1994 ASSESSMENT REPORT

ON THE SOUTH BRUCE GROUP

SULPHURETS PROPERTY - BRUCESIDE PROJECT

Skeena Mining Division

Latitude: 56°29'N
Longitude: 130°13'W
NTS: 104B/8&9

OWNER: NEWHAWK GOLD MINES LTD.
GRANDUC MINING CORPORATION

OPERATOR: NEWHAWK GOLD MINES LTD.

REPORT BY: M. McPherson, P.Geo

November 21, 1994

Distribution: - BCMEMPR (2)
- Newhawk (1)

SUMMARY

The Sulphurets Property - Brucejack Project is situated within northwest British Columbia, approximately 65km northwest of Stewart, BC. The property consists of 11 claims totalling 58 units. The claims are owned by Newhawk Gold Mines Ltd. and Granduc Mining Corp. under a joint venture agreement. Newhawk is the operator.

The Sulphurets property was initially staked in 1959 by Granduc Mines Ltd. to cover various porphyry copper and precious metal vein showings between Mitchell Glacier and Brucejack Lake. Between 1960 and 1975 the property was intermittently explored by Granduc, who completed geologic mapping, geochemical sampling, geophysical surveying and limited drilling primarily over known porphyry showings. Granduc optioned the property to Esso Minerals in 1980, who completed extensive exploration between 1980 and 1985 that led to the discovery of several mineralized zones including the West Zone and Shore Zone. Esso returned the property to Granduc in 1985, and it was subsequently optioned by Newhawk Gold Mines Ltd. Since then, Newhawk has carried out detailed exploration over most of the property including detailed geologic mapping, sampling and trenching, surface and underground drilling, and exploratory underground drifting on the West Zone.

The property is underlain by Upper Triassic Stuhini Group and Lower Jurassic Hazelton Group andesitic tuffs, flows and minor sediments that have locally been extensively and pervasively quartz-sericite-pyrite altered. To date, at least forty zones of quartz +/- carbonate veining, stockwork and breccia have been discovered on the property. Mineralization consists of up to 15% disseminated pyrite within altered volcanics and trace to several percent combined tetrahedrite, sphalerite, galena, pyrargyrite and rare electrum and native gold within quartz veins.

Work in 1994 consisted of detailed mapping and sampling in the vicinity of the Gossan Hill Zone, and 7351.6m of diamond drilling, primarily on the West, R8, Shore and Gossan Hill Zones. Only one of the Gossan Hill drill holes, S94-447 (432.2m), is being filed for assessment.

Hole S94-447 was designed to test the Gossan Hill Area at depths of 100 to 250m below surface, considerably deeper than previous drilling in the vicinity. The hole intersected the PM-1, PM-2 and PM-4? Zones of the Gossan Hill Area, and the Tommyknocker Zone. The PM Zones do not show any signficant increase in grade or width with depth. A single anomalous samples of 1.939 opt Au, 1.01 opt Ag over 1.0m was returned from a weak stockwork zone lying between PM-1 and PM-2. The Tommyknocker Zone shows a distinct increase in width from surface, however is only moderately anomalous in gold and silver; 0.098 opt Au, 1.01 opt Ag/1.0m.

Recommendations for further work include additional surface mapping and sampling east of Gossan Hill to try and trace the Tommyknocker Zone along strike to the east, and additional diamond drilling to follow up the wide Tommyknocker intersection in hole S94-447. A thorough compilation and interpretation of all previous drilling results from the Tommyknocker Zone needs to be completed in order to help target future drilling.

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1.0 INTRODUCTION

1.1 Location and Access

The Sulphurets Property is located within the Coast Range Mountains of northwest B.C., approximately 60 kilometres northwest of the village of Stewart. It is centred at 130°13'W, 56°29'N on NTS sheets 104/ B8 and 9 (Fig. 1.1).

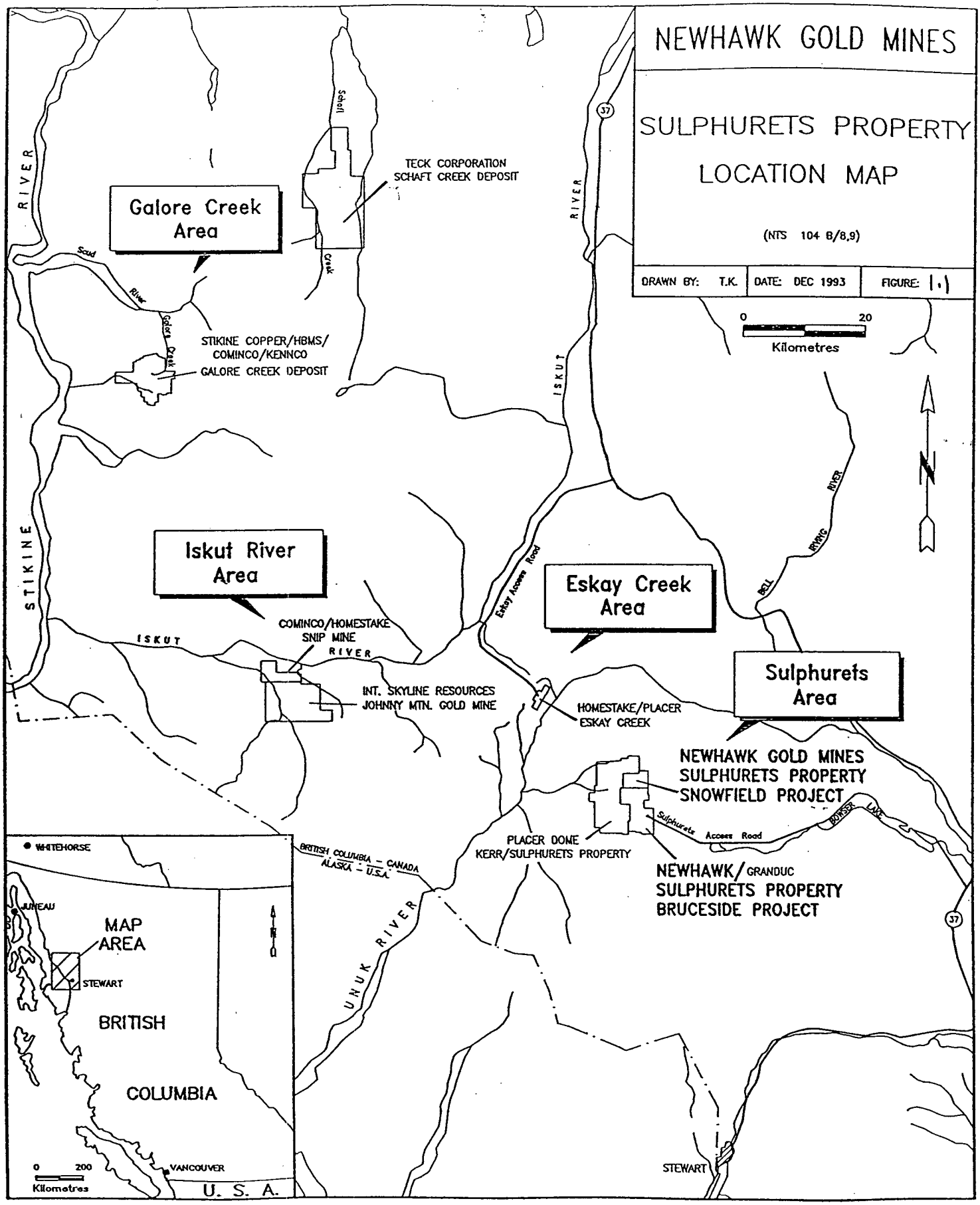
Access during the early summer is limited to helicopter from Stewart, BC or the Bob Quinn airstrip located on Highway 37. Later in the season supplies can be mobilized via the Granduc Road to the Tide Lake airstrip, 35 kilometres south of the property or flown by fixed wing to the Knipple airstrip 15 kilometres southeast of the property. Access from this point is then by helicopter. During previous major summer programs, overland access was by barge along Bowser Lake, then by road along the Bowser River with the final access to the camp being by tracked vehicle 16 kilometres up the Knipple Glacier. A permanent camp is located at the west end of Brucejack Lake. Access around the property is by four wheel drive all-terrain vehicle, helicopter or by foot. During the 1994 season, supplies were flown directly to the camp from Stewart BC using a Bell 206 helicopter on a casual basis from Vancouver Island Helicopters. A Hughes 500D and a Bell 205 helicopter were also used on an "as needed" basis to mobilize heavier equipment throughout the season.

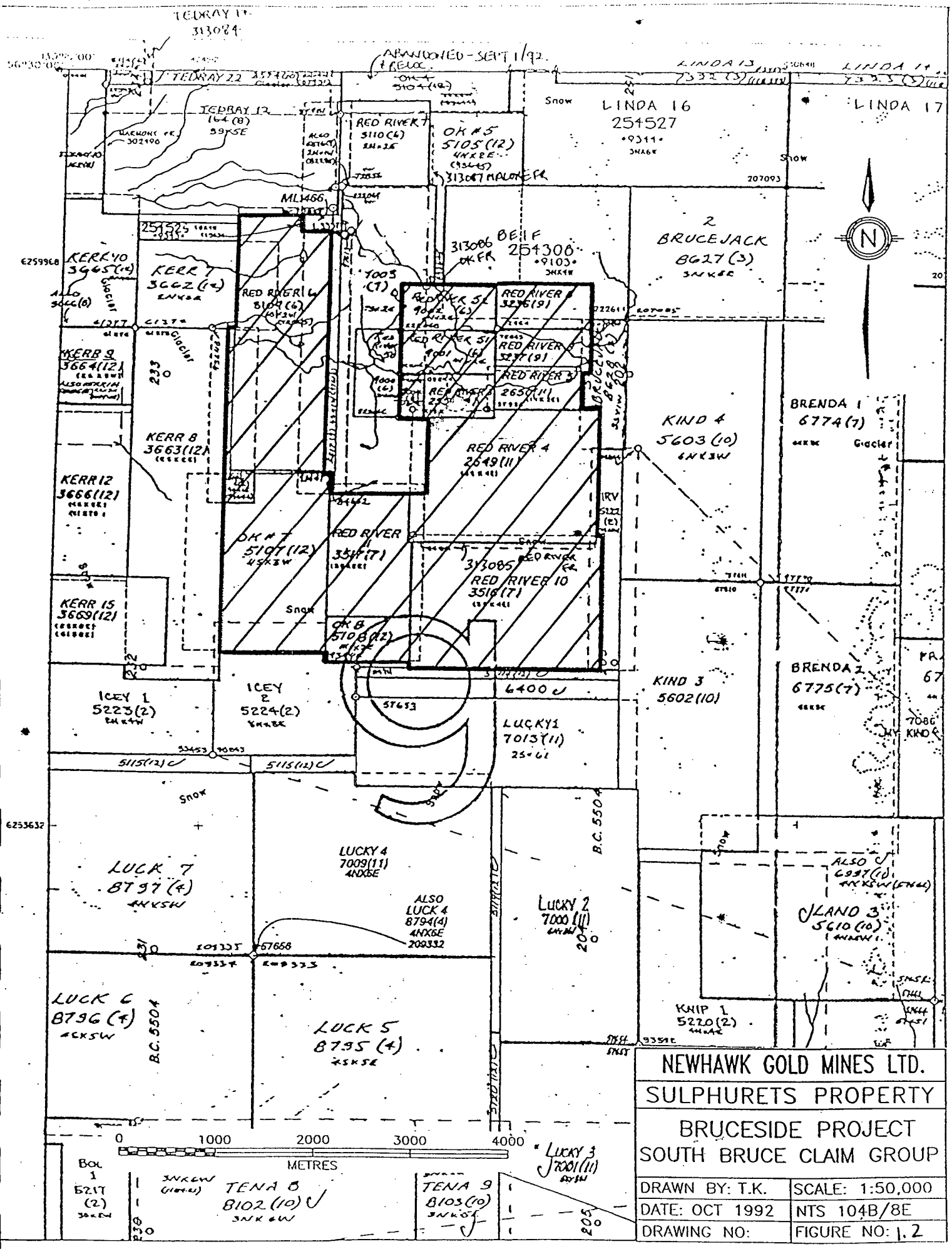
1.2 Property Description

The Sulphurets Property has been split into two separate projects in past years, the Bruceside Project centred around Brucejack Lake and the West Zone, and the Sulphside Project, centred around Sulphurets Lake and the Sulphurets Gold Zone. The Sulphside Project was sold to Placer Dome Inc. in early 1992, however the Bruceside nomenclature still persists. The Bruceside Project is owned 60% by Newhawk Gold Mines Ltd. and 40% by Granduc Mining Corporation under a joint venture agreement. Newhawk is the operator. The property is comprised of the following mineral and placer claims, all of which lie within the Skeena Mining Division (Fig. 1.2):

TABLE 1.1 - CLAIM STATUS

Claim	Record	Units	Expiry Date
Red River 3	250899	2	Sept 2, 2003
Red River 4	250939	12	Nov 3, 2003
Red River 5	250940	2	Nov 3, 2003
Red River 6	250985	12	June 30, 2003
Red River 8	251022	2	Sept 29, 2003
Red River 9	251023	2	Sept 29, 2003
Red River 10	251058	12	July 12, 2003
Red River 11	251059	6	July 12, 2003
OK# 6	251285	4	Dec 10, 2003
OK# 7	251286	2	Dec 10, 2003
OK# 8	251287	2	Dec 10, 2003


NEWHAWK GOLD MINES
SULPHURETS PROPERTY
LOCATION MAP
(NTS 104 B/8,9)
DRAWN BY: T.K.
DATE: DEC 1993
FIGURE: 1.1
0 20
Kilometres
Galore Creek Area
TECK CORPORATION
SCHAFT CREEK DEPOSIT
STIKINE COPPER/HBMS/
COMINCO/KENNCO
GALORE CREEK DEPOSIT
Iskut River Area
COMINCO/HOMESTAKE
SNIP MINE
INT. SKYLINE RESOURCES
JOHNNY MTN. GOLD MINE
Eskay Creek Area
HOMESTAKE/PLACER
ESKAY CREEK
Sulphurets Area
NEWHAWK GOLD MINES
SULPHURETS PROPERTY
SNOWFIELD PROJECT
PLACER DOME
KERR/SULPHURETS PROPERTY
NEWHAWK/ GRANDUC
SULPHURETS PROPERTY
BRUCESIDE PROJECT
STIKINE RIVER
ISKUT RIVER
UNUK RIVER
Eskay Access Road
Sulphurets Access Road
BORDER LAKE
BELL IRVING RIVER
Scud River
Galore Creek
Schaft Creek
37
WHITEHORSE
JUNEAU
MAP AREA
STEWART
BRITISH COLUMBIA
VANCOUVER
0 200
Kilometres
U. S. A.
BRITISH COLUMBIA – CANADA
ALASKA – U.S.A.
STEWART



NEWHAWK GOLD MINES LTD.	
SULPHURETS PROPERTY	
BRUCESIDE PROJECT SOUTH BRUCE CLAIM GROUP	
DRAWN BY: T.K.	SCALE: 1:50,000
DATE: OCT 1992	NTS 104B/8E
DRAWING NO:	FIGURE NO: 1.2

1.3 Physiography and Vegetation

The topography of the Sulphurets region is typical of the Coast Range Mountains with steep glaciated U-shaped valleys and several permanent snowfields. Elevations in the area range from 750 metres at Sulphurets Glacier just west of the property, to 2560 metres on Mt. John Walker northeast of the property.

Winters tend to be severe with extensive snowfall and high winds, while summers are generally cool and wet. Vegetation consists of scrub alpine spruce and fir at lower elevations along Brucejack Creek, and alpine grasses and juniper at higher elevations. Much of the property is covered in outcrop or talus with no appreciable vegetation.

1.4 Property History

Exploration in the area dates back to the 1880's when placer gold was located on Sulphurets and Mitchell Creeks. In 1935, copper-molybdenum mineralization was located in the vicinity of the Main Copper showing on the adjacent Sulphside property. During the next twenty years the area was intermittently evaluated by a number of different parties. In 1959, Granduc Mines located gold and silver bearing veins near Brucejack Lake and in 1960 staked a series of claims totalling 246 units extending from south of Brucejack Lake north to the Mitchell Glacier. These claims covered the current Bruceside Project precious metal showings, as well as numerous copper-moly occurrences located north and northwest of Brucejack Lake.

Between 1960 and 1975 Granduc completed several exploration programs involving geologic mapping and sampling, geophysical surveying, prospecting and limited drilling primarily in the vicinity of the known copper $\pm$ gold and molybdenum occurrences located immediately north and northwest of the current Bruceside Property boundary.

In 1980 Esso Minerals optioned the Sulphurets property from Granduc, and from 1980 to 1985 completed a comprehensive evaluation of the property that resulted in the discovery of several precious metal showings including the West, Shore, Galena Hill and Electrum Zones. For various reasons, Esso dropped their option on the Sulphurets Property in 1985, and Newhawk Gold Mines optioned it that same year.

Since 1985, Newhawk has completed extensive exploration programs including additional regional and detailed geologic mapping and sampling, rock saw and backhoe trenching, limited soil geochemical sampling, airborne geophysical surveying, and 35,241.6m of surface diamond drilling in 511 holes. In addition to surface work, a total of 5276m of exploratory underground drifting was completed on the West Zone between 1986 and 1989, and 35,981.0m of underground diamond drilling in 422 holes was completed. This work succeeded in outlining significant proven and probable reserves of 826,000 Tons grading 0.450 opt Au, 18.80 opt Ag on the West Zone, and 92.276 Tons grading 0.371 opt Au, 4.63 opt Ag on the Shore Zone (Watts, Griffis and McOuat, 1990). At least forty additional showings of precious metal mineralization have been located across the property, some of which have associated small reserves

(Visagie, 1993b). Based on these reserves, a feasibility study was completed by Corona Corp. in 1990, and determined that the deposit was marginally economic under existing conditions. The current exploration mandate for the property is to delineate additional areas of economic gold-silver mineralization in order to increase the reserves such that the project becomes feasible.

2.0 GEOLOGY

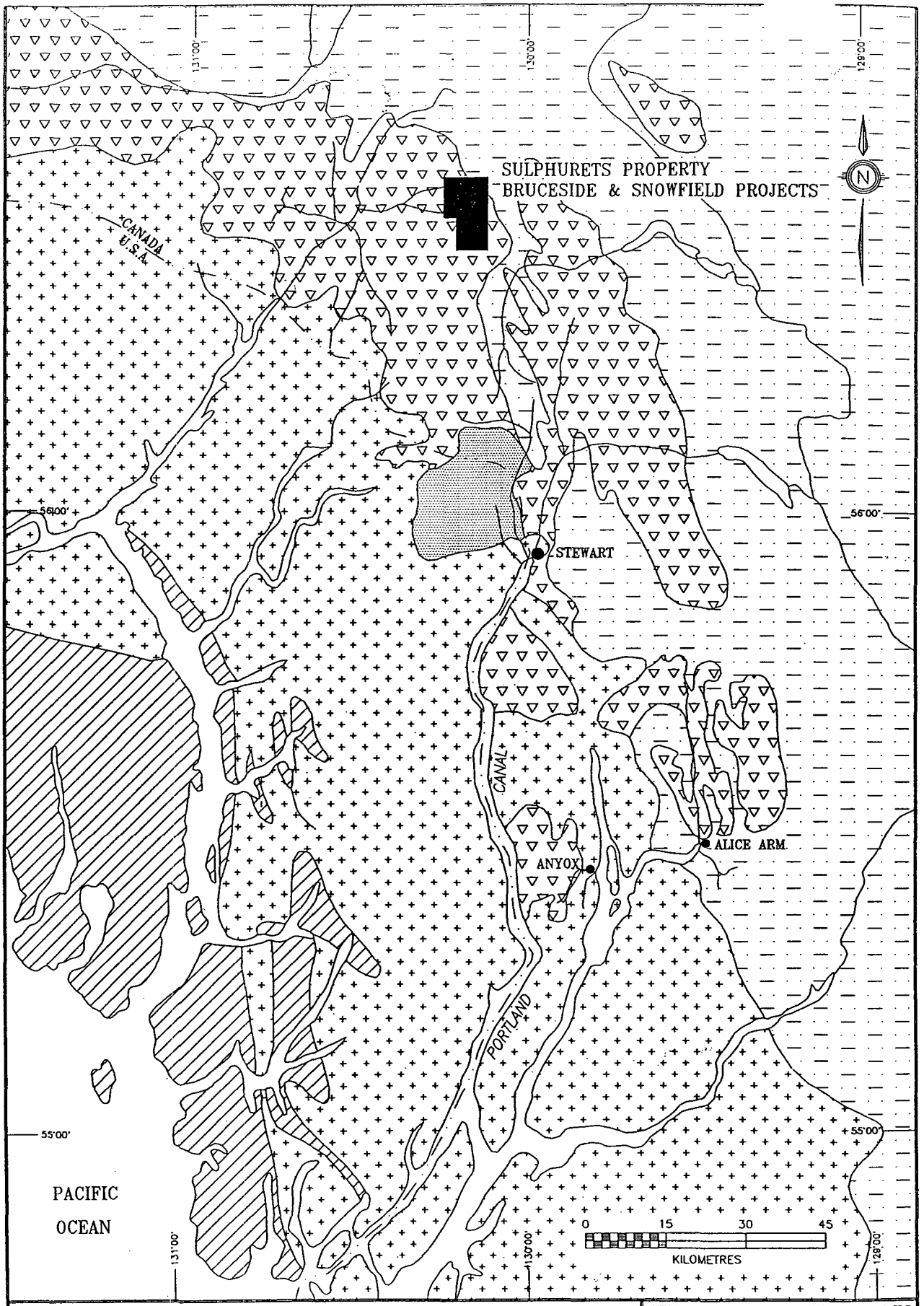
2.1 Regional Setting

The Sulphurets Property lies within the Stikine Terrane, along the western margin of the Intermontane Belt (Fig. 2.1). The area is underlain by Upper Triassic and Lower to Middle Jurassic Hazelton Group volcanic, volcaniclastic and sedimentary rocks, intruded by Mesozoic intermediate to felsic plutons and minor Tertiary mafic dykes and sills. Regional geologic mapping has been completed by the Geological Survey of Canada, the BC Ministry of Energy, Mines and Resources, and the Mineral Deposit Research unit at UBC.

The lithostratigraphic assemblage as compiled by Kirkham (1963), Britton and Alldrick (1988), Alldrick and Britton (1991) and Kirkham et al (in preparation) consists , from oldest to youngest, of alternating siltstone and conglomerate of the Lower Unuk River Formation; intermediate volcanic rocks and siltstones of the Upper Unuk River Formation; interbedded conglomerate, sandstone and intermediate to mafic volcanic rocks of the Betty Creek Formation; felsic flows and pyroclastic rocks, including tuffaceous rocks ranging from dust tuff to tuff breccia and localized welded ash tuff, of the Mount Dilworth Formation; and finally, alternating siltstone and sandstone of the Salmon River Formation and the Bowser Lake Group.

At least three intrusive events have occurred in the area: intermediate to felsic plutons that are probably coeval with volcanic and volcaniclastic supracrustal rocks; small stocks related to Cretaceous Coast Plutonic Complex rocks; and minor Tertiary dykes and sills.

Folding is common throughout the region, with Hazelton Group andesitic tuffs and flows southeast of Brucejack Lake being gently warped, while sediments of the Salmon River Formation and Bowser Lake Group are more tightly folded. Faulting is common, with north striking steep normal faults (ie the Brucejack Fault) and west dipping thrust faults (eg, the Sulphurets Thrust) being the most prevalent orientations.



LEGEND

- LOWER-MIDDLE JURASSIC BOWSER ASSEMBLAGE
- UPPER TRIASSIC-LOWER JURASSIC TAKLA & HAZELTON ASSEMBLAGE
- WRANGELL METAMORPHIC BELT (UNDEFINED AGE)
- UPPER TRIASSIC-LOWER JURASSIC TEXAS CREEK INTRUSION
- CRETACEOUS-TERTIARY COAST RANGE INTRUSIONS

(Map after Dykes et al. 1988)

NEWHAWK GOLD MINES LTD

SULPHURETS PROPERTY

REGIONAL GEOLOGY OF THE STEWART-ANYOX AREA

DRAWN BY: T.K.	NTS 103/104
DATE: DEC 1993	FIGURE NO: 2.1

2.2 Property Geology

2.2.1 Stratigraphy

The Bruceside Project is underlain by two sequences of sedimentary and volcanic rocks; a Lower sequence of Upper Triassic Stuhini Group rocks that occupy the western side of the property, and an Upper sequence of Lower to Middle Jurassic Hazelton Group rocks in the central and eastern portions of the property (Fig. 2.2). Younger, more felsic flows and volcaniclastic rocks overlie the Hazelton Group rocks east of the property. All of these units have been intruded by sub-alkaline plutons of Lower to Middle Jurassic age, that range in composition from syenite to hornblende-feldspar porphyritic diorite to monzonite.

The Upper Triassic rocks (Lower sequence), consist of a lower heterolithic mafic to intermediate volcanic breccia and conglomerate (Fig. 2.2; unit 1), overlain by a sedimentary layer consisting of thin to medium bedded black argillite, siltstone, fine grained sandstone, and minor grey limestone, tuffaceous mudstone, and tuffaceous pebble conglomerate (Fig. 2.2; unit 2).

The Lower to Middle Jurassic rocks (Upper sequence) consists of a lower sedimentary package of two distinct units. The lowermost unit consists of medium to thick bedded medium to coarse grained sandstone and pebble to cobble conglomerate, conspicuous internal planar laminations and rare cross-stratification (Fig. 2.2; unit 3). Overlying this is a layer of thin to medium bedded dark grey to black mudstone and argillite, that is typically highly altered (Fig. 2.2; unit 4). Overlying the sedimentary rocks is a thick sequence of monolithic andesitic volcaniclastics ranging from ash tuff to tuff breccia and lahar, and dominated by plagioclase-hornblende phyric volcanic breccia (Fig. 2.2; unit 5). This upper volcanic package is the main host to alteration and mineralization on the property. To the east, the Upper sequence is overlain by dacitic flows and volcaniclastics, and minor sedimentary rocks (Fig. 2.2; unit 6). The volcaniclastics range from fine ash and plagioclase crystal tuffs to coarse felsic breccias and conglomerates, locally supported with a distinctive hematitic mud (Davies et al, 1994).

Both lower and upper volcano-sedimentary packages have been intruded by numerous late stage plutons, which can be grouped into three main mappable units: i) a plagioclase-hornblende-phyric diorite; ii) a potassium feldspar megacrystic plagioclase-hornblende porphyry; and iii) a plagioclase and rare potassium feldspar porphyry of dacitic composition (MacDonald, 1993). Late stage, fine grained, green andesitic dykes and sills cut all units on the property, and are definitely post-mineral.

Stratigraphy typically strikes north to northwest, with moderate to steep easterly dips and facing directions, indicating a younging direction to the east (Davies et al, 1994). Contacts between individual units are sharp to gradational over several meters, and no unconformities have been identified on the property.

2.2.2 Structure

The rocks on the property have been subjected to regional deformation and weak metamorphism, and exhibit a regionally penetrative foliation of varying intensity. Foliation generally strikes west-northwest, and dips steeply to the north, and is most strongly developed in sericitic rocks and in the argillites of the Upper Triassic package. The deformation is post-mineral, and has resulted in the flattening of mineralized veins and stockwork so that they lie parallel to the foliation.

Post mineral faulting occurs throughout the area, with steeply dipping normal faults being the most common orientation on the property. Offset on these faults ranges from negligible to several hundred meters. The two most important faults on the property are the Brucejack Fault which occupies a north trending lineament just north of camp, and the Bruce Fault, a west trending fault occupying Brucejack Creek (Fig. 2.2). Other mappable faults in the area strike northeast and northwest. The northeast faults dip steeply to the northwest and show tens of meters of normal-dextral oblique displacement. The dip and displacement of the northwest trending faults is unknown, but probably in the order of tens of meters of dextral slip.

The Brucejack Fault forms a northerly striking lineament extending from the extreme southern end of the property, north to the Iron Cap Zone; a strike length of 11 km. The fault cuts all stratigraphic and intrusive contacts, and cuts alteration zones and mineralized veins, indicating that the latest motion was post mineral. The Fault dips vertically to steeply to the west, and displacement has been estimated at 700 to 800m of reverse (west side up) motion, based on offset of stratigraphic contacts, and orientation of slickensides (Davies et al, 1994).

The Bruce Fault trends roughly east-west, and displays a curvilinear dip to the north, with dips ranging from 60 to 70 degrees. Offset on the PM5 Zone indicates displacement along the fault is in the order of tens of meters

Folding on the property is best developed in the sedimentary units of the Lower Sequence, exposed in Brucejack Creek. The folds are tight to open, have subangular to rounded hinges, and wavelengths of several tens of meters. Axial trends of folds are typically northerly, however local disharmonic folds have northwesterly and northeasterly axial trends. A large, north-northwest trending syncline has been postulated beneath the Gossan Hill area to account for stratigraphic relationships and a reversal of facing direction east of the Brucejack Fault and at the Shore Zone. This deformation is likely pre-regional cleavage development and pre-mineral, as cleavage cuts across the interpreted axial trace without deflection, and vein geometry is not significantly effected. An alternative interpretation is that the block of stratigraphy bounded by the Brucejack Fault, Shore Zone, Bruce Fault and Big Sleep Zone is a rotated fault block. This interpretation would include a pre-cursor, east-west fault structure to the Big Sleep vein system, similar to those at the West, Shore and Electrum Zones (see section 2.2.3).

2.2.3 Alteration and Mineralization

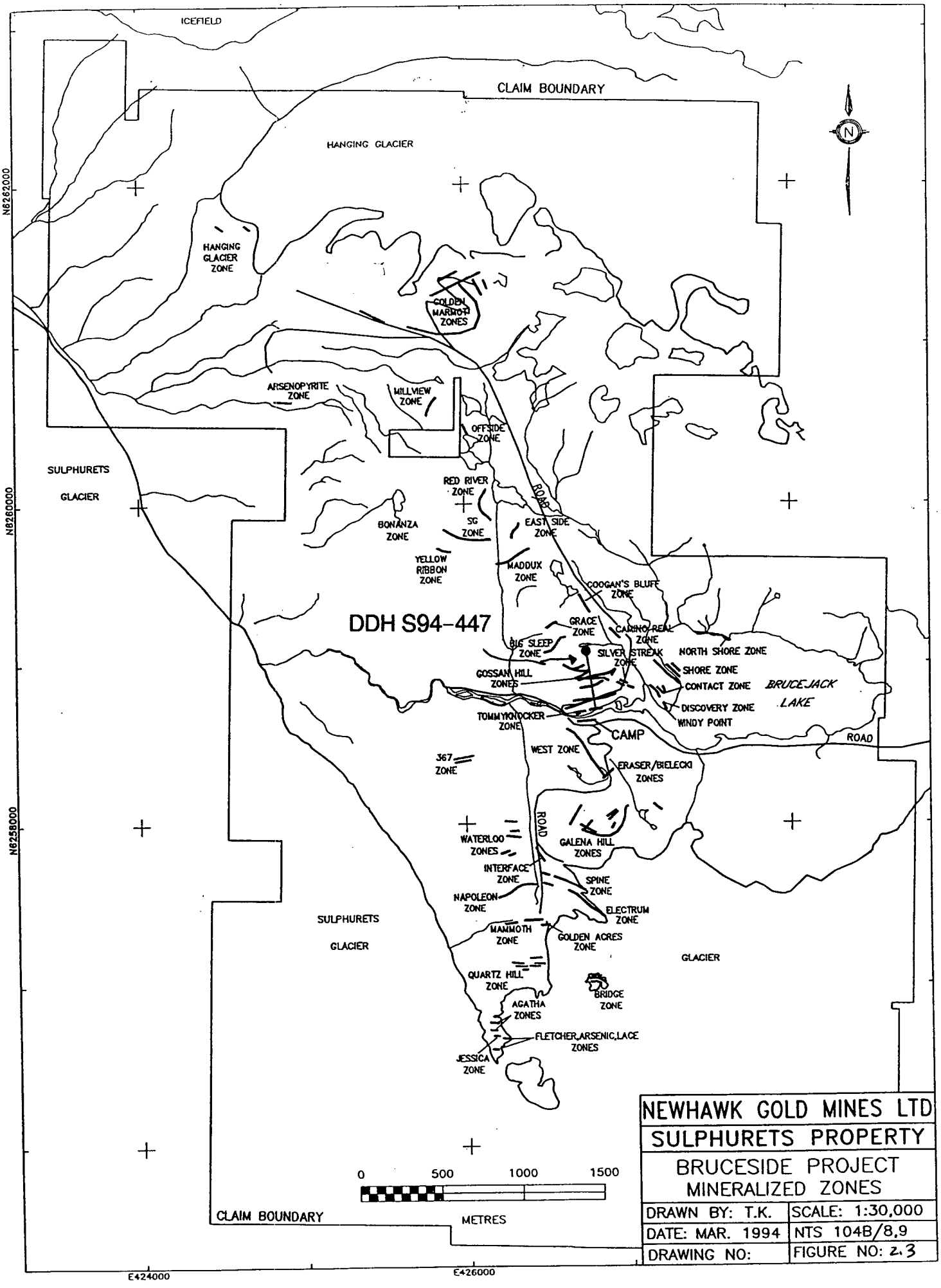
Mineralization on the Bruceside property consists mainly of structurally controlled, intrusive related quartz-carbonate, gold-silver bearing veins, stockwork and breccia zones. The veins are hosted within a broad zone of potassium feldspar alteration, overprinted by sericite-quartz-pyrite +/- clay. Structural style and alteration geochemistry indicate the deposits were formed in a near surface epithermal style environment (Fig. 2.3).

Mineralization was likely a three-stage process (Lewis, 1994). Stage 1 consisted of fault-development and ground preparation. Pre-cursor structures to the West, Shore and Electrum Zones likely formed at this time, as steep northwest trending normal faults with limited displacement, cutting all rock types. Stage 2 consisted of syntectonic mineralization and alteration. Massive and stockwork veins were emplaced within a differential stress field characterized by east-west compressional stress. The main vein orientations resulting from this stress are i) east-west dilational veins such as R8 and Big Sleep; and ii) northwest trending veins localized along pre-existing structures such as the West, Shore and Electrum Zones. Underground mapping indicates the northwest trending structures, particularly R6, have been brecciated, while east-west trending structures have not. This would support the theory of reactivation along pre-existing northwest structures. Reactivation was probably sinistral in movement, and may account for the sigmoidal shape of the east-west trending Big Sleep Zone. The localization of major vein systems within the volcanic rocks as opposed to the sedimentary rocks is likely the results of preferential ground preparation within the volcanics. Stage 3 was marked by the development of northwest trending cleavage and local warping of smaller veins as a result of northeast-southwest shortening.

The central part of the property is dominated by a north-trending band of pervasive quartz-sericite-pyrite alteration 100m to 450m wide and 4.5km long. Hosted within this alteration band are over 40 zones of quartz+/- carbonate +/- adularia +/- barite veins and stockworks ranging in width from several centimetres to over 50m, and in length from several meters to several hundred meters (Fig. 2.3). Veins locally form complex shaped mineralized bodies, in which several generations of syntectonic veins, stockworks and breccias may occur (Roach and MacDonald, 1992). The larger vein systems, ie. Shore and West Zones, trend northwest and dip vertically to steeply to the northeast, with somewhat smaller zones such as Big Sleep and Gossan Hill trending easterly and dipping variably north and south. The pattern of mineralized zones forms a slightly angled "ladder" system in the central part of the property, with the Shore and West Zones, and the Electrum Zone further south, forming the ladder "legs", and the east-west trending zones such as R8, Big Sleep and Gossan Hill forming the "rungs". This area has been the focus of continued exploration, as it hosts the highest concentration of mineralization on the property.

Mineralization within the alteration zone consists of 2% to 20% disseminated pyrite and rare arsenopyrite, and within the veins consists of trace to 10% combined disseminated pyrite, tetrahedrite, arsenopyrite, chalcopyrite, galena, sphalerite, pyrargyrite, polybasite and rare native gold and electrum. Of the forty zones of mineralization discovered to date, the West Zone/R8 and Shore Zone are the most significant in terms of grade and tonnage. Other zones of significance include Gossan Hill, Tommyknocker, Big Sleep, Grace and Coogan's Bluff (Fig. 2.3).

The Gossan Hill/Tommyknocker Zone is an area of intense quartz-sericite-pyrite alteration hosting eleven zones of quartz veining and stockwork carrying erratic gold mineralization. These zones include Marie Gold, PM-1, PM-2, PM-3 and 3A, PM-4 and 4A, PM-5, PM-6, U-Vein, Silver Streak and Tommyknocker (Fig. 2.3). They generally strike east-west, dip moderately to steeply to the north, and range in strike length from 30m to 245m, and in width from 0.5m to 20m. "Rolls" and inflections down dip are common. The Tommyknocker Zone is the southernmost vein zone at Gossan Hill, and is the most promising in terms of significant economic mineralization. It consists of a central quartz vein up to 1.0m in width, hosted within a 5m wide quartz stockwork in strong quartz-sericite-pyrite altered andesitic volcanics. Previous drilling on both the PM structures and the Tommyknocker Zone had concentrated on delineating the zone near surface, typically above the 1300m level. The 1994 exploration program concentrated on testing these zones at significantly deeper depths, at approximately the 1200m level.



NEWHAWK GOLD MINES LTD	
SULPHURETS PROPERTY	
BRUCESIDE PROJECT MINERALIZED ZONES	
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DATE: MAR. 1994	NTS 104B/8,9
DRAWING NO:	FIGURE NO: 2.3

3.0 1994 DIAMOND DRILLING PROGRAM

3.1 Introduction

The 1994 exploration program was designed to evaluate the highest priority targets on the property for their potential to host gold and/or silver mineralization of significant tonnage and grade. Exploration was focused in the vicinity of Gossan Hill, the area with the highest concentration of alteration and mineralization on the property, and therefore the area most likely to host mineralization of significant size. The program consisted of detailed surface mapping and diamond drilling. Only one drill hole is being reported for assessment purposes, S94-447 (fig. 2.3).

Drilling was contracted to F. Boisvenu Drilling of New Westminster, BC, using a Hagby-Brok diamond drill to recover BQTW core. The drill site for S94-447 was levelled using a D7 Cat, and the drill was moved to the site using a Hughes 500D helicopter contracted from Vancouver Island Helicopters out of Stewart BC. Daily access to the drill was by all-terrain-vehicle. Drill core is stored on site, at the Newhawk core storage area south of the camp.

All zones of significant alteration and mineralization were split using a manual Longyear core-splitter. Split core was shipped to Eco-Tech Labs in Stewart, BC for gold and silver assay, and 9-element ICP. Samples were first dried (if necessary), crushed, sieved and pulverized to -140 mesh, and a 1/2 assay ton sub-sample taken. For gold analysis, the sub-sample was pre-concentrated by conventional fire assay, and the resulting bead digested in 3 ml 30% HNO_3 and 3 ml concentrated HCl (if necessary). The resulting solution was diluted to 10ml and analyzed by atomic absorption. Core carrying visible gold was cut with a rocksaw, and sent for gold metallic assay. For silver analysis, a 2.0 gram subsample was digested in 20 ml HNO_3 for 20 minutes, or until all the HNO_3 had disappeared. The digestion is then cooled, 10 ml HCl added and digested for 30 minutes. The digestion is again cooled and another 50 ml HCl added and digested for one hour. When this digestion has cooled to room temperature, it is bulked to 200 ml, mixed, centrifuged and analyzed by atomic absorption. For the ICP analysis, a 10 gram sub-sample was digested with 3 ml of 3:1:3 nitric acid to hydrochloric acid to water at 90° for 1.5 hours. The sample was then diluted to 20 ml with demineralized water and analyzed for Ag, Cu, Pb, Zn, Mo, As, Sb, Tl, Hg. Samples that contained > 30 ppm Ag or > 10,000 ppm Cu, Pb, As, or Zn were re-assayed for that particular element.

The drill log is located in appendix I, and assay data is located in appendix II.

TABLE 3.1 - DRILLHOLE SPECIFICS

Drill Hole	Zone	Section	Azimuth	Dip	Length
S94-447	Gossan Hill	199+30N	170°	-45°	432.2m

3.2 Results

Drill hole S94-447 was designed to test the Gossan Hill Zones (PM-1, PM-2, PM-5) and the Tommyknocker Zone at considerably deeper depths below previous drilling in the vicinity. The hole intersected variably quartz-sericite-pyrite altered, poorly sorted andesitic lapilli tuff throughout most of its length, except for an interbed of coarse clastic sediment between 151.6m and 161.9m. Several zones of quartz stockwork and quartz breccia were intersected, and correspond to the PM-1 Zone (79.6m - 88.2m), the PM-2 Zone (161.9 - 165.7m), and the PM-4? Zone (241.2 - 244.4m). These zones are weakly mineralized, carrying trace to 2% pyrite, trace tetrahedrite and rare galena and sphalerite, and typically carry less than 0.100 opt Au. The exception to this is a 1.0m intersection (127.5 - 128.5m) carrying 1.939 opt Au, 1.01 opt Ag from a very weak zone of quartz stockwork at 127.5m to 134.3m. There is no significant increase in size or strength of mineralization from surface, in any of these zones.

The Tommyknocker Zone was intersected in the footwall of the Bruce Fault, at the 1195m level. The upper part of the zone, from 356.9m to 375.8m, consists of a moderate to strong quartz stockwork in strongly quartz-sericite-pyrite altered andesite tuff. Individual veins are up to 15cm wide and carry trace pyrargyrite, rare electrum, trace sphalerite and tetrahedrite, and 1% pyrite. Assays returned weakly anomalous gold and silver values from this section (Table 3.2). From 375.8m to 393.8m, the zone consists of a moderate to strong quartz stockwork hosted within very fine grained purple chert. Mineralization in this section of the zone consists of disseminated to semi-massive pyrite. As the upper contact of the Tommyknocker Zone has been cutoff by the Bruce Fault, the true thickness of the zone is unknown. However, based on this intersection, the Tommyknocker Zone shows an increase in width, from a 5-6m wide stockwork at surface, to a 20-40m wide stockwork 200m below surface. Offset along the Bruce Fault is estimated a 20-50m of reverse slip displacement.

TABLE 3.2 - SIGNIFICANT DRILL INTERSECTIONS

Hole	Zone	From (m)	To (m)	Width (m)	Au (opt)	Ag (opt)
S94-447	PM1/PM2	127.5	128.5	1.0	1.939	1.01
	Tommyknocker	359.9	360.9	1.0	0.044	8.46
	Tommyknocker	393.1	304.1	1.0	0.098	1.01

4.0 CONCLUSIONS AND RECOMMENDATIONS

The 1994 exploration program on the Bruceside Project consisted of detailed mapping and sampling in the vicinity of the Gossan Hill Zone, and 7351.6m of diamond drilling, primarily on the West, R8, Shore and Gossan Hill Zones. One of the Gossan Hill drill holes, S94-447 (432.2m), is being filed for assessment.

Hole S94-447 was designed to test the Gossan Hill Area at depths of 100 to 250m below surface, considerably deeper than previous drilling in the vicinity. The hole intersected the PM-1, PM-2 and PM-4? Zones of the Gossan Hill Area, and the Tommyknocker Zone. The PM Zones do not show any signficant increase in grade or width with depth. A single anomalous samples of 1.939 opt Au, 1.01 opt Ag over 1.0m was returned from a weak stockwork zone lying between PM-1 and PM-2. The Tommyknocker Zone shows a distinct increase in width from surface, however is only moderately anomalous in gold and silver; 0.098 opt Au, 1.01 opt Ag/1.0m.

Recommendations for further work include additional surface mapping and sampling east of Gossan Hill to try and trace the Tommyknocker Zone along strike to the east, and additional diamond drilling to follow up the wide Tommyknocker intersection in hole S94-447. A thorough compilation and interpretation of all previous drilling results from the Tommyknocker Zone needs to be completed in order to help target future drilling.

5.0 REFERENCES

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6.0 STATEMENT OF EXPENDITURES

Labour				**$ 2,050**
M. McPherson (Geologist)	July 25-29	5 days @ $250/day	$ 1,250	
J. Franks (Assistant)	July 25-29	5 days @ $160/day	$ 800	
Room & Board				**$ 1,200**
30 man-days @ $40/day				
Helicopter Support				**$ 1,566**
2.1 hours @ $745.52/hour (Hughes 500D)				
Drilling				**$ 26,128**
500' @ $15.90/ft			$ 7,950	
500' @ $16.90/ft			$ 8,450	
418' @ $18.90/ft			$ 7,900	
core boxes:	71 boxes @ $7.50/box		$ 533	
tropari rental:	0.25 mo. @ $1100/mo.		$ 275	
stanby:	33.0 man hours @ $30/hr.		$ 990	
	2.0 machine hours @ $15/hr.		$ 30	
Assaying				**$ 3,321**
178 samples @ $18.66/sample				
Supplies				**$ 300**
Sample bags, tape etc.				
Report Preparation				**$ 1,000**
includes writing, drafting, etc.				
TOTAL				**$ 35,565**

7.0 STATEMENT OF QUALIFICATIONS

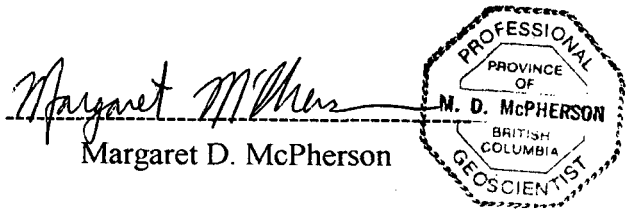
I, **Margaret D. McPherson**, DO HEREBY CERTIFY THAT:

1. I am presently employed as a geologist with Newhawk Gold Mines Ltd. located at #860 - 625 Howe Street, Vancouver, B. C. V6C 2T7.

2. I graduated from the University of British Columbia in 1987, with a Bachelor of Science degree in Geology.

3. I have been employed in the mineral exploration industry since 1985.

4. The work described in this report was done under my supervision.



Margaret D. McPherson

November 15, 1994

APPENDIX I

Diamond Drill Logs

THE NORTHAIR GROUP

NEWHAWK GOLD MINES LTD.

Diamond Drill Hole Record

SULPHURETS PROPERTY

DEPTH	BEARING	DIP	SURVEY TYPE
COLLAR	170° true	-45	compass
29.9m	172° true	-46	Tropari
112.2m	173° "	-46°	"
215.8m	178°	-46°	"
340.8m	~~358°~~ 194° ??	-46°	"
432.2m		-43°	"

ZONE: Gossan Hill | LENGTH: 432.2m | HOLE NO.: S94-447

CLAIM: Red River 51 | CORE SIZE: BQTK | SHEET NO. 1 of 18

LATITUDE: -4717.718N | RECOVERY: | LOGGED BY: M. McPHERSON

DEPARTURE: 3434.497E | STARTED: July 24/midnight | SAMPLED BY: FRANKS, HARRIS, A

ELEVATION: 1448.685m | COMPLETED: July 29 6AM | PURPOSE: SECTION G-G'

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	cy	Mineralization % Py	% Cp	% Mag	% Mo	Assay Data Sample	From	To	Int	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
0.0	0.6	CASE	CASING																								
0.6	15.8	ANDS Flow	Andesite Flow (hbl phyric): Medium to dark green, fine grained, uniform texture. UP to 35% crowded pale green laths 1mm x 3mm - hornblende? Not equant enough to be fs. Med. pervasive cb. alteration and 1-3% disst'd + stringer py. Mod. fracture @ 40-50°. 1-3% white calcite fracture fill <5mm wide typically; @ 25°, 40°. Local bleaching halos to fractures. Unit is massive; no flow banding or foliation. Relatively fresh. V.V. weakly magnetic				5		5		1-3														
15.8	30.0	Flow	Fs-hbl phyric Andesite Flow: V. similar to previous interval, but w/ ↑ in bleaching around fractures. Bleached sections pale gy. beige, ~20% of interval. Fresher, unbleached sections still hbl phyric and also fs phyric (1x1mm white phenos), ~10%. & occasional limonitic fractures. ↓ in cb alth to v.wk. Bleached sections				5		2	2	1-3														

NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

Hole No. 514-447
Page 2 of 18

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	cy	Mineralization % Py	% Cp	% Mag	% Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
15.8	30.0	Flow	16.6-18.4m: Pervasive bleaching to pale beige. Py blebs to 7% - replacing phenocrysts?	16.6	18.4		5		2	4	7																
			21.85m-23.8m: v.wk occas. white coarsely xtalline qz >> ca veins. veins to 8cm wide, @ 35°. No sx in veins, but occasional chlorite fragments																								
30.0	34.2m	Flow	Bleached fs-hbl flow: sharp uc @ ~80°; not faulted. Pale beige-green color w/ prominent white/beige fs+hbl phenos - v. fine grd matrix + v. fine phenocrysts. Phenos mod'ly clo altered, mod cy-chl-ser-clo alteration? 1-2% qz-ca veinlets to 1cm @ 30-50°. No sx in veins				5	2?	2-3	4	3-4				123700	30.0	31.5	1.5	0.011				.11				
															123751	31.5	32.9	1.4	0.013				.07			
															123752	32.9	34.2	1.3	0.011				.05			
34.2	76.2	Flow	Andesite fs-hbl phyric Flow: DK green, fine grained. same as 0.6-15.8m. Local bleaching, but not as much as 15.8-30.0m. 1-2% white calcite f.fill to 1cm wide, @ 35-50°; rarely @ 20°. No sx in veinlets. Crowded fs-hbl phenos, DK to light green hbl are up to 3mm long laths; white Fx are 1x1mm to 1x2mm. Total ~ 35% phenos. Massive; no foliation or flow banding. Fx-matrix weakly recrystallized			<1	5	1	2-3	1	3				123753	34.2	35.7	1.5	0.002				.03			
															123754	35.7	37.8	2.1	.002				.02			

Hole No. 94-447

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NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL	Alteration CHLOR	Alteration SER	Alteration CARB	Mineralization % Py	Mineralization % Cp	Mineralization % Mag	Mineralization % Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
34.2	76.2	Flow	37.8 -39.2m: Strong bleaching; gradational contacts. 5% white to pale gy qz veins to 2cm @ 45°. No Sx in veins											123755	37.8	39.2	1.4	0.013				.26				
			55.7-57.6m: strong bleaching. No ↑ in veining.																							
			↑ bleaching in lower 2-3m. Gradational lower contact																							
					11																					
			+ wet paper																							
														123756	70.0	71.5	1.5	0.008				.11				
														123757	71.5	72.5	1.0	0.009				.11				
														123758	72.5	73.7	1.2	0.009				.05				
														123759	73.7	74.9	1.2	0.049				.12				
														123760	74.9	76.2	1.3	0.008				.11				

NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

Hole No. S94-447
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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	cy	Mineralization % Py	sp % Cp	tet % Mag	gl % Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
			71.9m: 5cm qz-py vein @ 60°																								
76.2	79.6	Flow	Fs-hbl phyric flow. Similar to previous interval but ↑ in bleaching to pale gy-green. ↑ in pervasive ser alt'n, py disstd + in stringers. Still 1-2% veinlets but now dominantly qz not calcite; @ 35-45°. Typically white + barren, but locally colourless w/ tr-1% pyrite. Close cb alteration. V. faint original textures.			2	3	3-5	tr	1	5				123761	76.2	77.6	1.4	0.015				.18				
															123762	77.6	78.6	1.0	0.020				.23				
															123763	78.6	79.6	1.0	0.015				.18				
79.6	88.2	QZSW	Moderate QZSW: white and colourless qz veins w/ trace white calcite, from 2mm to 30cm. Host is same as 76.2-79.6m; ser-qz alt'd flow; ↑ in alteration over previous interval. ~25-40% veins. Veins @ 90°, + carry up to 1% fine py + ± rare fine tet. Host strongly alt'd but not qz flooded. Strongly brxx'd 84.9m - 85.4. Looks multiphase.			35	2	78	<1	<1	10		tr.		123764	79.6	80.6	1.0	0.030				.29				
															123765	80.6	81.6	1.0	0.017				.21				
															123766	81.6	82.6	1.0	0.027				.80				
															123767	82.6	83.6	1.0	0.035				.27				
															123768	83.6	84.4	0.8	0.043				.88				
															123769	84.4	84.9	0.5	0.025				.29				
															123770	84.9	85.4	0.5	0.024				.45				
															123771	85.4	86.3	0.9	0.019				1.00				
															123772	86.3	87.2	0.9	0.010				.59				
															123773	87.2	88.2	1.0	0.015				.25				
			* Host change from flow to crowded lapilli tuff / tuff brxx @ ~85.5m																								
			PM I? Poorly mineralized, but good zone.																								

NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

Hole No. 594-447
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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	UG	Mineralization % Py	sp % Cp	tet % ~~Mag~~	gl % Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
88.2	91.5	ANDT	ANDESITE LAPILLI TUFF:												123774	88.2	89.7	1.5	0.026				.23				
			very poorly sorted. Medium to dark grey. 5mm to 15cm,			2	1	2	3		3	rare			123775	89.7	90.6	0.9	0.011				.22				
			20 to 40% angular to subangular heterolithic												123776	90.6	91.5	0.9	0.020				.18				
			fragments; fgd beige tuff, banded FHPP etc.																								
			Local sections strongly fg phyric - look like FHPP.																								
			Could be v.v. big frags (up to 50cm). 2% white																								
			qz veins to 3cm @ 50°. Well preserved original																								
			textures. V. wk foliation @ 60°. Veins scarce																								
			rare fr. sp. V. wk ser-py alth, wk cb alth.																								
			Local thin sedimentary bands of fgd silt or ash.																								
			Typically < 15cm wide. Beddy / bandy @ 70°																								
91.5	113.8	ANDT	Andesite Lapilli Tuff:																								
			Similar to previous interval, but lose white qz-veins.			1	2	5	2		3-5	-			123777	91.5	93.0	1.5	0.007				.09				
			And see ↑ in alteration. Pale-med green-grey.																								
			↑ in pervasive ser-py. 1% colourless to white																								
			qz veinlets < 1cm @ 60°. Carry fr. py.																								
			Still poorly sorted but alth blurs textures.																								
			? in foliation / ↑ in sericite to moderate.																								
			Fragments are flattened // to foliation																								
113.8	116.6	SEDS	Medium to coarse grained sediment; sandstone/wacke?					3	<1		2-3																
			massive; not bedded. Grain size ~~0.5mm~~ .5mm to																								
			5mm. Doesn't show well developed graded bedding																								
			but change is gradational. Tops up. Wk ser-py																								
			alteration.																								

NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

Hole No. 594 447

Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	Mineralization % Py	Sp % Cp Mag	kt % Mo	g) %	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
116.6	134.3	ANVT/SP	Andesite Lapilli Tuff:			1	2	35	1	3-5																
			similar to 91.5-113.8. Variable 10-40% subangular lapilli to 6cm. Flattened // to wk foliation @ 55° wk Sericitic alth, increasing toward @ ~119.8m 1-2% white qz veins @ 50°. V. poorly sorted mod to pale grey-green. Original textures visible Tr. py in veins.																					
			127.5-134.3: ~5-10% white qz veins+stringers typically <1cm, but 15cm vn @ 127.6m. Veins carry tr. py, rare honey sp, rare tet. Spin pads to 5mm. Veins @ 25°, 50°	127.4	134.3	10	2	5	<1	5	rare	rare		123779	127.5	128.5	1.0	1.939				1.01				
														123780	128.5	130.0	1.5	0.007				.20				
														123781	130.0	131.5	1.5	0.015				.26				
														123782	131.5	133.0	1.5	0.017				.22				
														123783	133.0	134.3	1.3	0.007				.10				
134.3	136.8	QZSW	Strong QZSW to QZBX: white, msv qz w/ tr. white calcite, in veins to 45cm! Typically <2cm. Brecciated 134.4-135.2m. Veins carry tr. py, honey sp, tet as 1-2mm flecks. Veins @ 30, 50° predominantly Host mod'ly silicified but not qz flooded. ANVT textures still visible. Same host as 116.6-134.3.			45	3	7	1	5	tr	tr		123784	134.3	135.3	1.0	0.017				.27				
														123785	135.3	136.3	1.0	0.009				.10				
														123786	136.3	136.8	0.5	0.009				.41				
136.8	149.35	ANVT/SP	Andesite Lapilli Tuff: Same as 116.6-134.3. Med grey to pale green. Poorly sorted. Heterolithic frags to ~~15cm~~ 15cm. Mod ser-py ± qz alth, 1-3% white qz @ 30-50°			3-4	1-2	3-5	tr	3				123787	136.8	137.8	1.0	0.023				.19				
														123788	137.8	139.3	1.5	0.022				.16				
														123789	139.3	140.6	1.3	0.038				.16				

NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

Hole No. S94-447
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Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB		Mineralization % Py	Sp % ~~Cp~~	tet % ~~Mag~~	gl % ~~Mo~~		Assay Data Sample	From M	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
			140.6 - 141.3m: Strong QZSW @ 20°. Trace tet, 1% py in vein.	140.6	141.3	70	3	5	1		3	[illegible]	tr			123790	140.6	141.3	0.7	0.026				.15				
																123791	141.3	142.8	1.5	0.010				.10				
																123792	142.8	144.3	1.5	0.007				.37				
			alth decreases downhole from ~ 147.3m Dkr grey.													123793	144.3	145.8	1.5	0.006				.14				
																123794	145.8	147.3	1.5	0.021				.17				
																123795	147.3	149.35	2.05	0.005				.21				
149.35	150.4	QZBX	INTENSE QZ BX/VN: 85% white to pale grey msv. qz. Host frags v. wkly alt'd. UC @ 40°, LC @ 50°. Trace fine py in vein; otherwise barren			85		2-3			2					123796	149.35	150.4	1.05	0.004				1.11				
150.4	151.6	ANLT	ANDESITE LAPILLI TUFF: Similar to previous intervals, but v. wk alth. Strong original textures - v poorly sorted.			1		1-2	1		1-2					123797	150.4	151.6	1.2	0.008				.21				
151.6	161.9	SEDS	Poorly sorted sediment: Med. grain to coarse grained sandstone to polymictic fine pebble conglomerate. Granular texture. V. poorly sorted. Medium grey. wkly silicified, v.v. wk sericit. 1% white qc f.fill @ 20, 40°. Some fragments show stronger qz-ser-py alteration. Veins locally carry 0.5% sp ± tet! ↑ in pervasive se from ~ 159 m; start losing original textures. No bedding preserved; Too poorly sorted.			3		2	1		2	tr	tr			123798	151.6	153.1	1.5	0.009				.70				
																123799	153.1	154.6	1.5	0.006				.44				
																123800	154.6	156.1	1.5	0.004				.29				
																123801	156.1	158.1	2.0	0.004				.21				
																123802	158.1	160.1	2.0	0.004				.20				
																123803	160.1	161.9	1.8	0.005				.25				

NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

Hole No. S94-447

Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	g	Mineralization % Py	sp % ~~Cp~~	tet % ~~Mag~~	gl % ~~Mo~~		Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
			156.6-157.1m: fault zone. Broken core. 5cm																									
			drill mud? or sandy gouge? @ 35°																									
161.9	165.7	QZBX	INTENSE QZBX / QZVN.			75		3.5	tr.	tr.	2					123804	161.9	162.8	0.9	0.003				.08				
			white to med grey silica. Med-dk grey silicified													123805	162.8	163.7	0.9	0.002				.07				
			fragments → no original textures. QZ is massive.													123806	163.7	164.7	1.0	0.003				.25				
			sharp U.C. @ 65°, gradational LC. No sx in													123807	164.7	165.7	1.0	0.003				.16				
			bxx fill, only fragments. Trace clay on fractures;																									
			165.2m → 5cm broken core. Strong zone; poorly min'd.																									
165.7	170.2	ANLT	Andesitic Lapilli Tuff:			2		5	<1		2-3					123808	165.7	166.7	1.0	0.004				.12				
			Poorly sorted. 15-35% subangular heterolithic lapilli													123809	166.7	168.7	2.0	0.003				.11				
			to 10cm. V. wk foliation @ 55°. Local strong													123810	168.7	170.2	1.5	0.003				.16				
			pale green sericite in msv pods to several cm.																									
			Original textures blurred by w-mod pervasive ser.																									
			+ v. wk qz. <1% qc fracture fill. Py is diss'd.																									
170.2	172.7	CHERT / FLTZ	Chert / fault zone:			7			3	tr.	3-5	tr		tr		123811	170.2	171.2	1.0	0.003				.13				
			Med grey to purple chert w/ 10% white qc													123812	171.2	172.7	1.5	0.003				.18				
			stringers @ random. UC gradational over ~15cm.																									
			LC faulted. Interval has ~25% broken core +																									
			strong fracture, @ 70°. Clay gg rare. Veins carry																									
			tr sp, gl. Chert has patches of semi msv																									
			py to 3cm.																									
			174.0-174.2m: broken core 5m. Fault																									

NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY

659' block should be 649' block
646 → 659' only 3' core !

Hole No. 594-447
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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	Mineralization % Py	Sp % Sp	tet % Mag	gl % Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
172.7	187.6	ANDT	Same as 165.7 - 170.2m.			2		5	<1	2-3				123813	186.6	187.6	1.0	0.002				.34				
			174.9 - 178m: 5-10% white qc veins @ 90°, 10°.																							
187.6	199.7	CHERT/QFSW	Chert:	—	—	qv 15			<1	35	tr															
			Pale toned grey chert. Faint granular textures. 187.6 - 190.6 has wk (15%qv) 97sw of white msv qv to 3cm wide; @ 35, 50°. overprint Chert. sw carries tr. sp. Core locally broken re. @ 189.0 - 189.7m, 191.4-191.6m. M-strongly fractured @ 70° Chert hosts 5-10% white qz >> ca veins throughout. Similar to interval in 594-444. Sharp LC @ 70-90° to CA.									123814	187.6	188.6	1.0	0.003				.30				
														123815	188.6	189.6	1.0	0.003				.21				
														123816	189.6	191.6	1.0	0.002				.11				
														123817	198.2	199.7	1.5	0.003				.19				
199.7	221.0	QSP/SW	Mod. qz-ser-py alt'n of Andesite lapilli tuff. Unit more uniform than previously seen in this hole. Pale gy to grey-green. Textures partly obliterated by alteration. 10-20% hetrolithic lapilli to 1.5cm. wk foliation @ ~50°. Frags flattened // to this. wk qcsw of 5-10% white veins @ 30°, 65°. Veins rarely cross cut, up to 3cm wide. Mod to strongly silicified.			10-15	7-8	1		1	rare	tr		123818	199.7	201.2	1.5	0.014				.29				
														123819	201.2	202.7	1.5	0.009				.25				
														123820	202.7	204.2	1.5	0.010				.23				
														123821	204.2	205.7	1.5	0.006				.13				
														123822	205.7	207.2	1.5	0.015				.27				
														123823	207.2	208.7	1.5	0.009				.24				
														123824	208.7	210.7	2.0	.009				.24				
														123825	210.7	212.5	1.8	0.006				.44				
			214.0 - 214.5m: s. qz flooding + qcsw veins @ 65°, 45°. Tr. tet.	214.0	214.5	50			1					123826	212.5	214.0	1.5	0.009				.30				
														123827	214.0	214.5	0.5	0.010				.29				
														123828	214.5	216.0	1.5	0.008				.44				
														123829	216.0	217.5	1.5	0.010				.49				
			220.9m: 1% tet in qv w/ py.											123830	217.5	219.0	1.5									

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB		Mineralization % Py	sp % ~~Cp~~	tet % ~~Mag~~	gl % ~~Mo~~		Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
221.0	229.0	QSP/S.	STRONG qz-ser-py alt'n + wk qz-ca SW:			15-20		7-8	2		5-7		rare			123832	220.0	221.0	1.0	.009				2.72				
			Similar to previous interval, but w/ strong pervasive													123833	221.0	222.5	1.5	.010				.67				
			silicification + slight ↑ in qz veins @ 10-15%													123834	222.5	224.0	1.5	.013				1.27				
			v. little calcite in veins. white qz veins @ 30-45°;													123835	224.0	225.5	1.5	.009				.58				
			carry rare fine tet. + rare py. Lower contact													123836	225.5	227.0	1.5	.006				.49				
			gradational over ~30cm.													123837	227.0	228.0	1.0	.006				.61				
																123838	228.0	229.0	1.0	.034				2.15				
229.0	241.2	QSP	Moderate qz-ser-py alteration of andesite lapilli tuff.			7-12		5-7	1-2		5-7		rare			123839	229.0	230.5	1.5	.007				.34				
			Locally well preserved original textures. Pale to													123840	230.5	232.0	1.5	.006				.51				
			medium grey to grey-green. V. wk qz-ser of 5-10%													123841	232.0	233.5	1.5	.004				.28				
			white qz>>ca veinlets to 15cm. veins @ 30° 40°;													123842	233.5	235.5	2.0	.004				.21				
			carry rare tet, tr-1% py. Weaker alt'n +													123843	235.5	237.5	2.0	.007				.29				
			veining than previous interval. v. similar to 199.7													123844	237.5	239.5	2.0	.010				.19				
			to 221.0m.													123845	239.5	241.2	1.7	.007				.61				
241.2	244.4	QSP/BX	MOD Qz-ca stockwork + local breccia.			50		5	3		3-5	rare	rare	rare		123846	241.2	242.8	1.6	0.010				.45				
			Strong pervasive silicification. Pale to med. grey.													123847	242.8	244.4	1.6	0.013				.97				
			white to pale grey veins, typically <3cm wide.																									
			Veins carry rare gl, sp, tet, 1% py. Veins @																									
			30-50°. ~35% vein/bx fill.																									
244.4	246.4	QSP.	wk-mod qz-ser-py alteration:			5		5	<1		4-5					123848	244.4	246.4	2.0	0.007				.54				
			Andesite lapilli tuff. Looks cherty in upper 1m																									
			of interval (Similar to 187.6-199.7m). 2-3%																									
			white qV @ 50°. Unmineralized																									

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	Cy	Mineralization % Py	% Cp	% Mag	% Mo	Au	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
246.4	247.2	QFBX	STRNG QZ-CA BRECCIA: QZ >> CA. white to v. pale grey massive qz. Veins @ 45°; rarely 10°. Carry tr-as% tt, sp locally, + 1% py in veins. Host strongly silicified, or possibly cherty.													123899	246.4	247.2	0.8	0.010				3.58				
247.2	276.0	ANDT / QFP	Andesite (lapilli) Tuff v. wkly qz-ser-py alt'n and 1-2% white qz-ca veins to 1 cm; barren. wk foliation @ 60° lapilli: subangular, heterolithic, up to 5 cm. Dominant lapilli type dk green/grey tuff V. pale gy-blue to med gy to gy green colour. Frags darker than matrix. Original textures well preserved. Lose veins @ ~258.3m.			2	1-2	3-4	<1	1	3-5					123850	247.2	248.7	1.5	0.011				.60				
			261.0-261.1m: Strongly broken core/rubble FAULT ZONE. Fractures @ 45°. Trace cy.																									
			265.6-265.9m: ~3% black flecks (anhedral) in matrix. Trachytic?													124551	264.0	265.0	1.0	0.003				.13				
																124552	265.0	266.0	1.0	0.003				.08				
			270.5-271.0m: Strong fracture // to C.A.																									

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Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	cy	Mineralization % Py	sp % ~~Ep~~	tet % ~~Mag~~	gl % ~~Mo~~		Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
276.0	288.0	ANTF / ~~[illegible]~~	Andesite Tuff w/ v.wk qz-ser-py alt'n: v. fine grained, uniform, featureless. Dk grey. Fine py diss'd throughout. 1% white qc fracture fill - barren @ 40°; rarely @ 0°. 281.8m: 1.5cm cygg. Fault Zone @ 35°.			4		3	<1	1-2	2																	
288.0	291.4	ANLT / QSC	Andesite lapilli tuff w/ v. wk QSP alt'n. Contact gradational from previous interval. Paler grey w/ dk grey lapilli ~ 10-30%. Same as 247.2-276.0m.			1	1	3-4	4	1	3																	
291.4	302.0	ANTF / ~~[illegible]~~	Same as 276.0-288.0m. Slight ↓ in alt'n, local v.v. faint fragment outlines. Msv. No bedding, no foliation.			<1		2	<1	1-2	1-2																	
302.0	321.5	ANLT:	Andesite lapilli tuff: Dk-med grey. Original textures poorly preserved. [illegible] ser-cy? alt'n. Looks like 10-35% subangular lapilli to 5cm. Uncertain of fragment composition but looks heterolithic. Msv, not foliated. Local brecciation, but typically only [illegible] fractured. <1% calcite fracture fill? 303.8-304m: broken core. No gg. 305.2-305.3m: " " 305.7-306.0m: " "			1	1-2	3-4	<1	2	2																	

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	Cy	Mineralization % Py	% Cp	% Mag	% Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
302.0	321.5	ANVT	310.85 - 311.0m: Fault. Strong Shearing @ 35°.																								
			Mod. silicified Sem H/W.																								
			Local lapilli. altered v.v. faint.																								
			- Gradational L.C. w/ ↑ in alteration.																								
321.5	347.8	CRSP	Mod. qz-ser-py altn in ANVT.			2-3	3	5	<1		3-7																
			Similar to previous interval, but ↑ alteration.																								
			Pale-mod gy-green to gy-beige. Faint lapilli																								
			altns. <1% qz fracture fill. Wk foliation @																								
			40°; flattening of lapilli. Greener sections look																								
			chloritic. Fractured @ 50° (mod). Local broken core																								
			local semi-msv pyrite veins to 2cm; at random w/ qz.																								
			330.1 - 330.3m: broken core																								
			330.8m: broken core												124553	337.1	337.7	0.6	0.008				.12				
			331.2 - 331.7m: broken, v blky core. Fault?												124554	337.7	339.2	1.5	0.041				.68				
															124555	339.2	340.7	1.5	0.038				.34				
			Rare aphanitic ash beds - gradational contacts												124556	340.7	342.2	1.5	0.029				.28				
															124557	342.2	343.7	1.5	0.021				.24				
			337.1 - 337.7m: white to brown QZ-CA stockwork, w/	337.1	337.7	40		2	40	5	2																
			~5% pale beige aphanitic material w/ qz.																								
			Anhkerite? clay? doesn't fizz. veins @ 35° +												124558	343.7	345.2	1.5	0.033				.19				
			comp 1-2% fine py.												124559	345.2	346.7	1.5	0.038				.20				
															124560	346.7	347.8	1.1	0.029				.18				

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	cy	Mineralization % Py	sp % ~~Cp~~	tet % ~~Mag~~	pg % ~~Mo~~	elec.	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
347.8	356.0	DYKE	MAFIC DYKE:			<1	2-3	3	<1		2																	
			Med-pale grey-beige, ~~[illegible]~~ fine grained w/																									
			10-15% med green chl-ser? alt'd phenocrysts																									
			to 5mm - probably hbl. Not calcareous.																									
			locally bleached; wk ser? alt'n. <1% qc veinlets																									
			@ 25, 70°. wk flow banding or foliation @ 50°																									
			Trace pale yellow barite? w/ qz.																									
			Rare fragments (vlc) to 1.5cm. VC @ 60° sharp																									
			Not chilled.																									
356.0	356.65	QSP	Same as 321.5 - 347.8m																									
356.65	356.85	FAULT	FAULT ZONE			35		5	15	3.5	3.5																	
			Rubbly, broken core. Fracture @ 55°. fault plane?																									
			Minor gg. Material is QCSW (strong)													124561	356.0	356.85	0.85	0.010				.15				
			TommyKnocker																									
356.85	365.8	QZSW	MOD-strong qz stockwork in ANTF.			45		7	2	1	5	tr.	tr?	rare	rare	124562	356.85	357.9	1.05	0.012				.40				
			M-S pervasive silicification, strong ser alt'n.													124563	357.9	358.9	1.0	0.018				.39				
			veins white to pale grey typically 5mm - 2cm wide,													124564	358.9	359.9	1.0	0.015				.67				
			locally to 15cm. Trace white ca in qz veins.													124565	359.9	360.9	1.0	.044				8.46			SAW	
			Med grey host - loss of most textures. Veins locally													124566	360.9	361.9	1.0	0.014				.64				
			well min'd w/ tr. pyrargyrite, rare electrum,													124567	361.9	362.9	1.0	0.009				.48				
			tr-1% sp, tet, 1% py.													124568	362.9	363.9	1.0	0.015				.51				
			TOMMYKNOCKER.													124569	363.9	364.9	1.0	0.015				.52				
			30-40% veins @ 40°													124570	364.9	365.9	1.0	0.008				.25				
																124571	365.9	366.9	[illegible]	[illegible]				.24				

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Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration: SIL	CHLOR	SER	CARB	cy	Mineralization: % Py	sp % (~~Cp~~)	tet % (~~Mag~~)	gl % (~~Mo~~)	elec.
356.85	375.4		Best min'n is 360.6-360.7m; el, 1% py, 1% tet in												
			1cm qv; and 374.6-374.8m; 20cm qv w/ py, arg, tet												
			365.1-365.2m: broken core, rubble, tr cy. Small fault												
375.8	393.3	QSw	~~Zone~~ M-Strong QSW in Chert.			60		1-2	<1	1	5-7	tr	tr		
			Zone similar to previous interval; 25-35% white to												
			pale gy qz + trace white calcite veins to 2cm												
			+ ~~[illegible]~~ occasionally to 30cm. Host is med gy to												
			grey-purple chert. Fine grained, faint clastic												
			texture preserved, completely silicified. Colorless												
			qz stringers to 10%, give crackled texture.												
			Py diss'd to semimsv in pods + stringers. Veins @												
			40°. Rare pods of sp. Core locally strongly broken:												
			Vc is v. sharp, 5mm shear @ 25°. Not as well min'd as previous interval.												
			Broken core @: 376.0-376.2m												
			377.7-378.0m rubble; tr. cy												
			378.4-378.6m rubble.												
			383.4-385.5m. Poor recovery; fltz.												
			fractures @ 60-70°												

Assay Data: Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data: RQD %	Run	Recovery %
124572	366.9	367.9	1.0	0.026				.92				
124573	367.9	368.9	1.0	0.012				.34				
124574	368.9	369.9	1.0	0.008				.81				
124575	369.9	370.9	1.0	0.007				.72				
124576	370.9	371.9	1.0	0.005				.30				
124577	371.9	372.9	1.0	0.070				.55				
124578	372.9	373.9	1.0	0.010				.52				
124579	373.9	374.9	1.0	0.024				6.39				
124580	374.9	375.8	0.9	0.015				.49				
124581	375.8	376.8	1.0	0.005				.35				
124582	376.8	377.8	1.0	0.008				.29				
124583	377.8	378.8	1.0	0.008				3.60				
124584	378.8	379.8	1.0	0.027				0.41				
124585	379.8	380.8	1.0	0.036				.51				
124586	380.8	381.8	1.0	0.009				.53				
124587	381.8	382.8	1.0	0.006				.15				
124588	382.8	383.8	1.0	0.004				.09				
124589	383.8	384.8	1.0	0.006	75% recovery			.14				
124590	384.8	385.8	1.0	0.005				.07				
124591	385.8	386.8	1.0	0.001				.04				
124592	386.8	387.8	1.0	0.005				.23				
124593	387.8	388.8	1.0	0.003				.14				
124594	388.8	389.8	1.0	0.003				.10				
124595	389.8	390.9	1.1	0.004				.05				
124596	391.9	392.0	1.1	0.017				.35				
124597	392.0	393.1	1.1	0.014				.74				

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	Mineralization % Py	% Cp	% Mag	% Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
			Broken core: 388.4-388.6m: hr.cy on preas. Flt z. 391.6-391.7m											174918	393.1	394.1	1.0m	0.098				(0.1)				
393.8	394.1	FLTZ	Fault Zone: extremely broken/shatt'd core makes UC of mafic dyke. Fractures @ 30-40°																							
~~394.1~~	394.7	DYKE	Mafic Dyke:																							
394.1	394.7	DYKE	Mafic Dyke: Olive green, fine grained. Not calcareous. Trace ep flecks. <1% white calcite stringers + blebs. Post mineral.																							
394.7	395.2	QZSW	Same as 375.8-393.8m																							
395.2	408.5	QSP	strong qz-ser-py alteration Pale to med gy-green to gy-beige. Fine grained. 0-10% ♦ subangular lapilli. Most original textures destroyed. Andesite tuff host. weak foliation @ 50°. Competent. Py diss'd + occasionally as																							

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Interval (meters) From	Interval (meters) To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	Cy	Mineralization % Py	Sp % ~~Cp~~	tet % ~~Mag~~	gl % ~~Mo~~	ele.	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
395.2	408.5		veinlets 5mm to 5cm wide. locally extremely			10		7-8	2		7-8	tr	tr	tr		124599	394.7	395.2	0.5	0.020				.18				
			well min'd. Veins @ 50-60° to CA.													124600	395.2	396.2	1.0	0.030				.44				
			Local mottled texture of dker grey patches look													124601	396.2	397.2	1.0	0.032				.49				
			silicified, but aren't.													124602	397.2	398.2	1.0	0.021				.68				
																124603	398.2	399.2	1.0	0.032				.16				
			Well min'd @: 395.7-395.8m: sp in 5mm qz													124604	399.2	400.2	1.0	0.023				.19				
			stringer @ 20°													124605	400.2	401.2	1.0	0.018				.09				
																124606	401.2	402.2	1.0	0.031				.10				
			397.1m: broken core.													124607	402.2	403.2	1.0	0.022				.11				
																124608	403.2	404.2	1.0	0.027				.11				
			397.1-397.4m: 3cm band @ 30° w/ 2% coarse													124609	404.2	405.2	1.0	0.022				.10				
			sp-gl-tr tet.													124610	405.2	406.2	1.0	0.031				.41				
																124611	406.2	407.2	1.0	0.031				.22				
			403.5m: [illegible] w/ 1% diss'd tet.													124612	407.2	408.5	1.3	0.013				.14				
																1												
408.5	432.2	QSP	M-Strong QZ-SER-PY alth:			7		7-8	1		4.5	tr				124613	408.5	410.0	1.5	0.011				.08				
			Host frg'd andesite tuff. Very similar to previous													124614	410.0	411.5	1.5	0.011				.11				
			interval, but only 1-2% white qz veins +													124615	411.5	413.0	1.5	0.015				.16				
			rarely mineralized. wk fracture. Msv.													124616	413.0	414.5	1.5	0.010				.09				
			occasional faint lapilli. weak crackled													124617	414.5	416.0	1.5	0.008				.07				
			texture from network of fine dker grey													124618	416.0	417.5	1.5	0.008				.14				
			fractures. Med grey-green to gy-beige.													124619	417.5	419.0	1.5	0.007				.18				
																124620	419.0	420.5	1.5	0.011				.25				
			423.4-423.8m: broken core, tr cy. Small													124621	420.5	421.5	1.0	0.019				.29				
			fault.													124622	421.5	423.0	1.5	0.015				.13				
																124623	423.0	424.5	1.5	0.013				.12				

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Interval (meters) From	To	Rock Type	Geologic Description	From	To	Alteration SIL	CHLOR	SER	CARB	Mineralization % Py	% Cp	% Mag	% Mo	Assay Data Sample	From m	To m	Int m	Au opt	Cu %	Au check	Cu check	Ag opt	Mo %	Core Data RQD %	Run	Recovery %
														124624	424.5	426.0	1.5	0.015				.07				
														124625	426.0	427.5	1.5	0.012				.07				
														124626	427.5	429.0	1.5	0.016				.10				
														124627	429.0	430.5	1.5	0.013				.23				
														124628	430.5	432.2	1.7	0.025				.26				

APPENDIX II

ASSAY DATA

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GEOCHEMICAL
ANALYTICAL CHEMISTS
ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. 2, Kamloops, B.C. V2C 2J3 Phone (604) 573-5700
Fax (604) 573-4557

CERTIFICATE OF ASSAY ETS3033

NEWHAWK GOLD MINES
625 HOWE ST- SUITE 860
VANCOUVER, B.C.
V6C-2T6

17-Aug-94

Attention: Fred Hewett/M. McPherson

64 rock samples received July 29, 1994
Sample run date: August 8, 9, 1994
Samples Submitted By: M. McPherson
Client Project Number: Sulphurets
Shipment Number: 17

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
13	123751	0.46	0.013	2.5	0.07
14	123752	0.38	0.011	1.7	0.05
15	123753	0.07	0.002	0.9	0.03
16	123754	0.07	0.002	0.8	0.02
17	123755	0.46	0.013	8.8	0.26
18	123756	0.27	0.008	3.9	0.11
19	123757	0.23	0.007	3.9	0.11
20	123758	0.31	0.009	1.7	0.05
21	123759	1.67	0.049	4.0	0.12
22	123760	0.28	0.008	3.7	0.11

Frank J.Pezzotti, A.Sc.T., B.C. Certified Assayer

Newhawk Gold Mines ETS3033 17-Aug-94

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
23	123761	0.51	0.015	6.2	0.18
24	123762	0.70	0.020	8.0	0.23
25	123763	0.51	0.015	6.0	0.18
26	123764	1.03	0.030	9.9	0.29
27	123765	0.59	0.017	7.1	0.21
28	123766	0.93	0.027	27.3	0.80
29	123767	1.22	0.035	9.3	0.27
30	123768	1.47	0.043	30.1	0.88
31	123769	0.86	0.025	10.0	0.29
32	123770	0.82	0.024	15.5	0.45
33	123771	0.64	0.019	34.4	1.00
34	123772	0.36	0.010	20.3	0.59
35	123773	0.53	0.015	8.7	0.25
36	123774	0.89	0.026	7.7	0.23
37	123775	0.39	0.011	7.6	0.22
38	123776	0.68	0.020	6.2	0.18
39	123777	0.23	0.007	3.2	0.09
40	123778	0.18	0.005	1.6	0.05
41	123779	66.50	1.939	34.5	1.01
42	123780	0.24	0.007	6.7	0.20
43	123781	0.53	0.015	9.0	0.26
44	123782	0.59	0.017	7.4	0.22
45	123783	0.26	0.007	3.3	0.10
46	123784	0.59	0.017	9.2	0.27
47	123785	0.30	0.009	3.5	0.10
48	123786	0.32	0.009	14.0	0.41
49	123787	0.99	0.029	6.5	0.19
50	123788	0.76	0.022	5.3	0.16
51	123789	1.29	0.038	5.5	0.16
52	123790	0.90	0.026	5.1	0.15
53	123791	0.33	0.010	3.5	0.10
54	123792	0.26	0.007	12.6	0.37
55	123793	0.20	0.006	4.9	0.14
56	123794	0.74	0.021	5.9	0.17
57	123795	0.17	0.005	7.1	0.21
58	123796	0.15	0.004	38.2	1.11
59	123797	0.27	0.008	7.3	0.21
64	123700	0.38	0.011	3.7	0.11

Frank J.Pezzotti, A.Sc.T., B.C. Certified Assayer

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ENVIRONMENTAL TESTING

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CERTIFICATE OF ASSAY ETS3041

NEWHAWK GOLD MINES
625 HOWE ST- SUITE 860
VANCOUVER, B.C.
V6C-2T6

25-Aug-94

Attention :Fred Hewett/M. McPherson

39 rock sample received July 30, 1994
Sample run date: August 9, 10, 1994
Samples Submitted By: M. McPherson
Client Project Number: Sulphurets
Shipment Number: 18

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
16	123798	0.30	0.009	24.0	0.70
17	123799	0.21	0.006	15.0	0.44
18	123800	0.13	0.004	9.8	0.29
19	123801	0.15	0.004	7.2	0.21
20	123802	0.14	0.004	7.0	0.20
21	123803	0.18	0.005	8.7	0.25
22	123804	0.09	0.003	2.7	0.08

Frank J.Pezzotti, A.Sc.T., B.C. Certified Assayer

Newhawk Gold Mines ETS3041 25-Aug-94

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
23	123805	0.07	0.002	2.4	0.07
24	123806	0.12	0.003	8.4	0.25
25	123807	0.10	0.003	5.6	0.16
26	123808	0.13	0.004	4.2	0.12
27	123809	0.09	0.003	3.9	0.11
28	123810	0.09	0.003	5.6	0.16
29	123811	0.09	0.003	4.5	0.13
30	123812	0.10	0.003	6.1	0.18
31	123813	0.08	0.002	11.8	0.34
32	123814	0.12	0.003	10.2	0.30
33	123815	0.10	0.003	7.3	0.21
34	123816	0.06	0.002	3.7	0.11
35	123817	0.09	0.003	6.6	0.19
36	123818	0.49	0.014	8.1	0.24
37	123819	0.31	0.009	8.5	0.25
38	123820	0.36	0.010	7.8	0.23
39	123821	0.21	0.006	4.5	0.13
QC DATA					
Resplit Assays:					
R/S 4	13619	0.37	0.011	5.8	0.17
Repeat Assays:					
1	14414			15.5	0.45
9	13624	0.51	0.015		
9	13624	0.46	0.013		
39	123821			4.7	0.14
Standard:					
	CANMET MA-1b	17.12	0.499	1.2	0.04
Blanks:					
	Blank	<.03	<.001		

NOTE: Average values are reported where repeat assays are performed.
Screened "Metallic Assays" are performed on sample resplits screened to -140 mesh.

ECO-TECH LABORATORIES LTD.
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B.C. Certified Assayer

XLS/NewhawkS

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Fax (604) 573-4557

CERTIFICATE OF ASSAY ETS3043

NEWHAWK GOLD MINES
#860-625 HOWE STREET
VANCOUVER, B.C.
V8Y-3A5

23-Aug-94

Attention: Fred Hewett/Margaret McPherson

57 rock samples received July 31, 1994
Project: Sulphurets
Samples Submitted By: M.McPherson
Shipment Number: 19

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
1	123822	0.50	0.015	9.1	0.27
2	123823	0.32	0.009	8.2	0.24
3	123824	0.32	0.009	8.2	0.24
4	123825	0.22	0.006	15.0	0.44
5	123826	0.30	0.009	10.1	0.30
6	123827	0.34	0.010	9.9	0.29
7	123828	0.29	0.008	15.1	0.44
8	123829	0.33	0.010	16.7	0.49
9	123830	0.37	0.011	20.3	0.59
10	123831	0.50	0.015	41.0	1.20
11	123832	0.32	0.009	93.1	2.72
12	123833	0.36	0.010	22.8	0.67
13	123834	0.45	0.013	43.4	1.27
14	123835	0.31	0.009	20.0	0.58
15	123836	0.21	0.006	16.7	0.49
16	123837	0.22	0.006	21.0	0.61
17	123838	1.18	0.034	73.6	2.15
18	123839	0.23	0.007	11.8	0.34
19	123840	0.20	0.006	17.3	0.51
20	123841	0.13	0.004	9.7	0.28
21	123842	0.15	0.004	7.1	0.21
22	123843	0.24	0.007	10.0	0.29
23	123844	0.36	0.010	6.5	0.19
24	123845	0.24	0.007	20.8	0.61
25	123846	0.36	0.010	15.5	0.45

Frank J. Pezzotti, A.Sc.T. B.C.Certified Assayer

NEWHAWK GOLD MINES ETK 3043 23-Aug-94

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
26	123847	0.43	0.013	33.4	0.97
27	123848	0.23	0.007	18.6	0.54
28	123849	0.34	0.010	122.7	3.58
29	123850	0.38	0.011	20.7	0.60
30	~~123851~~ 124551	0.12	0.003	4.5	0.13
31	~~123852~~ 124552	0.10	0.003	2.7	0.08
32	~~123853~~ 124553	0.26	0.008	4.1	0.12
33	~~123854~~ 124554	1.42	0.041	23.3	0.68
41	124555	1.30	0.038	11.8	0.34
42	124556	1.00	0.029	9.7	0.28
43	124557	0.71	0.021	8.3	0.24
44	124558	1.13	0.033	6.6	0.19
45	124559	1.32	0.038	6.9	0.20
46	124560	0.83	0.024	6.1	0.18
47	124561	0.36	0.010	5.2	0.15
48	124562	0.40	0.012	13.7	0.40
49	124563	0.63	0.018	13.5	0.39
50	124564	0.52	0.015	23.1	0.67
51	124566	0.49	0.014	21.9	0.64
52	124567	0.32	0.009	16.5	0.48
53	124568	0.50	0.015	17.6	0.51
54	124569	0.50	0.015	17.7	0.52
55	124570	0.28	0.008	8.6	0.25
56	124571	0.39	0.011	8.3	0.24
57	124572	0.89	0.026	14.4	0.42

Frank J. Pezzotti, A.Sc.T. B.C.Certified Assayer

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Fax: (604) 573-4557

CERTIFICATE OF ASSAY ETS3042

NEWHAWK GOLD MINES
#860-625 HOWE STREET
VANCOUVER, B.C.
V8Y-3A5

24-Aug-94

Attention: Fred Hewett/Margaret McPherson

69 rock samples received August 1, 1994
Project: Sulphurets
Samples Submitted By: M.McPherson
Shipment Number: 20

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
13	124573	0.40	0.012	11.7	0.34
14	124574	0.28	0.008	27.7	0.81
15	124575	0.23	0.007	24.8	0.72
16	124576	0.18	0.005	10.1	0.30
17	124577	0.35	0.010	19.0	0.55
18	124578	0.36	0.010	17.7	0.52
19	124579	0.81	0.024	219.1	6.39
20	124580	0.50	0.015	16.9	0.49
21	124581	0.17	0.005	12.0	0.35
22	124582	0.26	0.008	10.0	0.29
23	124583	0.28	0.008	123.4	3.60
24	124584	0.91	0.027	14.2	0.41
25	124585	1.25	0.036	17.5	0.51

Frank J. Pezzotti, A.Sc.T. B.C.Certified Assayer

NEWHAWK GOLD MINES ETS3042 24-Aug-94

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
26	124586	0.32	0.009	18.1	0.53
27	124587	0.19	0.006	5.0	0.15
28	124588	0.15	0.004	3.2	0.09
29	124589	0.20	0.006	4.9	0.14
30	124590	0.16	0.005	2.4	0.07
31	124591	0.04	0.001	1.3	0.04
32	124592	0.18	0.005	7.8	0.23
33	124593	0.09	0.003	4.7	0.14
34	124594	0.12	0.003	3.5	0.10
35	124595	0.13	0.004	1.8	0.05
36	124596	0.57	0.017	12.0	0.35
37	124597	0.48	0.014	25.2	0.74
38	124598	3.36	0.098	34.7	1.01
39	124599	0.68	0.020	6.0	0.18
40	124600	1.04	0.030	15.0	0.44
41	124601	1.11	0.032	16.7	0.49
42	124602	0.71	0.021	23.3	0.68
43	124603	1.09	0.032	5.6	0.16
44	124604	0.79	0.023	6.6	0.19
45	124605	0.63	0.018	3.2	0.09
46	124606	1.05	0.031	3.3	0.10
47	124607	0.77	0.022	3.9	0.11
48	124608	0.92	0.027	3.7	0.11
49	124609	0.75	0.022	3.3	0.10
50	124565	1.52	0.044	290.0	8.46
51	124610	1.08	0.031	14.0	0.41
52	124611	1.06	0.031	7.5	0.22
53	124612	0.43	0.013	4.7	0.14
54	124613	0.38	0.011	2.7	0.08
55	124614	0.39	0.011	3.9	0.11
56	124615	0.51	0.015	5.4	0.16
57	124616	0.36	0.010	3.2	0.09
58	124617	0.28	0.008	2.3	0.07
59	124618	0.26	0.008	4.9	0.14
60	124619	0.23	0.007	6.1	0.18
61	124620	0.38	0.011	8.5	0.25
62	124621	0.64	0.019	10.0	0.29
63	124622	0.52	0.015	4.4	0.13
64	124623	0.43	0.013	4.1	0.12
65	124624	0.50	0.015	2.4	0.07
66	124625	0.41	0.012	2.3	0.07
67	124626	0.54	0.016	3.5	0.10
68	124627	0.43	0.013	7.8	0.23
69	124628	0.87	0.025	8.8	0.26

Frank J.Pezzotti, A.Sc.T. B.C.Certified Assayer

NEWHAWK GOLD MINES ETS 3043 23-Aug-94

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
QC DATA					
Resplit Assays:					
RS/7	123828	0.31	0.009	13.0	0.38
RS/54	124569	0.58	0.017	2.8	0.08
Repeat Assays:					
1	123822	0.47	0.014		
1	123822	0.52	0.015		
46	124560	0.83	0.024		
46	124560	0.83	0.024		
In House Std.:					
	1993 STD	2.71	0.079	1.8	0.05
		2.63	0.077	1.2	0.04
		2.69	0.078		
Blanks:					
	Blank	<.03			

NOTE: **Average values are reported where repeat assays are performed.**
Screened "Metallic Assays" are performed on sample resplits screened to -140 mesh.

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

FEED FAX THIS END

FAX

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Dept.:
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No. of Pages:
From:
Date:
Company:
Fax No.:
Comments:

Post-it™ fax pad 7983E

Newhawk Gold Mines ETS3033 17-Aug-94

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
QC DATA					
Resplit Assays:					
R/S 30	123768	1.28	0.037		
R/S 50	123788	0.77	0.022		
Repeat Assays:					
1	13607	0.21	0.006	3.9	0.11
1	13607	0.22	0.006		
38	123776	0.69	0.020		
38	123776	0.67	0.019		
39				3.2	0.09
Standard:					
	CANMET MA-1b	17.00	0.496		
In House Standard: 1991				1.3	
Blanks:					
	Blank	<.03	<.001		

NOTE: **Average values are reported where repeat assays are performed. Screened "Metallic Assays" are performed on sample resplits screened to -140 mesh.**

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

NEWHAWK GOLD MINES ETS 3042 24-Aug-94

ET #.	Tag #	Au (g/t)	Au (oz/t)	Ag (g/t)	Ag (oz/t)
QC DATA					
Resplit Assays:					
RS/9	13646	0.52	0.015	4.2	0.12
RS/65	124624	0.57	0.017	2.6	0.08
Repeat Assays:					
1	13638	0.51	0.015	4.6	0.13
1	13638	0.48	0.014		
39	124599	0.68	0.020	5.8	0.17
39	124599	0.67	0.020		
In House Std.:					
	1993 STD	2.64	0.077		
	1993 STD	2.70	0.079		
	1991 STD			1.5	0.04
	1991 STD			1.4	0.04
Blanks:					
	Blank	<.03	<.001		

NOTE: **Average values are reported where repeat assays are performed.**
Screened "Metallic Assays" are performed on sample resplits screened to -140 mesh.

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

Eco-Tech
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ANALYTICAL CHEMISTS
ENVIRONMENTAL TESTING

10041 E. Trans Canada Hwy., R.R. #2, Kamloops, B.C. V2C 2J3 Phone (604) 573-5700
Fax (604) 573-4557

CERTIFICATE OF ANALYSIS ETS 3033

NEWHAWK GOLD MINES
#860-625 HOWE STREET
VANCOUVER, B.C.
V8Y-3A5

17-Aug-94

ATTENTION: Fred Hewett/Margaret McPherson

64 rock samples received July 29, 1994
Sample run date: August 8, 9, 1994
Samples Submitted By: M. McPherson
Client Project Number: Sulphurets
Shipment Number: 17

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
		0.8	270	9	<5	1	26	<5	<10	86
13	123751	1.8	600	79	<5	1	20	15	<10	68
14	123752	1.2	215	65	<5	2	12	15	<10	59
15	123753	0.6	100	74	<5	<1	28	10	<10	76
16	123754	0.4	140	90	<5	<1	34	20	<10	89
17	123755	6.8	710	73	<5	4	26	<5	<10	17
18	123756	2.8	170	83	<5	<1	40	15	<10	77
19	123757	2.8	235	80	<5	<1	26	15	<10	50
20	123758	1.0	195	72	<5	<1	34	20	<10	80
21	123759	2.8	1110	75	<5	19	40	10	<10	93
22	123760	2.6	355	94	<5	2	24	10	<10	80
23	123761	4.6	620	75	<5	2	26	10	<10	81

Frank J. Pezzotti, A.Sc.T., B.C. Certified Assayer

NEWHAWK GOLD MINES ETS-3033 17-Aug-94

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
24	123762	6.0	610	95	<5	2	28	10	<10	67
25	123763	4.4	530	93	<5	3	28	5	<10	217
26	123764	7.4	790	76	<5	2	22	5	<10	61
27	123765	5.6	820	66	<5	5	28	<5	<10	75
28	123766	17.6	1305	192	<5	1	38	20	<10	336
29	123767	7.2	1635	75	<5	3	34	5	<10	121
30	123768	19.2	1150	148	<5	<1	58	20	<10	127
31	123769	7.6	675	35	<5	2	26	10	<10	87
32	123770	12.4	590	34	<5	7	48	<5	<10	320
33	123771	21.6	275	36	<5	14	40	20	<10	192
34	123772	16.4	540	33	<5	7	44	15	<10	81
35	123773	6.8	765	21	<5	3	62	<5	<10	55
36	123774	7.8	870	28	<5	4	52	10	<10	99
37	123775	5.8	720	38	<5	3	70	15	<10	215
38	123776	4.2	645	21	<5	3	76	10	<10	260
39	123777	2.6	420	40	<5	<1	32	10	<10	121
40	123778	1.2	355	20	<5	<1	18	<5	<10	13
41	123779	26.4	195	19	<5	3	40	<5	<10	121
42	123780	5.0	320	24	<5	2	166	<5	<10	696
43	123781	7.0	410	48	<5	<1	334	10	<10	1291
44	123782	5.6	340	49	<5	2	22	15	<10	65
45	123783	2.0	375	22	<5	4	22	<5	<10	54
46	123784	7.2	395	37	<5	4	40	10	<10	318
47	123785	2.2	565	26	<5	8	36	<5	<10	99
48	123786	10.6	400	102	<5	3	298	40	<10	1639
49	123787	4.6	815	36	<5	2	36	<5	<10	102
50	123788	3.8	1135	24	<5	1	32	<5	<10	56
51	123789	4.2	930	21	<5	3	26	<5	<10	41
52	123790	3.8	990	21	<5	2	34	<5	<10	64
53	123791	2.4	790	19	<5	4	28	<5	<10	59
54	123792	9.8	835	134	<5	2	34	15	<10	71
55	123793	3.8	595	37	<5	1	36	<5	<10	142
56	123794	4.4	835	47	<5	<1	88	5	<10	394
57	123795	5.4	550	57	<5	6	64	10	<10	158
58	123796	23.8	790	432	<5	3	78	130	<10	261
59	123797	5.6	510	33	<5	5	192	10	<10	139
64	123700	2.8	495	87	<5	<1	28	5	<10	69

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Fax (604) 573-4557

CERTIFICATE OF ANALYSIS ETS 3041

NEWHAWK GOLD MINES LTD.
#860-625 HOWE ST.
VANCOUVER , B.C.
V6C-2T6

18-Aug-94

ATTENTION: Theresa Rau

39 rock samples received July 30,1994
Sample run date: August 17, 1994
Samples submitted by: M.McPherson
Project: Sulphurets
Shipment: 18

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
16	123798	18.6	460	120	<5	3	66	55	<10	170
17	123799	11.4	405	64	<5	5	82	25	<10	237
18	123800	7.2	265	48	5	1	170	35	<10	321
19	123801	5.0	655	34	<5	<1	98	15	<10	176
20	123802	5.0	465	28	<5	2	54	15	<10	180
21	123803	6.8	425	24	<5	2	30	25	<10	77
22	123804	2.2	165	9	<5	2	<2	5	<10	44
23	123805	1.4	50	10	<5	5	<2	<5	10	21
24	123806	6.0	375	27	<5	1	<2	15	<10	39
25	123807	4.0	225	19	<5	3	<2	10	<10	65
26	123808	2.6	340	17	<5	14	<2	10	<10	11
27	123809	2.4	210	18	<5	4	14	20	<10	23
28	123810	3.8	135	18	<5	5	56	20	<10	102
29	123811	3.2	115	14	<5	4	54	10	<10	278
30	123812	4.8	165	22	<5	5	170	10	<10	562

NEWHAWK GOLD MINES LTD. ETS3041 18-Aug-94

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
31	123813	9.8	205	46	<5	<1	202	25	<10	494
32	123814	8.6	600	25	<5	8	428	25	<10	1773
33	123815	5.8	340	23	<5	3	50	15	<10	73
34	123816	2.2	105	12	<5	7	<2	5	<10	95
35	123817	4.0	165	19	<5	3	46	5	<10	83
36	123818	6.8	535	50	<5	2	20	25	<10	88
37	123819	6.8	285	30	<5	1	14	15	<10	261
38	123820	5.6	500	29	<5	2	26	<5	<10	46
39	123821	4.0	550	21	<5	<1	<2	10	<10	60
QC DATA:										
Resplit:										
R/S 4	13619	4.6	770	16	<5	2	20	35	<10	116
Repeat:										
1	14414	11.6	285	90	<5	<1	6	5	<10	1534
39	123821	3.2	540	22	<5	<1	6	<5	<10	64
Standard 1991:										
		1.2	75	83	<5	<1	22	20	<10	80
		1.2	75	84	<5	<1	26	10	<10	74

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CERTIFICATE OF ANALYSIS ETS 3043

NEWHAWK GOLD MINES
#860-625 HOWE STREET
VANCOUVER, B.C.
V8Y-3A5

23-Aug-94

ATTENTION: Fred Hewett/Margaret McPherson

57 rock samples received July 31, 1994
Project: Sulphurets
Samples Submitted By: M.McPherson
Shipment Number: 19

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
1	123822	8.0	385	53	<5	2	22	20	<10	72
2	123823	7.0	415	37	<5	<1	38	10	<10	66
3	123824	7.8	290	37	<5	<1	42	10	<10	93
4	123825	14.4	255	56	<5	<1	28	30	<10	66
5	123826	9.2	280	35	<5	2	22	20	<10	53
6	123827	9.2	290	35	<5	<1	24	10	<10	44
7	123828	14.4	215	62	<5	1	22	20	<10	32
8	123829	15.8	105	73	<5	<1	26	20	<10	38
9	123830	18.6	105	189	<5	7	30	50	<10	57
10	123831	28.8	110	225	<5	<1	36	65	<10	60
11	123832	>30	145	481	<5	3	38	205	<10	84
12	123833	20.4	105	94	<5	2	34	35	<10	143
13	123834	>30	195	115	<5	4	20	55	<10	52
14	123835	18.8	305	260	<5	<1	10	65	<10	34
15	123836	15.4	135	58	<5	3	30	15	<10	80
16	123837	20.6	250	139	<5	2	16	35	<10	21
17	123838	>30	160	40	<5	<1	6	20	<10	19
18	123839	10.8	140	36	<5	2	16	10	<10	20
19	123840	16.4	180	39	<5	2	10	15	<10	34
20	123841	8.8	145	33	<5	<1	8	10	<10	23
21	123842	6.4	160	69	<5	2	8	<5	<10	21
22	123843	9.4	210	297	<5	<1	10	<5	<10	35
23	123844	6.0	200	76	<5	1	10	<5	<10	26
24	123845	18.6	290	120	<5	3	20	20	<10	37
25	123846	14.0	245	60	<5	6	72	5	<10	83
26	123847	>30	135	105	<5	5	42	30	<10	48
27	123848	16.6	150	55	<5	<1	60	15	<10	19
28	123849	>30	110	194	<5	4	120	100	<10	132
29	123850	19.2	290	97	<5	<1	34	20	<10	56

NEWHAWK GOLD MINES ETS3043 23-Aug-94

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
30	~~123851~~ 124551	4.2	95	98	<5	3	10	<5	<10	15
31	~~123852~~ 124552	2.6	100	120	<5	<1	<2	<5	<10	12
32	~~123853~~ 124553	4.0	120	51	<5	2	22	10	<10	57
33	~~123854~~ 124554	21.2	1265	132	<5	5	158	40	<10	343
41	124555	11.6	775	96	<5	7	116	15	<10	282
42	124556	9.4	600	98	<5	2	128	5	<10	310
43	124557	8.2	505	192	<5	4	86	<5	<10	250
44	124558	6.4	580	94	<5	2	68	<5	<10	154
45	124559	6.4	395	98	<5	7	138	<5	<10	207
46	124560	6.2	335	87	<5	5	88	<5	<10	223
47	124561	5.4	480	55	<5	6	66	<5	<10	179
48	124562	13.8	500	37	<5	10	94	<5	<10	95
49	124563	13.2	90	29	<5	11	58	5	<10	16
50	124564	23.0	80	48	<5	4	88	10	<10	92
51	124566	21.4	80	43	<5	10	78	10	<10	571
52	124567	16.4	110	40	<5	3	30	5	<10	64
53	124568	17.2	185	41	<5	3	40	5	<10	28
54	124569	17.2	230	42	<5	4	40	15	<10	98
55	124570	8.4	95	25	<5	10	36	<5	<10	41
56	124571	8.2	95	44	<5	7	70	5	<10	458
57	124572	14.2	145	136	<5	3	98	15	<10	65
QC/DATA:										
Resplit #:										
R/S7	123828	13.6	210	60	<5	2	22	20	<10	31
R/S54	124569	15.4	215	37	<5	4	36	10	<10	104
Repeat #:										
1	123822	8.4	375	53	<5	1	20	15	<10	68
39	13636	3.0	410	19	<5	5	46	5	<10	89
Standard:										
		1.0	75	88	<5	<1	20	5	<10	80
		1.2	65	87	<5	<1	18	5	<10	76

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CERTIFICATE OF ANALYSIS ETS 3042

NEWHAWK GOLD MINES
#860-625 HOWE STREET
VANCOUVER, B.C.
V8Y-3A5

23-Aug-94

ATTENTION: Fred Hewett/Margaret McPherson

69 CORE samples received August 1, 1994
Project: Sulphurets
Samples Submitted By: M. McPHERSON
Shipment Number: 20

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
13	124573	11.2	95	103	<5	17	50	20	<10	57
14	124574	27.4	45	39	<5	3	74	15	<10	32
15	124575	24.6	135	35	<5	6	78	20	<10	62
16	124576	9.8	165	26	<5	5	22	10	<10	28
17	124577	18.8	300	46	<5	5	38	20	<10	44
18	124578	17.8	495	49	<5	3	162	25	<10	306
19	124579	>30	165	147	<5	<1	592	155	<10	6214
20	124580	17.0	245	56	<5	11	1096	20	<10	1255
21	124581	11.8	645	25	<5	16	184	20	<10	484
22	124582	9.6	480	22	<5	5	754	10	<10	2144
23	124583	>30	950	159	<5	7	1206	140	<10	2424
24	124584	13.6	360	27	<5	18	434	20	<10	822
25	124585	16.8	225	34	<5	7	278	15	<10	654
26	124586	18.0	465	45	<5	4	642	15	<10	1625

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
27	124587	4.4	55	20	<5	4	48	<5	<10	233
28	124588	3.2	40	18	<5	11	20	<5	<10	55
29	124589	5.4	85	19	<5	3	22	<5	<10	105
30	124590	2.0	125	10	<5	7	18	<5	<10	30
31	124591	1.2	45	13	<5	6	32	<5	<10	22
32	124592	7.6	60	31	<5	16	66	<5	<10	76
33	124593	5.2	40	26	<5	10	6	5	<10	15
34	124594	4.2	30	20	<5	6	2	5	<10	11
35	124595	2.6	40	11	<5	2	12	5	<10	30
36	124596	13.2	35	59	<5	4	50	30	<10	132
37	124597	25.6	65	102	<5	5	64	45	<10	178
38	124598	>30	355	131	<5	3	504	20	<10	687
39	124599	5.6	140	33	<5	4	66	<5	<10	129
40	124600	14.8	250	110	<5	<1	844	10	<10	2210
41	124601	16.2	235	99	<5	4	1580	15	<10	1977
42	124602	22.2	215	123	<5	<1	5348	15	<10	6875
43	124603	5.4	295	42	<5	4	232	<5	<10	417
44	124604	6.0	325	57	<5	2	878	<5	<10	2111
45	124605	2.8	210	65	<5	5	108	<5	<10	329
46	124606	2.8	165	96	<5	3	68	5	<10	194
47	124607	3.6	290	42	<5	12	76	<5	<10	234
48	124608	3.4	250	26	<5	9	316	<5	<10	694
49	124609	3.0	215	22	<5	4	86	<5	<10	301
50	124565	>30	240	355	<5	2	434	280	<10	1945
51	124610	12.2	245	35	<5	3	92	10	<10	298
52	124611	6.8	680	35	<5	2	72	5	<10	265
53	124612	4.6	260	71	<5	<1	54	10	<10	166
54	124613	2.4	200	59	<5	1	92	<5	<10	148
55	124614	3.4	255	35	<5	2	88	<5	<10	193
56	124615	4.6	295	26	<5	15	210	<5	<10	484
57	124616	2.8	235	33	<5	11	40	<5	<10	68
58	124617	2.0	390	133	<5	3	22	5	<10	104
59	124618	4.6	185	44	<5	6	42	<5	<10	143
60	124619	6.2	560	40	<5	7	54	5	<10	135
61	124620	8.0	140	113	<5	6	62	15	<10	161
62	124621	9.8	225	102	<5	8	152	15	<10	274
63	124622	4.4	400	56	<5	7	24	5	<10	71
64	124623	3.8	420	37	<5	7	34	<5	<10	41
65	124624	2.8	285	45	<5	7	40	<5	<10	231
66	124625	2.6	165	28	<5	6	32	<5	<10	137
67	124626	4.0	195	50	<5	14	44	5	<10	176
68	124627	8.0	475	73	<5	3	36	<5	<10	50
69	124628	8.2	180	126	<5	6	38	<5	<10	52

NEWHAWK GOLD MINES ETS 3033 17-Aug-94

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
QC/DATA:										
Resplit #:										
R/S 30	123768	19.8	1150	141	<5	2	54	15	<10	117
R/S 50	123788	4	1180	25	<5	<1	36	<5	<10	59
Repeat #:										
1	13607	2.8	355	16	<5	<1	62	10	<10	169
39	123777	2.6	440	39	<5	1	36	10	<10	127
Standard:										
		1.0	75	89	<5	<1	24	15	<10	84
		1.2	75	91	<5	<1	56	15	<10	88

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NEWHAWK GOLD MINES ETS 3042 23-Aug-94

Et #.	Tag #	Ag (ppm)	As (ppm)	Cu (ppm)	Hg (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Tl (ppm)	Zn (ppm)
QC/DATA:										
Repslit :										
R/S9	13646	4.2	260	12	<5	<1	158	5	<10	359
R/S65	124624	2.8	280	43	<5	9	38	<5	<10	224
Repeat #:										
1	13638	5.0	365	26	<5	<1	94	15	<10	100
39	124599	5.6	150	32	<5	4	70	<5	<10	131
Standard:		1.0	70	86	<5	<1	20	5	<10	79
		1.2	70	80	<5	<1	22	5	<10	80

XLS/NewhawkS
f#3044

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GOSSAN HILL AREA

98+00W | 97+00W | 96+00W | 95+00W

PM-2 | PM-1

[-28.50]

1450m

ROAD

TOMMYKNOCKER ZONE

Quartz Stockwork | QSP | Andesite Flow | Quartz Stockwork | Andesite Lapilli Tuff | Sediments | Chert | Quartz Breccia | Dyke | BRUCE FAULT

1.939 opt Au, 1.01 opt Ag/ 1.0m

0.044 opt Au, 8.46 opt Ag/ 1.0m

0.098 opt Au, 1.01 opt Ag, 1.0m

S94-447
432.20m
[23.89]

1400m | 1350m | 1300m | 1250m | 1200m | 1150m | 1100m | 1050m | 1000m

LEGEND

5 INTERMEDIATE TO MAFIC INTRUSIVES
5A UNSUBDIVIDED, 5B DIORITE (DIOT), 5C GABBRO (GABR), 5D DIABASE (DIAB), 5E LAMPROPHYRE DYKES-SILLS (LAMP)

4 FELSIC TO INTERMEDIATE INTRUSIVES
4A UNSUBDIVIDED, 4B GRANITE (GRAN), 4C SYENITE (SYEN), 4D QUARTZ-MONZONITE (QMON), 4E MONZONITE (MONZ), 4F GRANODIORITE (GRAD), 4G QUARTZ-EYE PORPHYRY (PPQE), 4H FELDSPAR-PORPHYRY (PPFP), 4I QUARTZ-FELDSPAR PORPHYRY (QPFP), 4J HORNBLENDE-FELDSPAR PORPHYRY (PPHB)

3 CHEMICAL METASEDIMENTS
3A CHERT (CHER), 3B CHERTY TUFF (CTUF), 3C OXIDE FACIES IF (OXIF), 3D CARBONATE-FACIES IF (CBIF), 3E SILICATE-FACIES IF (SIIF); SULPHIDE-FACIES IF (SPIF)

2 METASEDIMENTS
2A UNSUBDIVIDED, 2B ARENITE (ARNT), 2C ARKOSE (ARKS), 2D ARGILLITE (ARGT), 2E GREYWACKE (GRWK), 2F CONGLOMERATE (CONG), 2G CHERT (CERT), 2H LIMESTONE (LIME)

1 METAVOLCANICS - RHYOLITE (RH), DACITE (DA), ANDESITE (AN), BASALT (BA)
1A UNSUBDIVIDED, 1B MASSIVE FLOWS (ANFL), 1C PORPHYRITIC FLOWS (AMPO), 1D PILLOWED FLOWS/PILLOW BRECCIA (AMPL), 1E TUFF (ANTF), 1F LAPILLI TUFF (ANLT), 1G TUFF-BRECCIA (ANBX), 1H CRYSTAL TUFF (ANXT), 1I PORPHYRY (ANPP), 1J VOLCANICLASTIC-LAHAR (ANVL)

ALTERED ROCKS

ALB	ALBITIZATION
BIO	BIOTIFEROUS
CB	CARBONATE ALTERATION
CHL	CHLORITIZATION; CHLORITIC
KSP	POTASSIC ALTERATION
PROP	PROPYLITIC ALTERATION
QSP	QUARTZ-SERICITE-PYRITE SCHIST
QP	QUARTZ-PYRITE
SER	SERICITIZATION; SERICITIC
SIL	SILICIFICATION; SILICIFIED

WK - WEAK MOD - MODERATE STR - STRONG

ABBREVIATIONS

AU	NATIVE GOLD	HEM	HEMATITE
AG	NATIVE SILVER	LIM	LIMONITE
ANK	ANKERITE	MAG	MAGNETITE
ARG	ARGENTITE	MAL	MALACHITE
ASPY	ARSENOPYRITE	MOLY	MOLYBDENITE
AZ	AZURITE	POLY	POLYBASITE
BA	BARITE	PY	PYRITE
BAVN	BARITE VEIN	PYRA	PYRARGYRITE
BN	BORNITE	PYROL	PYROLUSITE
BX	BRECCIA	PYROP	PYROPHYLLITE
CHAL	CHALCOCITE	PO	PYRRHOTITE
CPY	CHALCOPYRITE	QCS/QCV	QUARTZ-CARBONATE STRINGER/VEIN
CU	NATIVE COPPER	QS/QV	QUARTZ STRINGER/VEIN
DOL	DOLOMITE	SID	SIDERITE
EL	ELECTRUM	SP	SPHALERITE
GF	GRAPHITE	TENN	TENNANTITE
GN	GALENA	TET	TETRAHEDRITE
HB	HORNBLENDE		

QSP; QP - QUARTZ-SERICITE-PYRITE; QUARTZ-PYRITE

ARGILLIC - CHLORITE-SERICITE-PYRITE

QTVN - QUARTZ VEIN >80% QV/QS

QTSW - QUARTZ STOCKWORK 20%-80% QV/QS

QTBX - QUARTZ BRECCIA

DRILLHOLE ANNOTATION

DRILLHOLE COLLAR

DRILLHOLE TOE

SECTION ENTRY POINT

SECTION PIERCE POINT

SECTION EXIT POINT

S94-450 DRILLHOLE ID

0.356 4.23 AU (oz/t) AG (oz/t)

(-5.00) DISTANCE SOUTH OF SECTION

(5.00) DISTANCE NORTH OF SECTION

NOTE: SECTIONS ARE ON R8 GRID.

0 10 20 30 40 50
METRES

SCALE 1:500

NEWHAWK GOLD MINES

SULPHURETS PROPERTY

BRUCESIDE PROJECT

GOSSAN HILL

SECTION 199+30N +/-30m

LOOKING WEST (SECTION AZIMUTH 350°)

DRAWN BY: T.K. | SHEET NO:

DATE: NOV 1994 | FIGURE NO: 31

130° 11'00"

N6262000

N6260000

N6258000

E423000

E425000

E427000

HANGING GLACIER

SULPHURETS GLACIER

BRUCEJACK LAKE
W.L. 1377.8

BRUCEJACK FAULT

HANGING GLACIER

GOLDEN MARMOT

ARSENOPYRITE

MILLVIEW

CATEAR

EASTSIDE

MADDUX

GOOGANS BLUFF

GRACE

CAMINO REAL

BIG SLEEP

GOSSAN HILL

SHORE ZONE

WINDY POINT

RAINMAN

WEST ZONE

BIELECKI

OYP

GALENA HILL

INTERFACE

SPINE

NAPOLEON

ELECTRUM

MAMMOTH

GOLDEN ACRES

QUARTZ HILL

BRIDGE

AGATHA

JESSICA

FLETCHER

LACE

ROAD

CAMP

ICE

LEGEND

STRATIFIED ROCKS

Jurassic ?

6 Felsic volcanic tuff, flow; locally plagioclase phyric

5 andesitic volcanic breccia, lapilli tuff, block/ash tuff

4 mudstone, argillite, cherty argillite

3 medium to coarse grained sanstone, pebble to cobble conglomerate

Triassic, ?

2 mudstone, sandstone, thin bedded limestone, tuffaceous sandstone

1 heterolithic volcanic conglomerate

INTRUSIVE ROCKS

Jurassic

JrP plagioclase porphyry

JrK potassium feldspar - hornblende- plagioclase porphyry

JrD plagioclase - hornblende porphyry

QSP quartz - sericite - pyrite alteration

quartz stockwork

quartz vein

foliation

bedding

fault

fold axis trace

0 200 400 600 800 1000
METRES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,609

GEOLOGY COMPILED FROM:
1963: 1:2000 Geology; Esso Minerals Canada
1988–1993: 1:250, 1:500, 1:1000 Geology; Newhawk Gold Mines Ltd.
1988–1991: 1:5000 Geology; GSC – RV Kirkham
1993: 1:5000 Geology; MDRU – P. Lewis, A. Davies

NEWHAWK GOLD MINES LTD.

SULPHURETS PROPERTY

BRUCESIDE PROJECT

Property Geology

DRAWN BY: T.K., M.M.	SCALE: 1:10,000
DATE: MARCH, 1994	NTS 104B/8,9
DRAWING NO:	FIGURE NO: 22