

GEOLOGICAL, GEOCHEMICAL, TRENCHING & DRILLING REPORT

**NEW MOON PROPERTY
OMINECA MINING DIVISION
BRITISH COLUMBIA**

LOCATION: 100 km SW of Smithers, B.C.
Latitude 53° 57'N Longitude 127° 45'W
N.T.S. 93E 13E/W

OWNER: Newmont Mines Limited
(under Option Agreement from C. Kowall)

OPERATOR: Newmont Exploration of Canada Limited

WORK DONE: June 25 to September 5, 1986

BY: D. Visagie
Vancouver, B.C.
January 15, 1987

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

**15,741
PART 1 OF 2**

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SUMMARY

The New Moon property was optioned by Newmont from prospector C. Kowall in June 1985. This epithermal base and precious metal prospect is located in west-central British Columbia approximately 100 km southwest of Smithers, B.C. During the 1985 and 1986 summer field seasons Newmont personnel carried out mapping, prospecting, hand and back-hoe trenching, rock chip and stream sediment sampling, geophysical surveying (magnetometer and radem) and drilling. This work resulted in the discovery of 14 mineralized zones or occurrences, 4 of which were drilled in 1986. These were the Main, Splay, Misty Day and Twilight Zones. A total of 1216m of trenching and 1529m of BQ core in 17 holes has been completed by Newmont to date.

Mapping has shown that the epithermal zones to consist of quartz carbonate veins in fault zones within Hazelton volcanics. The veins mineralogy consists primarily of sphalerite, galena, with lesser amounts of chalcopyrite and pyrite. Gold and silver are associated, but not in a direct correlation with the base metals. In polished section electrum has been found to be associated with pyrite.

Drilling of the 4 zones has shown the veins to pinch and swell, and mineralization to be variable in grade and content. The Main Zone is at least 250m long and varies in width between 1 and 4.2m with the down dip extension tested to at least 230m where an intercept averaging 3.60% Pb, 12.24% Zn, 0.62 Ag and 0.024 Au over 4.2m was obtained. Overall mineral content is approximately 6.5% combined sphalerite and galena. Gold and silver values vary throughout. Shallow drilling on the Splay Zone has shown two distinct steeply dipping quartz carbonate veins which contain moderately anomalous values with the best section averaging 1.71% Pb, 2.55% Zn, 3.30 Ag and 0.005 Au over 1.3m.

On the Twilight Zone the limited amount of drilling completed has shown a narrow 1.5m steeply dipping quartz vein occurring in an area of extensive shearing to average 0.46% Cu, 2.69% Pb, 7.77% Zn, 1.10 Ag and 0.007 Au. The zone has not been delineated.

The Misty Day Zone is at least 350m long by 0.5 to 3m wide, as outlined by trenching. While the Main, Twilight and Splay zones contain significant base metals with minor silver, the reverse is true on the Misty Day. Three shallow holes located over a 220m strike length, showed the zones to contain minor base metals with significant precious metals. The best hole averaged 0.664% Pb, 2.15% Zn, 38.60 Ag, 0.075 Au over 6.2m. The zone is open at depth and along strike to the south but is truncated to the north by a snow-filled cirque.

The most significant undrilled occurrence is the North Zone. It covers an area 600 x 100m that consists of several quartz veins and stockworks which contain low base metal values with significant gold and/or silver. The best exposure sampled averaged 1.26% Pb, 2.38% Zn, 34.12 Ag, 0.225 Au across 5m at one end and 0.54% Pb, 0.68% Zn, 23.18 Ag, and 0.075 Au across 5m at the other with the intervening 11m left unsampled.

The North Zone is aligned along the same structure as the Main Zone and the Scree Zone which indicates that the total length ^{of the} mineralized structure could be in excess of 3.0 km.

Additional drilling is recommended to test the zones with the objective to develop deposits of higher tonnages and grades.

INTRODUCTION

Location, Access, Physiography

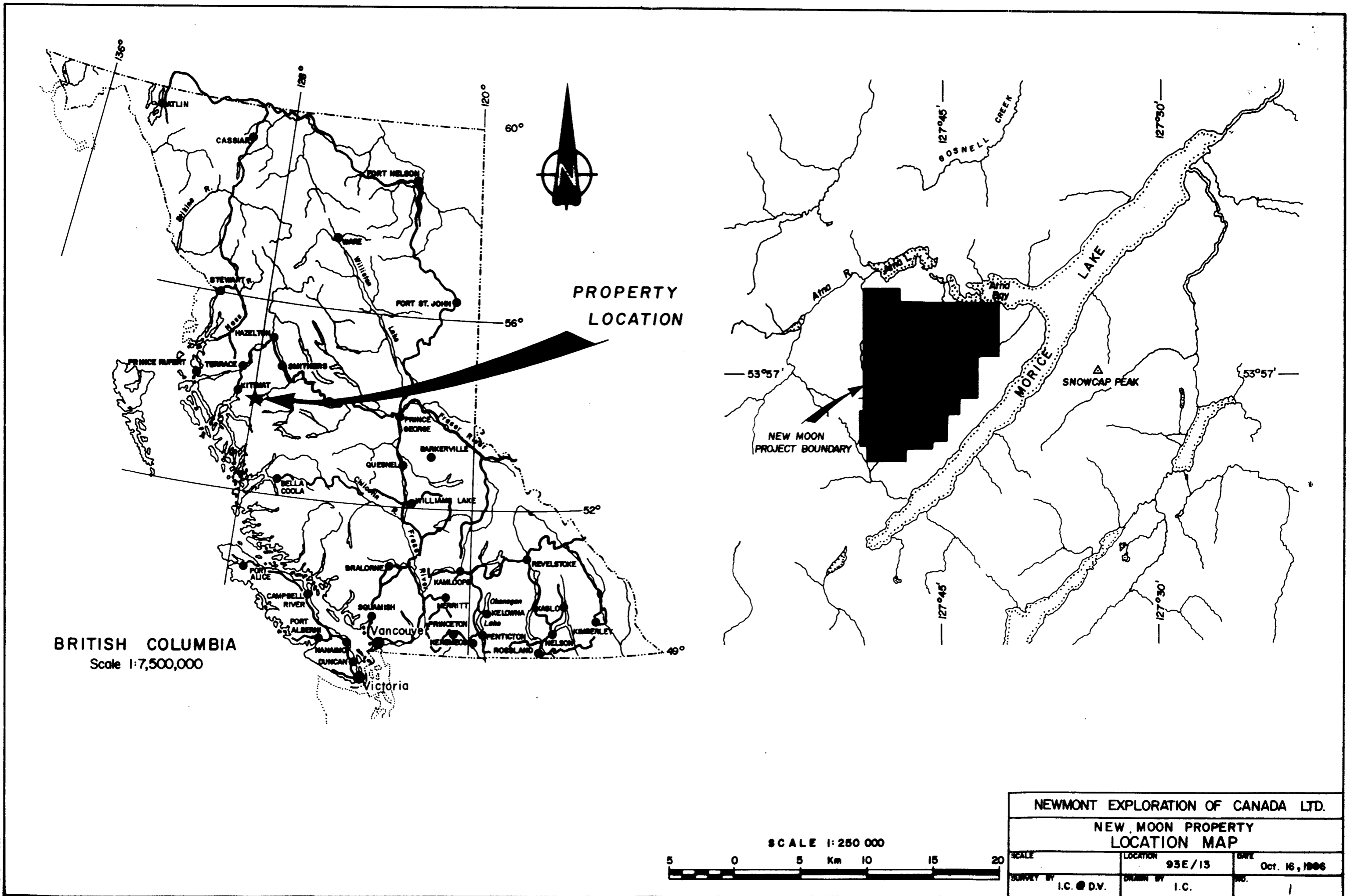
The New Moon property is located on the eastern margin of the Coast Range Mountains approximately 100 km south of Smithers in west-central British Columbia. The claims centered at 53° 57'N and 127° 45'E, NTS 93E/13, occur within the Omineca Mining Division. Access is by helicopter from Smithers, Terrace or Houston. A 74 km all-weather gravel road connects Houston with a staging area on the east side of Morice Lake. From there it is 18 km by helicopter across the lake to the base camp at the centre of the property. (Figure 1)

Elevations on the property vary considerably from 775m (2500 ft) at Morice Lake to above 2200m (7200 ft) at some of the peaks. The terrain is characterized by steep ridges and large U-shaped valleys. The central part of the property, where most of the work described in this report was carried out, is an alpine plateau at about 2100m (6800 ft) elevation.

Vegetation is altitude-dependent, with small spruce, pine and alder in the valleys with sparse patches of grass at the higher locales. The tree line is at approximately 1400m. The higher parts of the property, particularly the northeast facing slopes, are covered by small alpine glaciers and snow fields. Wildlife consists primarily of marmots, birds, and occasional mountain goats and bears.

Property Definition and Claim Status

The New Moon property is a polymetallic prospect with significant values present in gold, silver, lead, zinc and copper. Fourteen mineralized zones with several separate styles of mineralization are known. The current emphasis is on the



BRITISH COLUMBIA
Scale 1:7,500,000

PROPERTY
LOCATION

NEW MOON
PROJECT BOUNDARY

SCALE 1:250 000



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROPERTY LOCATION MAP		
SCALE	LOCATION	DATE
	93E/13	Oct. 16, 1986
SURVEY BY	DRAWN BY	NO.
I.C. @ D.V.	I.C.	1

VANICAL - 14088

gold-silver lead, zinc bearing vein-stockwork mineralization. The property is still at the exploration stage, with the principal work methods being (a) mapping and prospecting, (b) trenching and sampling, and (c) diamond drilling.

The property has been held under option from prospector C. Kowall since June 1985 by Newmont Mines Limited. Newmont Exploration of Canada Limited is the operator. The property consists of 22 contiguous claims totalling 375 units, listed as follows:

<u>Claim Name</u>	<u>Number</u>	<u>Units</u>	<u>Date of Record</u>
Misty Day	832	12	October 21, 1977
Copper Cliff	833	12	October 21, 1977
New Moon	834	20	October 21, 1977
Full Moon	4163	8	August 12, 1981
Lunar 1	4718	18	August 19, 1982
Lunar 2	4719	14	August 19, 1982
Lunar 3	4720	16	August 19, 1982
Lunar 4	4764	18	September 21, 1982
Lunar 5	4765	12	September 21, 1982
Lunar 6	4836	20	October 21, 1982
Lunar 7	4837	18	October 21, 1982
Lunar 8	4838	20	October 21, 1982
Lunar 9	4839	20	October 21, 1982
Lunar 10	4840	20	October 21, 1982
Lunar 11	4841	20	October 21, 1982
Lunar 12	4842	20	October 21, 1982
Lunar 13	4843	20	October 21, 1982
Lunar 14	4844	20	October 21, 1982
Lunar 15	4845	20	October 21, 1982
Lunar 16	4852	20	October 21, 1982
Lunar 17	4853	15	October 21, 1982
Lunar 18	4854	12	October 21, 1982

History

Early work concentrated on mineralization exposed in outcrop and rubble on the plateau, while later programs concentrated on the volcanogenic massive sulphide potential of the property.

1967-68 Phelps Dodge Corporation of Canada

- staked PC 1-36 claims to cover mineral showings located on the central plateau area,
- 9 trenches totalling 211m blasted and sampled,
- area mapped,
- 6 men employed for 6 weeks.

1969 Silver Standard Mines

- area to the south of the PC claims prospected by C. Kowall results in the discovery of banded, copper-bearing massive sulphide boulders whose probable source is under a glacier,
- area staked, no further work.

1970 Aggressive Mining

- restakes the lapsed PC 1-36 as the JOW 1-20.

1971 Aggressive Mining

- area mapped by R.W. Phendler (1" = 400'),
- Crone JEM survey, 6 lines totalling 5000' at 50' intervals with a coil separation of 200'.

1972 Aggressive Mining

- Mag and EM survey completed,
- geochem survey results in 101 samples being taken from 150' of trenching,
- 5 BQ drill holes (312m) completed on the JOW 4,
- results outlined a zone 7.6 to 9.1m wide x 165m long that averages 1.74% Pb and 5.43% Zn, silver and gold

were not systematically sampled.

- spot anomalies up to .11 oz Au/t located in short sections in drill core with less than 1 oz Ag.
- a composite of the intersections of the drill core shows the zone to average 2.97% Pb, 8.52% Zn, 0.79 oz Ag and 0.046 oz Au across 5.6m.
- claims dropped because silver values were low,

1977 C. Kowall

- stakes the lapsed JOW 1-20 as the Misty Day, New Moon and Copper Cliff.

1978 Silver Standard-Norcen & Aquitaine

- Silver Standard optioned the claims from C. Kowall and in turn optioned them to a joint venture consisting of Norcen and Aquitaine, the purpose of which was to explore the massive sulphide potential,
- limited prospecting and detailed geologic mapping along with minor ground VLF and magnetic surveys identified a favourable volcanogenic environment,
- option dropped as logistics unfavourable.

1981 Great Western Petroleum Corporation

- optioned the claims from Kowall,
- completed a helicopter VLF-EM and magnetometer survey,

1982 St. Joe Canada

- optioned the claims in August 1982 from Great West,
- carried out a helicopter EM and magnetic survey,
- staked the Lunar 1-18 claims.

1983 St. Joe Canada

- UTEM and mag surveys, mapping and sampling around the massive sulphide target under the New Moon Glacier,
- IP and mag surveys, mapping, sampling on the plateau polymetallic zone.

1984 St. Joe Canada

- completed 4 BQ diamond drill holes totalling 936m to locate the source of the massive sulphide boulders. Failed to find any significant mineralization.

1985 Newmont Exploration of Canada

- St. Joe and Great West options terminated,
- Newmont options claims from C. Kowall,
- mapping at 1:10,000 and prospecting over 40% of property,
- cleaned out and sampled old trenches, dug new ones, mapping and mag survey over 4 selected areas on the polymetallic zones on the plateau.

Work Summary

As a result of Newmont's 1985 exploration plus the work of past operators, it was decided that the purpose of the 1986 program would be to drill test three of the plateau zones (called the Main, Splay and Misty Day) to depth and laterally. In addition, mapping-prospecting-trenching-sampling would be continued over much of the remainder of this large property to discover new zones and bring them along to the drilling stage, if warranted.

The 1986 exploration program was carried out from June 26 to September 10, utilizing 716 man days of employee's time plus another 154 man days by the drill contractor. Personnel consisted of:

D. Visagie - Project Geologist	G. Malensek - Field Assistant
D. Bohme - Geologist	M. Savage - Field Assistant
I. Casidy - Geologic Technician	G. Mountford - Field Assistant
C. Kowall - Prospector	P. Witt - Field Assistant
D. Barnett - Tractor Operator	D. Visagie - Cook
B. Anderson - Field Assistant	A. Howard - Cook

For the sake of completeness, this report includes some of the results of 1985 work where appropriate, however, only 1986 costs are given in the cost statement. In particular this applies to the geologic mapping, hand trenching and chip sampling. Work summaries and methods are described below:

- (a) Geologic Mapping: Reconnaissance-type mapping at 1:10,000 scale was continued in 1986 so that most of the property has now been covered. An area of 4,000 hectares was mapped in 1986. Control for this work was provided by air photo, altimeter and a topographic base map with a 500 foot (152m) contour interval. The work was done from fly camps, with helicopter set-outs whenever possible. Detailed mapping of areas containing the mineralized zones was done at 1:500 scale, with trench geology plotted at 1:250 scale. Control was provided by a grid marked with lath pickets, laid out by Brunton compass, with a line spacing of 25m and station spacing of 25m.
- (b) Geochemistry: A stream sediment survey resulted in 31 silt samples. Rock chip samples of trenches, outcrop, float and drill core totalled 1420.
- (c) Geophysics: A resistivity survey using a VLF-EMR instrument was carried out over 4.5 line kilometres with 376 readings taken at station intervals of 12.5m.
- (d) Trenching: 58 bulldozer trenches totalling 1074m in length were dug on the plateau in the vicinity of the Main, Splay, Misty Day and Rhyolite Flats Zones. The equipment used was a John Deere 450 tractor rented from Coast Tractor. Trench depths were commonly 0.3 to 1.0m. Bedrock surface was

cleaned up by pick shovel and broom, sample sites marked by red paint on the rock, and representative chip samples over measured lengths taken by hammer and moil. Sample lengths ranged from about 0.5 to 1.0m in mineralized material to 1.0 to 2.0m where mineralization was weaker. Sample weights were about 2 to 5 kg each. Twenty-one hand-dug or blasted trenches totalling 142m in length were completed in 1986 in those outlying areas (mainly the North and Scree Zones) inaccessible to the tractor.

- (e) Diamond Drilling: A program of 17 BQ diamond drill holes ranging from 35 to 255m deep and totalling 1529m in length was carried out between August 2 and September 5. Work was performed under contract by DJ Drilling of Surrey, B.C. using a Longyear 38 wireline drill. Drilling conditions were generally good with overburden being absent. However, some of the mineralized zones were considerably fractured, resulting in poor core recovery in some intersections. No drilling mud was used. Drilling was carried out on two 10 hour shifts per day, 7 days a week. Performance averaged 24.7m per shift, including all time spent moving between holes and to and from the staging area. Drill hole collar locations were determined by transit survey; their azimuths were laid out by Brunton compass. Acid dip tests were taken at the bottom of each hole, or at irregular intervals of 50 to 150m in the deeper holes. Elevations are with respect to a base station located at 200N Bl, where an altimeter reading provided a base elevation of 2100m above sea level. The drill core is stored at the base camp site on the plateau near the Main Zone.

The work is distributed as shown below:

<u>Claim Name</u>	<u>Bull- dozer Trench</u>	<u>Hand or Blasted Trench</u>	<u>Drill- ing</u>	<u>Silt Sampling</u>	<u>Geol Mapping</u>	<u>VLF- EMR</u>
Misty Day	X		X			X
Copper Cliff	X		X			
New Moon						
Full Moon						
Lunar 1	X		X		X	
Lunar 2		X			X	
Lunar 3					X	
Lunar 4		X			X	
Lunar 5					X	
Lunar 6					X	
Lunar 7				X	X	
Lunar 8				X	X	
Lunar 9				X	X	
Lunar 10				X	X	
Lunar 11					X	
Lunar 12					X	
Lunar 13				X	X	
Lunar 14		X			X	
Lunar 15				X	X	
Lunar 16				X	X	
Lunar 17				X	X	
Lunar 18				X	X	

Infrastructure and Logistics

The workings on the New Moon property are presently accessible only by helicopter, with bases being located at Smithers, Terrace, Houston and Kitimat. Both Smithers and Terrace have daily scheduled air service to Vancouver.

A 74 km all-weather gravel road from Houston comes to within 18 km of the centre of the property. For the purpose of mobilization, a staging area was selected. Equipment was moved to the staging area using low-beds and semi-trailers, then broken down and flown to the workings using a Bell 205 or 206 helicopter. Transportation costs for the drilling equipment, tractor and camp gear from the owners' premises within British Columbia, and return thereto, is included in the Cost Statement. Smithers, a town of 5,000 people, was used as a supply base for the project. During the summer program, camp was serviced by weekly flights using a Bell 206 helicopter.

It should be noted that the provision of a tractor, and a Newmont operator to build drill sites and roads in advance, made the drill job run smoothly and saved money compared to an all-helicopter drill job. Furthermore, the tractor was available for trenching and accomplished far more than could ever have been done by hand.

Possible sources of hydroelectric power for mine development would be either a private generating plant at Kemano 50 km to the south or the provincial power grid at Houston 90 km NE.

REGIONAL GEOLOGY

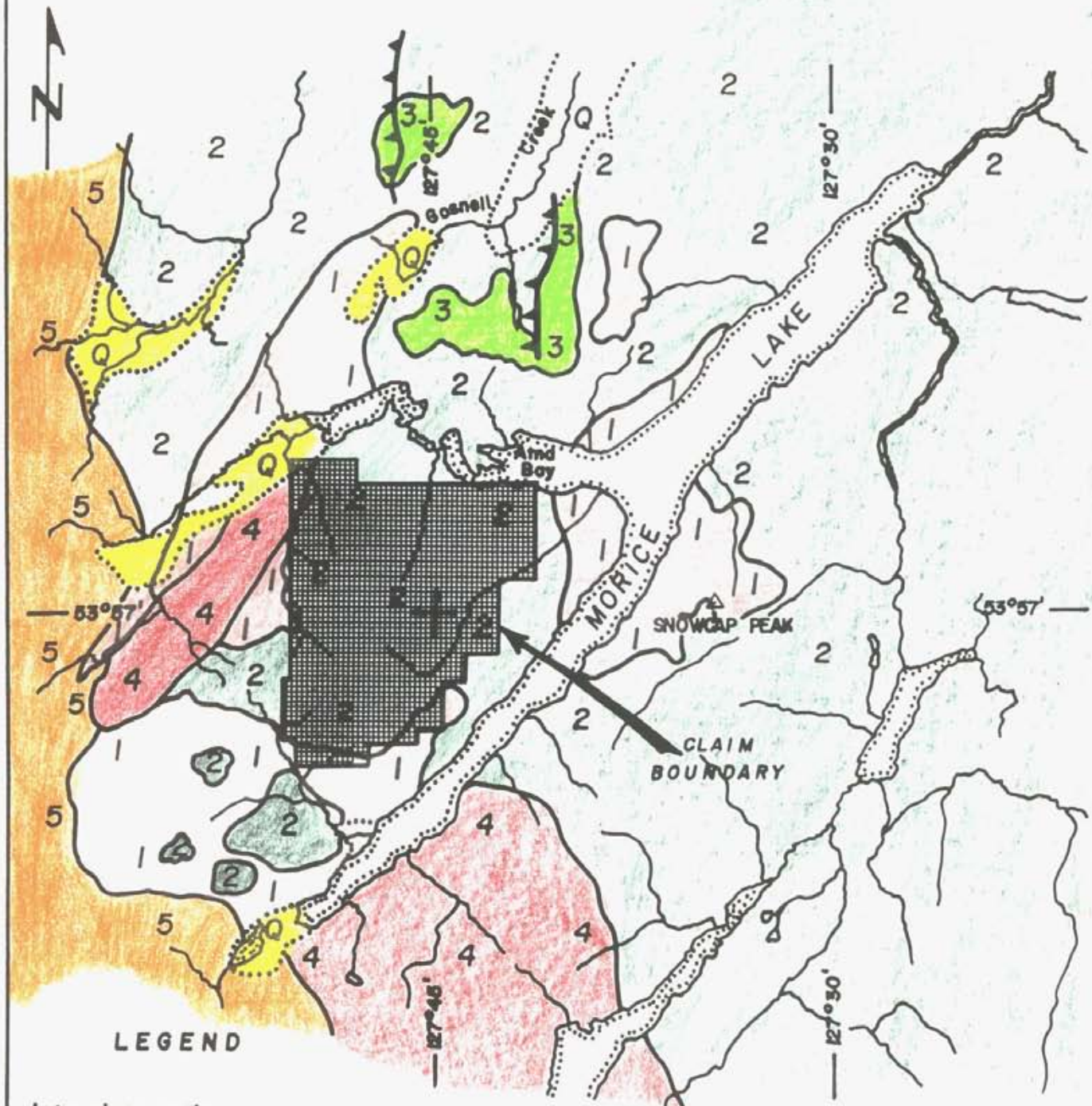
In 1980 G.J. Woodsworth compiled the available geologic mapping of the Whitesail Map sheet (NTS 93E) at a scale of 1:25,000 (G.S.C. Open File 708).

The important contacts and rock types in the vicinity of the New Moon property are outlined on Figure 2. The claims lie at the western limits of the Hazelton Group (early to mid Jurassic) in close proximity to the Coast Plutonic Complex. The Hazelton Group has been subdivided locally into the Telkwa and Nilkitkwa Formations. The Telkwa Formation underlies most of the property.

The name Telkwa Formation refers to the oldest of three formations which make up the Hazelton Group (see Table I). This formation consists of a thick suite of calc-alkaline volcanic rocks that has been subdivided into 5 distinct facies, of which the "Howson subaerial facies" composed of bright red, maroon, purple, pink, grey, green, well-bedded, slightly deformed basalt to rhyolite (dominantly andesite-dacite), pyroclastic flows and tuffs deposited in a terrestrial environment (Tipper and Richards, 1976) is locally prominent. The Telkwa Formation is underlain and probably coeval with Lower Jurassic Topley Intrusions and is overlain conformably by the Nilkitkwa Formation.

TABLE 1
FORMATIONS, MEMBERS, AND FACIES OF THE HAZELTON GROUP

Unit	Lithology	Thickness (m)	Age
<u>Smithers Formation</u>	Greywacke, argillite, siltstone, sandstone, sharpstone, conglomerate, glauconitic sandstone, ash-fall tuff, tuffaceous sediments	40 - 800	Middle Toarcian to Lower Callovian
Bait Member	Argillite, siltstone, fine-grained greywacke, limestone, sharpstone conglomerate, tuff and tuffaceous sediments	30 - 450	Middle Toarcian to Middle Bajocian
Yuen Member	Siltstone, tuffaceous siltstone, reddish tuff, fine tuffaceous greywacke	780	Toarcian to Middle Bajocian
<u>Nilkitkwa Formation</u>	Shale, siltstone, greywacke, limy shale, limestone, rhyodacite airfall tuff and breccia, basalt	30 - 1200	Early Pliensbachian to Middle Toarcian
Carruthers Member	Pillow basalt, aquagene tuff, breccia, minor flows and limestone	60	Late Pliensbachian to Early Toarcian
Ankwell Member	Subaerial and subaqueous alkali olivine basalt, minor basalt, minor sandstone and limestone	10 - 1000	Middle Toarcian
Red Tuff Member	Subaerial airfall tuff, lapilli tuff, rhyolite to basalt flow breccia and tuff, minor subaqueous volcanics	50 - 300	Middle and ? Late Toarcian
<u>Telkwa Formation</u>			Late Sinemurian to Early Pliensbachian
Howson sub-aerial facies	Calc-alkaline basalt to rhyolite flows; breccia, tuff; intravolcanic sediments; minor marl	1000 - 2500	
Babine shelf facies	Calc-alkaline basalt to rhyolite; subaerial and subaqueous flow, breccia, and tuff; limestone, greywacke, siltstone, and shale	1000 ?	
Kotsine subaqueous facies	Calc-alkaline basalt and rhyolite; subaqueous flow, breccia, tuff, pillow breccia; limestone, greywacke, siltstone and shale	30 - 1500	
Bear Lake subaerial facies	Calc-alkaline basalt to rhyolite flow, breccia, and tuff; and intravolcanic sediments	2000	
Sikanni clastic-volcanic facies	Subaerial conglomerate, sandstone, mudstone, lahar, rhyodacite flow, breccia, basalt, andesite; minor shallow-marine sandstone and conglomerate	200 - 1000	



LEGEND

Intrusives rocks

- 5 Coast Plutonic complex
- 4 Chloritized quartz diorite
- 1 Topley Intrusions

Sedimentary & Volcanic rocks

- 3 Nilkitkwa Formation (Red tuff)
- 2 Telkwa Formation (Howson subaerial facies)

- Q Quaternary deposits

geologic contact
 thrust fault



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROPERTY		
REGIONAL GEOLOGY		
SCALE 1: 250 000	LOCATION 93 E/13	DATE DEC 4, 1986
SURVEY BY D.V.	DRAWN BY I.C.	NO 2

The Nilkitwa Formation is composed of shale, siltstone, graywacke, limestone, rhyodacite, airfall tuffs and breccias, and basalts. The basal member of the Nilkitwa Formation is the Red Tuff member composed of reddish calc-alkaline volcanic rocks, some of which are found around Morice Lake. The Red Tuff member is similar to the Howson subaerial facies, making their exact distinction difficult. Where possible, the units are separated on the basis of their relationships to overlying and underlying formations. Where such contacts are absent, the separation of the two units is dependent upon subtle lithologic differences. Tipper (G.S.C.) states that one of the prime difference is that the Red Tuff member contains pervasive, thin limestone and/or shale beds while the Howsen subaerial facies does not.

The preservation of the Red Tuff member strata has occurred where drop faulting, has lowered blocks of the Red Tuffs into the surrounding Telkwa Formation. It is therefore possible that some of the mapped Howson rocks on the New Moon property may belong to the Red Tuff member.

The Telkwa Formation rocks have been intruded by the Topley Intrusions which form calc-alkaline stocks and batholiths that are Early Jurassic in age. They form a series of bodies coincident with the Skeena Arch, and although they strike directly toward the Coast Plutonic Complex they have not been recognized within it. These intrusions are thought to be contemporaneous with and intrusive into the Telkwa Formation.

The intrusions are coincidental with the thickest piles of volcanics and are associated with the greatest abundance of acidic extrusives. They are epizonal in character. On the New Moon property, roof pendants of volcanic strata are well preserved, with some volcanic xenoliths near the contacts. Otherwise the contacts are sharp.

PROPERTY GEOLOGY

Lithology

The New Moon property is underlain by Lower to Middle Jurassic intermediate to felsic volcanics and volcanoclastics of the Hazelton Group of which locally the Telkwa Formation is prominent. The volcanics in turn have been cut by various dykes and intrusive bodies. To date 16 rock types have been identified and are outlined on Figures 3 and 4. For reporting purposes the various types have been grouped where possible.

Unit 1 Andesitic Tuff

- fine to medium grained, green and maroon colored, includes green auto-brecciated flows, flows and breccia, minor limestone. Calcareous.

Unit 2 Hornfels

- fine grained, mauve to grey-green colored, contains noticeable biotite, tremolite, and magnetite. Minor calc-silicate magnetite skarn included.

Unit 3 Dacite Porphyry Flow

- fine grained, light grey to maroon colored, contains feldspar phenocrysts up to 5mm in size. Massive and brecciated.

Unit 4 Dacitic Tuff - Agglomerate

- fine grained, light green to flesh pink colored, fragments up to 20 cm included in agglomerate. In part welded lapilli (lapilli up to 2 cm) and crystal tuff.

Unit 5 Rhyolitic Flow and Tuff

- fine grained, light grey-yellow colored, in part auto-brecciated includes agglomerate and quartz eye feldspar crystal tuff and tuff breccia.

Unit 6 Cherty Tuff - Exhalite

- fine grained, light grey colored typically forms beds up to 1m thick, well laminated on occasion.

Unit 7 Maroon Tuff

- red-maroon-grey colored, medium grained, subaerial, includes some rhyolite ejecta, and narrow sections of felsic and intermediate tuffs, andesitic in composition.

Unit 8 Felsic Crystal Tuff

- fine grained, light grey colored, contains abundant quartz eyes and laths, equivalent in part to units 4 and 5.

Unit 9 Andesite Flows

- fine to medium grained, grey to maroon colored, brecciated on occasion, related to and cyclically interbedded with unit 7.

Unit 10-13 Dykes

- variable in composition, grain size, and color
- in general the mafic dykes are older than the felsic dykes. In part forms dyke swarms.

Unit 14 Topley Intrusive

- includes Granite, Quartz Monzonite, Granodiorite generally coarse grained, light to medium grayish white colored.

Unit 15 Aplite Dyke

- medium grained light green beige and white colored.

Unit 16 Andesite Sill/Flow

- medium grained green colored, plagioclase phenocrysts up to 0.5 cm in size occur throughout.

Alteration

The New Moon property is host to several styles of alteration. On a regional scale the Howson subaerial facies is extensively altered with a regional development of zeolites, epidote, prehnite and calcite. The low grade minerals epidote, prehnite and calcite occur in three forms:

- 1) As veins, from approximately 30 cm wide to fine veinlets less than 1cm that cut the strata.
- 2) As primary porosity fillings that form amygdules and cement the breccias.
- 3) As a matrix component of secondary minerals in pyroclastics and flows.

The zeolitization tends to occur in andesitic rather than rhyolitic rocks.

In addition to the above local alteration zones can include:

- 1) silicification along shear and fault zones,
- 2) moderate clay alteration (kaolinization) of the feldspar and on occasion saussuritization,
- 3) chloritization of the mafic constituents of some of the volcanic rocks, and
- 4) minor k-spar rimming of quartz veins.

Structure

The tuffs and flows are generally flat to moderately dipping with no major folds being developed. Structurally, faulting has had the most significant effect on volcanic stratigraphy and is the prime localizing factor in the development of the mineralized zones. Predominant faults occur along either a NW-SE or NE-SW trend. Displacement for the most part is generally minor less than 5m. The faulting was probably caused either by underlying intrusive activities or by dilatant flexures in response to lateral stress in a NW-SE direction. Faults are generally steeply to moderately dipping.

Mineralization

Three types of mineralization have been identified on the property:

- a) Epithermal base and precious metal
- b) Massive banded sulphide - possibly volcanogenic
- c) Magnetite skarn

Of the three, the epithermal is the most prevalent with 12 of the 14 located zones being classified as such:

1. Epithermal Base and Precious Metal

The mineralization occurs within or in close proximity to quartz-carbonate vein filled fault and fracture zones. Typically the zones are composed of various combinations and grades of base and precious metals. Mineralization consists primarily of sphalerite and galena along with minor amounts of chalcopyrite, pyrite and malachite. Gold and silver occur generally in association, but not in a direct correlation,

with the sulphides. Previously completed polished section studies of samples taken from the Main Zone have shown electrum to be associated with pyrite. In addition one drill core sample in an area of high silver values on the Misty Day zone is thought to contain native silver.

In form the sulphides occur both as distinct semi-massive to massive bands up to 10cm thick and as disseminations. At surface the zones are characterized by manganese and hematite staining. Gossan has formed in areas of heavy sulphide. In core, oxidation has been noted at depths of up to 200m.

2. Massive Banded Sulphide - possibly volcanogenic

Massive to semi-massive sulphide boulders have been located in moraines emanating from a glacier located in the Boulder Zone. The boulders up to 1m in size are angular and form three distinct styles of mineralization:

- a) massive galena/sphalerite with pyrite in silicified carbonatized and chloritized andesitic flows,
- b) heavy specular hematite, chalcopyrite, magnetite and minor sphalerite in jasperoidal chert,
- c) chalcopyrite and pyrite in a chlorite and epidote altered grey cherty host rock.

3. Skarn

Skarn type mineralization occurs at the Shadow Valley showing. The skarn is composed of a massive magnetite lens in which minor chalcopyrite, pyrite, galena and sphalerite occur. The lens is hosted by a calcareous horizon within hornfelsed andesitic tuffs. The lens is exposed for 300m and is 2 to 3m thick.

EVALUATION OF ZONES

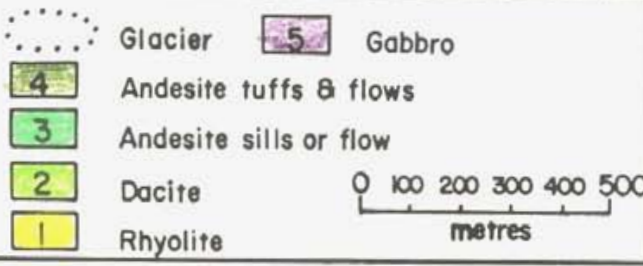
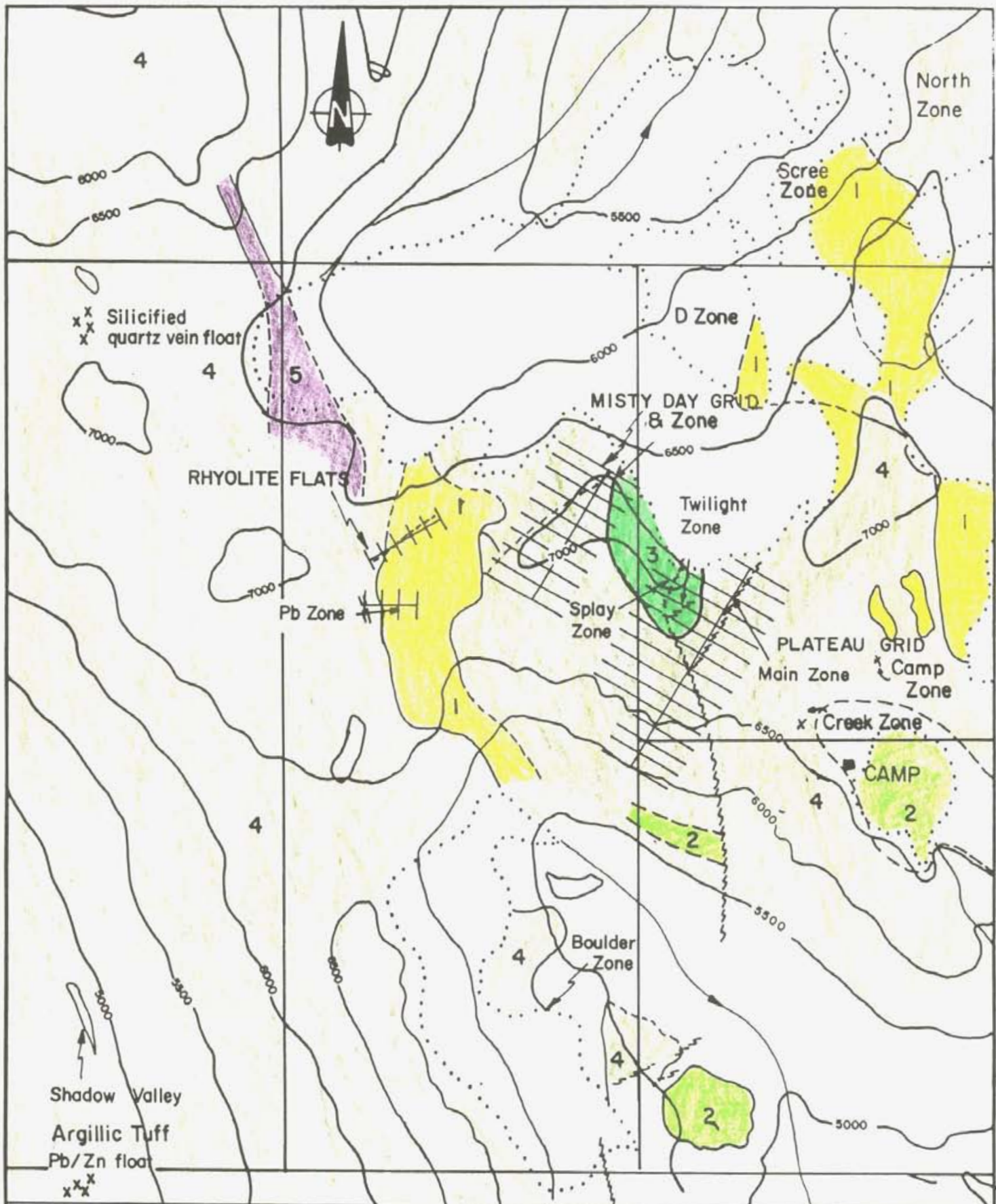
Fourteen mineralized zones are known to occur on the New Moon property ranging from four zones that have been drilled, down to one that is known only through a train of mineralized float (rubble). Their locations are shown on Figure 4 and 5; 13 of them located in the central part of the property are indicated on Figure 5. The zones have been evaluated through combinations of trenching, mapping, rock chip sampling and diamond drilling. The results are summarized below for those zones explored by Newmont in 1986, followed by brief references to those zones explored in earlier years.

Main Zone (Figures 5-18)

Trenching: 23 trenches totalling 639.9m
Drilling: 11 holes totalling 1159.5m

The results of the drilling and trenching programs are summarized in Tables 2 and 3. Trenching has outlined a zone that is at least 250m long by 1 to 10.3m wide (averaging 4m) that grades at surface 3.14% Pb, 3.49% Zn, 0.77 oz Ag, 0.065 oz Au. The structure hosting the zone extends another 75m to the north with lower grade values, where it is then truncated by a snow-filled cirque. Trenching was attempted on the southern extension, but was unsuccessful in reaching bedrock due to thick scree cover and steep slopes. Thus the zone is still open in that direction.

Mineralization consists of banded quartz-carbonate veins in part brecciated, that contain disseminated to semi-massive galena and sphalerite with lesser amounts of pyrite, chalcopyrite, malachite and azurite. Overall the zone is estimated to contain 7% total sulphides by volume. Hematite is found within the host tuffs, while manganese associated with the veins probably results from the breakdown of dolomite.



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROPERTY		
PLATEAU AREA SHOWINGS		
SCALE 1:15 000	LOCATION 93 E 13	DATE Oct. 30, 1985
SURVEY BY D.V.	DRAWN BY I.C.	NO. 5

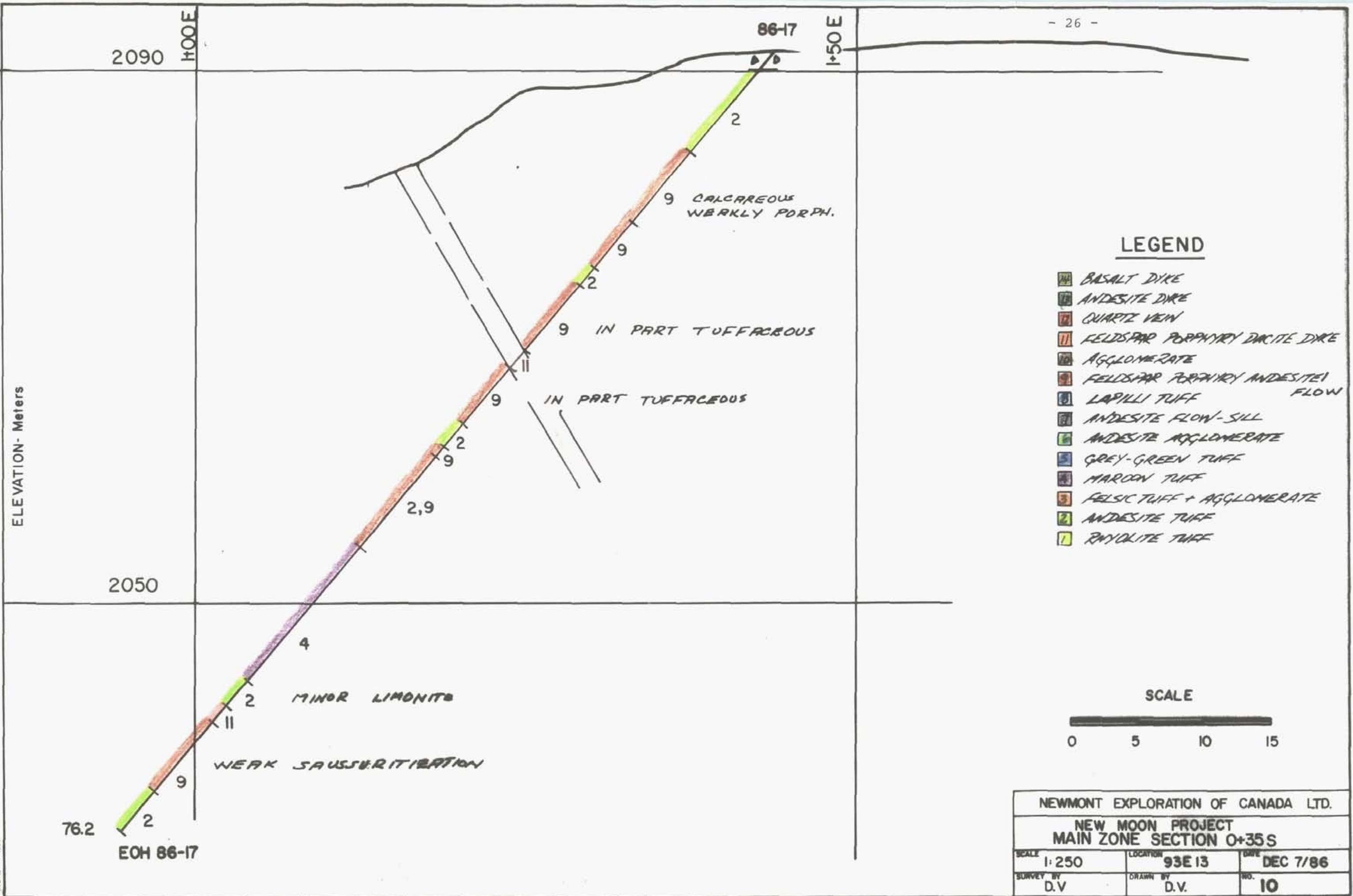
TABLE 2
MAIN ZONE - TRENCH SUMMARY

Trench	Length(m)	INTERSECTION			Pb%	GRADE		
		From(m)	To(m)	Int(m)		Zn%	Ag oz/T	Au oz/T
1	33	4.8	8.0	3.2	2.37	4.00	.66	.060
		9.7	10.7	1.0	6.14	8.86	1.08	.034
		13.0	20.0	7.0	4.20	3.20	.90	.031
		21.0	22.0	1.0	7.22	0.65	.86	.006
		28.0	29.0	1.0	1.48	3.26	.07	.050
23	42	12.0	15.0	3.0	1.71	2.78	.47	.079
		18.0	22.0	4.0	3.63	5.15	.53	.034
		30.0	36.0	6.0	2.73	3.45	.41	.027
5	46	20.3	26.0	5.7	3.10	6.10	.95	.078
32	28	5.0	14.0	9.0	5.03	3.78	1.05	.033
30	42	14.0	18.0	4.0	1.34	3.99	.55	.089
		33.5	39.0	5.5	2.14	2.49	.67	.106
		31.5	33.5	2.0	2.47	1.85	2.56	.020
31	44	17.5	23.5	6.0	4.38	7.78	1.14	.173
		26.0	28.0	2.0	0.98	2.65	.37	.004
		30.0	31.5	1.5	2.31	4.25	.55	.005
33	22	4.5	13.0	8.5	3.73	1.99	1.05	.031
		13.0	16.0	3.0	4.83	0.62	1.20	.004
34	50	2.7	14.0	10.3	2.43	2.66	.70	.047
		22.0	23.0	1.0	1.05	1.64	.22	.048
		46.2	48.0	0.8	2.59	4.15	.39	.024
35	13.5	19.0	22.5	3.0	3.31	3.80	1.60	.109
	41							
36	14	9.0	17.0	8.0	2.30	2.40	.51	.108
	30	9.0	14.0	5.0	3.30	3.10	.56	.150
		9.5	12.5	3.0	4.84	3.58	.75	.234
37	60	-	-	-	-	-	-	-
38	19.5	5.5	12.0	6.5	1.10	1.85	.40	.059
		5.0	8.0	3.0	1.18	3.14	.72	.108
39	22	1.0	1.5	0.5	2.26	1.96	.35	.022
		2.5	6.0	3.5	4.73	4.17	.82	.085
		3.0	5.5	2.5	6.15	4.77	.87	.115
40	14	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
41	17	4.0	5.5	1.5	1.61	1.84	.17	.025
42	12	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
43	13	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
44	8	4.0	4.5	0.5	>1	>1	.66	.012
45	13	0.5	1.0	0.5	1.31	1.39	.07	<.002
		3.0	4.5	1.5	1.63	1.44	.06	.002
46	37.4	10.0	14.2	4.2	3.07	5.22	.53	.052
47	18	1.5	2.0	0.5	2.78	1.49	.16	.020
48	19	3.5	5.5	2.0	1.49	2.34	.31	.002
49	9	5.0	7.5	2.5	3.30	3.20	.58	.028

TABLE 3
MAIN ZONE - DRILL INTERSECTIONS

Hole No.	Length	From(m)	To(m)	Int.(m)	Cu%	Pb%	Zn%	Ag oz/T	Au oz/T		
86-1	54.3	8.6	10.2	1.6		.88	3.64	.38	.029		
		17.8	18.9	1.1		2.49	9.59	.47	.016		
		29.2	34.2	5.0		1.15	3.19	.30	.032		
		incl. 33.2	34.2	1.0		3.93	10.32	.98	.140		
86-2	57.7	22.6	24.5	1.9		1.54	5.93	.50	.023		
		34.7	39.3	4.6	.27	2.40	7.26	.62	.029		
		incl. 34.7	37.0	2.3	.19	3.58	8.57	.75	.048		
		and 38.1	39.3	1.2	.68	2.08	10.66	.85	.017		
86-3	71.9	9.3	9.9	0.6	.23	2.00	6.01	.37	.004		
		20.6	22.1	1.5		0.19	3.44	.27	.002		
		22.1	23.1	1.0	.21	2.20	12.65	.34	.013		
		23.1	25.1	2.0		0.05	0.48	.03	.002		
		25.1	27.2	2.1		0.25	5.88	.17	.002		
		27.2	29.4	2.2		0.28	1.23	.31	.002		
		29.4	32.2	2.8		0.64	5.58	.25	.011		
		or 22.1	32.2	10.1		0.52	4.44	.21	.006		
		86-4	113.1	91.2	91.7	0.5		0.32	1.09	.06	.002
				91.7	95.7	4.0	.57	2.43	6.75	.52	.015
incl. 91.7	93.3			1.6	.40	4.75	11.10	.52	.026		
86-5	125.9			96.5	100.5	4.0		0.41	1.83	.05	.002
		incl. 96.5	98.1	1.6		0.33	1.89	.06	.002		
		" 98.1	99.8	1.7		0.15	0.71	.05	.002		
		" 99.8	100.5	0.7		1.22	4.43	.16	.002		
		102.5	104.7	2.2	>1%	0.10	5.29	.55	.003		
		109.8	110.3	0.5		0.01	1.39	.13	.002		
86-6	119.5	35.4	36.0	0.6		1.31	2.82	.23	.012		
		74.2	75.9	1.7		0.34	1.41	.11	.021		
		86.6	90.8	4.2		1.24	3.10	.28	.002		
		103.4	107.7	4.3	.36	0.83	3.35	.35	.020		
86-13	254.8	35.4	36.9	1.5		1.25	3.58	.23	.002		
		44.9	49.9	5.0		1.35	3.09	.19	.002		
		57.8	61.2	3.4		1.08	2.78	.14	.002		
		137.2	139.6	2.4	.29	0.31	2.61	.16	.002		
		144.2	146.4	2.2	.18	0.47	3.36	.21	.008		
		152.7	158.5	5.8	.12	0.12	1.29	.05	.002		
86-14	221.0	42.0	42.6	0.6	.16	0.57	3.97	.19	.002		
		65.7	66.8	1.1	.08	0.47	3.05	.15	.003		
		93.7	96.7	3.0		0.97	2.48	.17	.034		
		176.5	180.2	3.7		0.30	1.97	.17	.002		
		180.2	184.4	4.2	.23	3.60	12.24	.62	.042		
86-15	34.7	19.3	20.7	1.4		0.19	0.96	2.77	.002		
		25.0	25.6	0.6		0.89	2.53	.20	.004		
86-16	35.4	No Significant Results									
86-17	76.2	No Significant Results									

Drilling was conducted along strike and down dip from the previously drilled holes (1972) to test for extensions and explore the vein system for more Au-Ag enriched portions. Core recovery was generally excellent, with the notable exception of some of the mineralized intercepts. Within the Main Zone, the quartz veining is highly fractured and brecciated by the host fault system. In addition, oxidation has been noted to occur to a depth in excess of 150m. No fault gouge was seen. The deepest intersection (in 86-14) is 200m vertically below surface or 220m down dip. The zone was intersected in all but the northern most hole. Drilling has shown the Main Zone to be composed of a series of quartz vein systems that contain appreciable sulphide, primarily galena and sphalerite. The zone appears to pinch and swell along strike and down dip with grades being variable. In general, grade and width are less in drill core than at surface. The zone appears to pinch out to the north but this may be only a product of elevation in the system. Hole 86-16, a shallow drill test located at the northern end of the system, failed to intersect the zone. However, a deep test (hole 86-14) located 200m to the south intersected a strongly developed shear zone for 40m at 135m below the interpreted zone in 86-16. Immediately below the shear zone occurs a heavily mineralized zone that contains a 4.2m section averaging 0.23% Cu, 3.60% Pb, 12.24% Zn, 0.62 oz Ag and 0.042 oz Au. Hole 86-13, a deep test located 150m south of Hole 14, failed to intersect the zone at depth. It is noted that holes 86-13 and 86-14 different lithologies suggesting the faulting of the system at the south end at depth. The faulting at depth is given credence by the fact that hole 86-4 intersected a 4.0m zone averaging 2.43% Pb, 6.75% Zn, 0.52 oz Ag and 0.015 oz Au at approximately 70m above the projection of the zone in 86-13. The failure to intersect the zone in 86-13 may also be in part caused by the rock type. The felsic tuff may be a poor host rock that does not fracture readily providing a pathway for the percolating fluids.



LEGEND

- BASALT DIKE
- ANDESITE DIKE
- QUARTZ VEIN
- FELDSPAR PORPHYRY DACITE DIKE
- AGGLOMERATE
- FELDSPAR PORPHYRY ANDESITE/
- LAPILLI TUFF FLOW
- ANDESITE FLOW-SILL
- ANDESITE AGGLOMERATE
- GREY-GREEN TUFF
- MAROON TUFF
- FELSIC TUFF + AGGLOMERATE
- ANDESITE TUFF
- RHYOLITE TUFF

SCALE



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT		
MAIN ZONE SECTION 0+35 S		
SCALE 1:250	LOCATION 93E 13	DATE DEC 7/86
SURVEY BY D.V.	DRAWN BY D.V.	NO. 10

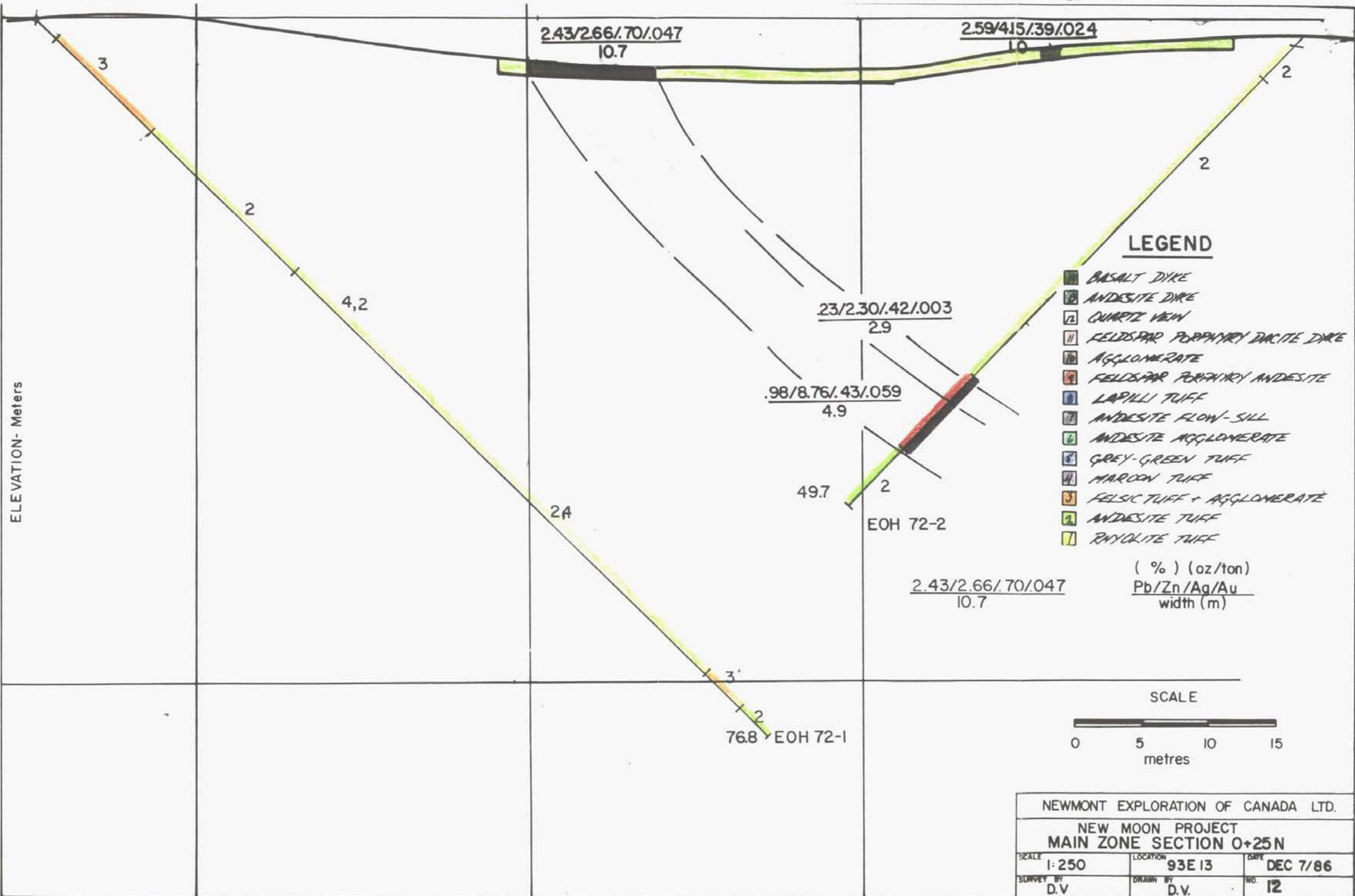
VANICAL - 14088

Table III, Cont'd.

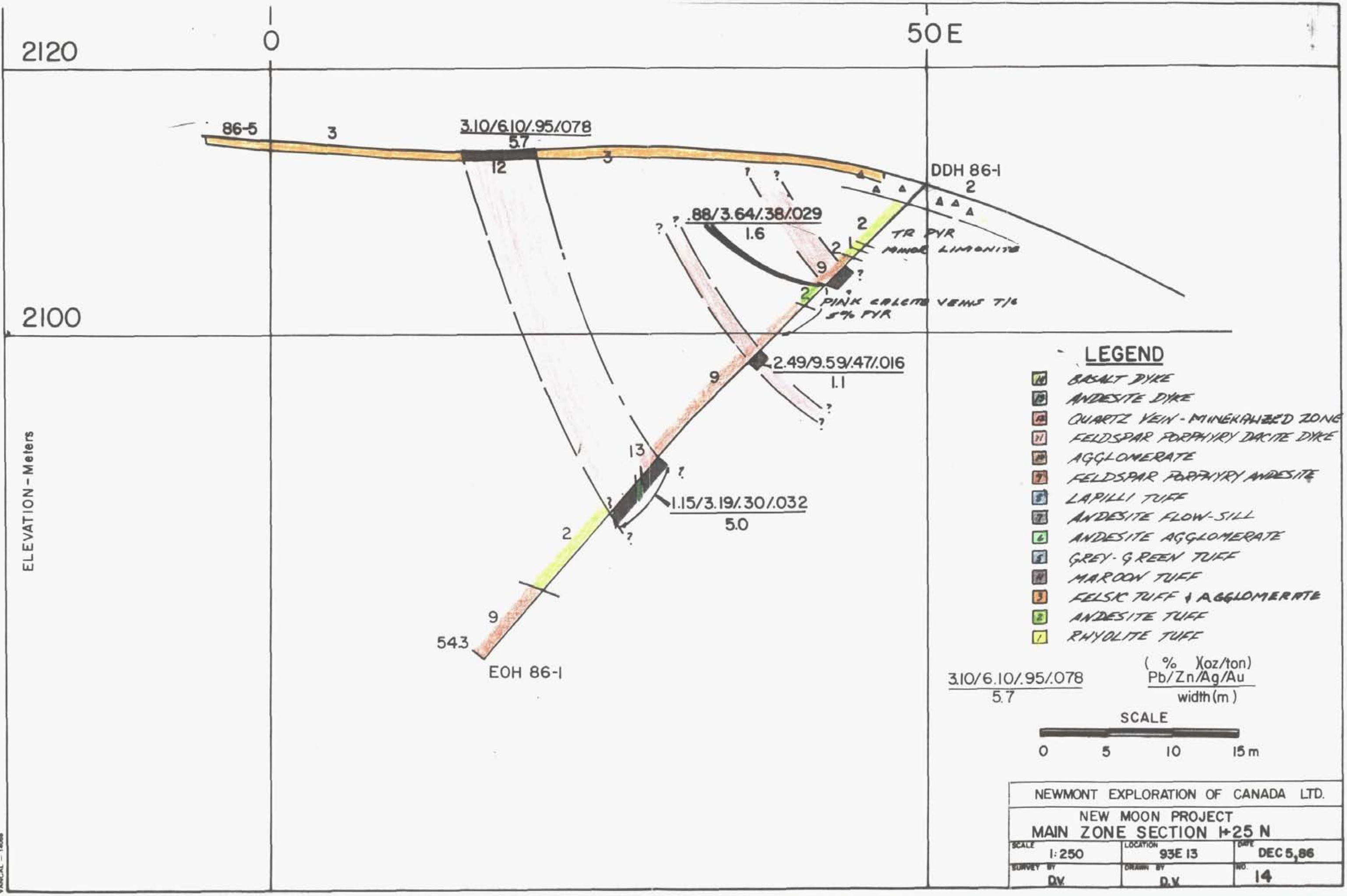
	Zinc Cleaner Concentrate							Zinc Cleaner Tailing							Zinc Scavenger Tailing						
	Wt %	Estimated Particle Compositions (Wt %)						Wt %	Estimated Particle Compositions (Wt %)						Wt %	Estimated Particle Compositions (Wt %)					
	Sp	Gl	Cy	Co	Py	G		Sp	Gl	Cy	Co	Py	G		Sp	Gl	Cy	Co	Py	G ^{a,b}	
Free Minerals																					
Sphalerite (Sp)	88.55	88.55						75.19	75.19						1.84	1.84					
Galena (Gl)	1.32		1.32					2.04		2.04					0.40		0.40				
Chalcopyrite (Cy)	0.29			0.29				0.31			0.31				Tr				Tr		
Covellite (Co)	Tr				Tr			Tr				Tr									
Pyrite (Py)	-					-		0.51				0.51									0.31
Gangue (G) ^a	0.73					0.73		4.59					4.59		87.32						87.32
Binary Lockings																					
Sp/Gl	4.23	3.31	0.92					7.12	4.98	2.14					0.99	0.83	0.16				
Sp/Cy	3.50	2.78		0.72				5.69	4.91		0.78				0.14	0.10		0.04			
Sp/Co	0.09	0.06			0.03			-													
Sp/Py	0.10	0.04				0.06		0.10	0.09			0.01									
Sp/G	0.91	0.11					0.80	2.84	0.86				1.98		3.15	0.25					2.90
Gl/Cy	-							-							-						
Gl/Py	-							-							-						
Gl/G	-							0.10		0.03			0.07		0.11		0.01			0.10	
Cy/Py	-							-							1.38		0.13				1.25
Cy/G	-							-							Tr				Tr		
Co/G	-							-							0.45			0.02			0.43
Py/G	-							-							0.12			0.01			0.11
															0.30					0.03	0.27
Ternary Lockings																					
Sp/Gl/Cy	0.28	0.20	0.04	0.04				0.75	0.63	0.06	0.06				0.26	0.15	0.03	0.08			
Sp/Gl/Py	-							-							-						
Sp/Gl/G	-							0.67	0.06	0.02			0.59		1.82	0.22	0.11				1.49
Others	-							0.09	0.06		0.01		0.02		1.07	0.07	0.02	0.02	0.01	Tr	0.95
Quaternary Lockings																					
	-							-							0.34	0.07	0.01	0.01			0.25
Microscopic Totals	100.00	95.05	2.28	1.05	0.03	0.06	1.53	100.00	86.78	4.29	1.16	Tr	0.52	7.25	100.00	3.53	0.87	0.17	0.02	0.44	94.97
Degree of Liber'n. (%)		93.	58.	28.	Tr	0.	48.		87.	48.	27.	Tr	98.	63.		52.	46.	Tr	0.	70.	

a. Includes iron oxides.

b. Includes approx. 1% cerussite (PbCO₃).



VANCAL - 14068



VANCAL - 14086

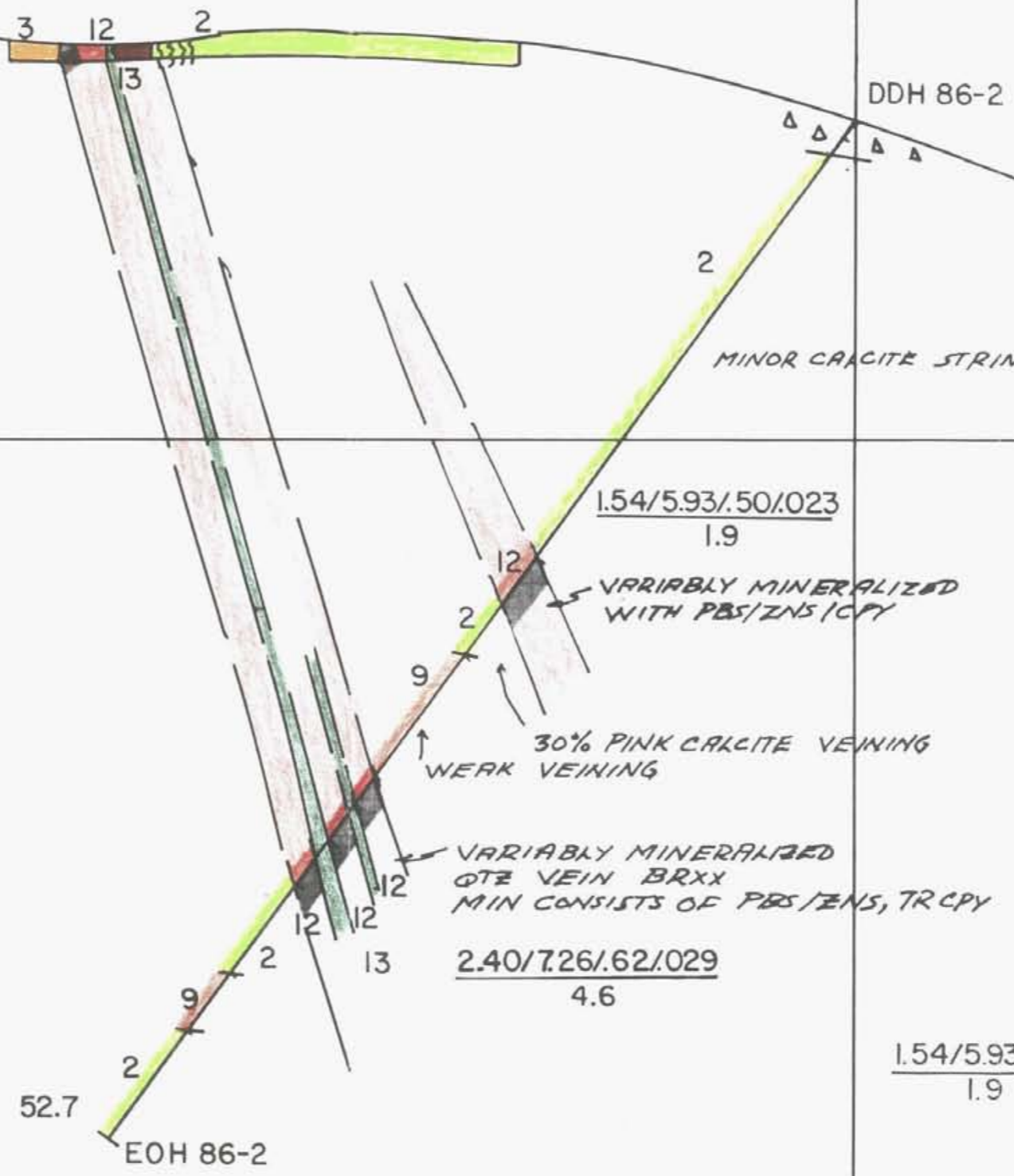
2120

0

50E

2100

ELEVATION - Meters



LEGEND

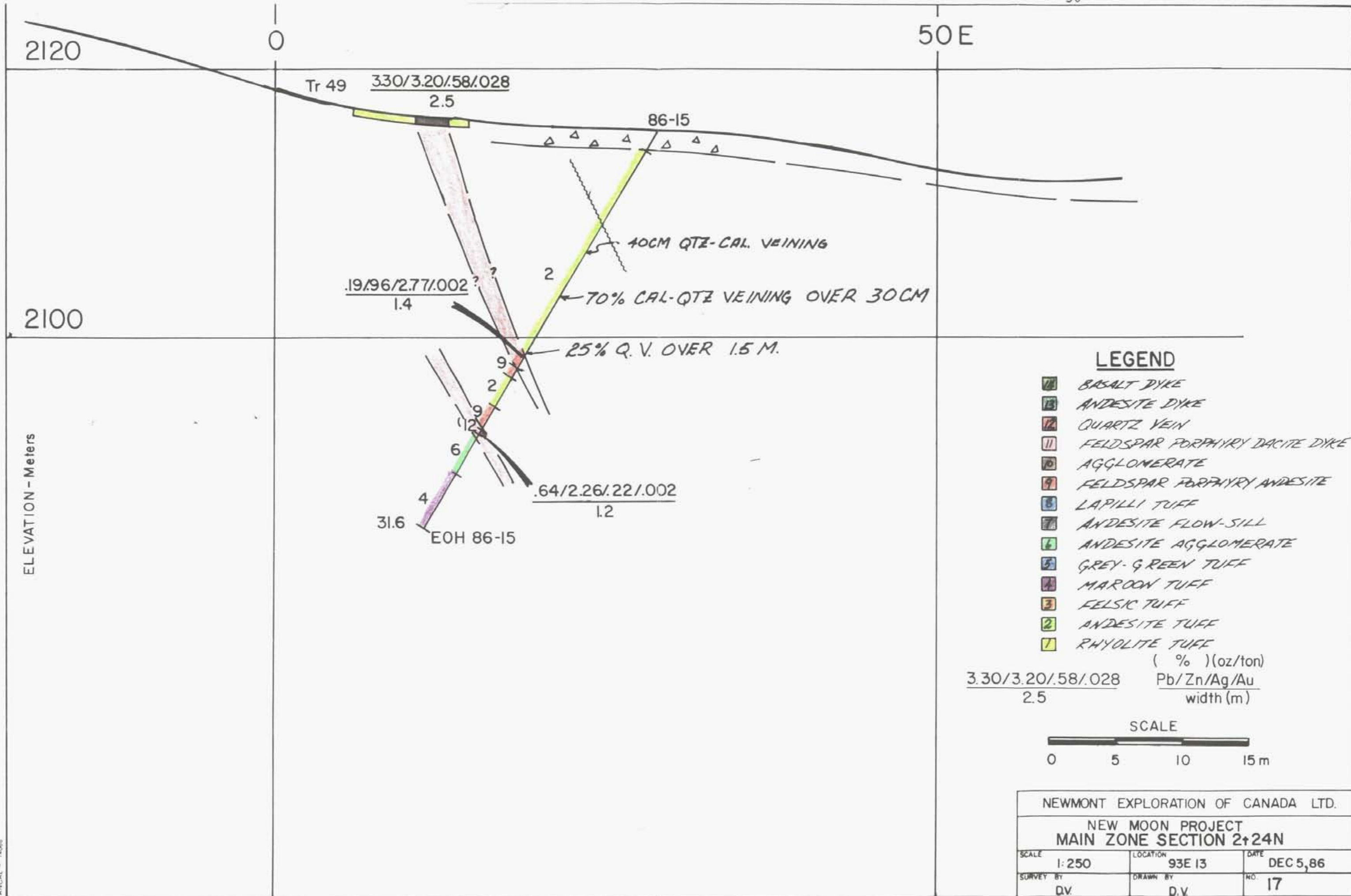
- 13 BASALT DYKE
- 12 ANDESITE DYKE
- 11 QUARTZ VEIN
- 10 FELDSPAR PORPHYRY DACITE DYKE
- 9 AGGLOMERATE
- 8 FELDSPAR PORPHYRY ANDESITE
- 7 LAPILLI TUFF
- 6 ANDESITE FLOW-SILL
- 5 ANDESITE AGGLOMERATE
- 4 GREY-GREEN TUFF
- 3 MAROON TUFF
- 2 FELSIC TUFF
- 1 ANDESITE TUFF
- 0 RHYOLITE TUFF

$\frac{1.54/5.93/.50/.023}{1.9}$ $\frac{(\%)(\text{oz/ton})}{\text{Pb/Zn/Ag/Au}}$
 width (m)

SCALE



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT MAIN ZONE SECTION 1+87N		
SCALE 1:250	LOCATION 93E 13	DATE DEC 5, 86
SURVEY BY D.V.	DRAWN BY D.V.	NO. 16



ELEVATION - Meters

LEGEND

- 7 BASALT DYKE
- 13 ANDESITE DYKE
- 12 QUARTZ VEIN
- 11 FELDSPAR PORPHYRY DACITE DYKE
- 10 AGGLOMERATE
- 9 FELDSPAR PORPHYRY ANDESITE
- 8 LAPILLI TUFF
- 7 ANDESITE FLOW-SILL
- 6 ANDESITE AGGLOMERATE
- 5 GREY-GREEN TUFF
- 4 MAROON TUFF
- 3 FELSIC TUFF
- 2 ANDESITE TUFF
- 1 RHYOLITE TUFF

(%)(oz/ton)
 3.30/3.20/58/.028 Pb/Zn/Ag/Au
 2.5 width (m)

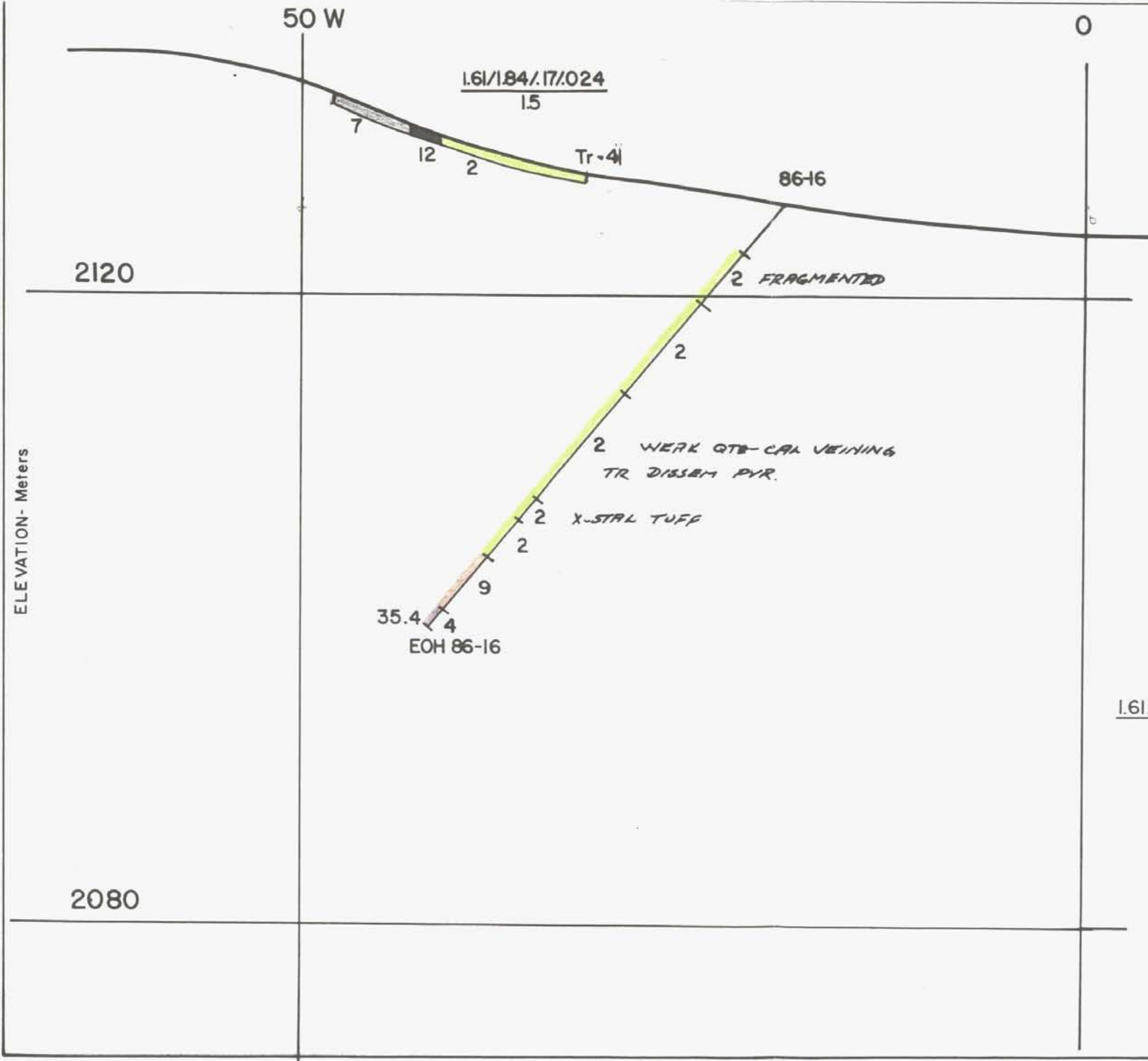
SCALE



NEWMONT EXPLORATION OF CANADA LTD.

**NEW MOON PROJECT
 MAIN ZONE SECTION 2+24N**

SCALE	LOCATION	DATE
1:250	93E 13	DEC 5,86
SURVEY BY	DRAWN BY	NO.
D.V.	D.V.	17



LEGEND

- BASALT DYKE
- ANDESITE DYKE
- QUARTZ VEIN
- FELDSPAR PORPHYRY DACITE DYKE
- AGGLOMERATE
- FELDSPAR PORPHYRY ANDESITE
- LAPILLI TUFF
- ANDESITE FLOW-SILL
- ANDESITE AGGLOMERATE
- GREY-GREEN TUFF
- MAROON TUFF
- FELSIC TUFF + AGGLOMERATE
- ANDESITE TUFF
- RHYOLITE TUFF

1.61/1.84/1.7/0.24
1.5

(%)(oz/ton)
Pb/Zn/Ag/Au
width (m)

SCALE



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT		
MAIN ZONE: SECTION 3025N		
SCALE 1:250	LOCATION 93E 13	DATE DEC 7/86
SURVEY BY D.V.	DRAWN BY D.V.	NO. 18

ELEVATION - Meters

VANICAL - 14004

Twilight Zone (Figures 5-9, 19)

Trenching: 4 trenches totalling 92m

Drilling: 1 hole of 101.2m

The Twilight Zone is located approximately 100m grid W of the south end of the Main Zone. To date trenching has outlined a zone that is 30m long by 1 to 3m wide that is open to the south but appears at surface to pinch out to the north. Mineralization consists of quartz vein hosted galena and sphalerite with lesser amounts of pyrite and chalcopyrite. Grades and widths are variable between trenches. A drill hole designed to test the system at depth intersected a 10m long shear zone 40m below the surface that had at its lower contact a 1.5m quartz vein averaging 0.46% Cu, 2.69% Pb, 7.77% Zn, 1.10 oz Ag and 0.007 oz Au. Whereas the sulphides in the Main Zone exhibit colloform textures those in the Twilight Zone appear to be more disseminated in character. It is possible that the zone extends to grid north as the shear structure is strongly developed at depth.

Splay Zone (Figures 5-9, 20, 21)

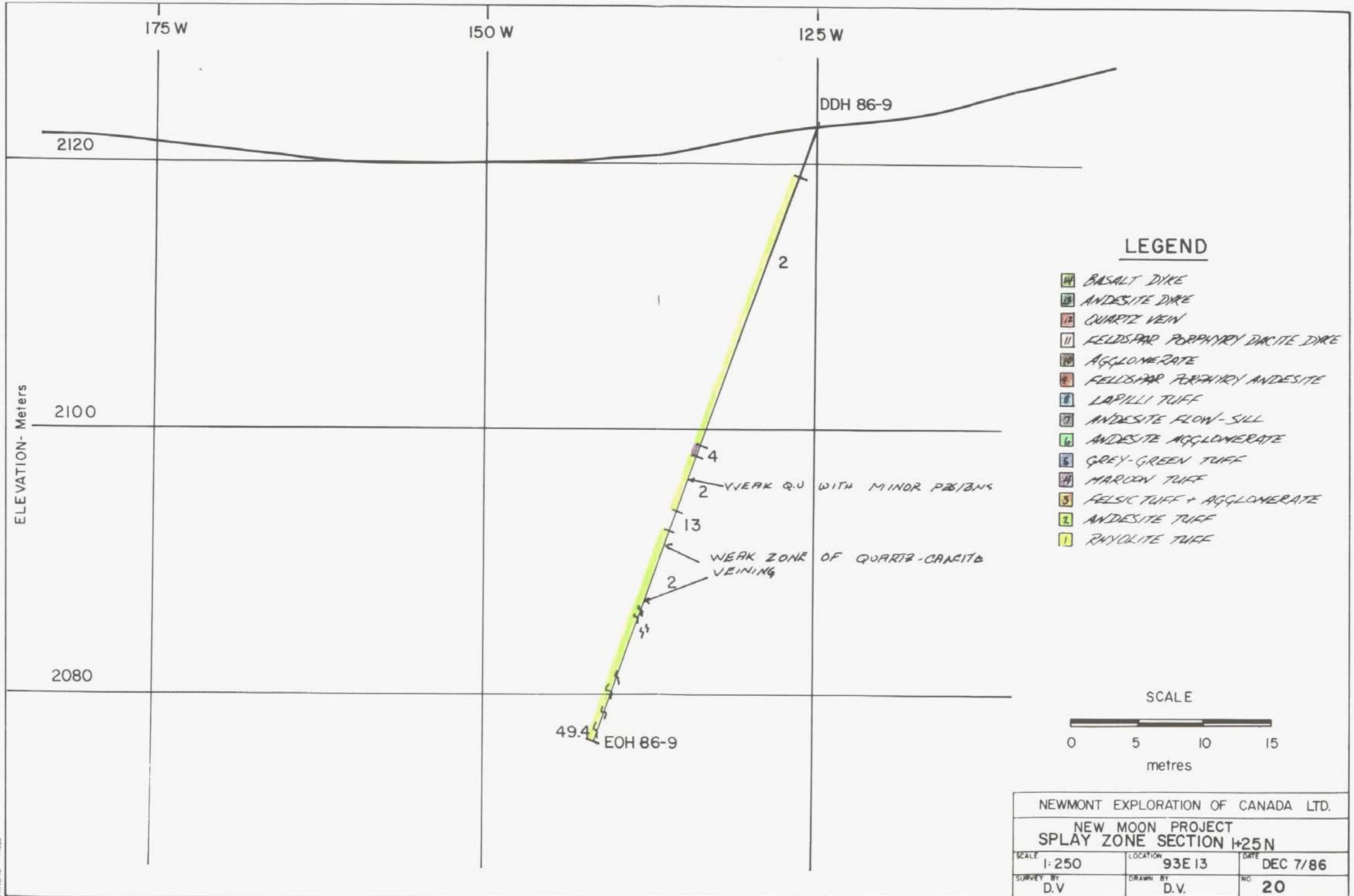
Trenching: 3 trenches totalling 17.9m

Drilling: 2 drill holes totalling 104.6m

The Splay Zone is a north striking offshoot of the Main Zone. The Zone has been located in float and outcrop over a 125m length with widths varying between 1 and 3m. The northern extension is truncated by the North Canyon Cirque while the southern extension merges with Main Zone at approximately 0+75S, 0+00. The mineralization, occurring in the fault controlled quartz carbonate vein system, consists of disseminated and semi-massive occurrences of galena and sphalerite with lesser amounts of chalcopyrite, malachite and pyrite.

TABLE 4
TWILIGHT & SPLAY ZONES - TRENCH & DRILL RESULTS

<u>Trench</u>	<u>Length(m)</u>	<u>INTERSECTION</u>			<u>Int(m)</u>	<u>GRADE</u>			
		<u>From(m)</u>	<u>To(m)</u>			<u>Pb %</u>	<u>Zn %</u>	<u>Ag opt</u>	<u>Au opt</u>
TWILIGHT ZONE									
50	19	12.5	14.0	1.5	6.99	4.2	.72	.040	
	or	11.0	17.5	6.5	2.00	4.3	.32	.013	
53	25.55	11.0	14.0	3.0	0.50	2.71	.24	.042	
54	3.5	0.5	1.5	1.0	0.50	7.36	.24	.004	
SPLAY ZONE									
19	11.4	7.6	10.8	3.2	4.26	3.23	10.55	.012	
51	5.0	0.0	2.0	2.0	0.52	1.17	0.93	.020	
52	1.5	0.0	1.5	1.5	7.98	10.37	2.04	.012	
<u>Hole No.</u>	<u>Length</u>	<u>From(m)</u>	<u>To(m)</u>	<u>Int.(m)</u>	<u>Cu%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag opt</u>	<u>Au opt</u>
TWILIGHT									
86-7	101.2	58.2	59.7	1.5	0.46	2.69	7.77	1.10	.007
SPLAY									
86-8	55.2	27.7	29.0	1.3	1.71	2.55	3.30	.005	
		33.1	34.7	1.6	0.14	0.34	1.80	.003	
86-9	49.4	28.4	29.0	0.6	0.17	2.22	0.95	.004	



LEGEND

- 14 BASALT DIKE
- 13 ANDESITE DIKE
- 12 QUARTZ VEIN
- 11 FELDSPAR PORPHYRY DACITE DIKE
- 10 AGGLOMERATE
- 9 FELDSPAR PORPHYRY ANDESITE
- 8 LAPILLI TUFF
- 7 ANDESITE FLOW-SILL
- 6 ANDESITE AGGLOMERATE
- 5 GREY-GREEN TUFF
- 4 HARDEN TUFF
- 3 FELSIC TUFF + AGGLOMERATE
- 2 ANDESITE TUFF
- 1 RHYOLITE TUFF

SCALE



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT		
SPLAY ZONE SECTION H+25 N		
SCALE 1:250	LOCATION 93E 13	DATE DEC 7/86
SURVEY BY D.V.	DRAWN BY D.V.	NO 20

VANICAL - 14068

Trench values are variable with the best trench located at the extreme north of the zone averaging 4.26% Pb, 3.23% Zn, 10.55 oz Ag and 0.028 oz Au across 3.2m.

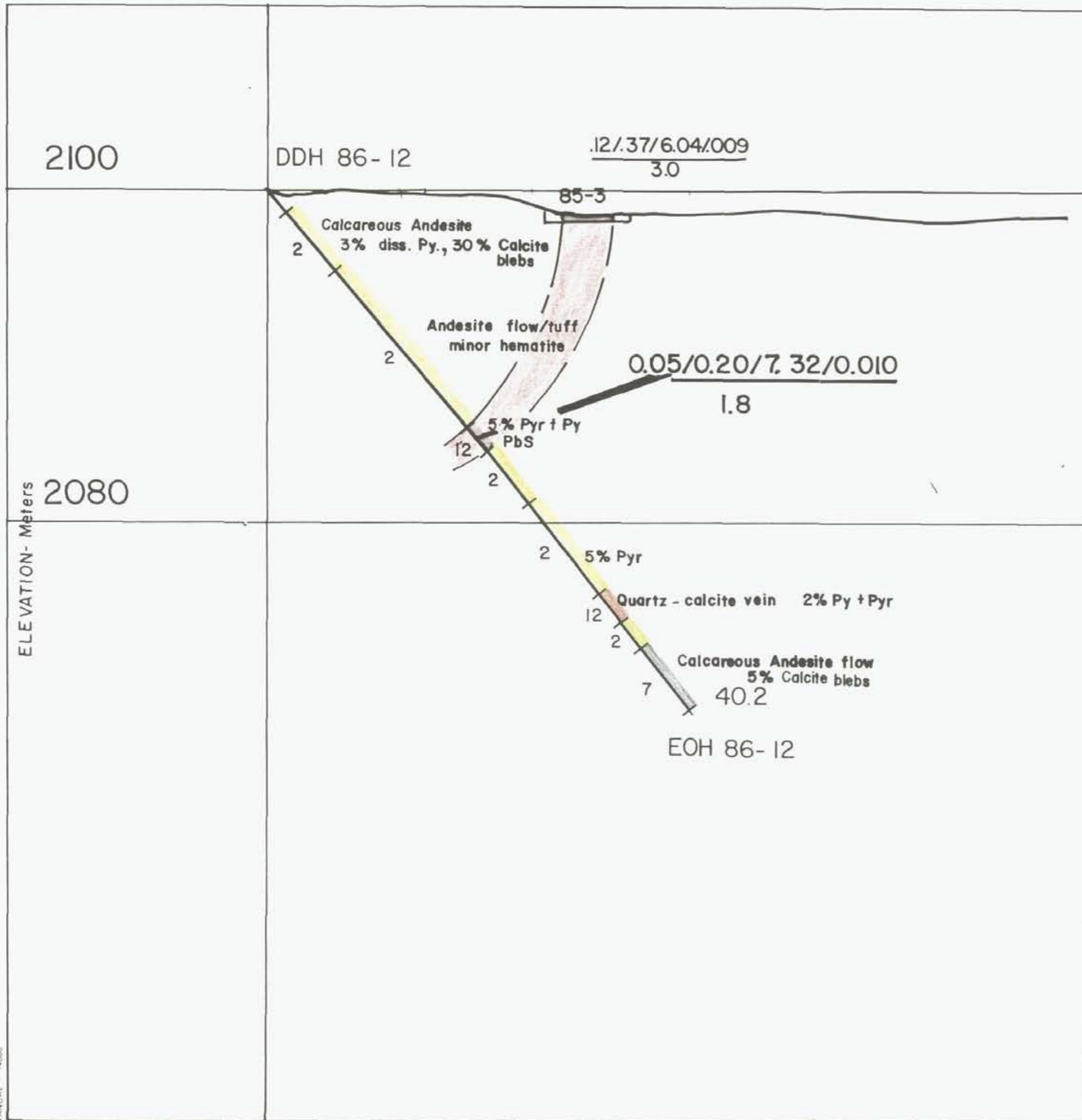
Two drill holes were located to test the zone at 25m depth. The best section averaged 1.71% Pb, 2.55% Zn, 3.30 oz Au and 0.005 oz Au over 1.3m. In drill core the zone appears to consist of two distinct parallel quartz-carbonate veins which are in part fractured and recemented. Outside of the veins mineralization is negligible, consisting of trace disseminations of pyrite. The Zone dips at approximately 70°E.

Misty Day (Figures 22-28)

Trenching: 14 trenches totalling 190.9m

Drilling: 3 holes totalling 1643m

The Misty Day grid is located approximately 600m west of the Plateau Grid, and as outlined by trenching is at least 350m long by 0.5 to 3m wide. The northern extension is truncated by the North Canyon Cirque, while the southern is drift covered. The Zone, in part paralleling the Main Zone, consists of a fault controlled quartz-carbonate vein system in which variable amounts of disseminated galena and sphalerite along with lesser amounts of chalcopryrite pyrite and malachite occur. However, unlike the Main Zone which dips 60-80° SE, the Misty Day Zone dips 60-80° NW. A more significant difference is the fact that whereas the Main and Twilight Zones contain more than 5% combined galena + sphalerite at surface, the sulphide content on the Misty Day rarely totals 3%. Unlike the other zones on the plateau, the Misty Day contains much more silver, with the best trench averaging 0.13 % Pb, 0.37% Zn, 16.62 oz Ag and 0.008 oz Au over 3m.



LEGEND

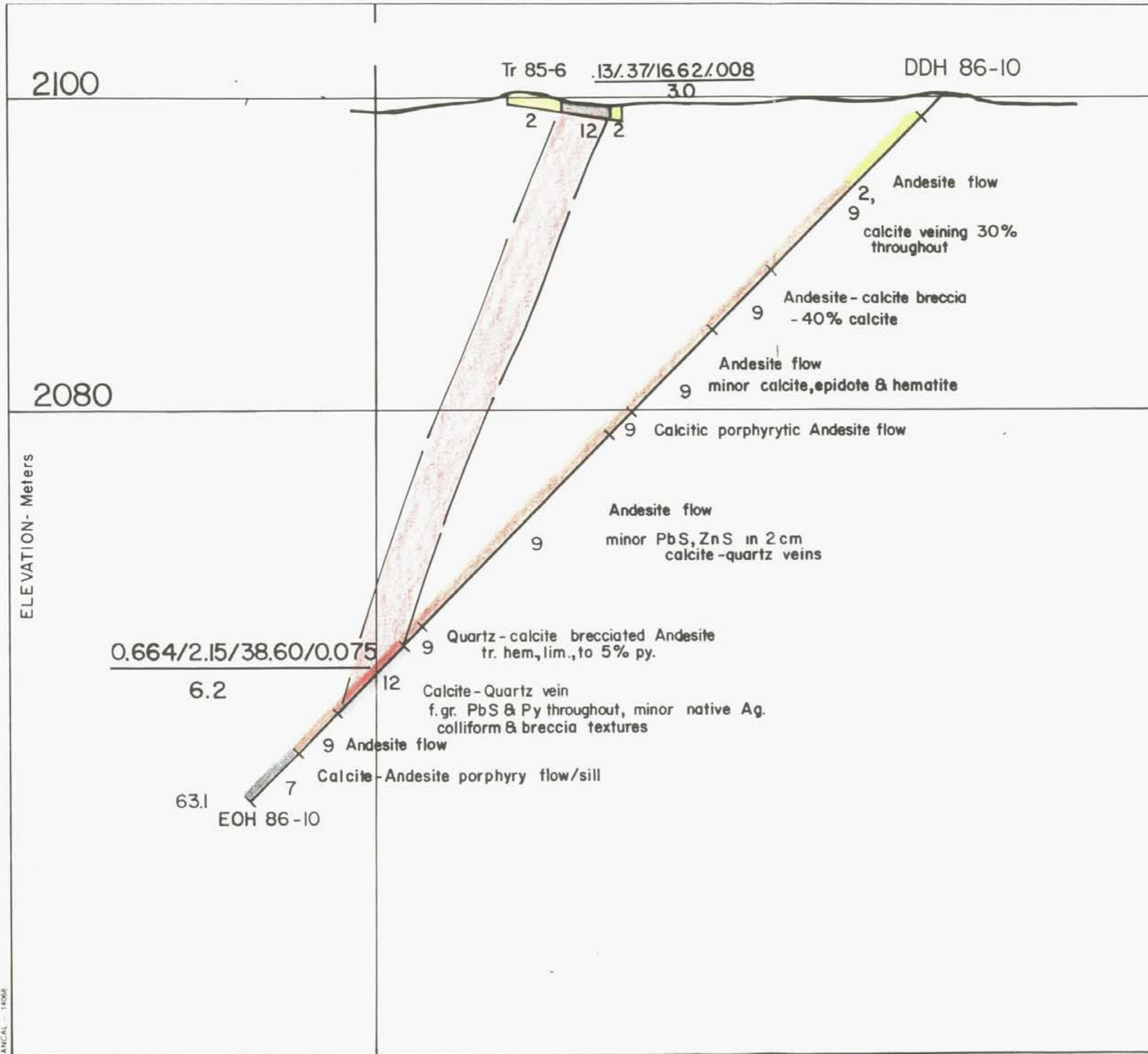
- 12 BASALT DYKE
- 11 ANDESITE DYKE
- 10 QUARTZ VEIN
- 11 FELDSPAR PORPHYRY DACITE DYKE
- 10 AGGLOMERATE
- 9 FELDSPAR PORPHYRY ANDESITE
- 8 LAPILLI TUFF
- 7 ANDESITE FLOW-SILL
- 6 ANDESITE AGGLOMERATE
- 5 GREY-GREEN TUFF
- 4 MAROON TUFF
- 3 FELSIC TUFF + AGGLOMERATE
- 2 ANDESITE TUFF
- 1 RHYOLITE TUFF

$\frac{.12/.37/6.04/0.009}{3.0}$ (%)(oz/ton)
 $\frac{\text{Pb/Zn/Ag/Au}}{\text{width (m)}}$

SCALE



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT		
MISTY DAY SECTION		O+40 S
SCALE 1:250	LOCATION 93E13	DATE DEC 7/86
SURVEY BY D.V	DRAWN BY D.V	NO. 26



LEGEND

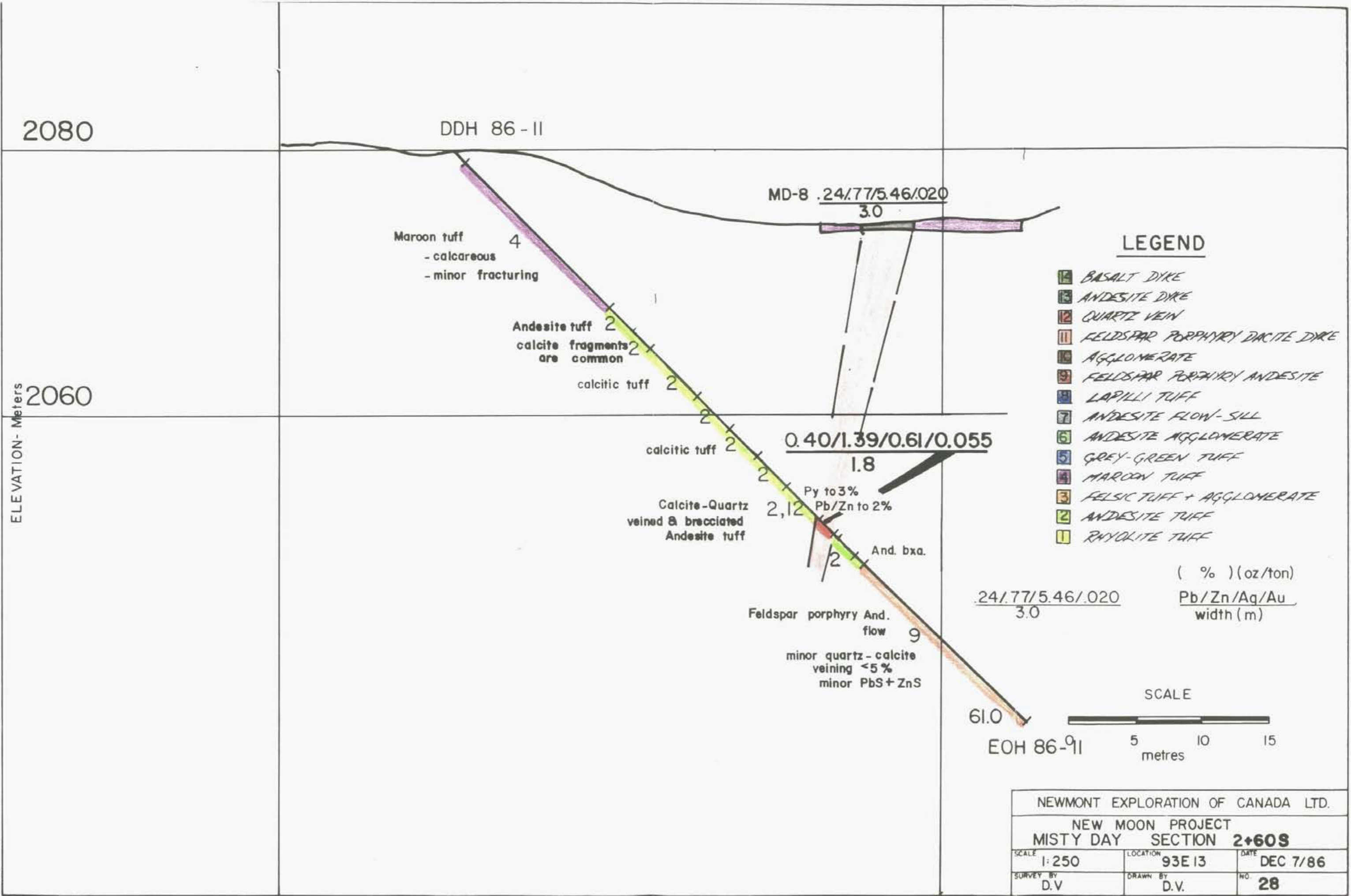
- 14 BASALT DIKE
- 13 ANDESITE DIKE
- 12 QUARTZ VEIN
- 11 FELDSPAR PORPHYRY DACITE DIKE
- 10 AGGLOMERATE
- 9 FELDSPAR PORPHYRY ANDESITE-FLOW
- 8 LAPILLI TUFF
- 7 ANDESITE FLOW-SILL
- 6 ANDESITE AGGLOMERATE
- 5 GREY-GREEN TUFF
- 4 HARDON TUFF
- 3 FELSIC TUFF + AGGLOMERATE
- 2 ANDESITE TUFF
- 1 RHYOLITE TUFF

(%)(oz/ton)
.13/.37/16.62/0.08 Pb/Zn/Ag/Au
 3.0 width (m)

SCALE



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT		
MISTY DAY SECTION I+30 S		
SCALE 1:250	LOCATION 93E 13	DATE DEC 7/86
SURVEY BY D.V	DRAWN BY D.V.	NO. 27



ELEVATION - Meters

2080

2060

Maroon tuff 4
- calcareous
- minor fracturing

Andesite tuff 2
calcite fragments
are common

calcitic tuff 2

calcitic tuff 2

Calcite-Quartz
veined & brecciated
Andesite tuff 2,12

Py to 3%
Pb/Zn to 2%

And. bxa.

Feldspar porphyry And.
flow 9

minor quartz-calcite
veining <5%
minor PbS + ZnS

LEGEND

- 13 BASALT DIKE
- 12 ANDESITE DIKE
- 11 QUARTZ VEIN
- 10 FELDSPAR PORPHYRY DACITE DIKE
- 9 AGGLOMERATE
- 8 FELDSPAR PORPHYRY ANDESITE
- 7 LAPILLI TUFF
- 6 ANDESITE FLOW-SILL
- 5 ANDESITE AGGLOMERATE
- 4 GREY-GREEN TUFF
- 3 MAROON TUFF
- 2 FELSIC TUFF + AGGLOMERATE
- 1 ANDESITE TUFF
- 0 RHYOLITE TUFF

(%) (oz/ton)
Pb/Zn/Au
width (m)

SCALE



NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT		
MISTY DAY SECTION 2+60S		
SCALE 1:250	LOCATION 93E 13	DATE DEC 7/86
SURVEY BY D.V.	DRAWN BY D.V.	NO. 28

VAN/CAL - 14068

Three drill holes located over a 220m strike length were drilled to test the down dip extension at a 25m vertical depth. In general the zone appears to be better mineralized at depth. Hole 86-11 drilled under the previously mentioned 3m zone intersected a 6.2m (true width 4.5m) section that averages 0.66% Pb, 2.15% Zn, 38.6 oz Ag and 0.075 oz Au. In this hole native silver was identified.

The differences in metal content between the Main-Twilight-Splay zones and the Misty Day zone may be due to metal zonation within the epithermal system, with the Misty Day being higher up in the system.

Rhyolite Flats (Figures 29 & 30)

Trenching: 11 trenches totalling 103m

The Rhyolite Flats Zone is located 400m west of the Misty Day Zone. Trenching has outlined a zone that is 250m long by 1 to 4m wide. The zone at surface appears to pinch out to the east, while to the west it appears to have been faulted. Prospecting has failed to locate the western extension as the area is drift covered.

Mineralization consists of variable amounts of galena, sphalerite and chalcopyrite along with minor pyrite and malachite located with a fault controlled quartz vein. In comparison to other zones, carbonate within the vein system is minor. Results are generally low, although at the western end of the system a 1m intersection averaged 2.29% Pb, 4.99% Zn, 0.26 oz Ag, 0.020 oz Au.

North Zone (Figures 31 & 32)

Trenching: 21 hand trenches totalling 141.7m

The North Zone occurs approximately 2 km to the north of and along strike from the Main Zone. It lies on and adjacent to a northeast striking ridge. The zone encompasses a 600 x 100m area in which several quartz carbonate vein systems occur in andesitic and rhyolitic tuffs and flows. Mineralization consists of variable amounts of galena and sphalerite, generally less than 2%, with lesser chalcopyrite and pyrite. They occur primarily as disseminations and on occasion as colloform bands within the veins. Minor disseminated pyrite occurs in the host volcanics. In general, the zone appears to be base metal poor, precious metal rich, with no direct correlation between metals. Examples are Trench 14 (4.70% Pb, 4.89% Zn, 8.32 oz Ag, 0.054 oz Au across 4m) and Trench 7 (0.11% Pb, 0.13% Zn, 11.11 oz Ag, 0.009 oz Au across 4m). The best sampled outcrop averages 1.26% Pb, 2.38% Zn, 34.12 oz Ag, 0.225 oz Au across 5m followed by an 11m unsampled section, and then another 5m section averaging 0.54% Pb, 0.68% Zn, 23.18 oz Ag and 0.075 oz Au. Alteration is weakly developed consisting of minor zones of silicification and chlorite. The lack of sulphide in the North Zone in comparison to the Main Zone may indicate that the North Zone is higher in the epithermal system.

The difficult accessibility of the zone has limited exploration to date. In addition, due to time constraints and priorities elsewhere on the property, only a limited amount of exploration was completed in this area.

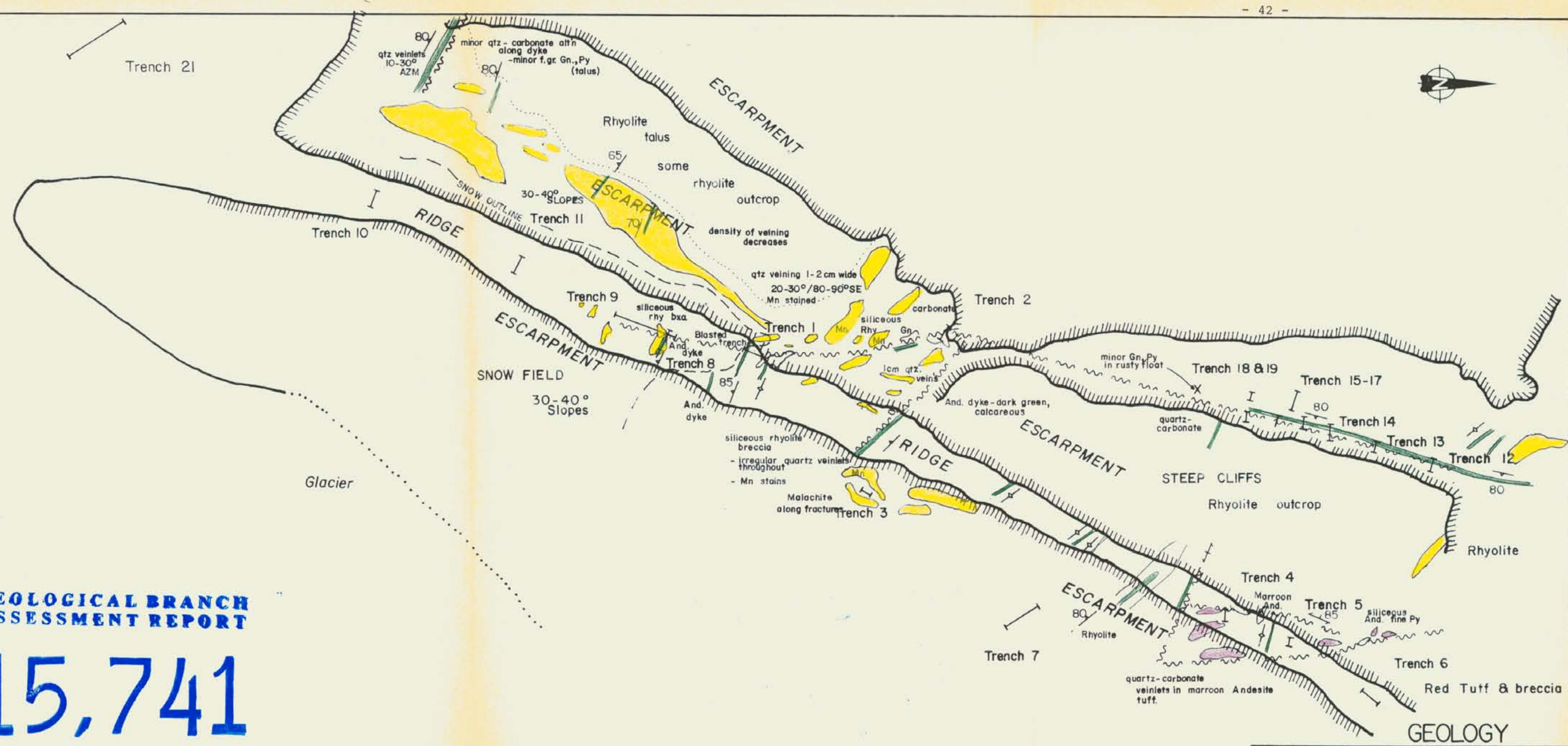
The North Zone appears to be open along strike, but exploration to determine its extent will be limited by steep topography and snow cover.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,741

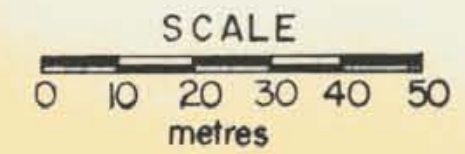
PART 1 OF 2

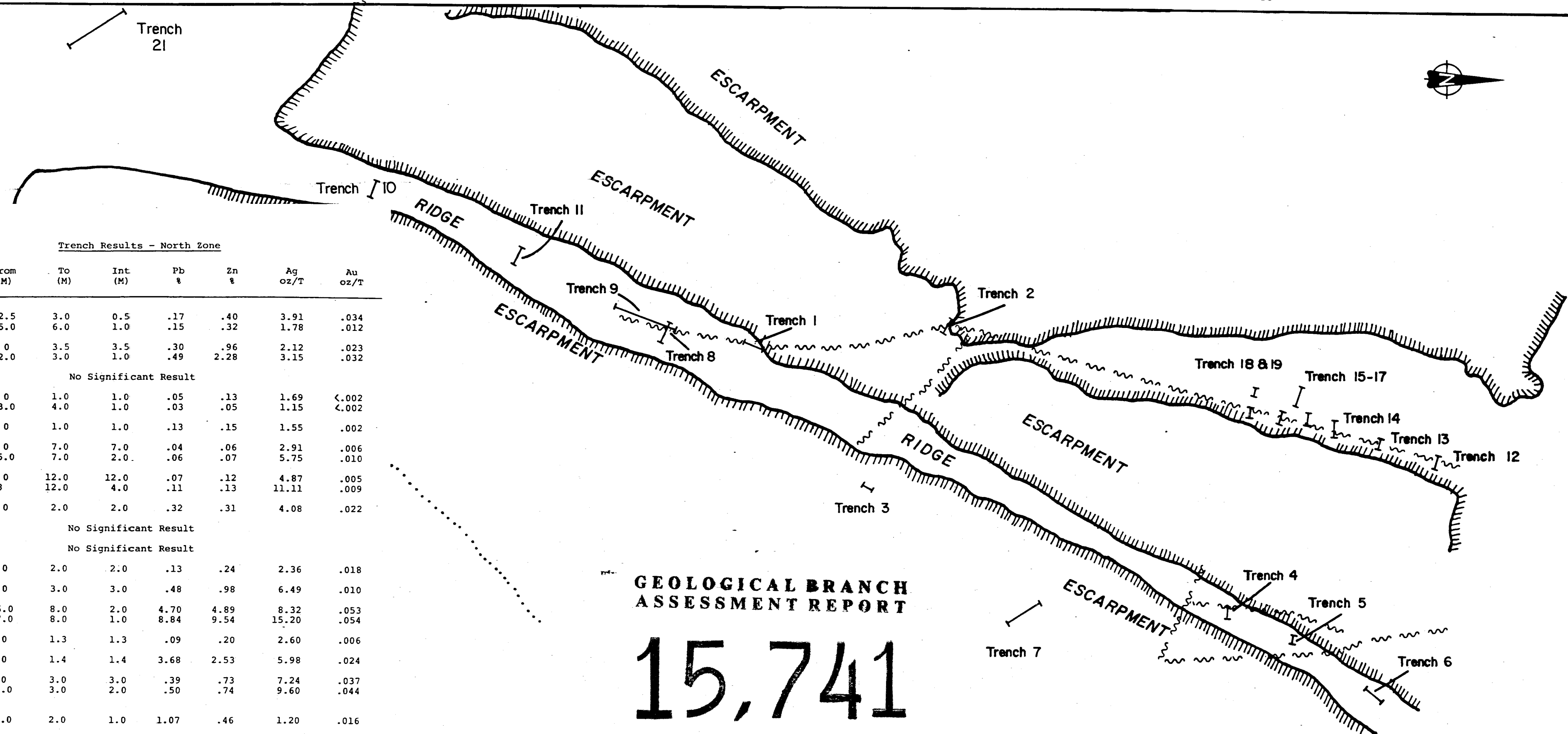
5701 TRAP



GEOLOGY

NEWMONT EXPLORATION OF CANADA LTD.		
NORTH ZONE - GEOLOGY		
SCALE 1:1000	LOCATION 93 E 13	DATE Dec. 11, 1986
SURVEY BY D. B.	DRAWN BY JAT	NO 31



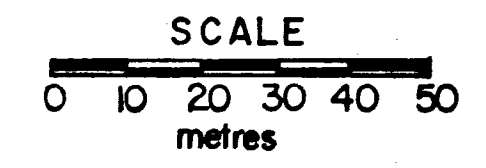


Trench Results - North Zone

Trench	From (M)	To (M)	Int (M)	Pb %	Zn %	Ag oz/T	Au oz/T
1	2.5	3.0	0.5	.17	.40	3.91	.034
	5.0	6.0	1.0	.15	.32	1.78	.012
2	0	3.5	3.5	.30	.96	2.12	.023
	or 2.0	3.0	1.0	.49	2.28	3.15	.032
3	No Significant Result						
4	0	1.0	1.0	.05	.13	1.69	<.002
	3.0	4.0	1.0	.03	.05	1.15	<.002
5	0	1.0	1.0	.13	.15	1.55	.002
6	0	7.0	7.0	.04	.06	2.91	.006
	or 5.0	7.0	2.0	.06	.07	5.75	.010
7	0	12.0	12.0	.07	.12	4.87	.005
	or 8	12.0	4.0	.11	.13	11.11	.009
8	0	2.0	2.0	.32	.31	4.08	.022
9	No Significant Result						
10	No Significant Result						
12	0	2.0	2.0	.13	.24	2.36	.018
13	0	3.0	3.0	.48	.98	6.49	.010
14	6.0	8.0	2.0	4.70	4.89	8.32	.053
	or 7.0	8.0	1.0	8.84	9.54	15.20	.054
15	0	1.3	1.3	.09	.20	2.60	.006
16	0	1.4	1.4	3.68	2.53	5.98	.024
	1.0	3.0	2.0	.50	.74	9.60	.044
17	0	3.0	3.0	.39	.73	7.24	.037
	1.0	3.0	2.0	.50	.74	9.60	.044
18	1.0	2.0	1.0	1.07	.46	1.20	.016
19	No Significant Result						
20	No Significant Result						
21	0.0	5.0	5.0	1.26	2.38	34.12	.225
	or 16.0	21.0	5.0	.54	.68	23.18	.075
11	0	2.0	2.0	.44	.80	8.75	.044
	or 0	4.0	4.0	.26	.47	4.97	.026

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,741
PART 1 OF 2



NEWMONT EXPLORATION OF CANADA LTD.		
NORTH ZONE - TRENCH ASSAYS		
SCALE 1:1000	LOCATION 93 E13	DATE DEC.11, 1986
SURVEY BY D. B.	DRAWN BY JAT	NO. 32

Scree Zone (Figure 33)

The Scree Zone was discovered late in the season and as such has had only a small amount of work completed on it. It is located along strike approximately half way between the Main and North Zones. It consists of extensive quartz float and limited outcrop located over a 75m x 300m area. Mineralization consists of quartz-vein hosted disseminated to semi-massive galena and sphalerite with lesser chalcopyrite and pyrite. The zone is underlain by rhyolitic to andesitic tuffs and flows. Alteration consists of weak K-feldspar rimming of quartz veins, and on occasion pervasive but weak chlorite and/or carbonate alteration of the host volcanics. The vein system appears to strike NE although lack of outcrop makes this difficult to determine. A limited number of samples were taken over selected widths from outcrops located through the zone. Results vary from 0.05% Pb, 0.09% Zn, 0.32 oz Ag, less than 0.003 oz Au to 8.65% Pb, 6.98% Zn, 0.58 oz Ag, 0.006 oz Au over 1m lengths. Silver and gold values vary up to 2.25 and 0.030 oz respectively. The Scree Zone is open along strike although extensions are snow and ice covered.

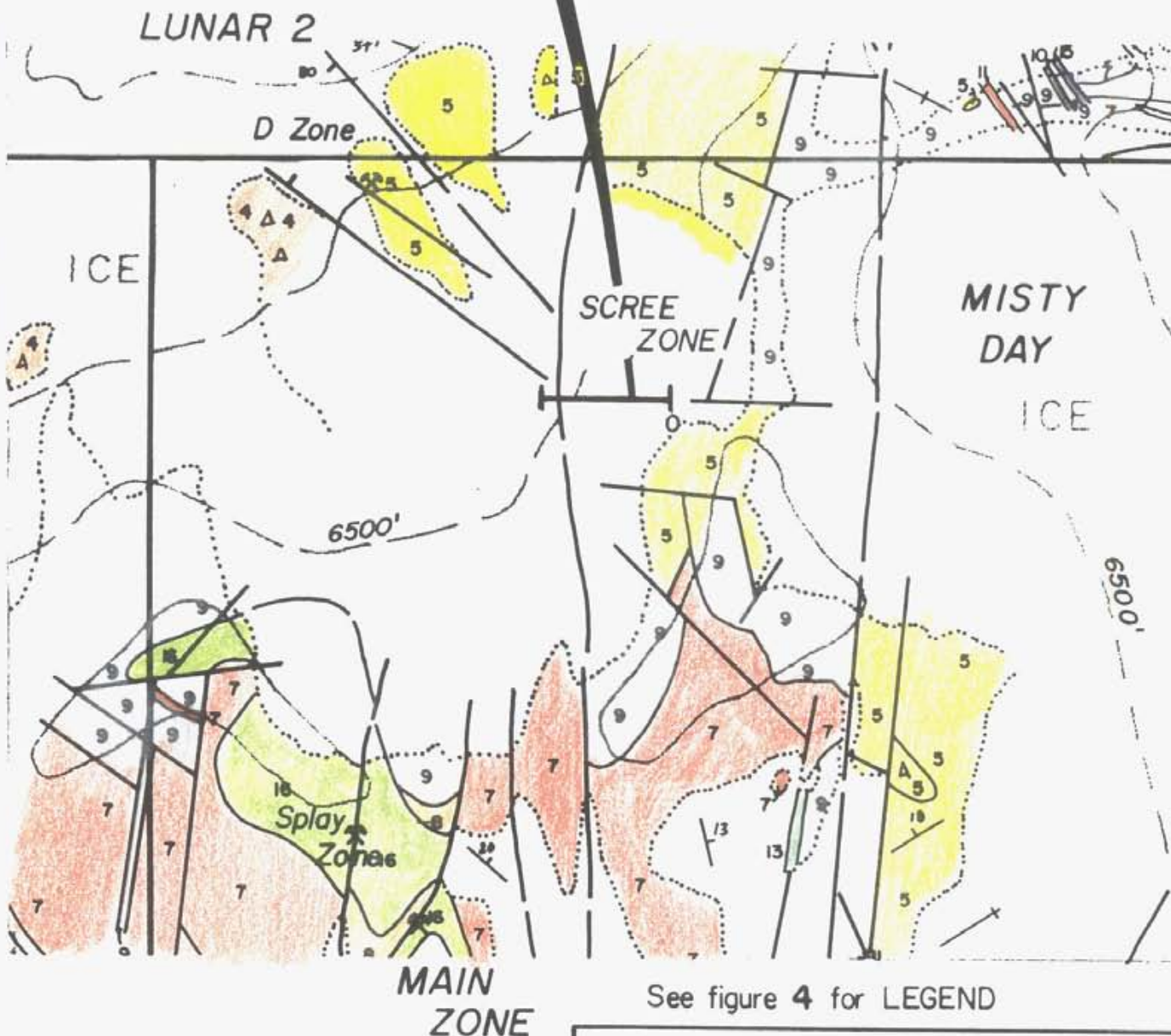
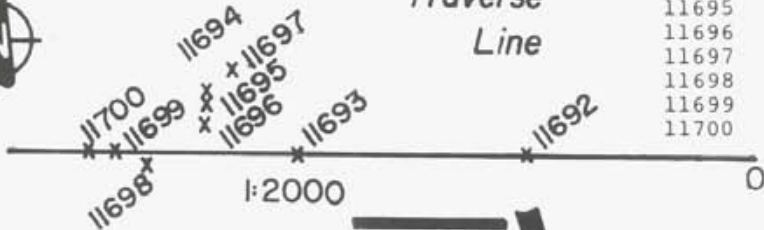
Creek Zone (Figure 5)

Trenching: 1 trench 6m long

The Creek Zone is located about 400m southeast of the centre of the Plateau Grid. It consists of minor quartz-vein stockwork and attendant silification located in boulders over a 10 x 20m area. The veins, generally 1-5 cm thick, contain minor galena and sphalerite, along with trace chalcopyrite. A trench located in the centre of the boulders intersected only fault gouge at 0.5m depth. Two samples taken from the gouge failed to produce any significant values.



Sample	Width M	Cu %	Pb %	Zn %	Ag opt	Au opt
11692	3.0	.01	.01	.02	.07	.031
11693	4.0	.02	.05	.09	.32	.002
11694	1.0	.12	8.65	6.98	.58	.006
11695	4.0	-	.08	.25	.15	.002
11696	1.0	.10	.56	.98	2.25	.030
11697	1.5	-	.21	.29	1.37	.006
11698	2.5	.06	1.11	2.06	0.55	.006
11699	1.0	.20	.66	1.27	1.43	.012
11700	2.0	-	.40	1.15	0.16	.004



See figure 4 for LEGEND

NEWMONT EXPLORATION OF CANADA LTD.

NEW MOON PROJECT-SCREE ZONE

SCALE 1: 10000	LOCATION 93 E 13	DATE Jan. 7, 1987
SURVEY BY DV	DRAWN BY JT	NO. 33

400 m

Camp Zone (Figure 5)

Trenching: 2 trenches totalling 25m

The Camp Zone is located 400m SW of the NE corner of the Plateau Grid. The Zone, hosted by rhyolite tuffs, consists of narrow 1-10 cm quartz veins that have been found primarily in float over a 200 x 5m area, the zone trends at 045° and dips steeply SE. Mineralization consists of minor (less than 2%) galena, sphalerite and pyrite. Alteration is minimal.

Two trenches 10m apart were dug in the most promising area. Results of the sampling were largely negative, with the best section averaging 0.83% Pb, 0.21% Zn, 0.25 oz Ag, 0.004 oz Au over 1m.

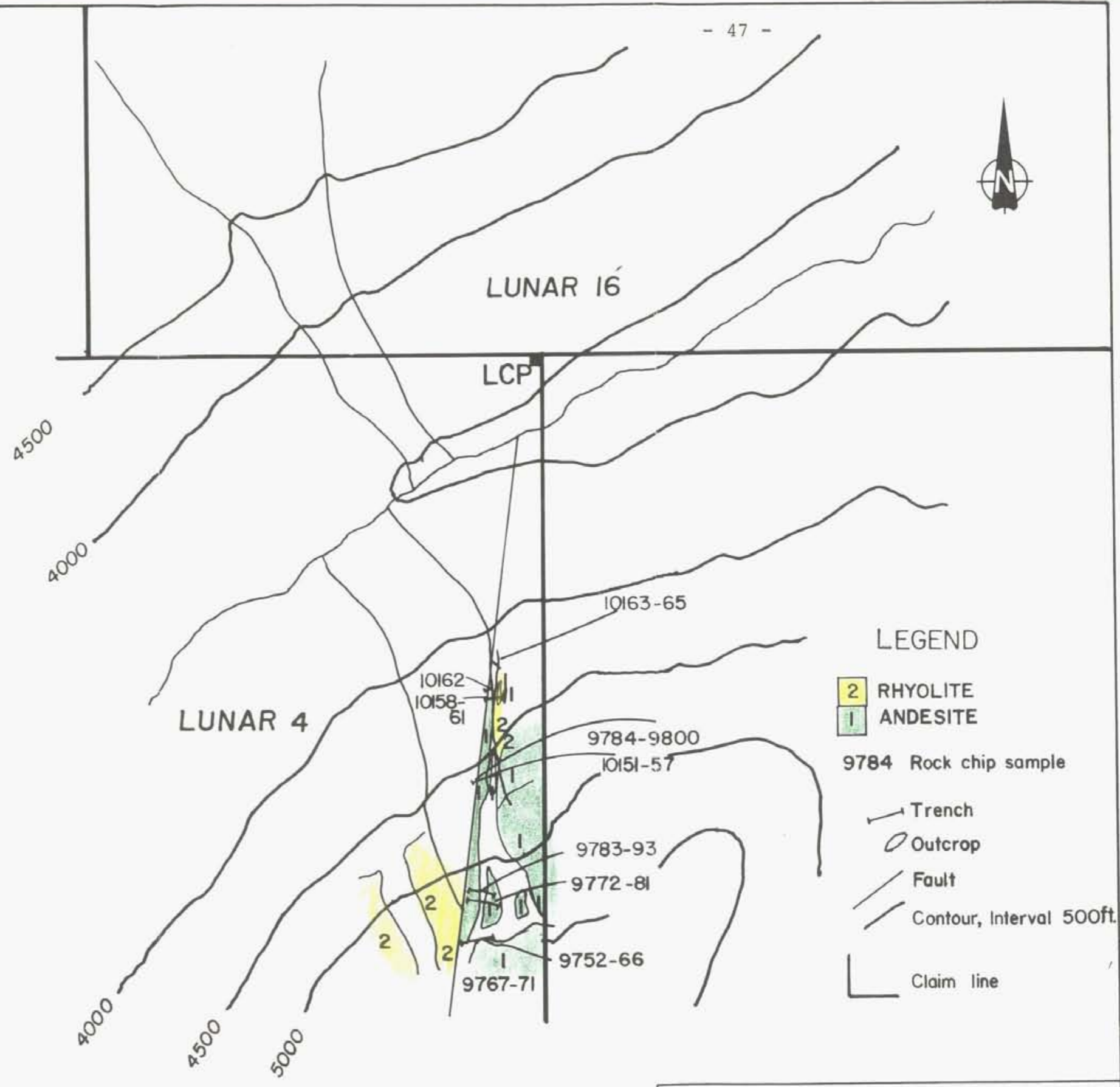
The Zone is truncated by a fault dyke to the east and is covered by talus to the west.

Lunar Showing (Figure 34)

The Lunar showing is located along the eastern boundary of Lunar 4 claim. The north-trending west-dipping zone encompasses a 700 x 50m area centered about the fault contact between rhyolite and andesitic tuffs. The fault contact has weak attendant quartz veining throughout, with the veins generally being 1-5 cm in thickness. Traces of pyrite are disseminated throughout the host, while the quartz veins have both minor pyrite and chalcopryrite. Due to oxidation the zone has a pronounced gossan associated with it. A series of chip samples taken across the strike of the zone failed to detect any significant mineralized areas.



Sample Number	Length(m)	Cu ppm	Pb ppm	Zn ppm	Ag FA oz/t	Au FA oz/t
9752	2.0	12	33	143	<0.01	<0.002
9753	"	435	32	185	0.08	<0.002
9754	1.0	36	53	278	0.09	<0.002
9755	"	80	150	750	0.09	<0.002
9756	"	85	75	415	0.03	<0.002
9757	"	120	52	253	0.05	<0.002
9758	2.0	88	82	400	0.01	<0.002
9759	"	72	112	435	0.01	<0.002
9760	"	38	38	163	0.07	<0.002
9761	"	238	73	258	0.05	<0.002
9762	"	147	59	210	0.01	<0.002
9763	1.5	50	47	158	<0.01	<0.002
9764	2.5	23	58	154	<0.01	<0.002
9765	"	28	42	158	<0.01	<0.002
9766	"	31	23	89	<0.01	<0.002
9767	"	27	34	114	0.01	<0.002
9768	"	17	15	68	0.02	<0.002
9769	"	35	25	83	0.07	<0.002
9770	"	102	13	62	0.01	<0.002
9771	"	36	22	85	0.02	<0.002
9772	1.0	310	4	115	0.04	<0.002
9773	"	20	8	178	0.01	<0.002
9774	"	93	7	175	0.03	<0.002
9775	"	192	9	165	0.07	<0.002
9776	"	268	8	165	0.07	<0.002
9777	"	70	5	100	0.01	<0.002
9778	1.5	69	7	143	0.01	<0.002
9779	2.0	108	2	86	0.01	<0.002
9780	"	11	4	117	0.01	<0.002
9781	"	26	5	65	<0.01	0.002
9782	"	50	3	137	0.01	<0.002
9783	"	7	1	55	<0.01	<0.002
9784	"	200	1	35	0.03	<0.002
9785	1.0	57	18	27	<0.01	<0.002
9786	1.0	29	24	237	<0.01	<0.002
9787	1.2	45	5	64	<0.01	<0.002
9788	1.9	24	3	32	<0.01	<0.002
9789	2.0	51	1	31	<0.01	<0.002
9790	"	195	4	42	0.03	<0.002
9791	"	18	1	52	<0.01	<0.002
9792	2.0	9	1	48	<0.01	<0.002
9793	"	21	7	40	<0.01	<0.002
9794	2.0	4	2	45	<0.01	<0.002
9795	1.2	120	32	185	0.04	<0.002
9796	2.0	35	2	26	<0.01	<0.002
9797	"	17	3	62	<0.01	<0.002
9798	"	13	3	116	<0.01	<0.002
9799	1.1	16	8	92	0.01	<0.002
9800	2.0	17	5	40	<0.01	<0.002
10151	"	15	1	23	<0.01	<0.002
10152	"	17	8	36	<0.01	<0.002
10153	"	17	5	23	<0.01	<0.002
10154	1.8	115	8	50	0.01	<0.002
10155	2.0	200	8	52	0.02	<0.002
10156	"	9	5	75	<0.01	<0.002
10157	"	6	7	110	0.01	<0.002
10158	1.7	5	6	40	<0.01	<0.002
10159	1.8	4	4	22	<0.01	<0.002
10160	1.0	28	5	34	<0.01	<0.002
10161	1.5	19	2	36	<0.01	<0.002
10162	2.0	26	2	31	<0.01	<0.002
10163	1.0	9	1	27	<0.01	<0.002
10164	2.0	10	1	21	<0.01	<0.002
10165	2.0	130	4	88	0.01	<0.002



LEGEND

- 2 RHYOLITE
- 1 ANDESITE
- 9784 Rock chip sample
- Trench
- Outcrop
- Fault
- Contour, Interval 500ft.
- Claim line

500 metres

NEWMONT EXPLORATION OF CANADA LTD.		
NEW MOON PROJECT		
GEOCHEMICAL ANALYSIS — Lunar Showing		
SCALE 1: 10000	LOCATION 93 E13	DATE DEC. 16, 1986
SURVEY BY DB	DRAWN BY JAT	NO. 34

D Zone (Figures 5 & 33)

The D Zone located 500m north of the Main Zone occurs along the contact between andesitic dykes and the rhyolite/dacite host. The dykes up to 1.5m wide are fracture-controlled and trend 080° - 120° . Along the contact several narrow quartz-carbonate veins between 1 and 20 cm wide are exposed along strike for 10m. The veins contain variable amounts of galena, sphalerite with lesser chalcopyrite and pyrite. The best sample averaged 0.39% Cu, 4.68% Pb, 4.80% Zn, 0.57 oz Ag, 0.003 oz Au over a 20 cm (width) x 3.0m (strike) area.

ZONES NOT EVALUATED IN 1986

Pb Showing (Figure 5)

The Pb showing is a 100 x 10m zone located approximately 150m south of Rhyolite Flats. The showing consists of erratic quartz veins up to 10cm wide in which minor galena and sphalerite (less than 1% combined) along with minor chalcopyrite and pyrite occur. As results from the 1985 program were largely negative no work was completed in 1986.

Shadow Valley

The Shadow Valley zone is located approximately 4.2 km southwest of Rhyolite Flats. The zone a magnetite skarn in which minor chalcopyrite, pyrite and sphalerite occurs is a lens 300m long that is 2 to 3m thick. Results from previous programs show the area to contain only minor copper and zinc. Gold and silver are insignificant. No work was completed in 1986.

Boulder

The Boulder Zone located approximately 1 km southwest of the Main Zone is comprised of well mineralized boulders up to 1m in size that are found in glacial moraines emanating from under a glacier filled cirque. Previous work has shown the mineralization to consist of semi-massive to massive sulphide occurrences of chalcopyrite, hematite, galena and sphalerite. Due to the lack of success by previous companies in locating the source no work was completed by Newmont.

GEOCHEMISTRY

Procedures

During the 1985-86 program, samples of stream sediments, outcrops, trenches and drill core were collected and sent for analysis to Chemex Labs in North Vancouver. For stream sediments, samples (preferably of silt) were taken from the middle of the creek using a trowel, stored in Kraft paper bags and air dried. Rock chip samples taken from both trenches and selected outcrop, generally consisted of 2 to 5 kg of continuous chips over a measured length. The samples were collected using hammer and moil or cold chisel and were stored in plastic bags. Drill core was split in half with 1/2 being sent for analysis and the remainder being stored in the core box.

All stream sediment samples were dried at 60°C and then sieved to -80 mesh. Analysis was conducted using the 30 element Inductively Coupled Plasma Method (ICP) with gold being determined by Fire Assay and Atomic Absorption.

For the 30 element ICP analysis, a 1/2 gram sample is digested with 3 ml of 3:1:3 nitric acid to hydrochloric acid to water at 90°C for 2-1/2 hours. The sample is then diluted to 10

mls with demineralized water and analyzed. The reported values for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and U are considered to be semi-quantitative as the leach is only partial for these elements.

For rock and drill core analysis, the samples are prepared and assayed or geochemically analyzed as shown below:

Assay Preparation:

1. Samples are sorted, then listed on assay sheets.
2. The entire sample is crushed first in a primary jaw crusher, then in a secondary cone crusher.
3. The crushed sample is reduced to a 200 - 400 gm sub-sample in a Jones Riffler, then dried.
4. The dried material is pulverized to pass a 100 mesh screen, then rolled to homogenize.

Assay Analytical Methods:

1. Cu % - A 2 gm sub-sample is digested in a hot perchloric-nitric acid mixture for 2 hours, cooled, then transferred into a 250 ml volumetric flask. Aluminum chloride is added as an ionization suppressant for Mo. The solutions are then analyzed on an atomic absorption instrument.
2. Pb, Zn % - These elements are analyzed as above with the addition of nitric acid to the final sample and standard solutions.

3. Ag, Au (oz/ton) - Silver and gold analyses are done by standard fire assay techniques. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay. 0.5 assay ton sub samples are fused in litharge, carbonate and siliceous fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The combined Ag and Au is weighed on a microbalance, parted, annealed and again weighed as Au. The difference in the two weighings is Ag.

4. Cu, Pb, Zn, Ag ppm - 1.0 gm sample is digested with perchloric-nitric acid for approximately 2 hours. The digested sample is cooled and made up to 25 ml with distilled water. The solution is mixed and solids are allowed to settle. Cu, Pb, Zn and Ag are determined by atomic absorption techniques. Ag and Pb are corrected for background absorption. Detection limit: Cu, Zn - 1 ppm; Ag - 0.2 ppm; Pb - 2 ppm.

5. Au F.A.-A.A. Combo Method ppb - For low grade samples and geochemical materials, 10 gm samples are fused in litharge, carbonate and siliceous flux with the addition of 10 mg of Au-free Ag metal and cupelled. The Ag bead is parted with dilute HNO_3 and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer. Detection limit: 5 ppb.

Results

Only the results of the 31 stream sediment samples will be discussed here, as those for the trenching and drilling have presented in the preceding chapter. The 30 element analyses were scanned with the significant elements (Ag, Au, Cu, Pb, Zn) being plotted on Figures 35 and 36. Interpretation by inspection is summarized below by element.

1. Gold - Using a 15 ppb cutoff to denote anomalous conditions showed only spot anomalies up to 90 ppb to exist on the property. Almost all samples contained 5 ppb or less. No distinct anomalies related to the mineralized zones have been recognized.
2. Silver - For silver a 0.3 ppm threshold was selected to outline anomalous conditions. This showed few significant areas of interest, with only a couple of spot highs up to 2.5 ppm being present.
3. Copper - Copper values throughout the property are generally all less than 100 ppm with no significant anomalous drainages being located.
4. Lead - Lead values are generally less than 50 ppm, except for Creeks drawing the areas containing the Main to North mineral zones where values of up to 210 ppm occur.
4. Zinc - Zinc values show the greatest variability ranging from 25 to 1240 ppm, with the highest numbers occurring in a north-flowing creek located down-slope from the Scree and North Zone moraines. The values in this area are generally coincidental with those of lead. Elsewhere, spot highs up to 375 ppm occur, unrelated to any known mineralized zones.

GEOPHYSICS

A test VLF resistivity survey was carried out to determine if known zones on the Plateau Grid could be detected with this method. Experience on other properties has shown that areas of quartz veining and silicification may impart higher resistivities than surrounding rocks. A Geonics EM16R instrument was rented from Exploranium G.S. Limited of Bolton, Ontario.

Readings were taken at 12.5m intervals on lines spaced at 25m using Seattle, Washington or Honolulu, Hawaii as the transmitting stations. The entire grid was not sampled due to ground conditions - snow and ice cover, lack of suitable earth for contacts, and the presence of cliffs. The results of the survey are plotted on Figure 37.

The VLF resistivity survey will, in general, produce results that relate inversely to the porosity and permeability of the surrounding rocks. Lower porosity and permeability, such as in regions of silicification, produce higher resistivities. Contouring of the results has shown a central area of high resistivity 200 x 100m to coincide with an area of felsic tuffs. Lower resistivities appear in part to coincide with andesitic and maroon tuffs. The zone of mineralization appears in part to parallel to the north the zone of high resistivity.

CONCLUSIONS

From preliminary studies it can be concluded that the New Moon property hosts several epithermal type quartz-carbonate vein stockwork zones of variable grade and metal content. The zones in order of priority are:

- Highest - Main, North, Scree, Misty Day
- Moderate - Twilight, Splay, Rhyolite Flats, D
- Low - Lunar, Camp, Creek

Mineralization consists of various combinations of galena, sphalerite, chalcopryrite, pyrite, gold and silver as both semi-massive colloform bands and disseminations. The zones are fault controlled, pinching and swelling along strike and dip, ranging in length from less than 100m to over 600m and in width from less than 1m to over 50m. In one case three zones (Main, Scree and North) occur along strike over a 3.0 km distance and may be all related. Drilling completed on the Main Zone has

shown mineralization to continue to at least 225m down dip. Elsewhere drilling completed on the Twilight, Splay and Misty Day all intersected the zones at shallow depths with no deep tests being completed as yet.

On the Main and Twilight Zones there appears to have been some enrichment of gold at surface, as drilling failed to obtain as high as values, although significant intersections do exist, at depth. Lead, zinc and silver values are relatively stable, while copper content increases with depth. The hosting structure in both zones appears to be strong.

On the Splay Zone, silver, gold, lead and zinc values appear to decrease with depth.

The Misty Day Zone has less base but higher precious metal content than the Main, Twilight or Splay Zones. In addition there appears to be a poor correlation between trench and drill values. In general, surface values are less than those at depth.

The North Zone contains significant silver and gold values with, in general, minor lead and zinc. The Zone's mineralogy suggest that it could occur at the top of an epithermal system.

Vancouver, B.C.
January 15, 1987


David Visagie

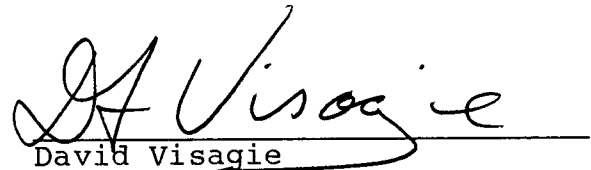
BIBLIOGRAPHY

- Garrat, G.L.: Geological Report on the JOW Claims, Norcen Energy Limited, 1978, Assessment Report 7022.
- Kennedy, D.R.: Geological and Geophysical Report on the New Moon Prospect, St. Joe Minerals, 1981, Assessment Report 11153.
- Kennedy, D.R.: Geological and Geophysical Report on the New Moon Prospect, St. Joe Minerals, 1982, Assessment Report 11764.
- Pezzot, E.T.: Helicopter Airborne Electromagnetic Survey, Great Western Petroleum, 1981, Assessment Report 9709.
- Phendler, R.W.: Report on the Morice Lake Survey, Aggressive Mining Limited, 1971, Assessment Report 3251.
- Phendler, R.W.: Geological Report on the JOW Claims, Morice Lake, Aggressive Mining Limited, 1971, Assessment Report 3252.
- Tipper & Richards: Jurassic Stratigraphy and History of North Central British Columbia, GSC Bulletin 270, 1976.

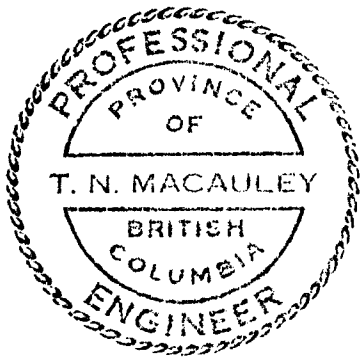
STATEMENT OF QUALIFICATIONS

I, David Visagie, do hereby certify that:

1. I am a geologist presently employed by Newmont Exploration of Canada Limited.
2. I am a graduate of the University of British Columbia, 1976, and since then I have been steadily employed in mining exploration.
3. I supervised the program outlined in this report.


David Visagie

I, Terrence N. Macauley, do hereby certify that the work described in this report was done under my direction.




T. N. Macauley

COST STATEMENT

A. Cost Used for Pro-Rating to Claim Groups

Labor

D. Visagie	Project Geologist			
	June 24 - July 25, Aug 1 - Sept 11	=	73	
D. Bohme	Geologist	July 24 - Sept 5	=	45
I. Casidy	Geol Technician			
	June 27 - July 25, Aug 1-9, Aug 30-Sept 11	=	48	
C. Kowall	Prospector	Aug 1-7, 28-30, Sept 1-3, 5-11	=	22
G. Malensek	Jr Assistant			
	June 27 - Aug 10, Aug 30 - Sept 4	=	50	
M. Savage	Jr Assistant	June 28 - Aug 30	=	69
G. Montford	Jr Assistant	Aug 1 - Aug 20	=	20
P. Witt	Jr Assistant	Aug 16 - Sept 5	=	19
B. Anderson	Jr Assistant	June 25 - Sept 10	=	74
D. Barnett	Bulldozer Op	June 26 - Sept 5	=	71
D. Visagie	Cook	June 25 - July 25	=	31
A. Havard	Cook	July 25 - Sept 5	=	40
Drillers	Man-days	Aug 1 - Sept 6	=	154

Total Man-days = 716

Breakdown of Days spent on each claim group and on mobe/demobe

	<u>NM1</u>	<u>NM2</u>	<u>NM3</u>	<u>NM4</u>	<u>Mobe</u>	<u>Totals</u>	<u>Salary/day</u>
D. Visagie	3	4	46	8	12	73	\$ 147.45
D. Bohme	12	16	13	4	9	45	121.00
I. Casidy	3	6	30			48	104.25
C. Kowall	8	7	2	1	4	22	162.50
G. Malensek	6	4	31		9	50	82.24
M. Savage	12	14	32	4	7	69	74.76
G. Montford		8	10		2	20	64.79
P. Witt		8	7	3	1	19	74.25
B. Anderson	7	19	37		11	74	104.00
D. Barnett		7	51	2	11	71	\$20/hr
D. Visagie			21		10	31	104.00
A. Havard	6	3	24	7		40	123.50
Drilling		<u>22</u>	<u>100</u>	<u>32</u>		<u>154</u>	
MAN-DAYS	57	118	404	61	76	716	

For Pro-Rating Factor should be 716 man-days less 76 man-days used for mobe-demobe = 640 man-days.

Note: NM = New Moon

Food			
Total of all bills			13,243.26
Mobe - Demobe			
Airfare Smithers to Vancouver	1,991.40		
Lodging, including meals	2,051.52		
Truck rentals (moving equip., fuel)	2,996.28		
Helicopter (camp, drill & cat move)			
29.1 hrs Bell 205 @ 1,372.75/hr			
23.7 hrs Bell 206 @ 543.60/hr			
(includes fuel & oil)	52,837.88		
Labor	8,152.00		
Total	68,029.00	68,029.00	
Camp Supplies			
includes wood, propane, fuel,			
tents, etc.			9,068.90
Expediting			6,158.66
Communications			
includes radio rental, long			
distance calls			1,674.00
B. <u>Costs Not Assigned by Pro-Rating</u>			
Tractor Use			
Rental	20,984.02		
Operator	14,963.02	35,947.04	
Labor - Total labor cost			39,250.57
Assaying - Total costs			30,490.90
Helicopter			
63.0 hrs @ 543.60/hr (Bell 206)			34,267.25
Drilling Costs			
1525.2m @ an average of \$68.85/m			105,014.60
Supervisory and Report			
includes writing, drafting,			
editing, typing, xeroxing, paper			20,000.00
Total Cost of Assessment Work			\$361,458.18

The breakdown for grouping purposes is:

New Moon 1 claim group	22,837.22
New Moon 2 claim group	60,075.83
New Moon 3 claim group	236,120.97
New Moon 4 claim group	44,009.94

Cost Statement for New Moon 1 Group

Pro-rated cost factor = $\frac{57}{640}$ Man-days on claim group = .089
Total Project Man-day

Labor		6,366.66
Mobe/Demobe	.089 x 68,029	6,054.81
Food	.089 x 13,243.26	1,178.65
Camp Supplies	.089 x 9,086.90	808.73
Expediting	.089 x 6,158.66	548.12
Helicopter Support	10 hr x 543.60	5,436.00
Communication	.089 x 1,674	148.90
Drilling	Om BQ drilling @ an average of 0/m	
Tractor Cost		
Rental		
Operator		
Assaying	9 stream sediments, 11 rock chip	295.00
Report and Supervisory		2,000.00
	Total	22,837.37

Cost Statement For New Moon 2 Group

Pro-rated cost factor = $\frac{118}{640}$ $\frac{\text{Man-days on claim group}}{\text{Total Project Man-days}}$ = .184		
Labor		3,228.44
Mobe/Demobe	.184 x 68,029.00	12,517.34
Food	.184 x 13,243.26	2,436.76
Camp Supplies	.184 x 9,086.90	1,671.98
Expediting	.184 x 6,158.66	1,133.19
Helicopter Support	10.6 x 543.60/hr	5,762.16
Communication	.184 x 1,674	308.02
Drilling	164.5m BQ @ an average of 72.86/m	11,985.75
Tractor Cost		
Rental	4,527.85	
Operator	3,628.98	8,156.83
Assaying	38 drill core, 339 rock chip, 17 stream sediments	7,875.40
Report and Supervisory		5,000.00
	Total	60,075.87

Cost Statement for New Moon 3 Group

Pro-rated cost factor	= $\frac{404}{640}$	$\frac{\text{Man-days on claim group}}{\text{Total Project Man-day}}$	= .631
Labor			26,427.03
Mobe/Demobe	.631 x	68,029.00	42,926.29
Food	.631 x	13,243.16	8,356.49
Camp Supplies	.631 x	9,086.90	5,733.83
Expediting	.631 x	6,158.66	3,886.11
Helicopter Support	38 hrs x	543.60	20,656.80
Communication	.631 x	1,674	1,056.29
Drilling	1030.2m BQ @ an average of	68.19/m	70,245.90
Tractor Cost			
Rental	14,845.41		
Operator	10,906.82		25,752.23
Assaying	294 drill core, 675 rock & trench, 5 stream		21,080.00
Report and Supervisory			10,000.00
		Total	236,120.97

Cost Statement for New Moon 4 Group

Pro-rated cost factor = $\frac{61}{640} \frac{\text{Man-days on Claim Group}}{\text{Total Project Man-days}} = .095$

Labor		3,228.44
Mobe/Demobe	.095 x 68,029.00	6,462.76
Food	.095 x 13,243.26	1,258.11
Camp Supplies	.095 x 9,086.90	863.26
Expediting	.095 x 6,158.66	585.07
Helicopter Support	44 hrs x 543.60	2,391.84
Communication	.095 x 1,674	159.03
Drilling	330.5m BQ drilling at average of 68.94/m	22,782.95
Tractor Cost		
Rental	1,610.76	
Operator	427.72	2,038.48
Assaying	63 drill core	1,240.00
Report and Supervisory		3,000.00
	Total	44,009.94

APPENDIX 1

DRILL LOGS 86-1 - 86-17

List of Abbreviations

pyr	pyrite	occ	occasion
cpy	chalcopyrite	dissem	disseminated
mal	malachite	tr	trace
gal	galena	irreg	irregular
sphal	sphalerite	ca	core axis
Mn	manganese	t/o	throughout
Pbs	galena	brxx	breccia
qv	quartz vein	≈	approximately
carb	carbonate	hem	hematite
qtz	quartz	comp	composition
ll	parallel	stkwk	stockwork

NEWMONT EXP. OF CANADA LTD

DRILL HOLE RECORD

NEW MOON
PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	54.3 m	HOLE NO.	N.M. 86-1
LOCATION	Plateau Grid	0	300°	-45	Brunton	CORE SIZE	BQ	SHEET NO.	1
ELEVATION	2111.0 m	-50	300°	-48	Acid	TOTAL RECOVERY	+95	LOGGED BY	D. Visagie
LATITUDE	1 + 25 N					STARTED	August 3/86	CLAIM	MISTY DAY
DEPARTURE	0 + 50 E					COMPLETED	August 4/86	PURPOSE	To test Main Zone

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS				RECOVERY		
		FROM m	TO m				SAMP	FROM	TO	LENG.	RUN	%	
		0	1.7	Casing								5.8	100
												7.3	"
		1.7	6.3	Andesite Flow	Tr	pyr						10.3	"
				- fine grained, dark green, highly broken-up								13.4	"
				on occasion: 1.8 - 2.4 m and 5.8 - 6.3								16.5	"
				- minor calcite stringers occur sporadically								19.5	"
				- minor pyr								22.6	"
				- hairline fracturing is commonly developed at								25.6	"
				20° to the ca								28.0	"
				- minor Mn stain occurs along the fracture								30.0	"
				faces								32.0	"
												33.2	"
		6.3	6.9	Rhyolite Tuff?								34.7	"
				- medium - coarse grained								37.8	"
				- grey-green colored								40.8	"
				- weak chlorite alteration								43.9	"
				- minor calcite fragments								46.9	"
				- minor limonite occurs along the fracture								49.3	"
				faces								51.8	"
				- lower contact is irregular sharp at 70°									

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Flow	6.9	7.7													
	- similar to previous															
	- lower contact sharp irreg. @ 70°															
	Porphyritic Andesite Flow	7.7	10.5	4 galena,		11751	8.6	9.1	0.5	-	1.34	3.97	0.28	0.028		
	- med grained			sphalerite,		11752	9.1	9.6	0.5	-	0.47	2.26	0.17	0.020		
	- green with white-green phenocrysts			minor pyrite		11753	9.6	10.2	0.6	-	0.86	4.52	0.26	0.038		
	- quartz veining occurs t/o but is sporadic					11754	10.2	10.5	0.3	-	0.17	0.20	0.07	0.002		
	q v occurs @ 8.1 3 cm @ 60° barren															
	8.8 15 cm @ 70° 5%PbS, 2%ZnS															
	9.5 10 cm @ 60° 10%PbS, 5%ZnS															
	9.9 - 10.1 1cm vein: massive															
	ZnS/PbS @ 20° to Ca															
	10.3 20 cm irreg zone of qv															
	tr pyr 2% PbS															
	- lower contact @ 60° to Ca															
	Andesite Flow	10.5	12.8													
	- similar to 1.7 - 6.3															
	- fractures @ 30° to the Ca															
	Porphyritic Andesite Flow	12.8	31.0	variable amt		11755	16.8	17.8	1.0	-	0.06	0.16	0.07	0.002		
	- similar to 7.7 - 10.5			of galena &												
	- grey - green colored			sphalerite		11756	17.8	18.3	0.5	-	4.28	15.30	0.71	0.022		
	- coarse grained					11757	18.3	18.9	0.6	-	1.66	4.85	0.29	0.012		
	- relatively compositionally homogenous					11758	18.9	20.4	0.5	-	11.50	0.35	0.05	<0.002		
	- approximately 30% veining t/o					11759	20.4	21.9	1.5	-	0.02	0.11	0.01	<0.002		
	- veining consists predominantly of pink					11760	21.9	23.4	1.5	-	0.02	0.05	0.01	<0.002		

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Porphyrtyic Andesite Flow Cont'd	12.8	31.0														
	calcite with quartz																
	- veins generally occur @ 60°					11761	23.4	24.8	1.4		0.14	0.11	0.06	.002			
	- at 13.3: the fracture face is limonite					11762	24.8	25.9	1.1		0.54	1.08	0.13	.002			
	stained					11763	25.9	26.6	0.7		0.61	1.18	0.11	.002			
	- 13.3-17.7: the section has 20% pink calcite-					11764	26.6	27.2	0.6		0.48	2.53	0.20	.002			
	quartz veins. 5% occurs as disseminations					11765	27.2	28.0	0.8		0.07	0.36	0.04	<.002			
	t/o					11766	28.0	28.5	0.5		0.15	0.52	0.08	<.002			
	- from 17.3-17.6: 3 colloform quartz veins					11767	28.5	29.2	0.7		0.25	0.77	0.08	.004			
	occur which contain tr galena					11768	29.2	29.7	0.5		1.63	4.78	0.35	.014			
	- from 17.8-18.9: the unit is laced with					11769	29.7	30.1	0.4		1.34	4.26	0.36	.006			
	quartz veins that contain significant					11770	30.1	31.0	0.9		0.32	1.00	0.09	<.002			
	mineralization primarily galena and					11771	31.0	31.7	0.7		0.05	0.11	0.04	<.002			
	sphalerite. The section contains 20% ZnS/PbS					11772	31.7	32.3	0.6		0.21	0.98	0.12	<.002			
	- from 18.4-18.9: the unit has 5% hematite					11773	32.3	33.2	0.9		0.01	0.03	0.02	<.002			
	- from 19.0-19.2: occurs a gossanous zone					11774	33.2	33.7	0.5		2.17	9.93	0.94	.072			
	centered about a 2 cm qv					11775	33.7	34.2	0.5		5.68	10.70	1.02	.208			
	- from 18.9: quartz veining decreases with					11776	34.2	34.7	0.5		0.16	0.43	0.08	.004			
	sporadic veins occurring intermittently																
	- @ 25.6: 15 cm qv @ 60° to ca 5% PbS, 5% ZnS																
	26.1: 2 cm qv erratic 30% PbS + ZnS																
	26.6: 10 cm qv @ 30° has 5% ZnS, 5% PbS																
	28.0: 15 cm qv has 2% hematite																
	28.7: 10 cm zone of erratic qv has 5% PbS																
	29.3-30: occurs a qv with 10% ZnS, 5% pyr,																
	5% PbS is banded @ 70°																

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DRILL HOLE RECORD

NEW MOON
PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	52.7 m	HOLE NO.	86-2
LOCATION	Plateau Grid	0	300°	-55	Brunton	CORE SIZE	BQ	SHEET NO.	1 of 5
ELEVATION	2113.0 m	-52.7	300°	-54	Acid	TOTAL RECOVERY	>95%	LOGGED BY	D. Visagie
LATITUDE	1 + 87 N					STARTED	August 4/86	CLAIM	MISTY DAY
DEPARTURE	0 + 50 E 1 + 87 N					COMPLETED	August 5/86	PURPOSE	Test Main Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%
	Casing	0	1.8													1.8	100
																4.3	103
	Red & Grey Andesitic Tuff	1.8	22.3	Tr	dissem pyr											7.3	97
	- reddish brown-grey colored matrix in which fragments upto .2cm occur															10.4	96
	- banded t/o with bedding occurring at 40-50° to the ca															13.1	94
	- minor calcite stringers occur t/o															16.2	116
	- fracturing occurs @ 80° to the ca and at 55° to the ca															18.6	118
	- tops by graded bedding are to the top of the hole															21.3	118
	- Quartz veining (generally mixed with calcite) occurs sporadically															22.9	107
	- mineralization is generally confined to quartz-calcite veins with the exception of minor tr dissem pyrite															25.9	100
	- significant veins occur															28.4	100
	6.8-7.0 m: 50% qv stkwk tr ZnS						11780	14.2	15.2	1.0	-	0.14	0.23	0.07	0.002	31.4	100
	14.2: 2cm qv @ 20° tr pyr															33.2	100
	14.9: 5cm qv @ 50° vuggy with 5% pyr															35.4	92
	2% PbS + ZnS tr Mal															37.8	112
																40.3	100
																43.3	100
																45.7	100
																48.7	100
																50.9	100
																52.7	100

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Red & Grey Andesitic Tuff Cont'd	1.8	22.3													
	@ 20.5: 3cm qtz-calcite @ 20° with tr gal					11781	19.8	20.6	0.8	-	0.10	0.37	0.09	0.002		
	@ 21.0: 10cm calcite-qtz zone with 5% PbS 5% Pyr															
	@ 22.0: 10cm gossanous zone occurs															
	Quartz Vein Breccia Zone	22.3	25.0													
	- first 30cm is a silicified quartz vein			10	2% Pb, 4% Zn	11782	22.2	22.6	0.4	-	0.29	0.87	0.13	0.002		
	stockwork zone with 10% pyr that has				4% Pyr	11783	22.6	23.3	0.7	-	3.68	11.30	0.95	0.058		
	gossanous fragments upto .3cm within it					11784	23.3	24.0	0.7	-	0.23	1.56	0.17	0.002		
	- from 22.6-24.1 the unit contains 10% PbS,					11785	24.0	24.5	0.5	-	0.75	4.52	0.35	0.002		
	10% ZnS, 5% Pyr and 5% hematite, 1% cpy as					11786	24.5	26.0	1.5	-	0.13	0.45	0.09	0.002		
	fine grained x-stals. The sphalerite is															
	honey brown colored															
	- from 24.1-24.7 the unit is fractured and															
	silicified and contains 1% PbS, 2% ZnS and															
	10% pyr															
	Andesitic Tuff (Maroon - Grey)	25.0	27.4													
	- similar to previous					11787	26.0	27.4	1.4	-	0.16	0.50	0.08	0.004		
	- contains approximately 30% pink calcite-															
	quartz veinlets generally oriented at 40-50°															
	and contain 2-5% disseminated pyrite															
	- minor epidote on occasion is developed															
	adjacent to the veins															
	- at 26.8 an 8cm qv @ 50° contains 1% PbS															

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Porphyrtyc Andesite (Occasionally Brxx) Flow	27.4	33.6	l pyr		11788	27.4	28.5	1.1	-	0.15	0.67	0.08	<0.002		
	- fine grained green-black matrix with pale					11789	28.5	30.2	1.7	-	0.35	1.06	0.10	0.008		
	green feldspar phenocrysts upto 3 cm					11790	30.2	31.0	0.8	-	0.59	1.64	0.13	0.020		
	- feldspar phenocrysts appear to be sausseritized					11791	31.0	32.3	1.2	-	0.90	0.32	0.07	0.004		
	- the unit is on occasion brecciated					11792	32.2	33.7	1.4	-	0.20	0.63	0.15	0.008		
	- Quartz-calcite veining occurs t/o with the															
	mineralization being predominantly in quartz															
	veins															
	- from 27.5-28.0 occurs a 2cm calcite vein that															
	runs // to the ca															
	- at 28.3 the unit has a 2cm qv at 20° to the															
	ca that has 5% ZnS 1% PbS and 5% pyr															
	- from 28.3-33.7 the unit contains approximately															
	30% calcite-quartz veining															
	- at 28.6 a 20cm x 1cm seam at galena with															
	minor sphalerite occurs. At 29.1 a 10 cm qtz															
	stwk with tr cpy & 5% pyr occurs															
	- 30.2 a 2cm qv @ 10° to the ca is weakly															
	rinned with ZnS															
	- from 30.7-30.9 occurs a quartz vein zone															
	(@ 50° to the ca) which contains 5% PbS															
	- at 31.2 a 10 cm qv has 2% cpy, 5% PbS tr ZnS															
	- from 31.6-33.6 the quartz veining decreases															
	to less than 10% of the unit and the unit is															
	less porphyritic															

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS								RECOVERY		
		FROM	TO				%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUIN
		33.6	35.1	Quartz Vein Breccia	5 PbS + ZnS		11793	33.7	34.7	1.0	-	0.16	0.61	0.16	0.006		
				- a mineralized brecciated zone dominated by			11794	34.7	35.1	0.4	0.11	5.45	15.30	2.04	0.144		
				quartz & calcite			11795	34.1	35.7	0.6	-	0.07	0.03	0.11	<0.002		
				- from 33.65-33.8: the unit has 5% Pb/Zn with													
				5% hematite in a quartz vein (@30° to the Ca)													
				- from 33.8-34.7: the unit is dominated by													
				pink calcite-quartz veining and contains													
				5% pyr 1% PbS/Zn													
				- 34.7-35.1: the unit is highly mineralized													
				with 30% PbS + ZnS													
		35.1	35.7	Andesite Dyke													
				- fine grained, green colored													
				- broken contacts													
				- unit is highly broken up													
				- barren													
		35.7	37.0	Quartz Vein (Breccia?)	20 PbS + ZnS		11796	35.7	36.2	0.5	0.14	3.65	6.72	0.42	0.038		
				- highly broken up			11797	36.2	37.0	0.8	0.40	5.17	12.70	0.82	0.040		
				- heavy sulphide min consisting of galena and													
				sphal approximately 20% combined													
				- minor pyrite and cpy													
		37.0	38.1	Andesite Dyke													
				- similar to previous			11798	37.0	38.1	1.1	-	0.30	0.87	0.09	0.002		
				- broken contacts													

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH		BEARING		DIP		TYPE OF SURVEY	LENGTH	71.9 m	HOLE NO.	N.M. 86-3
LOCATION	Plateau Grid		0		300°		-55	Brunton	CORE SIZE	BQ	SHEET NO.	1 of 7
ELEVATION	2091.0 m		-71.9		300°		-58	Acid Test	TOTAL RECOVERY	>95	LOGGED BY	D. Visagie
LATITUDE	0 + 18 S								STARTED	August 5/86	CLAIM	MISTY DAY
DEPARTURE	0 + 53 E								COMPLETED	August 6/86	PURPOSE	Test Main Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS				RECOVERY			
		FROM m	TO m			%	SAMP	FROM	TO	LENG.	RUN	%	
	Casing	0	1.8									1.8	84
												4.9	104
	Andesite Tuff	1.8	20.8	1	pyr							7.6	100
	- fine grained grey green colored											10.4	100
	- bedding not evident											13.4	121
	- fractured extensively at 6.3 m											16.8	70
	- in first 6.3 fracturing common at 50° with limonite stained faces											18.0	100
	- fragments upto 1 cm in size											20.1	112
	- q.v. minor to 8.3											22.3	115
	- veining predominantly calcite											25.0	117
	- at 6.9 a 1 cm q.v. @ 80° has boxwork structure											26.2	93
	- from 7.4-7.7 the unit is coarser grained with fragments upto 1.5 cm											27.7	100
	- at 8.5 the unit has a 20 cm q.v. @ 70° which contains 10% ZnS and 2% PbS			12	10% ZnS 2% PbS							29.3	83
	- upto 8.5 m pyrite content is minor <1% from 8.5 the content increases upto 3%			3	pyrite							32.3	111
	- at 8.7-9.3 the unit appears to brecciated with erratic q.v. and 5% dissem pyr, Tr. Mal occurs along the fractures, veins are colloform											34.1	100
												36.6	109
												38.7	104
												43.9	70
												46.0	125
												47.2	96
												49.7	143
												51.5	106
												53.0	100
												55.2	100

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Flow Cont'd	1.8	20.8													56.4	104
																58.8	92
	from 9.3-9.9 the unit is a quartz vein breccia			15	10% ZnS		11804	8.7	9.3	0.6	-	0.23	2.22	0.10	0.004	61.3	111
	and is colloform. In the first 15 cm the unit				5% PbS		11805	9.3	9.9	0.6	0.26	2.00	6.01	0.37	0.004	64.0	110
	has 30% PbS, 20% ZnS, 5% pyr, tr, cpy. The						11806	9.9	11.4	1.5	-	0.01	0.45	0.05	<0.002	66.1	110
	rest of the vein contains 10% PbS, 2% hematite															67.4	100
	Upper contact occurs @ 50° to the ca as is															67.2	100
	the lower contact															71.9	100
	from 9.9 the unit decreases in vein content																
	with calcite (pink) being predominant																
	from 9.9-14.4 the unit is mainly a coarse																
	grained tuff that has minor epidote																
	alteration																
	from 14.4-20.6 the unit is a reddish andesitic						11807	17.3	18.6	1.3	0.02	0.03	0.19	0.03	0.002		
	tuff that contains approximately 7% Qtz-						11808	18.6	19.2	0.6	0.15	0.16	2.53	0.14	0.002		
	calcite veining. The pyrite in this section																
	contains <1% pyr																
	Significant veining starts at 18.6 m																
	@ 18.6: 1 x 5 cm q.v. // to ca has 20% PbS																
	19.0: 20 cm zone contains 10% PbS			14	10% PbS												
	2% ZnS, 2% Cpy in zone which occurs @				2% Cpy												
	10° to the Ca				2% ZnS												

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS							RECOVERY			
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		1.8	20.8	Andesite Flow Cont'd													
				19.5: 2 cm @ 80° contains 10% PbS			11809	19.2	19.7	0.5	-	0.04	0.88	0.05	<0.002		
				19.7: 1 cm gouge zone @ 50°			11810	19.7	20.6	0.9	-	0.20	4.26	0.14	0.002		
				from 19.8-20.6 the unit is a hematitic tuff that is banded a 60° to the ca													
				from 20.6-20.8 the section contains a 20 cm qtz-calcite vein whose upper contact is @ 60° The vein contains 5% ZnS, 5% PbS and 1% Cpy			11811	20.6	21.1	0.5	-	0.20	4.26	0.14	0.002		
		20.8	32.1	Porphyritic Andesite Flow	5	3% ZnS	11812	21.1	22.1	1.0	-	0.05	0.45	0.13	0.002		
				- green with white to greenish white feldspar phenocrysts		2% PbS	11813	22.1	22.6	0.5	0.13	4.20	19.20	0.41	0.022		
				- minor epidote t/o													
				- throughout the unit quartz veining is predominant with quartz veining totalling 10 - 20% of the unit													
				Significant veining occurs at													
				22.0: 10 cm x 1 cm epidote vein // to the ca													
				22.2: 35 cm zone of q.v. brxx 10% hematite 20% PbS, 20% ZnS			11814	22.6	23.1	0.5	0.29	0.19	6.10	0.23	0.004		
				22.85: 45 cm zone of qtz vein brxx 10% hematite			11815	23.1	23.9	0.8	-	0.07	0.60	0.04	0.004		
				25% Pb + Zn vein occurs at 45°			11816	23.9	25.1	1.2	-	0.05	0.39	0.03	0.002		
				23.90: 1 cm q.v. @ 10° tr, hem, tr, pyr			11817	25.1	25.9	0.8	-	0.23	5.22	0.16	0.002		
				from 23.0 on feldspars becoming increasingly green & clay altered													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS										RECOVERY	
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Porphyritic Andesite Flow Cont'd	20.8	32.1														
	24.2: 2 cm qtz-carb vein @ 45° has tr, gal																
	25.1-25.9: 80 cm q.v. with 10% Pb/Zn, 1% Cpy,																
	2% hematite banding occurs @ 80° to the ca																
	at 26.2: a 50 cm q.v. @ 70° has 20% PbS + ZnS					11818	25.9	26.7	0.8	-	0.13	2.13	0.07	<0.002			
	@ 26.9: 30 cm zone of q.v. with 10% PbS + ZnS					11819	26.7	27.2	0.5	-	0.49	12.90	0.29	0.002			
	@ 27.95 a 5 cm vein @ 85 to the ca has 5% PbS,					11820	27.2	27.7	0.5	-	0.08	1.63	0.07	<0.002			
	5% ZnS					11821	27.7	28.9	1.2	-	0.13	0.59	0.05	0.002			
	from 28.0-28.9 the unit is predominantly an																
	andesite porphyry flow with minor hairline																
	fractions to 1% PbS + ZnS occurs in the																
	erratic stockwork																
	from 28.9-32.1 the unit is all quartz vein					11822	28.9	29.4	0.5	-	0.10	2.35	0.09	0.002			
	- highly broken up from 30.5			10	7% ZnS	11823	29.4	30.1	0.7	-	0.52	3.36	0.21	0.004			
	- heavy sulphide (PbS +ZnS) starts at 29.5 and			3%	PbS	11824	30.1	30.8	0.7	-	0.79	7.44	0.32	0.008			
	averages 15% combined t/o					11825	30.8	31.5	0.7	-	0.41	4.99	0.26	0.004			
	- the vein is brecciated on occasion					11826	31.5	32.2	0.7	-	0.82	6.52	0.22	0.026			
	- limonite boxwork occurs t/o					11827	32.2	34.1	1.9	-	0.10	0.45	0.03	<0.002			
	- from 30.5 the quartz vein is typically					11828	34.1	36.1	2.0	-	0.02	0.17	0.01	<0.002			
	gossanous in nature, broken and has Mn stain					11829	36.6	38.4	1.8	-	0.04	0.28	<0.01	<0.002			
	- within the gossan sulphide fragments are																
	observed upto 2 cm in size																
	- core recovery is <80% in the section 29.2																
	32.2																

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT		ASSAYS						RECOVERY				
		FROM	TO		%				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		32.1	40.8	Andesite Tuff	Tr	Pyr													
				- medium grained grey black colored															
				- black fragments upto .5 cm occur t/o															
				- minor hematite fragments t/o															
				- quartz veining minor															
				- quartz veining occurs at															
				32.4: 1 cm @ 70° tr, gal															
				34.0-35.8: weak q.v. stkwk ~30% tr gal, tr															
				ZnS															
				35.9: 3 cm q.v. @ 90° tr PbS															
				36.7: 2 cm erratic q.v. @ 80 tr PbS															
				37.3: 5 cm q.v. zone 5% PbS															
				38.3: 3 cm q.v. @ 80° 10% Zn as splotches															
				38.7: 2 cm q.v. @ 80°															
		40.8	46.8	Andesitic Lapilli Tuff															
				- green colored fine grained matrix, elongated															
				fragments @ 60° to the ca															
				- fragments are upto 1 cm in size															
				- the unit is barren															
				- minor carb veinlets															
				- hemogenous															
				- lower contact @ 60°															
		46.8	51.9	Maroon Andesitic Tuff															
				- fine grained maroon colored															
				- fragments upto 1 cm in size common															
				- the unit is generally barren															

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Maroon Andesitic Tuff Cont'd	46.8	51.9													
	- at 46.4 a 30 cm fracture // to the ca is limonite stained															
	- at 46.9 a 10 cm gouge zone occurs															
	- from 47.0-48.0 the unit is grey-green colored (reddish ringed)															
	- throughout the section short intervals of a coarse grained tuff occur															
	Coarse Grained Fragmental Andesitic Tuff	51.9	53.0													
	- grey-green-red colored															
	- contains fragments upto 2 cm in size fragments generally reddish colored															
	- fractured at 50°															
	- barren															
	- lower contact @ 50°															
	Maroon Andesitic Tuff	53.0	65.4													
	- fine grained															
	- similar to 46.8-51.9															
	- minor hairline fracturing															
	- barren															
	Grey Andesitic Tuff	65.4	67.7													
	- similar to the maroon tuff only grey colored instead															

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Felsic Tuff	67.7	70.3														
	- grey fine grained with minor feldspar phenocrysts																
	- minor epidote-sporadically distributed																
	- lower contact @ 37°																
	- from 67.7-68.9 the unit appears to be in transition from the grey tuff to the felsic tuff																
	Andesitic Tuff	70.3	71.9														
	- fine grained green grey colored, massive																
	- non mineralized																
	- fracturing @ 35° to the ca																
	E. O. H.	71.9															

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD

NEW MOON
 PROJECT

LEVEL	Surface	DEPTH		BEARING		DIP		TYPE OF SURVEY	LENGTH	113.1 m	HOLE NO.	N.M. 86-4
LOCATION	Plateau Grid		0	300°	-60°		Brunton	CORE SIZE	BQ		SHEET NO.	1 of 8
ELEVATION	2091.0 m		113.1m	300°	-60°		Acid Test	TOTAL RECOVERY			LOGGED BY	D. Visagie
LATITUDE	0 + 00							STARTED	Aug. 6/86		CLAIM	MISTY DAY
DEPARTURE	1 + 15 E							COMPLETED	Aug. 8/86		PURPOSE	Test Main Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM m	TO m			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Casing	0	1.8														
	Feldspar Porphyry Dyke	1.8	5.3														
	- fine grained grey with white upto .2 cm feldspar phenocrysts (unaltered)															25.3	2.0
	- barren, homogeneous															26.8	1.5
	- lower contact broken															28.4	1.5
	- fracturing occurs @ 60° & 10°															29.0	0.7
																32.0	3.0
																35.1	3.1
	Mottled Andesite Tuff	5.3	12.2													37.2	3.1
	- fine grained reddish brown matrix with coarse angular fragments upto .3 cm															39.9	2.8
	- calcareous															41.8	1.9
	- limonite stained fractures															44.8	3.0
	- barren in general															46.3	1.7
	- fracturing @ 45° & 10°															47.9	1.6
	- coarse grained from 11.3															48.8	0.9
																50.3	1.5
																52.4	2.2
	Maroon Colored Tuff	12.3	18.1													54.9	2.8
	- ranges from reddish brown fine grained to a coarse grained tuff															56.1	1.1
	- calcareous t/o															57.6	1.5
	- @ 17.4 a 15 cm qv @ 70° has 5% pyr, 1% cpy,															59.7	2.5
	5% ZnS															60.7	1.0
																61.8	1.2

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS							RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		18.1	29.4	Andesitic Tuff	1	PbS/ZnS		11830	17.2	17.7	0.5	.12	.96	1.54	0.13	.002	64.0	2.0
				- fine grained with a reddish tinge		Tr Pyr		11831	23.5	24.5	1.0	-	.65	0.49	0.12	.002	66.1	2.1
				- massive				11832	28.9	29.6	0.7	-	.11	0.01	0.04	<.002	69.0	2.0
				- broken t/o with the section from 23.3-25.3													71.0	2.7
				being highly broken-up													73.2	2.2
				- quartz-calcite veining (generally fracture													75.0	1.7
				fillings) occurs t/o sporadically													78.0	3.0
				- qv @ 23.6: 15 cm tr pyr													79.8	1.6
				23.8: 1 cm qtz-cal @ 10° tr gal													89.0	1.3
				- from 23.8-24.5 the unit has 5% pyr													90.5	1.7
				- at 24.3 a 20 cm qv stkwk has 5% pyr													92.7	1.9
				- at 27.2 @ 1 cm @ 25° tr pyr													93.3	0.6
				- at 28.9 a 30 cm zone of qv stkwk has 5%													93.8	0.1
				pyrite and tr gal													94.2	0.1
																	94.5	0.3
		29.4	43.5	Calcareous Andesitic Tuff & Porphyritic Flow													95.7	1.1
				- a chaotic assemblage with short sections of													97.2	1.5
				maroon tuff intermixed with a feldspar													98.4	1.2
				porphyry flow that has 20% calcite													101.2	2.9
				inclusions													102.4	1.2
				- maroon tuff is bedded @ 80-90° to the ca													105.8	3.2
				- minor quartz veining with the veins													108.9	3.0
				occurring													110.0	1.3
				@ 30.3: 5 cm vuggy													111.3	1.4
				35.0: 1 cm @ 60° barren													113.1	1.8
				- feldspars increasingly green with depth														
				(saussuritization)														
				- @ 43.2 @ 20 cm qv stkwk with tr gal and 5%	5	5% pyr		11833	42.9	43.5	0.6	-	.06	0.10	0.04	<.002		
				pyr occurs														

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Flow	45.5	49.9														
	- fine grained																
	- greenish grey																
	- weakly chloritized																
	- tr epidote																
	- from 45.7-45.8 ~ 30% qv occurs																
	- from 45.1 -45.8 the unit is a feldspar porphyry flow																
	- @ 43.7 an 18 cm calcite quartz vein has 2% PbS and 1% Cpy			5	2% PbS, 2% ZnS	11834	43.5	44.2	0.7	.02	.18	.31	0.05	<0.002			
	@ 44.3 a 90 cm qv zone occurs in which the first 20 cm has 10% ZnS the vein is at 10° to the ca			10	10% ZnS	11835	44.2	44.7	0.5	<0.01	0.04	0.08	0.05	<0.002			
	@ 46.3 the unit has a 1 cm gouge zone					11836	44.7	45.8	1.1	-	0.18	0.63	0.07	<0.002			
	- 49.9 a 1 cm qv @ 50° has 5% PbS, Tr, ZnS, 2% Pyr																
	Calcareous Andesitic Flow	49.9	57.5														
	- similar in part to 29.4-43.5																
	- phenocrysts fresh																
	- from 53.0-54.3 the unit is reddish colored																
	- @ 53.5: 3 cm qv @ 60° has 2% ZnS																
	@ 54.1: 1 cm qv @ 60° has tr cpy																
	from 54.3-57.5 the unit is in part brxx and has 20% quartz					11837	55.0	56.5	1.5	-	0.04	0.06	0.04	<0.002			
	from 56.0 the quartz veins are generally @ 50° to the ca					11838	56.5	57.6	1.1	-	0.05	0.03	0.03	<0.002			

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS				RECOVERY		
		FROM	TO				SAMP	FROM	TO	LENG	RUN	%	
		57.5	60.9	Maroon Tuff									
				- reddish colored fine grained									
				- weakly foliated @ 70° to the ca									
				- barren									
				- fractured @ 30° to the ca									
		60.9	69.3	Calcareous Andesitic Tuff									
				- similar to 49.9-57.5									
				- from 64.1-65.6 the unit contains large fragments, upto 2 cm									
				- calcite occurs t/o									
				- the unit is generally barren									
		69.3	75.7	Lapilli Tuff									
				- fragments upto 2 cm (variable composition) set in a green matrix									
				- weakly bedded @ 70°									
				- massive non-mineralized									
				- minor epidote along some fracture faces									
				- minor maroon tuff fragmentation, unit generally barren									
				- minor quartz veining occurs sporadically t/o									
				- qv @ 74.3 2 small veins @ 50° have tr pyr									
				- @ 74.6 a .5 cm qv @ 60° has 15% pyr and 5% PbS									
				@ 73.8 the unit has tr cpy in a qv									

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS							RECOVERY			
		FROM	TO				SAMP	FROM	TO	LENG					RUN	%	
		75.7	78.8	Andesite Tuff													
				- similar to 45.5-49.9													
				- grey colored													
				- fractured @ 30° the ca													
		78.8	82.9	Feldspar Porphyry Dyke													
				- similar to 1.8-5.3													
				- upper contact @ 10°													
				lower contact @ 70°													
				- minor calcite fracturing													
		82.9	87.8	Andesite Tuff													
				- similar to 45.5-49.9													
				- bedded @ 40°													
		87.8	91.2	Andesite Porphyry Tuff													
				- similar to previous													
				- fine grained green with small feldspar			11839	90.0	90.5	0.5	-	.04	.15	0.04	<0.002		
				phenocrysts			11840	90.5	91.2	0.7	-	.05	.22	0.03	<0.002		
				- from 88.3 the unit is broken up and has													
				limonite along the faces													
				- 89.4 the unit has a 1 cm qv @ 45° that has													
				20% pyr													
		91.2	95.7	Quartz Vein Breccia	15	10% Zn,	11841	91.2	91.7	0.5	-	.04	.32	1.09	0.002		
				- highly fractured t/o with the core recovery		5% Pb											
				being highly variable		1% cpy											
						2% pyr											

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	REC'D	%	
	Quartz Vein Breccia Cont'd	91.2	95.7														
	- from 91.2-91.8 the unit is a white qv which is highly broken up and has black sulphide gouge (10%)																
	- from 91.8-93.3: the unit is highly fractured with the longest piece of core being 5 cm.					11842	91.7	92.7	1.0	.35	2.34	11.10	0.47	0.024			
	The unit is well mineralized with 10% ZnS, 3% PbS, 5% hematite, 3% pyr					11843	92.7	93.3	0.6	.50	7.10	11.10	0.61	0.030			
	- from 93.3-94.2: only 20 cm recovered and is mineralized similar to 91.8-93.3					11844	93.3	94.2	0.9	.44	0.79	2.77	0.26	0.006			
	- from 94.2-94.5: 100% recovery 10% PbS/ZnS in veining @ 60° to the ca					11845	94.2	94.7	0.5	.69	3.86	7.68	0.69	0.018			
	- from 94.5-95.7: the unit is predominantly brxx qv in which the sulphide content has decreased to 1% Pb/Zn with 1% cpy					11846	94.7	95.7	1.0	.90	0.48	2.96	0.67	0.004			
	Altered Feldspar Porphyry Flow	95.7	98.4														
	- fine grained siliceous					11847	95.7	96.7	1.0	.08	0.10	0.26	0.04	<0.002			
	- ser & argillic alt is mod developed																
	- small feldspar phenos <.2 cm					11848	96.7	97.2	0.5	.03	0.10	0.22	0.02	<0.002			
	- fine grained grey matrix																
	- highly fractured t/o with limonite occurring along fracture					11849	97.2	98.4	1.2	.01	0.05	0.024	<0.01	<0.002			
	- from 96.2-96.8 the unit is highly fragmental with Tr, PbS/ZnS occurring in minor quartz veins																
	- erratic qv stkwk is located throughout and is occasionally well developed																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Altered Feldspar Porphyry Flow Cont'd	95.7	98.4													
	- from 96.8-97.5 there is a weak qv stkwk with 2% PbS, 2% Zn and 1% cpy															
	- @ 97.4 a 3 cm qv @ 60° has 2% ZnS, 2% PbS and 1% cpy															
	@ 98.1 a 1 cm qv @ 60° with 15% ZnS															
	@ 98.4 the unit has a sharp irregular contact															
	Andesitic Tuff	98.4	102.3													
	- fine grained															
	- similar to previous															
	- calcareous															
	- soft															
	- minor hematite occurs in calcite veins															
	- calcite veining minor															
	- fracturing common @ 55°															
	- the last 1 m has a lighter green color															
	Altered Feldspar Porphyry Flow	102.3	104.3	1 1% pyr		11850	103.1	103.8	0.7	.12	0.03	0.07	0.02	<0.002		
	- similar to 95.7-98.4					11851	103.8	104.2	0.4	.21	0.06	-	0.06	<0.002		
	- grey															
	- fracturing occurs // to the ca and is limonite stained															
	- argillic alteration is best developed in the first 30 cm															
	- 103.2 @ 1 cm qv @ 55° has 10% py															
	- between 103.2 and 103.9 the unit has ~ 15% veining which contains 1% cpy															

NEWMONT EXP OF CANADA LTD

DRILL HOLE RECORD

NEW MOON
PROJECT

LEVEL	Surface	DEPTH		BEARING		DIP		TYPE OF SURVEY		LENGTH	125.9 m	HOLE NO.	N.M. 86-5	
LOCATION	Plateau Grid		0 m		300°		-60°		Brunton		CORE SIZE	BQ	SHEET NO.	1 of 10
ELEVATION	2095.0 m		.114 m		300°		-64°		Acid		TOTAL RECOVERY	79.5%	LOGGED BY	D. Visagie
LATITUDE	0 + 75N										STARTED	Aug. 8/86	CLAIM	MISTY DAY
DEPARTURE	1 + 15 E										COMPLETED	Aug. 11/86	PURPOSE	Test Main Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Casing	0	1.8												3.4	1.00
															5.2	1.80
	Andesitic Tuff	1.8	4.3	Tr pyr											6.4	1.20
	- fine grained grey-grey colored														8.3	1.90
	- calcareous														10.4	2.30
	- small calcite inclusions upto .2 cm in size														11.9	1.60
	- fractured t/o to 3.4														14.3	2.40
															16.5	2.20
	Maroon Tuff	4.3	5.3	Tr pyr											18.3	2.40
	- red- maroon colored, fine to med grained														20.7	2.4
	- calcareous														23.2	3.2
	- bedded @ 60° to the ca														24.6	1.8
	- fractured @ 10 & 60°														26.5	1.8
	- short sections are coarse fragmental														29.0	2.6
	- calcite stringers heal fractures														30.5	1.5
															32.3	2.0
	Andesite Tuff	5.3	9.4	Tr pyr											34.4	2.2
	- similar to 1.8-4.3														37.5	3.0
	- grey colored														39.3	2.0
															43.0	3.8
	Maroon Tuff	9.4	11.1												43.9	1.00
	- similar to 4.3-5.3														44.5	1.6
															46.6	2.2
															48.5	.9

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION			ALT	ASSAYS						RECOVERY			
		FROM	TO		%				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
																	50.0	1.6
																	50.9	.9
																	51.8	.9
		11.1	12.7	Porphyritic Andesite	Tr	pyr											53.3	1.5
				- fine grained with feldspar phenocrysts													55.2	1.8
				(upto .2 cm)													57.0	1.9
				- grey matrix, feldspar white													58.5	1.10
				- non-mineralized													60.0	1.5
				- lower contact irregular @ 45° sharp													61.6	1.6
																	63.1	1.5
		12.7	18.6	Andesitic Tuff Flow													64.9	2.5
				- fine grained, green colored													66.8	2.1
				- bedded @ 60° to the ca													68.3	1.5
				- barren													70.1	1.9
				- minor calcite vein stringers													91.7	
				- weak chlor alt													93.9	2.2
																	96.6	2.7
		18.6	25.9	Feldspar Porphyry Dyke													97.8	1.2
				- fine grained, grey matrix in which feldspar													99.6	1.9
				phenocrysts upto .2 cm occur													100.9	1.7
				- massive, homogeneous													103.6	2.7
				- non-mineralized													106.4	3.3
																	109.1	3.2
		25.9	34.5	Andesitic Tuff													110.1	1.9
				- fine grained, grey-green colored with short													112.5	2.1
				sections of reddish maroon tuff						11852	27.0	28.0	1.0	-	0.03	0.17	0.04	<0.002
				- @ 26.8 m a 15 cm stkwk contains 1% ZnS/PbS,	6	1%	ZnS/5%	pyr									114	1.5
				5% pyr													115.5	1.6
																	117.0	1.6

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesitic Tuff Cont'd	25.9	34.5												118.6	1.6
	- fracturing occurs at 70° and 10° to the ca														120.1	1.7
	- minor grit sections														121.6	1.6
	- 30.5-31.5 weak erratic qv stkwk with 1% PbS,			7	1 m 1%PbS,	11853	30.4	31.9	1.5	-	0.09	0.18	0.04	0.002	122.8	1.3
	1% ZnS, 5% pyr				5% pyr										87.2	2.8
	- from 33.2-34.2 the unit is highly broken														90.2	3.0
	- gradational lower contact														90.5	.3
															91.7	1.2
	Andesite Tuff (Mottled)	34.5	39.8													
	- calcareous															
	- grey black blotchy in appearance															
	- fine - med grained with andesite fragments															
	- generally barren															
	- fracturing occurs at 5°, 70° and 40°															
	- minor epidote alteration															
	- lower contact occurs @ 30°															
	Andesite Tuff	39.8	46.6													
	- fine - med grained greyish green colored															
	homogenous															
	- small calcite inclusions t/o calcareous															
	- fracturing @ 20°															
	Maroon Tuff	46.6	53.8													
	- similar to previous															
	- non-mineralized															

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS							RECOVERY				
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Pred Andesitic Tuff	53.8	62.8														
	- fine grained dark green black with reddish tinge, mottled																
	- calcareous																
	- minor quartz veining @ 62.5 5 cm qv @ 30° with 2% PbS, 1% ZnS						11854	62.3	63.1	.8	-	0.04	0.19	0.02	<0.002		
	- gradational lower contact																
	Maroon Tuff	62.8	66.8	Tr disse pyr													
	- similar to previous																
	- fracturing @ 10 & 45°																
	- tr disse pyr																
	Andesitic Tuff	66.8	70.7	1 disse pyr			11855	70.1	71.6	1.5	-	<0.01	0.03	0.03	<0.002		
	- fine grained grey-green colored																
	- quartz veining more prominent than previous constituting ~ 10% of the unit																
	- @ 66.7 a 2 cm qv @ 70° has tr PbS, vuggy qtz t/o																
	- 69.7 3 cm qv @ 45° has tr PbS																
	- 69.8 2 cm qv @ 75° has 2% pyr																
	- from 70.1-70.3 the unit has an irreg qv stkwk																
	Feldspar Porphyry Andesite Flow	70.7	78.0														
	- large, upto 1 cm, amygdules set in a fine-grained purple-grey matrix						11856	71.6	72.3	0.7	-	0.17	0.33	0.04	<0.002		

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Feldspar Porphyry Andesite Flow Cont'd	70.7	78.0														
	- on occasion the feldspar phenocrysts are weakly altered						11857	75.5	76.1	0.6	-	0.39	1.56	0.09	0.002	124.4	1.5
	- minor quartz-calcite veins occurs sporadically t/o						11858	76.1	77.0	0.9	-	0.57	0.85	0.09	<0.002		
	- @ 72.1 1 cm @ 60° irreg 50% PbS, 1% cpy			2	2% pyr tr		11863	77.9	78.9	1.0	-	0.19	0.69	0.04	<0.002		
	75.9 2 cm @ 30° 20% ZnS + PbS				PbS tr ZnS												
	76.9 1 cm qv @ 30° 50% PbS																
	76.95 .5 cm qv @ 60° massive PbS																
	Andesitic Tuff	78.0	79.8	1	dissem pyr												
	- fine grained, grey colored																
	- calcareous																
	- minor qtz-calcite veining																
	- @ 78.1: 25 cm zone 10% Pyr, 5% PbS veins @ 70°																
	@ 78.8: 1 cm vein @ 20° 5% PbS																
	- throughout small black phenocryst occur																
	Feldspar Porphyry Andesitic Flow	79.8	89.3	2	dissem pyr												
	- similar to 70.7-78.0				increasing		11859	82.0	83.0	1.0	-	0.01	0.04	0.02	<0.002		
	- feldspars green colored				sulphide		11860	83.0	84.0	1.0	-	0.01	0.05	0.03	<0.002		
	- from 82.1 qtz-calcite veining increases				with depth		11861	84.0	85.0	1.0	-	0.10	0.52	0.08	<0.002		
	qv @ 82.0 3 cm qtz-carb @ 30° 1%PbS, 1% ZnS						11862	85.0	86.0	1.0	-	0.29	0.55	0.04	<0.002		
	83.2 1 cm " " @ 30° barren						11864	86.0	87.6	1.6	-	0.19	0.69	0.05	<0.002		
	83.3 2 cm qtz-carb @ 70° barren						11865	87.6	89.0	1.4	-	0.09	0.53	0.05	<0.002		
	84.8 2 cm vuggy qtz-vein						11866	93.0	94.3	1.3	-	0.03	0.13	0.02	<0.002		

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Feldspar Porphyry Andesite Flow Cont'd	79.8	89.3														
	- qv @ 85.2: 5 cm zone with 5% pyr						11867	94.3	94.9	0.6		0.04	0.13	0.02	<.002		
	85.6: 10 cm @ 60° tr cpy						11868	94.9	95.9	1.0		0.04	0.15	0.03	<.002		
	85.5: 5 cm @ 70° .3 cm running by ZnS																
	86.1: 5 cm stkwk 5% ZnS, tr PbS																
	Feldspar Porphyry Dacite Dyke	89.3	93.0														
	Feldspar Porphyritic Andesite Flows	93.0	95.7	Tr PbS, ZnS			11869	95.9	96.5	0.6		0.05	0.22	0.04	<.002		
	- fine grained purple matrix in which grey-green feldspar phenocrysts upto .2 cm occur			dissem pyr													
	- feldspars are green																
	- weakly calcareous																
	- quartz veins occur t/o																
	- qv @ 93.1: 10 cm @ 70°, 5% pyr, 1% ZnS																
	tr PbS																
	@ 94.2: fracture @ 30°																
	@ 94.5: 1 cm qv @ 60° colloform																
	- from 94.4-94.8: the unit has weak quartz vein stockwork																
	- @ 93.9: 1 cm @ 60° tr PbS																
	Andesite Breccia	95.7	101.7	5 4% pyr			11870	96.5	97.0	0.5		0.04	1.30	0.04	<.002		
	- fine grained matrix in which fragments upto 2 cm occur			1% PbS/ZnS			11871	97.0	97.7	0.7		0.58	1.59	0.07	<.002		
							11872	97.7	98.1	0.4		0.28	3.15	0.07	<.002		
	- section is reddish green colored and contains several quartz-veins						11873	98.1	99.0	0.9		0.17	0.46	0.03	<.002		
							11874	99.0	99.8	0.8	.06	0.13	1.00	0.08	<.002		
	- minor sections of feldspar porphyry occur t/o						11875	99.8	100.5	0.7		1.22	4.43	0.16	.002		

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Breccia Cont'd	95.7	101.7														
	Porphyritic Andesite					11876	100.5	101.0	0.5	-	0.04	0.12	0.01	<0.002			
	- from 95.7-97.0 the unit has been bleached adjacent to the veins to a light green color					11877	101.0	101.7	0.7	-	0.03	0.10	0.01	<0.002			
	96.8: 20 cm qtz stkwk 5% ZnS																
	97.0: 30 cm qv @ 30°, 5% hematite, Tr ZnS, 2% PbS																
	97.8: 15 cm qv with 10% ZnS, 5% pyr, tr PbS, 10% Pyr																
	98.5-98.80: weak qv stkwk 5% pyr																
	99.3-99.6: erratic qv zone with 5% ZnS, 1% cpy																
	99.8-100.6: Quartz vein with 10% Pb + Zn, 5% hematite, 5% pyr contact @ 50-60°																
	from 98.8-101.7 the unit appears to be more siliceous and is fine grained grey-red brxx																
	Quartz Vein Breccia Zone	101.7	105.2	10	8% PbS + ZnS	11878	101.7	102.5	0.8	-	0.15	1.00	0.08	<0.002			
	- well mineralized highly fractured quartz vein zone				2% pyr	11879	102.5	103.0	0.5	.70	0.26	3.58	0.44	0.004			
					1% cpy	11880	103.0	103.6	0.6	1.30	0.06	8.86	0.77	0.010			
	- sheared in first 1.2 m with the core being highly fragmental: fault zone					11881	103.6	104.1	0.5	1.29	0.06	5.83	0.67	0.004			
						11882	104.1	104.7	0.6	.61	0.07	2.70	0.32	0.002			
	- within the fault zone, small fragments of massive PbS/ZnS occur					11883	104.7	105.2	0.5	.28	0.08	0.94	0.15	<0.002			
	- the upper contact of the zone is marked by gouge which occurs at 50°																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Quartz Vein Breccia Zone Cont'd	101.7	105.2														
	- the quartz is hematitic t/o																
	- from 102.9 to 105.2 the core is less fractured																
	- the section from 102.9-103.6 contains 20% PbS + ZnS																
	- from 103.6-105.2 the unit has significant (5%) hematite																
	- chalcopyrite, averaging .2% occurs t/o as small dissem blebs																
	- limonite occurs on fractures t/o																
	Andesite Flow	105.2	107.7														
	- fine grained, grey colored																
	- quartz veining minor																
	- fracturing occurs at 10° and 60°																
	- barren in general																
	Brecciated Andesitic Tuff & Porphyritic Flow	107.7	113.5														
	- green grey colored fine grained matrix					11884	109.0	109.4	0.40	.27	0.10	0.90	0.11	<0.002			
	with fragments					11885	109.4	109.8	0.40	.15	0.03	0.19	0.07	0.002			
	of rhyolite and quartz					11886	109.8	110.3	0.50	.22	<0.01	1.39	0.13	0.002			
	- feldspar phenocrysts occur in both the matrix and the clasts					11887	110.3	110.8	0.50	.01	0.01	0.17	<0.01	<0.002			
						11888	110.8	111.4	0.60	.08	0.02	0.55	0.07	0.014			
						11889	111.4	112.1	0.70	.03	0.02	0.30	0.02	<0.002			
	- weak qv stkwk is developed on occasion																

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		107.7	113.5	Brecciated Andesitic Tuffs & Porphyritic Flow													
				Cont'd													
				@ 107.4 10 cm qtz stkwk 1% cpy													
				108.4 .1 cm qv @ 40° 10% cpy													
				109.0-109.30: hematitic fragments occur													
				within a qtz brxx													
				109.4 .3 cm qv @ 30° 10% PbS													
				from 109.4-109.8 the unit is relatively barren													
				from 109.8-110.3 weak qv stkwk with 2% ZnS,													
				2% cpy													
				from 110.3-110.8 the unit is barren													
				from 110.8-111.4 the unit has several erratic													
				quartz veins within it													
				@ 110.9 1 cm qv @ 40° has 10% ZnS													
				110.95 .5 cm qv @ 40° has 10% ZnS													
				111.20 1 cm qv @ 80° colloform													
				111.30 1 cm qv @ 80° barren													
				from 111.4-112.1 the unit has minor quartz													
				veining which contain minor amounts of galena													
				& sphalerite with minor amounts of hematite													
		113.5	125.4	Basaltic Tuff													
				- fine - med grained, grey colored													
				- massive													
				- homogeneous													
				- minor calcite healed fractures													
				- fractured @ 20° and @ 45°													

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH		BEARING		DIP		TYPE OF SURVEY		LENGTH	119.5 m	HOLE NO.	N.M. 86-6
LOCATION	Plateau Grid		0		300°		-60	Brunton		CORE SIZE	B.Q.	SHEET NO.	1 of 12
ELEVATION	2100.3 m		-110 m		300°		-60	Acid Test		TOTAL RECOVERY	+ 95%	LOGGED BY	D. Visagie
LATITUDE	1 + 50 N									STARTED	Aug. 12/86	CLAIM	MISTY DAY
DEPARTURE	1 + 15 E									COMPLETED	Aug. 14/86	PURPOSE	Test Main Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS				RECOVERY			
		FROM	TO			SAMP	FROM	TO	LENG.	RUN	%		
	Casing	0	1.8									3.4	
												4.9	
	Maroon Tuff	1.8	3.7									6.4	
	- fine grained with some minor fragmental sections											7.9	
	- maroon colored											9.5	
	- non-mineralized											10.7	
	- fractured @ 30°											12.5	0.3
	- minor Mn stain											13.7	
												15.2	
												16.8	
	Mottled Andesite Tuff	3.7	9.8	Tr	Pyr in							18.3	
	- calcareous				calcite							19.8	
	- dark grey green colored fine grained matrix				veins							21.9	
	in which fragments upto 2 cm occur											24.4	0.3
	- fractures common @ 30°											26.2	
	- minor calcite veining @ 30° and @ 70°											29.0	
	- tr pyr within calcite veins											33.5	
	- @ 7.6 a 30 cm fracture occurs parallel to the ca											36.0	0.1
												37.5	
	Feldspar Porphyry Dyke	9.8	20.8									39.3	0.1
	- fine grained grey-green in which fresh white feldspar phenocrysts upto .2 cm occur											42.4	
												45.4	
												48.5	

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		9.8	20.8	Feldspar Porphyry Dyke Cont'd												51.5	
				- homogenous												54.9	
				- non-mineralized												57.9	
				- core is highly broken from 17.9-19.8												59.3	
				- fractures occur // to the ca and @ 50°												61.0	
				- lower contact is at 40°												64.0	
																65.0	
		20.8	36.0	Andesitic Tuff	1 PbS, ZnS		11890	22.9	23.8	0.9	-	.17	.28	.07	.002	66.8	
				- pred grey-green colored, medium grained	Pyr		11891	23.8	24.5	0.7	.02	.21		.07	.002	68.3	
				- minor fragmentation occurs t/o												69.8	
				- mineralization is confined to quartz veining												71.3	
				- quartz veining t/o												72.9	
				- fracturing occurs at 60° and at 40° as does												73.2	
				veining												74.7	
				- quartz veining is erratic and generally												77.1	
				occurs in combination with calcite												78.6	
				- within the quartz veins tr PbS can be found												79.2	
				- @ 21.7: 5 cm qtz-cal @ 40° barren												80.8	
				22.6: 3 cm qtz-cal @ 80° 1% Pbs												82.3	
				23.0: 10 cm qtz-cal @ 80° barren												83.8	
				23.4: 20 cm qtz @ 50° 1% PbS tr mal,												85.3	
				tr ZnS boxwork limonite ribboned qv												86.9	
				24.15: 10 cm qv @ 50° 1% PbS tr mal,												88.4	
				tr ZnS boxwork limonite, ribboned qv												89.3	
				24.35: 4 cm qv @ 50° similar to above												90.8	
																92.4	
																93.9	
																94.5	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesitic Tuff Cont'd	20.8	36.0													
	from 24.7-26.9: the unit is coarser grained and has larger fragments with the fragments being upto 3 cm in size. Hematite common															
	from 26.9-29.9: the unit is finer grained with small fragments of maroon tuff, minor calcite veining															
	from 29.9-32.4: the unit is uniform consisting of a medium-coarse grained fragmental andesitic tuff. Fragments are upto 3 cm. Small black fragments occur t/o. Section is almost barren with the exception of minor limonite along a fracture face fracturing occurs at 50° and at 20°															
	from 32.4-36.0: the unit is tuffaceous minor quartz vein t/o however some of the veins contain significant mineralization. Calcite veining is prominent															
	33.7: 20 cm calcite vein barren					11892	35.4	36.0	0.6	.05	1.31	2.82	.23	.012		
	35.4: 55 cm qv @ 40° 10% Zn + Pb eoliform, limonite on fractures			10%	10% Zn/Pb in 55 cm qv											
	Purple Feldspar Porphyry Andesite Flow	36.0	63.8													
	- fine grained purple colored matrix with green feldspar phenocrysts (saussuritized phenocrysts)					11893	36.0	36.7	0.7	.03	.10	.04	<.002			
	- feldspar phenocryst are upto 1 cm in size															
	- quartz veining occurs throughout															

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Purple Feldspar Porphyry Andesite Flow Cont'd	36.0	63.8													
	- fracturing occurs @ 60° and @ 40°															
	- from 36.7-39.2 quartz veining rare															
	- qv @ 39.4: 5 cm qv @ 80° colloform tr gal															
	- at 39.5: 20 cm fracutre // to ca															
	- qv @ 40.5: 2 cm pink colloform tr pyr															
	- from 40.9-42.4: unit has approximately 20% pink calcite veining @ 70°					11894	40.9	42.4	1.5	-	.04	.08	.07	<.002		
	- from 42.4-43.9: 10% pink calcite veining occurs					11895	42.4	43.9	1.5	-	.02	.04	.04	<.002		
	- at 44.6 a 2 cm qv @ 70° has tr pyr					11896	50.2	51.0	0.8	-	.10	.44	.07	.002		
	- at 45.6 10 cm qv 2% PbS															
	- minor quartz veins t/o at 50°					11897	52.3	52.8	0.5	-	.81	.92	.14	<.002		
	- at 50.2: 25 cm qv @ 70° 2% PbS															
	50.5: 10 cm qv @ 60° tr PbS, tr ZnS					11898	59.3	60.3	1.0	-	.14	.41	.11	<.002		
	52.5: 30 cm qv @ 30° 5% PbS, 2% ZnS, 2% Pyr					11899	61.4	62.5	1.1	-	.06	.09	.02	<.002		
	56.7: 2 cm qv @ 50° 2% ZnS					11900	62.5	63.4	0.9	-	.02	.05	.02	<.002		
	- minor chlorite occurs along the fracture faces					11901	64.7	65.5	0.8	-	.06	.09	.06	<.002		
	- from 59.3-60.2 the unit has ~ 20% qv															
	- @ 59.70: 1 cm qv @ 50° 15% PbS + ZnS															
	59.75: 5 cm qv @ 50° 5% PbS + ZnS															
	60.0: 5 cm qv @ 50° 5% cpy, 5% pyr, 5% PbS + ZnS															
	61.1: 15 cm qv @ 50° 2% cpy															
	61.8: 1 cm @ 80° tr pyr															
	62.0: 5 cm qtz stkwk with tr gal															

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Purple Feldspar Porphyry Andesite Flow Cont'd	36.0	63.8														
	62.8: 2 cm qtz colloform tr gal, fracturing																
	also occurs at 70° and 30° and at 50° to																
	the ca																
	- Phenocrysts less defined with depth and are																
	less altered																
	Andesite Flow	63.8	74.8														
	- fine grained, grey colored			5	2% pyr												
	- highly veined with veins predominantly				2% Pb												
	calcite and qtz-calcite. Veining accounts				1% Zn												
	for 25% of the unit					11902	65.5	66.1	0.5		.10	.22	.06	.002			
	- mineralization is related to veining					11903	66.1	66.6	0.5		.54	1.92	.23	.010			
	- contact gradational					11904	66.6	67.1	0.5		.16	.64	.16	.004			
	64.4-64.8 fracture // to ca					11905	67.1	67.8	0.7		.02	.04	.11	.004			
	@ 65.3: 5 cm qv @ 80° 1% cpy					11906	67.8	68.3	0.5		1.96	.36	.26	.004			
	65.5: 20 cm qv stkwk brxx 2% PbS					11907	68.3	69.9	0.6		.03	.06	.07	.002			
	65.8: 10 cm qv stkwk brxx 2% PbS					11908	69.9	70.6	0.7		.11	.25	.08	.002			
	66.1 30 cm qv @ 40° 5% Pb/Zn, 2% pyr					11909	70.6	72.0	0.4		.02	.06	.07	.002			
	66.9 10 cm qtz stkwk with pink calcite					11910	72.0	72.4	0.4		.34	.61	.09	.002			
	2% PbS					11911	72.4	73.1	0.7		1.54	3.10	.17	.002			
	67.8: 30 cm qv zone 5% Pb/Zn lower contact					11912	73.1	74.2	1.1		.27	.59	.09	.002			
	@ 45°					11913	74.2	74.7	0.5		.36	1.26	.10	.002			
	from 68.3-69.8 the unit has minor qv																
	@ 69.9: 20 cm qv tr gal/sphal																
	70.5: 8 cm qv @ 50° 5% PbS																
	from 70.6-81.3 quartz veining decreases but is																
	still significant																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Flow Cont'd	63.8	74.8														
	@ 71.4: 1 cm @ 40° barren																
	71.7: 3 cm @ 40° 5% pyr																
	72.1-72.3 erratic qv, 2% PbS																
	72.5: 2 cm @ 20° and @ 70° 2% PbS, 2% ZnS																
	72.75: 20 cm @ 80° 10% PbS, 10% ZnS, 5% pyr																
	73.1: 10 cm qv @ 40° 15% PbS, 5% ZnS																
	73.7: 8 cm qv @ 50° 10% PbS, 5% pyr																
	74.3: 10 cm qv @ 50° 10% PbS, 5% pyr																
	Feldspar Porphyry Andesite Flow	74.9	83.8	2	1% pyr	11914	74.7	75.4	0.7	.24	1.08	.09	.018				
	- fine grained green matrix in which feldspars				1% Zn + Pb	11915	75.4	75.9	0.5	.50	2.02	.16	.046				
	upto .4 cm occur					11916	75.9	76.3	0.4	.02	.05	.04	.002				
	- veined t/o with veining (generally pink					11917	76.3	76.8	0.5	.04	.06	.09	<.002				
	calcite and calcite-qtz) totalling ~ 20%					11918	76.8	77.4	0.6	.02	.07	.04	<.002				
	- @ 75.8: 12 cm qtz-cal @ 30° 20% PbS, 5% ZnS					11919	77.4	78.1	0.7	.03	.07	.07	<.002				
	76.2: 20 cm pink calcite @ 60° tr PbS					11920	78.1	79.0	0.9	.02	.05	.02	<.002				
	77.3: 2 cm @ 50° 2% PbS					11921	79.0	79.5	0.5	.17	.77	.05	<.002				
	77.5: 30 cm pink calcite-qtz colloform					11922	79.5	80.9	1.4	.03	.07	.05	<.002				
	1% PbS					11923	80.9	82.6	1.7	.02	.05	.05	<.002				
	78.9: 1 cm @ 60° Tr ZnS colloform					11924	82.6	84.0	1.4	.02	.04	.03	<.002				
	79.1: 25 cm @ 30° 5% PbS																
	80.3: 2 cm qtz-calcite barren																
	80.7: 1 cm qtz-calcite @ 50°																
	81.9: 2 cm qv @ 10° 5% PbS																
	- occasionally tourmaline is found within																
	the veins																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION		ALT	ASSAYS						RECOVERY			
		FROM	TO	%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
	Feldspar Porphyry Andesite Flow	83.8	86.4	2	1% pyr											
	- dark green matrix in which andesite fragments occur				1% Zn + Pb		11925	84.0	85.5	1.5		.08	.23	.08	<.002	
							11926	85.5	86.6	1.1		.01	.05	.04	<.002	
	- feldspars are upto 2 cm in size															
	- calcite-qtz inclusions occur t/o															
	- pink calcite veining occurs t/o															
	- short sections of fine grained andesite occur sporadically															
	- minor quartz + calcite veining occurs t/o															
	84.0: 1 cm qv irreg @ 40° 5% pyr, 5% ZnS															
	84.2: 2 cm qv @ 80°, 10% PbS															
	84.4: 3 cm qtz-cal @ 20° 5% pyr, 2% PbS															
	84.9: 10 cm area of qv stkwk with 2% Pb/Zn															
	Andesitic Flow	86.6	93.7	15	5% Pb		11927	86.6	87.1	0.5	.21	.77	3.42	.26	.006	
	- fine grained green colored				5% Zn		11928	87.1	87.9	0.8		.10	.89	.29	<.002	
	- highly mineralized and veined				5% Pyr		11929	87.9	88.4	0.5		.91	1.88	.29	.004	
	- fractured t/o						11930	88.4	89.1	0.7		.95	3.58	.28	.020	
	- non-bedded						11931	89.1	89.4	0.3	.22	.37	.89	.16	<.002	
	- veining occurs primarily as quartz and constitutes 60% of the unit						11932	89.4	90.0	0.6		3.44	4.35	.41	.008	
							11933	90.0	90.3	0.3				.06	<.002	
	- from 86.6-87.1: 50 cm qv with 1% cpy						11934	90.3	90.8	0.5		2.90	3.72	.23	.018	
	5% pyr, 10% PbS and 10% ZnS minor calcite veining within the section						11935	90.8	91.3	0.5	.39	.83	1.39	.23	.002	
							11936	91.3	91.8	0.5	.32	.46	.50	.17	<.002	
	@ 45° to ca						11937	91.8	93.3	1.5	.04	.07	.20	.06	<.002	
	- from 87.1-87.9: minor quartz veining occurs						11938	93.3	94.4	1.1	.10	.09	.30	.06	<.002	

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT			ASSAYS						RECOVERY				
		FROM	TO			%				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		86.6	93.7	Andesitic Flow Cont'd															
				- from 87.9-88.55: the unit is a qtz calcite vein with 5% Pb + Zn, sulphide banding occurs @ 70°															
				- from 88.55-88.7 a seam of 50% PbS, 10% ZnS, 5% pyr occurs															
				- from 88.7-89.1: highly contoured quartz vein with 10% PbS, 10% ZnS, 5% pyr, tr cpy															
				- from 89.1-89.4: andesitic tuff with weak qv stkwk															
				- from 89.4-90.0: quartz veining with 10% PbS, 10% ZnS, qv seams @ 30° to ca. At 89.4 1 cm massive galena, 89.9 2 cm massive galena occur															
				- from 90.0-90.3: andesitic tuff barren and sheared @ 40° to ca															
				- from 90.3-90.7: quartz veined with 10% Pb/Zn. At 90.3 occurs a 2 cm massive galena sphalerite seam															
				- from 90.7-90.8: 10 cm barren andesite															
				- from 90.8-91.3: 50 cm qv zone 5% PbS, 5% ZnS 1% Cu															
				- from 91.3-91.9: 10% qv stkwk with 1% Cu, 2% PbS/ZnS															
				- from 91.9-93.7: Q.V. decreases to constitute <10% of the unit															
				- from 91.8-93.5 fracturing occurs // to the ca															

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS						RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		93.7	99.0	Andesitic Tuff													
				- medium grained, brown-green colored with	10	5% PbS			11939	94.4	95.0	0.6	.07	.21	1.30	.09	.004
				black fragments (upto 1.5 cm in size)		5% ZnS			11940	95.0	95.6	0.6	.07	.48	1.54	.09	.004
				throughout (20%)					11941	95.6	96.1	0.5	.02	.06	.25	.02	<.002
				- the unit is brown colored to 95.0 where upon					11942	96.1	96.6	0.5	.25	.16	1.26	.15	.004
				it becomes green colored					11943	96.6	97.3	0.7	.10	.06	.41	.09	<.002
				- quartz veining occurs t/o with sulphide					11944	97.3	98.1	0.8		.07	.21	.06	<.002
				being related to qv					11945	98.1	98.7	0.6	.20	.11	.43	.10	<.002
				- qv occurs at													
				93.8: 1 cm @ 20° 10% cpy, 5% pyr													
				94.2: 10 cm sand seam occurs													
				94.5: 3 cm @ 50° colloform													
				94.6: 1 cm @ 20° 5% PbS													
				94.7: 22 cm @ 60° 5% PbS, 5% ZnS, 2% Pyr													
				94.9: 1 cm @ 30° 5% cpy													
				95.0: 15 cm qtz brxx 5% PbS, 5% ZnS													
				95.3: 20 cm @ 60° 10% PbS minor ZnS													
				95.5: 20 cm gossanous qv													
				96.2: 15 cm 10% PbS													
				96.6: 30 cm qtz stkwk in first 5 cm													
				10% cpy, 5% Pb/Zn													
				97.1: 3 cm @ 70° 10% Pb													
				97.2: .5 cm @ 30° 5% cpy													
				98.1: 15 cm @ 30° 5% PbS, 2% cpy													
		99.0	102.4	Feldspar Porphyry Dyke													
				- grey colored matrix in which white feldspar													
				phenocrysts upto .3 cm occur(comprising													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%
	Feldspar Porphyry Dyke Cont'd	99.0	102.4														
	approximately 50% of the unit)																
	- massive, homogeneous																
	Porphyritic Andesitic Tuff - Brxx	102.4	106.4	10	to 107.0		11946	102.4	102.8	0.4		.08	.30	.09	<	.002	
	- andesite tuff with small white feldspar						11947	102.8	103.4	0.6	.84	.14	.82	.33		.010	
	phenocryst						11948	103.4	104.0	0.6	.50	.64	1.49	.27		.006	
	- highly veined to 107.5 with the section						11949	104.0	104.8	0.8	.35	1.77	8.52	.55		.024	
	averaging >50% qv						11950	104.8	105.3	0.5	.03	.23	.77	.09		.002	
	- mineralization is related to quartz veining						11951	105.3	105.9	0.6	.73	2.10	6.10	.78		.004	
	102.6: 10 cm qtz-calc veins barren						11952	105.9	106.6	0.7	.60	.24	2.32	.39		.006	
	102.9: 50 cm qtz vein 1% cpy, 5% ZnS vein						11953	106.6	107.7	1.1	.08	.19	.92	.11		.049	
	@ 50°																
	103.7: 40 cm qv 10% ZnS, 2% cpy																
	104.3: 60 cm qv zone 10% ZnS																
	@ 104.6 10 cm zone massive galena/ sphalerite ~ 60/40																
	104.9: 40 cm sheared andesite fine grained green																
	105.3-106.8: Qtz veining with 10% ZnS, 1% cpy, 5% hematite veining at 40°																
	Felsic Porphyry Flow?	106.4	115.4	1	pyr, cpy,												
	- light green fine grained colored with small <.2 cm irregular white phenocrysts				PbS		11954	107.7	108.7	1.0	.17	.10	.46	.10		.002	
	- relatively homogeneous						11955	108.7	110.2	1.5	.07	.01	.19	.04		<.002	
							11956	110.2	111.2	1.0	1.09	.09	.01	.18		<.002	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Felsic Porphyry Flow? Cont'd	106.4	115.4													
	- silicic															
	- from 106.2-106.4 the core is fractured					11957	115.4	116.2	0.8	.06	.05		.05	<.002		
	- quartz veining is <10%															
	- qv @															
	108.3: 10 cm qv breccia @ 50° 5% pyr, 2% cpy															
	108.5: 5 cm @ 40° 5% pyr															
	109.0: .5 cm @ 20° 5% pyr															
	110.1: 1 cm @ 5° 2% cpy erratic															
	110.4: 15 cm stkwk, K-spar alt															
	110.7: 10 cm stkwk, K-spar alt															
	- from 111.2-112.1 the unit is a fine grained andesite (dyke?) that is green colored, fine grained, calcareous massive and non-mineralized, upper contact occurs at 70° while the lower contact is shattered															
	- qv @ 113.1: 2 cm @ 70° banded colliform															
	113.6: 2 cm @ 70° 1% Zn/Pb															
	113.7: 1 cm @ 70° 1% cpy															
	114.0: 1 cm @ 10° 5% cpy, 1% PbS															
	Andesite Tuff	115.4	116.1													
	- fine grained, dark grey colored															
	- upper contact broken lower at 30°															
	- minor qv with variable mineralization															

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT		ASSAYS							RECOVERY			
		FROM	TO			%		SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		115.4	116.1	Andesite Tuff Cont'd														
				- qv @ 115.4: 2 cm @ 60° 2% Zn														
				115.5: 3 cm @ 60° 15% Zn														
				116.0: 2 cm @ 60° 5% cpy, 1% ZnS														
				116.2 - minor fracture with cpy														
		116.1	118.6	Andesite (Dyke?)														
				- similar to 111.2-112.1														
				- weakly calcareous														
				- massive non-mineralized														
		118.6	119.5	Andesite Tuff														
				- similar to 115.4-116.1														
				119.5 E.O.H.														

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LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	101.2 m	HOLE NO.	N.M. 86-7
LOCATION	Plateau Grid	0	-140°	-45	Compass	CORE SIZE	B.Q.	SHEET NO.	1 of 9
ELEVATION	2102.5 m	-96.6m	140°	-52°	Acid Test	TOTAL RECOVERY	+95%	LOGGED BY	D. Visagie
LATITUDE	0 + 45N					STARTED	Aug. 14/86	CLAIM	MISTY DAY
DEPARTURE	0 + 58W					COMPLETED	Aug. 16/86	PURPOSE	Test Twilight Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM m	TO m			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Casing	0	1.8													4.3	
																6.1	
	Agglomerate	1.8	7.4													8.8	
	- light green, fine grained, moderately siliceous matrix with rounded to sub-angular fragments (upto 2 cm)															11.0	
	- sheared in part															12.2	
	- relatively massive with only minor calcite stringers															15.2	
	- barren															17.4	
	- short inclusion of andesite tuff															20.4	
	- at 5.9 40 cm andesite inclusion @ 20°															23.5	
																26.8	
																29.6	
																30.5	
																32.3	
	Andesite Flow	7.4	8.6													33.8	
	- fine grained															35.4	
	- green-grey colored															36.9	
	- massive															38.4	
	- fractures occur @ 45°															39.9	-0.1
	- minor calcite stringers: barren															41.5	-0.2
	- calcareous															43.0	
																44.5	
																46.0	
																47.9	-0.2

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS				RECOVERY		
		FROM	TO				SAMP	FROM	TO	LENG	REUN	%	
		8.6	14.1	Andesitic Lapilli Tuff								49.4	
				- green-reddish green colored								50.9	
				- medium grained								52.4	
				- clasts upto 3 cm occur t/o. Clasts are red								53.6	
				and black colored								55.2	
				- weak bedding @ 70°								55.8	
				- veining absent								56.4	
				- mottled appearance, massive								57.0	
												57.3	-0.1
		14.1	20.4	Andesitic Agglomerate								57.9	
				- light green to reddish green matrix with								59.7	
				variable composition fragments								61.3	-0.1
				- matrix is siliceous								61.6	
				- fragments range upto 4 cm in size and								63.1	
				constitute approximately 30% of the unit								64.6	
				- minor calcite veining occurs sporadically								67.7	-0.2
				t/o generally as fracture healings								70.7	
				- fracturing occurs at 40°-60° to the ca								73.8	
				- lower contact is broken								76.8	
												80.8	
		20.4	26.6	Maroon Tuff								83.6	
				- generally maroon colored fine grained								86.9	
				although minor sections are coarse grained								89.9	
				- barren								93.0	-0.1
				- no veining								96.0	
				- lower contact gradational								97.5	
												98.1	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS				RECOVERY			
		FROM	TO			SAMP	FROM	TO	LENG	GR	RE	RUN	%
	Andesitic Tuff/Flow	26.6	33.9									99.7	
	- fine grained, grey-green colored											101.2	
	- minor <5% calcite veining												
	- occasional limonite along fractures												
	- most fractures are calcite healed												
	- minor mafic fragments												
	Felsic Tuff	33.9	36.3										
	- fine grained, light grey siliceous												
	- massive, lower contact irregular												
	- no veining present												
	- barren												
	Andesitic Tuff	36.3	41.0										
	- similar to 26.6-33.9												
	Andesitic Tuff	41.0	43.4										
	- similar to 26.6-33.9, however the unit has a reddish tinge												
	- minor non-tinged sections												
	Andesitic Tuff	43.4	45.0										
	- med grained												
	- light green colored												
	- weak chlorite alt												
	- minor calcite veining												
	- fracturing occurs @ 20° & @ 50°												

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS				RECOVERY		
		FROM	TO			%	SAMP	FROM	TO	LENG	RUN	%
	Andesitic Tuff Cont'd	43.4	45.0									
	- fractures generally healed by calcite											
	- traces of hematite t/o											
	Maroon Tuff	45.0	47.3									
	- similar to 20.4-26.6											
	- fracturing occurs @ 30° & @ 50° to the ca											
	- minor epidote alteration											
	Andesitic Tuff	47.3	48.9									
	- med grained											
	- similar to 43.4-45.0											
	- weakly calcareous											
	- grad lower and upper contacts											
	- minor hematite stringers with calcite											
	Andesitic Tuff	48.9	55.6	2	2% dissem							
	- similar to 26.6-33.9				pyr							
	- calcite stringers occur t/o											
	- fracturing @ 80° and @ 45°											
	- in part sheared											
	51.7-52.4 sheared and fractured											
	52.4: 1 cm fault gouge											
	53.2-53.6 core highly fractured											
	53.6-55.6 rock less fractured											

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG	Pb	Zn	Ag	Au	Cu	RUN	%
	Shear Zone	55.6	58.2	5	4% pyr												
	- highly faulted section of core with the result everything is small fragments				1% Pb/Zn	11958	55.2	55.8	0.6	<.01	.03	.03	<.002				
	- to 56.4 the unit is predominantly andesitic tuff whereas from 56.4-57.3 the core is felsic agglomerates in composition					11959	55.8	56.4	0.6	.04	.11	.01	<.002				
	- at 55.8 the unit is a 10 cm piece of brxx qv					11960	56.4	57.3	0.9	.10	.62	.03	<.002				
	- from 56-56.5 the core is all gouge and fragments with approximately 5% of the section being quartz vein fragments with traces of sphalerite					11961	57.3	58.2	0.9	.29	.79	.21	.002				
	- at 57.0 a 2 cm qv has 10% ZnS																
	- from 57.3-58.2 the unit is a andesitic tuff similar to previous																
	- at 57.5 a 3 cm qv @ 80° has 5% pyr, 10% ZnS																
	- at 57.5-57.7 a 20 cm gouged zone exist																
	Quartz Vein - Brxx	58.2	59.7	10	sphalerite	11962	58.2	58.7	0.5	4.68	7.05	1.08	.012	.24			
	- large well mineralized quartz vein in which minor fragmentation is observed			5	galena	11963	58.7	59.2	0.5	1.03	3.15	.71	.004	.45			
	- upper contact @ 30°				chalcopyrite	11964	59.2	59.7	0.5	2.37	13.10	1.38	.004	.70			
	- fine grained sphalerite (10%) and galena (5%) occur t/o as does minor chalcopyrite			5	pyrite												
	~ 25%, 5% pyr also occurs																
	- sphalerite is cream colored																
	- chalcopyrite is associated with pyrite																

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS							RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		59.7	89.4	Andesite Tuff	4	3% pyr		11965	59.7	61.3	0.6	.02	.10	.30	.11	.002		
				- somewhat similar to 26.6-33.9		1% Pb + Zn		11966	61.3	62.5	0.8	.08	.08	.50	.19	.002		
				- greenish grey, fine grained				11967	62.5	63.9	1.4		.03	.21	.09	.002		
				- 30% veining throughout predominantly calcite				11968	63.9	64.9	1.0	.16	.08	.30	.11	.002		
				and qtz-calcite				11969	65.7	66.3	0.6		.15	.72	.35	.002		
				- mineralization with the exception of pyrite				11970	66.3	67.3	1.0		.03	.22	.14	.002		
				is related to veining				11971	67.3	68.9	1.6		.03	.07	.16	.002		
				- veining is generally erratically distributed				11972	68.9	69.4	0.5		M I S S I N G					
				and has irregular angles on occasion				11973	69.4	70.4	1.0		.24	1.34	.35	.002		
				- from 59.7-61.3: 20 % qtz-calc veining stkwk				11974	70.4	72.2	1.8				.09	.002		
				occur with 5% dissem pyr and 1/2% Zn				11975	72.2	73.8	1.6		.05	.19	.11	.002		
				- from 61.3-61.6: the core is heavily				11976	76.0	77.2	1.2		.15	.68	.20	.002		
				fractured. At 61.4 a 5 cm qv has 5% pyr and														
				tr ZnS														
				- from 61.6-63.1: the unit has 20% qtz-calcite														
				stkwk. At 62.1 a 1 cm qv at 5° has 10% cpy,														
				5% PbS. The vein is exposed for 10 cm at a														
				core axis of 10° and is displaced by a														
				fracture at 30°														
				- At 62.7: 2 cm qv @ 5° contains tr ZnS,														
				2% pyr														
				- from 63.1-63.9: veining is minor														
				- from 63.9-65.5: the unit has 20% pink														
				calcite veining in which 2% cpy and 1% Zn														
				occur in a vein stockwork														
				- 65.5-65.7: the unit has minor veining														
				- QV is erratic from 65.7. Significant veins														
				occur at:														

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Tuff Cont'd	59.7	89.4													
	65.8: 1 cm @ 10° ribboned for 10 cm has 5% cpy, 10% pyr, 5% Pb/Zn															
	66.1: 20 cm qtz-cal brxx vein with 1% Pb, 1% Zn, 5% pyr lower contact @ 30° to the ca															
	- from 67.3-68.9: veining is absent															
	68.9: 15 cm qtz carb @ 40° with 2% PbS, 2% ZnS weakly colloform															
	- from 69.4-70.4: qv occur @ 5° to the ca on occasion brxx. Contains 5% Pb Pyr, 1% PbS, 1% ZnS															
	- from 70.4-70.9: veining is minor															
	- from 70.9-71.8: the unit has a weak calcite- qtz stockwork															
	- at:															
	72.2: 5 cm calcite vein @ 30° has 5% PbS															
	72.8: 4 cm calc vein @ 60° has 5% pyr															
	73.5: 2 cm @ 10° has 5% pyr															
	73.7: 10 cm @ 40° has 5% pyr, 2% Pb/Zn															
	- from 73.8-74.8 the rock is highly fractured with faulting continuing intermittently to 77.0															
	- at 76.1: 1 cm qtz-cal vein has 5% pyr, 10% Zn															
	76.5: 10 cm qtz-cal stkwk tr pyr tr PbS															
	77.0: 3 cm qv erratic @ 20° 5% ZnS/PbS															
	77.1: 1 cm qv @ 10° 8% cpy, 10% pyr															

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT		ASSAYS							RECOVERY		
		FROM	TO		%				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		59.7	89.4	Andesite Tuff Cont'd														
				- from 78.1 quartz calcite veining is generally minimal although the veins are still mineralized. The quartz veins and fractures are commonly developed at 10° to the ca. Significant mineralized quartz veins are listed below:														
				80.0: 1 cm @ 10° 10% Pb, tr cpy					11977	85.9	86.9	1.0		.10	1.11	.11	.002	
				81.1: 1 cm @ 10° 20% Pb					11978	86.9	88.4	1.0	M I S S I N G					
				83.3: 2 cm @ 10° 10% Pb, Zn														
				84.2: 40 cm qtz-calc vein // to ca														
				85.9: 20 cm @ 30° 10% PbS, 10% Zn														
				87.5: 1 cm @ 40° 25% PbS														
				88.3: 1 cm @ 80° 2% PbS														
				88.4: 1 cm @ 45° 10% PbS														
		89.4	91.4	Calcareous Mottled Andesite Tuff														
				- dark grey with reddish tinge														
				- fine grained														
				- mottled														
				- minor qv														
				- 81.2: 1 cm qv @ 10° barren														
				- unit is barren non-mineralized														

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO				%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		91.4	99.3	Andesitic Tuff - Reddish Tinged	1	dissem pyr	11979	93.7	94.2	0.5		.01	.04	.03	.002		
				- generally fine grained tuff with minor porphyritic tuff													
				- minor hairline fracture													
				- reddish tinged t/o													
				- minor calcite veining occurs t/o.													
				Significantly mineralized quartz veins rare													
				- at 93.8: 20 cm qv brxx @ 20° minor hematite													
				- from 96.0-97.1 the unit is greenish colored													
				- at 99.1 a 1 cm qv @ 20° has 2% pyr													
		99.3	101.2	Porphyritic Andesitic Tuff													
				- fine grained dark grey green colored with small calcite phenocrysts													
				- barren													
				- mottled in appearance													
				- veining minor													
				E. O. H. 101.2 m													

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	55.2 m	HOLE NO.	N.M. 86-8
LOCATION	Plateau Grid	0	292°	-45°	Brunton	CORE SIZE	BQ	SHEET NO.	1 of 5
ELEVATION	2132.9 m	-55.2 m	292°	-48°	Acid Test	TOTAL RECOVERY	>95%	LOGGED BY	D. Visagie
LATITUDE	2 + 15 N					STARTED	Aug. 17/86	CLAIM	MISTY DAY
DEPARTURE	1 + 46 W					COMPLETED	Aug. 17/86	PURPOSE	Test Splay Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM m	TO m			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Casing	0	1.8												4.6	2.8
															5.8	1.2
	Andesitic Tuff	1.8	4.5												8.2	2.4
	- fine grained green-grey matrix in which														9.5	1.1
	angular to sub-rounded fragments upto 1 cm														11.0	1.5
	occur														14.0	3.2
	- fragments have varied composition, generally														14.6	0.7
	maroon tuff														16.2	1.5
	- fracturing occurs @ 5° and @ 50°														18.6	2.8
	- barren														20.7	2.5
	- minor calcite veining														23.2	2.5
	- in part the matrix is calcareous														24.7	1.2
															26.5	2.0
	Coarse Andesitic Tuff	4.5	6.5												28.5	1.9
	- fragments, rounded and angular, upto 6 cm														30.8	2.7
	in size occur in a fine grained greenish-red														33.8	3.1
	matrix														36.6	3.1
	- small <.05 cm orange speckles occur t/o														38.7	2.1
	- barren and non-veined														41.1	2.5
	- contacts are gradational														43.9	2.9
															46.9	3.2
	Andesite Tuff	6.5	11.6												49.1	2.3
	- green, fine grained matrix with small, <.2														52.1	3.2
	cm, calcite inclusions (white)														55.2	3.1

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT		ASSAYS						RECOVERY				
		FROM	TO		%				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		6.5	11.6	Andesite Tuff Cont'd															
				- minor calcite veining															
				- occasional short sections of a heavily fragmental tuff															
				- appears foliated in part @ 20° to ca															
				- barren															
		11.6	12.4	Andesitic Tuff															
				- fine grained, green colored															
				- massive non-mineralized															
				- contact irregular @ 40° to the ca															
		12.4	13.8	Andesitic Tuff															
				- similar to 1.8-4.5															
				- barren & homogenous															
				- lower contact gradational															
		13.8	14.7	Maroon Tuff															
				- fine grained, maroon colored															
				- non mineralized															
				- fractured irregularly @ 20°															
				- contacts gradational															
		14.7	16.3	Andesitic Tuff															
				- fine grained matrix greenish grey colored															
				in which fragments upto 1 cm in size															
				comprise 60% of the unit															

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT			ASSAYS						RECOVERY		
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
		14.7	16.3	Andesitic Tuff Cont'd													
				- maroon tuff comprises the majority of fragments													
				- fragments are generally rounded													
				- lower contact is @ 30° to ca													
				- barren													
		16.3	18.2	Maroon Tuff													
				- fine grained maroon colored													
				- calcite stringers generally @ 60° occur t/o but total <5% of the unit													
				- barren													
				- lower contact irreg sharp @ 20°													
				- minor limonite occurs along a fracture @ 17.5													
		18.2	24.9	Porphyritic Andesite Flow Sill?													
				- fine grained green colored with upto 1 cm calcite inclusions													
				- calcareous matrix													
				- homogenous													
				- fracturing occurs at 70° & 20°													
				- calcitic phenocrysts comprise 30% of the unit													
				- minor biotite alteration													
				- barren													
				- from 23.6-24.9 the unit is fractured, limonite and manganese stained													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY							
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Felsic Agglomerate	24.9	27.7	2	pyrite		11980	25.0	26.5	1.5					.09	<.002		
	- fine grained felsic (rhyolite) matrix in variable composition rounded fragments upto 3 cm occur						11981	26.5	27.7	1.2					.23	.002		
	- unit is highly sheared to 26.0 with at 24.9 a 20 cm gouge zone stain occurs on the core and along the fracture faces																	
	- minor qv stkwk t/o																	
	- 2% dissem pyr t/o																	
	Brecciated Quartz Vein	27.7	29.0	5	~ 50/50 PbS		11982	27.7	28.4	0.7		.32	.63	2.33	.008			
	- singular quartz vein which has been brecciated and as a consequence has fragments upto 5 cm within it (generally of andesitic tuff and quartz)				ZnS		11983	28.4	29.0	0.6		3.34	4.79	4.43	.010			
	- 10% dissem pyr occurs t/o																	
	- most of the mineralization occurs in the first and last 30 cm of the section																	
	- in the first 30 cm occurs 3% Zn, 5% Pb while in the last 30 cm occurs 8% Pb and 1% cpy																	
	- upper contact is a 60° while the lower is fractured																	
	Andesite	29.0	33.1															
	- dark grey green colored																	
	- med grained																	
	- calcareous (strongly)																	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Cont'd	29.0	33.1														
	- minor fractures with calcite healing occur @ 40° to the ca																
	- barren																
	- mottled appearance with black fragments																
	Quartz Calcite Vein	33.1	35.4	3	2% PbS	11984	33.1	34.0	0.9		.12	.21	1.15	.004			
	- in part brxx				1% ZnS	11985	34.0	34.7	0.7				1.90	.002			
	- predominantly quartz to 34.1 then calcite					11986	34.7	35.4	0.7		.21	.52	.83	.002			
	- mineralization generally occurs within the quartz veining consisting of 2% PbS, 1% ZnS																
	- in the calcite vein section occurs 1% Zn tr Pb, tr cpy																
	- @ 34.8 occurs a 20 cm andesite dyke																
	Andesite	35.4	36.6														
	- similar to 29.0-33.1																
	Calcite Porphyry Andesite Sill/Flow?	36.6	55.2														
	- dark green colored																
	- calcite blebs occur t/o																
	- homogenous																
	- fine grained matrix, calcite blebs upto .5 cm (with minor feldspar phenocrysts that are occasionally weakly altered)																
	- barren																
	- minor veining predominantly calcite @ 55°																
	E. O. H.		55.2														

NEWMONT EXP OF CANAL LTD

DRILL HOLE RECORD

NEW MOON PROJECT

LEVEL	Surface	DEPTH	0	BEAR. 3	292°	DIP	-70°	TYPE OF SURVEY	Compass	LENGTH	49.4 m	HOLE NO.	N.M. 86-9
LOCATION	Plateau Grid	ELEVATION	2123.1 m		292°		-71°		Acid Test	CORE SIZE	BQ	SHEET NO.	1 of 4
LATITUDE	1 + 17 N	DEPARTURE	1 + 25 W							TOTAL RECOVERY	+ 99	LOGGED BY	D. Visagie
										STARTED	Aug. 17/86	CLAIM	MISTY DAY
										COMPLETED	Aug. 18/86	PURPOSE	Test Splay Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM m	TO m			%	SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%
	Casing	0	4.0													4.9	-0.
	Fine Grained Andesite Tuff	4.0	25.6													6.7	-0.
	- fine grained green colored															8.2	
	- calcite veining common with the veining being confined to fracture faces															9.1	
	- calcite generally white colored															11.0	
	- fracturing common @ 40° & 80° to the ca															12.5	
	- trace dissem pyrite															14.0	
	- @ 8.4: 5 cm erratic qv barren															15.5	
	10.2: 5 cm qv @ 60° colloform 5% pyr															17.1	
	- from 11.0 the unit is grey colored fine grained with fractures @ 10°. Erratic															18.6	
	qv-calc veining occurs t/o, homogenous															18.9	
	@ 12.1: 10 cm stkwk with tr PbS															20.4	
	17.7: 1 cm qv with tr PbS															21.0	
	18.1: 3 cm qv @ 40° colloform															22.3	-0.
	- from 23.7-24.5 the core is fractured and has a slight brown coloration															22.9	
	- upto 12 m the unit is light brown tinged and is fine grained, whereas after 12 m the unit is coarse grained and has calcite blebs															17.7	
																29.0	-0.1
																29.6	
																30.2	
																30.5	
																32.6	

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS						RECOVERY				
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		25.6	26.4	Maroon Tuff													35.0	
				- maroon colored													36.0	
				- fine grained matrix with fragments upto 1 cm													39.0	-0.1
				- weakly siliceous													41.5	
				- upper contact occurs @ 80°													43.3	
				- barren													44.2	
				- calcareous													45.4	
				- lower contact broken													46.9	
				- erratic calcite stringers t/o													47.9	
																	49.4	
		26.4	30.7	Andesite Tuff ?														
				- light grey green colored, fine grained														
				- highly fractured t/o					11987	27.7	28.4	0.7		.36	.87	.52	.004	
				- qv occurs sporadically					11988	28.4	29.0	0.6		.17	2.22	.95	.004	
				- @ 27.8: 50 cm fault gouge minor qv frags					11989	29.0	29.6	0.6		.10	.27	.15	.004	
				28.6: 20 cm qv 10% PbS, 5% pyr, 5% Zn					11990	29.6	30.2	0.6		.11	.30	.20	.002	
				29.1: 40 cm qv 5% PbS, 3% Pyr					11991	32.6	33.9	1.3		.04	.14	.09	.003	
				- from 29.5-30.2 the unit is siliceous and has a weak qv stkwk with 1% PbS, 1% ZnS. The unit is fractured and has limonite staining throughout this section														
				- from 30.2-30.7 the unit is highly fractured														
		30.7	32.4	Andesite Dyke ?														
				- fine grained, grey colored														
				- massive														
				- homogenous														

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Dyke ? Cont'd	30.7	32.4														
	- calcareous																
	- fractured @ 50° & @ 70°																
	- minor calcite healing fractures																
	Andesite Tuff	32.4	49.4														
	- similar to 26.4-30.7					11992	33.9	34.6	0.7		.04	.22	.20	.002			
	- fine grained, grey colored																
	- fractured t/o																
	- tuffaceous fragments are upto .5 cm																
	- in the first 1.5 m the unit is siliceous																
	- fractured t/o @ 20° to the ca																
	- calcite-quartz (pink calcite) veining totals																
	~ 35% of the unit																
	33.0: 1 cm cal-qtz vein @ 0° for 15 cm 5% pyr																
	33.9: 65 cm cal-qtz vein upper contact @ 10°																
	lower @ 80° which contains 2% pyr,																
	1% Pb/Zn. In part colloform																
	34.4: 2 cm qv @ 70° colloform																
	34.8: 2 cm qv @ 80° 5% Pb/Zn																
	36.8: 25 cm pink calcite vein																
	37.8: 60 cm calcite qv @ 80°-30°; .25% cpy,																
	2% ZnS, 1% pyr																
	- from 39.0-39.7 the unit is highly fractured																
	t/o. From 39.0-40 the unit is siliceous																
	and light grey colored																
	- @ 39.8: 5 cm qtz-calc qv @ 40° 2% pyr, Tr ZnS																

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		32.4	49.4	Andesite Cont'd													
				40.1: 70 cm qtz-calc qv @ 1% Pb/Zn, .1% Cu													
				40.9: 30 cm qtz-calc qv @ 70°													
				- from 44-49.4 the unit highly fractured with qtz-calcite veining occurring t/o													
				44.1: 2 cm @ 80° colloform tr Pb													
				44.3: 5 cm @ 80° 2% Zn, 1% pyr													
				44.9: 10 cm @ 70° colloform 2% pyr tr Pb/Zn													
				45.4: 15 cm @ 70° colloform tr Pb/Zn													
				45.5: 1 cm gouge													
				45.6: 80 cm calcite qtz vein lower contact @ 10°. While the vein is colloform @ 60°, 2% pyr tr Pb tr Zn													
				- from 46.4 qtz-carbonate veining decreases @ 47.3: 5 cm gouge													
				E. O. H. 49.4													

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	63.1 m	HOLE NO.	N.M. 86-10
LOCATION	New Moon	0	320°	-45°	Brunton	CORE SIZE	BQ	SHEET NO.	1 of 6
ELEVATION		-55.8°	320°	-46°	Acid Test	TOTAL RECOVERY	> 95%	LOGGED BY	D. Visagie
LATITUDE	1 + 30 S					STARTED	Aug. 18/86	CLAIM	LUNAR 1
DEPARTURE	0 + 14 W					COMPLETED	Aug. 19/86	PURPOSE	Test Misty Day Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%
	Casing	0	1.8												4.0	-0.1
															4.6	
	Andesite Flow	1.8	15.3												5.8	
	- fine grained, grey green colored					11999	2.0	4.3	2.3		.01	.04	2.01	.008	7.3	
	- relatively homogenous					12000	4.3	5.8	1.5		.10	.04	1.31	.006	7.9	
	- calcite veining t/o totalling approximately														9.5	
	30% of the unit					13501	9.5	11.0	1.5				1.09	.002	11.0	
	- veins generally occur @ 50° and @ 0°														13.1	
	- veins are occasionally vuggy and are usually barren														15.2	
															18.0	
	- tr dissem pyrite occurs within the host														20.7	
	- from 1.8-3.4: the unit is dominated by a calcite quartz vein which exhibits various orientations particularly at 0°. Minor boxwork occurs at 2.3														23.8	
															25.3	
															28.4	
															30.2	
	- at 4.6: 3 cm pink calcite @ 10° with 3% pyr														33.3	
	- the unit in places is brecciated														36.3	
															39.3	
	Andesite-Calcite Breccia	15.3	20.7												41.8	
	- maroon tuff fragments along with green andesite fragments upto 5cm set in a calcite matrix					13502	17.5	19.6	2.1				.13	<.002	44.5	
															47.8	
															50.3	
	- fracturing occurs t/o at 10° and @ 30°															

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS						RECOVERY				
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		15.3	20.7	Andesite-Calcite Breccia Cont'd														
				- minor tr pyr														
				- approximately 40% calcite t/o														
		20.7	28.1	Andesite Flow														
				- grey, fine grained														
				- veining is <5% and is predominantly calcite with minor quartz														
				- fractures occur @ 10° and @ 30° to the ca														
				- hematite staining on occasion is developed along the fracture faces														
				- minor epidote is randomly developed														
				- in part calcareous														
				- minor hematite within the calcite veins														
				- calcite veining is erratic														
				- @ 26.8 a 4 cm hematite qv @ 30° exist														
		28.1	30.2	Calcitic Porphyritic Andesite Flow														
				- fine grained, green colored with small calcite phenocrysts														
				- calcareous														
				- sheared in the first 50 cm														
				- 1 cm gouge @ 28.6														
				- minor chlorite occurs along the fracture faces														
				- tr dissem hematite and pyrite														

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY							
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Flow	30.2	47.4				13503	30.2	31.2	1.0					.74	.002		
	- similar to 15.3-20.7																	
	- calcite veining occurs sporadically t/o																	
	totalling 5% of the unit																	
	- veining is generally a combination of																	
	calcite and quartz																	
	- veining is erratic																	
	- @ 30.2: 20 cm cal-qtz @ 45° hematite																	
	36.1: 2 cm cal-qtz @ 10°																	
	- minor hematite blebs t/o																	
	- 38.5: 2 cm cal-qtz @ 30° 10% pyr, 5% PbS/ZnS																	
	39.7: 2 cm cal-qtz @ 80° colloform																	
	41.0: calcite vein parallel to the ca vein						13504	35.7	36.7	1.0					1.36	<.002		
	goes from 10 - 80° to the ca for 20 cm						13505	38.3	39.8	1.5					.89	<.002		
	42.2: speckled calcitic andesite for 20 cm																	
	42.9: 30 cm cal-qtz @ 30° 5% pyr tr PbS						13506	41.0	42.0	1.0					.60	<.002		
	42.3: 1 m cal-qtz vein // to the ca. Minor						13507	42.9	44.3	1.4					3.79	.014		
	cherty fragments with hematite occur																	
	t/o																	
	46.4: 2 cm cal-qtz vein @ 60° tr pyr																	
	47.2: 8 cm cal-qtz vein @ 45° 5% pyr tr gal																	
	Quartz-Calcite Brecciated Andesite	47.4	49.1			1	pyr								1.95	.012		
	- fragments upto 5 cm of andesite occur in a																	
	matrix of quartz and calcite																	
	- tr hematite occurs within the matrix																	
	- limonite occurs on occasion along the																	
	fracture faces																	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Quartz-Calcite Brecciated Andesite Cont'd	47.4	49.1														
	- @ 48.1 a 40 cm zone of highly fractured core occurs																
	- 5% pyrite occurs disseminated within the tuff					13509	48.2	49.1	0.9					2.80	.018		
	- approximately 60% of the unit consists of quartz and calcite																
	- in the last 1 m the unit has approximately 80% quartz-calcite																
	Calcite-Quartz Vein	49.1	55.2	10	5% pyr,	13510	49.1	50.0	0.9		.54	1.47	57.70	.066			
	- section is one vein consisting of 70% calcite and 30% quartz				5% Pb/Zn	13511	50.0	50.5	0.5		1.22	2.48	51.60	.122			
	- upper contact is @ 40° and is sharp irregular					13512	50.5	51.3	0.8		.26	.61	4.05	.062			
	- within the first 20 cm the unit contains ~ 30% fragments					13513	51.3	52.1	0.8		1.22	5.13	63.80	.155			
	- core axis readings vary from 10°-45°					13514	52.1	52.9	0.8		.42	.98	17.20	.040			
	- mineralization consists of fine grained PbS and pyrite erratically distributed t/o					13515	52.9	53.9	1.0		.55	1.49	28.00	.058			
	- the unit to 50.0 is well mineralized with 5% PbS, 5% pyr. Calcite occurs to @ 49.1, minor native silver occurs as a shiny striated fragment. Minor chalcopyrite is also disseminated					13516	53.9	55.3	1.4		.68	2.77	46.70	.056			
	- from 50.0-50.6 the unit suggests by colloform bedding that it occurs @ 40° to the ca.																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Calcite-Quartz Vein Cont'd	49.1	55.2														
	Fine grained galena totals 5% t/o																
	- 50.6-50.8: calcitic veining tr pyr																
	50.8-51.4: 5% Pb, 5% pyr, 2% Zn, tr hematite																
	51.4-52.0: Vein is less mineralized primarily pyrite, colloform // to the ca, grey																
	andesite seam occurs // to the ca for 40 cm																
	52.0-52.6: vein is brecciated with 5% pyrite, 1% PbS, 1% ZnS, fragments upto 3 cm are all altered																
	52.6-52.9: 10% pyr, 2% PbS, tr ZnS vein is erratic																
	52.9-53.3: Qtz calcite vein, contact @ 50° generally barren																
	53.3-54.5: colloform veining // to the ca for 1-2 m, minor hematite tourmaline																
	54.5-55.0: well mineralized with 5% PbS, 5% pyr tr Zn colloform @ 50°																
	55.0-55.3: fractured except for the last 10 cm lower contact @ 40°, 5% pyr																
	Andesite Flow	55.2	58.7	2 pyrite		13517	55.3	56.8	1.5		.09	.17	2.46	.022			
	- fine grained, grey-green with a reddish tinge					13518	56.8	58.5	1.7		.07	.13	1.49	.008			
	- veining decreases significantly																
	- in the first 20 cm the unit has 10% pyrite while the rest has 2%																
	- calcite lined fractures																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Flow Cont'd	55.2	58.7														
	- fractures occur at 50° and @ 70°																
	- minor tuff fragments occur t/o																
	- from 57.0 unit is reddish tinged																
	@ 56.4: 30 cm colloform calcite vein @ 30°																
	5% pyr, minor tourmaline lower contact																
	is irregular @ 10°																
	@ 57.6: 3 cm qv @ 50° 2% pyr tr gal																
	@ 58.3: 20 cm colloform calcite vein irreg																
	@ 30° 5% pyr tr gal																
	Calcite Andesite Porphyry Flow/Sill	58.7	63.1														
	- fine grained, dark green colored with																
	feldspar phenocrysts upto .5 cm																
	- minor calcite veining																
	- barren																
	- minor round fragments of a porphyry tuff																
	unit																
	- fractures are limonite stained occasionally																
	- barren, homogeneous																
	63.1 E. O. H.																

NEWMONT EXP. OF CANADA LTD

DRILL HOLE RECORD

NEW MOON
PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	61.0 m	HOLE NO.	N.M. 86-11
LOCATION	Misty Day Grid	0	145°	-45	Brunton	CORE SIZE	BQ	SHEET NO.	1 of 5
ELEVATION		-61	145°	-44	Acid Test	TOTAL RECOVERY	> 95%	LOGGED BY	D. Visagie
LATITUDE	2 + 58 S					STARTED	Aug. 19/86	CLAIM	LUNAR 1
DEPARTURE	1 + 63 W					COMPLETED	Aug. 19/86	PURPOSE	Test Misty Day Zone

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM m	TO m			SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%	
	Casing	0	1.2														
	Maroon Tuff (4)	1.2	16.6														
	- generally fine grained with fragments upto 1 cm																
	- maroon colored																
	- in the first 1 m calcite-quartz breccia occurs t/o																
	- fracturing occurs at 30° & @ 60°																
	- calcareous																
	- from 3.9-6.1 the unit is typically coarse fragmental with fragments being upto 2 cm in size																
	- short 30 cm zone @ 7.1 which is green colored																
	- from 6.1 the unit is finer grained homogenous																
	- lower contact is at 50°																
	Andesitic Tuff (2)	16.6	19.1														
	- med grained with approximately 20% calcite fragments with the fragments being upto 2 cm																

DEPTH meters	GEOLOGICAL INTERVAL	GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT		ASSAYS							RECOVERY				
				FROM	TO	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	16.6 - 19.1	Andesitic Tuff Cont'd															
		- matrix is green-black colored															
		- the unit is moderately calcareous															
		- fracture occurs @ 45° and are dry															
		- minor erratic calcite stringers															
		- at 18.7: 10 cm cal-qtz vein @ 80°, erratic barren															
	19.1 - 21.0	Andesite Tuff															
		- fine grained, green colored reddish tinge															
		- massive homogenous															
		- fractured @ 50°															
		- minor hematite occurs t/o															
		- barren															
	21.0 - 26.1	Calcitic Andesitic Tuff															
		- massive, mottled in appearance															
		- 25% calcite fragments															
		- fragments are upto 2 cm															
		- barren															
		- maroon colored while calcite is white															
		- minor veining occurs t/o															
	26.1 - 29.6	Andesite Tuff?															
		- fine grained, green colored															
		- massive															

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		26.1	29.6	Andesite Tuff? Cont'd													
				- non-mineralized													
				- minor qtz-cal veining													
				- fracturing is @ 30° and 60° and is dry													
		29.6	32.4	Calcareous Andesite Tuff													
				- similar to previous													
				- minor veining													
				- grey colored, calcite occurs as blebs (possible gas bubbles)													
		32.4	35.6	Andesite Tuff													
				- reddish grey colored			13519	32.0	33.2	1.2		.02	.05	.16	.006		
				- fine grained with maroon tuff fragments (minor hematite)			13520	33.2	34.7	1.5		.01	.02	.08	.008		
				- veining is minor <5% and is predominantly calcite with minor qtz													
				- contacts gradational													
				- veins contain the sulphides present													
				- calcite quartz veins occur at:													
				32.8: 1 cm @ 35° 5% PbS													
				33.0: 1 cm @ 80° tr hematite													
				33.9: .5 cm @ 80° tr hematite													
				34.1: 1 cm @ 35° barren													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
	Calcite Quartz Veined and Brecciated Andesite	35.6	40.8													
	Tuff															
	- section features brxx andesite and calcite-quartz veining			5	3% Py	13521	35.6	36.6	1.0		.02	.10	.18	.002		
					2% Pb/Zn	13522	36.6	38.1	1.5		.02	.18	.20	.002		
	- fragments are upto 5 cm in size					13523	38.1	39.2	1.1		.35	.43	.23	.002		
	- veining predominantly calcite occurs t/o					13524	39.2	40.3	1.1		.30	1.59	.52	.074		
	- shearing common in the first meter					13525	40.3	41.0	0.7		.57	1.08	.74	.026		
	- from 35.6-36.8: calcite quartz veining totalling 30% occurs t/o as stkwk, 5% pyr occurs with the veins															
	@ 36.6-37.0: pred andesite tuff - barren															
	@ 37.0-37.6: sheared andesite with 30% veining. At 37.6 occurs 1 cm gouge. Minor Mn stain.															
	@ 37.6-39.2: Pred andesite with <10% calcite veining, minor hematite, veins barren															
	@ 39.2-40.3: the unit is brecciated calcite-quartz hematite vein in which 1% PbS and 2% pyrite occur along with a fine grained steel grey, striated by drilling, sulphide: nature silver?															
	@ 40.3-40.8: brecciated andesite with calcite quartz healing. Tr cpy 1% PbS, 1% ZnS, and 2% pyr occur to. Min generally occurs at the outer edges of the veins															

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Calcitic Andesite Flow	40.8	42.8			13526	42.0	42.9	0.9		.04	.09	.13	.008		
	- similar to 29.6-32.4					13527	43.6	44.7	1.1		.08	.13	.16	.002		
	- at 42.2: 3 cm qv @ 60° barren															
	Brecciated Andesite	42.8	43.7													
	- fine grained, green colored in which fragments (angular) upto 5 cm occur															
	- minor quartz veining occurs in the first 2 cm in which tr cpy and minor PbS occur															
	- fragments are variable in composition															
	Feldspar Porphyry Andesite Flow	43.7	61.0			13528	53.0	53.6	0.6		.06	.10	.08	.004		
	- fine grained, grey green colored matrix with white-green feldspar phenocryst upto 1.5 cm															
	- homogenous															
	- minor quartz-calcite veining comprises <5% of the unit															
	- veins are generally at 60° to the ca and contain minor amounts of galena and pyrite															
	- mineralization is confined to veins															
	- at 51.7: 20 cm stkwk tr PbS tr ZnS															
	@ 54.6: 20 cm bleached area adjacent to a small qv															
	@ 58.1: 10 cm bleached zone centered about two small qv's @ 60°															
	61.0 E. O. H.															

NEWMONT EXP OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	40.2 m	HOLE NO.	N.M. 86-12
LOCATION	Misty Day Grid	0	120°	-50°	Compass	CORE SIZE	BQ	SHEET NO.	1 of 4
ELEVATION		40.2	120°	-51°	Acid Test	TOTAL RECOVERY	+ 95	LOGGED BY	D. Visagie
LATITUDE	0 + 40 S					STARTED	Aug. 19/86	CLAIM	LUNAR 1
DEPARTURE	0 + 32 W					COMPLETED	Aug. 20/86	PURPOSE	Test Misty Day

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%
	Casing	0	1.8												1.8	
															4.0	
															5.5	
	Calcareous Andesite (green)	1.8	6.3	3 pyrite											6.4	
	- fine grained, green colored with 30% calcite														6.7	
	blebs (upto .1 cm)														7.9	
	- 3% dissem pyr														9.5	
	- blebbed appearance														11.3	
	- calcite also occurs along fractures														12.8	
	- fractures are // to the ca and @ 40° and 80°														14.3	
	- veining is insignificant														15.2	
	- from 5.5-6.3 the unit is fractured														16.8	
															18.3	
	Andesite Flow/Tuff	6.3	18.8												19.8	
	- fine grained, grey colored with a reddish					13529	18.8	19.7	0.9	.08	.32	11.40	.010		21.3	
	tinge					13530	19.7	20.6	0.9	.02	.10	3.24	.010		22.9	
	- fragments are minor														24.1	
	- hematite stain occurs t/o generally as														25.0	
	streaks totalling ~ 5%														26.5	
	- pyrite is found as trace dissem														29.3	
	- veining is minor consisting primarily of														31.4	-0.1
	calcite with minor quartz														32.6	
	- vein @ 11.3 m @ 30° 5 cm barren														35.7	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Flow/Tuff Cont'd	6.3	18.8													37.5	-0.1
	- from 13.8 hematite content decreases to <1%															38.7	
																40.2	
	Calcite Vein Brxx	18.8	20.7	5 pyr													
	- first 20 and last 60 cm are brxx			PbS													
	brxx consists of 60% fragments upto 1 cm					13531	24.7	25.7	1.0		.01	.01	.29	.002			
	set in a calcitic matrix. Fragments are																
	generally andesitic in composition and are																
	pyritic. In addition minor angular fragments																
	of galena occur. In the first 20 cm the unit																
	has 4% PbS																
	- from 19.01-20.1: the unit is composed of a																
	pink calcite quartz vein with Tr. PbS																
	- contact between the brxx and vein is at 40°																
	- from 20.1-20.7: the unit is brxx similar to																
	previous and has 10% pyr																
	- pyrite content t/o the entire zone averages																
	5%																
	Andesite	20.7	24.5														
	- similar to 6.3-18.5																
	- has erratic qtz-cal vein zones																
	- minor stkwk in last 20 cm																
	Andesite	24.5	32.6														
	- dark grey colored, fine grained					13532	25.7	26.5	0.8		.01	.01	.13	.002			
	- qtz-cal stkwk t/o					13533	26.5	28.0	1.5		.01	.07	.20	.002			

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	AU	RUN	%
	Andesite Cont'd	24.5	32.6													
	- 5% pyr					13534	28.0	29.0	1.0		.02	.06	.13	.009		
	- unit has minor fragmentation					13535	32.4	33.9	1.5		.01	.03	.74	.004		
	- fragments are generally less than .5 cm															
	- calcite veins occur sporadically t/o															
	@ 28.0: 40 cm pink @ 60° 5% pyr															
	28.5: 15 cm cal-qtz @ 60° 5% pyr															
	- from 29.0-30.0 andesite is generally barren with the section 29.3-30 being a fracture zone															
	- from 29.8-30.2 minor feldspar porphyry fragments occur															
	- from 31.2-31.9 occurs a fracture zone with minor limonite alteration along the fracture															
	Quartz-Calcite Vein	32.6	33.8	2	pyrite											
	- solid															
	- grey white colored, smokey in part															
	- upper contact is @ 90°															
	- 2% pyr															
	- fracture // to ca for 50 cm @ 32.7 with minor limonite along the fracture face															
	Andesite	33.8	35.7			13536	33.9	35.5	1.6		.01	.01	.33	.010		
	- similar to 24.5-32.6															
	- @ 34.2: 3 cm qv @ 60° pink calcite															
	@ 34.6: 15 cm qtz-cal brxx vein @ 50°															

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS							RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%
		33.8	35.7	Andesite Cont'd														
				andesitic frags along with altered feldspar														
				porphyry frags														
				@ 35.2: 20 cm breccia vein, minor chalcedony,														
				occasional pyritic														
		35.7	40.2	Andesite Flow - Calcareous														
				- fine grained, dary grey colored														
				- massive: homogenous														
				- minor fragments @ 80° & 30°														
				- calcite blebs upto 5% occur t/o. Blebs														
				are generally less than .5 cm														
		40.2		E. O. H.														

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	254.8 m	HOLE NO.	N.M. 86-13
LOCATION	Plateau Grid	0	310°	-75°	Compass	CORE SIZE	BQ	SHEET NO.	1 of 17
ELEVATION	2087.8 m	-138.6	310°	-67°	Acid Test	TOTAL RECOVERY	+ 95	LOGGED BY	D. Visagie
LATITUDE	0 + 5 N	-189.3	310°	-67°	Acid Test	STARTED	Aug. 21/86	CLAIM	COPPER CLIFF
DEPARTURE	1 + 65 E	-254.8	310°	-68°	Acid Test	COMPLETED	Aug. 27/86	PURPOSE	TEST MAIN ZONE OF DEPTH

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT		ASSAYS						RECOVERY				
		FROM m	TO m		%				SAMP	FROM	TO	LENG.					RUN	%	
		0	1.8	Casing														3.4	
																		4.9	0.9
		1.8	12.5	Andesite Tuff														6.1	
				- fine grained														7.3	
				- grey with reddish tinge coloration														7.9	
				- on occasion there is hematitic banding with														9.5	
				the bands occurring at 58° to the ca														11.0	
				- the unit is massive and homogeneous														12.5	
				- the unit contains approximately 30% hematite														14.0	
				- in the last 30 cm the unit is grey colored														15.5	
				and contains ~ 10% erratic calcite veins														17.1	
				- fracturing occurs @ 20° and @ 45°														18.3	
				- barren														19.8	
																		21.3	
		12.5	14.0	Maroon Tuff Breccia														22.9	0.3
				- maroon colored														25.9	
				- fine grained ground-mass in which Feldspar														28.7	
				Porphyry Flow fragments upto 5 cm constituting														31.1	
				30% of the section occur														33.5	
				- feldspar phenocrysts are weakly altered														36.6	
				- minor veining														38.4	
				- lower contact is gradational														40.5	
				- barren														43.6	

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT			ASSAYS						RECOVERY				
		FROM	TO			%				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		14.0	16.4	Andesite Tuff														46.6	
				- similar to 1.8-12.5														49.1	
				- towards bottom of the section fragments of feldspar porphyry occur (upto 10 cm). The feldspar phenocrysts are saussuritized														52.1	
				- fractures occurs @ 10°														55.2	
				- gradational lower contact														57.0	
																		60.1	
																		62.8	
																		65.2	
		16.4	31.6	Feldspar Porphyry Flow														68.3	
				- fine grained, grey matrix, which is grey-reddish tinged color, in which feldspar phenocryst ranging from white to pale green color occur														71.3	
				- weak to moderate saussurite alteration														72.9	
				- the unit is massive and is homogeneous														74.4	
				- quartz veining is erratic, on occasion highly altered pale green sections occur adjacent to the veins														75.9	
				- pale alteration zones occur at:														77.4	
				23.7-23.8														78.9	
				28.1-28.2														80.5	0.1
				28.4-28.6														82.6	
				- fractures occur at 60° and @ 40°														83.8	
				- feldspars in general are green colored														84.7	0.1
				- lower contact is sharp @ 40°														86.3	
																		87.8	
																		89.3	
																		90.2	
																		91.7	
																		93.3	
																		94.8	
																		96.3	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Feldspar Porphyry Dyke	31.6	35.2													97.9
	- fine grained, grey green ground-mass in which															99.4
	40% white calcite blebs upto .2 cm occur															100.6
	- the unit is homogeneous and is massive															101.8
	- barren															102.7
	- possible carbonatization															103.3
																104.9
	Feldspar Porphyry Flow	35.2	42.6			13537	35.4	36.9	1.5		1.25	3.58	.23	.002		106.4
	- similar to 16.4-31.6															107.9
	- quartz veining occurs sporadically t/o															109.4
	- @ 35.4: 20 cm stkwk 10% pyr, 5% PbS															111.0
	35.9: 20 cm zone with 10% pyr, 5% PbS/ZnS															114.0
	36.3: 10 cm erratic zone with 5% PbS/ZnS															116.4
	36.6: two 2 cm massive veins of galena,															119.8
	10% pyr															121.3
	- from 37.2-38.0 the rock is fractured															123.1
	- phenocrysts are carbonate altered															125.6
																128.3
	Andesite Flow/Tuff	42.6	62.9	10%	5% pyr	13538	42.1	43.6	1.5		0.19	.43	.08	.002		140.8
	- fine grained, green colored				4% Pb	13539	43.6	44.9	1.3		.21	.50	.10	.002		142.3
	- calcareous				1% Zn	13540	44.9	46.0	1.1		4.12	6.10	.48	.002		143.9
	- highly veined and well mineralized on occasion					13542	46.0	46.9	0.9		.26	.87	.09	.004		145.4
	- pyritic t/o with upto 20% pyrite					13543	46.9	48.0	1.1		.06	.10	.03	.002		146.0
	- fracturing occurs t/o at 20° and 50°					13544	48.0	49.0	1.0		.27	.64	.07	.002		146.9
	- veins form stockwork on occasion and attendant					13545	49.0	49.9	0.9		1.81	6.10	.26	.002		148.7
	wallrock is silicified on occasion					13546	49.9	50.0	1.1		.16	.52	.07	.002		149.4
	- in the first 2 m calcitic fracturing					13547	50.9	51.9	1.0		.58	1.43	.11	.002		150.9
	occurs // to the ca															151.2

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS						RECOVERY				
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		42.6	62.9	Andesite Flow/Tuff Cont'd													152.7	
				- at 44.1: limonite occurs for 10 cm					13548	51.9	53.2	1.3		.13	.37	.07	.002	154.2
				- from 45.2: start significant increase in mineralization and qtz-cal					13549	53.2	54.7	1.5		.03	.08	.05	.004	155.5
				- from 45.2: start significant increase in mineralization and qtz-cal					13550	54.7	56.2	1.5		.08	.13	.06	.004	157.3
				- from 45.2: start significant increase in mineralization and qtz-cal					13551	56.2	57.8	1.6		.02	.13	.05	.002	158.3
				- from 44.9-46.0: the unit has 15% PbS, 10% pyr					13552	57.8	59.0	1.2		1.84	5.00	.22	<.002	160.0
				2% ZnS occurring irregularly in a quartz-					13553	59.0	60.6	1.6		.28	.62	.07	<.002	161.5
				flooded zone					13554	60.6	61.2	0.6		1.68	4.11	.19	<.002	163.4
				- from 46.0-46.9: the zone has erratic quartz					13555	61.2	62.8	1.6		.10	.18	.08	.002	164.6
				veining t/o. Within the last 30 cm the														166.7
				section has a pink calcite-quartz stockwork														167.6
				with limonite alteration														169.8
				- from 46.9-48.1: the unit has minor quartz														170.4
				veining within feldspar porphyry														171.9
				- from 48.1-49.0: 3% PbS/ZnS and 2% pyr occurs														173.4
				within the unit. Within this area from														175.0
				48.1-48.3: occurs a 1 cm qtz-cal vein //														175.6
				to the ca. From 48.5-48.8: a qtz flooded														177.1
				stkwk with 5% PbS, 5% ZnS occurs														177.7
				- from 49.0: the unit has a variably mineralized														178.3
				quartz vein stockwork which has attendant														178.9
				silicification														180.4
				- from 49.0-49.3: the unit has 30% PbS/ZnS in														182.9
				a vein which occurs at 10° to the ca.														184.7
				Bleached fragments occur t/o (Sil and														186.8
				argillically altered). 5% pyr is dissem														188.4
																		190.8
																		192.3

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Flow/Tuff Cont'd	42.6	62.9												192.6	
	- from 49.3-49.9: good qv stkwk with 3% PbS and 5% pyr														193.9	
															195.4	
	- from 49.9-50.2: stkwk decreases, minor hematite with 2% PbS, 1% ZnS														196.9	
															198.4	
	- from 50.2-51.9: excellent 10% qv stkwk, cross-hatched. Silicification is adjacent to the quartz-veining. Contains 5% PbS/ ZnS and 5% pyr														199.0	
															199.3	
	- from 51.9-52.5: quartz veining decreases to less than 15%. Section contains 3% PbS/ ZnS, 5% pyr														200.6	0.1
															202.1	0.5
	- from 51.9-52.5: quartz veining decreases to less than 15%. Section contains 3% PbS/ ZnS, 5% pyr														203.6	
															205.1	
	- from 52.5-54.7: quartz stkwk with 5% pyr, 1% PbS, 2% ZnS. From 54.2-54.7: the unit has heavy chloritic alteration and bleaching														205.9	
															206.4	
	- from 54.7-57.6: vein decreases to approx. 20% and contains 1% PbS/ZnS, 2% pyr within andesite flow														207.3	
															207.9	
	- from 54.7-57.6: vein decreases to approx. 20% and contains 1% PbS/ZnS, 2% pyr within andesite flow														208.4	
															209.4	0.3
	- 57.6-59.2: the section has 10% pyr, 5% PbS, 2% ZnS, qv @ 57.6 @ 20° to ca. Minor limonite alteration along the fracture faces. Quartz veins are vuggy														210.6	
															211.8	
	- from 59.2-59.9: andesite with 30% qv, 1% PbS minor hematite														213.4	
															214.9	
	- from 59.2-59.9: andesite with 30% qv, 1% PbS minor hematite														216.4	
															218.2	
	- from 59.2-59.9: andesite with 30% qv, 1% PbS minor hematite														220.7	
															221.9	
	- from 59.9-60.1: 20 cm erratic qv zone with 20% PbS, 5% ZnS @ 20°														223.4	

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS							RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		42.6	62.9	Andesite Flow/Tuff Cont'd													226.2	
				- from 60.1-60.6: the unit is fine grained, chloritic andesite with 5% pyr													229.2	
				- from 60.6-62.8: calcite-quartz vein possibly // to the ca. Upper contact @ 30°. From 60.7-62.0: the vein is parallel to the ca with maroon tuff inclusions. The first 50 cm has 30% PbS tr cpy. The last 2.1 m is primarily calcite vein with 1% PbS/ZnS													230.2	
				- lower contact is at 30°													231.7	
																	233.2	
																	234.7	
																	236.2	
																	236.8	
																	238.4	
																	239.5	
																	241.4	
		62.9	66.4	Maroon Tuff													242.6	
				- fine grained, maroon colored similar to previous													243.5	
																	246.0	
																	247.5	
		66.4	73.4	Feldspar Porphyry Andesite Flow													249.3	
				- somewhat similar to previous													251.5	
				- fragmental													254.2	
				- feldspar phenocrysts are green saussuritized													254.8	
				- tr hematite														
				- minor pyr														
				- mottled in part														
				- minor veining														
				- calcite veisicules occur t/o														

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		73.4	75.4	Feldspar Porphyry Dyke													
				- similar to previous													
				- inclusion @ 73.4: is 30 cm of finely bedded @ 20° altered tuff													
				- upper contact @ 50° while lower is at 80°													
		75.4	79.8	Feldspar Porphyry Andesite Flow			13556	76.5	78.0	1.5		.09	.19	.06	.002		
				- similar to previous			13557	78.0	79.0	1.0		.10	.22	.05	.002		
				- minor erratic veining occurs t/o			13558	79.0	79.8	0.8		.18	.59	.05	.002		
		79.8	81.7	Andesite Tuff													
				- fine grained; grey green													
				- minor fragments ~ 10%, generally less than .1 cm													
				- <5% calcite qtz veining													
				- fracturing occurs @ 60° and 20° @ 80.7: 1 cm @ 80° 2% PbS, 10% ZnS, 1% Cpy													
				- barren and massive													
		81.7	87.1	Andesite Lapilli Tuff													
				- fine grained grey matrix in which 80% fragments occur													
				- fragments are upto 2 cm and are variable in composition but appear to be generally andesitic													
				- bedding is @ 80° to the ca													
				- minor veining predominantly qtz-calcite is @ 60°													

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS							RECOVERY			
		FROM	TO				%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		81.7	87.1	Andesite Lapilli Tuff Cont'd													
				- fracturing occurs @ 60° and // to the ca													
				- inclusions at 85.4: 40 cm of fine grained andesite whose upper contact is @ 70°													
				- from 85.5-86.1: at 10° to the ca occurs a fine grained brown andesite													
				- minor qv occurs sporadically @ 83.7: 10 cm qtz stkwk tr pyr													
				85.5: @ 80° 4 cm qv 15% PbS, 5% cpy													
				- minor - 1% pyrite occurs disseminated t/o													
		87.1	88.2	Andesite Tuff													
				- fine grained													
				- brown green groundmass in which 20% fragments occur													
				- fragments are variable in composition generally andesitic and are upto 2 cm in size													
		88.2	92.5	Andesite Flow													
				- fine grained, green colored													
				- massive homogeneous													
				- minor epidote in fractures													
				- barren, non-veined													
				- last 30 cm fractured extensively													

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		92.5	96.6	Andesite Tuff													
				- similar to above however the unit is dark green colored													
				- minor qtz-calcite veining occurs @ 97.8 where a 10 cm qtz stkwk occurs with tr PbS													
		96.6	101.7	Andesite Flow													
				- fine grained, green (med) colored													
				- minor fragments <5%													
				- fracturing is @ 60° and 30° with minor limonite alteration													
				- barren, massive													
				- contacts are broken													
		101.7	102.7	Andesitic Lapilli Tuff (Agglomerate)													
				- similar to 81.7-87.1													
				- 70-80% fragments													
				- in first 1/2 m fragments occur t/o totalling >90% of the unit while 102.2 the unit has only 30% fragments													
				- veining minor													
				@ 102.1: 1 cm calcite vein @ 10° with a 1 cm rim of galena and sphalerite													
		102.7	104.6	Andesite Flow/Tuff													
				- grey-black colored													
				- fine grained													
				- minor 5-10% calcite blebs occur t/o													

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS					RECOVERY					
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		102.7	104.6	Andesite Flow/Tuff Cont'd													
				- massive													
				- small black-green colored fragments upto 1.3													
				cm constituting less than 10% of the unit													
				occur t/o													
				- unit is non-mineralized													
		104.6	106.4	Andesite Flow													
				- fine grained, greenish-grey colored													
				- minor calcite veinlets occur t/o with the													
				exception of 105-105.5 where the above unit													
				102.7-104.6 occurs													
				- barren													
				- lower contact is fragmented													
		106.4	123.7	Andesitic Agglomerate													
				- fine grained matrix in which 70% fragments				13599	113.6	115.5	1.9	.13	.52	.02	.002		
				of variable composition and angularity				13560	121.0	122.8	1.8	.04	.26	.02	.002		
				occur													
				- fragments are upto 3 cm in size													
				- fragments are for the most part andesitic in													
				composition													
				- fractures occur at 80° and 30° and													
				occasionally have limonite stain													
				- minor quartz veining with variable ZnS													
				- qv @ 121.0: 1 cm @ 80° 1% cpy, 1% PbS													
				121.8: 1 cm @ 40° 1% cpy, 10% PbS/ZnS													
				129.9: 1 cm @ 60° 10% pyr													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Flow	123.7	124.5														
	- green, massive, fine grained																
	- minor calcite veining																
	- fractured @ 80°																
	- minor limonite along fracture faces																
	- lower contact is broken																
	Andesitic Agglomerate	124.5	132.9														
	- similar to 106.4-123.7					13561	129.5	130.9	1.4		.10	.69	.04	.002			
	- from 127.0-129.0: the unit is mottled blotchy black and grey					13562	130.9	132.9	2.0		.03	.32	.06	.002			
	- t/o minor calcite qtz veins occur																
	- veins generally occur @ 60° to the ca																
	- qtz-calcite veins are at:																
	128.4: .2 cm @ 80° 50% PbS																
	128.9: 2 cm @ 65° tr PbS, tr ZnS																
	129.6: 2 veins .2 cm 50% PbS/ZnS																
	129.7: 20 cm qtz stkwk 5% PbS, 2% cpy, 5% pyr																
	130.6: 2 cm @ 60° 5% pyr																
	132.4: 1 cm @ 40° 5% PbS																
	- from 129.2: the unit is variable from a fine grained tuff to agglomerate																
	132.8: 5 cm qv with 10% Pb, 2% cpy																
	Feldspar Porphyry Dacite Dyke	132.9	136.3														
	- similar to previous																
	- massive non-mineralized																
	- contacts broken																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesitic Agglomerate	136.3	145.2														
	- similar to 106.4-123.7					13563	136.3	137.2	0.9	.15	.04	.66	.06	.006			
	- quartz veining is erratically distributed					13564	137.2	137.9	0.7	.46	.08	2.13	.15	<.002			
	- minor inclusion of fine grained, green andesite					13565	137.9	138.8	0.8	.24	.16	3.47	.18	<.002			
	- quartz veining is rarely stkwk generally @ 40°					13566	138.8	139.6	0.8	.17	.70	2.22	.16	.002			
	- fractures are occasionally limonite stained					13567	139.6	140.3	0.7	.03	.15	.34	.04	<.002			
	- upper and lower contacts are sharp but broken					13568	140.3	142.3	2.0	.01	.04	.10	.01	<.002			
	- from 136.3-137.8: 20% qv @ 45° barren					13569	142.3	143.7	1.4	.01	.04	.08	<.01	<.002			
	136.3:10 cm qv collaform erratic 5% pyr					13570	143.7	144.2	0.5	.01	.10	.21	.01	<.002			
	136.7: 3 veins over 20 cm totalling 10 cm have 5% PbS, 1% cpy, 5% pyr, 1% ZnS					13571	144.2	145.2	1.0	.24	.78	5.40	.35	.014			
	137.0: 5 cm stkwk 5% pyr @ 45°					13572	145.2	146.4	0.8	.14	.22	1.67	.09	<.002			
	137.2: 5 cm @ 70° 5% PbS, 5% ZnS, 2% PbS					13573	146.4	148.7	2.3		.01	.06	.02	<.002			
	137.6: over 20 cm 4 qv 5% cpy, 5% ZnS, 2% pyr					13574	148.7	150.2	1.5	.18	.01	.41	.04	<.002			
	- from 137.9-138.2: fine grained, green andesitic tuff					13575	150.2	151.3	1.1	.24	.04	.39	.07	<.002			
	- from 138.2-145.2: Andesitic Agglomerate					13576	151.3	152.7	1.4	.23	.10	.71	.07	<.002			
	138.2: 25 cm qtz collaform with 5% PbS, 5% ZnS, 2% cpy					13577	152.7	153.7	1.0	.20	.62	3.91	.17	<.002			
	138.7: 5 cm qtz stkwk 5% PbS, ZnS					13578	153.7	155.5	1.8	.01	.01	.07	<.01	<.002			
	139.2: 10 cm qv 5% ZnS					13579	155.5	157.5	2.0	.11	.02	.64	.02	<.002			
	139.3: 20 cm zone with 20% ZnS, 1% cpy					13580	157.5	158.5	1.0	.14	.04	2.17	.05	<.002			
	139.7: 40 cm qtz stkwk with 2% pyr, 1% PbS/ Zn																

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS						RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		136.3	145.2	Andesitic Agglomerate													
				- at 140.3 occurs a 15 cm section of fine grained, green andesitic tuff, limonite occurs along the fractures													
				- from 140.3-144: quartz veining is minor however, small stringers are shown to contain variable PbS/ZnS													
				@ 144: 5 cm qtz stkwk with 5% PbS/ZnS													
				144.3: 1 cm erratic tr PbS													
				144.5: 1 cm @ 40° barren													
				144.9: 30 cm vein @ 30° 10% PbS, 20% ZnS													
		145.2	146.3	Shear Zone													
				- highly faulted section all fragments, minor quartz veining													
				- soft													
				- altered, all feldspars saussuritized													
				- contacts broken													
		146.3	211.5	Highly Altered Felsic Tuff					13581	165.5	166.8	1.3	.96	.08	.43	.23	.002
				- light grey-purple beige colored					13582	172.5	174.6	2.1	.01	.04	.13	.01	<.002
				- fine grained with small feldspar phenocryst					13583	174.6	175.6	1.0	.13	.04	.72	.03	.002
				- the feldspars are occasionally saussuritized the matrix ser alt? and silicified					13584	178.3	178.8	0.5		.38	1.11	.03	.002
				- the unit is extremely hard													
				- no mafic phenocryst													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Highly Altered Felsic Tuff Cont'd	146.3	211.5													
	- fractures are at 50° commonly dry															
	- quartz veining is minor generally @ 50°															
	- mineralization consisting of PbS, ZnS and cpy is related to veins															
	- veins															
	at 150.1: 1 cm @ 70° 60% PbS/Zn 20% cpy															
	- minor qtz-eyes occ developed															
	- at 148.7: 40 cm qtz stkwk erratic barren															
	150.1: 1 cm @ 50-60% Pb/Zn 20% cpy															
	150.8: 5 cm @ 60° hematitic															
	151.4: 30 cm qtz stkwk 3% cpy															
	151.9: 20 cm qtz stkwk 2% cpy, 2% Pb/Zn															
	152.7: 90 cm stkwk // to ca 5% Pb/Zn, 1% Cu															
	153.6: 1 cm qv @ 50° 5% cpy															
	156.0: 20 cm qtz stkwk 2% Zn, 2% cpy															
	156.6: 15 cm qtz stkwk															
	157.8: 15 cm qtz stkwk 10% ZnS, 2% Cu															
	161.0: 5 cm irreg stkwk 5% Cu															
	165.1: 1 cm @ 40° 10% ZnS															
	165.5-166.7: 20% qtz stkwk with 5% cpy															
	at 166.2 occurs a 2 cm seam at 40° of ZnS															
	168.1: 1 cm qv @ 40° 1% cpy															
	168.9: 1 cm qv @ 80 5% Zn															
	- at 169.8 the core is bedded @ 50° extremely hard core															

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS						RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		146.3	211.5	Highly Altered Felsic Tuff Cont'd													
				- qv @ 172.7: .1 cm @ 40° 50% ZnS													
				172.8: 1 cm @ 40° 20% ZnS													
				@ 173.4: the fractures are chlorite lined													
				- from 178.9: the unit is highly altered with no traces of the original composition													
				- from 183.9-185.8: the core is fractured // to the ca													
				- from 190-191.0: the core is fractured extensively													
				- from 192.0: the unit has less altered sections that appear to be brown colored fine-moderately grained. The section is non-mineralized. Fractures occur // to the ca and @ 80°. The brown unaltered rocks in general appear to be a feldspar porphyry flow													
				- at 204.8: banding is at 50°													
				- at 205.1: hematite lined fractures occur													
				- in the last 3 m feldspars appear to be fresher													
		211.5	214.0	Andesite Flow													
				- fine grained, dark green colored with small phenocrysts of a pale green material													
				- fractures ranging from 40-80° occur t/o and are hematized													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Flow Cont'd	211.5	214.0														
	- very minor calcite veining occurs @ 70°																
	- lower contact occurs @ 40° to the ca																
	Feldspar Porphyry Flow	214.0	236.5														
	- altered silc and sericitically in part																
	- brown colored generally with pale grey-white																
	predominantly in the more altered sections																
	- fine grained with .1-.2 cm feldspar																
	phenocrysts																
	- fractured with minor qtz veintels																
	- @ 223.8: 30 cm andesite tuff																
	- minor hematite occurs t/o																
	- in part feldspars absent																
	- fractures are chlorite lined																
	- very siliceous from 223.1																
	- from 234.2: the unit is fresher																
	Andesite Flow	236.5	241.4														
	- fine grained, dark green colored in part																
	porphyritic																
	- weakly chlor alt																
	- small feldspar upto .1 cm occur																
	- minor calcite veining occurs erratically t/o																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Feldsapr Porphyry Flow	241.4	245.2														
	- similar to 214.0-236.5																
	- minor qtz veining																
	- non-mineralized																
	- feldspars weakly altered																
	Feldspar Porphyry Flow	245.2	247.2														
	- similar to previous only grey colored																
	- @ 245.3: 70 cm fracture zone																
	- lower contacts @ 20°																
	Andesite Flow	247.2	248.1														
	- similar to 236.5-241.4																
	Feldspar Porphyry Flow	248.1	251.7														
	- similar to previous																
	Andesite Flow	251.7	254.8														
	- similar to 236.5-241.4																
	E. O. H.	254.8															

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH		BEARING		DIP		TYPE OF SURVEY	LENGTH	221.0 m	HOLE NO.	N.M. 86-14
LOCATION	Plateau Grid		0	300°		-75°		Compass	CORE SIZE	BQ	SHEET NO.	1 of 15
ELEVATION	2088.7 m		-152 m	300°		-75°		Acid Test	TOTAL RECOVERY	> 95%	LOGGED BY	D. Visagie
LATITUDE	1 + 75 N		-221 m	300°		-75°		Acid Test	STARTED	Aug. 27/86	CLAIM	MISTY DAY
DEPARTURE	1 + 65 E								COMPLETED	Aug. 31/86	PURPOSE	Test Main Zone of Depth

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		0	1.8	Casing												1.8 3.1	
		1.8	27.5	Feldspar Porphyry Andesite Flow												7.6	
				- fine grained, grey to reddish grey matrix in												9.1	
				which feldspar phenocryst upto 1 cm occur												10.7	
				- feldspar phenocrysts vary from grey to green												12.2	
				depending upon alteration												12.5	
				- minor hematite												14.0	
				- minor calcitic inclusions												15.5	
				- fracturing occurs @ 30° & 70° & 0°												17.1	
				- calcite veining predominat with veins												19.8	
				parallel to fracturing												21.3	
				- calcite veins range upto 3 cm												22.9	
				- veins are typically barren												24.4	
				- minor hematitic inclusions												25.9	
				- occ calcite veins have epidote adjacent to												28.0	
				them												31.1	
				- calcite veins are occasionally vuggy												32.9	
				- ~ 5% calcite veining occurs erratically t/o												36.0	
																39.0	0.9
																39.6	
																41.2	
																44.2	

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS							RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
		27.5	32.9	Maroon Tuff													47.2	
				- fine grained matrix in which fragments upto .2 cm occur													50.3	
				- maroon colored													53.3	
				- fragments are of various andesitic composition													54.9	
				- calcareous													56.7	
				- veining consists of minor calcitic stringers													57.9	
				- section is barren													61.0	
				- fracturing is @ 40°													63.4	
				- barren													64.9	
				- lower contact is gradational													66.8	
																	68.3	
																	69.2	0.2
																	70.2	
		32.9	39.7	Andesitic Tuff	3 2% Pb/Zn		13585	33.8	35.0	1.2	.14	.56	3.01	.19	.006		72.2	0.6
				- fine grained, green to green-grey with reddish tinge	1% pyr		13586	35.0	36.0	1.0	.03	.19	.84	.08	.004		73.8	
				- minor tuffaceous frags upto .2 cm occur sporadically t/o			13587	36.0	37.4	1.4		.07	.77	.09	.004		75.0	0.1
				- 25% veining with veins ranging from <.5 cm to upto 20 cm			13588	37.4	38.4	1.0		.11	.78	.09	.004		77.1	1.5
				- veins are variably qtz to calcitic in comp			13589	38.4	39.4	1.0		.02	.06	.05	.002		80.2	
				- mineralization consisting of various amounts of galena, sphalerite and chalcopryrite along with pyrite			13590	39.4	40.4	1.0	.03	.11	.56	.08	.002		81.7	
				- veins are occasionally colloform			13591	40.4	41.4	1.0		.10	.77	.07	.002		83.2	
				- smaller veins are typically calcitic			13592	41.4	42.0	0.6		.13	.92	.19	.002		84.7	
				- fractures are at 40° & 80° and are limonite stained			13593	42.0	42.6	0.6	.16	.57	3.97	.19	<.002		86.3	
							13594	42.6	44.6	2.0		.03	.09	.05	.002		87.8	
							13595	44.6	45.9	1.3		.02	.04	<.01	<.002		89.3	
							13596	45.9	47.7	1.8		.05	.18	<.01	<.002		90.8	
							13597	47.7	48.9	1.2		.16	.50	.05	.002		92.4	0.1
																	93.9	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUIN	%
	Andesitic Tuff Cont'd	32.9	39.7												95.4	
	- unit is somewhat similar to Maroon Tuff														99.1	
	- qv @ 33.9: 50 cm @ 40° 5% PbS, 5% ZnS,														100.6	
	3% pyr, 1/2% cpy														102.1	
	34.6: 10 cm stkwk 5% pyr														103.6	
	34.8: 5 cm cal-qv @ 20° pyr, 5% ZnS														105.2	0.1
	35.0: 5 cm qtz stkwk 15% ZnS														107.0	
	35.2: 1 cm qtz @ 40° 5% ZnS, 5% pyr														108.5	
	colloform														109.7	
	35.3: 15 cm qtz-cal @ 70° 5% ZnS,														111.3	0.1
	5% PbS														112.5	
	35.5: 5 cm qtz-cal stkwk 5% ZnS														114.0	
	35.6: 1.5 cm qtz vein colloform @ 70°														115.5	
	15% ZnS														116.1	
	35.8-36.0: broken core 50% qtz vein														119.5	
	with 5% ZnS														122.5	
	36.25: 2 cm qtz vein @ 80° colloform														125.6	
	5% ZnS														127.7	
	36.6: 10 cm qv @ 80° colloform, 5% ZnS														129.8	
	37.0: 10 cm stkwk 20% ZnS														132.0	
	37.5: 15 cm qv broken contacts 5% PbS/														134.7	
	ZnS														137.8	
	37.8: 2 cm @ 80° 20% ZnS, 2% cpy														141.8	0.6
	38.0: 25 cm @ 20° to ca 10% PbS/ZnS														143.8	
	- from 38.0: veining is predominantly calcitic														146.3	
	@ 38.9: 20 cm cal-qtz stkwk 5% pyr tr ZnS														147.5	
	39.3: 30 cm qtz cal stkwk 5% PbS,														149.1	0.4
	5% pyr														152.0	

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS				RECOVERY		
		FROM	TO				SAMP	FROM	TO	LENG	RUN	%	
		39.7	40.6	Andesite								153.3	0.1
				- fine grained, light red colored	1							154.8	
				- qtz stkwk to totals 40° in the first 70 cm	1/2%							156.4	
				- qtz veins are dark green colored								157.0	
				- 40.2: 10 cm qtz vein brxx 10% PbS, 5% Zn,								158.5	
				5% pyr								160.9	
				- from 40.3-40.6: core all fractured								161.5	0.1
												163.1	
		40.6	46.2	Andesitic Tuff	1							164.1	
				- similar to 32.9-39.7								165.2	
				- first 60 cm fractured with approximately								166.4	
				20% qv in which 10% PbS/ZnS occur								168.3	
				- 41.2: 35 cm qtz @ 15° to ca 10% PbS/ZnS								169.8	
				- 41.6: 30 cm qtz-cal vein stkwk tr pyr								171.6	1.2
				- 42.0: 45 cm qtz vein brxx in part 10% PbS/ ZnS, 25% cpy								172.8	
				- from 42.5: the unit is less mineralized and appears bedded @ 50°								174.4	
				- veining is predominantly calcitic								175.9	
				- to 44.3 ~ 20% calcite veining, then section has less than 5%								176.5	
				- the unit is also coarser grained								177.0	0.2
				- @ 43.0: 4 cm calcite vein @ 80° 15% pyr								177.7	
				45.0: 2 cm qtz vein @ 80° colliform								178.0	
				10% pyr, 5% PbS/ZnS								178.6	0.3
												179.2	0.4
												180.1	0.3
												180.8	0.2
												181.1	0.2
												181.4	0.2

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION		ALT		ASSAYS						RECOVERY				
		FROM	TO	%				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUIN	%
	Feldspar Porphyry Andesite Flow	46.2	52.1	Tr	cpy	PbS/ZnS											182.0	0.3
	- fine grained, dark green colored in which																182.9	0.6
	feldspar phenocrysts upto .4 cm occur																183.2	0.2
	- the feldspar phenocrysts are white																184.1	0.7
	- veining is predominantly calcitic although																184.7	0.2
	minor ~ 5% quartz veining occurs																185.3	0.3
	- mineralization consisting of galena,																186.0	0.3
	chalcopyrite, sphalerite and pyrite in																186.5	0.1
	various amounts occurs primarily within																187.5	
	quartz veins																188.7	0.1
	- 46.7: 3 cm qv @ 40° 5% PbS, 5% pyr																190.2	
	48.3: 1 cm colloform @ 20° 20% ZnS, 5% PbS																190.8	
	48.8: 2 cm @ 60° 50% PbS/ZnS																191.1	
	49.0: 15 cm stkwk 2% PbS/ZnS, 5% pyr																192.9	
	- hornblende frags are ser alt																194.2	0.1
	- epidote on occasion weakly developed																195.1	
	- 50.0: 30 cm cal vein // to ca																195.7	
	- 50.7: 30 cm fracture // to ca																197.2	
	- last 40 cm appears bleached to light green																197.8	
																	199.0	
	Feldspar Porphyry Dacite Dyke	52.1	60.1														200.6	
	- fine grained, green in which grey unaltered																202.4	
	feldspar phenocryst occur																203.9	
	- fresh																204.5	
	- approximately 10% mafics																205.7	
	- hematite occurs along fracture faces																207.0	
	- from 53.3-59.0: rock is all small fragments																208.2	
																	208.8	

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Feldspar Porphyry Dacite Dyke Cont'd	52.1	60.1													210.3	
	- from 52.8-53.2: the unit is fractured and altered barren															211.8	
	- 57.2-57.9: highly altered, bleached section. Chlor alt and barren. Original characteristic unknown															213.4	
	- from 58.7-60.1: well altered similar to 57.2-57.9															213.7	
																214.9	
																216.7	
																218.2	
																219.5	
																221.0	
	Andesitic Tuff	60.1	66.2														
	- in part andesite porphyry			1	pyr												
	- biotite altered to white (sericite)																
	- weakly chlor alt																
	- minor calcite veining																
	- minor disse pyr					13598	65.7	66.8	1.1	.08	.47	3.05	.15	.003			
	- qv @ 63.1: 4 cm @ 35° tr ca 20% Zn, 5% Pb					13599	66.8	68.3	1.5	.20	.07	.29	.10	<.002			
	- @ 65.7: 30 cm qv @ 40° 30% ZnS/PbS																
	Coarse Andesitic Tuff	66.2	70.9														
	- fine grained, greyish green matrix in which fragments upto 3 cm occur																
	- fragments are variable in description but appear to be andesitic in composition																
	- minor pyrite occurs t/o in small disse																
	- along fracture faces limonite alt is located																
	- fragments are generally black or red in color																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Coarse Andesitic Tuff Cont'd	66.2	70.9														
	- @ 67.2: 30 cm zone of 5% pyr, 1% PbS, 1% cpy in erratic stringers																
	- 67.9: 40 cm qtz-cal vein // to ca, 5% pyr, 1% cpy																
	- from 68.2: more splotchy in appearance larger fragments																
	- at 69.7: 30 cm fine grained andesite																
	- from 70.0: unit is finer grained lower contact @ 90°																
	Porphyritic Andesite Flow	70.9	75.6														
	- fine grained, green colored with small .2 cm feldspar phenocrysts that are generally fresh																
	- veining is predominantly calcite																
	- limonite occurs along fracture faces																
	- at 74.1: 40 cm well altered (ser) coarse fragmental tuff bedded @ 70°																
	- from 75.0: the unit is a mix of felspar porphyry and fine grained tuff																
	Andesitic Tuff	75.6	87.3	Tr PbS/ZnS													
	- fine grained, green colored																
	- minor fragmentation																
	- non-stratified in general																
	- occasional coarse grained fragmental tuff sections																

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		75.6	87.3	Andesitic Tuff Cont'd													
				- minor stratification @ 70°													
				- minor calcitic fragments													
				- @ 83.6: 2 cm vein irregular with 15% PbS, 5% pyr													
				- lower contact @ 30°			13600	92.7	93.7	1.0	.03	.39	1.63	.01	.008		
		87.3	113.6	Feldspar Porphyry Andesite Flow													
				- similar to 70.9-75.6													
				- limonite alt along fractures			11651	93.7	94.7	1.0		1.06	3.36	.28	.006		
				- weak alt of biotite sericite			11652	94.7	95.7	1.0		.37	1.37	.11	.062		
				- quartz veining is generally minor			11653	95.7	96.7	1.0		.89	2.70	.16	.034		
				- fractures range from 70° to 40°													
				- from 92.7-96.6: unit contains 40% qv erratic qtz veining with variable PbS/ZnS/Pyr generally averaging 5% combined													
				- from 96.6: on the unit is less veined with predominantly quartz veins healing fractures													
				- minor chlorite along the fracture faces													
				- @ 99.5: 1 cm qv @ 30° 50% PbS/ZnS													
				105.5: 1 cm qv @ 30° 5% PbS/ZnS													
				106.0: 40 cm fracture zone													
				107.6: 20 cm fracture zone													
				109.7: 15 cm pink calcite veining													
				111.3: fracture for 50 cm // to ca lower contact is non-descript													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesitic Agglomerate	113.6	118.9														
	- fine grained, green dark green matrix in which rounded fragments upto 3 cm occur																
	- fragments are rounded and are andesitic in composition and are light green																
	- blotchy in appearance																
	- veining consists of minor qtz-calcite veinlets that healed fractures																
	Andesite Flow	118.9	124.2														
	- fine grained, green colored in which small calcite fragments occur (generally less than .2 cm)																
	- veining is generally absent																
	- generally barren																
	- fractures occur at 50° and 80°																
	Feldspar Porphyry Andesite Flow	124.2	145.3														
	- similar to previous with minor calcite fragments																
	- veining is generally minor with qtz-calcite stringers occurring as healing within fractures																
	- feldspars are occasionally green colored																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Sheared Feldspar Porphyry Andesite	145.3	147.5													
	- lighter green almost bleached green colored															
	- gouge is intermittently developed t/o															
	- fractured t/o															
	- qv fragmentation totals 15%															
	Feldspar Porphyry Andesite Flow	147.5	156.5													
	- similar to previous															
	- minor qtz-cal vein ~ 2%															
	- generally barren															
	- fractures at low angles to ca and at 80°															
	- fractures have weak chlor alt on occasion															
	Shear Zone: Feldspar Porphyry Andesite Flow	156.5	177.7													
	- heavily fractured zone in which approximately 80% of the core is in pieces less than 10 cm long															
	- minor calcite inclusions within the core															
	- occasional limonite															
	- veining minor															
	- @ 164.1: .5 cm qv @ 80° 30% cpy															
	169.0: 10 cm gouge															
	166.1: .3 cm @ 80° barren															
	171.2: 2-.5 cm qv @ 80° barren															
	172.3: 2 cm qv 2% PbS															
	172.5: 3 cm qv @ 20° 20% ZnS, 1% cpy															
	172.8: 1 cm qv @ 35° 5% PbS															

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS				RECOVERY						
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		156.5	177.7	Shear Zone: Feldspar Porphyry Andesite Flow Cont'd													
				174.4: 5 cm qv 40% PbS/ZnS													
				- from 176.5: highly fractured													
				176.5: 10 cm stkwk 30% ZnS													
				177.0-177.7: 20% qtz frags some mineralized			11654	172.0	174.6	2.6		.18	.98	.08	<.002		
				177.7-178.0: predominantly qv with 10% PbS/ZnS 2% cpy			11655	174.6	176.5	1.9		.03	.12	.03	<.002		
				178.0-178.5: andesite agglom with 5% qv			11656	176.5	177.7	1.1		.30	2.09	.10	.002		
		177.7	184.4	Quartz Vein - Mineralized Zone	10	PbS/Zn	11657	177.7	179.2	1.5		.13	.45	.09	<.002		
				- section is highly mineralized, highly fractured with core recovery generally being poor		2% pyr	11658	179.2	180.2	1.0	.32	.72	4.11	.35	.002		
						1% cpy	11659	180.2	181.4	1.2	.35	6.28	25.00	1.14	.062		
							11660	181.4	182.9	1.5	.28	3.17	8.54	.60	.046		
				- 177.7-178: predominantly quartz vein with 10% PbS/ZnS 2% cpy			11661	182.9	184.4	1.5	.09	1.92	5.74	.29	.028		
				- 178-178.5: andesitic agglomerate with 5% qv			11662	184.4	186.0	1.6		.04	.12	.01	<.002		
				178.5-179.2: all fractured with 20% qv variably mineralized													
				179.2-180.2: all qv brxx with sulphide fragments 15% ZnS, 2% cpy. Minor calcite veining included veins @ 45° to ca. Cpy in blebs													
				180.2-180.8: section highly mineralized with 30% Pb/Zn. Highly fractured. Poor recovery													

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		177.7	184.4	Quartz Vein - Mineralized Zone Cont'd													
				180.8-181.1: highly mineralized almost massive in part all fragments													
				181.1-181.4: 40% mineralized semi-massive first 15 cm well fractured													
				181.4-182.0: core less fractured 30% Pb/Zn. Minor qv material 2% pyr													
				182.0-182.9: only 20 cm recovered appears in part to be minor felsic flow (~ 40%) 10% PbS/ZnS													
				182.9-183.2: 10 cm recovered ~ 10% PbS/ZnS rest rhyolite flow													
				183.2-184.1: only 15 cm recovered of the fragment 20% are heavily mineralized with 50% sulphide													
				184.1-184.4: ~ 40% dark fragments that are well mineralized													
				- lower contact to section is fractured													
		184.4	194.2	Quartz Eye Rhyolite Tuff-Flow													
				- fine-medium grained, extremely hard													
				- on occasion minor Qtz-eye development													
				- unit is greyish brown colored													
				- unit is fractured @ 80° and at 45° and 10°													
				- stratified at 80° to ca													
				- veining is predominantly calcite													
				- feldspar developed t/o													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS						RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Quartz Eye Rhyolite Tuff-Flow Cont'd	184.4	194.2														
	- minor qtz vein development																
	- minor-mod ser & saussurite alt																
	- at 190.6 - 50 cm fracture zone																
	Andesite Porphyry Dyke	194.2	195.2														
	- fine grained, green with small dark green phenocrysts																
	- upper and lower contact at 10°																
	- minor qtz-calcite veining healing fractures																
	- fractures @ 80°																
	Feldspar Qtz-Eye Rhyolite Tuff	195.2	201.2														
	- dark grey with green phenocryst																
	- minor qtz-eyes developed																
	- medium grained																
	- siliceous																
	- minor qtz veining																
	- @ 200.0: 1 cm qv @ 5° 10% Pbs																
	Rhyolite Flow	201.2	206.3														
	- fine grained, dark grey brown colored																
	- weak qtz-eye development																
	- minor qtz veining in general t/o																
	- stkwk @ 201.4: 5 cm tr gal/ZnS																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Rhyolite Flow Cont'd	201.2	206.3														
	- from 203.9-206.6: unit becomes more bleached in appearance and there is an increase in qtz-calcite veining, veins are generally barren however at 205.4: a 30 cm qv that is erratic has 5% PbS and 1% cpy																
	- at 205.9: 40 cm fracture zone																
	Andesite Dyke	206.3	206.8														
	- fine grained																
	- green colored																
	- massive, non-mineralized																
	- minor calcite veining																
	- upper contact @ 60° while lower is at 40°																
	Rhyolite Porphyry Flow Tuff	206.8	212.4	1	PbS/ZnS	11665	208.9	210.3	1.4	.15	.32	.18	<.002				
	- similar to previous					11666	210.3	212.0	1.7	.05	.13	<.01	<.002				
	- predominantly brownish-grey colored ~ 10% quartz-calcite veining occurs t/o					11667	212.0	213.6	1.6	.22	.64	.03	<.002				
	- in the first 2 m the unit is bleached					11668	213.6	215.0	1.4	.08	.21	<.01	<.002				
	- siliceous t/o - hard																
	- at 208.5 very mottled for 40 cm																
	- from 208.5-209.5: ~ 5 small .1-.5 cm qv with 50% ZnS																
	- 209.5: 5 cm qv @ 20° 50% ZnS tr PbS																

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT	ASSAYS						RECOVERY			
		FROM	TO		%			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		206.8	212.4	Rhyolite Porphyry Flow Tuff Cont'd													
				- 210.0: 5 cm qv @ 30° 50% PbS													
				210.3-211.2: ~ 5% qv with 50% ZnS													
				- minor chlorite alt along fractures													
		212.4	213.9	Feldspar Porphyry Andesite Flow													
				- fine grained, green colored with white feldspar phenocrysts													
				- feldspar phenocrysts are upto .3 cm													
				- irregular contacts with upper at 30° while lower is @ 80°													
				- minor qtz stringers with tr galena and sphalerite													
				- qv's generally at 30° to ca													
				- at 213.5: 25 cm vein at 10° 10% PbS/10% ZnS													
		213.9	221.0	Porphyritic Rhyolite Flow													
				- similar to previous													
				- veining less pronounced than previous													
				- @ 214.4: 1 cm @ 60° 20% PbS/ZnS veins generally at 80-60° to the ca													
				- appears massive in part													
				- at 215.8: 30 cm fracture zone													
		221.0		E. O. H.													

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH		BEARING	300°	DIP	-60°	TYPE OF SURVEY	Compass	LENGTH	34.7 m	HOLE NO.	N.M. 86-15
LOCATION	Plateau		0		300°		-60°		Compass	CORE SIZE	BQ	SHEET NO.	1 of 5
ELEVATION	2115.51 m		-31.6 m		300°		-60°		Acid Test	TOTAL RECOVERY	> 95%	LOGGED BY	D. Visagie
LATITUDE	224 N									STARTED	Aug. 31/86	CLAIM	MISTY DAY
DEPARTURE	29 E									COMPLETED	Sept. 1/86	PURPOSE	Text Next Main Zone

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION		ALT		ASSAYS							RECOVERY				
		FROM	TO		%				SAMP	FROM	TO	LENG.	Cu	Pb	Zn	Ag	Au	RUN	%	
		0	1.8	Casing														1.8		
																		3.7	1.5	
		1.8	20.8	Andesitic Tuff														5.8		
				- brownish-green colored														7.6	1.6	
				- fine grained						11669	7.0	8.1	1.1		.17	.47	.07	<.002	8.8	
				- calcareous														10.4		
				- small blebs of calcite occur t/o blebs are less than .1 cm						11670	10.2	12.2	2.0		.40	1.15	.09	<.002	11.9	
				- fractures occur at 0° and @ 70°														13.7		
				- to 7.0: the unit has very little veining < 3%														15.2		
				- at 6.0: 2 cm qv @ 20° 1% PbS						11671	14.1	15.2	1.1		.08	.39	.08	<.002	17.4	0.8
				- from 7.0-8.0: qtz-cal vein brxx, // to ca, tr PbS/ZnS, vuggy						11672	15.9	17.4	1.5		.17	.79	.07	<.002	18.6	
				- from 8.0-8.8: well fractured with minor qv // to ca. Limonite stained						11673	17.4	19.3	1.9		.12	.48	.07	<.002	20.1	
				- 8.8-9.8: minor erratic qtz-calcite veining						11674	19.3	20.7	1.4		.19	.96	2.77	.002	23.2	
				- from 10.0-11.2: the unit has small black phenocrysts and erratic qtz-calcite veining														24.1		
				- at 10.2: occurs a 20 cm qtz-cal vein with 2% PbS/ZnS														25.6		
				- at 10.9: 40 cm erratic qtz-calcite veining with 2% pyr														27.1		
																		28.7	0.6	
																		30.2		
																		31.7		
																		33.2		
																		34.7		

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS						RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		1.8	20.8	Andesitic Tuff Cont'd													
				- at 11.9: 5 cm qv @ 30° minor gal sphal													
				12.0: 5 cm qv @ 30° 30% PbS/ZnS lower contact limonite stained													
				- from 12.1-15.2: unit has several fractured zones with limonite occurring t/o.													
				Fracturing occurs at:													
				13.4: 30 cm													
				13.8: 20 cm													
				14.6: 60 cm													
				- from 14.2-14.5: ~ 70% qtz-calcite veining 5% pyr, 1% PbS													
				- from 15.9-17.3: erratic qtz-cal veining with 5% pyr, 2% PbS/ZnS													
				- at 16.3: 3 cm boxwork vein													
				16.5: 1 cm boxwork vein													
				- from 17.3-18.1: veining is minor but contains erratic sparse mineralization													
				- from 18.1-19.3: section has approximately 25% quartz veining with minor PbS/ZnS													
				- at 19.3: 15 cm cal-qtz vein colliform 10% ppy, 5% PbS/ZnS													
				19.6: 10 cm qtz-stkwk with 10% PbS/ZnS 10% pyrite													
				19.8: 10 cm @ 80° 10% pyr, 10% PbS/ZnS													
				19.9: 10 cm @ 80° 10% pyr, 5% PbS/ZnS													

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS					RECOVERY					
		FROM	TO				%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		1.8	20.8	Andesitic Tuff Cont'd													
				20.1: 2 cm qv @ 30° 10% pyr, 5% PbS/ZnS													
				20% hematite													
				- from 20.2-20.4: heavily fractured													
				20.6: 10 cm @ 70° 5% pyr													
				- the unit at 20.8 has a sharp irregular contact @ 60°													
		20.8	21.6	Andesitic Flow													
				- green colored													
				- weakly porphyritic													
				- minor calcitic veining													
				- feldspar phenocrysts are upto .1 cm in size													
				- minor limonite along the fracture faces													
				- lower contact is broken													
		21.6	24.1	Andesitic Tuff			11675	23.2	24.1	0.9		.34	.67	.11	<.002		
				- greyish-brown colored													
				- coarse grained with fragments upto 1 cm generally andesitic in composition													
				- fragments are rounded to sub-angular													
				- veining totalling 5% occurs erratically t/o													
				- veins are generally a combination of qtz and calcite													
				- fracturing is as before													
				- minor disseminated pyrite													
				- from 23.4-24.1: unit has erratic quartz veining with 5% pyr, tr mal, 5% PbS/ZnS, limonite occurs along fracture faces													

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM	TO			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Porphyry Flow	24.1	26.1														
	- similar to 21.6-24.1																
	- first 30 cm limonite altered																
	- from 25.2-25.6: erratic siliceous zone in						11676	25.0	25.6	0.6		.89	2.53	.20	.004		
	which 5% PbS/ZnS occurs																
	- broken up with limonite alteration t/o																
	the fractures																
	Quartz Vein	26.1	26.5														
	- grey-white qv whose first 15 cm is heavily						11677	26.1	27.3	1.2		.64	2.26	.22	.002		
	limonite altered with minor Mn stain																
	- 1% PbS/ZnS																
	- lower contact @ 60°																
	Andesite Agglomerate	26.5	29.9														
	- fine grained, grey-green matrix in which						11678	27.3	28.5	1.2		.13	.27	<.01	<.002		
	fragments (rounded & andesitic) upto 1 cm						11679	28.5	29.9	1.4		.17	.85	<.01	<.002		
	occur																
	- on occasion the unit is well altered. At																
	27.1: the unit has 20 cm argillic and																
	saussurite alteration and is bleached																
	greyish-white																
	- from 26.4-27.3: the unit contains coarse																
	fragments. Sulphides consists of 5% PbS/																
	ZnS and 1/2% cpy along with 2% pyr occur																
	- from 27.3-27.6: well altered section with																
	PbS/ZnS																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Agglomerate Cont'd	26.5	29.9													
	- from 27.6-28.6: the unit has minor quartz veining in which minor grits of galena and sphalerite occur. Somewhat chaotic in appearance															
	- from 28.6-29.9: weak quartz-vein stockwork occur along with sporadic PbS/ZnS mineralization. Highly altered throughout, chlorite and saussurite															
	- at 29.8: 10 cm qv @ 70° 10% ZnS?															
	Maroon Tuff	29.9	34.7													
	- fine grained															
	- maroon colored															
	- minor calcite veining															
	- barren															
	E. O. H.	34.7														

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH	BEARING	DIP	TYPE OF SURVEY	LENGTH	35.4 m	HOLE NO.	N.M. 86-16
LOCATION	Plateau Grid	0	258°	-50	Compass	CORE SIZE	BQ	SHEET NO.	1 of 3
ELEVATION	2126.00 m	-35.4 m	258°	-50	Acid Test	TOTAL RECOVERY	> 95%	LOGGED BY	D. Visagie
LATITUDE	3 + 18 N					STARTED	Sept. 2/86	CLAIM	MISTY DAY
DEPARTURE	0 + 19 W					COMPLETED	Sept. 2/86	PURPOSE	Test Main Zone

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM m	TO m				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		0	4.3	Casing												4.3	
																4.6	
		4.3	8.4	Fragmental Andesitic Tuff												5.8	
				- fine grained, light green matrix in which												6.7	
				fragments of green andesite upto 1 cm that												8.2	0.3
				are both angular & rounded occur. Uniform												9.1	0.1
				compositionally												10.7	0.1
				- heavily fractured t/o with the section at												12.2	
				5.8 to 8.3 being highly fractured												13.1	
				- the section is barren												14.6	
																16.2	
		8.4	15.9	Andesite Tuff												16.5	
				- light grey-green-reddish green, fine grained,												18.0	
				weakly fragmental												19.5	
				- quartz veining is minor												21.0	0.1
				- fractures at 0°, at 60°												22.6	
				- minor calcite fracture healing												23.2	
																24.7	
		15.9	24.6	Andesite Tuff												26.2	
				- similar to above, however qtz-cal veining			11680	17.2	18.7	1.5		.01	.02	<.01	<.002	27.7	
				occurs totalling 20% of the unit. Veins are			11681	18.7	21.0	2.3		.01	.02	<.01	<.002	29.3	
				predominantly calcite			11682	21.0	23.1	2.1		.03	.07	<.01	<.002	30.8	
				- @ 18.1: occurs 1 cm gouge			11683	23.1	24.6	1.5		.01	.04	<.01	<.002	33.8	
				tr dissem pyrite												35.4	

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS						RECOVERY				
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
		15.9	24.6	Andesite Tuff Cont'd													
				- minor tr PbS in some veins													
				- weak chlor alt on occasion													
				- minor tr limonite													
				- lower contact sharp @ 75°													
		24.6	26.4	Andesitic Tuff (X-stal)													
				- med grained, green colored													
				- calcareous													
				- minor limonite along fracture faces													
				- fractures // to ca and at 30°													
				- lower contact @ 70°													
		26.4	29.7	Andesitic Tuff													
				- a chaotic assemblage of andesitic tuffs.													
				Compositionally similar however, the unit													
				varies physically from fine grained with													
				minor fragmentation to a unit with coarse													
				fragmentation													
				- the unit has minor calcite veining													
		29.7	33.8	Porphyritic Andesite Flow													
				- unit is fine grained, dark grey colored in													
				which light green calcareous phenocrysts													
				upto .5 cm occur													
				- veining is minor consisting of erratic calcite													
				stringers, minor epidote along some of the													
				fracture zones													

DEPTH meters	GEOL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION	ALT	ASSAYS					RECOVERY					
		FROM	TO				%										
		33.8	35.4	Maroon Tuff													
				- fine grained, maroon colored, non-mineralized calcareous													
		35.4		E. O. H.													

NEWMONT EXP. OF CANADA LTD
DRILL HOLE RECORD
 NEW MOON
 PROJECT

LEVEL	Surface	DEPTH		BEARING		DIP		TYPE OF SURVEY	LENGTH	76.2 m	HOLE NO.	N.M. 86-17
LOCATION	Plateau Grid		0	300°	-50°	Compass		CORE SIZE	BQ		SHEET NO.	1 of 6
ELEVATION	2091.41 m		-76.2 m	300°	-49°	Acid Test		TOTAL RECOVERY	> 95%		LOGGED BY	D. Visagie
LATITUDE	0 + 35 S							STARTED	Sept. 2/86		CLAIM	COPPER CLIFF
DEPARTURE	1 + 43 E							COMPLETED	Sept. 3/86		PURPOSE	Test Extension 86-13

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS						RECOVERY					
		FROM m	TO m			%	SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Casing	0	1.8													1.8	2.5
																4.3	
																4.9	
	Andesitic Tuff	1.8	5.9													6.4	
	- fine grained, reddish green colored															7.9	
	- minor calcite veining															8.2	
	- fractures @ 60° & 0°															9.6	
	- barren															11.0	
	- lower contact at 40°															11.6	
	- calcareous															12.2	
																13.7	
	Calcareous Andesitic Flow	5.9	16.7													15.2	
	- fine grained, green colored in which							11684	16.0	17.7	1.7	.01	.03	.50	<.002	16.2	
	irregular calcite fragments upto 1.5 cm															18.6	
	occur															21.0	
	- weakly porphyritic															22.0	
	- minor epidote altered clots															23.5	
	- minor calcite stringer occur sporadically															25.0	
	@ 30° to the ca															26.5	
	- fracturing occurs at 20° and @ 30-40° and															28.0	
	are generally dry, from 14.2-16.9: the unit															29.5	
	has less calcitic fragmentation. At 16.1:															32.6	
	1 cm qtz-cal @ 10° tr gal, tr pyr															34.1	
																35.7	

DEPTH meters	GEOLOGICAL	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT	ASSAYS						RECOVERY			
		FROM	TO				SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN
		16.7	21.1	Porphyritic Andesite Flow												37.2
				- fine grained, purple matrix in which feldspar phenocrysts that are upto .5 cm occur			11685	17.7	19.9	2.2				<.01	<.002	40.2
				- the phenocrysts are saussuritized moderately												43.9
				- calcite fragments occur t/o			11686	19.9	21.0	1.1				<.01	<.002	45.4
				- calcite veining is sporadic occurring generally at 10-20° to ca												46.9
				16.7: 1 cm @ 40° tr pyr												48.5
				16.9: 3 cm @ 80° tr pyr												50.3
				17.7: 1 cm @ 2° for 50 cm tr PbS												51.8
				18.5: 1 cm @ 40° 2% pyr												54.9
				19.9: 2 cm @ 40° greenish colored												56.4
				- from 19.9-20.8: a 20% veining of which only minor pyrite is located												57.8
																61.6
																64.3
																66.0
		21.1	22.8	Andesitic Tuff												69.5
				- similar to 5.9-16.7												71.9
				- upper contact @ 30°												73.5
				- barren												74.7
				- lower contact somewhat gradational												76.2
		22.8	29.3	Andesite Flow												
				- fine grained, reddish-green matrix in which phenocrysts upto 1 cm occur												
				- the phenocrysts are greyish-black colored and are generally somewhat blurred in definition												
				- minor calcite veining occurs sporadically												
				t/o												

DEPTH meters	GEOL.	INTERVAL		GEOLOGICAL DESCRIPTION	MINERALIZATION %	ALT			ASSAYS						RECOVERY			
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%		
		16.7	21.1	Porphyritic Andesite Flow													37.2	
				- fine grained, purple matrix in which feldspar phenocrysts that are upto .5 cm occur													38.7	
				- the phenocrysts are sausseritized moderately					11685	17.7	19.9	2.2				<.01	<.002	40.2
				- calcite fragments occur t/o					11686	19.9	21.0	1.1				<.01	<.002	43.9
				- calcite veining is sporadic occurring generally at 10-20° to ca														45.4
				16.7: 1 cm @ 40° tr pyr														46.9
				16.9: 3 cm @ 80° tr pyr														48.5
				17.7: 1 cm @ 2° for 50 cm tr PbS														50.3
				18.5: 1 cm @ 40° 2% pyr														51.8
				19.9: 2 cm @ 40° greenish colored														54.9
				- from 19.9-20.8: a 20% veining of which only minor pyrite is located														56.4
																		57.8
																		61.6
																		64.3
																		66.0
		21.1	22.8	Andesitic Tuff														69.5
				- similar to 5.9-16.7														71.9
				- upper contact @ 30°														73.5
				- barren														74.7
				- lower contact somewhat gradational														76.2
		22.8	29.3	Andesite Flow														
				- fine grained, reddish-green matrix in which phenocrysts upto 1 cm occur														
				- the phenocrysts are greyish-black colored and are generally somewhat blurred in definition														
				- minor calcite veining occurs sporadically														
				t/o														

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Andesite Flow Cont'd	22.8	29.3														
	- mottled appearance																
	- homogeneous																
	- in the last 50 cm the unit is an andesitic tuff that is dark grey-black colored																
	- lower contact is @ 80°																
	Feldspar Porphyry Dacite Dyke	29.3	30.9														
	- fine grained, grey-green in which frags and feldspar phenocrysts upto .2 cm occur																
	- the unit is homogeneous and is non-mineralized																
	- lower contact is at 70°																
	- barren																
	Andesite Flow	30.9	36.7														
	- similar to 22.8-29.3					11687	31.9	34.3	2.4								
	- minor qtz-calcite veining																
	- 31.9: .5 cm qtz-cal vein // to ca for 30 cm tr gal																
	- @ 33.9: 1 cm qtz-cal veins @ 5° for 25 cm tr pyr																
	Andesitic Tuff	36.7	38.7														
	- similar to 22.8-29.3																
	- upper contact broken					11688	38.0	39.6	1.6		.07	.12	<.01	<.002			
	- 38.1: 10 cm qtz cal stkwk with 2% pyr tr PbS																
	- 38.4: 15 cm qtz-cal epidote vein with tr PbS																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Porphyry Andesite Flow	38.7	39.5														
	- similar to 22.8-29.3																
	- minor veining																
	- barren																
	Andesite Flow/Tuff	39.5	48.5														
	- similar to 5.9-16.7																
	- calcite amygdule occ developed																
	- minor epidote associated with qtz-cal veins and with fracture zones																
	Maroon Tuff	48.5	61.9														
	- maroon colored, fine grained tuffaceous unit																
	- in first 1 m has several calcitic blebs																
	- barren																
	- veining is minor																
	- fractures are commonly developed @ 40° and @ 70°																
	- lower contact is gradational																
	Andesitic Tuff	61.9	64.1														
	- similar in part 22.8-29.3																
	- minor limonite alt along fractures at 63.1																
	- veining is generally barren																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY						
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%	
	Feldspar Porphyry Dacite	64.1	65.8														
	- similar to previous																
	- lower contact broken																
	Andesite Porphyry Flow	65.8	72.8														
	- similar to 16.7-21.1																
	- minor qtz-calcite veining																
	- phenocrysts range from fresh weakly sausseritized					11689	66.5	68.0	1.5		.01	.04	<.01	<.002			
	- veining totals <10% and is erratically developed					11690	68.0	69.5	1.5		.05	.23	<.01	<.002			
	66.6: 2 cm @ 80° x cutting veins barren					11691	69.5	71.9	2.4		.07	.32	<.01	<.002			
	67.5: 4 cm @ 40° 5% pyr																
	68.0: 10 cm erratic qv 20% pyr Tr PbS. 1% ZnS																
	68.25: 1 cm @ 70° 30% pyr, 10% honey brown ZnS																
	68.9: 1 cm erratic tr ZnS																
	69.6: 2 cm qv @ 70° 20% ZnS																
	69.9: .1 cm erratic seams of massive PbS/ZnS																
	70.3: .5 cm @ 20° 10% pyr, 5% ZnS																
	70.6: 1 cm @ 80° 5% ZnS																
	70.7: 2 cm qtz-calcite barren																
	70.8: .1 cm ZnS stringers @ 5° to core for 10 cm																
	71.1: 3 cm zone @ 40° 20% pyr, 2% PbS																

DEPTH meters	GEOLOGICAL DESCRIPTION	INTERVAL		MINERALIZATION %	ALT	ASSAYS					RECOVERY					
		FROM	TO			SAMP	FROM	TO	LENG	Cu	Pb	Zn	Ag	Au	RUN	%
	Andesite Porphyry Flow Cont'd	65.8	72.8													
	71.5: 5 cm @ 80° 10% pyr															
	- from 67.0-71.5: unit has 5% dissem pyr															
	71.9: 1 cm @ 70° 10% ZnS															
	- unit is calcareous															
	Andesite Tuff	72.8	76.2													
	- fine grained, green with small 1 mm blebs of calcite															
	- unit is calcareous															
	- within first 2 m minor limonite alt occurs along the fracture faces															
	- the section is barren and has only minor calcite veins															
	76.2 E. O. H.															

APPENDIX 2

NORTH ZONE SAMPLE RESULTS

<u>Trench</u> <u>Sample #</u>	<u>From(m)</u>	<u>To (m)</u>	<u>Int(m)</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag opt</u>	<u>Au opt</u>
1							
11188	0	1.0E	1.0	.04	.12	0.16	.002
11189	1.0	2.0	1.0	.06	.16	0.15	.002
11190	2.0	2.5	0.5	.10	.15	0.32	.002
11191	2.5	3.0	0.5	.17	.40	3.91	.034
11192	3.0	3.5	0.5	.08	.19	0.16	.002
11193	3.5	4.0	0.5	.06	.15	0.17	.002
11194	4.0	4.5	0.5	.05	.16	0.28	.002
11195	4.5	5.0	0.5	.12	.22	0.83	.012
11196	5.0	6.0	1.0	.15	.32	1.78	.012
2							
11197	0.1	0.5E	0.5	.53	.95	2.36	.032
11198	0.5	1.0	0.5	.17	.44	2.20	.020
11199	1.0	1.5	0.5	.14	.41	1.40	.020
11200	1.5	2.0	0.5	.25	.24	1.25	.012
11201	2.0	2.5	0.5	.45	2.02	2.74	.028
11202	2.5	3.0	0.5	.53	2.53	3.56	.036
11203	3.0	3.5	0.5	.03	.13	1.31	.014
11204	3.5	4.0	0.5	.65	.05	0.16	.002
11205	4.0	4.5	0.5	.13	-	0.98	.004
11206	4.5	5.0	0.5	.25	.03	2.53	.002
3							
11207	0	1.0E	1.0	.03	.05	0.27	.002
11208	1.0	1.5	0.5	.02	.03	0.35	.002
11209	1.5	2.0	0.5	.01	.03	0.33	.002
11210	2.0	2.5	0.5	.01	.03	0.96	.002
11211	2.5	3.0	0.5	.02	.05	0.12	.002
11212	3.0	4.0	1.0	.01	.04	0.20	.002
4							
11213	0	1.0E	1.0	.05	.13	1.69	.002
11214	1.0	2.0	1.0	.02	.15	0.85	.002
11215	2.0	3.0	1.0	.01	.04	0.60	.002
11216	3.0	4.0	1.0	.03	.05	1.15	.002
5							
11528	0	1.0E	1.0	.03	.15	1.55	.002
11529	1.0	2.0	1.0	.03	.04	0.26	.002
11530	2.0	3.0	1.0	.02	.03	0.53	.002

<u>Trench</u> <u>Sample #</u>	<u>From(m)</u>	<u>To (m)</u>	<u>Int(m)</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag opt</u>	<u>Au opt</u>
6							
11531	0	1.0E	1.0	.03	.04	1.02	.002
11532	1.0	2.0	1.0	.02	.05	0.89	.002
11533	2.0	3.0	1.0	.01	.05	1.62	.002
11534	3.0	4.0	1.0	.05	.09	2.83	.008
11535	4.0	5.0	1.0	.03	.07	2.51	.008
11536	5.0	6.0	1.0	.08	.07	5.16	.006
11537	6.0	7.0	1.0	.04	.07	6.33	.014
7							
12095	0	2.0W	2.0	.01	.10	2.70	.005
12096	2.0	4.0	2.0	.01	.08	2.10	.004
12097	4.0	6.0	2.0	.01	.08	1.18	.001
12098	6.0	8.0	2.0	.01	.08	1.03	.001
12099	8.0	10.0	2.0	.11	.16	13.90	.001
12100	10.0	12.0	2.0	.11	.22	8.31	.018
8							
11538	0	2.0S	2.0	.32	.31	4.08	.022
11539	2.0	3.0	1.0	.06	.12	0.21	.002
11540	3.0	4.0	1.0	.04	.13	0.86	.006
11541	4.0	5.0	1.0	.03	.07	0.39	.004
11542	5.0	6.0	1.0	.03	.07	0.19	.002
11543	6.0	7.0	1.0	.02	.05	0.16	.002
11544	7.0	8.0	1.0	.01	.03	0.10	.002
11545	8.0	9.0	1.0	.08	.04	0.14	.002
11546	9.0	10.0	1.0	.02	.09	0.13	.002
11547	10.0	11.0	1.0	.08	.04	0.13	.002
11548	11.0	12.0	1.0	.02	.15	0.26	.006
11549	12.0	13.0	1.0	.02	.02	0.05	.002
11550	13.0	14.0	1.0	.02	.03	0.09	.002
11601	14.0	15.0	1.0	.06	.06	0.03	.002
11602	15.0	16.0	1.0	.03	.03	0.25	.004
11603	16.0	17.0	1.0	.06	.08	0.10	.002
11604	17.0	18.0E	1.0	.03	.04	0.41	.004
11605	18.0	19.0	1.0	.01	.03	0.64	.004
11606	19.0	20.0	1.0	.02	.02	0.16	.002
11607	20.0	21.0	1.0	.02	.03	0.17	.002
11608	21.0	22.0	1.0	.01	.03	0.44	.006
9							
11609	0	1.0E	1.0	.01	.01	0.17	.002
11610	1.0	2.0	1.0	.01	.01	0.10	.002
11611	2.0	3.0	1.0	.01	.01	0.10	.002
11612	3.0	4.0	1.0	.01	.01	0.03	.002
11613	4.0	5.0	1.0	.01	.01	0.02	.002
11614	5.0	6.0	1.0	.01	.01	0.01	.002
11615	6.0	7.0	1.0	.01	.01	0.04	.002
11616	7.0	8.0	1.0	.01	.01	0.01	.002
11617	8.0	9.0	1.0	.01	.01	0.01	.002
10							
12086	0	3.0E	3.0	.01	.01	0.95	.002
12087	3.0	6.0	3.0	.01	.01	0.03	.002

<u>Trench Sample #</u>	<u>From(m)</u>	<u>To (m)</u>	<u>Int(m)</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag opt</u>	<u>Au opt</u>
11							
12088	0	2.0E	2.0	.44	.80	8.75	.044
12089	2.0	4.0	2.0	.09	.14	1.49	.007
12090	4.0	6.0	2.0	.05	.07	0.43	.007
12091	3.0	4.5W	1.5	.15	.33	1.00	.007
12							
12153	0	2.0	2.0	.13	.24	2.36	.018
13							
12152	0	3.0	3.0	.48	.98	6.49	.010
14							
8859	0	1.0E	1.0	.01	.06	1.98	.006
8860	5.5	6.5	1.0	.47	.24	1.43	.052
8861	7.0	8.0	1.0	8.84	9.54	15.20	.054
8862	8.0	10.0	2.0	.06	.14	0.11	.004
15							
8863	0	1.3E	1.3	.09	.20	2.60	.006
16							
8864	0	1.4E	1.4	3.68	2.53	5.98	.024
17							
8865	0	1.0E	1.0	.17	.71	2.54	.024
8866	1.0	2.0	1.0	.34	.60	12.70	.062
8867	2.0	3.0	1.0	.65	.88	6.49	.026
8868	3.0	4.0	1.0	.10	.31	0.51	.018
8869	4.0	5.0	1.0	.65	.20	0.69	.014
18							
8870	0	1.0E	1.0	.01	.03	0.11	.002
8871	1.0	2.0	1.0	1.07	.46	1.20	.016
19							
8872	0	1.5E	1.5	.05	.15	0.66	.006
8873	1.5	3.0	1.5	.04	.09	0.09	.002
20							
12092	0	2.0E	2.0	.06	.33	0.52	.007
12093	2.0	4.0	2.0	.04	.16	0.21	.001
12094	4.0	6.0	2.0	.06	.15	0.73	.004
21							
8951	0	1.0E	1.0	2.78	5.54	78.40	.610
8952	1.0	3.0	2.0	1.08	2.06	35.00	.196
8953	3.0	5.0	2.0	.68	1.11	21.10	.062
8954	16.0	18.0	2.0	.78	.96	15.50	.072
8955	18.0	21.0	3.0	.39	.49	28.30	.076
8956	21.0	24.0	3.0	.29	.41	1.92	.022



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Semi quantitative multi element ICP analysis

CERTIFICATE OF ANALYSIS

TO : NEWMONT EXPLORATION OF CANADA LTD.

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VANCOUVER, B.C.
V6C 3A4

CERT. # : A8617397-001-A
INVOICE # : I8617397
DATE : 12-SEP-86
P.O. # : NONE
336

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :
CC: C. VISAGIE

Sample description	Au ppb EA-AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
1506	0.5	1.64	0.2	10	220	<0.5	<2	1.08	<0.5	14	25	22	4.18	<10	0.09	10	0.85	1227	<1	0.02	13	710	10	<10	42	0.11	<10	<10	87	<10	90
1507	0.5	1.11	0.2	20	390	<0.5	<2	0.45	<0.5	10	6	25	3.50	<10	0.14	10	0.30	4352	<1	0.01	7	1100	42	<10	16	0.05	<10	<10	50	<10	144
1508	0.5	2.09	0.2	20	400	<0.5	<2	0.60	<0.5	19	17	34	6.97	<10	0.07	10	1.05	2524	<1	0.02	9	1100	36	<10	34	0.04	<10	<10	121	<10	292
1509	0.5	2.04	0.2	20	570	<0.5	<2	0.80	<0.5	18	15	73	6.34	10	0.08	10	0.97	2947	<1	0.01	8	950	90	<10	36	0.02	<10	<10	94	<10	370
1510	0.5	1.81	0.2	20	410	<0.5	<2	0.35	<0.5	10	22	22	3.44	<10	0.10	10	0.53	2280	<1	0.01	15	920	26	<10	24	0.06	<10	<10	57	<10	100
1511	0.5	1.47	0.6	30	350	<0.5	<2	0.70	<0.5	12	18	83	3.43	<10	0.07	10	0.48	2769	1	0.01	11	870	168	<10	33	0.06	<10	<10	65	<10	162
1512	0.5	0.95	0.4	10	510	<0.5	<2	0.42	<0.5	28	79	48	6.96	<10	0.12	10	0.23	1690	<1	0.01	65	1220	8	<10	13	<0.01	<10	<10	51	<10	112
1513	0.5	1.68	0.2	10	120	<0.5	<2	0.93	<0.5	13	71	40	4.44	<10	0.12	10	0.91	828	<1	0.07	9	720	16	<10	62	0.16	<10	<10	104	<10	106
1514	0.5	1.30	0.2	20	230	<0.5	<2	1.85	<0.5	12	34	22	3.45	10	0.06	10	0.93	840	<1	0.01	14	940	12	<10	54	0.09	<10	<10	64	<10	86
1515	0.5	1.37	0.2	10	290	<0.5	<2	0.72	<0.5	9	23	19	2.86	<10	0.04	10	0.70	917	<1	0.01	11	710	12	<10	57	0.07	<10	<10	58	<10	86
1516	0.5	1.64	0.2	10	230	<0.5	2	0.62	<0.5	11	122	14	2.32	<10	0.10	10	0.83	906	<1	0.04	13	560	12	<10	48	0.09	<10	<10	63	<10	92
1517	0.5	1.43	0.2	30	790	<0.5	<2	1.13	<0.5	7	67	19	2.98	10	0.11	10	0.45	1839	<1	0.02	9	610	12	<10	93	0.05	<10	<10	51	<10	94
1518	0.5	1.43	0.2	10	220	<0.5	<2	2.15	<0.5	11	32	22	3.30	10	0.08	10	0.90	864	<1	0.01	13	840	12	<10	70	0.09	<10	<10	63	<10	82
1519	0.5	2.47	0.2	40	450	<0.5	<2	0.88	<0.5	14	142	39	4.23	10	0.29	10	1.00	1243	<1	0.04	15	630	14	<10	65	0.10	<10	<10	102	<10	126
1520	0.5	1.46	0.2	10	220	<0.5	2	2.15	<0.5	12	34	21	2.60	10	0.08	10	0.97	917	<1	0.01	12	790	12	<10	56	0.10	<10	<10	68	<10	92
1521	0.5	1.41	0.2	20	300	<0.5	<2	1.06	<0.5	11	26	31	4.35	<10	0.10	10	0.85	978	<1	0.03	12	730	10	<10	69	0.09	<10	<10	79	<10	92
1522	0.5	1.41	0.2	20	400	<0.5	<2	1.02	<0.5	11	19	26	4.74	<10	0.10	10	0.77	911	<1	0.04	10	730	12	<10	34	0.11	<10	<10	91	<10	86
1523	0.5	2.38	0.2	20	590	<0.5	<2	0.88	<0.5	17	31	98	4.37	10	0.16	10	1.20	1207	2	0.05	17	1090	34	<10	164	0.18	<10	<10	108	<10	126
1524	0.5	1.51	0.2	20	290	<0.5	<2	0.58	<0.5	11	23	34	3.35	<10	0.11	10	0.76	1399	<1	0.03	13	590	16	<10	50	0.11	<10	<10	65	<10	102
1525	0.5	1.50	0.2	10	170	<0.5	<2	0.60	<0.5	13	51	36	3.63	<10	0.06	10	1.05	1148	<1	0.01	26	620	12	<10	32	0.07	<10	<10	57	<10	104
1526	0.5	1.66	0.2	20	150	<0.5	2	0.55	<0.5	14	72	22	3.49	<10	0.05	10	1.22	1029	<1	0.02	42	640	14	<10	31	0.08	<10	<10	61	<10	104
1527	0.5	1.41	0.2	30	190	<0.5	<2	0.59	<0.5	11	66	29	4.15	<10	0.14	10	0.77	1328	<1	0.05	9	690	10	<10	32	0.10	<10	<10	65	<10	98
1528	0.5	1.25	0.2	10	240	<0.5	<2	0.42	<0.5	12	28	27	3.22	<10	0.05	10	0.92	1343	<1	0.01	21	590	10	<10	27	0.06	<10	<10	52	<10	92
1529	0.5	0.58	0.2	10	70	<0.5	<2	0.41	<0.5	5	10	89	3.15	<10	0.03	10	0.35	221	3	0.02	5	740	16	<10	59	0.05	<10	<10	52	<10	62
1530	0.5	0.49	0.2	<10	70	<0.5	<2	0.41	<0.5	5	14	62	2.97	<10	0.03	10	0.30	195	5	0.02	4	880	16	<10	59	0.06	<10	<10	78	<10	68
1531	0.25	2.84	0.2	10	150	<0.5	<2	0.86	<0.5	19	112	89	4.72	<10	0.33	10	1.39	1088	<1	0.08	18	760	20	<10	173	0.12	<10	<10	104	<10	150
1532	0.5	1.90	0.2	20	430	<0.5	2	0.99	1.0	15	49	22	3.71	10	0.10	10	0.82	3952	13	0.01	19	1040	20	<10	96	0.09	<10	<10	84	<10	170
1533	0.5	1.40	0.2	10	70	<0.5	<2	1.02	<0.5	10	19	41	3.72	<10	0.06	10	0.76	816	<1	0.04	7	710	18	<10	55	0.15	<10	<10	84	<10	108
1534	0.5	2.07	0.2	20	490	<0.5	<2	0.79	<0.5	12	129	17	4.27	<10	0.17	10	0.86	1220	5	0.05	11	460	16	<10	22	0.12	<10	<10	102	<10	142
1535	0.5	2.05	0.2	40	570	<0.5	<2	1.08	<0.5	11	31	21	3.25	10	0.05	10	0.61	2229	4	0.01	9	790	22	<10	189	0.09	<10	<10	100	<10	118
1536	0.5	1.83	0.2	20	320	<0.5	<2	0.83	<0.5	12	61	20	3.63	<10	0.12	10	0.92	1140	<1	0.02	12	630	18	<10	85	0.12	<10	<10	77	<10	126
1537	0.5	1.52	0.2	10	340	<0.5	<2	0.48	<0.5	10	17	35	3.35	<10	0.09	20	0.57	1144	3	0.01	9	600	18	<10	38	0.08	<10	<10	57	<10	92
1538	0.5	2.04	0.2	10	220	<0.5	<2	0.42	<0.5	11	22	26	3.41	<10	0.06	20	0.65	1249	5	0.01	11	580	16	<10	27	0.09	<10	<10	70	<10	84
1539	0.5	1.97	0.2	10	180	<0.5	<2	0.64	<0.5	11	20	30	3.62	<10	0.07	10	0.72	1282	2	0.01	9	580	14	<10	44	0.15	<10	<10	62	<10	94
1540	0.5	1.78	0.2	10	140	<0.5	<2	0.59	<0.5	9	102	22	3.14	<10	0.11	10	0.62	927	2	0.02	9	420	10	<10	44	0.13	<10	<10	67	<10	94
1541	0.5	2.01	0.2	10	170	<0.5	<2	0.79	<0.5	12	65	30	3.54	<10	0.14	10	0.85	1374	1	0.04	10	640	14	<10	54	0.16	<10	<10	81	<10	110
1542	0.5	1.95	0.2	20	150	<0.5	<2	0.55	<0.5	11	19	32	3.45	<10	0.08	10	0.67	1101	3	0.01	9	530	14	<10	41	0.14	<10	<10	79	<10	86
1543	0.5	2.01	0.2	10	110	<0.5	2	0.53	<0.5	17	60	25	4.61	<10	0.22	10	1.16	1215	<1	0.04	16	650	14	<10	30	0.11	<10	<10	88	<10	96
1544	0.5	2.12	0.2	10	240	<0.5	<2	0.75	<0.5	12	199	28	3.85	<10	0.22	10	0.80	983	<1	0.07	13	480	14	<10	78	0.14	<10	<10	89	<10	86
1545	0.5	2.22	0.2	10	230	<0.5	<2	0.68	<0.5	12	142	25	4.29	<10	0.29	10	0.90	1165	<1	0.07	13	620	14	<10	55	0.12	<10	<10	92	<10	130

July 18, 1986

PRELIMINARY METALLURGICAL INVESTIGATION
OF SAMPLES FROM THE
NEW MOON PROSPECT
BRITISH COLUMBIA, CANADA

Newmont Exploration Limited
Metallurgical Department
Danbury, Connecticut

SWN/JWA/AG:pk

Distribution:

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METALLURGICAL DEPARTMENT

July 18, 1986

Mr. T. N. Macauley
Exploration Manager
Newmont Exploration of Canada Ltd.
900 - 808 West Hastings Street
Vancouver, B.C., Canada V6C 3A4

Dear Terry:

Attached please find three copies of a report by Messrs. Nabbs, Ahlrichs and Gorken on a preliminary investigation on trench samples from the New Moon prospect.

The results show that adequate liberation of the lead, zinc and iron sulfides can be obtained with a primary grind of about 75% minus 200 mesh. The ore is very hard and this grind is somewhat finer than normally required for such ores, so grinding power requirements will be high, possibly in line with those at Similkameen.

The metallurgical results of the flotation tests are adversely affected by the severe oxidation of the lead sulfide, with almost 25% reporting as the oxide. Such oxidation will also adversely affect the flotation response of the zinc and iron sulfides and the precious metals. Geologic activation of the sphalerite could account for the relatively high assays of zinc in the lead flotation products.

Oxidation and surface tarnishing of the galena accounts for the low lead recoveries obtained. The low lead recovery, in turn, probably contributes to the low overall gold and silver recoveries.

The excellent grades of zinc concentrate produced indicates the sphalerite contains little or no iron in solid solution. Apart from the loss of zinc in the lead products, zinc metallurgy is satisfactory.

The gold concentrates to some extent in the lead products and the silver in the zinc products. Gold is present as electrum, and silver as electrum, acanthite and an unidentified silver sulfo-salt. We would expect higher recoveries of the gold and silver with less oxidized flotation feed.

NEWMONT EXPLORATION LIMITED

T. N. Macauley

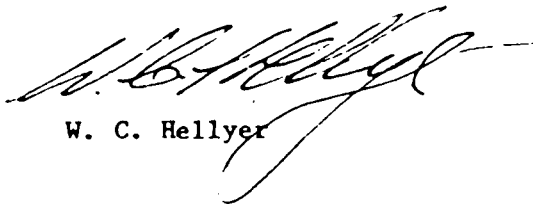
-2-

The flotation results obtained on the composite trench sample can undoubtedly be improved to some extent by optimization of the flotation conditions. If this composite is typical, or representative of any significant tonnage, such additional study may be warranted. However, if oxidation is largely a surface phenomena, additional flotation studies could wait until less oxidized, more representative, samples are available.

When you and your staff have completed your study of this report, we will be pleased to discuss any further testing of this interesting deposit.

Sincerely yours,

NEWMONT EXPLORATION LIMITED

A handwritten signature in black ink, appearing to read 'W. C. Hellyer', with a horizontal line extending to the right from the end of the signature.

W. C. Hellyer

WCH:pk

Enclosures (3)

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INTRODUCTION

Exploration of the New Moon prospect (Au, Ag, Pb, Zn), located in west central British Columbia, Canada, was carried out during August/September 1985, and a diamond drilling program is planned for July/August 1986.

At the request¹ of T. N. Macauley, a proposal was prepared by NEL Danbury² for examination of seven specimens and a limited amount of bench-scale flotation test work and microscopic studies on a shipment of New Moon samples received at Danbury on January 7, 1986. This report provides the results of these investigations.

SUMMARY OF RESULTS

A limited metallurgical investigation has been completed on a composite prepared from eight trench samples from the New Moon prospect.

Head Assay of Master Composite

Gold	=	0.102 oz/ton
Silver	=	1.05 oz/ton
Total Lead	=	4.23%
Oxide Lead	=	1.00%
Zinc	=	8.95%
Copper	=	0.207%
Cadmium	=	0.034%
Iron	=	3.98%

The composite was very hard and grinding power requirements are expected to be high, possibly as much as 20 to 25 net kwh/ton for grinding from 3/4 inch to 75% minus 200 mesh. A fine primary grind may be required for the New Moon deposit. Batch flotation tests showed that 55-60% of the gold, 35 to 40% of the silver, and 55-60% of the lead can be recovered in a lead rougher/scavenger concentrate assaying of the order of 0.8 oz Au/ton, 4.5 oz Ag/ton, and 35% lead. Sphalerite was the major diluent, with approximately 20% of the zinc in the heads reporting in the combined lead concentrates.

Attempts to upgrade the lead rougher/scavenger concentrate by a single stage of cleaning were only moderately successful. The best lead cleaner concentrate (Test NH-3) assayed 1.65 oz Au/ton, 5.03 oz Ag/ton, and 52.96% Pb, and was obtained in a test that included a fine primary grind of 81.9% minus 200 mesh and regrinding of the lead rougher concentrate.

Close to 45% of the lead and 52% of the silver in the lead rougher concentrate reported in the lead cleaner tailing. By contrast, less than 20% of the gold in the lead rougher concentrate reported in the cleaner tailing.

The use of zinc cyanide (a recognized depressant for sphalerite) in Test NM-5 resulted in a significant loss of gold into the Pb cleaner tails, while having only a minor effect as a sphalerite depressant.

High-grade zinc cleaner concentrates assaying of the order of 55% zinc, 0.15 oz Au/ton, and 2.5 oz Ag/ton were obtained in all tests.

Microscopic examination of the flotation products from NM-4, a test in which the primary grind was 74% minus 200 mesh, showed that 90% of the galena and close to 80% of the sphalerite in the lead products were liberated. Liberation of galena and sphalerite in the zinc flotation products was approximately 53% and 90%, respectively.

Based on the results obtained in this limited investigation, an estimated metallurgical balance is provided in Table I.

TABLE I
Estimated Metallurgical Balance

<u>Product</u>	<u>% Wt</u>	<u>Assays</u>					<u>% Distribution</u>				
		<u>opt</u> <u>Au</u>	<u>opt</u> <u>Ag</u>	<u>%</u> <u>Pb</u>	<u>%</u> <u>Zn</u>	<u>%</u> <u>Cu</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>
Heads	100.0	0.102	1.05	4.23	8.95	0.207	100	100	100	100	100
Lead Concentrate	4.6	1.15	6.8	48	19.5	1.71	51	30	52	10	38
Zinc Concentrate	13.0	0.14	2.42	3.90	55	0.40	18	30	12	80	25
Zinc Scav. Tails	82.4	0.037	0.51	1.84	1.08	0.093	30	40	36	10	37
Lead & Zinc Concs.	17.6	0.41	3.58	15.4	40.7	0.74	70	60	64	90	63

Typical cadmium and iron assays of the zinc concentrates were 0.22% and 1.4%, respectively.

The lead metallurgy was adversely affected by almost 25% of the total lead occurring as oxide. With this degree of oxidation of the lead, it must be expected that the zinc and silver metallurgy could also be affected adversely.

Petrography for Seven Specimens

Seven specimens, submitted in addition to the eight metallurgical samples, were examined microscopically in thin section. Six of the specimens were veins and breccias, composed largely of a hard matrix of coarse-grained and microcrystalline quartz. The seventh was a pyroxene tactite with lower grade base metals.

Precious Metals

The lead cleaner concentrate (1.29 oz Au/t, 5.85 oz Ag/t) and lead cleaner tailing (0.64 oz Au/t, 4.80 oz Ag/t) from Test NM-4 were examined for gold and silver occurrences by microscopic and electron microprobe techniques. All observed gold occurs as electrum (60-70% Au, 30-40% Ag), but additional silver also occurs as acanthite (Ag₂S) and a silver sulfosalt.

Approximately half of the observed electrum was liberated, but all detectable acanthite and the silver sulfosalt were finely locked (<10 μm) to various sulfides. This suggested that it could be difficult to obtain a single product of high concentrations of gold, and especially silver.

Recommendations

Any future work on the New Moon prospect should include:

- (a) Provision of fresh, underground samples for testing. Surface outcrop samples can be partially oxidized or tarnished, with adverse effects on flotation.
- (b) A more detailed investigation to determine the grind/recovery relationship in rougher flotation and the effect of regrinding on final concentrate grade.
- (c) A program to determine if reagents for alkalinity control such as soda ash, sodium hydroxide or ammonium hydroxide are more effective than lime in the differential flotation of galena from sphalerite.
- (d) An investigation of other reagents for depressing sphalerite in lead flotation.
- (e) A limited investigation of other promoters to selectively float galena from sphalerite.

SAMPLES EMPLOYED IN THE TEST WORK

A drum containing eight trench samples and seven rock specimens was received at Danbury on January 7, 1986, and allocated the Lot No. 3136. The trench samples were fist-size pieces of rock, each trench sample individually bagged.

Thin sections of the seven rock specimens were examined microscopically and the results are discussed in a separate section of this report.

According to T. N. Macauley¹ of Newmont Exploration of Canada Limited, five of the New Moon trench samples came from the northern half of the Main Zone within the Plateau Grid, and the other three from the southern half. Individual weights of the trench samples ranged from 2.3 to 5.3 kilograms. The only significant oxidation was in one sample from the northern section.

For the purposes of this preliminary investigation of the New Moon prospect, it was suggested that the test work be limited to a composite prepared from all eight trench samples.

Each of the eight trench samples was crushed to all passing four mesh. One quarter was split from each sample and combined to give a Master Composite. The Master Composite was mixed thoroughly, and a portion crushed to all passing 10 mesh and made up into 500-gram charges for the test work.

Assays and semiquantitative mineralogic data are given in Table II.

TABLE II
Analysis of Master Composite

<u>Elements</u>	<u>Assay</u>	<u>Procedure for Analysis</u>
Au (oz/t)	0.102	Fire Assay
Ag (oz/t)	1.05	Fire Assay
Total Pb (%)	4.23	Atomic Absorption
Oxide Pb (%)	1.0	Atomic Absorption
Total Zn (%)	8.95	Atomic Absorption
Oxide Zn (%)	0.005	Atomic Absorption
Total Cu (%)	0.207	Atomic Absorption
Cd (%)	0.034	Atomic Absorption
S (%)	5.25	Leco
SiO ₂	Principal Constituent	Emission Spec.
Al ₂ O ₃ (%)	1.3	Emission Spec.
MnO (%)	0.4	Emission Spec.
MgO (%)	0.4	Emission Spec.
CaO (%)	0.1	Emission Spec.
TiO ₂ (%)	0.02	Emission Spec.
BaO (%)	0.009	Emission Spec.
Cr	0.003	Emission Spec.
V	<0.002	Emission Spec.
Co	<0.001	Emission Spec.

Semiquantitative
Mineralogy (Wt %)

Quartz	71	XRD
K-Feldspar	Tr	XRD
Chlorite	6	XRD
Cerussite	1-2	XRD
Ferruginous Oxides	1-2	Microscopic
Sphalerite	14	Assay
Galena	4	Assay
Chalcopyrite	<1	Assay
Covellite	Tr	Microscopic
Pyrite	1	Microscopic

RESULTS OF FLOTATION TEST WORK

An examination³ of polished thin sections from the seven ore specimens from the New Moon project showed sulfides to occur as vein fillings, massive replacements, and fine disseminations in a variably silicified matrix. A siliceous microcrystalline quartz matrix is the predominant gangue mineral.

Maximum ranges and estimated predominant ranges in grain size of the four major sulfide minerals are provided in Table III.

TABLE III

Sulfide Minerals - Grain Size

<u>Mineral</u>	<u>Maximum Size Range (mm)</u>	<u>Predominant Size Range (mm)</u>
Sphalerite	~0.01 to 10 (1 cm)	0.1 to 0.5
Chalcopyrite	~0.01 to 1	0.04 to 0.15
Galena	~0.01 to 0.15	0.03 to 0.10
Pyrite	0.01 to 0.3	0.06 to 0.12

Test NM-1

This was a preliminary test in which a 500-gram (minus 10 mesh) charge was ground in the laboratory rod mill and floated with the objective of producing a lead rougher concentrate containing only minor zinc, and a zinc rougher concentrate with only a minor lead content.

This test was abandoned and no assays were run on the products for the following reasons:

- (a) The overall grind was very coarse at 39% minus 200 mesh, as compared to the 65% that was the objective.
- (b) XRF assays of the products showed the lead rougher concentrate to have a high zinc content ($\pm 40\%$), and the zinc rougher concentrate to contain approximately 11% lead.

Test NM-2

To obtain a finer grind, the rod mill grinding time was increased from the 7 1/2 minutes in NM-1 to 13 1/2 minutes. Panning the Pb rougher concentrate indicated a reasonably high galena content, so this product was reground and cleaned once. By contrast, panning the Pb scavenger concentrate showed significantly lower galena. Copper sulfate was added to the Pb scavenger tails to activate the sphalerite, which floated readily with 0.05 ppt of potassium amyl xanthate. The zinc rougher and scavenger concentrates had a pale straw color, suggesting it was a high-grade specie of sphalerite. The combined zinc concentrates were reground and cleaned once.

A flowsheet of NM-2 that includes the flotation conditions is provided in Figure 1, and a metallurgical balance in Table IV.

Sizing of the zinc scavenger tails showed the grind to be 58.9% minus 200 mesh.

Although the Pb rougher concentrate was a reasonably good grade product assaying 27.81% Pb, only a minor amount of upgrading was obtained by regrinding followed by a single-stage of cleaning. In spite of adding collector to the Pb cleaner, a significant amount of gold, silver and lead reported in the Pb cleaner tails.

The high zinc assay of the Pb scavenger concentrate of 45.92% suggests that this product should be included with zinc rougher flotation in future tests.

The sphalerite floated rapidly following activation with copper sulfate. A single stage of cleaning following regrinding of the combined zinc concentrates produced a high-grade zinc cleaner concentrate assaying 57.92% Zn, 0.20 oz Au/ton and 2.5 oz Ag/ton.

FIGURE 1

Test NM-2 - Flowsheet

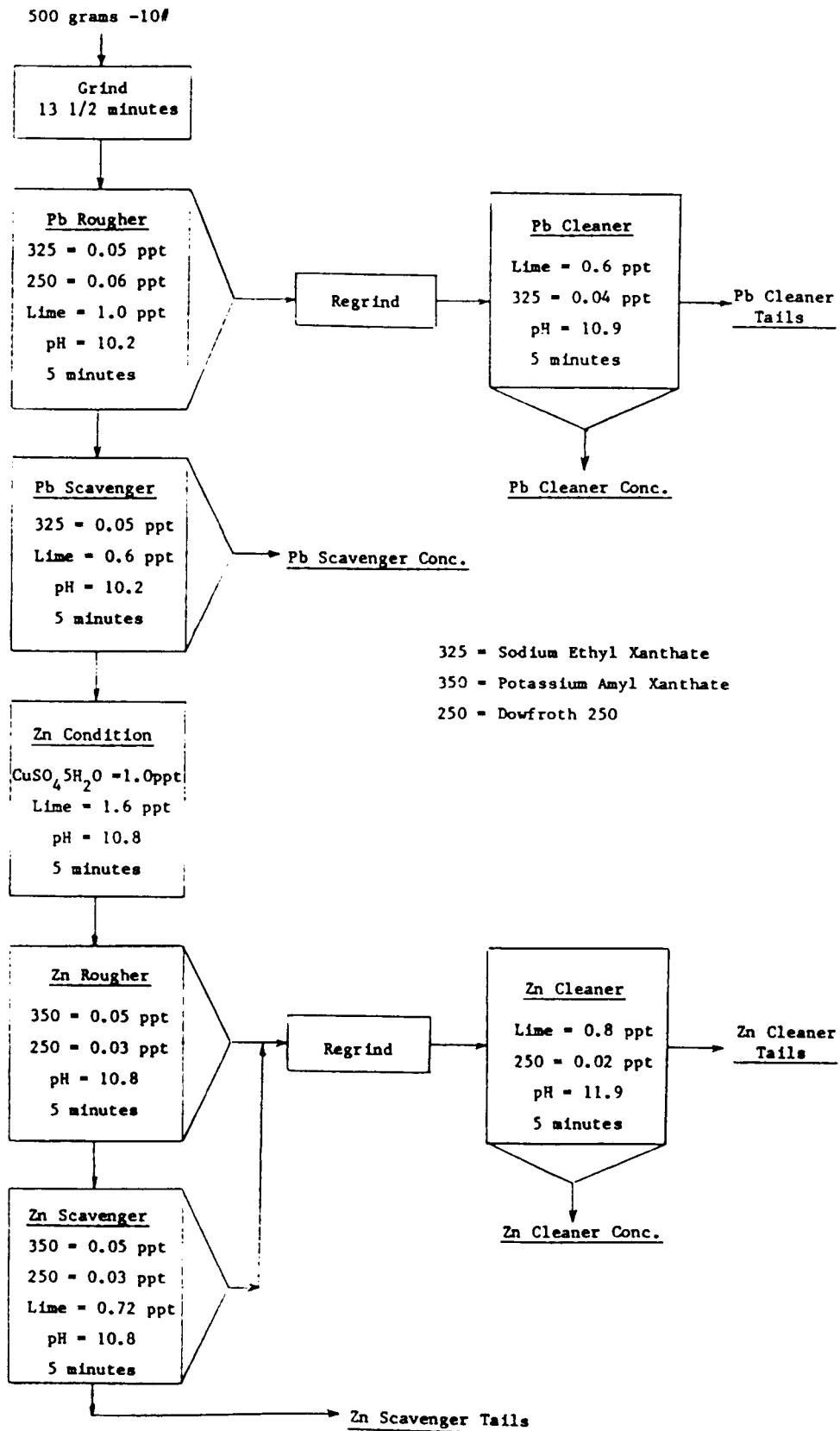


TABLE IV

Test NM-2

Metallurgical Balance

<u>Product</u>	<u>% Wt</u>	<u>Assays</u>				<u>% Distribution</u>			
		<u>opt Au</u>	<u>opt Ag</u>	<u>% Pb</u>	<u>% Zn</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
Assay Heads		0.102	1.05	4.23	8.95				
Calculated Heads	100.00	0.101	0.99	3.86	9.21	100.0	100.0	100.0	100.0
Pb Cleaner Concentrate	3.14	0.88	4.33	37.00	22.96	27.2	13.7	30.1	7.8
Pb Cleaner Tails	5.40	0.37	3.87	22.46	28.80	19.7	21.1	31.4	16.9
Pb Scavenger Concentrate	4.19	0.19	2.96	6.40	45.92	7.9	12.5	6.9	20.9
Zn Cleaner Concentrate	3.94	0.20	2.50	1.49	57.92	7.8	9.9	1.5	24.8
Zn Cleaner Tails	5.26	0.13	2.28	3.56	40.64	6.7	12.1	4.8	23.2
Zn Scavenger Tails	78.07	0.040	0.39	1.25	0.76	30.7	30.7	25.3	6.4
Pb Rougher Concentrate	8.54	0.56	4.04	27.81	26.65	46.9	34.8	61.5	24.7
Pb Rougher + Scavenger Conc.	12.73	0.44	3.68	20.76	32.99	54.8	47.3	68.4	45.6
Zn Rougher Concentrate	9.20	0.16	2.37	2.67	48.04	14.5	22.0	6.3	48.0

Test NM-3

This test was run along similar lines to that of NM-2, with the exception that the grinding time was increased to 18 minutes to produce an even finer grind, and the flotation of a Pb scavenger concentrate was eliminated. The lead rougher concentrate and the combined zinc rougher/scavenger concentrates were cleaned once after regrinding.

The flowsheet and flotation conditions for Test NM-3 are shown in Figure 2, and a metallurgical balance is provided in Table V.

Sizing of the zinc scavenger tails showed the grind to be 81.9% minus 200 mesh.

The finer primary grind used in this test was effective in producing a relatively high-grade Pb rougher concentrate assaying 41.96% Pb, 0.88 oz Au/ton, and 4.63 oz Ag/ton. Approximately 53% of the gold, 25% of the silver, and 55% of the lead were recovered in the Pb rougher concentrate. Although less zinc reported in the Pb rougher concentrate at the finer grind, it still assayed 17.40% zinc.

Regrinding of the Pb rougher concentrate followed by a single stage of cleaning produced a reasonably good grade Pb cleaner concentrate assaying 52.96% Pb, 1.65 oz Au/ton, and 5.03 oz Ag/ton. As with Test NM-2, the loss of lead and silver into the Pb cleaner tails was relatively high. Approximately 18% of the gold in the Pb rougher concentrate reported in the cleaner tails.

Regrinding of the combined zinc rougher/scavenger concentrates (containing 80.7% of the zinc in the heads), followed by a single stage of cleaning produced a high-grade zinc cleaner concentrate assaying 58.21% Zn, 0.16 oz Au/ton, and 2.45 oz Ag/ton.

FIGURE 2
Test NM-3 - Flowsheet

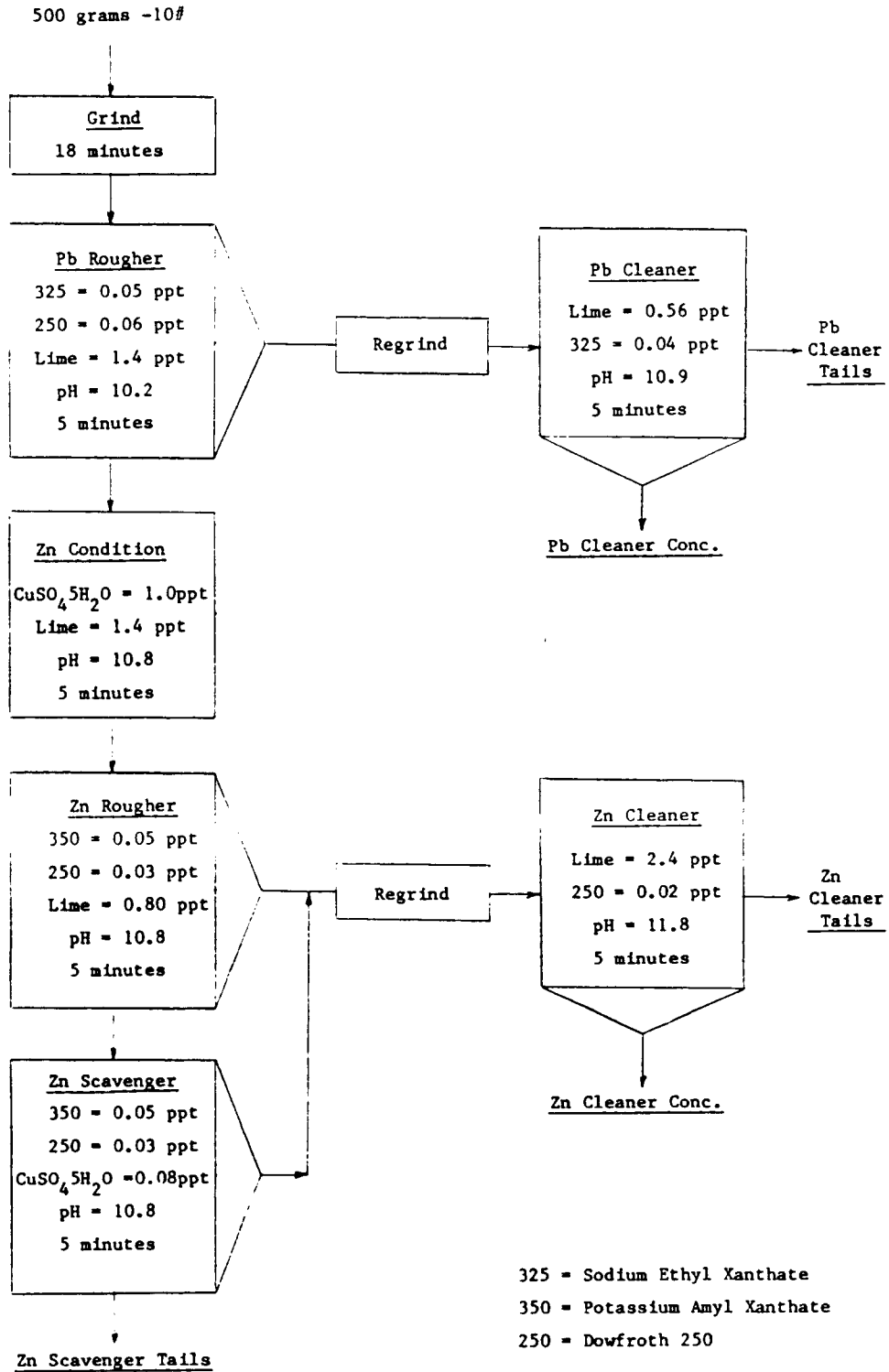


TABLE V

Test NM-3

Metallurgical Balance

<u>Product</u>	<u>% Wt</u>	<u>Assays</u>					<u>% Distribution</u>				
		<u>opt Au</u>	<u>opt Ag</u>	<u>% Pb</u>	<u>% Zn</u>	<u>% Cu</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>
Assay Heads		0.102	1.05	4.23	8.95	0.207					
Calculated Heads	100.00	0.095	1.04	4.37	8.97	0.224	100.0	100.0	100.0	100.0	100.0
Pb Cleaner Concentrate	2.49	1.65	5.03	52.96	17.56	1.15	43.4	12.0	30.2	4.9	12.0
Pb Cleaner Tails	3.23	0.29	4.33	33.48	17.32	1.37	9.9	13.4	24.8	6.2	19.0
Zn Cleaner Concentrate	6.25	0.16	2.45	1.60	58.21	0.48	10.6	14.7	2.3	40.6	13.0
Zn Cleaner Tails	8.97	0.15	2.91	8.28	40.06	0.53	14.3	25.0	17.0	40.1	21.2
Zn Scavenger Tails	79.06	0.026	0.46	1.42	0.94	0.093	21.8	34.9	25.7	8.2	32.8
Pb Rougher Concentrate	5.72	0.88	4.63	41.96	17.40	1.27	53.3	25.4	55.0	11.1	32.6
Zn Rougher/Scavenger Conc.	15.22	0.15	2.72	5.54	47.51	0.51	24.9	39.7	19.3	80.7	34.6

Size Analyses of Zn Scavenger Tails
from NM-1, NM-2 and NM-3

The grinding times required for the New Moon composite are substantially longer than those normally encountered in the flotation test work carried out at Danbury. While a definitive value for grinding power requirements was not determined in this investigation, it is estimated that 20-25 kwh/per ton will be required to grind from 3/4" to 75% minus 200 mesh, as compared to a more typical range of 8-12 net kwh/ton.

The size analyses of the zinc scavenger tailings from these tests are provided in Table VI.

TABLE VI
Size Analyses of Tailings

<u>Fraction</u>	<u>NM-1</u>		<u>NM-2</u>		<u>NM-3</u>	
	<u>% Fraction</u>	<u>% Cum</u>	<u>% Fraction</u>	<u>% Cum</u>	<u>% Fraction</u>	<u>% Cum</u>
+ 48 mesh	1.1					
+ 65 mesh	11.8	12.9				
+100 mesh	21.7	34.6	1.2			
+150 mesh	15.1	49.7	17.1	18.3	1.3	
+200 mesh	11.1	60.8	22.8	41.1	16.8	18.1
-200 mesh	39.2	100.0	58.9	100.0	81.9	100.0

For purposes of comparison, a typical grind of approximately 60% minus 200 mesh on ore of average hardness would contain approximately 13% of the plus 100 mesh fraction, as compared to the 1.2% that reported in the tailings of NM-2.

To provide a grind with a size distribution more consistent with actual plant operations, grinding for the rest of the test work was carried out in the Danbury 16-inch mill using a 24.8 kg charge of 2-inch balls.

Test NM-4

For this test, a charge of 2000 grams of minus 4 mesh material was used. Grinding was done in the 16-inch mill, as described above.

The purpose of the test was to follow a flowsheet similar to that of NM-3, and have the products examined microscopically to determine liberation characteristics. However, as panning the Pb rougher tails showed a substantial amount of galena still remaining, a scavenger float was added. As panning the Pb scavenger concentrate showed it to contain a significant amount of both sphalerite and galena, it was not combined with the Pb rougher concentrate, but kept as a separate product for microscopic examination.

Zinc flotation included regrinding of the plus 325 mesh fraction of the combined rougher/scavenger concentrates, followed by one stage of cleaning.

The flowsheet and flotation conditions for Test NM-4 are shown in Figure 3, and a metallurgical balance is provided in Table VII.

Sizing of the zinc scavenger tails showed the grind to be 74.1% minus 200 mesh with 5.1% plus 100 mesh material.

The Pb rougher concentrate contained 42.4% of the gold, 18.4% of the silver, and 29.8% of the lead. Approximately 6.4% of the zinc in the heads reported in the Pb rougher concentrate. The Pb assay of 34.54% was reasonable for a rougher concentrate; however, only a very minor amount of upgrading was achieved with one stage of cleaning. No regrinding of the Pb rougher concentrate was carried out as it was already 100% minus 325 mesh. The results of this test would suggest that regrinding of the Pb rougher concentrate might be necessary to condition the mineral surfaces, rather than for purposes of liberation.

The Pb scavenger concentrate was an "in-between" type of product assaying 26.45% Pb and 30.32% Zn, and containing 28.6% of the lead and 14.9% of the zinc in the heads.

Combining the Pb rougher and Pb scavenger concentrates results in a recovery of 58.7% of the gold, 34.8% of the silver, and 58.4% of the lead.

Over 63% of the zinc in the heads reported in a combined zinc rougher/scavenger concentrate that assayed 54.05% zinc, 0.125 oz Au/ton, 2.68 oz Ag/ton, and 3.02% lead. Regrinding of the combined zinc concentrates followed by one stage of cleaning resulted in a zinc cleaner concentrate assaying 58.8% zinc. A significant amount of zinc reported in the zinc cleaner tails, indicating that copper sulfate and collector are probably required in the cleaning stage.

FIGURE 3

Test NM-4 - Flowsheet

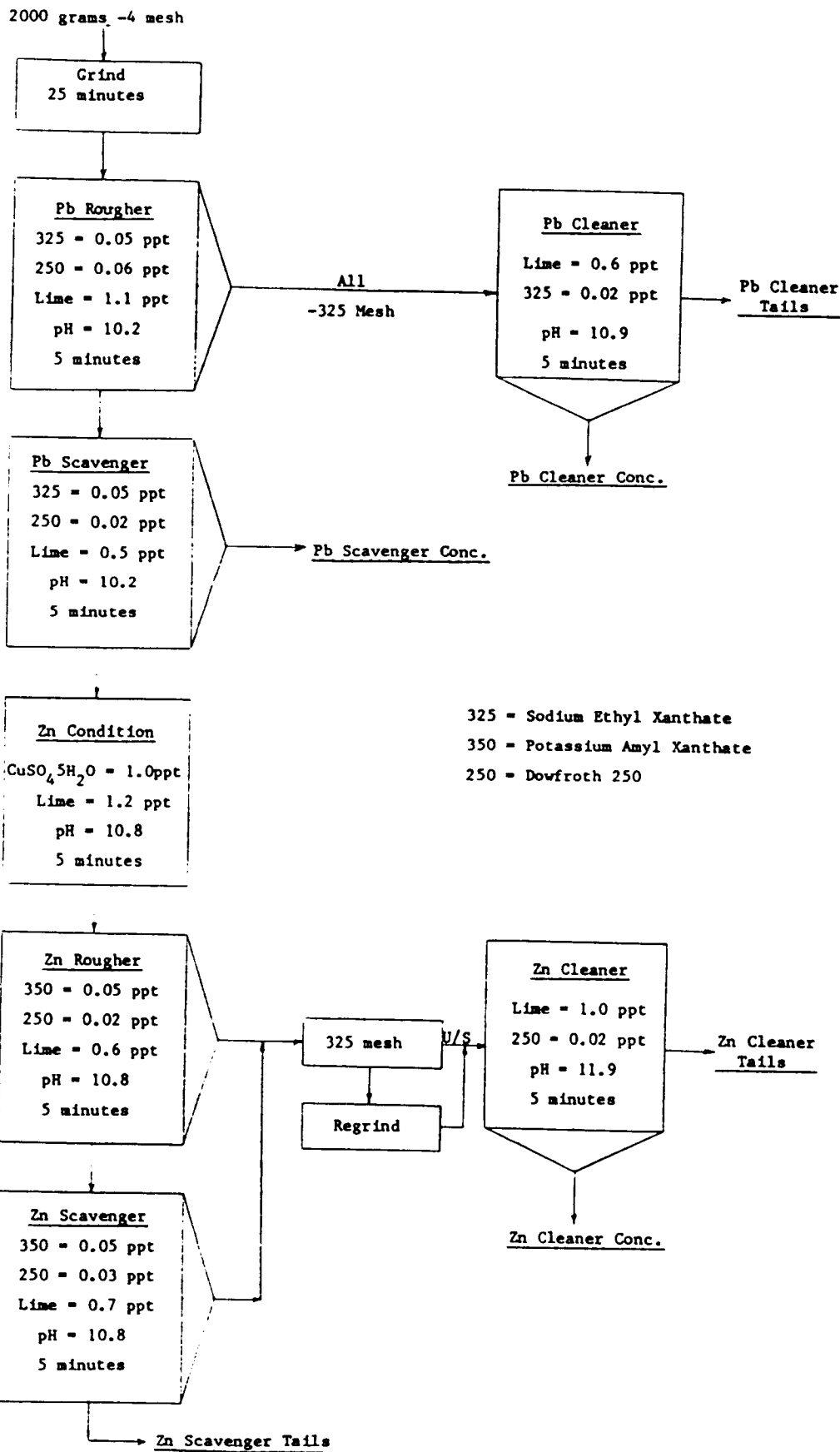


TABLE VII

Test NM-4

Metallurgical Balance

Product	% Wt	Assays					% Distribution				
		opt Au	opt Ag	% Pb	% Zn	% Cu	Au	Ag	Pb	Zn	Cu
Assay Heads		0.102	1.05	4.23	8.95	0.207					
Calculated Heads	100.00	0.093	1.05	4.02	8.86	0.208	100.0	100.0	100.0	100.0	100.0
Pb Cleaner Concentrate	2.67	1.29	5.85	36.03	17.02	1.81	36.9	14.8	23.9	5.1	23.3
Pb Cleaner Tails	0.80	0.64	4.80	29.57	14.28	1.18	5.5	3.6	5.9	1.3	4.5
Pb Scavenger Concentrate	4.35	0.35	3.98	26.45	30.32	0.64	16.3	16.4	28.6	14.9	13.4
Zn Cleaner Concentrate*	2.80	0.11	2.64	2.13	58.80	0.36	3.3	7.0	1.5	18.6	4.9
Zn Cleaner Tails	7.59	0.13	2.69	3.35	52.30	0.43	10.6	19.4	6.3	44.8	15.7
Zn Scavenger Tails**	81.79	0.031	0.50	1.66	1.66	0.097	27.4	38.8	33.8	15.3	38.2
Pb Rougher Concentrate	3.47	1.14	5.59	34.54	16.37	1.66	42.4	18.4	29.8	6.4	27.8
Pb Rougher/Scavenger Conc.	7.82	0.70	4.69	30.04	24.12	1.09	58.7	34.8	58.4	21.3	41.2
Zn Rougher Concentrate	10.39	0.125	2.68	3.02	54.05	0.41	13.9	26.4	7.8	63.4	20.6

* Zn Cleaner Concentrate Cd = 0.23%.
 ** Zn Scavenger Tails PbO = 1.4% ZnO = <0.01%
 As Cerussite

Microscopic Examination of Flotation
Products from Test NM-4

All six products from NM-4 were examined microscopically by point-counting techniques to determine mineral distributions and liberation characteristics. Complete details of these studies are provided in Appendix "A". In brief, the microscopic examinations showed that 90% of the galena and close to 80% of the sphalerite in the lead cleaner concentrate, lead cleaner tailing and lead scavenger concentrate were liberated. Associations of galena/sphalerite account for the major portion of the balance of these minerals.

Although the gangue minerals account for only a minor amount of the combined Pb rougher/scavenger concentrates, most of it is locked with the various sulfide minerals.

The high degree of liberation shown in the microscopic examination of the lead products would suggest that a reasonable separation of the galena and sphalerite should be possible by the use of depressants such as zinc sulfate or zinc cyanide. Liberation of the sphalerite was high in the zinc cleaner concentrate (93%) and the zinc cleaner tailing (87%), as compared to that of galena at 58% and 48%, respectively. At these liberations, the recovery of a high-grade zinc concentrate should not present any major problems.

Approximately 52% of the zinc and 46% of the lead reporting in the zinc scavenger tailing were liberated, indicating that recovery of these values could probably be increased by optimizing flotation conditions and/or reagents.

Test NM-5

In view of the high degree of liberation shown in the microscopic examination of the flotation products from NM-4, this test was run with the objective of improving the Pb cleaner concentrate grade by depressing the sphalerite in both the Pb rougher and Pb cleaner stages. Zinc sulfate, a reagent commonly used in galena/sphalerite flotation circuits to depress sphalerite, was added to the primary grind and zinc cyanide was used as the depressant in the cleaner stage. Zinc cyanide was selected in preference to sodium cyanide, as it was recognized as having less effect on dissolving gold while still being an effective depressant for sphalerite.

The effect of adding zinc sulfate to the grind was to significantly reduce the rougher flotation rate of the galena. To correct for this, the reagent additions and flotation time were increased in the lead scavenging operation.

The addition of zinc cyanide to the Pb cleaner also had a distinct depressing effect on the galena, as a result of which a small amount of collector was added to float a Pb cleaner scavenger concentrate.

Modifications to zinc flotation included an increase in the zinc scavenger flotation time to increase overall zinc recovery, and the addition of copper sulfate to the zinc cleaners to activate the sphalerite.

The flowsheet and flotation conditions for Test NM-5 are shown in Figure 4, and a metallurgical balance is provided in Table VIII.

Sizing of the zinc scavenger tails gave 77.6% minus 200 mesh with 3.9% plus 100 mesh, a slightly finer grind than NM-4.

The combined Pb rougher/scavenger concentrate assayed 32.47% Pb, 0.79 oz Au/ton, 5.14 oz Ag/ton, 23.23% Zn, and contained 55.8% of the lead, 63% of the gold, 36.3% of the silver, and 19.9% of the zinc in the heads. These results are reasonably similar to those of NM-4 and show that the addition of the zinc sulfate to the grind provided no obvious benefit. By contrast, the addition of zinc cyanide to the Pb cleaner resulted in 53% of the gold that was recovered in the combined Pb concentrates reporting in the Pb cleaner tails.

The addition of copper sulfate to the zinc cleaner allowed for a substantial increase in zinc recovery in the zinc cleaner concentrate. Approximately 69% of the zinc in the heads was recovered in a final concentrate assaying 53.6% Zn, 0.10 oz Au/ton, 2.62 oz Ag/ton, 2.93% Pb, 0.22% Cd, and 1.4% Fe.

FIGURE 4

Test NM-5 - Flowsheet

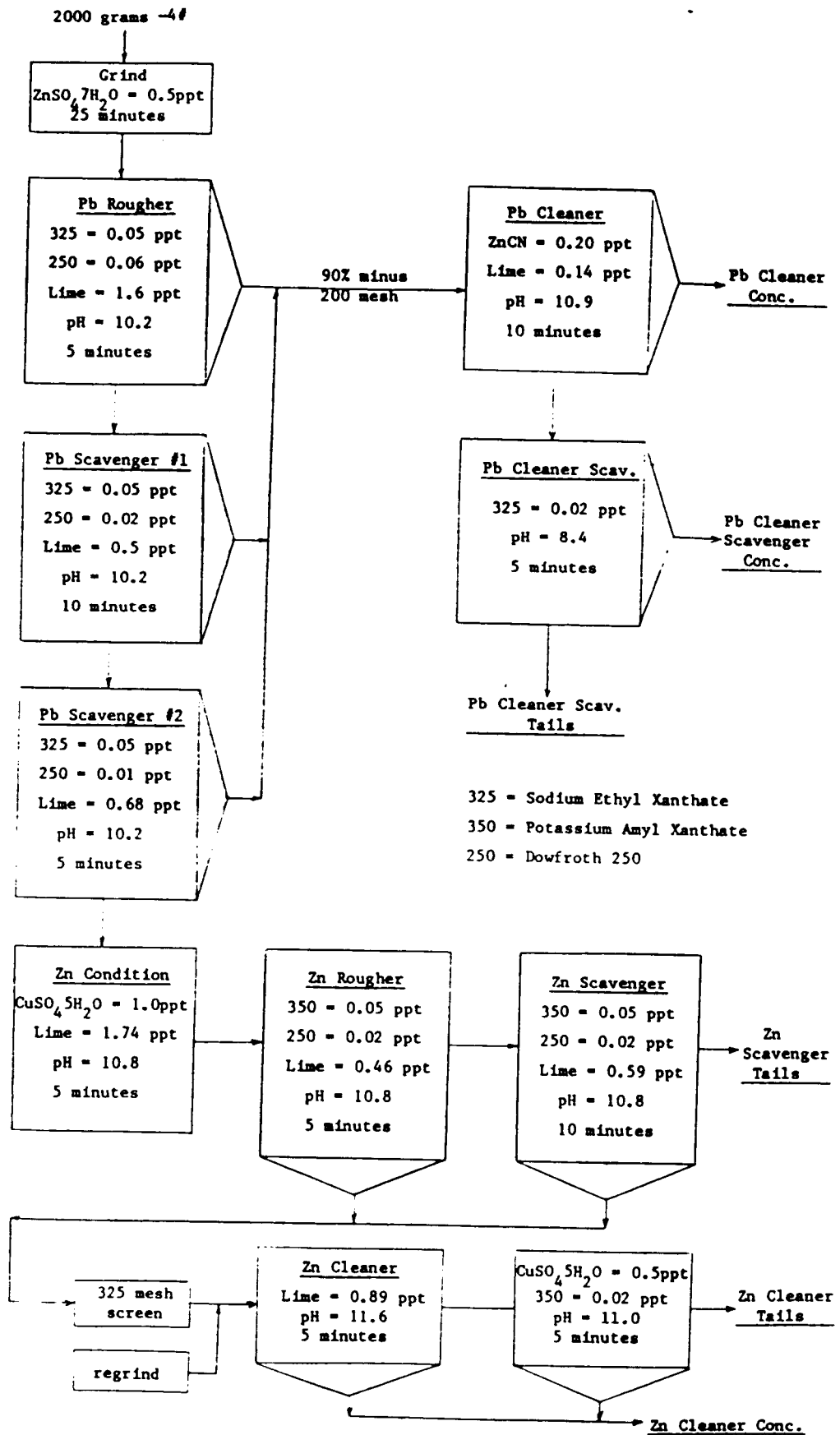


TABLE VIII

Test NM-5

Metallurgical Balance

<u>Product</u>	<u>% Wt</u>	<u>Assays</u>					<u>% Distribution</u>				
		<u>opt Au</u>	<u>opt Ag</u>	<u>% Pb</u>	<u>% Zn</u>	<u>% Cu</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>
Assay Heads		0.102	1.05	4.23	8.95	0.207					
Calculated Heads	100.00	0.092	1.04	4.28	8.58	0.229	100.0	100.0	100.0	100.0	100.0
Pb Cleaner Concentrate	2.34	0.49	5.73	44.38	19.60	1.63	12.5	12.9	24.2	5.3	16.6
Pb Cleaner Scavenger Conc.	2.58	0.61	4.80	42.96	25.25	1.39	17.1	11.9	25.9	7.6	15.7
Pb Cleaner Scavenger Tails*	2.44	1.26	4.91	9.92	24.60	1.10	33.4	11.5	5.7	7.0	11.7
Zn Cleaner Concentrate**	11.06	0.10	2.62	2.93	53.60	0.39	12.1	27.9	7.6	69.1	18.8
Zn Cleaner Tails	2.07	0.18	2.16	5.51	18.19	0.84	4.0	4.3	2.7	4.4	7.6
Zn Scavenger Tails***	79.51	0.024	0.41	1.83	0.71	0.085	20.9	31.5	33.9	6.6	29.6
Pb Rougher/Scavenger Conc.	7.36	0.79	5.14	32.47	23.23	1.37	63.0	36.3	55.8	19.9	44.0
Zn Rougher/Scavenger Conc.	13.13	0.11	2.55	3.34	48.02	0.46	16.1	32.2	10.3	73.5	26.4

* Sample was rerun to confirm the gold assay.

** Zn Cleaner Concentrate Cd = 0.22% Fe = 1.4%

*** Zn Scavenger Tails Ox. Pb = 1.3 % Ox. Zn = 0.003%

PETROGRAPHIC EXAMINATION OF SEVEN ROCK SPECIMENS

In addition to the eight metallurgical samples, seven rock specimens were submitted exclusively for petrographic studies. Three of the rock specimens were from the plateau grid (Specimen No. 1), the Misty Day grid (Specimen No. 2), and the Silver Cliff zone (Specimen No. 3), while the remaining four were collected from Trenches 1, 5, 9 and 10.

One-half of each specimen was crushed and finely pulverized for semiquantitative analyses by X-ray diffraction and X-ray fluorescence techniques. The remaining half was used for preparation of polished thin sections and general megascopic observations. Polished thick sections were prepared from Specimen No. 3 for supplemental microscopic and electron microprobe studies to evaluate silver occurrences.

Compositions

Semiquantitative Heavy element analyses by XRF and semiquantitative mineralogic determinations by XRD and microscopic estimates are given in Table IX.

According to XRF data, these select specimens are moderately to highly mineralized with zinc (2-40%) and lead (2-15%), with smaller amounts of copper (0.04-1%). Silver is usually below the XRF detection limits (approx. 5 oz Ag/t), except for Specimen No. 3 (>25 oz Ag/t), in which the major silver mineral was identified microscopically as acanthite (Ag_2S), and confirmed by the electron microprobe. Textural features for the various sulfides are described in detail in a later portion of this section of the report.

Quartz is the major gangue mineral in six of the samples (40-65%). However, in the specimen from Trench 5 the major gangue mineral was identified as pyroxene (75-85%), and small amounts of iron (<2%). This specimen was also the least mineralized with lead (approx. 2%) and zinc (approx. 2%).

Semiquantitative iron contents (2-7%) are relatively low, considering the degree of mineralization. Most of the iron was attributed to pyrite and chlorite, and in some cases, chalcopyrite and ferruginous oxides. Very little of the iron appears to be in solid solution with the sphalerite, as evidenced by its ability to transmit light in polished thin sections. Consequently, it is indicated that most sphalerite is near pure ZnS .

TABLE IX

Semiquantitative Elemental and Mineralogical Analyses
for Seven Rock Specimens

	Specimen No. 1	Specimen No. 2	Specimen No. 3	Trench No. 1	Trench No. 5	Trench No. 9	Trench No. 10
<u>Semiquantitative XRF</u>							
Fe (%)	7.	3.	5.	6.	2.	3.	4.
Mn (%)	0.2	0.4	<0.01	0.9	>10.	0.04	0.2
Pb (%)	3.	3.	5-10	5-10	2.	0.6	10-15
Zn (%)	10-15	2-5	10-15	15-20	2.	30-40	20-30
Cu (%)	0.04	0.4	0.2	0.1	0.04	1.	0.5
Ag (oz/t)	<5.	<5.	>25.	<5.	<5.	<5.	<5.
<u>Semiquantitative Mineralogy (Wt %)</u>							
Quartz	65	65	65	55	13	40	50
K-Feldspar	-	Tr	Tr	Tr	-	Tr	Tr
Pyroxene	-	-	-	-	75-85	-	-
Chlorite	5	4	-	10	Tr	-	2
Clay	Tr	-	Tr	-	-	-	-
Calcite	Tr	15	-	-	-	-	-
Cerussite	-	-	1-2	1-2	-	-	-
Smithsonite	-	-	-	-	-	-	-
Galena	2-5	2-5	5-10	5-10	1-2	Tr	5-10
Sphalerite	15-25	5-10	15-25	20-30	2-5	55-65	30-40
Chalcopyrite	Tr	1-2	Tr	Tr	-	2-5	1-2
Covellite ^a	-	Tr	-	Tr	-	-	Tr
Pyrite ^a	2-5	1-2	1	1-2	Tr	Tr	1-2
Iron Oxides ^a	2-5	-	2-5	-	-	-	1-2
Acanthite ^{a,b}	-	-	Tr	-	-	-	-

. Estimated microscopically.

. Identified microscopically and
by electron microprobe.

Petrographic Descriptions

As mentioned previously, six of the specimens are highly siliceous, with quartz as the major gangue component, whereas a manganese pyroxene is the major silicate in the specimen from Trench No. 5. In this section it was noted that most of the quartz occurs in two forms, which possibly represent two stages of quartz deposition. One form of quartz occurs as interlocking coarse-grained (0.3-2mm) polycrystalline patches, usually displaying strain under crossed nicols. The second form of quartz is fine grained (0.01-0.05mm), occurring as microcrystalline patches. This microcrystalline form appears to have been deposited later than most of the coarser quartz, as evidenced by embayed replacements of the latter by microcrystalline chert of possible hydrothermal origin.

From a petrographic standpoint, the siliceous varieties were classified as veins and breccias. Breccias were ascertained by the presence of various sizes of angular volcanic fragments. The specimen from Trench No. 5 was classified petrographically as a pyroxene tactite. Descriptions for these three petrographic classifications are provided below.

Veins (Specimen No. 1, Specimen No. 3, Trench No. 1)

These contain the two varieties of quartz described above, with the coarse-grained quartz predominating in Specimen No. 1, and the finer microcrystalline quartz predominating in Specimen No. 3 and the specimen from Trench No. 1. The variations in quartz, as well as space-filling chlorite (Specimen No. 1, Trench No. 1) and sulfides, display local banded and spotty textures.

Breccias (Specimen No. 2, Trench No. 9, Trench No. 10)

The two forms of quartz were also observed in these specimens. However, the "breccia" designation was given because of the presence of angular cryptocrystalline to glassy volcanic fragments. These fragments usually range from a centimeter down to approximately a millimeter, and were reddish-brown in hand specimen. On occasion, under crossed nicols, feldspar microphenocrysts were recognizable to occur in a nearly isotropic glassy matrix. Most fragments are characterized by rims of quartz, displaying subparallel growth into the matrix, resembling cockscomb structure.

Specimen No. 2 contained relatively abundant calcite (approx. 15%) as spacefillings with chlorite.

Pyroxene Tactite (Trench 5)

The exact identification of the manganese-rich, iron-poor pyroxene in this specimen was not attempted. In hand specimen the rock is dark gray in color, but along freshly cut surfaces the pyroxene imparts a light brown coloration. In thin section the pyroxene is prismatic to acicular and locally displays radiating or spherulitic structures. Relatively small percentages of quartz occur as recrystallized patches.

Opaque Mineralogy

The opaque minerals in these samples are largely sphalerite, galena, pyrite, chalcopyrite and covellite. Ferruginous oxides also occur as specular hematite and smaller amounts of goethite in Specimens No. 1 and No. 3 and the specimen from Trench No. 5. Platy and prismatic specular hematite was observed along tiny veinlets and open spaces, and locally as replacements of sulfides, largely sphalerite. Goethite was noted as veinlets and partial replacements of pyrite.

Prior to flotation testing, microscopic grain size determinations of the sulfides were obtained by D. M. Hausen³ from thin sections of the seven specimens, which are given in Table III. While these measurements were probably not completely indicative of grain sizes for sulfides in the metallurgical samples, the grain sizes and occurrences for the seven specimens provided a rough idea of the nature of the ores at the New Moon prospect.

Of the major sulfides sphalerite is the coarsest, with predominant sizes ranging from 0.1 to 0.5 mm, occurring largely as massive to semi-massive space and vein fillings. Only very minor amounts of the sphalerite occurred as fine-grained disseminations (<0.05 mm).

Galena is much finer grained, with predominant grain sizes ranging from 0.03 to 0.10 mm. Approximately 50% of the galena occurs separately from the other sulfides as space fillings and disseminations. Most of the remaining 50% is intergrown with sphalerite, but largely occurs as edged attachments along outer grain boundaries of the sphalerite. Very minor amounts occur as fine blebs (0.005-0.02 mm) within the sphalerite.

Predominant grain sizes for chalcopyrite (0.04-0.15 mm) are slightly coarser than for galena, but finer than sphalerite. Chalcopyrite is present largely as space-fillings and disseminations independent of the other sulfides, although small amounts occur as fine blebs in sphalerite, edged attachments with sphalerite and galena, and fracture fillings in pyrite.

Pyrite is predominantly in the 0.06 to 0.12 mm sizes, occurring as individual euhedral and sub-rounded grains, and occasionally as clusters. Rarely, were binary and ternary intergrowths of pyrite observed with the other sulfides.

Covellite occurs as partial supergene replacements of chalcopyrite, but was even observed on occasion as fine rims on sphalerite.

Acanthite (Ag_2S) was the only silver mineral positively identified microscopically, and was observed only in the specimen from Trench No. 3. It is gray in color, but is identified microscopically by its extremely soft nature and the light etch of the surfaces by light from the microscope. Where observed, acanthite is finely disseminated in sizes ranging from 0.01 to 0.06 mm. On occasion, it was noted as thin rims on other sulfides. It is suggested that this latter occurrence is probably more frequent than observed, but additional microscopic and electron probe studies are required for acanthite occurrences.

Gold occurrences were not identified in examination of polished thin sections for these seven specimens.

Metallurgical Implications

Due to the abundance of quartz, and especially the microcrystalline variety in some of the specimens, these will probably be considered hard ores, requiring considerable primary grinding.

The generally space-filling and relatively coarse-grained features of sphalerite suggest most would be liberated at conventional primary grinds (approx. 65%, -200 mesh). However, because of the finer-grained nature of the galena, finer primary grinds will probably be required.

Some of the lead is attributed to cerussite, which will probably be lost in the tailings.

REFERENCES

1. Macauley, T. N., "Re: New Moon Project, B.C.," Letter to W. C. Hellyer, December 16, 1985.
2. Hellyer, W. C., "Ref: New Moon Sample Testing," Letter to T. N. Macauley, January 9, 1986.
3. Hausen, D. M., "Preliminary Liberation Size Measurements of Major Sulfide Phases in Select Ore Samples from the New Moon Project, B.C.," Memorandum to S. W. Nabbs, January 31, 1986.

M E M O R A N D U M

July 18, 1986

To: S. W. Nabbs and A. Gorken
From: J. W. Ahlrichs
Subject: Mineralogic Evaluation of Products
from Flotation Test NM-4 for the
Blue Moon Project

INTRODUCTION

Six flotation products from Test NM-4 for the flotation of a two-kilogram sample of a composite of Blue Moon trench samples were submitted for semiquantitative mineralogic evaluation. The microscopic point-counting technique was used to determine the following:

1. Major diluents in the lead and zinc cleaner concentrates,
2. Degree of liberation and locking of the various sulfides,
3. Occurrences of lead and zinc losses in the final tailing (zinc scavenger tailing).

Preliminary investigations were also conducted to evaluate occurrences of the precious metals. Epoxy mounts for the lead cleaner concentrate (1.29 oz Au/t, 5.85 oz Ag/t) and the lead cleaner tailing (0.64 oz Au/t, 4.80 oz Ag/t) were examined by microscopic and limited electron microprobe techniques.

SUMMARY

Microscopic counting analyses were conducted for six flotation products from Test NM-4. Results for these analyses showed the following:

1. While some locking occurs in the lead products, this is not the main reason for impure lead concentrates. In the lead cleaner concentrate, sphalerite (29.6%) and pyrite (14.6%) are the major diluents, but microscopic counting indicated 75% of the sphalerite and 68% of the pyrite were completely liberated.

2. In the intermediate lead products, the lead cleaner tailing and lead scavenger concentrate contained 25.4 and 51 percent galena, respectively. Approximately 80% of the galent in the two products was completely liberated from other sulfides.
3. A relatively pure zinc cleaner concentrate was achieved, consisting of approximately 95% sphalerite.
4. Greater than half of the lead losses in the final zinc scavenger tailing was attributed to oxide lead (1.25%), which was in the form of cerussite ($PbCO_3$). Of the galena (0.9%) present in the tailings, 46% appeared to be completely liberated from other sulfides and the gangue minerals.
5. Zinc losses in the zinc scavenger tailing were due entirely to sphalerite (3.5%), of which 52% was completely liberated from other sulfides and the gangue minerals.

All gold and some of the silver in the lead cleaner concentrate (1.29 oz Au/t, 5.85 oz Ag/t) and the lead cleaner tailing (0.64 oz Au/t, 4.80 oz Ag/t) were attributed to electrum. Silver is also present as acanthite (Ag_2S), and at least one of the silver sulfosalts. When observed microscopically, the acanthite and the sulfosalt are fine grained ($<10 \mu m$) and locked to other minerals. This probably accounts for the relatively high concentrations of silver in all the flotation products for lead (3.98-5.85 oz/t), zinc (2.64-2.69 oz/t), and the losses in the zinc scavenger tailings (0.50 oz/t).

Additional microprobe studies are required to identify other possible silver phases and possibly solid solution occurrences in the major sulfides (galena, covellite, chalcopyrite, sphalerite, etc.).

LIBERATION AND LOCKING CHARACTERISTICS

The determination of liberation and locking characteristics for the major minerals in the six flotation products was accomplished by the microscopic point-counting technique. Weight percentages of free minerals and the various forms of lockings are given in Table III of this memorandum. The "free" and "locked" values are further classified as "estimated particle compositions," so that degrees of liberation were calculated for each mineral in the various products. Mineralogic data in that table and throughout this memorandum were calculated to the nearest 0.01%. This does not indicate the accuracy of the technique, but was done to characterize even those mineral associations which occur as small percentages.

Pertinent data from the detailed information contained in Table III are summarized in Table I, which shows the amount of free minerals and summarizes the types of lockings. The liberation and locking characteristics for the products are described below.

Lead Cleaner Concentrate

According to data in Table I, the lead cleaner concentrate contains approximately 47% galena. The major minerals which serve to dilute this concentrate are largely sphalerite (29.6%) and pyrite (14.6%), and smaller percentages of copper sulfides (4.6%) and gangue minerals (4.1%).

Of the total sphalerite in the lead cleaner concentrate, 75% was completely liberated and 18% occurred as lockings with galena. For pyrite, it is shown that 68% is completely liberated, while 15% is locked with sphalerite and 14% with galena. The reasons for the completely liberated sphalerite and pyrite and most of the sphalerite-pyrite middling particles to float into the lead cleaner concentrate were not obvious microscopically.

Lead Cleaner Tailing

Upon cleaning of the lead concentrate, approximately 36% galena reported to the lead cleaner tailing. Of the total galena, about 90% was completely liberated.

Other minerals occurring in this product include gangue (23%), sphalerite (25.4%), pyrite (12.4%), and copper sulfides (3.2%), for which the respective degrees of liberation are 71%, 80%, 75%, and 90%.

Lead Scavenger Concentrate

Considerable amounts of sphalerite (51%) and galena (33%) reported to the lead scavenger concentrate. The degrees of liberation for these two sulfides were 80% and 89%, respectively. Of the total pyrite (8.1%), 78.4% was completely liberated. However, only 26% of the total gangue (6.6%) was liberated, with 30% occurring as lockings with sphalerite, 25% as lockings with galena, and 18% as lockings with other mineral phases, namely pyrite and copper sulfides.

Zinc Cleaner Concentrate

The zinc cleaner concentrate was relatively pure, consisting of approximately 95% sphalerite. Small amounts of galena (2.3%), copper sulfides (1.1%) and gangue (1.5%), and nearly negligible amounts of pyrite (0.06%) were also present.

Liberation and Locking Characteristics

	Pb Cl Conc		Pb Cl Tail		Pv Scav Conc		Zn Cl Conc		Zn Cl Tail		Zn Scav Tail	
	Wt %	% of Total	Wt %	% of Total	Wt %	% of Total	Wt %	% of Total	Wt %	% of Total	Wt %	% of Total
Sphalerite												
Free	22.25	75.2	20.21	79.8	40.93	80.3	88.55	93.2	75.19	86.7	1.84	52.2
Locked with Galena	5.37	18.1	3.81	15.0	6.51	12.8	3.41	3.6	5.30	6.1	0.87	24.6
Locked with Pyrite	0.57	1.9	0.29	1.1	0.36	0.7	0.04	<0.1	0.09	0.1	-	-
Locked with Gangue	0.28	0.9	0.84	3.3	0.72	1.4	0.11	0.1	0.88	1.0	0.58	16.4
Other Lockings	1.16	3.9	0.21	0.8	2.43	4.8	2.94	3.1	5.32	6.1	0.24	6.8
Totals	29.63	100.0	25.36	100.0	50.95	100.0	95.05	100.0	86.78	100.0	3.53	100.0
Galena												
Free	43.20	91.7	32.32	89.8	29.23	88.8	1.32	57.9	2.04	47.5	0.40	46.1
Locked with Sphalerite	3.04	6.5	1.74	4.8	3.08	9.4	0.95	41.7	2.15	50.1	0.19	21.8
Locked with Pyrite	0.37	0.8	0.18	0.5	0.18	0.5	-	0.0	-	0.0	0.01	1.1
Locked with Gangue	0.32	0.7	1.78	4.9	0.44	1.3	-	0.0	0.05	1.2	0.24	27.6
Other Lockings	0.16	0.3	0.02	<0.1	-	0.0	0.01	0.4	0.05	1.2	0.03	3.4
Totals	47.09	100.0	36.04	100.0	32.93	100.0	2.28	100.0	4.29	100.0	0.87	100.0
Copper Sulfides^a												
Free	3.98	86.3	2.85	90.2	1.01	70.6	0.29	27.6	0.31	26.7	<0.01	0.0
Locked with Sphalerite	0.27	5.9	0.13	4.1	0.19	13.3	0.76	72.4	0.83	71.6	0.06	31.6
Locked with Galena	0.28	6.1	0.04	1.3	-	0.0	<0.01	0.0	<0.01	0.0	0.02	10.5
Other Lockings	0.08	1.7	0.14	4.4	0.23	16.1	-	0.0	0.02	1.7	0.11	57.9
Totals	4.61	100.0	3.16	100.0	1.43	100.0	1.05	100.0	1.16	100.0	0.19	100.0
Pyrite												
Free	9.89	68.0	9.31	74.9	6.32	78.4	-	0.0	0.51	98.1	0.31	70.5
Locked with Sphalerite	2.22	15.2	1.10	8.9	0.53	6.6	0.06	100.0	0.01	1.9	-	0.0
Locked with Galena	2.07	14.2	1.13	9.1	0.81	10.0	-	0.0	-	-	0.10	22.7
Other Lockings	0.38	2.6	0.88	7.1	0.40	5.0	-	0.0	-	-	0.03	6.8
Totals	14.56	100.0	12.42	100.0	8.06	100.0	0.06	100.0	0.52	100.0	0.44	100.0
Gangue^b												
Free	1.79	43.5	16.29	70.8	1.74	26.2	0.73	47.7	4.59	63.4	-	-
Locked with Sphalerite	0.76	18.5	1.73	7.5	2.00	30.2	0.80	52.3	2.42	33.3	-	-
Locked with Galena	1.12	27.3	4.00	17.4	1.67	25.2	-	0.0	0.07	1.0	-	-
Other Lockings	0.04	10.7	1.00	4.3	1.22	18.4	-	0.0	0.17	2.3	-	-
Totals	4.11	100.0	23.02	100.0	6.63	100.0	1.53	100.0	7.25	100.0	-	-

a. Includes both chalcopyrite and covellite.

b. Includes largely non-opaque gangue and smaller amounts of ferruginous oxides.

Zinc Cleaner Tailing

The zinc cleaner tailing also contained large amounts of sphalerite (86.8%), although larger amounts of gangue (7.3%) and galena (4.3%) were present than for the zinc cleaner concentrate. Only 48% of the galena, but 63% of the gangue were liberated in the zinc cleaner tailing.

Zinc Scavenger Tailing

Cerussite (PbCO_3) was identified by XRD as a major lead mineral in the zinc scavenger tailing. Consequently, PbO and ZnO assays were obtained, resulting in values of 1.4% PbO and <0.01% ZnO. Based on these assays, cerussite accounts for greater than half of the lead losses, whereas nearly all zinc losses are attributed to sphalerite.

Of the total galena (0.9%) detected in this product, as much as 46% appeared to be completely liberated. Nearly 22% occurs as lockings with sphalerite, most of which were binary middling particles.

Of the total sphalerite (3.5%), 52% was liberated. The reasons for unusually large losses of completely liberated sphalerite were not ascertained by these studies.

PRECIOUS METAL OCCURRENCES

Assays and distributions for gold and silver in the flotation products from Test NM-4 are compared in Table II, below.

TABLE II

Gold and Silver Assays and Distributions
for Flotation Products from Test NM-4

<u>Product</u>	<u>Wt %</u>	<u>Au</u>		<u>Ag</u>	
		<u>oz/t</u>	<u>Dist(%)</u>	<u>oz/t</u>	<u>(Dist(%))</u>
Assay Head		0.102		1.05	
Calculated Head	100.00	0.093	100.0	1.05	100.0
Pb Cleaner Concentrate	2.67	1.29	36.9	5.85	14.8
Pb Cleaner Tails	0.80	0.64	5.5	4.80	3.6
Pb Scavenger Concentrate	4.35	0.35	16.3	3.98	16.4
Zn Cleaner Concentrate	2.80	0.11	3.3	2.64	7.0
Zn Cleaner Tails	7.59	0.13	10.6	2.69	19.4
Zn Scavenger Tails	81.79	0.031	27.4	0.50	38.8

As shown in Table II, 36.9% of the gold was recovered in the lead cleaner concentrate, assaying 1.29 oz Au/t. Highest concentrations of silver (5.85 oz/t) also occur in the lead cleaner concentrate, but only 14.8% was recovered in this product. Overall gold and silver recoveries in the various lead and zinc flotation products were 72.6% and 61.2%, respectively, with 27.4% of the gold and 38.8% of the silver occurring in the zinc scavenger tailings.

Due to the relatively high concentrations of gold and silver in the lead cleaner concentrate and the lead cleaner tailing, epoxy mounts of these two products were examined in detail at magnifications near 600X. Preliminary qualitative electron microprobe studies were conducted on the two products at the Foote Mineral Laboratory at Exton, Pennsylvania.

Electrum and acanthite were observed microscopically, while a silver-bearing sulfosalt was identified by the electron microprobe. Descriptions for these are given below.

Electrum

Electrum observed microscopically in the two flotation products was of relatively high reflectivity, displaying a creamy coloration which is indicative of the presence of gold as well as silver. Electron microprobe analyses of electrum indicated it to be composed of 60 to 70 percent gold, and 30 to 40 percent silver.

Approximately one-half of the electrum was present as essentially liberated grains (Fig. 1). The remaining observed electrum was locked with various sulfides (Figs. 2, 3). Measurements along maximum dimensions of the electrum ranged from about 5 to 65 μm . Finer grained electrum (<5 μm) could be present, but might have been overlooked microscopically.

Acanthite

Acanthite rather than argentite is used here, because argentite is unstable at temperatures below 179°C. Under reflected light, acanthite is a light gray coloration, but after about five minutes of light etching by the microscopic beam, it changes to a deep bluish coloration, then a dark gray, similar to non-opaque gangue.

Some acanthite was identified microscopically and by the electron microprobe in both products. All observed acanthite was fine grained (<10 μm) and locked to other sulfides.

Figure 1.
Relatively coarse electrum (E)
in lead cleaner tailing. The
length is approximately 65 μm .
It is essentially liberated,
except for thin rim of hematite
(H).
(X666, incident light)

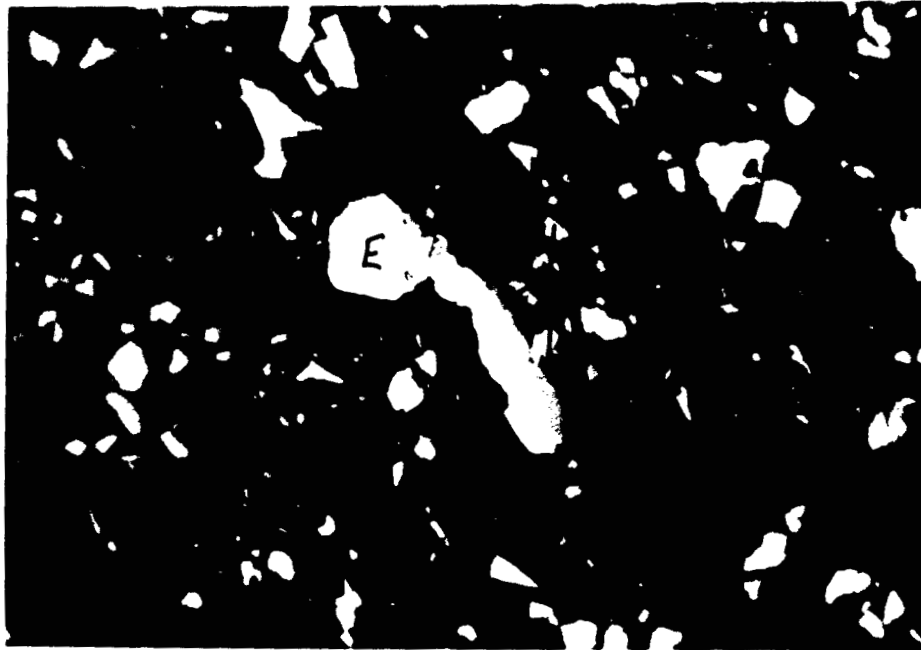


Figure 2.
Lead cleaner concentrate with
electrum (E) locked with
sphalerite (Sp), which in turn
is locked with pyrite (Py).
(X666, incident light)



Figure 3.
Lead cleaner tailing.
Fine electrum (E) about 8 μm
in length as inclusion in pyrite.
(X666, incident light)



Silver Sulfosalt

A third discrete silver mineral was detected by the probe, but could not be identified positively by microscopic techniques. The probe indicated it to be a silver sulfosalt, containing silver, sulfur and antimony, and smaller amounts of copper and zinc. This could be one of numerous minerals (tetrahedrite, pyrargyrite, polybasite, pyrostilpnite, etc.).

The silver sulfosalt identified by the probe was also fine grained (<10 μm) and locked to the various sulfides in the two products. Much more work is required for its identification, possibly quantitative probe studies.

METALLURGICAL IMPLICATIONS

Microscopic counts of the flotation products from Test NM-4 indicate an improved lead cleaner concentrate is possible if most of the liberated sphalerite and pyrite can be adequately depressed. Lead and especially zinc losses in the final zinc scavenger tailings might be decreased, because a considerable amount of galena and sphalerite appeared to be completely liberated. It is noted that these trench samples are near surface, but at depth, lower amounts of cerussite might occur.

All of the gold and some of the silver occurs as electrum, some of which is free (approx. 50%), but significant amounts are locked with sulfides. The other silver phases (acanthite, silver sulfosalt) are finely locked with various sulfides.

Microscopic Products from Test NM-4

	Lead Cleaner Concentrate							Lead Cleaner Tailing							Lead Scavenger Concentrate						
	Wt %	Estimated Particle Compositions (Wt %)						Wt %	Estimated Particle Compositions (Wt %)						Wt %	Estimated Particle Compositions (Wt %)					
	Sp	Cl	Cy	Co	Py	G	Sp	Cl	Cy	Co	Py	G	Sp	Cl	Cy	Co	Py	G			
Free Minerals																					
Sphalerite (Sp)	22.25	22.25					20.21	20.21					40.93	40.93							
Galena (Cl)	43.20		43.20				32.32		32.32				29.23		29.23						
Chalcopyrite (Cy)	3.25			3.25			2.43			2.43			0.92			0.92					
Covellite (Co)	0.73				0.73		0.42				0.42		0.09				0.09				
Pyrite (Py)	9.89					9.89	9.31				9.31		6.32					6.32			
Gangue (G) ^a	1.79					1.79	16.29					16.29	1.74					1.74			
Binary Lockings																					
Sp/Gl	8.35	5.34	3.01				5.17	3.62	1.55				9.30	6.32	2.98						
Sp/Cy	1.06	0.83		0.23			0.25	0.16		0.09			2.30	2.12		0.18					
Sp/Co	0.14	0.13			0.01		-						0.25	0.19			0.06				
Sp/Py	1.89	0.34				1.55	1.28	0.25			1.03		0.66	0.23				0.43			
Sp/G	0.91	0.23					2.41	0.82				1.59	1.74	0.46				1.28			
Cl/Cy	0.36		0.09	0.27			Tr			Tr			-								
Cl/Py	2.34		0.31		2.03		1.55		0.17		1.38		0.96		0.17			0.79			
Cl/G	1.36		0.31			1.05	5.65		1.75			3.90	1.76		0.34			1.42			
Cy/Py	0.18			0.01		0.17	0.31			0.02		0.29	-								
Cy/G	0.15			0.01		0.14	0.34			0.03			0.15			0.01		0.14			
Co/G	0.12				0.05	0.07	0.12				0.07		0.49			0.08		0.41			
Py/G	0.23					0.06	0.61				0.15	0.46	0.63				0.32	0.31			
Ternary Lockings																					
Sp/Gl/Cy	0.13	0.07	0.01	0.05			0.50	0.24	0.19	0.07			0.17	0.14	0.02	0.01					
Sp/Gl/Py	1.09	0.27	0.05			0.77	0.16	0.02	0.01		0.12		0.31	0.16	0.03			0.12			
Sp/Gl/G	0.19	0.07	0.02			0.10	0.29	0.03	0.02			0.24	1.04	0.24	0.15			0.65			
Others	0.31	0.04	0.09	Tr		0.08	0.28	0.01	0.02	0.03		0.08	0.66	0.08	Tr	-	0.07	0.04			
Quaternary Lockings																					
	0.08	0.06	Tr		0.01	0.01	0.10	Tr	Tr	Tr		0.10	0.35	0.08	0.01	0.01	-	0.04			
Microscopic Totals																					
	100.00	29.63	47.09	3.82	0.79	14.56	4.11	100.00	25.36	36.04	2.67	0.49	12.42	23.02	100.00	50.95	32.93	1.13	0.30	8.06	6.63
Degree of Liber'n. (X)																					
		75.	92.	85.	92.	68.	44.		80.	90.	91.	86.	75.	71.		80.	89.	81.	30.	78.	26.

a. Includes some iron oxides as well as non-opaque gangue.