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April 21, 1981

MEMORANDUM

TO: W. T. Probandt

FROM: R. L. Nielsen

SUBJECT: Summary of Drilling Results, Perry Canyon Claim Block, Pyramid District, Washoe County, Nevada.

Summary

Three shallow rotary holes were drilled in the Perry Canyon mineralized system during February 1981. Two holes are on the Perry Canyon claim block and one hole is on the Fox claim group. Objectives of the drilling were to penetrate the thoroughly oxidized capping and test for and obtain samples of disseminated mineralization.

No ore grade mineralization was cut by these three holes. No primary copper or molybdenum minerals were observed but minor amounts of supergene chalcocite occurs in a thin blanket at the base of oxidation; grades of up to 0.1% copper were obtained from this thin zone. No anomalous radioactivity is detected in cuttings.

The drill holes penetrated rhyolitic crystal-vitric tuff and intrusive quartz latite porphyry. The latter rock had not been recognized previously in our reconnaissance surface mapping. We now are confident that the intrusive quartz latite porphyry can be recognized in surface exposures and the geologic maps will be revised accordingly. Alteration encountered principally is pervasive propylitic and clay-sericite types. The dominant sulfide is disseminated pyrite. Advanced argillic alteration was not detected for certain in the drill cuttings.

Mineralization, alteration and disseminated sulfides encountered in drilling is consistent with a pyritic halo of a porphyry copper system. Drill holes must penetrate to 2,000 to 4,000 feet deep to definitely test for a copper-molybdenum center.

Drilling Statistics

Total Footage Drilled	740 feet
Total Number of Holes	3
Rig Used	CF-15
Casing Used - 5 5/8 Inch	60 feet

Cuttings Assayed for Cu, Mo, Au, Ag, Pb, Zn

Cuttings scanned with scintillometer

Drillings done February 11 thru February 16, 1981

Estimated Costs:

Road repair and drill site preparation	$ 1,125.00
Boyles Brothers drilling charges	6,032.55
Assays on cuttings	852.00
Thin section preparation and analyses	182.43
Geologic support	2,600.00
Travel and field expenses	1,478.88
TOTAL COSTS	$12,270.86

Drill Hole Data

Drill Hole PC-1

This hole is located in the bottom of Perry Canyon, in SW¼, NE¼, Sec. 23, T23N, R21E, adjacent to road in an area mapped as quartz latite tuff and showing superposed geochemical anomalies in copper, molybdenum, silver, lead, tungsten and tin. Mapped alteration is strong clay-sericite and advanced argillic.

The hole was drilled to 210 feet T.D. Base of oxidation is 30 feet and a strong flow of water was encountered at 50 feet which required drilling with foaming additives. The hole was completed in about 8 hours.

This hole appears to have passed through a sequence of bedded tuff, dominantly crystal rich and rhyolitic in composition. Some units of relatively dark ash beds were encountered.

A thin 10-foot zone of weak supergene chalcocite mineralization at the base of oxidation assayed 645 ppm Cu. Traces of galena and sphalerite were observed in places and assays up to 0.15% Pb and Zn were obtained. Otherwise, the principal sulfide is finely disseminated and veinlet pyrite which comprises up to 3 volume percent of the rock.

Pervasive alteration is propylitic and clay-sericite types. Hornblende and biotite are completely replaced by chlorite-magnetite-sericite-epidote-Ti oxide mixtures. Feldspars are partly replaced by sericite-montmorillonite mixtures.

Mineralization and alteration is indicative of pyritic halo in a porphyry system.

Drill Hole PC-2

This hole is located in a side canyon to the south of Perry Canyon in NW¼, SW¼, Sec. 23, T23N, R21E in an area mapped as pervasively altered and mineralized rhyolite tuff. Super-posed geochemical anomolies in copper, molybdenum, silver, lead, tungsten and tin are present in mineralized breccia. The alteration is mapped as strong clay-sericite.

The hole was drilled to 210 feet T.D. Base of oxidation is 50 feet and a flow of water was encountered at 60 feet. The hole was completed in about 8 hours.

Cuttings from this hole originally were logged as rhyolitic crystal lithic tuff. Thin section examination indicates the entire hole may be intrusive quartz latite porphyry.

Mineralization in this hole dominantly is disseminated and veinlet pyrite which comprises up to 3 volume percent of the rock. Traces of supergene chalcocite were observed and copper assays throughout the hole varied from 200 to 700 ppm Cu, which are strongly anomalous. Molybdenum and silver values are weakly anomalous.

Pervasive alteration is propylitic and clay-sericite. Hornblende and biotite are replaced by a mixture of chlorite-magnetite-carbonate-Ti oxides. Feldspars are replaced by a mixture of clays and sericite.

Drill Hole PC-2 had the best copper mineralization of the three holes, but the dominant pyrite mineralization is indicative of pyrite halo.

Drill Hole PC-3

This hole is located on the north slope of Perry Canyon on the Fox claims leased from Andy B. Wallace in the SW¼, NE¼, Sec. 23, T23N, R21E. It is located in an area of strongly mineralized breccia and super-posed geochemical anomalies (copper, molybdenum, lead, silver, gold, tungsten and tin). The alteration at this location is mapped as advanced argillic.

The hole was drilled to 320 feet. Base of oxidation is 50 feet and water was encountered at 100 feet. The hole was completed in two days.

Cuttings from this hole originally were logged as crystal-rich rhyolite tuff. Thin section examination reveals the hole is largely in quartz latite porphyry; probably an intrusion.

Weak supergene chalcocite was encountered at the base of oxidation where an assay of .09 percent copper was encountered. Molybdenum values of 2 to 7 ppm are weakly anomalous.

Pervasive propylitic and clay-sericite alteration were encountered. Chlorite-magnetite-carbonate-Ti oxides replace hornblende and biotite. Clay and sericite replace feldspar. Total sulfides, largely disseminated pyrite, averages about two volume percent. Mineralization and alteration indicates a pyritic halo.

Respectfully submitted:

Richard L Nielsen

Richard L. Nielsen
Consulting Geologist

RLN/vlf

SUMMARY OF PETROGRAPHIC OBSERVATIONS

PYRAMID DISTRICT, NEVADA

M. J. Sweeney, April 1981

Eleven thin-sections from three rotary drill holes in the Pyramid district were examined. The descriptions of each sample are attached.

The alteration in most of the examined samples is propylitic; chlorite ±epidote±calcite have replaced original hornblende and biotite phenocrysts. In two samples, PC1-140 and PC3-280, mafic phenocrysts have been replaced by a pale brown clay and sericite; no chlorite or epidote are present.

Wallace (1979, Nevada Bureau of Mines, Report 33) indicates that at both Pyramid and at Goldfield advanced argillic alteration has been superimposed on propylitic alteration. No advanced argillic assemblages are present in the examined Pyramid samples.

Secondary fluid inclusions, observable in quartz phenocrysts, are more abundant and more consistently vapor-dominated in PC1 and PC2 than in PC3.

PETROGRAPHIC DESCRIPTION - PC1-50

M. J. Sweeney, April 1981

Crystal Lithic Tuff: moderately to strongly sericite-montmorillonite-chlorite-pyrite altered.

Angular, broken, variably-sized clasts of quartz and feldspar, and chloritized biotites occur in a very fine-grained (0.02 mm) matrix of quartz and partially sericitized feldspar.

MINERALS	%	OCCURRENCE
Quartz	5	Angular clasts 0.05-1.8 mm in size.
	30-50	Groundmass: anhedral to subhedral, 0.01-0.03 mm; intergrown with equally fine sericite and feldspar.
	0.5-1	Vein: 0.05 mm wide quartz+pyrite+chlorite veins.
Plagioclase	10-15	Angular clasts, 0.05-2 mm in size; 10 to 90% (average 40%) replaced by sericite and montmorillonite(?); traces of chlorite often present in plagioclases. A few grains appear to be partially replaced by zeolites.
Orthoclase	3-10	In groundmass; mostly replaced by sericite.
Zircon	tr	Euhedral.
Apatite	tr	Crystals have corroded edges.
Biotite	-	Totally replaced by chlorite, fuzzy rutile/leucoxene, traces of epidote, and minor sericite.
Zeolite?	0.5-1	Low relief, low birefringence replacement product of plagioclase.
Chlorite	1	Replaces biotite; green; blue and brown-green birefringence, optically - and +.
Clays	25-35	Sericite, montmorillonite(?) and minor kaolinite replace feldspar.
Epidote	tr	Occurs in chloritized biotites.
Rutile/ leucoxene	0.2	Mostly microcrystalline, almost opaque material; occurs in sites chloritized biotites; some sagenitic needles occur locally.
Pyrite	0.5-1	Vein and disseminated.

FLUID INCLUSIONS: Secondary inclusions are common, but not abundant, in quartz phenocrysts. All of those resolvable at 500 X are vapor-dominated. In most fractures, the inclusions have vapor:liquid ratios greater than 80:20. In a few fracture sets, vapor:liquid ratios are near 50:50. No daughter minerals were seen.

PETROGRAPHIC DESCRIPTION - PC1-80

M. J. Sweeney, April 1981

Crystal Lithic Tuff: moderately to strongly clay-chlorite-pyrite altered.

Plagioclase clasts have been 50 to 100% replaced by clay (very fine-grained, pale brown, first order yellow birefringence), sericite, chlorite and traces of very fine-grained epidote. Primary mafic minerals, biotites and hornblendes, have been 100% replaced by chlorite, magnetite, traces of epidote and microcrystalline rutile/leucoxene. Chlorites exhibit both blue and brown birefringence.

No veins occur in the thin-section. Pyrite, 1%, is disseminated.

FLUID INCLUSIONS: Secondary inclusions in quartz phenocrysts are very similar to those described in PC1-50.

PC1-110

Crystal Lithic Tuff: moderately to strongly clay-chlorite-pyrite altered.

Plagioclase clasts have been 15 to 100% (average 40%) replaced by fine-grained sericite, montmorillonite(?), kaolinite, traces of chlorite and zeolite (or albite?). Biotites have been replaced by chlorite, microcrystalline semiopaque rutile/leucoxene, traces of epidote, magnetite/hematite and pyrite. A black reflecting opaque occurs as inclusions in vein pyrite.

Narrow (0.01-0.05 mm) veins filled with pyrite, quartz and chlorite occur with a frequency of about 1 per 1-2 cm.

FLUID INCLUSIONS: Most of the secondary inclusions are the same as described in above samples. Some fractures contain inclusions which are liquid-dominated; these contain a vapor bubble occupying 30-40 volume % as well as several, large daughter minerals, including halite, hematite and one or two other phases.

PETROGRAPHIC DESCRIPTION - PC1-140

M. J. Sweeney, April 1981

Crystal Lithic Tuff: strongly sericite-clay-pyrite-sphalerite-galena-chalcopyrite altered.

Feldspar and mafic phenocrysts have been completely replaced by fine-grained sericite and a clay which is pale brown, has first order yellow birefringence, is much finer grained than sericite and has a milky, somewhat opalescent, appearance in hand-specimen. This clay is the same as has been present in all previous samples described in this hole.

Pyrite, sphalerite, galena and chalcopyrite are present as disseminations and in narrow, 0.1-0.5 mm wide, veinlets which occur with a frequency of about 1-2 per cm. Most of the sphalerite is nearly colorless in thin-section; some is yellowish.

FLUID INCLUSIONS: Most of the secondary inclusions visible in quartz phenocrysts at 500 X are vapor-dominated; vapor:liquid ratios are greater than 80:20. In a few fracture sets, vapor:liquid ratios are near 50:50. No daughter minerals were seen in either type of inclusion.

PC1-180

Quartz Feldspar Biotite Hornblende Porphyry: moderately to strongly sericite-clay-pyrite altered.

Feldspar phenocrysts have been 30 to 100% (average 50%) replaced by sericite, pale brown clay, traces of chlorite, calcite, and minor amounts of low relief, low birefringence feldspar (albite?, Kspar?) or a zeolite. Biotites and hornblendes have been replaced by sericite, clay, chlorite, quartz, traces of epidote and subhedral to euhedral crystals of red brown or yellow brown rutile, which is locally sagenitic. Groundmass feldspar, Kspar and plagioclase, has been 30-50% replaced by sericite and clay.

Narrow, 0.03-0.1 mm, discontinuous veins containing quartz and Kspar(?) occur with a frequency of about 1 per cm. Pyrite occurs as disseminations.

FLUID INCLUSIONS: Most of the secondary inclusions in quartz phenocrysts are vapor-dominated; they have vapor:liquid ratios greater than 80:20 and contain no daughter minerals. Other fracture sets contain liquid-dominated inclusions with a vapor bubble occupying 30 volume % and multiple, large daughter minerals including halite, hematite and one or two other minerals. Yet other fracture sets contain liquid dominated inclusions with vapor:liquid ratios about 20:80, and only one small or no daughter mineral. Each of the above inclusion types occur in separate fractures.

PETROGRAPHIC DESCRIPTION - PC1-200

M. J. Sweeney, April 1981

Crystal Lithic Tuff?: moderately clay-sericite-chlorite-magnetite-pyrite.

Angular, variably sized clasts of quartz and plagioclase, as well as, subhedral to euhedral clasts of chloritized biotite and hornblende occur in a matrix of very fine-grained (0.005-0.02 mm) quartz and partially clay-sericite replaced feldspar. Plagioclase clasts have been 10 to 80% (average 40%) replaced by clay (montmorillonite? and kaolinite?), sericite as well as by minor chlorite. Mafic phenocrysts, biotites and hornblendes, have been completely replaced by chlorite, fine-grained semi-opaque rutile/leucoxene and tiny blebs of magnetite. Locally the rutile is sagenitic.

Narrow, 0.03-0.007 mm, quartz-chlorite-magnetite veins occur with a frequency of about 5-10 per cm. These veins are subparallel to each other. An 0.2-0.05 mm wide quartz-pyrite-magnetite-chlorite vein crosscuts the earlier magnetite veins.

FLUID INCLUSIONS: Secondary inclusions visible in quartz clasts are the same as described at PC1-180. Most inclusions contain 80% or more vapor. A few fractures contain liquid-dominated inclusions with about 10-20% vapor and a small or no daughter mineral. Even fewer fractures contain high-salinity, liquid-dominated inclusions with halite, hematite and other solid phases.

PC2-100

Quartz Latite Porphyry: weakly to moderately sericite-clay-chlorite-carbonate-magnetite-pyrite altered.

This rock is very similar to that at PC1-180. Plagioclase phenocrysts have been 10-70% (average 25%) replaced by clay (montmorillonite? and/or kaolinite?), sericite and traces of carbonate. Biotite and hornblende phenocrysts have been completely replaced by chlorite, sagenitic and blebby rutile, tiny magnetite grains and a few grains of pyrite. Groundmass feldspars have been 20-30% replaced by sericite and clay.

No veins occur in this sample. Primary and secondary magnetite (in chloritized mafic sites) as well as traces of pyrite are present as disseminations.

FLUID INCLUSIONS: Most of the secondary inclusions are vapor-dominated with vapor:liquid ratios greater than 80:20; no daughter minerals are present. A very few secondary inclusions are liquid-dominated; the vapor bubble occupies 20-30 volume % and multiple, large daughter minerals occur including halite, hematite and one or two other phases.

PETROGRAPHIC DESCRIPTION - PC2-140

M. J. Sweeney, April 1981

Quartz Latite Porphyry: weakly to moderately clay-chlorite-carbonate altered.

This rock contains phenocrysts of quartz, plagioclase, orthoclase, biotite and hornblende in a matrix composed of fine-grained (0.1 mm), subhedral to euhedral plagioclase, subhedral orthoclase and minor anhedral quartz. Plagioclase phenocrysts have been 10-80% (average 40%) replaced by sericite, kaolinite, montmorillonite? and traces of epidote and carbonate. Orthoclase phenocrysts have been 5-20% replaced by sericite and minor carbonate. Biotite and hornblende phenocrysts have been totally replaced by chlorite, minor epidote, blebby rutile, carbonate and magnetite. The chlorite is green and exhibits blue and brown birefringence. Groundmass feldspars have been 10-20% replaced by clays.

No veins occur in this sample. Magnetite occurs as disseminations and in chlorite-replaced mafic minerals. Traces of disseminated pyrite are present in one chip and none in the other.

FLUID INCLUSIONS: As in the above sample, secondary inclusions visible are in quartz phenocrysts. Most of these are vapor-dominated with vapor:liquid ratios greater than 80:20. A few of these vapor-dominated inclusions contain visible liquid in which tiny daughter minerals (one or two transparent phases, halite and ?) are present. Other secondary inclusions in separate fractures have vapor:liquid ratios near 50:50 and contain no daughter minerals; these comprise about 10% of fluid inclusion population. Other, rare fractures contain liquid-dominated inclusions with vapor:liquid ratios about 30:70 and multiple, large daughter minerals, including halite, hematite and one or two other unknown phases.

PC2-160

Quartz Latite Porphyry: moderately clay-chlorite-pyrite altered.

This rock is very similar to that at PC2-140. Plagioclase phenocrysts have been 10 to 80% (average 30%) replaced by sericite, minor kaolinite, carbonate, montmorillonite and patchy, low relief, low birefringence feldspar or zeolite. Biotite and hornblende phenocrysts have been completely replaced by chlorite, minor sericite, mostly microcrystalline but also blebby rutile/leucoxene, carbonate (colorless and yellow-brown), pyrite and traces of epidote. The chlorite is pale green, exhibits green-grey birefringence and is optically -; it is probably more Mg-rich than that in sample at PC2-140. Groundmass feldspar has been 10-20% replaced by sericite and other clays.

No veins occur in this sample. Pyrite is present as disseminations.

FLUID INCLUSIONS: The same as described at PC2-140.

PETROGRAPHIC DESCRIPTION - PC3-110

M. J. Sweeney, April 1981

Quartz Latite Porphyry: moderately clay-epidote-chlorite altered.

The original texture and composition of this rock are very similar to those of samples PC2-100, 140 and 160. Plagioclase phenocrysts have been 20-40% replaced by epidote, lesser montmorillonite and traces of chlorite. Biotite and hornblende phenocrysts have been completely replaced by epidote, chlorite, montmorillonite, carbonate, mostly microcrystalline rutile/leucoxene, as well as traces of magnetite and pyrite. Groundmass feldspar has been 10-25% replaced by montmorillonite.

No veins occur in this section. Magnetite occurs as disseminations as do traces of pyrite.

FLUID INCLUSIONS: Secondary inclusions, visible in quartz phenocrysts, are not nearly as abundant in this sample as in PC1 and PC2 samples. Most of those present are liquid-dominated with vapor:liquid ratios near 30:70; these contain no daughter minerals. A minor proportion (20-30%) of the inclusions present are vapor-dominated; these occur in separate fractures from other inclusion types.

PC3-280

Quartz Feldspar Porphyry: intensely clay-sericite pyrite altered.

The original texture of this sample is the same as that of PC3-110. Feldspar phenocrysts have been 100% replaced by a very fine-grained clay (pale brown with first-order yellow birefringence) as well as by minor sericite and pyrite. Biotite and hornblende phenocrysts have been totally replaced by sericite, fine-grained blebby rutile/leucoxene and pyrite. The groundmass feldspars have been 100% replaced by fine-grained sericite and the brownish clay.

No veins occur in the section. Pyrite is present as disseminations.

FLUID INCLUSIONS: Secondary inclusions are not very common in quartz phenocrysts relative to samples examined from PC1 and PC2. As in PC3-110, most of the inclusions present are liquid-dominated and contain no daughter minerals. A small proportion (5-10%) are vapor dominated.

HUNTER MINING LABORATORY, INC.

994 GLENDALE AVENUE • SPARKS, NEVADA 89431 • TELEPHONE: (702) 358-6227

REPORT OF ANALYSIS

Submitted by:

Date: October 10, 1980

NIELSEN GEOCONSULTANTS, INC.
P. O. Box 2093
Evergreen, Colorado 80439

Laboratory Number: 7864

Analytical Method: AA
Colorimetric

Your Order Number:

Report on: 138 samples

Sample Mark:	Copper ppm	Molybdenum ppm	Lead ppm	Zinc ppm	Gold ppm	Silver ppm
PY Series						
1	105	25	95	10	0.1	2
2	25	5	45	5	-0.1	-1
3	45	7	110	10	0.1	1
4	20	1	10	85	-0.1	-1
5	30	3	20	50	-0.1	-1
6	10	-1	10	160	-0.1	-1
7	10	1	5	95	-0.1	-1
8	5	1	5	65	-0.1	-1
9	15	1	10	65	-0.1	-1
10	10	1	10	100	-0.1	-1
11	15	1	10	100	-0.1	-1
12	15	4	185	5	-0.1	-1
13	30	3	160	10	-0.1	-1
14	110	5	130	10	-0.1	1
15	135	5	200	25	-0.1	1
16	90	3	50	15	-0.1	-1
17	80	2	135	15	-0.1	1
18	315	1	160	20	0.6	16
19	45	17	185	15	0.2	14
20	65	3	180	20	-0.1	3

continued to page 2

ppm = parts per million. **oz/ton** = troy ounces per ton of 2000 pounds avoirdupois. **percent** = parts per hundred. **fineness** = parts per thousand. **ppb** = 0.001 ppm. Read — as "less than." 1 oz/ton = 34.286 ppm. 1 ppm = 0.0001% = 0.029167 oz/ton. 1.0% = 20 pounds/ton.

Sample Mark:	Copper ppm	Molybdenum ppm	Lead ppm	Zinc ppm	Gold ppm	Silver ppm
PY Series						
21	75	4	360	10	0.2	2
22	45	11	105	15	0.1	-1
23	45	13	145	10	0.2	4
24	10	2	15	10	-0.1	-1
25	10	3	10	15	-0.1	-1
26	5	1	15	45	-0.1	-1
27	5	2	15	15	0.1	1
28	5	2	5	25	-0.1	-1
29	5	2	10	30	-0.1	-1
30	5	1	90	55	-0.1	-1
31	10	2	10	75	-0.1	-1
32	30	2	50	15	-0.1	-1
[illegible]	50	3	335	10	-0.1	1
34	20	3	165	-5	0.1	1
35	75	3	85	15	-0.1	1
36	10	2	25	15	-0.1	-1
37	5	2	15	15	-0.1	-1
38	10	2	10	20	-0.1	-1
39	5	2	15	10	-0.1	-1
40	30	1	80	15	-0.1	-1
41	15	8	250	-5	0.3	2
42	20	1	10	40	-0.1	1
43	15	2	10	100	-0.1	-1
44	25	1	60	25	-0.1	-1
45	30	2	165	5	-0.1	-1
46	45	17	455	5	0.1	2
47	50	21	375	5	0.1	1
48	55	2	145	25	-0.1	-1
49	15	1	60	5	-0.1	-1
[illegible]	100	11	60	5	-0.1	2

continued to page 3

Sample Mark:	Copper ppm	Molybdenum ppm	Lead ppm	Zinc ppm	Gold ppm	Silver
PY Series						
51	5	1	10	40	-0.1	-1
52	10	-1	15	30	-0.1	-1
53	15	1	5	60	-0.1	-1
54	10	1	10	85	-0.1	-1
55	10	2	5	70	-0.1	-1
56	10	2	100	5	-0.1	-1
57	25	9	100	-5	0.1	1
58	35	-1	110	45	-0.1	3
59	160	10	495	5	0.1	18
60	20	1	10	250	-0.1	-1
61	80	1	470	5	-0.1	1
62	10	1	5	115	-0.1	-1
	170	11	120	10	-0.1	8
64	55	2	5	130	-0.1	-1
65	5	4	10	-5	-0.1	-1
66	60	7	165	10	-0.1	1
67	30	4	40	5	-0.1	-1
68	-5	2	15	25	-0.1	-1
69	5	2	5	65	-0.1	-1
70	5	2	5	115	-0.1	-1
71	20	2	10	35	-0.1	-1
72	15	3	10	75	-0.1	-1
73	5	2	15	65	-0.1	-1
74	5	5	15	45	-0.1	-1
75	120	61	325	10	0.1	37
76	160	49	0.40%	15	-0.1	11
77	15	2	10	60	-0.1	-1
78	280	3	50	45	-0.1	2
79	10	4	15	10	-0.1	-1

continued to page 4

Sample Mark:	Copper ppm	Molybdenum ppm	Lead ppm	Zinc ppm	Gold ppm	Silver ppm
PY Series						
80	5	3	10	15	-0.1	-1
81	5	3	25	40	-0.1	-1
82	5	2	5	60	-0.1	-1
83	5	2	10	85	-0.1	-1
84	5	2	10	80	-0.1	-1
85	10	2	10	50	-0.1	-1
86	5	2	10	40	-0.1	-1
87	5	3	10	195	-0.1	-1
88	5	5	30	15	-0.1	-1
89	5	2	10	30	-0.1	-1
90	5	5	20	45	-0.1	-1
91	5	1	20	50	-0.1	-1
[illegible]	5	2	60	30	-0.1	-1
93	15	1	75	20	-0.1	1
94	10	2	25	45	-0.1	-1
95	40	2	100	5	-0.1	-1
96	20	3	160	5	-0.1	1
97	60	3	200	5	-0.1	1
98	60	5	245	10	-0.1	1
99	75	2	130	15	-0.1	2
100	30	2	20	175	-0.1	-1
101	25	3	135	10	-0.1	2
102	20	9	300	30	-0.1	2
103	15	4	180	-5	-0.1	1
104	45	2	135	55	-0.1	-1
105	10	4	100	35	-0.1	-1
106	5	3	20	20	-0.1	-1
107	20	3	210	20	-0.1	-1
108	10	2	95	5	-0.1	-1
[illegible]	15	6	40	15	-0.1	-1

continued to page 5

Sample Mark:	Copper ppm	Molybdenum ppm	Lead ppm	Zinc ppm	Gold ppm	Silver ppm
PY SERIES						
110	25	2	90	50	0.1	-1
111	10	2	10	20	-0.1	-1
112	35	8	120	15	-0.1	1
113	20	5	145	5	-0.1	-1
114	10	5	200	10	-0.1	-1
115	30	2	115	5	-0.1	-1
116	95	4	160	5	0.1	2
117	45	1	245	10	-0.1	-1
118	30	1	215	5	-0.1	-1
119	125	6	205	5	-0.1	1
120	125	61	140	5	-0.1	-1
121	85	5	510	5	-0.1	3
[illegible]	15	4	75	10	-0.1	-1
123	50	2	65	45	-0.1	-1
124	65	1	25	15	-0.1	-1
125	85	1	30	145	-0.1	-1
126	250	1	25	25	-0.1	-1
127	45	10	15	90	-0.1	-1
128	60	1	5	215	-0.1	-1
129	45	1	5	70	-0.1	-1
130	55	2	5	300	-0.1	-1
131	10	2	5	70	-0.1	-1
132	10	1	10	75	-0.1	-1
133	10	1	10	85	-0.1	-1
134	10	1	10	75	-0.1	-1
135	15	1	10	60	-0.1	-1
136	25	1	20	80	-0.1	-1
137	10	1	5	65	-0.1	-1
138	5	1	5	65	-0.1	-1

HUNTER MINING LABORATORY, INC.

Gary M. Fechko

HUNTER MINING LABORATORY, INC.

994 Glendale Ave. • SPARKS, NEVADA 89431 • TELEPHONE: (702) 358-6227

REPORT OF ANALYSIS

Submitted by:

Date: September 11, 1980

NIELSEN GEOCONSULTANTS
Mr. R. Nielsen
P. O. Box 2093
Evergreen, Colorado 80439

Laboratory Number: 8100

Analytical Method: AA
Colorimetric

Your Order Number:

Report on: 5 samples

Sample Mark:	Copper ppm	Molybdenum ppm	Lead ppm	Zinc ppm	Gold ppm	Silver ppm
PY - 139	40	3	140	50	-0.1	-1
140	65	2	65	25	-0.1	-1
141	60	3	70	10	-0.1	1
142	35	3	100	10	-0.1	-1
143	30	1	300	15	-0.1	-1

HUNTER MINING LABORATORY, INC.

Gary M. Fechko

Gary M. Fechko

ppm = parts per million. **oz/ton** = troy ounces per ton of 2000 pounds avoirdupois. **percent** = parts per hundred. **fineness** = parts per thousand. **ppb** = 0.001 ppm. Read — as "less than." 1 oz/ton = 34.286 ppm. 1 ppm = 0.0001% = 0.029167 oz/ton. 1.0% = 20 pounds/ton.

HUNTER MINING LABORATORY, INC.

994 GLENDALE AVENUE • SPARKS, NEVADA 89431 • TELEPHONE:(702) 358-6227

REPORT OF ANALYSIS

Submitted by:

NIELSEN GEOCONSULTANTS, INC.
P. O. Box 2093
Evergreen, Colorado 80439

Date: November 26, 1980

Laboratory Number: 8833

Analytical Method: AA Colorimetric

Your Order Number:

Report on: 138 samples submitted under Laboratory No.: 7864.

Sample Mark:	Tin ppm	Tungsten W ppm	Sample Mark:	Tin ppm	Tungsten W ppm
PY-1	-5	1	Y-23	8	4
2	-5	2	24	-5	2
3	-5	-1	25	-5	1
4	-5	1	26	-5	1
5	-5	-1	27	-5	1
6	-5	1	28	-5	-1
7	-5	-1	29	-5	-1
8	-5	1	30	-5	1
9	-5	-1	31	-5	-1
10	-5	-1	32	-5	-1
11	-5	-1	33	-5	-1
12	-5	2	34	-5	1
13	-5	2	35	-5	-1
14	-5	1	36	-5	2
15	-5	-1	37	-5	1
16	-5	-1	38	-5	1
17	-5	-1	39	-5	1
18	45	-1	40	-5	2
19	30	-1	41	-5	-1
20	-5	1	42	-5	1
21	19	2	43	-5	1
PY-22	-5	2	PY-44	-5	1

continued to page 2

ppm = parts per million. **oz/ton** = troy ounces per ton of 2000 pounds avoirdupois. **percent** = parts per hundred. **fineness** = parts per thousand. **ppb** = 0.001 ppm. Read — as "less than." 1 oz/ton = 34.286 ppm. 1 ppm = 0.0001% = 0.029167 oz/ton. 1.0% = 20 pounds/ton.

Sample Mark:	Tin ppm	Tungsten as W ppm	Sample Mark:	Tin ppm	Tungsten as W ppm
PY-46	-5	2	PY-76	5	1
47	5	10	77	6	-1
48	-5	10	78	8	-1
49	-5	1	79	-5	2
50	-5	1	80	-5	2
51	-5	1	81	-5	2
52	-5	1	82	6	2
53	5	1	83	-5	2
54	-5	-1	84	5	1
55	-5	1	85	-5	1
56	5	-1	86	-5	1
57	-5	2	87	6	1
58	-5	-1	88	-5	1
59	9	2	89	-5	3
60	-5	-1	90	-5	-1
61	-5	2	91	-5	1
62	-5	1	92	-5	1
63	-5	1	93	-5	2
64	5	-1	94	-5	-1
65	-5	1	95	8	2
66	-1	1	96	-5	3
67	-5	-1	97	-5	5
68	-5	1	98	-5	7
69	-5	1	99	-5	1
70	6	1	100	15	1
71	-5	1	101	-5	1
72	7	-1	102	-5	2
73	-5	2	103	-5	10
74	-5	2	104	-5	5
PY-75	5	1	PY-105	-5	2

continued to page 3

Sample Mark:	Tin ppm	Tungsten as W ppm	Sample Mark:	Tin ppm	Tungsten as W ppm
PY-106	-5	1	PY-123	-5	-1
107	-5	2	124	-5	-1
108	-5	2	125	-5	-1
109	-5	1	126	-5	-1
110	-5	2	127	-5	-1
111	-5	2	128	-5	-1
112	-5	1	129	-5	-1
113	-5	30	130	-5	1
114	-5	4	131	-5	1
115	-5	5	132	-5	1
116	-5	5	133	-5	-1
117	-5	2	134	-5	1
118	-5	5	135	-5	-1
119	-5	3	136	-5	-1
120	-5	3	137	-5	-1
121	7	-1	PY-138	-5	-1
PY-122	-5	2	PY-45	-5	-1

HUNTER MINING LABORATORY, INC.

H. H. Scales

CONE GEOCHEMICAL INC.
810 Quail Street, Suite I
Lakewood, Colorado 80215
(303) 232-8371

Job # 1099
08-Jan-81
Page 1

ANALYTICAL REPORT

Mr. R. Nielsen
Nielsen Geoconsultants Inc.
P.O. Box 2093
Evergreen, CO 80439

PO #
Project:

SAMPLE NUMBER	% F
PY-1	0.03
PY-2	0.02
PY-3	0.05
PY-4	0.07
PY-5	0.08
PY-6	0.05
PY-7	0.06
PY-8	0.05
PY-9	0.05
PY-10	0.07
PY-11	0.12
PY-12	0.05
PY-13	0.05
PY-14	0.05
PY-15	0.06
PY-16	0.05
PY-17	0.04
PY-18	0.03
PY-19	0.03
PY-20	0.07
PY-21	0.03
PY-22	0.07
PY-23	0.03
PY-24	0.04
PY-25	0.04
PY-26	0.05
PY-27	0.04
PY-28	0.02
PY-29	0.02
PY-30	0.04
PY-31	0.03
PY-32	0.03
PY-33	0.06
PY-34	0.04
PY-35	0.04
METHOD	SpIon
DIGESTION	Fus'n
PRECISION	20%

CONE GEOCHEMICAL INC.
810 Quail Street, Suite I
Lakewood, Colorado 80215
(303) 232-8371

ANALYTICAL REPORT

Mr. R. Nielsen
Nielsen Geoconsultants Inc.
P.O. Box 2093
Evergreen, CO 80439

PO #
Project:

SAMPLE NUMBER	% F
PY-36	0.01
PY-37	0.02
PY-38	0.01
PY-39	0.01
PY-40	0.04
PY-41	0.03
PY-42	0.04
PY-43	0.04
PY-44	0.02
PY-45	0.05
PY-46	0.03
PY-47	0.02
PY-48	0.04
PY-49	0.02
PY-50	0.03
PY-51	0.04
PY-52	0.04
PY-53	0.04
PY-54	0.04
PY-55	0.03
PY-56	0.06
PY-57	0.06
PY-58	0.04
PY-59	0.02
PY-60	0.04
PY-61	0.07
PY-62	0.05
PY-63	0.02
PY-64	0.03
PY-65	0.06
PY-66	0.03
PY-67	0.06
PY-68	0.03
PY-69	0.05
PY-70	0.06
METHOD	SpIon
DIGESTION	Fus'n
PRECISION	20%

CONE GEOCHEMICAL INC.
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ANALYTICAL REPORT

Mr. R. Nielsen
Nielsen Geoconsultants Inc.
P.O. Box 2093
Evergreen, CO 80439

PO #
Project:

SAMPLE NUMBER	% F
PY-71	0.02
PY-72	0.03
PY-73	0.04
PY-74	0.04
PY-75	0.00
PY-76	0.06
PY-77	0.04
PY-78	0.05
PY-79	0.01
PY-80	0.01
PY-81	0.02
PY-82	0.05
PY-83	0.05
PY-84	0.06
PY-85	0.05
PY-86	0.00
PY-87	0.02
PY-88	0.02
PY-89	0.04
PY-90	0.04
PY-91	0.05
PY-92	0.03
PY-93	0.05
PY-94	0.05
PY-95	0.05
PY-96	0.03
PY-97	0.03
PY-98	0.03
PY-99	0.05
PY-100	0.04
PY-101	0.02
PY-102	0.05
PY-103	0.02
PY-104	0.03
PY-105	0.04

METHOD	SpIon
DIGESTION	Fus'n
PRECISION	20%

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(303) 232-8371

ANALYTICAL REPORT

Mr. R. Nielsen
Nielsen Geoconsultants Inc.
P.O. Box 2093
Evergreen, CO 80439

PO #
Project:

SAMPLE NUMBER	% F
PY-106	0.03
PY-107	0.07
PY-108	0.04
PY-109	0.03
PY-110	0.03
PY-111	0.03
PY-112	0.04
PY-113	0.02
PY-114	0.03
PY-115	0.03
PY-116	0.02
PY-117	0.04
PY-118	0.03
PY-119	0.03
PY-120	0.02
PY-121	0.02
PY-122	0.06
PY-123	0.03
PY-124	0.06
PY-125	0.03
PY-126	0.02
PY-127	0.03
PY-128	0.03
PY-129	0.03
PY-130	0.04
PY-131	0.03
PY-132	0.04
PY-133	0.03
PY-134	0.04
PY-135	0.04
PY-136	0.03
PY-137	0.03
PY-138	0.04
METHOD	SpIon
DIGESTION	Fus'n
PRECISION	20%

HOLE NO. RDH PC-1

Prospect PERRY CANYON PROSPECT Objective Coords: N E

Drilled by BOYLES BROS F-15 RIG Started Feb 11, 1981 Completed Feb 12, 1981 Bearing VERTICAL Inclination

Logged by NIELSEN / LEPRY Scale: 1"=10' Collar Elev. 5516 meters Depth 210 feet

DEPTH & SIZE	Graphic Geology	ALTERATION UV	py	cc	mtx	MINERALIZATION UV	chlorite	clay	sericite	qtz	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.	ANALYSES PPM Int.	Cu	Mo	Au	Ag	Pb	Zn	Sample No.
20			✓					✓	✓	✓	3		0-20 Sand, silt gravel boulders 5 5/8" casing placed to 20' ~~Base of ox at 30'~~ Brown-buff alt + oxidized rhyolite tuff goethite ~ 80% Jarosite 20%				215	3	0.1	2	325	465	
30			✓				✓	✓		✓	3		Base of oxidation 30' Very pale green-gray rhyolite tuff. qtz eyes clay-chlorite, quartz-sericite alt. strong silicification. 5% dissem py.				75	<1	0.1	2	285	610	
40			✓					✓	✓	✓	2		Very pale gray rhyolite tuff. qtz eye. 5% dissem py. thin py remlets				645	<1	0.1	6	830	.16%	
50			✓	tr.						✓	½		water table 50' Medium gray rhyolite tuffs. qtz eyes. strong silicification adv. argillic alt dissem + remlet py.				25	2	-0.1	-1	75	355	
60			✓				✓	✓	✓	✓	2		Pale gray; pale greenish gray qtz-eye rhyolite tuff. silicification - qtz-sericite, clay-ser. dissem + remlet py.				105	-1	0.1	2	235	530	
70			✓				✓		✓	✓	1		Medium gray. rhyolite tuff. dissem + remlet py. silicification. chlorite. sericite alt.				40	2	-0.1	-1	75	240	
80			✓	✓			✓		✓	✓	½		Medium gray rhyolite tuff. - dissem + remlet py. chlorite - qtz - sericite alt. Propylitic? Few magnetite remlets				30	1	-0.1	-1	55	220	
90																							

3720 0035 (317) ITEM 45

HOLE NO. RDH PC-1

Prospect PERRY CANYON PROSPECT Objective Coords: N E

Drilled by BOYLES BROS F-15 RIG Started February 12, 1981 Completed February 13, 1981 Bearing Vertical Inclination

Logged by NIELSEN / LEPRY Scale: 1 inch = 10 feet Collar Elev. 1516 Meters Depth 210 feet

DEPTH & SIZE	Graphic Geology	ALTERATION UV	Chlorite	Clay	Sericite	Qtz	Epitote	MINERALIZATION UV	Py	cc	cp	mte	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.	ANALYSES Int.	Cu	Mo	Au	Ag	Pb	Zn	Sample No.
100			vv		vv	vv			vv		tr		2		Medium gray rhyolite tuff. qtz xl tuff. Propylitic alt. qtz-chlorite-albite - dissem + veinlet py. fine py.			45	3	-0.1	-1	115	255	
110			vv	v	v	vv			vv			v	1		Medium greenish gray rhyolite qtz eye tuff. Propylitic alt. greenish chlorite-albite-qtz fine disem mte · veinlets of mte fine dissem py.			55	4	-0.1	1	85	250	
120			vv		v	vv			vv				3		Medium to pale gray rhyolite qtz eye xl tuff. dissem and veinlet py. chlorite-qtz-albite- alt propylitic alt.			35	2	-0.1	-1	65	195	
130			vv	v	v	vv			vv			tr	3		Medium to pale greenish gray rhyolite qtz-eye xl tuff. disseminated + veinlet py. dominantly propylitic alt qtz-chlorite-albite, trace adv-argillic.			20	3	0.1	-1	65	210	
140			vvv		v	vv	v		vv	tr		v	4		Med gray green. fine grained volc. prob a dacite to andesite ash. crystal poor. chloritic alt. dissem + veinlet py. trace mte, propylitic alt			45	1	-0.1	-1	95	200	
150			vvv		v	vv	v		vv			v	3		Med gray green. fine gr. volc - dacite-andesite ash tuff crystal poor - drill chips are fine flakes & angular platy chips abundant dissem py. Trace mte			30	2	-0.1	-1	50	255	
160			v		v	vvv			vv				3		Pale greenish gray rhyolite rhodacite qtz-rich xl-vitric tuff dissem + veinlet py. chlorite splotches, propylitic alt.			30	2	-0.1	-1	40	175	
170			v			vv			vv			v	3		Med gray green, fine grained rhodacite tuff xl-poor dissem and veinlet pyrite chlorite splotches, propylitically altered			25	1	-0.1	-1	45	265	

HOLE NO. RDH PC-1

Prospect: Petty Canyon Prospect | Objective: | Coords: N _____ E _____

Drilled by: BOYLES BROS F-15 Rig | Started: February 12, 1981 | Completed: February 13, 1981 | Bearing: VERTICAL | Inclination: _____

Logged by: L. LEDRY | Scale: 1 inch = 10 feet | Collar Elev.: 1516 meters | Depth: 210 feet

DEPTH & SIZE	Graphic Geology	ALTERATION UV	chlorite	clay	sericite	qtz	epidote	MINERALIZATION UV	py	cc	cp	mag.	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.
170'			<<<	<	<	<<<	<		<			<	3		med grey-green rhyodacite (?) v-poor tuff some qtz eyes abundant chlorite spots disseminated and veinlet pyrite propylitic alteration		
180'			<<<	<<<	<	<<<<			<				3		pale greenish-grey to buff altered rhyolite tuff strong qtz-chlorite-albite alteration abundant qtz eyes diss and veinlet pyrite small galena cubes		
190'			<<<	<<	<	<<			<<<				3		med green-grey rhyodacite tuff x/- poor abundant chlorite splotches diss and veinlet pyrite - low magnetite		
200'			<<<	<		<			<<				2		med green-grey rhyodacite tuff x/- poor strong chloritic alteration, weak albitization disseminated pyrite dominantly minor veinlets.		
210'																	

ANALYSES Int.	Cu	Mo	Av	Ag	Pb	Zn	Sample No.
185	65	2	-0.1	-1	150	205	
195	65	4	-0.1	-1	220	225	
	35	2	.1	-1	70	245	
	60	6	.1	2	.11%	.15%	

HOLE NO. RDH PC-2

Prospect Perry Canyon Prospect Objective Coords: N E

Drilled by BOYLES BROS F-15 RIG Started February 13, 1981 Completed February 13, 1981 Bearing VERTICAL Inclination

Logged by L. LEPRY Scale: 1 inch = 10 feet Collar Elev. 1550 meters Depth 210 feet

DEPTH & SIZE	Graphic Geology	ALTERATION UV	Pyrite	CC	Hematite	Capl	MINERALIZATION UV	Chlorite	clay	seridite	quartz	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.	ANALYSES Int.	Cu	Mo	Au	Ag	Pb	Zn	Sample No.
20'									✓	✓	✓			0-20' Sand, silt, gravel, pebbles of altered, limonite-stained volcanics rocks set 5 5/8" casing to 20' depth										
									✓	✓	✓			chocolate brown-to-buff altered and oxidized rhyolite porphyry dominantly goethite				85	13	-0.1	1	120	125	
30'									✓✓	✓✓		?		sand colored highly altered volcanic – totally altered to clay.				55	4	-0.1	-1	65	150	
40'									✓✓	✓✓		?		burnt orange colored, clay altered volcanics				270	3	-0.1	2	205	210	
50'									✓✓	✓✓		≤.5		* Base of oxidation 50' pale bluish-gray, strongly clay altered rhyolite Tuff				580	3	-0.1	3	250	250	
60'			✓	✓	✓✓			✓	✓		✓✓	≤.5		[WATER TABLE: 60 feet] pale bluish-gray rhyolite tuff, some quartz eyes plagioclase → albitized high magnetite diss & veinlet py				445	2	-0.1	-1	60	200	
70'			✓✓		✓✓			✓	✓✓	✓		1		bluish-grey rhyolite tuff albitized phenocrysts diss & veinlet pyrite moderately hi magnetite				545	3	.1	1	135	295	
80'			✓✓		✓			✓	✓✓	✓	✓	1		blue-grey rhyolite tuff phenocrysts albitized diss & veinlet pyrite lower magnetite some qtz eyes small chlorite spots				390	3	.1	2	210	400	
90'																								

HOLE NO. RDH PC-2

Prospect: Perry Canyon Prospect — Objective: — Coords: N — E —

Drilled by: BOYLES BROS F-15 RIG — Started: February 13, 1981 — Completed: February 13, 1981 — Bearing: VERTICAL — Inclination —

Logged by: L. LEPRY — Scale: 1 inch = 10 feet — Collar Elev.: 1550 meters — Depth: 210 feet

DEPTH & SIZE	Graphic Geology	ALTERATION UV	py	cc	mag	chlor	MINERALIZATION UV	chlorite	clay	sericite	qtz	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.
90'			v								v	1		Advanced Argillic Alteration - strong silicification textures destroyed minor chlorite p large pyrite grains diss & veinlet py		
100'			v v		v v				v v		v	2		greenish-grey porphyritic rhyolite tuff large albitized phenocrysts diss & veinlet py		
110'			v v		v v			v	v v		v v	1		greenish-grey rhyolite tuff; large albitized phenos spherical quartz eyes diss & veinlet py Propylitically altered		
120'			v v		v v			v	v		v v	2		gray-grey to light green rhyolite tuff large quartz eyes diss & veinlet py		
130'			v v v					v	v v	v	v	3		buff-to-light green highly altered tuff quartz eyes diss & veinlet py		
140'			v v v					v	v	v	v v	3		gray-green rhyolite qtz eye tuff diss & veinlet pyrite Propylitic alt some epidote		
150'			v v v					v v	v		v	3		gray-green rhyolite tuff some qtz eyes, chlorite spots veinlet pyrite Propylitic alt.		
160'			v v					v v			v v v	2		light-to-dark green porphyritic rhyolite tuff diss & veinlet pyrite large qtz eyes Propylitic Alteration		
170'																

ANALYSES

Int.	Cu	Mo	Au	Ag	Pb	Zn	Sample No.
	645	4	.2	5	230	470	
	395	4	.1	3	155	250	
	160	4	.1	-1	70	145	
	345	5	.1	2	140	240	
	575	5	.1	7	690	.26%	
	230	3	.1	2	325	780	
	175	4	-0.1	2	210	660	
	235	4	-0.1	2	275	525	

HOLE NO. RDH PC-2

Prospect: Perry Canyon Prospect — Objective: — Coords: N — E

Drilled by: BOYLES BROS. F-15 RIG — Started: February 13, 1981 — Completed: February 13, 1981 — Bearing: VERTICAL — Inclination

Logged by: L. LEPRY — Scale: 1 inch = 10 feet — Collar Elev.: 1550 meters — Depth: 210 Feet

DEPTH & SIZE	Graphic Geology	ALTERATION: UV	py	cc	MAG	chpy	MINERALIZATION: UV	chlorite	clay	sericite	qtz	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.
170'			v v		v v			v v	v	v	v v	2		buff-to-medium green rhyolite tuff moderately silicified & diss & veinlet py Propylitic Alteration		
180'			v v		v v v			v v			v v v	3		strongly silicified light green rhyolite tuff splotches of chlorite, diss py w/ hi magnetite Propylitic Alteration		
190'			v v		v v v			v v			v v v	3		strongly silicified pale green rhyolite tuff high magnetite, disseminated py chlorite splotches, Propylitic Alteration		
200'			v v		v v			v v			v v v	2		strongly silicified pale green rhyolite tuff some epidote diss & veinlet py Propylitic Alteration.		
210'																

ANALYSES	Int.	Cu	Mo	Au	Ag	Pb	Zn	Sample No.
		265	4	.1	.3	105	395	
		315	2	.1	2	135	315	
		415	3	.1	3	245	540	
		405	3	.1	3	290	535	

HOLE NO. RDH PC-3

Prospect: Berry Canyon Prospect
Drilled by: Boyles Bros F-15 Rig
Logged by: L. LEDRY
Objective:
Started: February 15, 1981 Completed: February 16, 1981
Scale: 1 inch = 10 feet
Coords: N E
Bearing: vertical Inclination:
Collar Elev.: 1545 meters Depth: 320ft

DEPTH & SIZE	Graphic Geology	ALTERATION (U V, chlorite, clay, sericite, qtz.)	MINERALIZATION (U V, pyrite, cc, chpy, MAG)	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.
10'		v	v	?		Buff - brown altered and oxidized rhyolite tuff moderately silicified goethite/jarosite = 50/50 boxwork limonites 5 5/8" casing placed to 20ft.		
20'		v v v	v	?				
30'		v v v	v	?		buff - orange-brown oxidized pyroclastic tuff moderately silicified		
40'		v v v v v	v v v	<.5		Partially oxidized rhyolite tuff light brown - to - pale blue-gray minor diss pyrite		
50'		v v v v v v	v v	.5		* BASE OF OXIDATION 50 feet strong clay altered (Supergene ?) greenish-gray rhyolite tuff textually destroyed moderately silicified fine, diss. pyrite		
60'		v v v v v v	v v v	.5-1		very pale green, strongly clay altered tuff fine disseminated py moderately silicified (qtz eyes)		
70'		v v v v v	v v	.5-1		very pale green, strongly clay altered tuff fine diss py moderately silicified (qtz eyes)		
80'								

ANALYSES

Int.	Cu	Mo	Au	Ag	Pb	Zn	Sample No.
	75	2	-0.1	1	95	40	
	150	16	.1	2	160	20	
	135	9	.2	3	220	35	
	935	2	.3	21	315	180	
	100	2	-.1	-1	30	165	
	50	2	-.1	-1	30	120	
	50	2	-.1	-1	20	65	
	110	2	-.1	-1	20	120	

HOLE NO. RDH PC-3

Prospect: Perry Canyon Prospect | Objective: | Coords: N ____ E ____

Drilled by: Boyles Bros F-15 Rig | Started: February 15, 1981 | Completed: February 16, 1981 | Bearing: VERTICAL | Inclination: ____

Logged by: L. LEPRY | Scale: 1 inch = 10 feet | Collar Elev.: 1545 meters | Depth: 320ft

DEPTH & SIZE	Graphic Geology	ALTERATION (UV: chlorite, clay, sericite, silica)	MINERALIZATION (UV: Py, cc, chpy, hem)	EST. TOT. SULF. Vol. %	Int.	GEOLOGY Description	NOTES	CORE REC.
80'				1-2		very pale green strongly clay altered volcanic tuff textures destroyed fine diss pyrite moderately silicified (quartz eyes)		
90'				1		pale green - to pale green-gray rhyolite tuff fine diss py moderately silicified minor chalcocite coating on pyrite grains		
						[WATER TABLE - 100 ft]		
100'				1-2		med gray-green rhyolite tuff albitized phenocrysts strongly silicified pyrite diss and veinlet controlled Propylitic alteration		
110'				1		med. gray-green rhyolite tuff albitized phenos. moderately silicified diss & veinlet py Propylitic alteration high magnetite		
120'				2		light-med gray-green rhyolite tuff albitized phenocrysts fine diss. pyrite Propylitic alteration minor chlorite		
130'				2		pale-to-med pea green rhyolite tuff albitized phenocrysts moderately silicified (Gz eyes) Propylitic alteration diss pyrite		
140'				3		pale green rhyolite tuff minor chlorite albitized phenocrysts (light orange) Propylitic alteration diss & veinlet py		
150'				2		pale gray-green rhyolite tuff silicified diss & veinlet pyrite light orange colored Propylitic Alteration albitized phenocrysts		
160'								

ANALYSES	Int.	Cu	Mo	Au	Ag	Pb	Zn	Sample No.
		60	1	-.1	-1	75	345	
		70	1	-.1	-1	40	230	
		75	1	-.1	-1	35	170	
		75	1	-.1	-1	25	140	
		85	-1	-.1	-1	85	175	
		110	1	-.1	1	170	530	
		50	2	-.1	-1	155	300	
		25	1	-.1	-1	45	115	

Logged By L. CERRY Project Kerry Canyon Prospect Hole No. KDH RC-3 Page From 160 feet To 300 feet

Core Recovery Size & Interval	% Rec	Graphic Geology	Graphic Alteration: chlorite	clay	sericite	qtz	Graphic Mineral: py	cc	magnetite	chalcopyrite	Vol % Sulf Est	GEOLOGY Interval	Description	Thin Section Location & Description
			V	V	V	V	V				2		pale grey-green rhyolite tuff silicified, diss & veinlet pyrite albitized phenocrysts propylitic Alt.	
170			V	V		V	V				2-3		pale grey-green to green rhyolite tuff albitized pheno. silicification propylitic Alt., diss & veinlet, pyrite	
180			V	V		V	V				2		med green rhyodacite tuff weakly propylitized silicified diss & veinlet pyrite	
190			V	V		V	V				2		med green rhyodacite tuff propylitized strongly silicified diss & veinlet pyrite	
200			V	V		V	V				2		pale green rhyolite tuff albitized phenos (lt. orang) qtz eyes (silicified) Propylitized diss & veinlet pyrite	
210			V	V		V	V				2		pale green rhyolite tuff - silicified lt. orange albitized phenos. Propylitic Alteration diss & veinlet py.	
220			V	V		V	V				3		pale green rhyolite tuff - silicified lt. orange albitized phenos Propylitic Alteration diss & veinlet py	
230			V	V		V	V				3		pale green rhyolite tuff - strongly silicified albitized phenocrysts Propylitic Alteration diss & veinlet py.	
240			V	V		V	V				2		pale-to med green rhyolite tuff - strongly silicified propylitized chlorite spots diss & veinlet py tetrahedrite grain(?)	
250			V			V	V				3		med green rhyolite tuff strongly silicified qtz eyes diss and veinlet pyrite Propylitic Alteration epidote grains	
260			V			V	V				2		strongly silicified med green rhyolite tuff chlorite (qtz eyes) diss and veinlet (epidote) Propylitic Alteration pyrite	
270							V				1		pale green rhyolite tuff strongly silicified Propylitic alt. diss pyrite	
280							V				2		strongly silicified pale green rhyolite tuff (qtz eyes) Propylitic alteration diss pyrite	
290							V				1		strongly silicified (white qtz eyes) rhyolite tuff Propylitic Alteration diss py	
300														

Analyses Interval	Cu	Mo	Au	Ag	Pb	Zn	Sample Nos.
	20	1	-.1	-1	55	155	
	45	2	-.1	-1	35	115	
	95	2	-.1	1	125	375	
	85	1	-.1	-1	85	270	
	55	1	-.1	-1	55	155	
	35	2	-.1	-1	50	130	
	55	5	-.1	1	100	165	
	80	3	-.1	1	150	275	
	110	7	-.1	1	135	330	
	120	3	-.1	1	70	255	
	95	3	-.1	1	185	310	
	115	2	-.1	1	55	190	
	90	3	-.1	1	145	230	
	110	1	-.1	1	95	250	

Pb/2

Logged By C. LEPRY Project Perry Canyon Prospect Hole No. RDH PC-3 Page 4 Of 4 From 300ft To 320ft.

Core Recovery		Graphic Geology	Graphic Alteration							Graphic Mineral							Vol % Sulf Est	GEOLOGY		Thin Section	Analyses							
Size & Interval	% Rec.		chlorite	clay	seric.	qtz	epi			pyrite	cc	chlpy	mag					Interval	Description	Location & Description	Interval	Cu	Mo	Au	Ag	Pb	Zn	Sample Nos.
310'			<<			<<<	<			<<							3		light green, fully silicified, rhyolite tuff qtz eyes, chlorite splotches Propylitic Alt. diss pyrite			150	5	.1	-1	105	275	
320'			<<			<<<	<			<<							2-3		light green, fully silicified, rhyolite tuff qtz eyes, chlorite splotches, epidote Propylitic Alt diss py.			110	3	.1	-1	100	190	

EXPLANATION

- Qal — Quarternary Alluvium - stream gravels, valley fill, talus
- Qls — Landslide deposits
- Qoa — Quarternary older alluvium - terrace gravels

EROSIONAL UNCONFORMITY

- Tpbl — Tertiary basaltic lava flows - Post mineral Pyramid Sequence; thickness 30 - 250 feet

EROSIONAL UNCONFORMITY

- Tip — Tertiary intrusive quartz latite porphyry
- Tcs — Chimney Springs Formation (Oligocene - Miocene)
  - Phyllic, argillic and strong propylitic alteration disseminated sulfides
  - crystal and ash-rich rhyolitic ash-flow tuffs
  - Weak propylitic alteration
- Mineralized and silicified breccia - heavy limonite stains and coatings
- Mineralized fracture or quartz - limonite vein, locally gossanous
- 35 — Strike and dip of primary flow foliation and layering in ash-flow tuffs
- rdh-1 — Rotary drill hole

PERRY CANYON PROSPECT

Pyramid District

Washoe County, Nevada

Revised Geologic Map

0 500 1000 2000 ft

Date: Dec. 1981