	0.140	2.22
	205	210	5.0	1.5	0.172	2.23
	223.5	229.5	6.0	1.9	0.222	8.17
	229.5	235	5.5	1.7	0.086	6.82
PU-7	88	93	5.0	1.5	0.044	0.87
PU-8	95	100.4	5.4	1.7	1.086	62.71
	100.4	103	2.6	0.8	0.031	1.62
	111.7	113	1.3	0.4	0.392	19.25
	113	116.5	3.5	1.1	0.092	2.45

1984 DIAMOND DRILL HOLE SUMMARY

TARGET - UNION VEIN

Drill Hole	Azimuth	Dip	Total Length	Vein Intersection	Vein Thickness	Assays Au(oz/t)	Assays Ag(oz/t)	Cumulative Footage
PU-1	000°	+60°	176'	58.2 - 62.5'	4.3'	No sig. values		176'
PU-2	000°	+80°	107'	82.0 - 96.0'	14.0'	No sig. values		283'
PU-3	080°	+55°	125'	101.0 - 106.2'	5.2'	0.016	0.10	408'
PU-4	080°	+30°	144'	121.3 - 124.3'	3.0'	No sig. values		552'
PU-5	095°	+55°	235'	172.8 - 176.4'	3.6'	0.284	3.41	787'
				182.5 - 210.0'	27.5'	0.26	10.44	
			includes	182.5 - 193.7'	11.2'	0.36	9.4	
			includes	195.1 - 210.0'	14.9'	0.21	11.89	
				223.5 - 235.0'	11.5'	0.16	7.52	
PU-6	302°	+50°	177'	64.4 - 69.5'	5.1'	0.018	0.76	964'
				72.0 - 76.8'	4.8'	0.004	0.19	
				78.5 - 81.8'	3.3'	0.024	0.17	
PU-7	302°	+75°	114'	88.0 - 93.0'	5.0'	0.044	0.87	1078'
				101.8 - 109.0'	7.2'	No sig. values		
PU-8	290°	+45°	123'	95.0 - 116.5'	11.5'	0.58	32.40	1201'
			includes	95.0 - 100.4'	5.4'	1.086	62.71	
				SUB TOTAL FOR UNION VEIN TARGET				1201'

TARGET - GOLD-IRON STOPE EXTENSION

PU-9	000°	+45°	200'	123.8 - 129.2'	5.4'	No sig. values		1401'
PU-10	000°	+25°	200'	143.0 - 149.0'	6.0'	No sig. values		1601'
PU-11	040°	+45°	210'	105.0 - 108.0'	3.0'	No sig. values		1811'
				184.1 - 191.2'	7.1'	No sig. values		
PU-12	050°	+25°	199'	78.0 - 85.5'	7.5'	No sig. values		2010'
PU-13	315°	+45°	214'	196.6 - 200.5'	3.9'	No sig. values		2224'
PU-14	315°	+25°	213'	195.8 - 200.6'	4.8'	No sig. values		2437'
PU-15	000°	-30°	248'	No vein		No assays		2685'
				SUB TOTAL FOR GOLD-IRON STOPE EXT. TARGET				1484'

TARGET - DELPHIM ZONE

PU-16	330°	+30°	200'	25.9 - 31.6'	5.7'	No sig. values		2885'
PU-17	020°	+20°	100'	27.0 - 28.0'	1.0'	No sig. values		2985'
				71.7 - 76.8'	5.1'	No sig. values		
PU-18	295°	+20°	150'	24.6 - 40.5'	15.9'	No sig. values		3135'
				50.7 - 52.5'	1.8'	No sig. values		
				56.6 - 64.8'	8.2'	No sig. values		
				101.4 - 105.6'	4.2'	No sig. values		
				SUB TOTAL FOR DELPHIM ZONE TARGET				450'

TARGET - SCHULTZ EXTENSION

PU-19	140°	+24°	395'	Vein not Intersected	-	-		3530'

Fig. No. 4

DIAMOND DRILLING

A total of 1,076 metres (3,530 feet) of underground drilling (BQ size) was completed in 19 holes from three drill stations.

Drilling was performed by Rainbow Diamond Drilling Ltd., of Merritt, B.C. Overall drilling progress went well, averaging 23 metres (75 feet) per day, including moves. Core recovery averaged above 95 percent.

The 1984 diamond drill hole summary may be noted in Figure No. 4. Descriptive logs of each hole are contained in Appendix A.

GEOCHEMICAL SURVEYS

A limited soil geochemical survey was completed over the Union property to outline any additional near-surface, gold-bearing structures. A total of 204 soil samples were collected at 15 m (50 foot) intervals along north-south lines 30 m (100 feet) apart.

The samples were collected mostly from the B. horizon from depths up to 40 cm (1.3 feet).

No significant gold anomalies were discovered.

POTENTIAL DUMP AND TAILINGS LEACHING PROGRAM

Dumps:

Dump	Tonnage	Gold (oz/T)	Silver (oz/T)
1	7,900	.039	0.45
2	5,400	.108	3.54
3	4,800	.057	2.45
4	15,000	.026	0.61

The weighted average of dumps 1, 2, and 3 is 18,000 tons grading .065 oz/T Au and 1.9 oz/T Ag. Preliminary leach-tests on minus 5/8" crushed material suggest very poor recovery. Approximately 10 percent of the gold and 29 percent of the silver was recovered in a 35 day column leaching test of material with a head grade of 0.242 and 3.46 ounces per ton of gold and silver respectively. Further testing to determine if better recoveries can be achieved are warranted. Reduction of the size-fraction of the dump material to minus 1/4" and using ore of a more representative grade may improve recoveries.

Tailings

Tailings from earlier production was systematically sampled and assayed for gold and silver. Two profile back-hoe trenches were dug to test the variation of gold-silver content with depth. A total of 47 samples were also collected with an average weight of 11 kg (25 pounds) from surface hand dug holes up to one metre (3.3 feet) deep. Another 14 samples of equivalent size were collected from the two profiles over a thickness of 4.3 m (14 feet).

Preliminary tonnage and grade estimates for the tailings are calculated to be:

	Grade	
Tonnage (Tons)	Au (Oz/T)	Ag (oz/T)
77,000	0.044	1.43

Cold bottle roll tests yielded 65% and 48% recoveries of gold and silver respectively. Column leach testing is in progress. After 35 days of leaching approximately 74% of the gold and 71% of the silver has been recovered. Using the above figures, the following calculations suggest a potential profit of roughly $700,000.

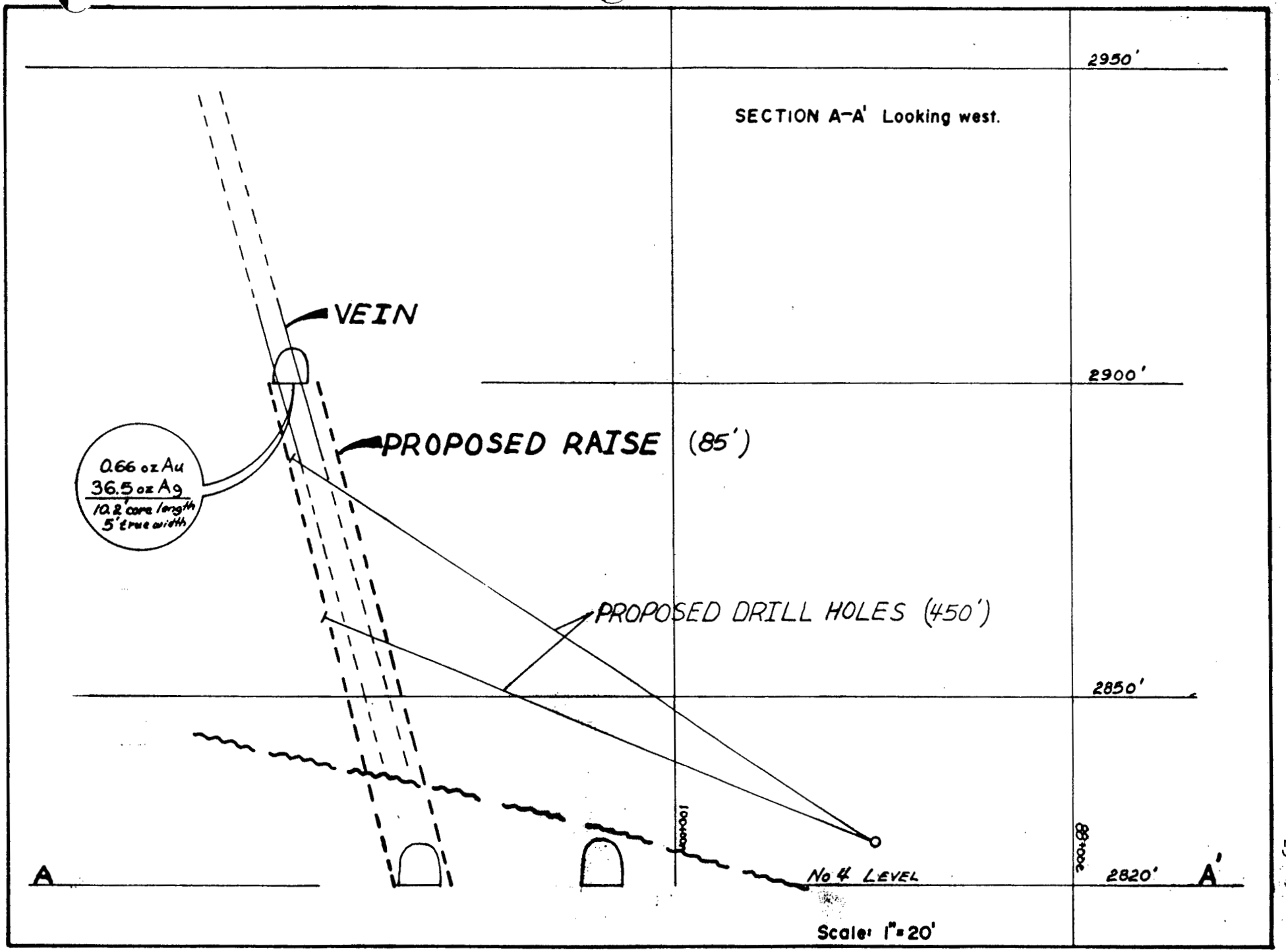

SECTION A–A' Looking west.
2950'
2900'
2850'
2820'
VEIN
PROPOSED RAISE (85')
0.66 oz Au
36.5 oz Ag
10.2' core length
5' true width
PROPOSED DRILL HOLES (450')
No 4 LEVEL
A
A'
Scale: 1"=20'

Fig. No. 5

PROPOSED DRILLING AND MINING PLAN

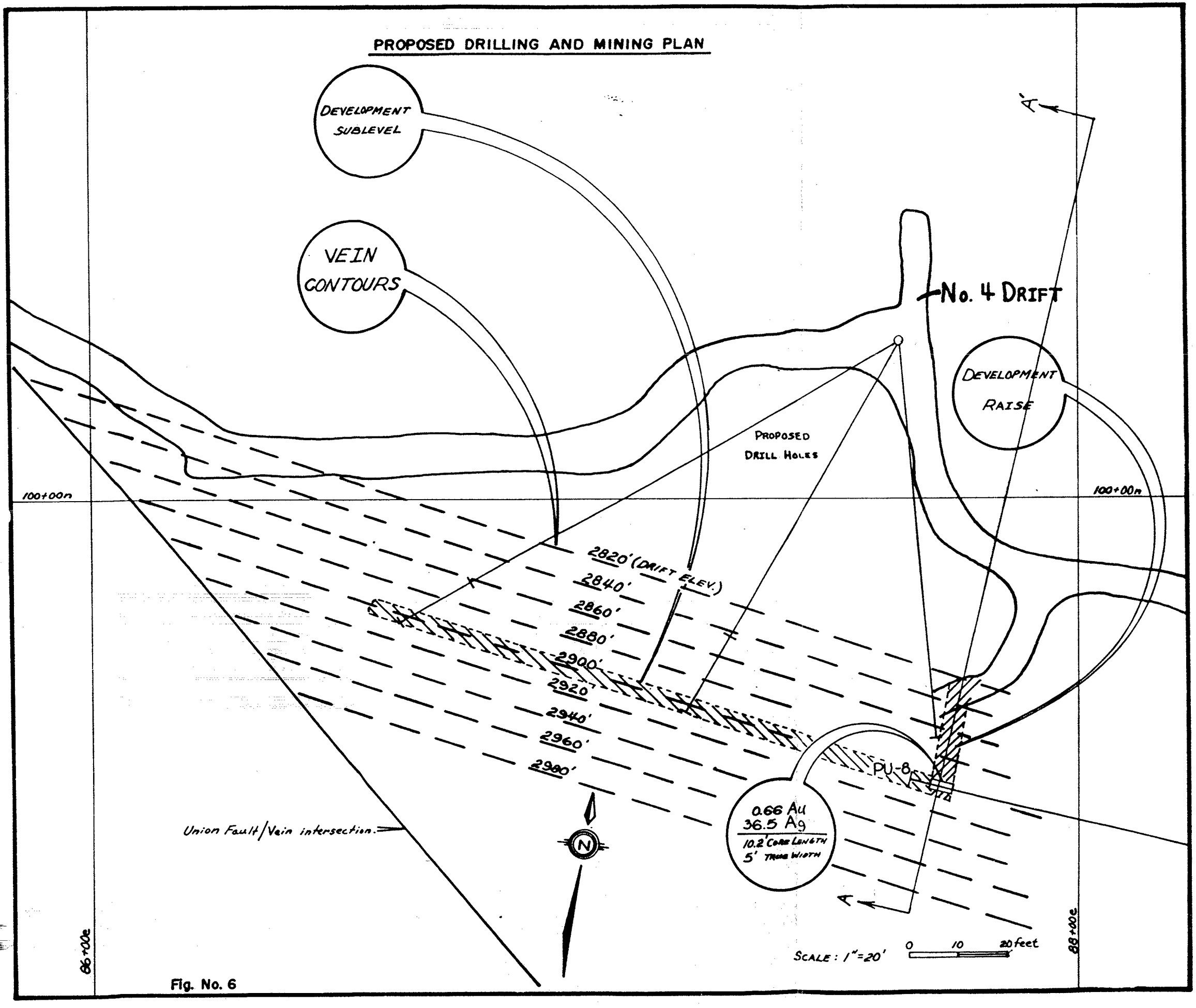


Fig. No. 6

Payable Metal	
Au 77,000 T x .044 x 74% x $400/oz =	985,000
Ag 77,000 T x 1.43 x 71% x $8/oz =	622,000
	$1,607,000
Less	
Capital Equipment Installed - say	200,000
Operating Costs	
Trucking, reagents, supp., labour, etc., @ $8/T	616,000
Agglomeration @ $1/T	77,000
Anticipated Profit before taxes, royalties, etc.	$ 714,000

Profitability appears attractive, although approximately $300,000 is required for capital equipment and working capital prior to initiation of pay back.

CONCLUSIONS

Main Union Vein

Mapping and sampling of all vein structures on 4-level yielded only trace amounts of both gold and silver values. The fan of eight drill holes testing for continuity and thickness of gold-silver mineralization between 3rd and 4th levels east of the Union Fault confirmed low grade values obtained in the 4th level sampling program. Drill holes PU-5 and PU-8 intersected significant high grade vein intersections as summarized below.

Drill Holes	True Thickness	Grade Au	Grade Ag (oz/T)	Dist. Above 4-Level
PU-5	10.0'	0.26	10.44	160 feet
PU-8	5.0'	0.95	54.3	80 feet

Although a preliminary reserve calculation suggests potential of 20,000 tons for continuous mineralization, a more realistic tonnage of 7,000-10,000 tons should be considered. Further definition drilling would have to be done to delineate reserves prior to initiation of a high grading scheme.

Gold Stope Extension

A fan of six diamond drill holes was successful in outlining the down dip extension of the Gold Stope to the 4th-level. Although the vein is persistent with a thickness varying from 3.0 to 7.5 feet, assay values are disappointingly low.

Delphim Zone

Three drill holes fanned from the northwest termination of the 4th level drift intersected the Delphim Vein Zone 25 feet beyond the drift wall. Although strong vein structures were intersected, no precious metal values were obtained.

Schulz Target

One drill hole was unsuccessful in locating vein mineralization below the existing Schulz Vein.

Union South Zone

The narrow south portion of the Main Union Vein not previously extracted between No. 2 level and surface has a tonnage potential of 8-10,000 tons grading 0.255 oz/T gold and 8.59 oz/T silver over a five foot mining width. This zone containing 64 tons per vertical foot over a strike width of 150 feet is highlighted with several assays up to 1.22 oz/T gold and 37.30 oz/T silver over five feet. Several short surface drill holes would have to be completed prior to consideration of direct shipping.

TAILINGS

Systematic sampling of the tailings has resulted in the delineation of approximately 70,000 tonnes (77,000 tons) grading 0.044 oz Au/ton and 1.43 oz Ag/ton. Column leach tests in progress suggest good extractability of both gold and silver with potential for making a substantial profit by conducting a leaching program.

RECOMMENDATIONS

Future programs on the Union Mine property are prioritized by first leaching of tailings, then continuation of the exploration program by drill testing for the extension of the Schulz Vein and evaluation of high grade intersected in the Main Vein.

Preliminary estimates for profitability of leaching the tailings is in the area of $700,000 from a possible $1.6 million of contained gold and silver, and is certainly an attractive venture to pursue.

Although the single hole drilled toward the Schulz extension did not encounter vein material, one drill hole cannot rule out the possibility of the extension. Geological data and modelling still suggest the extension of the Schulz Vein to be a down faulted portion of the Gold Stope Vein. This being the case, we strongly recommend further underground or surface diamond drilling to test for the Schulz Vein.

The Main Vein extension indicated by DDH PU-8 may contain significant grade and tonnage to venture into a high grading operation. Prior to high-grading, however, further diamond drilling is recommended. Figures 5 and 6 outline a limited drilling and mining development proposal. Costs of this proposal, including 300 metres (1,000 feet) of drilling and 30 metres (100 feet) of raising is estimated at $30,000 and $40,000 respectively (see Appendix D). It is further estimated that a high grade operation would not be profitable unless a grade of 1.0 to 1.5 oz Au/ton

equivalent were outlined in the reserve.

Respectfully submitted,

Thomas J. Drown

UNION GOLD PROJECT

SUMMARY OF 1984 EXPENDITURES - JUNE 6 TO DECEMBER 31, 1985

PHYSICAL WORK (June 6 through August 23, 1984 inclusive)

- Underground - Drifting/Tunneling	$244,565.15
- Line cutting	1,316.76
- Portion of General Costs 20% of $139,667.57	27,933.51
Total	$273,815.42

GEOLOGY-GEOCHEMISTRY (June 6 through October 31, 1984 inclusive)

- Assays & Geochemical Analyses		$ 13,707.34
- Salaries: T.J. Drown, Project Geologist 138 days @ $175/day =	$24,150	
W.J. Roberts, Exploration Manager 30 days @ $200/day =	6,000	
P. Marshal, Surveyor 87 days @ $100/day =	8,700	38,850.00
- Metalurgical Testing & Thin Section Studies		3,055.48
- Portion of General Costs 50% of $139,667.57		69,833.79
Total		$125,446.61

DRILLING (November 1 through December 22, 1984 inclusive)

- 1,076 Metres of Underground BQ Drilling	$100,998.50
- Salareis: T.J. Drown, Project Geologist 52 days @ $175/day	9,100.00
- Assays	2,109.00
- Portion of General Costs 30% of $139,667.57	41,900.27
Total	$154,107.77

UNION GOLD PROJECT

SUMMARY OF 1984 EXPENDITURES CONTINUED

GENERAL COSTS

- Camp Maintenance (Trailer Rental, Catering, etc. June 6 - December 23, 1984)	$ 30,004.69
- Consulting Fees (R.H. Seraphim Engineering)	7,515.00
- District - (Phone, Expediting)	3,112.70
- Field Supplies/Equipment (Food, Office Supplies, Lumber, etc.)	21,230.78
- Fuel	4,204.15
- Maps, Printing, Drafting	2,386.92
- Transportation (Truck Rental, Shipping Costs - Trailers, Samples, Equipment)	35,333.94
- Project Management Fees	35,879.39
Total	$139,667.57

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2. Pike, J.A. (1935) - "The Union Mine", Thesis Presented to the Association of Professional Engineers of British Columbia.

3. Lisle, T.E. and Chilcott, R.P. (1965) - "Geological, Geophysical and Geochemical Report on the Franklin Mines Property, 1964"; Report for Franklin Mines Ltd. Part included in Assessment Report #00637 (1964).

4. Lisle, T.E. and Seraphim, R.H. (1980) - "Geology and Diamond Drill Report on Union M.C. 1980; Assessment Report #09115 for Pearl Resources Ltd.

5. Norman, G.W.H. (1968) - "Report on the Franklin Project, 1968". Report for Newmont Mining Corporation of Canada Ltd.; portion in Assessment Reports #01688 and #01845 (1968).

6. Norman, G.W.H. (1969) - "Franklin Project, 1969 - Field Work, Geological Considerations and Results". Report for Newmont Mining Corporation of Canada Ltd.

APPENDIX "A"

DIAMOND DRILL LOGS

AND

ASSAY RESULTS

APPENDIX "B"

PETROGRAPHIC DESCRIPTIONS

Harris
EXPLORATION
SERVICES

MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6 TELEPHONE (604) 929-5867

Job #84-51

4th September, 1984

Report for: R.H.Seraphim,
Seraphim Geological Engineering,
316-470 Granville St.,
VANCOUVER, B.C.
V6C 1V5

Samples:

8 hand specimens of rocks for petrographic/mineralogical study, with special reference to the mode of occurrence of Au and Ag.

One sample was designated Union Stope and another Union Dump. The remainder were un-numbered. For purposes of this study they were numbered consecutively 1 - 8. The corresponding slides are numbered 106X - 113X as shown below.

Blocks were cut from each sample through the areas visually estimated as being most strongly mineralized, and mounted on glass slides. The excess material was then cut off and the resultant chips (corresponding to the precise areas constituting the thin sections) submitted for Au and Ag analysis.

Results were as follows:

Slide No.	Sample No.		Au ppb	Equiv. oz/ton	Ag ppm	Equiv. oz/ton
106X	1	(Union Stope)	5,600	.16	117	3.3
107X	2	(Union Dump)	22,000	.63	254	7.3
108X	3		2,680	.08	460	13.1
109X	4		1,164	.03	254	7.3
110X	5		3,230	.09	714	20.4
111X	6		4,480	.13	398	11.4
112X	7		29,000	.83	209	6.0
113X	8		4,530	.13	465	13.3

The levels of Au and/or Ag in all the samples were judged to be significantly high and all were therefore finished as polished thin sections. This permits microscopic observation of both transparent and opaque constituents.

Individual petrographic descriptions of each slide are attached.

Summary:

The eight samples making up this suite show a high degree of simialrity in mineralogy and texture.

The gangue, or host rock, is made up in all cases of various proportions of

quartz and calcite, with accessory chlorite, sericite and clays. Several of the samples have trace amounts of tourmaline and one has amphibole as an additional accessory.

The textural relationships of these minerals are complex and indicative of a multi-phase history of brecciation, alteration and replacement. This has essentially obscured the original character of the rock.

With one exception (#1, which is strongly impregnated with sphalerite and galena), the samples show a consistent style of mineralization. This is characterized by a low content (1 - 4%) of sulfides - principally pyrite. With this are associated moderate to high values in both Ag and Au.

Ag values have been established from the present study to occur in the form of fine grained disseminations of ruby silver, argentite and, probably, a related mineral (or minerals) of undetermined identity. These occur mainly as individual particles 2 - 100 microns in size, in chlorite-sericite or quartz gangue. To a much lesser extent they occur intergrown with pyrite.

The source of Au remains largely undetermined and additional work is required to answer this question. Native gold was seen in minor amounts in two of the samples (#s 1 and 8) but, most surprisingly, none at all could be found in the two (#s 2 and 7) showing the highest analysed values.

Experience suggests that Au particles can almost always be found in polished sections of samples where the corresponding chip analysed 5,000 ppb or more. Its apparent absence in the two high samples in this suite is, in my opinion, unlikely to be accounted for by extreme segregation or "nugget" effects.

The alternative is that the Au is present in a form other than the native metal. The mineralogy of Au is extremely simple and the only other common form is as tellurides. There are several different, naturally occurring tellurides in which Au occurs, either on its own or in combination with Ag. They vary considerably in their optical properties and are rather easy to overlook or confuse with other commoner minerals, especially when present as tiny, possibly ill-polished, grains.

Recommendations:

Chemical analyses of the study samples confirm the presence of both Ag and Au in substantial quantities. The average Ag content is in the order of 10 oz/ton, and the average Au content about 0.1 oz/ton if the two highest values are excluded, or 0.25 oz/ton if they are included. At current metal prices, the value of contained Ag approximates, or may even exceed, the value of the Au.

It will be important, therefore, to establish metallurgical treatment conditions for optimum recovery of both metals. In order to do this, a more complete knowledge of the mineralogy, particle size and textural relationships of Au and Ag in the deposit is required.

A lot more information can be obtained from the present suite by carrying out the following additional work:

i) Analyse the sample pulps for Te to test the hypothesis that Au (and possibly some Ag occurs largely in telluride form. If so, a good correlation between Au and Te contents should be apparent. Estimated cost: $45.00.

ii) Do microanalysis of selected grains in the polished sections, using the scanning electron microscope. This will allow firmer identification of the various different optically distinguishable phases, and enable an appraisal to be made as to their relative abundance, size distribution, etc. Estimated cost (including instrument rental): $200.00.

iii) Interpretation and report based on the above work: $75.00 (or $150.00 if annotated colour photomicrographs are provided by way of illustration).

With regard to the assessment of tailings samples for treatablility by leaching, a small microscopic study would provide useful information. It should, however, be done after the completion of work on the rock samples as described above. Estimated cost for a study of 4 samples, including preparation and analyses, would be $320.00.

J.F.Harris Ph.D.

Slide 106X (Sample #1, Union Dump)

Estimated mode

Quartz	45
Calcite	10
Chlorite	3
Sericite	2
Sphalerite	32
Galena	8
Chalcopyrite	trace
Pyrite	trace

This rock is heavily impregnated with sulfides (dominantly sphalerite with lesser galena).

The principal gangue constituent is quartz, which occurs as an irregular mosaic of highly variable grain size, from 0.02 - 0.5mm. The coarser material forms vein-like bodies (sometimes with comb-type, parallel growth of elongate crystals) irregular patches and individual grains, grading to intervening areas of finer material. The aspect is that of a totally silicified breccia.

A few angular patches of exceptionally fine-grained quartz (0.01mm) pervasively impregnated with calcite and chlorite are clearly relict fragments.

Calcite occurs throughout the rock as angular pockets, 0.05 - 0.5mm in size, often bounded by euhedral quartz crystal faces, and as a network of rather irregular veinlets. Felted chlorite and/or sericite are sometimes associated with the carbonate and also form fine disseminations and irregular patches in their own right, especially associated with sulfides.

The sulfides form irregular patches up to several mm in size, branching networks and lines of small grains. They appear to be partially structurally controlled and partially intergranular to the quartz. The finest sulfides are clearly associated with the calcite/chlorite veinlets.

Sphalerite is the dominant mineral forming host to intergrown galena, which occurs as irregular, disconnected patches, 0.02 - 0.2mm in size.

Both sphalerite and galena are notably homogenous and free of inclusions of other sulfide phases.

Chalcopyrite and rare pyrite occur chiefly as small separate anhedral grains, up to 0.2mm, in the gangue.

Two grains of gold, one 20 x 10 microns and the other 10 microns, were seen within granular quartz marginal to the more massive sulfides.

No discrete Ag minerals were recognized but the quality of polish leaves something to be desired and small specks (especially of hard-to-polish minerals like argentite) could have been overlooked.

The analysed level of Ag in this rock is low enough that it could be held entirely in solid solution in the galena and sphalerite.

Slide 107X (Sample #2, Union Stope)

Estimated mode

Quartz	67
Calcite	20
Chlorite	4
Sericite	4
Pyrite	3
Sphalerite	2
Chalcopyrite	trace
Mineral X	trace
Galena	trace
Argentite	trace

This slide contains disseminated sulfides in a gangue dominantly composed of quartz.

The quartz is similar in texture to that in 106X, consisting of a mosaic of highly variable grain size in which more or less well-defined coarser patches and elongate masses of grain size, 0.1 - 0.2mm (rarely to 0.5mm) are set in a finer mosaic in the 0.02 - 0.07mm range.

Calcite is rather abundant, forming irregular branching patches up to several mm or more in size, as well as small, dispersed, interstitial pockets (0.02 - 0.2mm) throughout the quartz. Occasional thin veinlets of carbonate also occur.

Chlorite and sericite, commonly intergrown, show a similar mode of occurrence to the carbonate (and sometimes occur intimately intergrown with it). They show a randomly oriented, fine-grained felted texture, except in some sinuous shear-fractures, where they are elongate, flaky.

Sulfides are sparsely disseminated. They often show a close association with the patches and streaks of chlorite/sericite/carbonate.

Pyrite is the most abundant sulfide, as subhedral grains, 0.05 - 0.5mm, commonly in clumps and elongate strings.

Sphalerite forms irregular pockets and interstitial impregnations, especially in patches of carbonate/micas. It is seldom associated with the pyrite. It is notably different from the sphalerite in 106X in that it commonly has a high content of tiny non-oriented exsolution blebs of chalcopyrite.

Chalcopyrite, galena, a slightly darker anisotropic mineral ("mineral X") and possible traces of argentite occur in similar mode to the sphalerite, as scattered irregular flecks, 5 - 100 microns in size.

No undoubted source for the considerable Ag content (c. 7 oz/ton) was found. Thereis essentially no galena to act as a carrier so specific Ag minerals must be present.

Mineral X is a prime candidate. It looks like one of the numerous and complex sulfosalts of Pb, Sb, Ag, Cu etc.

In view of the apparent absence of Au in elemental form (a really surprising feature in view of the high Au analysis) it is also possible that mineral X could be a Au-Ag telluride such as petzite.

Slide 108X (Sample #3)

Estimated mode

Quartz	90
Calcite	7
Sericte	1
Chlorite	1
Sulfides	1

This sample consists essentially of quartz, as an irregular aggregate showing similar textural features to previous rocks of the suite. Relatively coarse-grained, locally comb-textured material of grain size up to 1mm occurs as more or less well-defined vein-like or irregular patches within a finer matrix (0.02 - 0.1mm). Still finer patches have the aspect of remnant fragments and the whole thing is porbably a totally silicified breccia.

Calcite occurs as irregular interstitial pockets up to several mm in size with some of the coarse comb quartz, and as network permeations down to 0.01mm within the finer mosaics.

Chlorite and sericite are very minor, occurring chiefly as irregular, discontinuous wisps and veinlets, sometimes with associated calcite.

Sulfides consist dominantly of pyrite as scattered subhedral - euhedral individuals, 0.01 - 0.2mm, occasionally aggregating to clumps of 1mm or more.

Trace constituents are ruby silvers, argentite, mineral X (see description for 107X), chalcopyrite and galena. The ruby silver is the most abundant. These minerals occur mainly as scattered small individual grains, 5 - 50 microns in size, and, less commonly, as an interstitial or adhering phase to pyrite clumps and individuals.

Slide 109X (Sample #4)

Estimated mode

Quartz	79
Calcite	15
Sericite)	3
Clays)	
Chlorite	2
Tourmaline	trace
Sulfides	1

As in the others of the suite, the gangue in this sample is composed dominantly of quartz with accessory calcite.

The quartz is mainly of the fine-grained (0.01 - 0.05mm) type, but a couple of rather prominent, elongate, veniform masses of coarse comb-textured material with grain size to 1mm or more, with vuggy pockets filled with sparry calcite, are also present.

The hand specimen shows patchy structures probably representing replaced breccia fragments and the slide shows a concentric distribution of calcite impregnations which appears to define a folded bedding structure (now totally silicified).

The calcite in this sample appears somewhat more segregated, less dispersed, than in some of the others. It typically forms coarse-grained pockets within and marginal to the elongate coarser quartz masses, and elongate zones of network impregnations in the finer mosaics.

This rock is unlike its predecessors in the suite in containing a proportion of brown sub-opaque material which appears to be a mixture of fine-grained sericite and clays. This forms elongate diffuse patches, especially following the folded relict layering referred to earlier. Chlorite is the other accessory, in similar mode to the sericite/clays and often associated with calcite and sulfides.

Tourmaline, of a striking blue colour, forms scattered small diffuse patches, 0.05 - 0.1mm, associated with chlorite and sulfides, and occurs as prismatic clumps and radial clusters in an elongate, structurally controlled zone.

The sparse sulfides consist mainly of pyrite as scattered individual subhedral - anhedral grains, 0.02 - 0.5mm in size. This includes a proportion of the fine-grained, colloform, poorly-polishable variety known as melnikovite, as well as some dusty-looking marcasitic grains.

Sphalerite occurs as a very few isolated irregular grains, 0.5 - 1.0mm.

The only other constituents are rare tiny grains (10 - 50 microns) of argentite and ruby silvers.

Slide 110X (Sample #5)

Estimated mode

Quartz	70
Calcite	17
Chlorite	7
Sericite)	2
Clays)	
Tourmaline	trace
Sulfides	4

This is a rock of similar mineralogy to the others of the suite. The quartz, however, is noticeably finer grained overall. There are a few pockets or veinlike segregations with grains to 0.5mm, but dominantly it consists of angular to sub-angular patches of differing grain size in the range 0.01 - 0.1mm. These are outlined by ramifying stockwork impregnations and microbreccia zones of calcite, chlorite, sub-opaque sericite/clay and very fine-grained dusty opaques.

The fragmental/breccia character of this sample is the most clearly defined of all the suite.

Blue tourmaline is a notable trace accessory, mainly associated with sulfide clumps.

The sulfides are dominantly pyrite as disseminated subhedral grains, 0.02 - 0.5mm, locally aggregating to patches of 1 - 2mm. These often have minor intergrowths and rims of marcasite. The majority of the fine "dusty" material in the crush zones also appears to be marcasite, in the size range 2 - 25 microns.

Minor argentite, mineral X (see 107X) and ruby silver occur as intergrowths in the latter association and as scattered small disseminated grains up to 100 microns in size. Sphalerite is another trace accessory.

It is difficult to quantify observations of the relative abundance of these trace minerals from slide to slide, but they do not seem strikingly more abundant in this, the most highly argentiferous sample of the suite.

Slide 111X (Sample #6)

Estimated mode

Quartz	35
Calcite	47
Chlorite	10
Sericite)	6
Clays)	
Tourmaline	trace
Sulfides	2

The quartz in this slide lacks the coarse comb-textured masses seen in most of the others. It consists of patchily varying granular aggregates in the grain size range 0.01 - 0.1mm.

Carbonate is much more abundant than in any of the previous samples. It occurs mainly as coarse invasive patches several mm in size with inclusions of granular quartz. Individual calcite grains in these areas reach 1mm or more in size.

More finely dispersed, pervasive carbonate is also present, but prominent veinlets are apparently absent.

Chlorite displays a similar mode to the calcite and the two minerals are often associated, with chlorite forming marginal intergrowths to some of the carbonate masses. It also forms pockets and diffuse impregnations in its own right, frequently with associated sub-opaque clays and sericite.

Sulfides are commonly associated with the chloritic patches. Pyrite is the dominant mineral, as anhedral to subhedral disseminated grains, 0.02 - 0.2mm. A proportion of the pyrite is the colloform, poorly-polished melnikovite form, sometimes partially or completely altered to iron oxides. Marcasite is a minor accessory, as scattered euhedra and clusters of tiny micron-sized grains.

The usual trace amounts of ruby silver, mineral X and argentite are present, as grains 0.01 - 0.1mm, individually or intergrown with fine-grained marcasite.

Slide 112X (Sample #7)

Estimated mode

Quartz	46
Calcite	35
Chlorite	8
Sericite)	7
Clays)	
Tourmaline	1
Sulfides	3

This is a rock of similar mode and texture to 111X.

The quartz consists of patchily variable mosaic aggregates of grain size 0.01 - 0.1mm, and generally lacks coarser comb-textured masses.

Calcite forms large amoeboid areas with included patches of quartz mosaic, as well as finer grained pervasive impregnations, often intimately intergrown with chlorite and sub-opaque clays/sericite. Some distinct veinlets of carbonate, with associated sulfides, are also present.

Chlorite and the clay/sericite material are particularly abundant, forming irregular diffuse patches and elongate zones, intergranular networks and replacements outlining quartz grains, and rims to carbonate patches.

Tourmaline (the characteristic blue variety of this suite) forms scattered grains and radiating prismatic aggregates, often intergrown with sulfides.

Sulfides consist dominantly of pyrite with lesser amounts of marcasite and melnikovite, both intergrown with pyrite and independently. They form subhedral individual grains, 0.02 - 0.2mm, clusters of micron-sized grains associated with chlorite and sericite /clay areas, and occasional fracture fillings with carbonate.

Trace accessories are sphalerite, galena, mineral X and ruby silver.

The Ag and possibly Au-bearing phases are not present in any greater than normal abundance in this sample - in fact they appear to be particularly sparse. No obvious source for the high Au content (>0.8 oz/ton) was recognized.

Slide 113X (Sample #8)

Estimated mode

Quartz	40
Calcite	44
Chlorite	5
Clays)	
Sericite)	3
Biotite)	
Amphibole	5
Tourmaline	trace
Sulfides	3

The quartz in this sample is mainly very fine-grained, cherty, having a grain -size of 0.01 - 0.03mm. Occasional patches or individual grains reach 0.1mm.

Carbonate forms coarse poikilitic areas full of individual quartz grains and patches of mosaic (unreplaced remnants?). The calcite grains reach 1mm or more in size - in striking contrast to the fine grain size of the quartz.

The accessory micaceous constituents (chlorite, sericite/clay) recorded in the other rocks of the suite are present here, but with some differences. A few clumps of what appears to be altered biotite occur (indeed much of the chlorite in this rock has a coarser, more blocky texture than the very fine-grained felted material seen previously, and may be an alteration of biotite) and there is a prominent addition to the accessory suite in the form of a weakly pleochroic, olive brown amphibole. This locally forms clumps of subhedral prismatic grains up to 0.5mm in size, and coarse skeletal or emulsion-type intergrowths with calcite. Elsewhere it is finer grained, fibrous and more diffuse. It is extensively intergrown with chlorite.

The chlorite, sericite/clay and amphibole form pervasive, intergranular replacements in the quartz and often concentrate as marginal zones to the carbonate masses.

Blue tourmaline is present as scattered clusters associated with chlorite, clays and sulfides.

Parts of the slide show a clearly perceptible parallel banded structure (produced by alternating elongate zones of carbonate and quartz, often with rather sharp contacts, and emphasized by the distribution of the chlorite, etc.) which may represent a relict layered structure in the original (now totally altered and replaced) host rock.

As usual, pyrite is the principal sulfide, as disseminated grains, 0.01 - 0.2mm. These are noticeably ragged, anhedral and show intimate intergrowths with, and inclusions of, chlorite, sericite etc. Their distribution closely follows streaks and patches of those minerals.

The pyrite includes a proportion of the melnikovite variety, but marcasite is not as prominent as in some of the other slides. Minor arsenopyrite is, however, present.

Sphalerite is an accessory, as scattered individual anhedral grains to 0.2mm in quartz, and occasionally intergrown with pyrite clusters.

Slide 113X cont.

Other trace constituents are ruby silver, mineral X, galena and chalcopyrite. These occur as tiny grains, 2 - 30 microns, in chloritic/clay alteration patches, as well as in intergrowths and inclusions in pyrite.

Two small rounded grains of gold (2 x 12 microns in size) in quartz gangue were noted.

Harris
EXPLORATION
SERVICES

MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6 TELEPHONE (604) 929-5867

Job # 84-68
October 19th, 1984

Report for: R.H. Seraphim,
422-470 Granville St.,
Vancouver, B.C.
V6C 1V5

This report describes work on rejects from Sample 3013 from the Union-Pearl property. This assayed 11.6 oz/ton Au and was presented in the hope of observing the mode of occurrence of the gold under the microscope.

In order to maximise this possibility, the sample (already crushed to c. 2mm) was lightly pulverised to reduce it in size to -20 mesh and put through a sink/float separation in tetrabromoethane (SG 2.8). A portion of the heavy concentrate from this separation was mounted as a polished thin section (slide 208X).

The concentrate consists of grains mainly in the size range 0.01 - 0.4mm. Opaques make up about 40% of the total grains, the remainder being carbonate, quartz and minor amounts of various silicates.

The opaques consist essentially of pyrite and chalcopyrite, in the ratio of about 3:2. Very minor amounts of sphalerite, galena and magnetite are also present, together with traces of other minerals.

Gold, though not abundant, is clearly observable. It shows a wide range of sizes and mineral associations.

Liberated grains were observed in sizes ranging from 60 - 200 microns. Shapes are generally irregular, somewhat equant and sometimes tabular.

Composite grains, where the gold is associated with pyrite and quartz, were also commonly observed. These locked gold particles range in size down to 2 microns in quartz and 15 microns in pyrite. Coarser combined particles, involving gold up to 70 microns, were also seen.

One case was observed of gold finely intergrown with ruby silver, and another where it occurs as inclusions in what appears to be magnetite. Some of the coarser gold grains contain inclusions or adhering specks of pyrite.

It is notable that despite the high content of chalcopyrite in this sample, no gold was observed in association with that mineral.

The enclosed photomicrographs illustrate some of the features described above.

J.F.Harris

J.F.Harris Ph.D.

PHOTOMICROGRAPHS

All photographs are by plane polarized reflected light at the scale 1cm = 0.025mm (25 microns).

Neg.# 33-8A — Liberated grains(s) of gold (200 microns). Buff-coloured grain (centre) is pyrite.

Neg.# 33-9A — Liberated gold (c. 60 microns). Other grains are pyrite (buff coloured) and galena (blue-grey, centre).

Neg.# 33-10A — Shows unliberated relatively coarse gold (far right, c. 75 microns) as composite grain with pyrite (buff colour with dark pits and fractures). Large yellow grain (left, less bright than gold) is chalcopyrite.

Neg.#33-11A — Coarse liberated gold (c. 200 microns). Note that the polished area, in the plane of the surface, is just one edge of a larger flattened grain, more of which is hazily visible deeper in the epoxy mounting medium.

Neg.#33-12A — Finer-grained gold (c. 30 microns) composite with quartz (grey, fractionally lighter than the overall background, and outlined by darker pits). The gold is intimately intergrown with a ruby silver mineral (thin blue-grey zig-zag across the gold grain). The whiter grains of similar size to the gold are pyrite.

Neg.# 33-14A — Fine-grained gold (2 - 12 microns) as inclusions in magnetite (or tetrahedrite?) The clusters of brightest yellow specks are gold. The duller yellow specks (e.g. at the extremities and lower edge of the grey host grain) are chalcopyrite.

Neg.# 33-15A — Gold (circled) as small (17 micron) inclusion totally within pyrite.

Neg.# 33-16A — Gold (12 micron grain, centre) partially enclosed in quartz (dark grey: distinguishable from the background by outlines of dark pits).

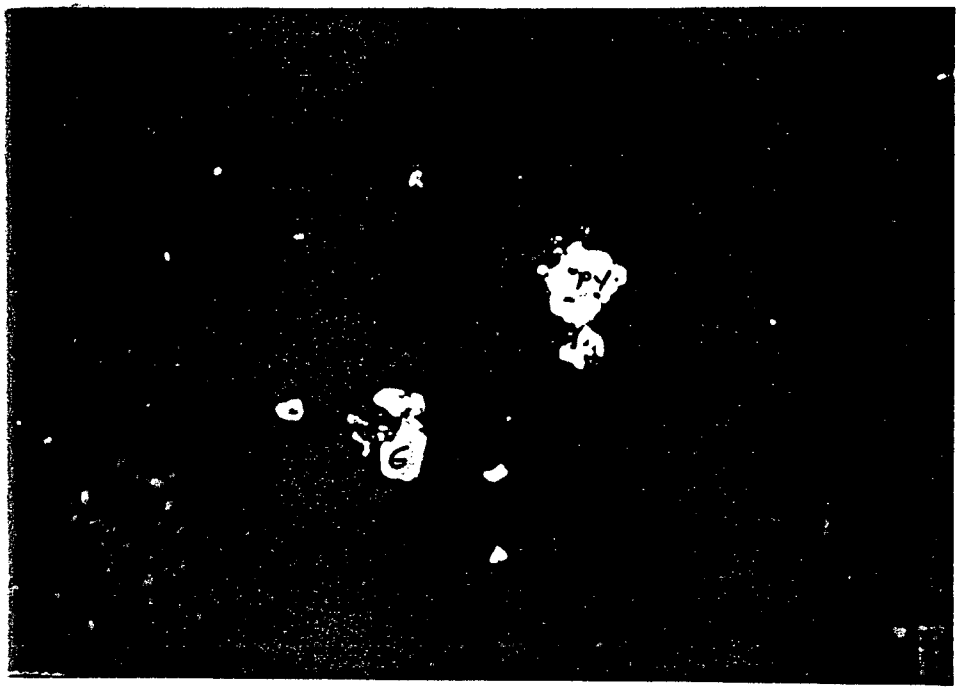
33 8 A

33 10 A

PY = PYRITE
CHPY = CHALCO PYRITE
G = GOLD
GA = GALENA

33 9 A

33 11 A

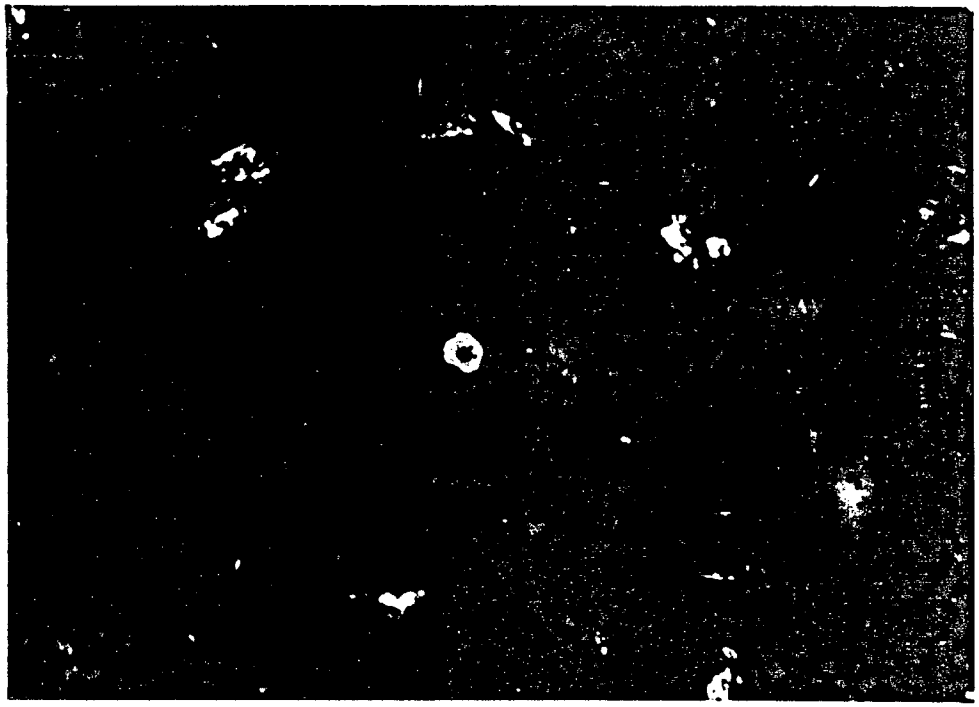


33 12 A

33 15 A

GOLD IN MAGNETITE

33 14 A



APPENDIX "C"

GEOCHEMICAL ANALYTICAL PROCEDURES

PHONE 980-5814

APPENDIX C

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURE FOR GOLD GEOCHEMICAL ANALYSIS.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pre-treated with HNO_3 and $HClO_4$ mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.

APPENDIX "D"

HIGH-GRADE MINING PROPOSAL BUDGET

PEARL UNION PROJECT

MINING PROPOSAL BUDGET

Prior to mining of the high grade zone intersected in PU-8 at least 4 more drill holes (fig. 1 and 2) should be drilled to prove dimensions of the zone. Access to this zone may be achieved by an 85' raise form the No. 4 level and a limited sublevel to bulk sample the lode. Estimated costs for this preparatory work are given below:

BUDGET

ITEM	COST
Mobilization - Demobilization	$ 2,500
Diamond Drilling (assays included) 450 ft x $30/ft	13,500
Drill station slashing 1300 ft^3 x $4/$ft^3$	5,200
Raising (8'x8') 85 ft x $200/ft	17,000
Sublevel drifting (5'x7') 50 ft x $230/ft	11,500
Timber: staging, shute, etc., in raise	2,000
Camp Costs $35/day x 30 days x 6 men	6,300
Wages - geologist; supervision, etc.	4,500
Total	$62,500

Fig 1

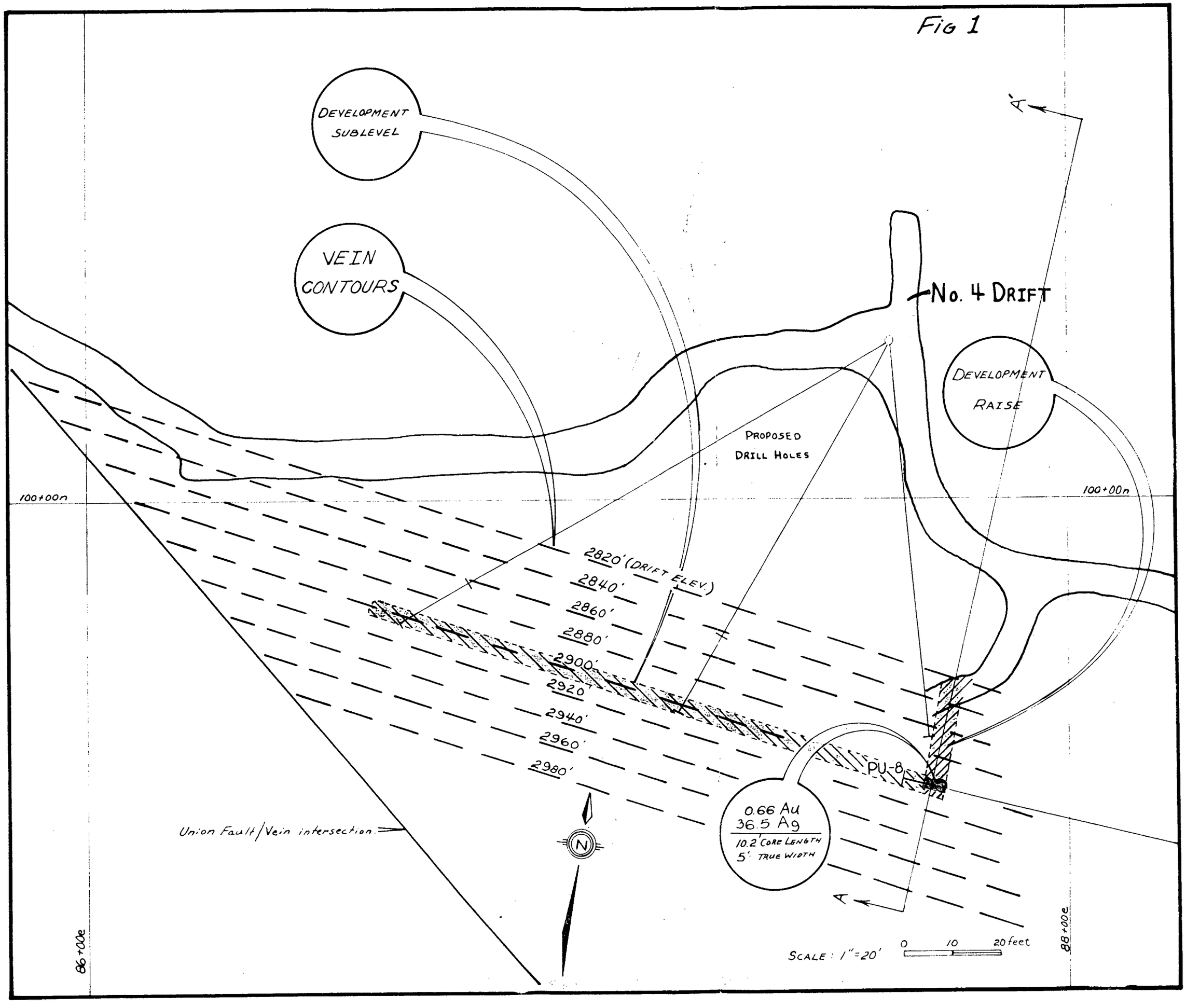
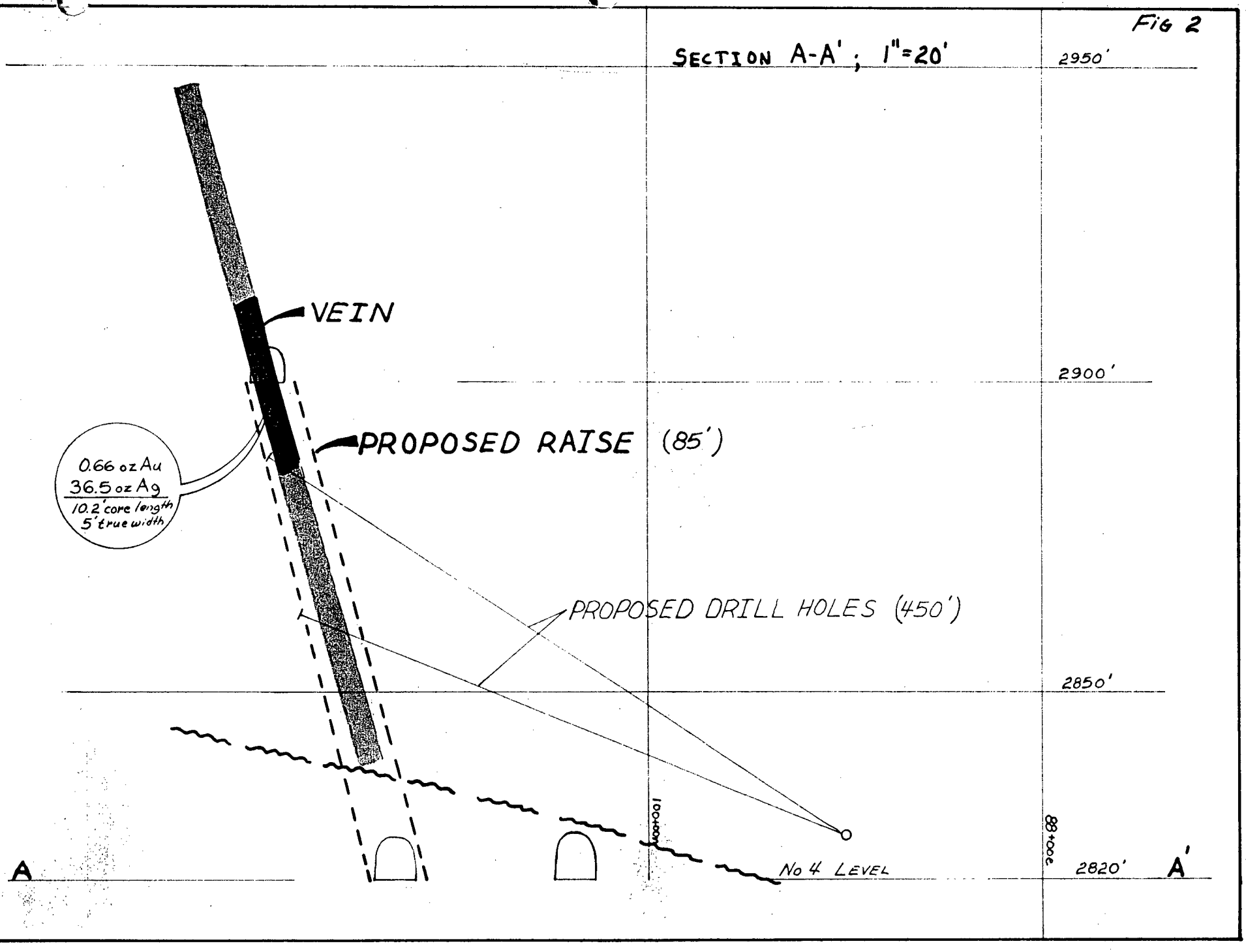

DEVELOPMENT SUBLEVEL
VEIN CONTOURS
No. 4 DRIFT
DEVELOPMENT RAISE
PROPOSED DRILL HOLES
100+00n
100+00n
2820' (DRIFT ELEV.)
2840'
2860'
2880'
2900'
2920'
2940'
2960'
2980'
PU-8
0.66 Au
36.5 Ag
10.2' CORE LENGTH
5' TRUE WIDTH
Union Fault/Vein intersection
N
A
A
SCALE: 1"=20'
0 10 20 feet
86+00e
88+00e

Fig 2


SECTION A-A' ; 1"=20'
2950'
2900'
2850'
2820'
VEIN
PROPOSED RAISE (85')
0.66 oz Au
36.5 oz Ag
10.2' core length
5' true width
PROPOSED DRILL HOLES (450')
No 4 LEVEL
A
A'

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-440
DATE: JUNE 27/84
TYPE: ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3082	70.5	2.06	0.32	0.009
3083	16.8	0.49	0.20	0.006
3084	64.0	1.87	0.34	0.010
3085	4.5	0.13	2.06	0.060
3086	7.9	0.23	0.15	0.004
3087	6.2	0.18	0.40	0.012
3088	0.8	0.02	0.04	0.001

Certified by

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PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY WELCOME NORTH MINES
ATTENTION J. BROCK

FILE 4-330
DATE JUNE 7/84

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	CU %	PB %	ZN %
3001	549.0	16.01	6.04	0.176	.033	.10	.40
3002	44.2	1.29	1.43	0.042	.978	.04	.17
3003	354.0	10.32	24.50	0.715	.022		
3004	189.0	5.51	4.20	0.122	.060	4.98	3.12
3005	1060.0	30.92	38.50	1.123	.020	.11	.24
3006	569.0	16.60	3.50	0.102	.018	.09	.13
3007	222.0	6.47	2.02	0.059			
3008	31.4	0.92	0.79	0.023	.014	.03	.01
3009	157.5	4.59	1.43	0.042	.027	.04	.02
3010	124.5	3.63	2.51	0.073	.033	.04	.25
3011	115.8	3.38	2.42	0.071	.030	.11	.48
3012	1110.0	32.37	13.90	0.405	.081	.98	4.70
3013	130.5	3.81	398.00	11.608	1.460	.18	.17
3014	128.0	3.73	3.16	0.092	.012		
3015	703.0	20.50	2.52	0.073			
3016	1355.0	39.52	11.00	0.321			
3017	65.4	1.91	2.96	0.086	.270	2.52	5.22

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PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: UNION GOLD/PEARL
ATTENTION: TOM DROWN

FILE: 4-386
DATE: JUNE 19/84
TYPE: ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	
3018	1.5	0.04	0.75	0.022	
3019	0.1	0.01	0.46	0.013	
3020	0.1	0.01	0.34	0.010	
3021	27.8	0.81	2.23	0.065	
3022	11.6	0.34	0.41	0.012	
3023	0.1	0.01	0.01	0.001	grabs + wall rock old workings No4.
3024	0.5	0.01	0.03	0.001	
3025	34.7	1.01	0.20	0.006	
3026	26.4	0.77	0.22	0.006	
3027	9.0	0.26	0.65	0.019	
3028	3.6	0.10	0.10	0.003	
3029	1.8	0.05	0.03	0.001	
3030	11.7	0.34	0.37	0.011	
3031	0.3	0.01	0.04	0.001	ROUND 1
3032	0.2	0.01	0.02	0.001	
3033	1.9	0.06	0.01	0.001	2
3034	0.4	0.01	0.01	0.001	
3035	0.3	0.01	0.01	0.001	3
3036	0.8	0.02	0.01	0.001	
3037	0.1	0.01	0.01	0.001	4 MUCK SAMPLES FROM EACH 6 PT ROUND
3038	0.1	0.01	0.01	0.001	
3039	0.2	0.01	0.01	0.001	5
3040	0.1	0.01	0.01	0.001	
3041	0.1	0.01	0.02	0.001	6
3042	0.1	0.01	0.01	0.001	
3043	0.3	0.01	0.01	0.001	7
3044	0.1	0.01	0.01	0.001	

June 20/84 - Better assays expected to commence @ Round 10.
according to WSR

Certified by [signature]

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CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: T. J. DROWN

FILE: 4-394
DATE: JUNE 20/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3045	0.1	0.01	0.01	0.001
3046	0.1	0.01	0.01	0.001
3047	0.1	0.01	0.01	0.001
3048	0.2	0.01	0.01	0.001
3049	1.8	0.05	0.22	0.006
3050	0.4	0.01	0.02	0.001
3051	1.9	0.06	0.62	0.018
3052	2.0	0.06	0.24	0.007
3053	1.7	0.05	0.18	0.005
3053REJECT	1.3	0.04	0.20	0.006
3054	1.0	0.03	0.22	0.006
3054REJECT	1.7	0.05	0.03	0.001

Certified by Eric Smith

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CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: T. DROWN

FILE 4-416
DATE: JUNE 25/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3055	0.7	0.02	.04	0.001
3056	3.9	0.11	.20	0.006
3057	5.2	0.15	.44	0.013
3058	1.8	0.05	.04	0.001
3059	1.6	0.05	.03	0.001
3060	1.5	0.04	.01	0.001
3061	3.4	0.10	.01	0.001
3062	0.8	0.02	.02	0.001
3063	0.7	0.02	.01	0.001
3064	0.1	0.01	.01	0.001
65	0.1	0.01	.01	0.001
3066	0.1	0.01	.01	0.001
3067	0.1	0.01	.01	0.001
3068	0.2	0.01	.01	0.001
3069	0.1	0.01	.01	0.001
3070	7.0	0.20	.01	0.001
3071	4.6	0.13	.01	0.001
3072	16.8	0.49	4.22	0.123
3073	109.8	3.20	.80	0.023

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)NE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: T. DROWN

FILE 4-425
DATE: JUNE 27/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3074	0.1	0.01	.44	0.013
3075	0.2	0.01	.18	0.005
3076	0.1	0.01	.20	0.006
3077	0.1	0.01	.16	0.005
3078	0.2	0.01	.12	0.003
3079	2.0	0.06	.11	0.003
3080	0.1	0.01	.18	0.005
3081	0.1	0.01	.22	0.006

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PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTON: T. DROWN

FILE: 4-444
DATE: JUNE 29/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3501	4.6	0.13	0.02	0.001
3502	2.1	0.06	0.04	0.001
3503	1.0	0.03	0.10	0.003
3504	1.7	0.05	0.23	0.007
3505	1.3	0.04	0.10	0.003
3506	0.8	0.02	0.16	0.005
3507	1.6	0.05	0.06	0.002
3508	2.0	0.06	0.01	0.001
3509	0.9	0.03	0.01	0.001
3510	0.2	0.01	0.01	0.001
3511	8.1	0.24	0.01	0.001
3512	1.4	0.04	0.03	0.001
3513	1.6	0.05	0.04	0.001
3514	1.5	0.04	0.02	0.001
3515	1.3	0.04	0.04	0.001
3516	2.0	0.06	0.02	0.001
3517	1.9	0.06	0.03	0.001
3518	2.8	0.08	0.04	0.001
3519	1.7	0.05	0.04	0.001
3520	1.4	0.04	0.07	0.002
3521	2.3	0.07	0.03	0.001
3522	3.4	0.10	0.08	0.002
3523	1.6	0.05	0.09	0.003
3524	2.4	0.07	0.08	0.002
3525	1.4	0.04	0.05	0.001
3526	1.0	0.03	0.01	0.001
3527	0.8	0.02	0.02	0.001
3528	2.3	0.07	0.14	0.004
3529	0.5	0.01	0.02	0.001
3530	0.4	0.01	0.02	0.001

Certified by

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Specialists in Mineral Environments
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PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: T. DROWN

FILE: 4-439
DATE: JUNE 29/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3531	2.5	0.07	0.01	0.001
3532	11.4	0.33	0.04	0.001
3533	4.3	0.13	0.16	0.005
3534	1.3	0.04	0.02	0.001
3535	1.9	0.06	0.01	0.001
3536	0.2	0.01	0.01	0.001
3537	1.9	0.06	0.05	0.001
3538	1.2	0.03	0.09	0.003
3539	0.7	0.02	0.17	0.005
3540	0.6	0.02	0.01	0.001
3541	0.4	0.01	0.01	0.001
3542	1.5	0.04	0.01	0.001
3543	0.4	0.01	0.01	0.001
3544	0.1	0.01	0.01	0.001
3545	1.3	0.04	0.01	0.001
3546	0.6	0.02	0.01	0.001
3547	1.0	0.03	0.01	0.001
3548	0.1	0.01	0.01	0.001
3549	5.9	0.17	0.29	0.008
3550	12.0	0.35	0.12	0.003
3551	0.3	0.01	0.03	0.001
3552	0.1	0.01	0.06	0.002
3553	0.2	0.01	0.01	0.001
3554	0.1	0.01	0.01	0.001
3555	0.4	0.01	0.01	0.001
3556	0.1	0.01	0.01	0.001
3557	0.3	0.01	0.01	0.001
3558	0.3	0.01	0.02	0.001
3559	0.1	0.01	0.01	0.001
3560	0.9	0.02	0.02	0.001

Certified by

MIN-EN LABORATORIES LTD.

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE 4-463
DATE: JULY 2/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3089	0.1	0.01	.05	0.001
3090	0.2	0.01	.20	0.006
3091	5.4	0.16	.37	0.011
3092	1.0	0.03	.20	0.006
3093	2.1	0.06	.32	0.009
3094	8.4	0.24	.61	0.018
3095	4.0	0.12	.02	0.001
3096	6.5	0.19	.17	0.005
3097	2.0	0.06	.16	0.005
3098	54.0	1.57	2.80	0.082
3099	0.8	0.02	.19	0.006
3100	8.2	0.24	.24	0.007
3101	2.0	0.06	.22	0.006
3102	2.5	0.07	.19	0.006
3103	0.5	0.01	.02	0.001
3104	16.0	0.47	2.04	0.059
3105	6.0	0.17	.41	0.012
3106	5.9	0.17	.21	0.006
3107	10.2	0.30	.82	0.024
3108	36.0	1.05	.88	0.026
3109	11.0	0.32	.92	0.027
3110	10.4	0.30	.20	0.006

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705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE 4-465
DATE: JULY 3/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3591	0.1	0.01	.01	0.001
3592	0.1	0.01	.06	0.002
3593	0.1	0.01	.01	0.001
3594	0.1	0.01	.01	0.001
3595	0.1	0.01	.02	0.001
3596	0.1	0.01	.01	0.001
3597	0.1	0.01	.01	0.001
3598	0.1	0.01	.05	0.001
3599	0.1	0.01	.02	0.001
3600	0.1	0.01	.01	0.001
3601	0.1	0.01	.01	0.001
3602	0.1	0.01	.02	0.001
3603	0.1	0.01	.03	0.001
3604	0.1	0.01	.04	0.001
3605	0.1	0.01	.05	0.001
3606	0.1	0.01	.02	0.001
3607	0.1	0.01	.03	0.001
3608	0.1	0.01	.01	0.001
3609	0.1	0.01	.01	0.001
3610	0.1	0.01	.01	0.001
3611	0.1	0.01	.02	0.001
3612	0.1	0.01	.01	0.001
3613	0.1	0.01	.01	0.001
3614	0.1	0.01	.01	0.001
3615	0.1	0.01	.04	0.001
3616	0.1	0.01	.01	0.001
3617	0.1	0.01	.01	0.001
3618	0.1	0.01	.01	0.001
3619	0.1	0.01	.01	0.001
3620	0.1	0.01	.01	0.001

Certified by _____

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MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: TOM DROWN

FILE 4-486
DATE: JULY 3/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3621	0.1	0.01	.20	0.006
3622	0.1	0.01	.01	0.001
3623	0.1	0.01	.01	0.001
3624	2.2	0.06	.10	0.003
3625	0.2	0.01	.05	0.001
3626	0.1	0.01	.01	0.001
3627	0.1	0.01	.02	0.001
3628	0.1	0.01	.01	0.001
3629	0.1	0.01	.01	0.001
3630	0.2	0.01	.03	0.001
3631	0.2	0.01	.05	0.001
3632	0.1	0.01	.01	0.001
3633	6.0	0.17	1.05	0.031
3634	0.1	0.01	.06	0.002
3635	0.2	0.01	.01	0.001
3636	0.1	0.01	.03	0.001

Fred Hole #3

TH #14

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PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE 4-466
DATE: JULY 4/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3561	3.3	0.10	.01	0.001
3562	2.0	0.06	.01	0.001
3563	3.9	0.11	.12	0.003
3564	2.4	0.07	.01	0.001
3565	1.4	0.04	.01	0.001
3566	1.9	0.06	.02	0.001
3567	1.2	0.03	.01	0.001
3568	1.3	0.04	.05	0.001
3569	1.9	0.06	.02	0.001
3570	2.3	0.07	.01	0.001
3571	2.5	0.07	.01	0.001
3572	2.5	0.07	.05	0.001
3573	2.2	0.06	.01	0.001
3574	1.9	0.06	.06	0.002
3575	0.4	0.01	.04	0.001
3576	0.9	0.03	.02	0.001
3577	0.5	0.01	.20	0.006
3578	0.8	0.02	.22	0.006
3579	1.0	0.03	.05	0.001
3580	0.9	0.03	.04	0.001
3581	0.7	0.02	.01	0.001
3582	1.4	0.04	.03	0.001
3583	1.8	0.05	.04	0.001
3584	1.9	0.06	.01	0.001
3585	2.0	0.06	.01	0.001
3586	1.8	0.05	.01	0.001
3587	1.2	0.03	.01	0.001
3588	1.8	0.05	.01	0.001
3589	1.5	0.04	.02	0.001
3590	2.1	0.06	.01	0.001

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PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE 4-478
DATE: JULY 5/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3111	0.3	0.01	.01	0.001
3112	2.6	0.08	.77	0.022
3113	7.8	0.23	.01	0.001
3114	0.8	0.02	.44	0.013
3115	3.9	0.11	.70	0.020
3116	0.3	0.01	.06	0.002
3117	1.2	0.03	.01	0.001
3118	4.5	0.13	1.21	0.035
3119	2.3	0.07	.42	0.012
3120	2.1	0.06	.13	0.004

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MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-563/P1
DATE: JULY 13/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3637	0.1	0.01	0.01	0.001
3638	0.2	0.01	0.02	0.001
3639	0.1	0.01	0.04	0.001
3640	0.1	0.01	0.02	0.001
3641	0.1	0.01	0.01	0.001
3642	0.1	0.01	0.01	0.001
3643	0.2	0.01	0.06	0.002
3644	0.1	0.01	0.07	0.002
3645	0.1	0.01	0.12	0.003
3646	0.1	0.01	0.02	0.001
3647	0.1	0.01	0.01	0.001
3648	6.2	0.18	0.48	0.014
3649	0.2	0.01	0.02	0.001
3650	0.2	0.01	0.01	0.001
3651	0.2	0.01	0.01	0.001
3652	2.4	0.07	0.03	0.001
3653	0.2	0.01	0.02	0.001
3654	0.3	0.01	0.01	0.001
3655	0.1	0.01	0.13	0.004
3656	0.1	0.01	0.01	0.001
3657	0.1	0.01	0.01	0.001
3658	0.1	0.01	0.01	0.001
3659	0.1	0.01	0.01	0.001
3660	3.0	0.09	0.02	0.001
3661	0.2	0.01	0.01	0.001
3662	0.1	0.01	0.01	0.001
3663	0.2	0.01	0.01	0.001
3664	0.3	0.01	0.02	0.001
3665	0.1	0.01	0.01	0.001
3666	0.1	0.01	0.01	0.001

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705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEAR/UNION
ATTENTION: TOM DROWN

FILE: 4-563/P2
DATE: JULY 13/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3667	0.1	0.01	0.03	0.001
3668	0.1	0.01	0.01	0.001
3669	0.1	0.01	0.01	0.001
3670	0.1	0.01	0.01	0.001
3671	0.1	0.01	0.02	0.001
3672	0.1	0.01	0.01	0.001
3673	0.1	0.01	0.01	0.001
3674	0.1	0.01	0.02	0.001
3675	0.1	0.01	0.05	0.001
3676	0.1	0.01	0.03	0.001
3677	0.1	0.01	0.01	0.001
3678	0.1	0.01	0.01	0.001
3679	0.1	0.01	0.01	0.001
3680	0.1	0.01	0.01	0.001
3681	0.1	0.01	0.01	0.001
3682	0.1	0.01	0.02	0.001
3683	0.1	0.01	0.01	0.001
3684	0.1	0.01	0.01	0.001
3685	0.1	0.01	0.01	0.001
3686	0.1	0.01	0.01	0.001
3687	0.1	0.01	0.01	0.001
3688	0.1	0.01	0.01	0.001
3689	0.1	0.01	0.02	0.001
3690	0.1	0.01	0.01	0.001
3691	0.1	0.01	0.01	0.001
3692	0.1	0.01	0.02	0.001
3693	0.1	0.01	0.02	0.001
3694	0.1	0.01	0.01	0.001
3695	0.1	0.01	0.03	0.001
3696	0.2	0.01	0.01	0.001

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-563/P3
DATE: JULY 13/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3697	0.1	0.01	0.01	0.001
3698	0.1	0.01	0.01	0.001
3699	0.1	0.01	0.02	0.001
3700	0.1	0.01	0.01	0.001

Certified by

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Specialists in Mineral Environments

705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

AUG 17

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: UNION MINES
ATTENTION: R. SERAPHIM

FILE: 4-785
DATE: AUGUST 16/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	PH
5	19.8	0.58	.15	0.004	8.52
1	58.0	1.69	1.84	0.054	8.59
2	31.5	0.92	1.00	0.029	8.53
3	25.7	0.75	.58	0.017	8.50
4	52.6	1.53	1.22	0.036	8.69
6	26.0	0.76	2.85	0.083	8.60
7	24.0	0.70	2.20	0.064	8.62
8	59.3	1.73	1.82	0.053	8.60
9	56.0	1.63	1.18	0.034	8.70
10	41.8	1.22	1.64	0.048	8.70
[illegible]	50.0	1.46	1.50	0.044	8.72
12	42.7	1.25	1.42	0.041	8.70
[illegible]	54.0	1.57	1.83	0.053	8.80

Prelim tailings sampling

AVERAGE 1.21 g/t Ag. .043 Au

Certified by

MIN-EN LABORATORIES LTD.

AUG 13 1984

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604)253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED AUG 8 1984

DATE REPORTS MAILED Aug 10/84

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : SOIL - DRIED AT 60 DEG C. , -80 MESH, PULVERIZED.
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACHED, MIBK EXTRACTION, AA ANALYSIS.

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

WELCOME NORTH.
~~MT CALVERY~~ PROJECT# PEARL/UNION FILE# 84-2015 PAGE# 1

Copy for Y. Drew
New PEARL
UNION
PROJ.

SAMPLE	AU* PPB
82E 104+00N	5
82E 103+92N	5
82E 103+50N	5
82E 102+50N	5
82E 102+00N	5
82E 101+50N	5
82E 101+00N	5
82E 100+50N	5
82E 100+00N	5
82E 99+50N	5
82E 99+00N	5
82E 98+50N	5
82E 98+00N	5
83E 104+00N	5
83E 103+50N	5
83E 103+00N	5
83E 102+50N	5
83E 102+00N	5
83E 101+50N	5
83E 101+00N	5
83E 100+50N	5
83E 100+00N	5
83E 99+50N	5
83E 99+00N	5
83E 98+50N	5
83E 98+00N	5
84E 104+00N	5
84E 103+50N	5
84E 103+00N	5
84E 102+50N	5
84E 102+00N	5
84E 101+50N	5
84E 101+00N	5
84E 100+50N	5
84E 100+00N	55
84E 99+50N	5
84E 99+00N	5

AUG 13 1984

Welcome North

~~MT.CALVERY~~ PROJECT# PEARL/UNION FILE# 84-2015

SAMPLE	AU* PPB
84E 98+50N	5
84E 98+00N ✓	1630 ✓
85E 104+00N	5
85E 103+50N	20
85E 103+00N	5
85E 102+50N	5
85E 102+00N	5
85E 101+50N	5
85E 101+00N	5
85E 100+50N	35
85E 100+00N	5
85E 99+50N	5
85E 99+00N	5
85E 98+50N	5
85E 98+00N	5
86E 104+00N	5
86E 103+50N	5
86E 103+00N	25
86E 102+50N	35
86E 102+00N	5
86E 101+50N	5
86E 101+00N	15
86E 100+50N	5
86E 100+00N	5
86E 99+50N	5
86E 99+00N	5
86E 98+50N	5
86E 98+00N	5
87E 110+00N	5
87E 109+50N	5
87E 109+00N	5
87E 108+50N	5
87E 108+00N	5
87E 107+50N	5
87E 107+00N	5
87E 106+50N	5
87E 106+00N	5

AUG 13 1984

Welcome North

~~MT. CALVERY~~ PROJECT# PEARL/UNION FILE# 84-2015

SAMPLE	AU* PPB
87E 105+50N	5
87E 105+00N	5
87E 104+50N	15
87E 104+00N	35
87E 103+50N	160 ✓
87E 103+00N	5
87E 102+50N	45
87E 102+00N	5
87E 101+50N	15
87E 101+00N	5
87E 100+50N	5
87E 100+00N	20
87E 99+50N	5
87E 99+00N	15
87E 98+50N	5
87E 98+00N	5
88E 110+00N	10
88E 109+50N	5
88E 109+00N	5
88E 108+50N	5
88E 108+00N	5
88E 107+50N	5
88E 107+00N	5
88E 106+50N	5
88E 106+00N	5
88E 105+50N	5
88E 105+00N	5
88E 104+50N	5
88E 104+00N	5
88E 103+50N	5
88E 103+00N	325 ✓
88E 102+50N	5
88E 102+00N	5
88E 101+50N	5
88E 101+00N	5
88E 100+50N	5
88E 100+00N	5

SAMPLE	AU* PPB
88E 99+50N	5
88E 99+00N	5
88E 98+50N	5
88E 98+00N	5
90E 100+00N	5
90E 99+50N	35
90E 99+00N	25
90E 98+50N	5
90E 98+00N	305 ✓
90E 97+50N	15
90E 97+00N	10
90E 96+50N	5
90E 96+00N	5
91E 100+00N	5
91E 99+50N	5
91E 99+00N	20
91E 98+50N	955 ✓
91E 97+80N	330 ✓
91E 97+50N	275 ✓
91E 97+00N	75 ✓
91E 96+50N	5
91E 96+00N	5

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-68/P1
DATE: JULY 31/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	
3741	0.1	0.01	.01	0.001	TH 21
3742	0.1	0.01	.01	0.001	
3743	0.1	0.01	.01	0.001	
3744	0.1	0.01	.02	0.001	
3745	0.1	0.01	.01	0.001	
3746	0.1	0.01	.01	0.001	
3747	0.1	0.01	.06	0.002	
3748	0.1	0.01	.01	0.001	
3749	0.1	0.01	.01	0.001	
3750	0.1	0.01	.01	0.001	TH 22
51	0.1	0.01	.26	0.008	
3752	0.1	0.01	.01	0.001	
3753	0.2	0.01	.01	0.001	
3754	0.1	0.01	.01	0.001	
3755	0.2	0.01	.08	0.002	
3756	0.1	0.01	.01	0.001	
3757	0.1	0.01	.03	0.001	
3758	0.1	0.01	.01	0.001	
3759	0.1	0.01	.01	0.001	TH 23
3760	0.1	0.01	.01	0.001	
3761	0.1	0.01	.01	0.001	
3762	0.1	0.01	.01	0.001	
3763	0.1	0.01	.01	0.001	
3764	0.1	0.01	.01	0.001	
3765	0.1	0.01	.01	0.001	
3766	0.1	0.01	.01	0.001	
3767	0.2	0.01	.01	0.001	
3768	0.1	0.01	.01	0.001	
3769	NO SAMPLE				
3770	0.1	0.01	.01	0.001	TH 24

Certified by _____

MIN-EN LABORATORIES LTD.

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPNY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-648/P2
DATE: JULY 31/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	
3771	0.1	0.01	.01	0.001	
3772	0.1	0.01	.11	0.003	
3773	0.1	0.01	.01	0.001	
3774	0.1	0.01	.01	0.001	
3775	0.1	0.01	.01	0.001	
3776	0.1	0.01	.01	0.001	
3777	0.1	0.01	.01	0.001	
3778	0.1	0.01	.01	0.001	
3779	0.1	0.01	.04	0.001	TH 25
3780	0.2	0.01	.12	0.003	
81	0.1	0.01	.01	0.001	
3782	0.1	0.01	.01	0.001	
3783	0.1	0.01	.01	0.001	
3784	0.1	0.01	.01	0.001	
3785	0.1	0.01	.01	0.001	
3786	0.1	0.01	.01	0.001	
3787	0.1	0.01	.02	0.001	
3788	0.1	0.01	.01	0.001	TH 26
3789	0.1	0.01	.01	0.001	
3790	0.1	0.01	.01	0.001	
3791	0.1	0.01	.01	0.001	
3792	0.1	0.01	.01	0.001	
3793	0.1	0.01	.02	0.001	
3794	0.1	0.01	.03	0.001	
3795	0.1	0.01	.03	0.001	
3796	0.1	0.01	.01	0.001	
3797	0.1	0.01	.01	0.001	TH 27
3798	0.1	0.01	.01	0.001	
3799	0.1	0.01	.01	0.001	
3800	0.1	0.01	.01	0.001	

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-648/P3
DATE: JULY 31/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	
3801	0.1	0.01	.02	0.001	
3802	0.1	0.01	.01	0.001	
3803	0.1	0.01	.01	0.001	
3804	0.2	0.01	.02	0.001	
3805	0.3	0.01	.04	0.001	
3806	0.2	0.01	.02	0.001	TH 28
3807	0.1	0.01	.01	0.001	
3808	0.1	0.01	.01	0.001	
3809	0.1	0.01	.03	0.001	
3810	0.1	0.01	.01	0.001	
3811	0.2	0.01	.13	0.004	
3812	0.3	0.01	.01	0.001	
3813	0.2	0.01	.02	0.001	
3814	0.1	0.01	.03	0.001	
3815	0.1	0.01	.01	0.001	TH 29
3816	0.1	0.01	.02	0.001	
3817	0.1	0.01	.02	0.001	
3818	0.1	0.01	.01	0.001	
3819	0.1	0.01	.04	0.001	
3820	0.1	0.01	.01	0.001	
3821	0.2	0.01	.01	0.001	
3822	2.1	0.06	.04	0.001	TH 30
3823	0.2	0.01	.08	0.002	
3824	1.2	0.03	.04	0.001	
3825	0.3	0.01	.03	0.001	
3826	0.2	0.01	.01	0.001	
3827	0.1	0.01	.01	0.001	
3828	0.2	0.01	.01	0.001	
3829	0.1	0.01	.01	0.001	
3830	0.1	0.01	.01	0.001	

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705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2
PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-68/P1
DATE: JULY 31/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3741	0.1	0.01	.01	0.001
3742	0.1	0.01	.01	0.001
3743	0.1	0.01	.01	0.001
3744	0.1	0.01	.02	0.001
3745	0.1	0.01	.01	0.001
3746	0.1	0.01	.01	0.001
3747	0.1	0.01	.06	0.002
3748	0.1	0.01	.01	0.001
3749	0.1	0.01	.01	0.001
3750	0.1	0.01	.01	0.001
3751	0.1	0.01	.26	0.008
3752	0.1	0.01	.01	0.001
3753	0.2	0.01	.01	0.001
3754	0.1	0.01	.01	0.001
3755	0.2	0.01	.08	0.002
3756	0.1	0.01	.01	0.001
3757	0.1	0.01	.03	0.001
3758	0.1	0.01	.01	0.001
3759	0.1	0.01	.01	0.001
3760	0.1	0.01	.01	0.001
3761	0.1	0.01	.01	0.001
3762	0.1	0.01	.01	0.001
3763	0.1	0.01	.01	0.001
3764	0.1	0.01	.01	0.001
3765	0.1	0.01	.01	0.001
3766	0.1	0.01	.01	0.001
3767	0.2	0.01	.01	0.001
3768	0.1	0.01	.01	0.001
3769	NO SAMPLE			
3770	0.1	0.01	.01	0.001

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Specialists in Mineral Environments

705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPNY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-648/P2
DATE: JULY 31/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3771	0.1	0.01	.01	0.001
3772	0.1	0.01	.11	0.003
3773	0.1	0.01	.01	0.001
3774	0.1	0.01	.01	0.001
3775	0.1	0.01	.01	0.001
3776	0.1	0.01	.01	0.001
3777	0.1	0.01	.01	0.001
3778	0.1	0.01	.01	0.001
3779	0.1	0.01	.04	0.001
3780	0.2	0.01	.12	0.003
3781	0.1	0.01	.01	0.001
3782	0.1	0.01	.01	0.001
3783	0.1	0.01	.01	0.001
3784	0.1	0.01	.01	0.001
3785	0.1	0.01	.01	0.001
3786	0.1	0.01	.01	0.001
3787	0.1	0.01	.02	0.001
3788	0.1	0.01	.01	0.001
3789	0.1	0.01	.01	0.001
3790	0.1	0.01	.01	0.001
3791	0.1	0.01	.01	0.001
3792	0.1	0.01	.01	0.001
3793	0.1	0.01	.02	0.001
3794	0.1	0.01	.03	0.001
3795	0.1	0.01	.03	0.001
3796	0.1	0.01	.01	0.001
3797	0.1	0.01	.01	0.001
3798	0.1	0.01	.01	0.001
3799	0.1	0.01	.01	0.001
3800	0.1	0.01	.01	0.001

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-648/P3
DATE: JULY 31/84
TYPE: SLUDGE ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3801	0.1	0.01	.02	0.001
3802	0.1	0.01	.01	0.001
3803	0.1	0.01	.01	0.001
3804	0.2	0.01	.02	0.001
3805	0.3	0.01	.04	0.001
3806	0.2	0.01	.02	0.001
3807	0.1	0.01	.01	0.001
3808	0.1	0.01	.01	0.001
3809	0.1	0.01	.03	0.001
3810	0.1	0.01	.01	0.001
3811	0.2	0.01	.13	0.004
3812	0.3	0.01	.01	0.001
3813	0.2	0.01	.02	0.001
3814	0.1	0.01	.03	0.001
3815	0.1	0.01	.01	0.001
3816	0.1	0.01	.02	0.001
3817	0.1	0.01	.02	0.001
3818	0.1	0.01	.01	0.001
3819	0.1	0.01	.04	0.001
3820	0.1	0.01	.01	0.001
3821	0.2	0.01	.01	0.001
3822	2.1	0.06	.04	0.001
3823	0.2	0.01	.08	0.002
3824	1.2	0.03	.04	0.001
3825	0.3	0.01	.03	0.001
3826	0.2	0.01	.01	0.001
3827	0.1	0.01	.01	0.001
3828	0.2	0.01	.01	0.001
3829	0.1	0.01	.01	0.001
3830	0.1	0.01	.01	0.001

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PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: T. DROWN

FILE: 4-667
DATE: JULY 28/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AU G/TONNE	AU OZ/TON
5213	.03	0.001

Certified by _____

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705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

NE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-630
DATE: JULY 25/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3160	0.1	0.01	.02	0.001
3161	0.1	0.01	.01	0.001
3162	0.1	0.01	.01	0.001
3163	0.1	0.01	.01	0.001
3164	0.1	0.01	.01	0.001
3165	0.1	0.01	.18	0.005
3166	0.1	0.01	.02	0.001

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-625/P1
DATE: JULY 24/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3701	0.1	0.01	0.01	0.001
3702	0.1	0.01	0.01	0.001
3703	0.1	0.01	0.03	0.001
3704	0.1	0.01	0.01	0.001
3705	0.1	0.01	0.01	0.001
3706	0.1	0.01	0.01	0.001
3707	0.1	0.01	0.01	0.001
3708	0.1	0.01	0.02	0.001
3709	0.1	0.01	0.01	0.001
3710	0.1	0.01	0.01	0.001
3711	0.3	0.01	0.04	0.001
3712	0.1	0.01	0.02	0.001
3713	0.1	0.01	0.01	0.001
3714	0.2	0.01	0.01	0.001
3715	0.2	0.01	0.01	0.001
3716	0.1	0.01	0.09	0.003
3717	0.4	0.01	0.03	0.001
3718	0.1	0.01	0.02	0.001
3719	0.1	0.01	0.01	0.001
3720	0.1	0.01	0.01	0.001
3721	0.2	0.01	0.05	0.001
3722	0.3	0.01	0.09	0.003
3723	0.2	0.01	0.16	0.005
3724	0.1	0.01	0.06	0.002
3725	0.1	0.01	0.01	0.001
3726	0.3	0.01	0.20	0.006
3727	0.5	0.01	0.08	0.002
3728	0.1	0.01	0.02	0.001
3729	3.7	0.11	0.02	0.001
3730	0.1	0.01	0.01	0.001

Certified by

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-625/P2
DATE: JULY 24/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3731	0.1	0.01	0.08	0.002
3732	0.2	0.01	0.01	0.001
3733	0.1	0.01	0.01	0.001
3734	0.1	0.01	0.01	0.001
3735	0.1	0.01	0.01	0.001
3736	0.1	0.01	0.01	0.001
3737	2.8	0.08	0.01	0.001
3738	0.2	0.01	0.04	0.001
3739	0.1	0.01	0.07	0.002
3740	1.9	0.06	0.05	0.001

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-623
DATE: JULY 25/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3152	0.1	0.01	.01	0.001
3153	0.1	0.01	.01	0.001
3154	0.1	0.01	.01	0.001
3155	0.1	0.01	.01	0.001
3156	0.1	0.01	.02	0.001
3157	0.1	0.01	.22	0.006
3158	0.1	0.01	.03	0.001
3159	0.1	0.01	.03	0.001

Certified by _____

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: T. DROWN

FILE: 4-604
DATE: JULY 21/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3146	0.2	0.01	.18	0.005
3147	0.1	0.01	.20	0.006
3148	0.1	0.01	.02	0.001
3149	0.2	0.01	.20	0.006
3150	0.1	0.01	.18	0.005
3151	0.3	0.01	.30	0.009

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MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: TOM DROWN

FILE: 4-584
DATE: JULY 19/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3121	0.1	0.01	.01	0.001
3122	0.1	0.01	.02	0.001
3123	0.1	0.01	.01	0.001
3124	0.2	0.01	.01	0.001
3125	0.1	0.01	.05	0.001
3126	0.1	0.01	.02	0.001
3127	8.4	0.24	.96	0.028
3128	96.0	2.80	3.38	0.099
3129	12.5	0.36	.38	0.011
3130	8.0	0.23	.23	0.007
3131	102.0	2.97	4.82	0.141
3132	10.4	0.30	.36	0.010
3133	1450.0	42.29	37.30	1.088
3134	52.0	1.52	1.64	0.048
3135	14.5	0.42	.58	0.017
3136	638.0	18.61	8.92	0.260
3137	796.0	23.22	9.40	0.274
3138	26.0	0.76	.58	0.017
3139	69.0	2.01	2.56	0.075
3140	0.4	0.01	.01	0.001
3141	0.1	0.01	.01	0.001
3142	0.1	0.01	.01	0.001
3143	0.1	0.01	.01	0.001
3144	0.1	0.01	.01	0.001
3145	0.1	0.01	.04	0.001

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MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

NE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: TOM DROWN

FILE:4-685
DATE: AUGUST 3/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3168	25.8	0.75	3.50	0.102
3170	2.1	0.06	.63	0.018
3171	2.0	0.06	.67	0.020
3172	68.0	1.98	1.04	0.030
3176	2.2	0.06	.38	0.011
3179	4.1	0.12	2.34	0.068
3182	251.0	7.32	2.27	0.066
3184	61.7	1.80	2.71	0.079
3185	120.5	3.51	3.76	0.110
3187	102.0	2.97	5.82	0.170
3188	78.5	2.29	.72	0.021
3190	2.4	0.07	.42	0.012
3192	37.8	1.10	1.81	0.053
3193	19.6	0.57	.36	0.010

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MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: PEARL RESOURCES
PROJECT: WELCOME-PEARL/UNION
ATTENTION:

FILE:4-694
DATE: AUGUST 2/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AU	AU
5623	.12	0.003

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MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

NE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: J. BROCK

FILE:4-1579/P1
DATE: DEC.14/84
TYPE:ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3410	0.1	0.01	.01	0.001
3411	0.1	0.01	.03	0.001
3412	0.1	0.01	.01	0.001
3413	0.4	0.01	.02	0.001
3414	0.1	0.01	.02	0.001
3415	0.1	0.01	.01	0.001
3416	0.1	0.01	.01	0.001
3417	0.2	0.01	.02	0.001
3418	0.3	0.01	.07	0.002
3419	0.1	0.01	.01	0.001
3420	0.9	0.03	0.1	0.01
3421	0.7	0.02	.04	0.001
3422	0.1	0.01	.02	0.001
3423	0.3	0.01	.01	0.001
3424	0.1	0.01	.01	0.001
3425	0.1	0.01	.01	0.001
3426	0.2	0.01	.02	0.001
3427	0.2	0.01	.01	0.001
3428	0.1	0.01	.05	0.001
3429	0.1	0.01	.03	0.001
3430	0.5	0.01	.02	0.001
3431	0.1	0.01	.01	0.001
3432	0.1	0.01	.01	0.001
3433	0.1	0.01	.01	0.001
3434	0.1	0.01	.01	0.001
3435	0.3	0.01	.01	0.001
3436	0.1	0.01	.06	0.002
3437	0.2	0.01	.02	0.001
3438	0.1	0.01	.05	0.001
3439	0.4	0.01	.01	0.001

Certified by _____

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Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: J. BROCK

FILE: 4-1579/P2
DATE: DEC. 13/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3440	3.9	0.11	.16	0.005
3441	0.8	0.02	.08	0.002
3442	0.5	0.01	.02	0.001

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PHONE: (604)980-5814 OR (604)988-4524
TELEX: 04-352828

DEC 27 1984

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION:

FILE: 4-1590
DATE: DEC. 19/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3443	55.6	1.62	1.05	0.031
3444	9.2	0.27	.11	0.003
3445	6.8	0.20	.15	0.004
3446	18.1	0.53	.90	0.026

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PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: W. ROBERTS

FILE:4-1562
DATE: DEC. 10/84
TYPE: ROCK ASSAY

We hereby certify **that the following are assay results for samples submitted.**

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON
3382	0.2	0.01
3383	0.2	0.01
3384	2.2	0.06
3385	2.1	0.06
3386	1.8	0.05
3387	2.0	0.06
3388	1.5	0.04
3389	1.0	0.03
3390	0.5	0.01
91	2.0	0.06
3392	1.2	0.03
3393	0.3	0.01
3394	2.4	0.07
3395	0.3	0.01
3396	0.2	0.01
3397	0.2	0.01
3398	0.2	0.01
3399	0.2	0.01
3400	0.1	0.01
3401	0.1	0.01
3402	0.2	0.01
3403	0.1	0.01
3404	0.1	0.01
3405	2.0	0.06
3406	0.1	0.01
3407	0.2	0.01
3408	0.2	0.01
3409	0.1	0.01

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PHONE:(604)980-5914 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION:

FILE: 4-1539/P1
DATE: NOVEMBER 28/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3322	2.6	0.08	.03	0.001
3323	4.1	0.12	.04	0.001
3324	2.8	0.08	.21	0.006
3325	6.5	0.19	.17	0.005
3326	5.8	0.17	.26	0.008
3327	2.0	0.06	.05	0.001
3328	3.9	0.11	.16	0.005
3329	4.4	0.13	.10	0.003
3330	6.0	0.17	.39	0.011
3331	2.5	0.07	.43	0.013
3332	2.4	0.07	.93	0.027
3333	2.0	0.06	.44	0.013
3334	2.2	0.06	.27	0.008
3335	1.0	0.03	.01	0.001
3336	1.5	0.04	.09	0.003
3337	1.4	0.04	.02	0.001
3338	4.2	0.12	.04	0.001
3339	16.5	0.48	.46	0.013
3340	6.3	0.18	.08	0.002
3341	6.2	0.18	.15	0.004
3342	43.8	1.28	2.15	0.063
3343	11.8	0.34	1.10	0.032
3344	117.0	3.41	9.74	0.284
3345	98.0	2.86	3.11	0.091
3346	75.5	2.20	2.08	0.061
3347	114.0	3.32	5.28	0.154
3348	368.0	10.73	13.80	0.402
3349	384.0	11.20	14.80	0.432
3350	116.0	3.38	.84	0.024
3351	860.0	25.08	9.70	0.283

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PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION:

FILE: 4-1539/P2
DATE: NOVEMBER 28/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3352	76.0	2.22	4.81	0.140
3353	76.5	2.23	5.90	0.172
3354	6.0	0.17	.60	0.017
3355	4.0	0.12	.14	0.004
3356	7.2	0.21	.91	0.027
3357	280.0	8.17	7.60	0.222
3358	234.0	6.82	2.95	0.086
3359	26.0	0.76	.63	0.018
3360	14.2	0.41	.16	0.005
3361	6.5	0.19	.13	0.004
3362	8.5	0.25	.24	0.007
63	5.9	0.17	.83	0.024
3364	1.9	0.06	.15	0.004
3365	30.0	0.87	1.50	0.044
3366	4.6	0.13	.34	0.010
3367	4.3	0.13	.27	0.008
3368	2.0	0.06	.13	0.004
3369	1.8	0.05	.16	0.005
3370	1.8	0.05	.04	0.001
3371	2150.0	62.71	37.25	1.086
3372	660.0	19.25	13.45	0.392
3373	84.0	2.45	3.14	0.092
3374	12.2	0.36	.37	0.011
3378	1.7	0.05	.03	0.001
3379	0.2	0.01	.08	0.002
3380	0.2	0.01	.10	0.003
3381	0.1	0.01	.02	0.001

Certified by _____

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JNE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION:

FILE:4-1539
DATE: NOV.26/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3375	1.0	0.03	.01	0.001
3376	8.0	0.23	.02	0.001
3377	1.5	0.04	.04	0.001

Certified by

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PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT:PEARL UNION
ATTENTION: T. DROWN

FILE:4-1002R
DATE: SEPT.21/84
TYPE: PULP ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3302	109.0	3.18	18.95	0.553

Certified by _____

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PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL/UNION
ATTENTION: T. DROWN

FILE: 4-1002
DATE: SEPTEMBER 17/84
TYPE: TAILING ASSAYS

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	PH
3307	19.9	0.58	.59	0.017	8.01
3308	5.8	0.17	1.22	0.036	8.80
3309	55.4	1.62	.60	0.017	8.31
3310	77.5	2.26	1.57	0.046	8.20
3311	55.2	1.61	.65	0.019	8.00
3312	33.8	0.99	1.18	0.034	8.32
3313	25.3	0.74	1.40	0.041	8.70
3314	13.8	0.40	1.27	0.037	8.32
3315	72.2	2.11	2.71	0.079	8.38
3316	53.8	1.57	1.20	0.035	8.00
3317	88.4	2.58	2.32	0.068	8.30
3318	51.8	1.51	.74	0.022	7.91
3319	81.7	2.38	1.78	0.052	8.29
3320	78.0	2.27	1.23	0.036	7.98

Certified by _____

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Specialists in Mineral Environments
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PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: T.DROWN

FILE:4-1002
DATE: SEPT.18/84
TYPE: ROCK GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	AG PPM	AU PPB
3278	0.4	35
79	0.4	15
80	0.9	10
81	0.8	5
82	1.0	5
83	2.0	20
84	4.1	125
85	1.9	45
86	0.8	10
87	1.0	15
88	1.3	5
89	1.9	10
90	1.5	5
91	1.8	15
92	1.4	5
93	1.2	5
94	1.1	5
95	0.8	30
96	0.7	25
97	0.5	5
98	0.3	5
99	0.5	10
3300	1.1	15
01	1.4	175
02	20.4	30000
03	1.9	170
04	1.4	60
05	1.0	15
3306	1.4	5
3321	1.1	5

Certified by

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: T. DROWN

FILE: 4-905/P1
DATE: SEPT.5/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	PH
3241	37.1	1.08	.76	0.022	8.21
3242	40.5	1.18	.50	0.015	8.62
3243	40.3	1.18	.60	0.017	8.50
3244	40.0	1.17	1.02	0.030	8.52
3245	22.8	0.66	.20	0.006	8.20
3246	31.0	0.90	.10	0.003	8.01
3247	30.3	0.88	.42	0.012	8.10
3248	29.4	0.86	.63	0.018	8.31
3249	35.2	1.03	.78	0.023	8.65
3250	33.0	0.96	1.00	0.029	8.60
3251	37.9	1.11	1.12	0.033	8.12
3252	9.6	0.28	1.10	0.032	8.02
3253	37.5	1.09	.64	0.019	8.15
3254	17.2	0.50	.12	0.003	8.70
3255	37.6	1.10	.78	0.023	8.90
3256	19.7	0.57	.10	0.003	8.50
3257	15.0	0.44	.10	0.003	8.52
3258	15.4	0.45	.15	0.004	8.62
3259	12.8	0.37	.20	0.006	8.88
3260	52.0	1.52	.58	0.017	8.70
3261	55.8	1.63	.60	0.017	8.70
3262	51.7	1.51	.40	0.012	8.59
3263	34.0	0.99	.42	0.012	8.41
3264	22.8	0.66	.20	0.006	8.30
3265	7.1	0.21	1.50	0.044	8.18
3266	63.0	1.84	1.90	0.055	8.84
3267	9.7	0.28	1.70	0.050	8.50
3268	6.7	0.20	.78	0.023	8.32
3269	33.5	0.98	1.15	0.034	8.83
3270	33.8	0.99	1.20	0.035	8.90

Certified by _____

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PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: T. DROWN

FILE: 4-905/P2
DATE: SEPT.5/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	PH
3271	37.8	1.10	1.40	0.041	8.52
3272	28.6	0.83	.96	0.028	8.37
3273	31.2	0.91	.46	0.013	8.41
3274	49.5	1.44	1.64	0.048	8.70
3275	41.0	1.20	1.32	0.038	8.54
3276	25.4	0.74	.82	0.024	8.50
3277	82.0	2.39	.65	0.019	8.16

Certified by

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PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: TOM DROWN

FILE:4-874
DATE: AUGUST 30/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3220	9.0	0.26	.20	0.006
3221	3.2	0.09	.02	0.001
3222	2.0	0.06	.01	0.001
3223	1.8	0.05	.01	0.001
3224	2.1	0.06	.30	0.009
3225	3.5	0.10	.37	0.011
3226	4.2	0.12	.30	0.009
3227	4.1	0.12	.18	0.005
3228	2.9	0.08	.68	0.020
3229	1.4	0.04	.05	0.001
3230	2.8	0.08	.20	0.006
3231	2.2	0.06	.38	0.011
3232	12.4	0.36	.60	0.017
3233	3.9	0.11	.20	0.006
3234	6.0	0.17	.60	0.017
3235	386.0	11.26	5.22	0.152
3236	380.0	11.08	4.95	0.144
3237	281.0	8.20	3.05	0.089
3238	5.9	0.17	.32	0.009
3239	1000.0	29.17	41.75	1.218
3240	59.5	1.74	7.55	0.220

Certified by _____

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Specialists in Mineral Environments
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PHONE: (604)980-5814 OR (604)988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY: WELOME NORTH MINES LTD.
PROJECT: PEARL/UNION
ATTENTION: T. DROWN

FILE: 4-833
DATE: AUGUST 23/84
TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON
3213	2.1	0.06	.01	0.001
3214	22.4	0.65	.23	0.007
3215	137.0	4.00	20.70	0.604
3216	12.3	0.36	.01	0.001
3217	64.8	1.89	.53	0.015
3218	24.5	0.71	.18	0.005
3219	75.0	2.19	.46	0.013

Certified by _____

MIN-EN LABORATORIES LTD.

AUG 23 1984

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604) 253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED AUG 17 1984

DATE REPORTS MAILED Aug 20/84

GEOCHEMICAL ASSAY CERTIFICATE

MISC ASSAY
PEARL ✓
→ " Binder
T.D.

SAMPLE TYPE : SOIL - DRIED AT 60 DEG C. , -80 MESH.
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACHED, MIBK EXTRACTION, AA ANALYSIS.

ASSAYER _____ DEAN TOYE, CERTIFIED B.C. ASSAYER

WELCOME NORTH PROJECT# PEARL/UNION FILE# 84-2169 PAGE# 1

UNION

SAMPLE	AU* PPB
89E 104+00N	5
89E 103+50N	5
89E 103+00N	20
89E 102+50N	40
89E 102+00N	10
89E 101+50N	20
89E 101+00N	5
89E 100+50N	5
89E 100+00N	5
90E 104+00N	5
90E 103+50N	10
90E 103+00N	5
90E 102+50N	5
90E 102+00N	5
90E 101+50N	60
90E 101+00N	5
90E 100+50N	5
90E 100+00N	10
91E 102+00N	5
91E 101+50N	5
91E 101+00N	5
91E 100+50N	5
91E 100+00N	15
91+65E 102+00N	15
91+65E 101+50N	10
91+65E 101+00N	25
91+65E 100+50N	20
91+65E 100+00N	10
91+65E 99+50N	25
91+65E 99+00N	35
91+65E 98+50N	60

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PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: TOM DROWN

FILE:4-692/P1
DATE: AUGUST 4/84
TYPE: ROCK GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	AG PPM	AU PPB
3167	6.5	280
69	59.0	540
73	1.7	40
74	1.7	300
75	2.3	2700
77	28.5	4900
78	2.4	95
80	3.1	890
81	127.0	7300
83	80.0	2550
86	305.0	3940
89	5.6	110
91	2.0	40
94	67.0	2300
95	3.2	580
96	2.5	450
97	3.4	390
98	2.2	220
99	91.0	3130
3200	24.5	450
01	63.0	1800
02	28.4	530
03	138.0	4000
04	300.0	4000
05	143.0	840
06	3.2	10
07	39.0	1760
08	52.0	350
09	68.0	1900
3210	46.5	6700

Certified by _____

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7N 1T2

PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: TOM DROWN

FILE: 4-692
DATE: AUGUST 4/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 1 samples submitted.

SAMPLE NUMBER	AG PPM	AU PPB
GR 1	9.2	30

Certified by _____

MINEN Laboratories Ltd.

Specialists in Mineral Environments

705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: TOM DROWN

FILE: 4-692/P2
DATE: AUGUST 4/84
TYPE: ROCK GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 2 samples submitted.

SAMPLE NUMBER	AG PPM	AU PPB
3211	37.4	580
3212	60.0	275

Certified by

MIN—EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2
PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

AUG 8 1984

CERTIFICATE OF ASSAY

COMPANY: WELCOME NORTH MINES
PROJECT: PEARL UNION
ATTENTION: TOM DROWN

FILE: 4-692R
DATE: AUGUST 8/84
TYPE: ROCK ASSAY

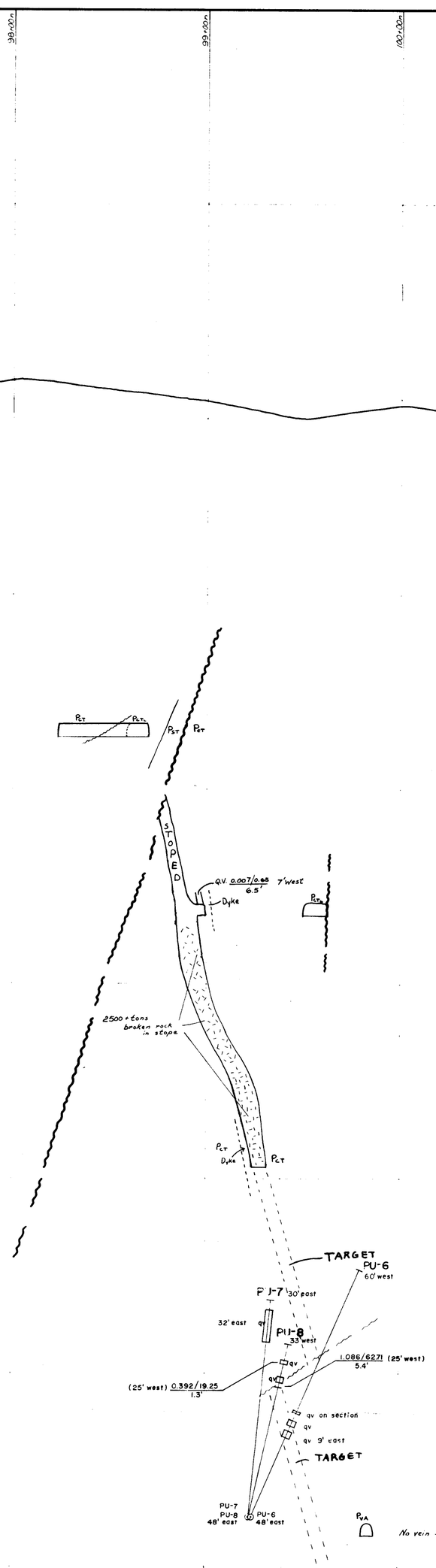
We hereby certify that the following are assay results for samples submitted.

RERUNS.

SAMPLE NUMBER	AU G/TONNE	AU OZ/TON
3175	2.64	0.077
3177	8.46	0.247
3181	6.68	0.195
3183	2.28	0.066
3186	3.52	0.103
3194	2.48	0.072
3199	2.83	0.083
3201	1.53	0.045
3203	3.37	0.098
3204	3.02	0.088
3207	2.37	0.069
3209	1.35	0.039
3210	3.40	0.099

Certified by _____

MIN-EN LABORATORIES LTD.



GEOLOGICAL BRANCH ASSESSMENT REPORT

13,710

PART 1 of 2

PLATE No. 19

UNION GOLD PROJECT

SCALE : 1" = 40'

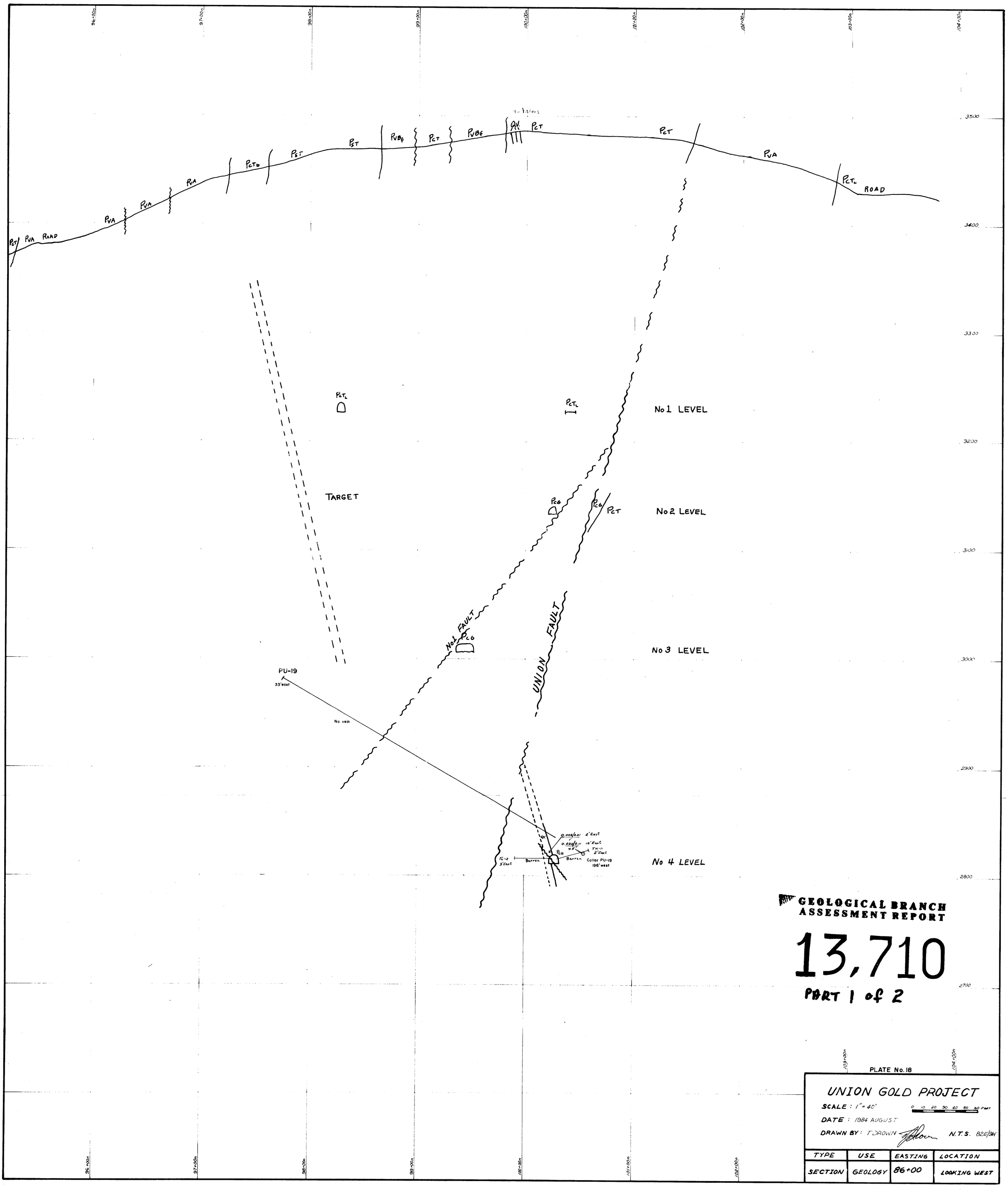
0 10 20 30 40 50 60 FEET

DATE : 1984 AUGUST

DRAWN BY : J. BROWN

N.T.S. 82E/9W

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	88+00	LOOKING WEST



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PART 1 of 2

PLATE No. 18

UNION GOLD PROJECT

SCALE : 1" = 40'

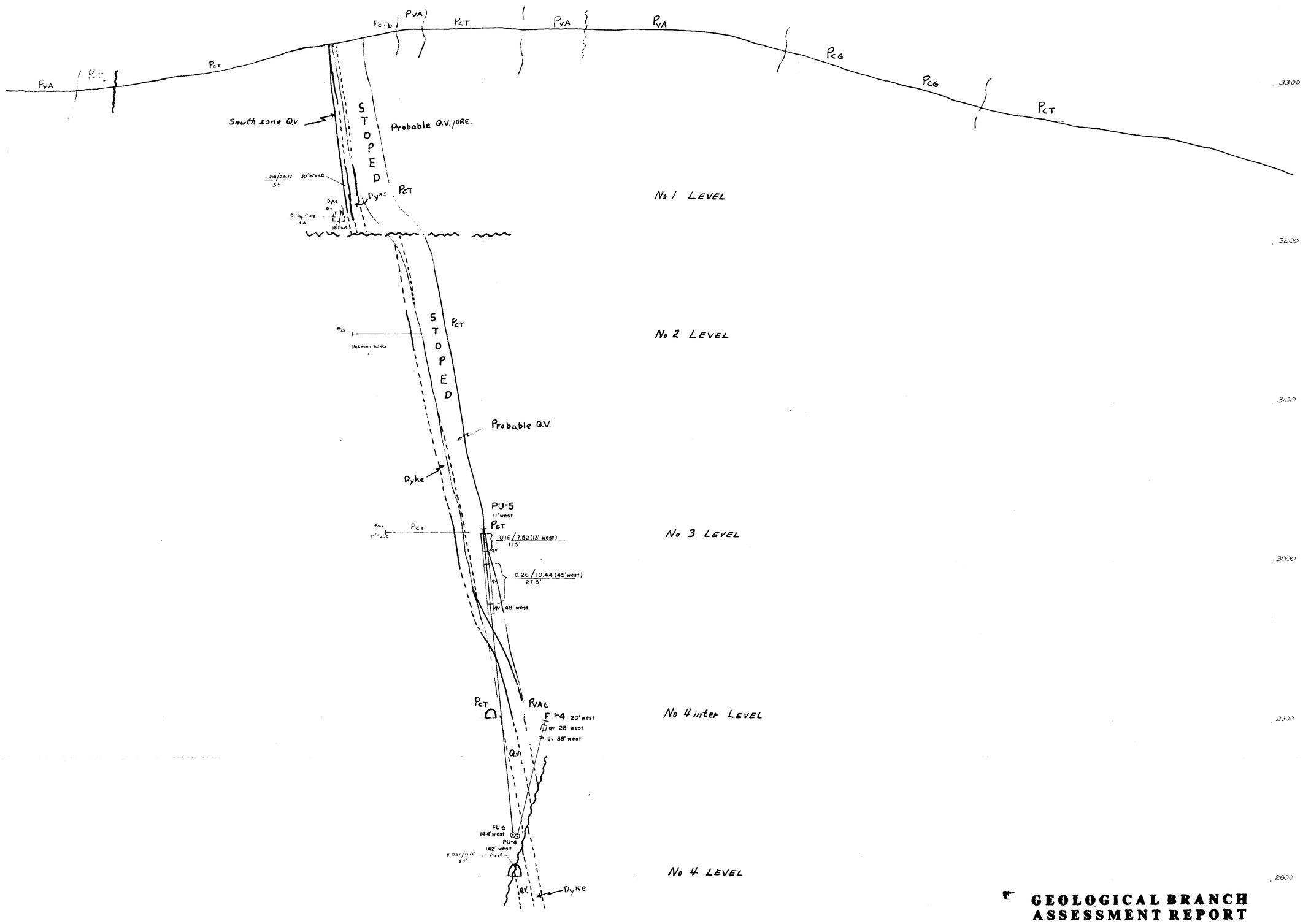
0 10 20 30 40 50 60 FEET

DATE : 1984 AUGUST

DRAWN BY : T. BROWN

N.T.S. 82E/SW

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	86+00	LOOKING WEST



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PART 1 of 2

PLATE No. 21

UNION GOLD PROJECT

SCALE : 1" = 40'

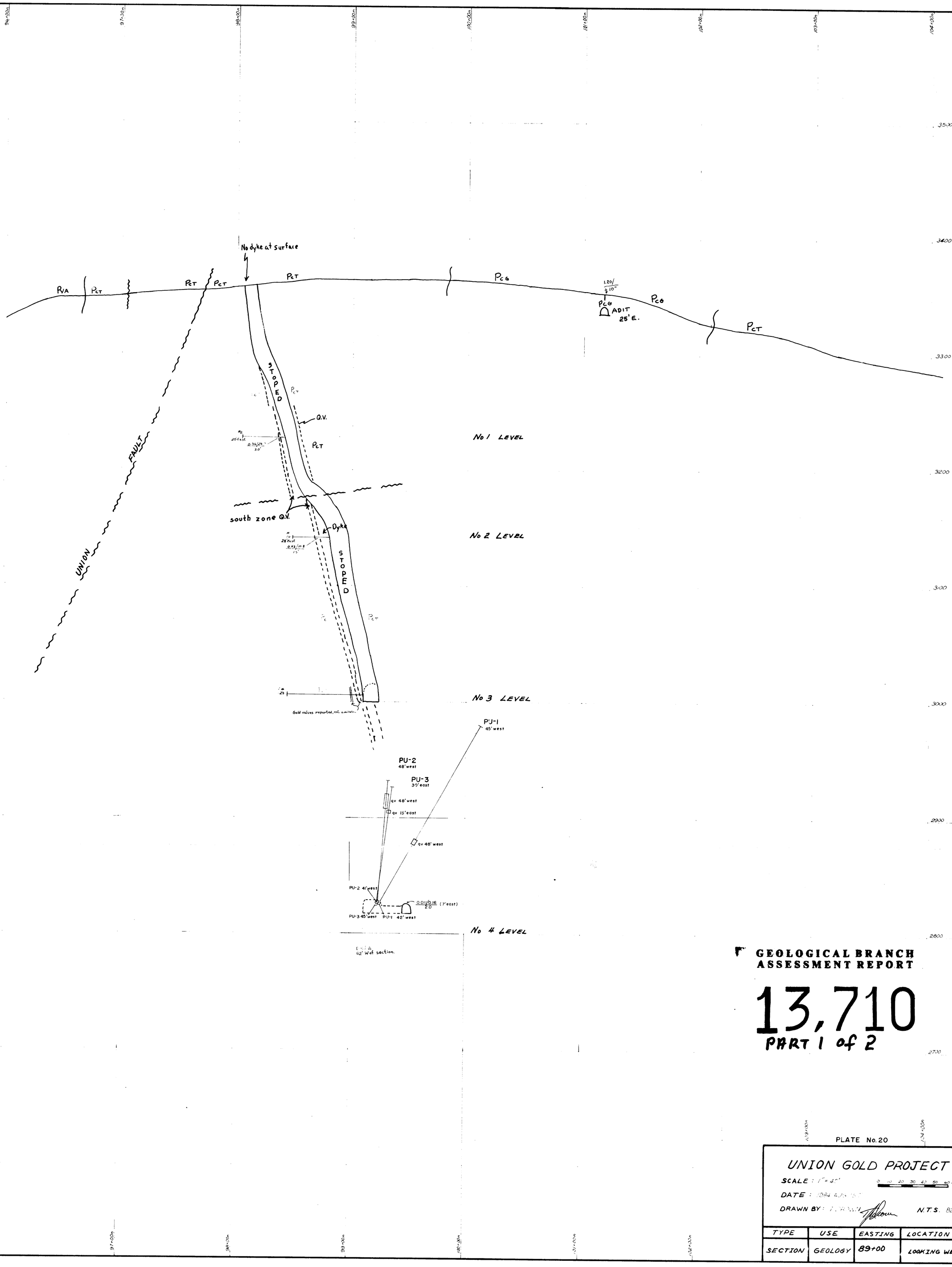
0 10 20 30 40 50 60 FEET

DATE : 1984 AUGUST

DRAWN BY : T. BROWN

N.T.S. 82E/9W

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	90+00	LOOKING WEST



GEOLOGICAL BRANCH ASSESSMENT REPORT

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PLATE No. 20

UNION GOLD PROJECT

SCALE : 1" = 4'

0 10 20 30 40 50 60 FEET

DATE : 1984 Aug 15

DRAWN BY : T. R. W.

N.T.S. 82E/9W

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	89+00	LOOKING WEST

PAR

DODGE

112+00 N

110+00 N

108+00 N

106+00 N

104+00 N

82+00 E

84+00 E

86+00 E

88+00 E

90+00 E

92+00 E

IDAHO c.g.
L 16795

UNION FRACTION c.g.
L16785

UNION c.g.
L 10225

PLATE No 12

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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UNION GOLD PROJECT

SCALE: 1 inch = 40 feet

0 20 40 60 80 feet

DATE : 1984 AUGUST

DRAWN BY: T.DROWN

GOLD = ppb

NTS: 82E/9W

TYPE	USE	EASTING	LOCATION
PLAN	Au GEOCHEM.	94	SURFACE

UNION c.g.
L 1022 S

102+00 N

100+00 N

98+00 N

96+00 N

94+00 N

82+00 E

84+00 E

86+00 E

88+00 E

90+00 E

92+00 E

N

GEOLOGICAL BRANCH
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UNION GOLD PROJECT

SCALE: 1 inch = 40 feet

0 20 40 60 80 feet

DATE : 1984 AUGUST

DRAWN BY: T. DROWN

GOLD = ppb

NTS: 82E/9W

TYPE	USE	EASTING	LOCATION
PLAN	Au GEOCHEM (ppb)	94	SURFACE

PLATE No. 11

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PAR

DODGE

UNION FRACTION c.g.
L16785

IDAHO c.g.
L16795

UNION c.g.
L16225

PAPER DOLLAR c.g.
L16775

CABIN

SHAFT

DUMP

ROAD

LCP

OPEN STOPE

No 1 LEVEL DUMP

DRILL ROAD

Caller DDH 80-1

Caller DDH 80-3

Caller DDH 80-6

104+00n

102+00n

100+00n

98+00n

96+00n

94+00n

86+00E

88+00E

90+00E

92+00E

LEGEND

TERTIARY

- TEsy SYENITE grey-pink, chilled margins, underground only.
- TEpd FELDSPAR PORPHYRY DYKE green, white mottled.
- qv QUARTZ VEIN massive or brecciated, cpy, py, sph.

PALEOZOIC

- PCT CHERTY TUFF beige, green weathering, subconchoidal fractures.
- PST SILTY TUFF grey, beige weathering, frequent laminations.
- PCG CHERTY CONGLOMERATE black, beige weathering, frequent limestone blocks.
- PAG ARGILLITE black, calcareous.
- PVA ANDESITE fine grained flows and tuffs.
- PVB BASALT beige weathering, augite bearing flows and tuffs.
- PVD DACITE green weathering, tuffs and minor flows.
- PVF FELSIC VOLCANICS pinkish-beige agglomerates, underground only.

ag	agglomerates	cc	calcite
b	breccia	cpy	chalcopyrite
f	fragmental	gn	galena
L	laminated	hem	hematite
lst	limestone	py	pyrite
p	porphyritic	sph	sphalerite
s	silicified		
t	tuffaceous		

- bedding; inclined, vertical.
- fractures; inclined, vertical.
- lithologic contact; observed, assumed.
- faults; observed, assumed.
- area of outcropping, small outcropping.
- brecciated zone.
- adit portal.
- survey station with elevation.
- surface diamond drill hole.
- 0.005/2.40 / 50 assay — ounces gold per ton / ounces silver per ton; sample interval
- 110, 2.1 geochemical value; ppb gold, ppm silver.

N

UNION GOLD PROJECT

SCALE : 1inch = 40feet
DATE : AUGUST 1984
DRAWN BY : T.J.BROWN
N.T.S. : 82E/3W

0 20 40 60 80 feet

TYPE	USE	EASTING	LOCATION
PLAN	GEOL.	94	SURFACE

PLATE No. 10

DODGE

UNION FRACTION c.g.
L 1678 S

UNION c.g.
L 1022 S

DODGE

102+00n

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PART 1 of 2

LEGEND

TERTIARY

TEsy SYENITE grey-pink, chilled margins, underground only.

TEpd FELDSPAR PORPHYRY DYKE green, white mottled.

qv QUARTZ VEIN massive or brecciated, cpy, py, sph.

PALEOZOIC

PCT CHERTY TUFF beige, green weathering, subconchoidal fractures.

PST SILTY TUFF grey, beige weathering, frequent laminations.

PCG CHERTY CONGLOMERATE black, beige weathering, frequent limestone blocks.

PAG ARGILLITE black, calcareous.

PVA ANDESITE fine grained flows and tuffs.

PVB BASALT beige weathering, augite bearing flows and tuffs.

PVD DACITE green weathering, tuffs and minor flows.

PVF FELSIC VOLCANICS pinkish-beige agglomerates, underground only.

ag	agglomerates	cc	calcite
b	breccia	cpy	chalcopyrite
f	fragmental	gn	galena
L	laminated	hem	hematite
lst	limestone	py	pyrite
p	porphyritic	sph	sphalerite
s	silicified		
t	tuffaceous		

bedding; inclined, vertical. fractures; inclined, vertical.

lithologic contact; observed, assumed.

faults; observed, assumed.

area of outcropping, small outcropping.

brecciated zone.

adit portal.

survey station with elevation.

surface diamond drill hole.

0.05/2.40/50' assay ounces gold per ton / ounces silver per ton / sample interval

110, 2.1 geochemical value; ppb gold, ppm silver.

PAPER DOLLAR c.g.
L 1677 S

101+00n

100+00n

99+00n

98+00n

90+00E 91+00E 92+00E 93+00E 94+00E 95+00E 96+00E

PLATE No. 9

UNION GOLD PROJECT

SCALE: 1 inch = 20 feet 0 10 20 30 40 feet

DATE: 1984 AUGUST

DRAWN BY: T DROWN

NTS: 82E/9W

TYPE	USE	EASTING	LOCATION
PLAN	GEO.	96	No 3 LEVEL

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PART 1 of 2

DODGE

UNION FRACTION c.g

L 1678S

UNION c.g.
L 1022S

LEGEND

TERTIARY

- TEsy — SYENITE grey-pink, chilled margins, underground only.
- TEpd — FELDSPAR PORPHYRY DYKE green, white mottled.
- qv — QUARTZ VEIN massive or brecciated, cpy, py, sph.

PALEOZOIC

- PCT — CHERTY TUFF beige, green weathering, subconchoidal fractures.
- PST — SILTY TUFF grey, beige weathering, frequent laminations.
- PCG — CHERTY CONGLOMERATE black, beige weathering, frequent limestone blocks.
- PAG — ARGILLITE black, calcareous.
- PVA — ANDESITE fine grained flows and tuffs.
- PVB — BASALT beige weathering, augite bearing flows and tuffs.
- PVD — DACITE green weathering, tuffs and minor flows.
- PVF — FELSIC VOLCANICS pinkish-beige agglomerates, underground only.

ag	agglomerates	cc	calcite
b	breccia	cpy	chalcopyrite
f	fragmental	gn	galena
L	laminated	hem	hematite
ls	limestone	py	pyrite
p	porphyritic	sph	sphalerite
s	silicified		
t	tuffaceous		

- bedding; inclined, vertical.
- fractures; inclined, vertical.
- lithologic contact; observed, assumed.
- faults; observed, assumed.
- area of outcropping, small outcropping.
- brecciated zone.
- adit portal.
- survey station with elevation.
- surface diamond drill hole.
- 0.015/2.40 / 50' assay: ounces gold per ton / ounces silver per ton; sample interval
- 110, 2.1 geochemical value; ppb gold, ppm silver.

PLATE No. 8

UNION GOLD PROJECT
SCALE: 1 inch = 20 feet
DATE: 1984 AUGUST
DRAWN BY: T.J. BROWN
N.T.S.: 82E/9W
0 10 20 30 40 feet

TYPE	USE	EASTING	LOCATION
PLAN	GEOLOGY	92	No 2 LEVEL

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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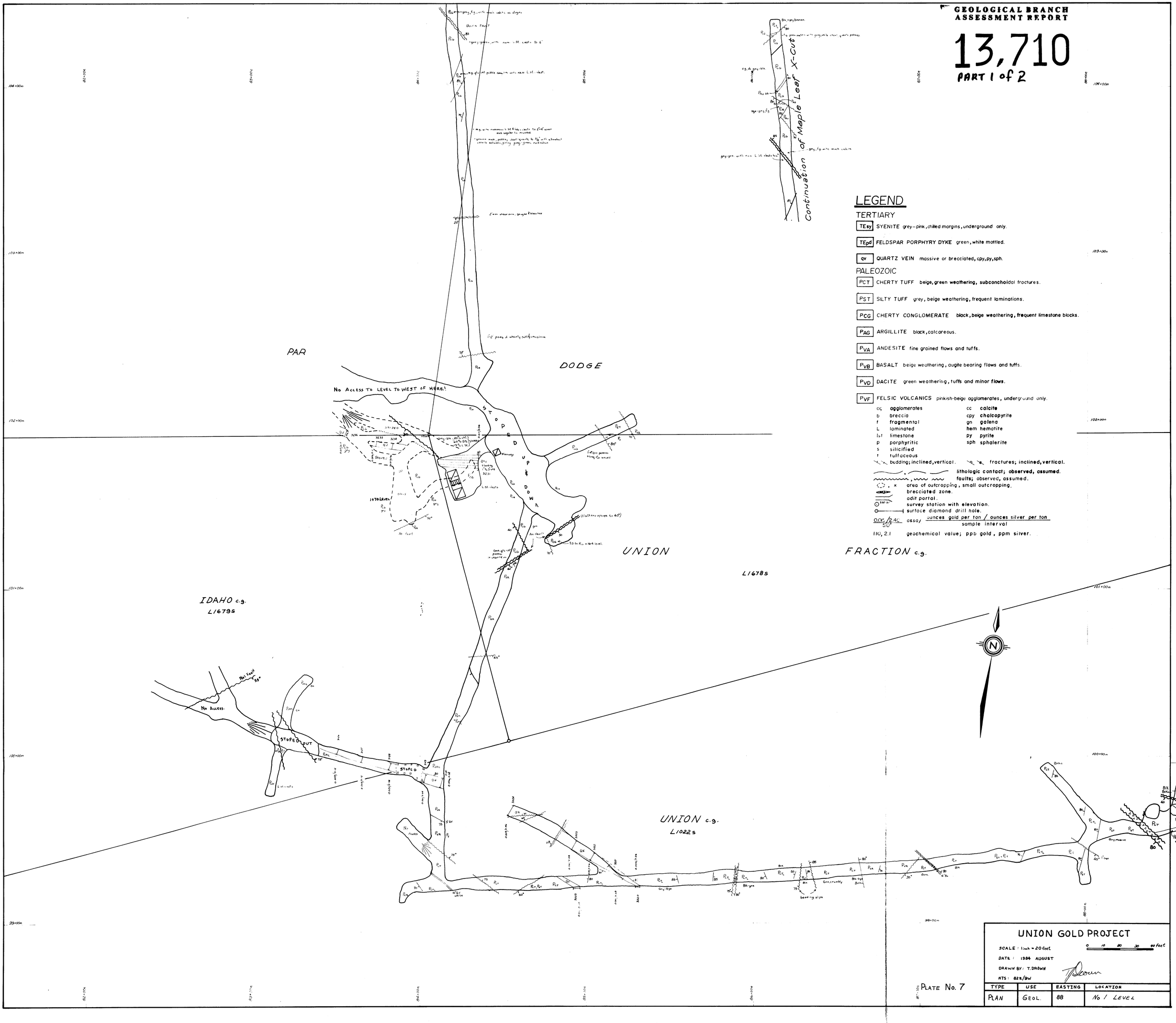

LEGEND

TERTIARY

- TEsy SYENITE grey–pink, chilled margins, underground only.
- TEpd FELDSPAR PORPHYRY DYKE green, white mottled.
- qv QUARTZ VEIN massive or brecciated, cpy, py, sph.

PALEOZOIC

- PCT CHERTY TUFF beige, green weathering, subconchoidal fractures.
- PST SILTY TUFF grey, beige weathering, frequent laminations.
- PCG CHERTY CONGLOMERATE black, beige weathering, frequent limestone blocks.
- PAG ARGILLITE black, calcareous.
- PVA ANDESITE fine grained flows and tuffs.
- PVB BASALT beige weathering, augite bearing flows and tuffs.
- PVD DACITE green weathering, tuffs and minor flows.
- PVF FELSIC VOLCANICS pinkish-beige agglomerates, underground only.

cg	agglomerates	cc	calcite
b	breccia	cpy	chalcopyrite
f	fragmental	gn	galena
L	laminated	hem	hematite
ls†	limestone	py	pyrite
p	porphyritic	sph	sphalerite
s	silicified		
†	tuffaceous		

- bedding; inclined, vertical. fractures; inclined, vertical.
- lithologic contact; observed, assumed.
- faults; observed, assumed.
- area of outcropping, small outcropping.
- brecciated zone.
- adit portal.
- survey station with elevation.
- surface diamond drill hole.
- 0.04/2.4 / 5.0 assay ounces gold per ton / ounces silver per ton / sample interval
- 110, 2.1 geochemical value; ppb gold, ppm silver.

UNION GOLD PROJECT

SCALE : 1inch = 20 feet (0 10 20 30 40 feet)

DATE : 1984 AUGUST

DRAWN BY: T. DRAWN

NTS : 82E/9W

PLATE No. 7

TYPE	USE	EASTING	LOCATION
PLAN	GEOL.	88	No 1 LEVEL

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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INSET PU-18

INSET PU-19

PAR

DODGE

UNION

FRACTION c.g.

IDAHO c.g.
L16795

UNION c.g.
L10225

L16785

Pu-16, 200'
+39.48°

Pu-18, 150'
+20.55°

Pu-17, 100'
+20.79°

Pu-18
Continued to right.

Pu-15, 218'
-29.76°

Pu-19 395'
+23.77°

Pu-10, 200'
+26.01°

Pu-9, 200'
+85.10°

Pu-12, 199'
+25.14°

Pu-13, 214'
+85.18°

Pu-14, 213'
+26.04°

Pu-11
210'
+44.13°

84-480

84-479

84-478

84-477

84-476

84-475

84-474

84-473

84-472

84-471

84-470

84-464

84-463

PU-6, 177'
+46.26°

TH 31 DIP-14°
TH 34 DIP-6°
TH 33 DIP-8°
TH 32 DIP-15°
TH 30 DIP-15°
TH 29 DIP-17°
TH 27 DIP-17°
TH 28 DIP-12°
TH 25 DIP-22°
TH 26 DIP-16°
TH 24 DIP-21°
TH 23 DIP-14°
TH 19 DIP-7°
TH 17 DIP-4°
TH 15 DIP-8°
TH 13 DIP-18°
TH 24 DIP-20°
TH 22 DIP-12°
TH 21 DIP-12°
TH 20 DIP-12°
TH 18 DIP-9°
TH 16 DIP-10°
TH 14 DIP-22°
TH 12 DIP-12°
TH 11 DIP-16°
TH 9 DIP-14.5°
TH 10 DIP-8°
TH 8 DIP-14°
TH 7 DIP-4°
TH 5 DIP-26°
TH 6 DIP-15°
TH 2 DIP-10°

104+00 n
102+00 n
100+00 n
88+00 e
86+00 e
84+00 e
82+00 e

Pu-19 Continued above.

PLATE No. 6

UNION GOLD PROJECT

SCALE: 1 inch = 20 feet
DATE: June 1984
DRAWN BY: P. Marshall, T. J. Drown
N.T.S.: 82 E/9W
ASSAYS = oz. Au/ton / oz Au/ton sample interval

0 20 ft. 40 ft.

TYPE	USE	EASTING	LOCATION
PLAN	ASSAY	88.	NO. 4 LEVEL

DODGE

UNION FRACTION c.g.

L 16785

UNION c.g.

Lot 10225

102+00n

100+00n

98+00n

84-471

84-470

84-464

84-463

84-462A

84-462

84-461

84-460

84-459

84-458

84-457

84-456

84-455

84-454

PU-1

PU-2

PU-3

PU-4

PU-5

PU-6, 177°
+46.26°

PU-7

PU-8

TEST HOLE #3

TEST HOLE #1

TEST HOLE #2

ROCK RAISE

88+00e

90+00e

92+00e

94+00e

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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UNION GOLD PROJECT

SCALE : 1 inch = 20 feet
DATE : June 1984
DRAWN BY : P. Marshall, T.J. Drown
N.T.S. : 82 E/9 W
ASSAYS = oz Au/ton / oz Ag/ton Inferred

0 20 ft. 40. ft.

TYPE	USE	EASTING	LOCATION
PLAN	ASSAY	94	NO. 4 LEVEL

PLATE No. 5

102+00n

DODGE

100+00n

SPRING
No.4

UNION c.g.
L 1022S

PAPER DOLLAR c.g.
L 1677S

84-454

84-453

84-451

84-452

84-403

84-401

84-402

84-400

98+00n

94+00e

96+00e

98+00e

100+00e

N

GEOLOGICAL BRANCH
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PLATE No. 4

UNION GOLD PROJECT

SCALE : 1 inch = 20 feet
DATE : June 1984
DRAWN BY: P Marshall, T. J. Drown
N.T.S : 82 E/9 W
ASSAYS: oz Au/ton/oz Au/ton sample interval

0 20 ft. 40 ft.

TYPE	USE	EASTING	LOCATION
PLAN	ASSAY	100	NO.4 LEVEL

DODGE

DODGE

UNION c.g.
Lot 1022s

102+00 n

100+00 n

98+00 n

94+00 e

92+00 e

90+00 e

88+00 e

ROCK RAISE

LEGEND

TERTIARY

- TEsy — SYENITE grey–pink, chilled margins, underground only.
- TEpd — FELDSPAR PORPHYRY DYKE green, white mottled.
- qv — QUARTZ VEIN massive or brecciated, cpy, py, sph.

PALEOZOIC

- PCT — CHERTY TUFF beige, green weathering, subconchoidal fractures.
- PST — SILTY TUFF grey, beige weathering, frequent laminations.
- PCG — CHERTY CONGLOMERATE black, beige weathering, frequent limestone blocks.
- PAG — ARGILLITE black, calcareous.
- PVA — ANDESITE fine grained flows and tuffs.
- PVB — BASALT beige weathering, augite bearing flows and tuffs.
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- PVF — FELSIC VOLCANICS pinkish-beige agglomerates, underground only.

ag	agglomerates	cc	calcite
b	breccia	cpy	chalcopyrite
f	fragmental	gn	galena
L	laminated	hem	hematite
lst	limestone	py	pyrite
p	porphyritic	sph	sphalerite
s	silicified		
t	tuffaceous		

- bedding; inclined, vertical.
- fractures; inclined, vertical.
- lithologic contact; observed, assumed.
- faults; observed, assumed.
- area of outcropping, small outcropping.
- brecciated zone.
- adit portal.
- survey station with elevation.
- surface diamond drill hole.
- 0.015/0.40/50 assay — ounces gold per ton / ounces silver per ton; sample interval
- 110, 2.1 geochemical value; ppb gold, ppm silver.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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Pu-1, 176°, +60.50°
Pu-2, 107°, +85.1°
Pu-3, 126°, 53.1°
Pu-4, 164°, +36.85°
Pu-5, 235°, -55.08°
(broke into old workings)
Pu-6, 177°, +46.26°
Pu-7, 116°, +78.80°
Pu-8, 125°, +47.25°
Pu-9 (Pu-3)

84-471 — 2' qtz. & band strong silicification (30% qtz)
84-470
84-469
84-463
84-462
84-461
84-460
84-459
84-458
84-457
84-456
84-455
84-454

Pu-9 ore. Some laminations

Py, cpy, sph, qtz

Tepd - dacitic at margins, Syenite in core.

Chilled contact at 305°/60°W

N

UNION GOLD PROJECT

SCALE: 1 inch = 20 feet — 0 — 20 ft. — 40 ft.
DATE: June 1984
DRAWN BY: P. Marshall, T.J. Drown
N.T.S.: 82E/9W

TYPE	USE	EASTING	LOCATION
PLAN	GEO.	94	NO. 4 LEVEL

PLATE No. 2

DODGE

SPRING No.4

UNION c.g.
L 10225

PAPER DOLLAR c.g.
L 16775

102+00 n

100+00 n

98+00 n

94+00 e

96+00 e

98+00 e

100+00 e

LEGEND

TERTIARY

TEsy SYENITE grey-pink, chilled margins, underground only.

TEpd FELDSPAR PORPHYRY DYKE green, white mottled.

qv QUARTZ VEIN massive or brecciated, cpy, py, sph.

PALEOZOIC

PCT CHERTY TUFF beige, green weathering, subconchoidal fractures.

PST SILTY TUFF grey, beige weathering, frequent laminations.

PCG CHERTY CONGLOMERATE black, beige weathering, frequent limestone blocks.

PAG ARGILLITE black, calcareous.

PVA ANDESITE fine grained flows and tuffs.

PVB BASALT beige weathering, augite bearing flows and tuffs.

PVD DACITE green weathering, tuffs and minor flows.

PVF FELSIC VOLCANICS pinkish-beige agglomerates, underground only.

ag	agglomerates	cc	calcite
b	breccia	cpy	chalcopyrite
f	fragmental	gn	galena
L	laminated	hem	hematite
lst	limestone	py	pyrite
p	porphyritic	sph	sphalerite
s	silicified		
t	tuffaceous		

bedding; inclined, vertical. fractures; inclined, vertical.

lithologic contact; observed, assumed.

faults; observed, assumed.

area of outcropping, small outcropping.

brecciated zone.

adit portal.

survey station with elevation.

surface diamond drill hole.

0.015/2.40/5.0' assay ounces gold per ton / ounces silver per ton, sample interval

110, 2.1 geochemical value; ppb gold, ppm silver.

84-454 84-453 84-452 84-451 84-450 84-403 84-402 84-401 84-400*

Silicified vein margin (ex-stockwork?)

*not on old 400 location

N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,710
Part 1 of 2

UNION GOLD PROJECT

SCALE : 1 inch = 20 feet

DATE : June 1984

DRAWN BY : P Marshall & Drown

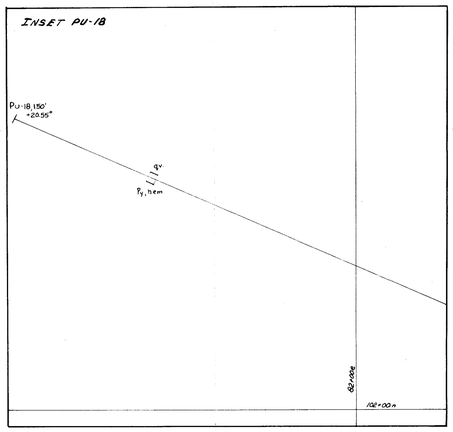
N.T.S. : 82E/9W

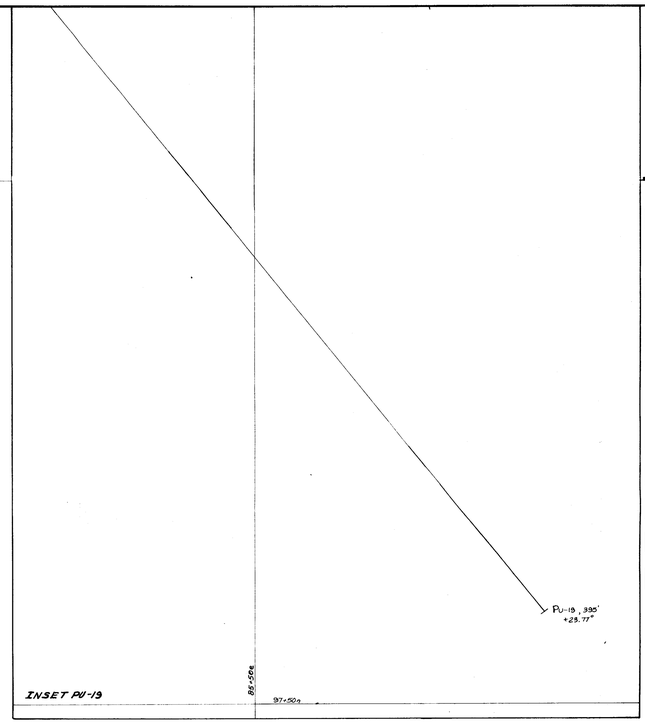
ASSAYS = oz Au/ton / oz Ag/ton, sample interval

0 20 ft. 40 ft.

TYPE	USE	EASTING	LOCATION
PLAN	GEO.	100	NO. 4 LEVEL

PLATE No. 1





LEGEND

102+00 n

TERTIARY

- TEsy SYENITE grey–pink, chilled margins, underground only.
- TEpd FELDSPAR PORPHYRY DYKE green, white mottled.
- qv QUARTZ VEIN massive or brecciated, cpy, py, sph.

PALEOZOIC

- PCT CHERTY TUFF beige, green weathering, subconchoidal fractures.
- PST SILTY TUFF grey, beige weathering, frequent laminations.
- PCG CHERTY CONGLOMERATE black, beige weathering, frequent limestone blocks.
- PAG ARGILLITE black, calcareous.
- PVA ANDESITE fine grained flows and tuffs.
- PVB BASALT beige weathering, augite bearing flows and tuffs.
- PVD DACITE green weathering, tuffs and minor flows.
- PVF FELSIC VOLCANICS pinkish-beige agglomerates, underground only.

ag	agglomerates	cc	calcite
b	breccia	cpy	chalcopyrite
f	fragmental	gn	galena
L	laminated	hem	hematite
lst	limestone	py	pyrite
p	porphyritic	sph	sphalerite
s	silicified		
t	tuffaceous		

- bedding; inclined, vertical.
- fractures; inclined, vertical.
- lithologic contact; observed, assumed.
- faults; observed, assumed.
- area of outcropping, small outcropping.
- brecciated zone.
- adit portal.
- survey station with elevation.
- surface diamond drill hole.
- 0.015/2.40/50' assay ounces gold per ton / ounces silver per ton; sample interval
- 110, 2.1 geochemical value; ppb gold, ppm silver.

102+00 n

PAR

DODGE

IDAHO c.g.
L 16795

UNION

FRACTION c.g.
L 16785

UNION c.g.
L 10225

100+00 n

82+00 E

84+00 E

86+00 E

88+00 E

PU-19 Continued in inset.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,710
PART 1 of 2

PLATE No. 3

UNION GOLD PROJECT

SCALE: 1 inch = 20 feet (0, 20 ft., 40 ft.)
DATE: June 1984
DRAWN BY: P. Marshall, T.J. Drown
NTS: 82E/9W

TYPE	USE	EASTING	LOCATION
PLAN	GEO.	88	NO. 4 LEVEL

96+00n
97+00n
98+00n
99+00n
100+00n
101+00n
102+00n
103+00n
104+00n

3500
3400
3300
3200
3100
3000
2900
2800
2700

ROAD

80-3

SCHULZ STOPE

STOPED

#32
10' East

P_{CT}

P_{CG}

P_{CG}

?

?

?

NO 1 FAULT

323' 80-3

P_{CG}

P_{VBf}

Raise 30' West

P_{CT}

P_{CG}

Q.V. in Rse.

? ?

Q.V.

P_{CG}

P_{CG}

P_{CG} P_{CT}

STOPED

Stoping East of section

GOLD STOPE

UNION FAULT

2 Q.V.'s in Gabbro

#68

P_{CG}

P_{CG}

Stoping East of section

$P_{J-EP-HE}$

0.06-0.08 oz Au/Ton

#15
10' West

LEVEL 1

TARGET

#62
55' East

P_{CG}

q.v.

P_{CG}

P_{CG}

#111
40' West

Dia not penetrate Union Fault

LEVEL 3

PU-13
8' east

qv 14' east

FAULT

UNION

PU-14
15' west
did not penetrate union fault

qv 14' west

PU-17
9' east

qv 10' west

PU-13
95' east

PU-14
97' east

PU-17
58' west

P_{VAL}

LEVEL 4

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,710
PART 1 of 2

PLATE No. 16

UNION GOLD PROJECT

SCALE : 1" = 40'

0 10 20 30 40 50 60 FEET

DATE : 1984 AUGUST

DRAWN BY : T. DROWN

N.T.S. 82E/9W

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	83+00	LOOKING WEST

96+00n
97+00n
98+00n
99+00n
100+00n
101+00n
102+00n
103+00n
104+00n

3500
3400
3300
3200
3100
3000
2900
2800
2700

Pcg
shaft
Pcg
Stoped 33' East

Pcg
Pcg
Pcg
Pcg
Pcg
DDH 68
15' East of section

LEVEL No. 1

Pcg

Pcg

LEVEL No. 3

PU-16
30' west
qv 2' west
qv 7' east
PU-18
98' west
qv 55' west
qv 22' west
qv 13' west
PU-18
31' east
PU-16
35' east

LEVEL No. 4

GEOLOGICAL BRANCH
ASSESSMENT REPORT

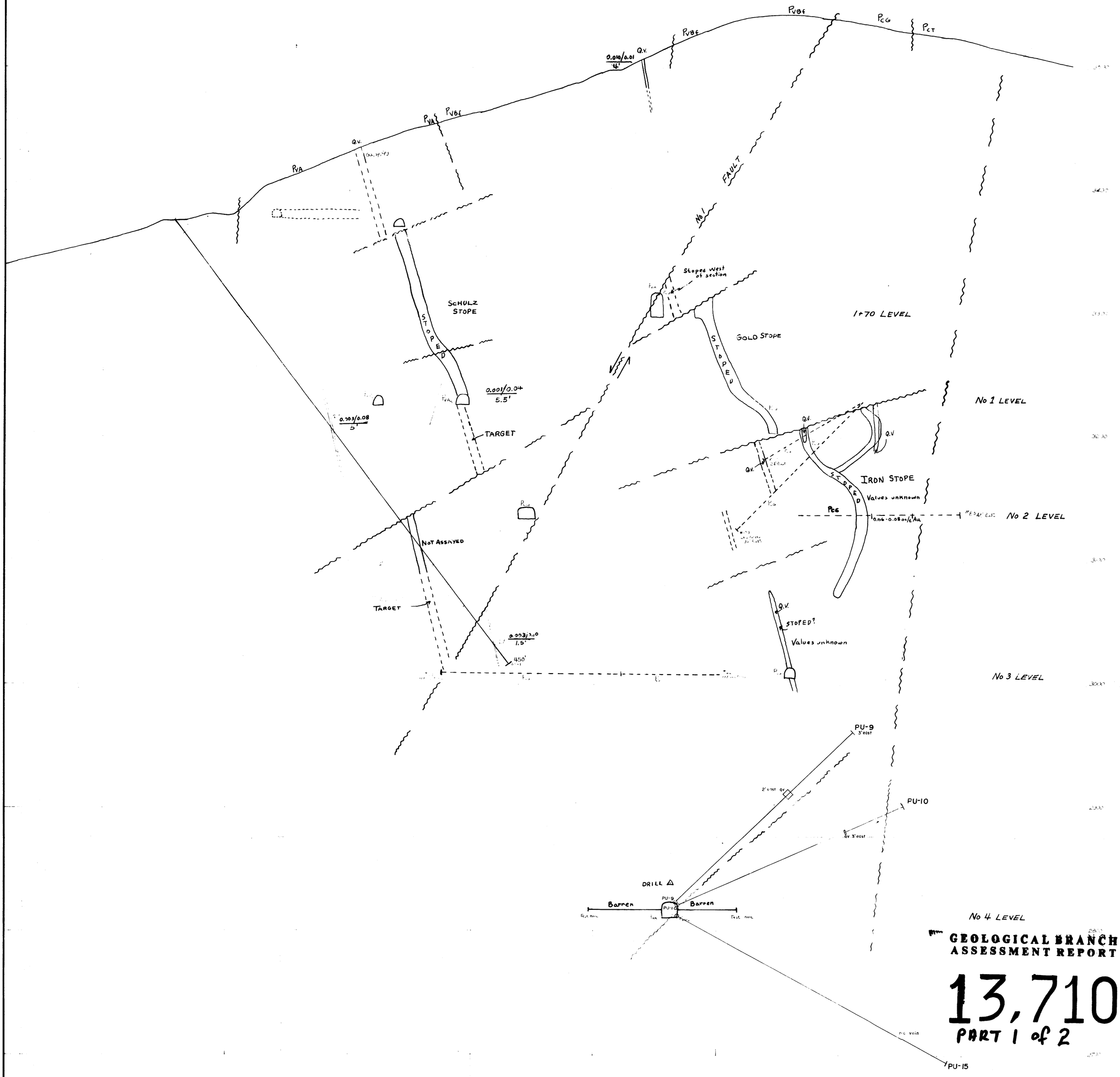
13,710
PART 1 of 2

PLATE No. 17

UNION GOLD PROJECT

SCALE : 1" = 40' 0 10 20 30 40 50 60 FEET
DATE : 1984 AUGUST
DRAWN BY : T.DROWN
N.T.S. 82E/9W

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	82+00	LOOKING WEST



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,710
PART 1 of 2

PLATE No. 15

UNION GOLD PROJECT

SCALE : 1" = 40'

DATE : 1984 A/Oct. 85

DRAWN BY : T. [illegible]

N.T.S. 82E/3W

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	84+00	LOOKING WEST

ROAD

ROAD

ROAD

80-S

TARGET

TARGET

0.009/0.06
6'

3' East

No.1 FAULT

GOLD STOPE
Vein rolling to SE strike

STOPED

15-600z Au 8' to East
width unknown.

1.080z Au

STOPED

IRON STOPE

STOPED

UNION FAULT

UNION FAULT

LEVEL No 1

LEVEL No 2

LEVEL No 3

LEVEL No 4

PU-11
35' east

PU-12
62' east

qv 28' east

qv 15' east

qv 3' west

TH-18 Barren

Barren TH-11

PU-11

PU-12

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,710
PART 1 of 2

PLATE No. 14

UNION GOLD PROJECT

SCALE : 1" = 40'

DATE :

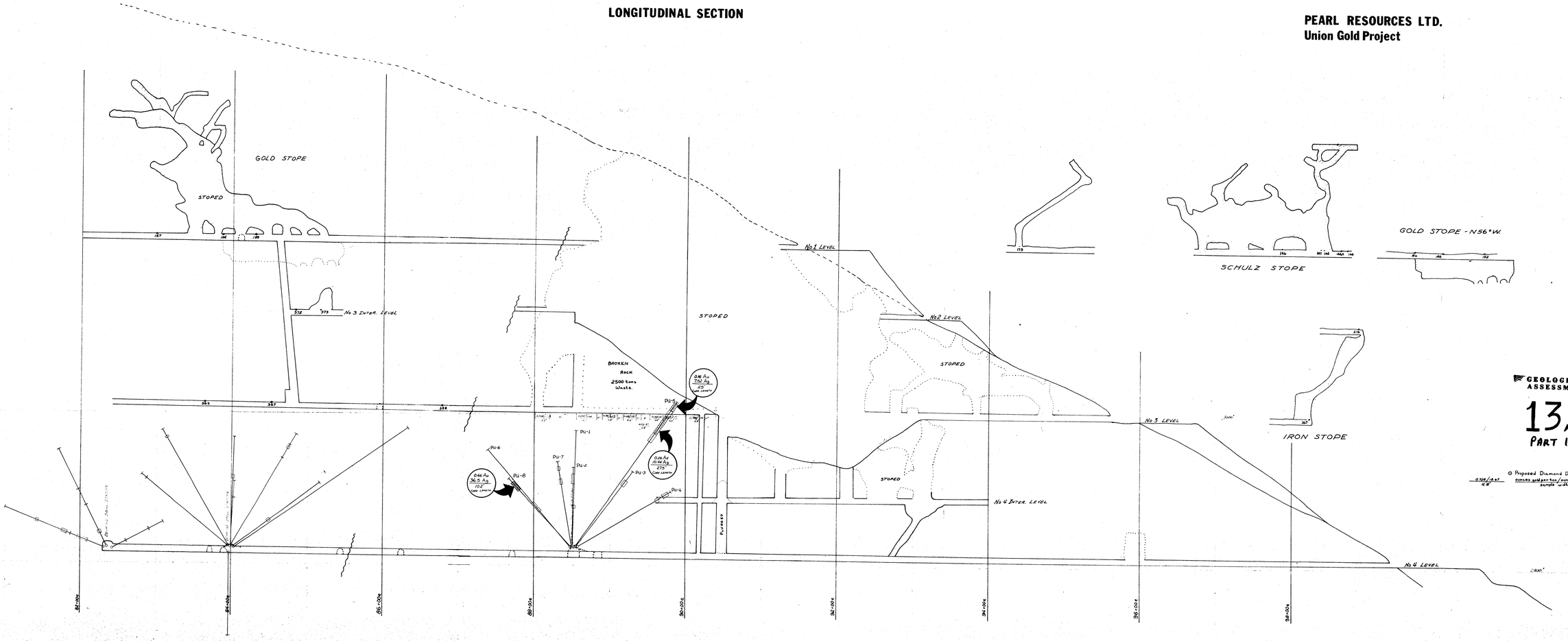
DRAWN BY :

N.T.S. 82E/9W

TYPE	USE	EASTING	LOCATION
SECTION	GEOLOGY	84+50	LOOKING WEST

LONGITUDINAL SECTION

PEARL RESOURCES LTD.
Union Gold Project



⊙ Proposed Diamond Drill Hole

0.328/18.07 / 6.6' — ounces gold per ton / ounces silver per ton / sample width

scale 1:480
0 40 80 120 160 feet
1" = 80'

Plate No. 13